

Demographic change: Firms, institutions and the regional economy

Kumulative Habilitationsschrift

Zur Erlangung einer Venia Legendi im Fachgebiet “Wirtschaftsgeographie”

Eingereicht bei der
Fakultät für Biologie, Chemie und Geowissenschaften der
Universität Bayreuth

durch

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August 2017

“Paths are made by walking.”
(Franz Kafka)

For Michael, Rosa Sophia and Carla Rebecca.

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Acknowledgements

I have been working in this field for a long time and I have had a lot of help. First, I would like to acknowledge the financial support of the University of Bayreuth, *Stabsabteilung Chancengleichheit*, the *Oberfrankenstiftung*, and the *Bayerische Forschungsallianz*, without which this research would not have been possible, or, at least, much harder to accomplish in a relatively short time-span. Between 2011 and 2014, these organisations have funded some of the projects in this thesis and provided valuable support that helped me organise and conduct the fieldwork. I would also like to thank Mark Schlick, the head of the Business Development Agency of the City of Pirmasens, who had supported me in contacting local enterprises and has given me much inspiration by confronting my theoretical reasoning with sound arguments “from practice”. Gabor Pirisi and Andras Trocsanyi from the University of Pecs in Hungary also supported me by funding part of the earlier and complementary fieldwork and research presentations which finally led me to the theme of the present thesis. Moreover, I would like to thank Julia Birkner for her support on career issues based upon my participation in a coaching/mentoring programme during the later stages of the habilitation period.

Furthermore, some central arguments in the text as well as in the papers, and also some papers, for the habilitation thesis grew out of research and teaching collaborations with the following people: Anke Matuschewski, University of Bayreuth; Susanne Gretzinger, University of Southern Denmark; Ingo Winkler, University of Southern Denmark; Birgit Glorius, University of Technology Chemnitz; Alexander Ströhl, University of Bayreuth; and Thilo Lang, Leibniz Institute for Regional Geography.

I would also like to thank the members of my habilitation committee: Anke Matuschewski, Heike Mayer, Reinhard Meckl, and Martin Doevenspeck for providing assistance and constructive feedback whenever it was needed in the course of the habilitation period. I am also grateful to the following university staff and former university staff: Jürgen Feilner for providing cartographic material both for the papers and this thesis, Gabriele Obermaier for giving me helpful career advice, and Regina Fein, Brigitte John, and Evgenia Bystrov, for giving me moral support from time to time.

And last, but not least, I want to thank my family: my husband Michael Philippe, and my daughters Rosa Sophia and Carla Rebecca Philippe, who have all helped me along the long way.

Halden, Norway, 30 August 2017

Birgit Leick

1. Introduction

1.1. Motivation and focus

From autumn 2015 onwards, over one million asylum-seekers and migrants from the Middle East and African countries entered the Schengen area in search of asylum, safe refuge, and because of the economic opportunities. Germany, as the largest EU economy and one of those European countries which attracts migrants, because of the relatively high social welfare benefits and fair procedures for those claiming asylum, absorbed most of the massive influx of people (see Ette and Swiaczny 2016). Within a relatively short period, the former predictions about the German population size and its future trends turned upside-down thanks to this, partly, unprecedented and quasi shock-like migration that was occurring over a relatively short time-span. As a result, Germany's total population recently grew for the first time in decades, after having experienced long periods of decline (Statistisches Bundesamt 2017a).

Prior to this twist towards conceptualising demographic change as an, in total, growing, but ethnically changing, population, which has a slightly lower average age now (Statistisches Bundesamt 2017b), demographic challenges (referred to as 'demographic change' in this thesis) have primarily been considered as the double-dip challenges of population ageing and population decline. In this former conceptualisation, migration has played a role, too, but it has not been considered as the main driver of population growth or decline, at least in the context of Germany and other European countries.

Indeed, for decades, it could be observed that population ageing and decline have led to major shifts in the age cohorts over time in countries such as Germany (Van der Gaag and de Beer 2014), with the relative share of the working-age population decreasing, and the share of elderly age-cohorts growing in size (see, for example, Swiaczny *et al.* 2008; Tivig *et al.* 2008; Gans and Leibert 2007; Bucher and Mai 2006; Bucher *et al.* 2004). These challenges and processes are the result of a decreasing fertility rate and an increasing longevity, both of which originate from shifts in lifestyles, attitudes, and an ever-rising standard of living. Migration has had a moderating effect, albeit to differing extents across the regions of Germany (Swiaczny *et al.* 2008).

Consequently, from a public policy perspective, the focus was set in the past on the adaptation to population decline or stagnation and ageing with regard to the economy and society (see, for example, Salzmann *et al.* 2010; Hamm *et al.* 2008; Sackmann *et al.* 2008; Holz and Da-Cruz 2007; Lutz 2007; Bellmann *et al.* 2003). Similarly, the overarching challenge in the public and academic discourses, as well as policy issues, in Germany and Europe has been associated with the efforts to cope with these slow, but seemingly irreversible, processes of demographic-economic stagnation, or stabilisation at best, and the scenario of long-term decline as a worst case (see, for example, Persson 2003; Thrun 2003; Winkler-Kühlken 2003).

Despite the recent twist that has led to a tremendous change in meaning of what is understood as contemporary demographic change, the present habilitation thesis, which was conceptualised between 2011 and 2015, *i.e.*, at a time when the current demographic shifts caused by huge immigration on an unprecedented scale, were not been foreseeable, still clings to the understanding of 'demographic change' as the challenge of population ageing and decline. More specifically, in this habilitation thesis, demographic change is referred to as a complex and multi-layered process of gradual, but steady, population decline, which is accompanied by

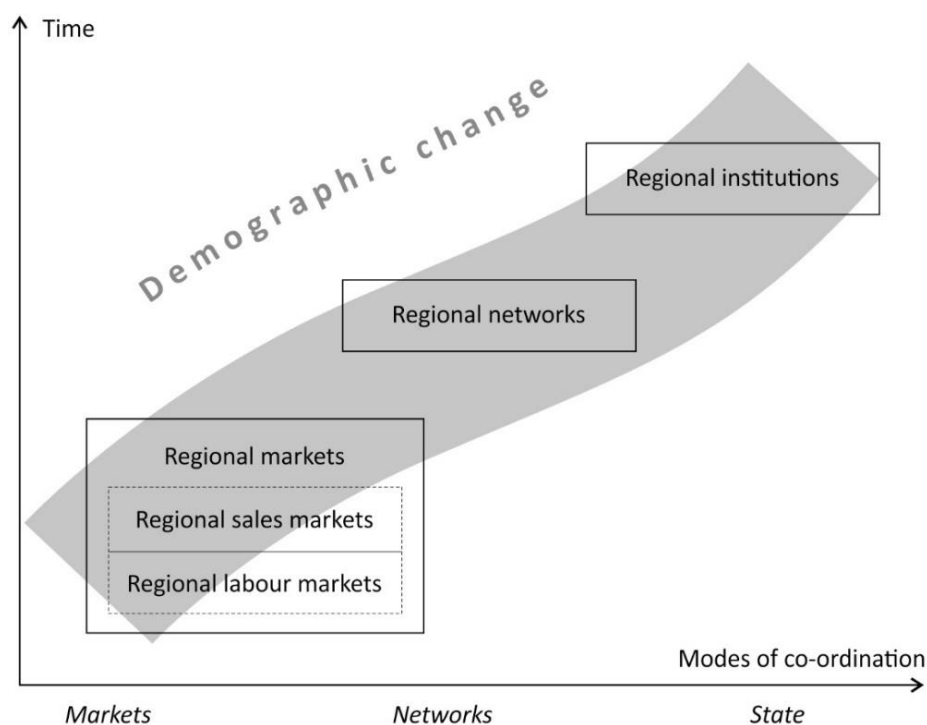
population ageing and related phenomena such as, for example, (selective) youth emigration (see Kunisch *et al.* 2011: 12-13; McMorrow; Röger 2004: 23; Leibert 2016).

Demographic change according to this understanding has its origin in decreasing fertility rates, which imply rising dependency ratios over time (*i.e.*, the ratio of the working-age population and the non-productive, non-working-age population), and/or it can result from differences in net migration flows over time. These factors jointly induce major changes both in the composition of the age cohorts in the population and the total size of the population, as is the case specifically for Germany, but also for many other countries in Europe (see European Commission 2010, 2008). Furthermore, demographic change will be considered in this thesis as a systemic and endogenous process of population decline and ageing, and its subsequent long-term effects. By contrast, exogenous sources of population change, such as the recent immigration flows into Europe, particularly Germany, will not be addressed here, notwithstanding their growing importance for the contemporary and future demographic trends.

Since this habilitation thesis is located in the area of economic geography, it addresses demographic change in regional economies from a micro-level perspective by focusing on three different levels (Figure 1):

- Actors aligned to or operating in regional markets (for example, firms and business organisations, or other private or public organisations);
- Networks and co-operative alliances among firms and other actors within the regional economy; and
- Institutions, understood as the institutionalised practices of firms in the regional economy, which might be subject to change.

Figure 1: Demographic change and the transformation of regional economies



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth

Combining these layers and the different temporalities according to which demographic change affects the layers is considered, in the present thesis, as insightful and supportive when it comes to describing and conceptualising demographic change from a micro-level perspective.

Put differently, an important argument which cuts across the ten articles collected in this thesis is that demographic change is understood as a locally-distinctive phenomenon which produces different and both temporally- and spatially-variable effects on key actors, networks and institutions, depending on the specific local-regional setting. *Vice versa*, this understanding also suggests that actors or groups of actors may change the institutionalised setting, for example, by modifying the established, and often institutionalised, practices that firms and industries use to cope with demographic change.

The fact that this thesis describes demographic change primarily as a localised phenomenon has two direct implications:

- First, some regions across Germany are more affected by demographic change than others. Particularly those regions that are lagging behind others in terms of their economic competitiveness, their industrial structures, *etc.*, such as rural-peripheral areas (Kröhnert *et al.* 2011; Behrendt 2005), or post-transformation economies such as Eastern Germany (Fuchs *et al.* 2010; Maretzke 2011), are interesting regional cases because they do not benefit from immigration to an extent to which it would compensate for population decline (see, also, Küpper 2015; and Matuschewski and Leick 2012, p. 516).
- Second, the variety of local-regional settings in which demographic change processes transform regional economies leaves some scope to conceptualise these processes not necessarily as being unilateral and irreversible. For example, it cannot be assumed automatically that firms experience any significant effects of the demographic change occurring in their regional economies even if they mainly operate in regions that may be strongly and adversely affected by phenomena such as population decline and ageing (see also Beugelsdijk 2007). By applying this reasoning to the micro-level perspective on agents (for example, key persons in firms or the business organisation), the thesis is - to a large part - based upon the premise that there is a variable scope for action at the firm- or actor-level and at the network-level, as well as through policy-making, for instance, through bottom-up activities

Hence, Figure 1 illustrates that demographic change can be conceptualised as a multi-faceted phenomenon affecting regional economies at different levels and within different spatial-temporal configurations. An important characteristic is that it occurs as a long-term process with its effects showing up and accumulating in a slow-motion style, which is quite different compared to shock-like events such as sudden drops in demand or price shocks, which lead to immediate responses on the part of the actors embedded in a regional economy or aligned to policy. However, the very nature of these local-change processes renders it difficult to consider demographic change as non-reversible. Hence, the idiosyncratic coping strategies of the actors and regions facing demographic change are important levers to alleviate or promote policy action (see Carson *et al.* 2016; Leick 2017b).

Taken together, *it is assumed, in this thesis, that, from a micro-spatial perspective, demographic change represents a locally-distinctive process of profound market transformations, in terms of its scale and temporal impact, which also implies a locally-distinctive potential for adaptation for individual actors or groups of actors* (for example, firms and business organisations, see Kunisch *et al.* 2011).

Against this background, *the present habilitation thesis explores the inter-relationship of firms and institutions in regional economies marked by demographic change.*

1.2. Aims and scope

This habilitation thesis is organised around three distinct gaps that I have identified in the contemporary research streams on the topic of demographic change, both in the area of regional studies, economic and human geography, and in the broader discipline of the social sciences, including business administration and economics (see Leick and Glorius 2017). Thus, the thesis aims to contribute to these three research areas by discussing selected, but inter-related, topics on demographic change, firms and institutions in the regional economy (Figure 2), thereby providing at least some answers to the open issues identified.

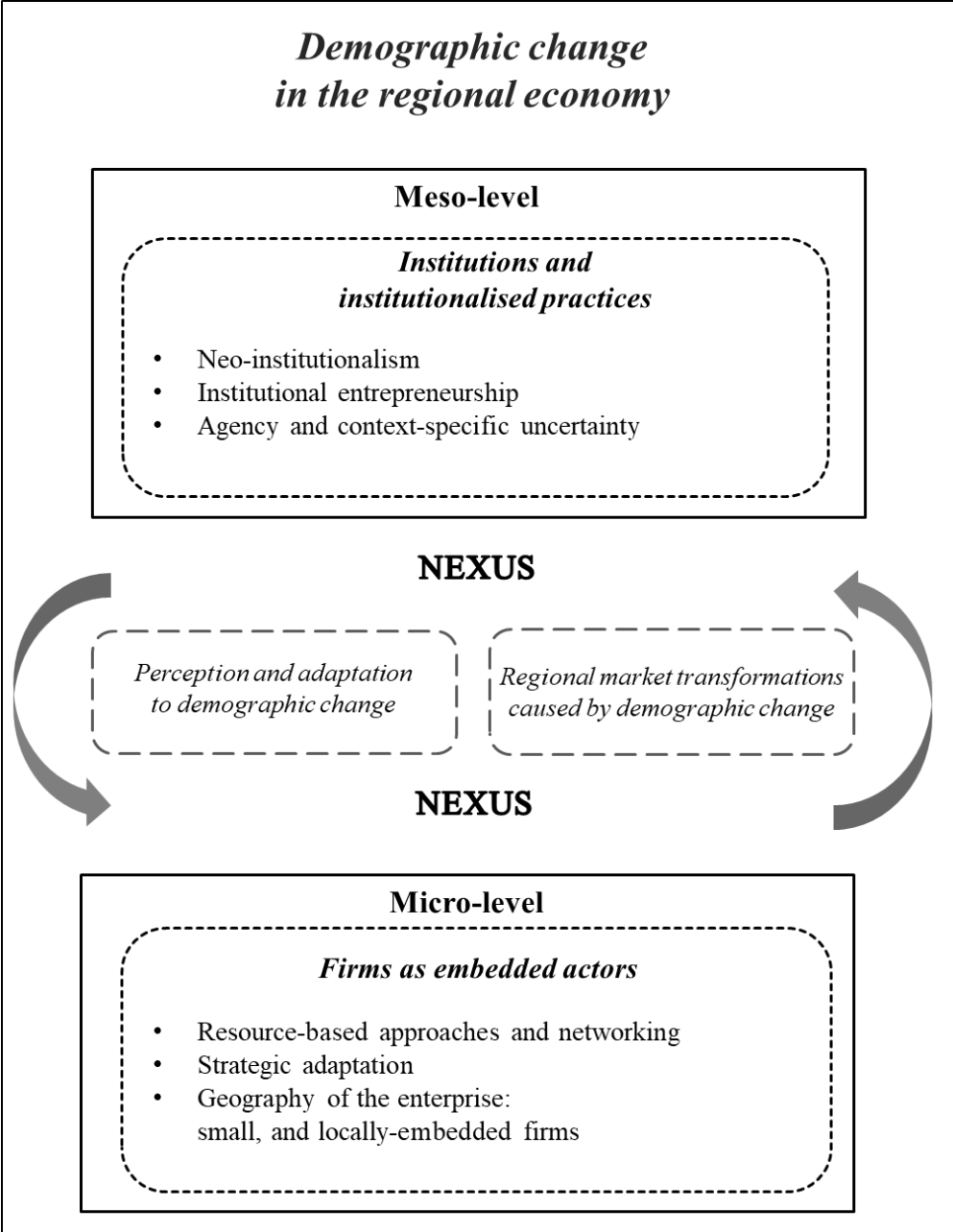
Research gap 1: Conceptualisation of demographic change

The first research gap that I address is of a conceptual nature. Although demographic change and its various effects on European countries and regions have been attracting the interest of researchers and practitioners for a long time (see, for example, Franz 2004; or Börsch-Supan 2003), most of the academic, policy and public debates are based upon a rather under-conceptualised understanding of demographic change and its effects on individuals, society, and the economy (see Leick and Glorius 2017). In addition, the mainstream terms and understandings that are used, for example, in the German context, have an inherent negative connotation. For example, the most prominent terms to refer to demographic change are “*decline*” and “*shrinkage*”, both of which are, as a matter-of-fact, associated with negative ideas of having “*less*” of something, facing “*reductions*”, or thinking about how to get along with “*less*”, for instance, people, young and skilled workers, tax revenues, *etc.* Publications such as Matuschewski *et al.* (2017), Kuhn and Ochsén (2009), Leibfritz and Röger (2008), Harhoff (2008) and Heigl (2007) all address this observation.

In the thesis, I will also argue that it is the fix on growth-oriented thinking (see Haase *et al.* 2016a; Wiechmann, Pallagst 2012) in the economic policy remedies that are recommended for dealing with demographic change that partly explains the prevalence of a negative connotation of demographic change processes in public and academic debates. Since most policy approaches and programmes mainly target positive, and high, economic growth rates as short-term or long-term goals, deviations from these goals might not be in line with these growth-oriented policy approaches, thus making them difficult or impossible to apply outside the growth-based approaches. Based upon this observation, I, moreover, argue here that the change processes, which demographic challenges imply, should be approached in an open manner, and should defy the growth-oriented thinking, whilst keeping the inherent normative, and negatively connoted, dimension in mind.

Accordingly, it is important to reflect upon the fact that growth-based policy approaches tend to problematise demographic trends such as population ageing by narrowing down the range of potential ideas and approaches to problem-solving to only those growth-based ones that are typically recommended (see, for example, Bloom *et al.* 2010; Misoulis 2008; Poot 2008; or Keil 2007 on this). Consequently, notions of “*decline*” or “*stagnation*” are associated with the idea of being the second-best alternative compared to population/economic growth (see Matuschewski *et al.* 2017). Put differently, options other than growth-based ones are simply not addressed by the mainstream policy approaches (Matuschewski *et al.* 2017; Leick and Glorius 2017). As a result, there is a need to conceptualise new approaches that diverge from the mainstream approaches (see, also, Klüsener *et al.* 2012).

Figure 2: Main theme of the habilitation thesis



Source: Own illustration.

Research gap 2: Understanding transmission mechanisms from the regional economy at micro-spatial level

Another gap exists in the understanding of the transmission mechanisms between the macro-level (for example, the regional economy) and the micro-spatial level, *i.e.*, the firms and industries that are embedded in the regional economies (see Poot 2008, or McMorrow and Röger 2004). In the present thesis, I will claim that new insights should be provided into the business perspective on localised demographic change. With its focus on the macro-spatial level, the abundant economics literature on demographic change leaves many questions open that could be answered at micro-spatial level, for example, the effects of demographic change on firms, and their reactions to these effects.

The following are some of the unresolved issues: How do business organisations profit or lose their competitive advantages when the markets change because of demographic change? How do firms cope with phenomena such as ageing customers and newly emerging desires on the part of elderly or “*silver agers*” of the so-called “*silver economy*”, *i.e.*, target groups which represent the elderly, and typically, wealthy consumers (Kohlbacher *et al.* 2014; Kohlbacher and Herstatt 2008)? How do they address an ageing workforce that is retiring (Heigl 2007; Nübold and Maier 2012)? All these questions have not, to date, been addressed by conceptualising firms and their actions or reactions in response to demographic change, grounded in existing theories and concepts in the business/management studies, and beyond.

Against the backdrop of this observation, the present habilitation thesis specifically wants to shed light on the strategic approaches of firms to cope with and adapt to localised demographic change. In doing so, it contributes to a research gap in business studies that has been addressed by Thompson (2007), who, for example, complained about the “*myopia*” of business and marketing scholars with respect to population ageing. Some contributions pick up specific aspects related to the business perspective on demographic change processes, for example, the local sales market, marketing and human relations (HR) strategies (Suprinovic and Kay 2009, Kuhn and Ochs 2009; Langhoff 2009; Cole *et al.* 2008, or Kuebler *et al.* 2009; Streb *et al.* 2008, and Thun *et al.* 2007).

However, the larger picture is generally not being addressed, *viz.*, how firms that are embedded in demographically changing regional economies can cope with the inherent complexity of demographic change and its potential effects by acting strategically (see Leick 2014, Leick, accepted; Leick and Ströhl 2013; Löwer 2009). While the management practice literature provides some insights into these topics (Klaffke 2014; Pompe 2012; Reidl 2007), there is an evident lack of conceptually-based literature, as compared to this practice-oriented business literature (see the criticism raised by Verworn *et al.* 2009: 150).

In the light of these observations, I argue that it is critical to address these open questions. By applying a relational approach, firms are conceptualised as actors which develop and exploit core competencies and dynamic capabilities with regard to the challenges of demographic change (see Dicken and Malmberg 2001; Teece *et al.* 1997), but depend on appropriate relationships internally and with external stakeholders in the economy (Hall and Soskice 2001, p. 6 f.). In this case, part of the critical relationships are locally embedded (see De Smidt and Wever 1990). Moreover, I emphasise that it is necessary to apply concepts taken from the strategic management literature to this economic geography perspective in order to describe firm behaviour in the context of demographic change and pay attention to a conceptually grounded understanding of firm behaviour with regard to demographic change.

Research gap 3: Understanding institutionalised practices in the context of localised demographic change

A third research gap that is addressed in the present thesis is the role of institutions, particularly institutionalised practices, in the context of demographic change. Generally, the understanding used here follows North's (1990, p. 3) definition of institutions as “*a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive or material reasons*”, whilst considering organisations (including firms as business organisations) as the carriers or bearers of these rules. With respect to regional economies, institutions offer opportunities to firms by not only providing incentives, but also by steering and guiding their behaviour (Hall and Soskice 2001). From a relational perspective, institutions also include the quantity and quality of the social relations available (the so-called “*social capital*”, see Putnam 2000, Coleman 1998, and Kogut 2000) and the organisations which represent the architectures of these relations. For instance, social networks can be considered as an important factor which influence firms and their approaches to cope with demographic change (see Figure 1).

Against this backdrop, I argue that there is a lack of conceptual ideas and empirical evidence that illustrates demographic change and how it refers to an institutional perspective. Most notably, it is unclear how demographic change processes are associated with institutions especially at local-regional level and their dynamics. In addition, despite the acknowledgement in the economic geography and regional studies literature that institutions are of great importance for regional development (Rodriguez-Pose 2013; Gertler 2010; Pike *et al.* 2007; Amin 2001), the nexus between firms and institutions is still addressed only rather vaguely (Dicken and Malmberg 2001; see, also, MacKinnon 2012).

In this thesis, institutional change, understood as modifications of the institutionalised behaviour of firms, is an important concept, which becomes relevant for the studying of firms and their coping strategies *vis-à-vis* demographic change as a slowly evolving, path-dependent process of change. To this aim, institutions are conceptualised as the probably informal, but nonetheless institutionalised practices of firms. The thesis studies how these practices, which represent the coping strategies of firms, actually change because of demographics, and how they can be influenced. More specifically, the concept of institutional entrepreneurship is used to shed light on this change in firm practices in the context of contemporary demographic change (Leick 2017b). Although the thesis focuses on selected, and highly specific, aspects of an institutional economic geography, I believe that it can offer some important insights for follow-up research on these topics.

1.3. Methodology and research design

The present habilitation thesis includes both conceptual and empirical papers. These papers have been published as individual papers or they are part of special issues.

- Three conceptual papers (Leick and Glorius 2017; Matuschewski *et al.* 2017; Leick and Lang, in press) discuss the theoretical foundations of contemporary demographic change and its effects on the economy and society from different perspectives (Leick and Glorius 2017; Matuschewski *et al.* 2017) or elaborate on emerging research avenues in order to embed the conceptualisation of demographic change in a broader theoretical framework (Leick and Lang, in press).

- By contrast, the empirical papers focus on different German regions as case studies (Matuschewski and Leick 2012, p. 516; see, also, Leick and Matuschewski 2012), both on the NUTS-2 and NUTS-3 levels (Maps 1 and 2). Most empirical papers in this thesis use an exploratory approach, based upon qualitative research, or sometimes, mixed-methods, and the fieldwork that underlies the empirical publications has been organised in different stages (Table 1). Two empirical papers which I have co-authored (Matuschewski *et al.* 2017, 2016) rely on empirical fieldwork that I have not been part of.
- Four papers are associated with special issues in different journals that I have organised as the sole or corresponding guest editor. The article Leick (2015) has been published in a special issue of “*Geographische Rundschau*” with the title “*Regionen im Schrumpfungsprozess*”. The two articles Leick and Glorius (2017), and Matuschewski *et al.* (2017) are part of a special issue for the journal “*Comparative Population studies*” on “*Theorising and narrating the geographies of demographic change*”. Leick and Glorius (2017) is the editorial of this special issue. Finally, the article Leick and Lang, which is currently in press with “*European Planning Studies*”, will be published as the editorial of the special issue “*Re-thinking non-core regions: planning strategies and practice beyond growth*”.

Table 1: Overview of the empirical fieldwork

Year	Project and publications	Type of research
2011	Case study Upper Franconia - Leick and Matuschewski 2012 - Matuschewski and Leick 2012 - Leick and Ströhl 2013 - Leick 2014 - Leick, accepted	Mixed-method: - Qualitative interviews (n=24), based upon a structured interview guideline - Quantitative survey (n=81) - Mainly exploratory - Interviews with firms and survey among firms, using a structured questionnaire
2011-2013	Case studies in sub-regions of Saxony-Anhalt and Rhineland Palatinate - Leick 2015 - Leick, accepted	Exploratory narrative interviews (n=18) with firms, based upon less structured, open interview guides
2011-2015	Case studies in sub-regions of Saxony-Anhalt, Thuringia and Bavaria - Leick 2017b - Leick and Gretzinger 2017a	Exploratory and confirmatory narrative interviews (n=22) with actors mainly from non-business organisations (private/public ones) such as business and industry association (and their local subsidiaries), chambers of commerce, regional management and business development agencies, ministries, <i>etc.</i>

* The paper Leick and Gretzinger (2017a) is a discussion paper which is not included in the present habilitation thesis. Source: Own illustration

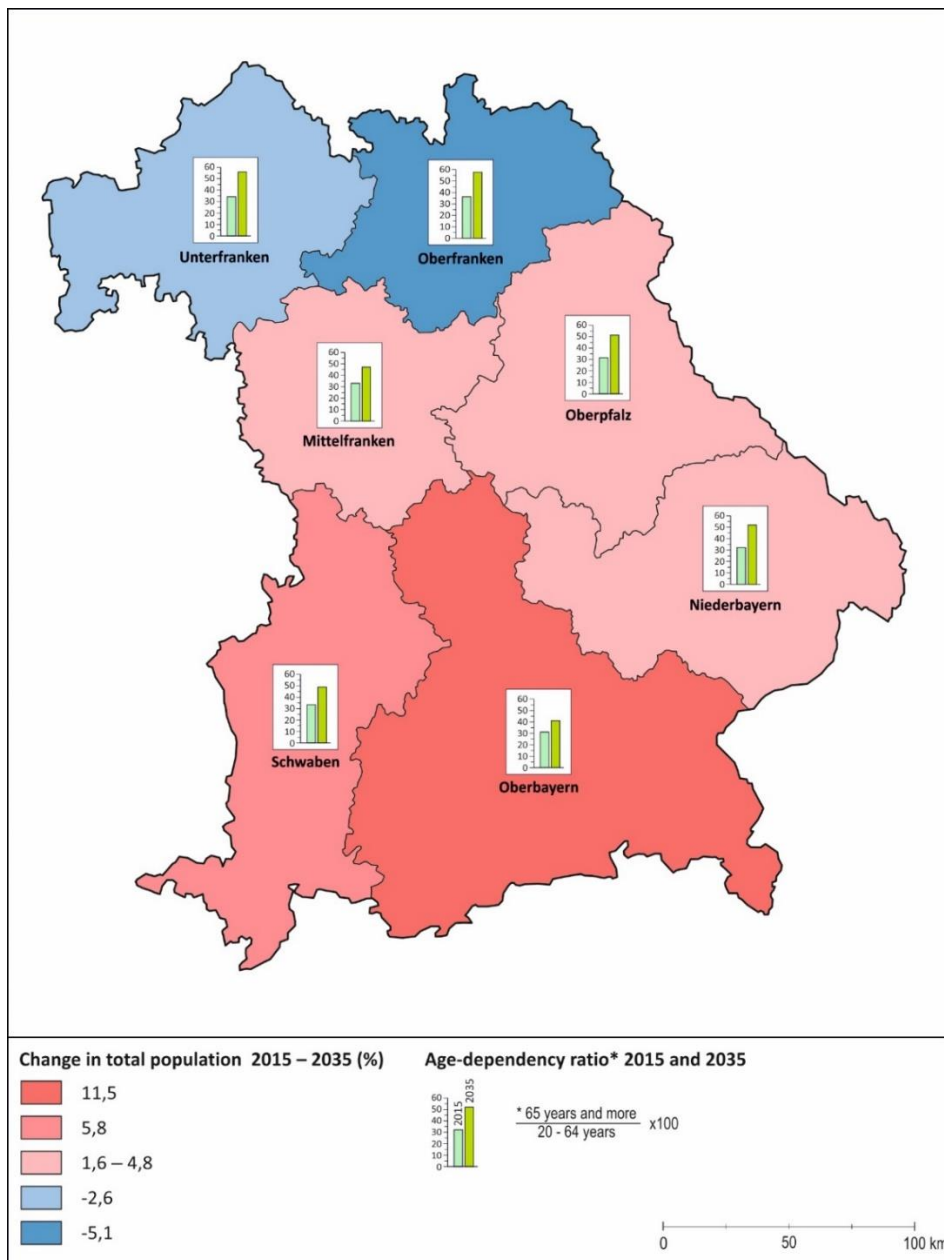
Empirical fieldwork has been conducted in several case regions across Germany, which are particularly heavily affected by demographic change such as population ageing and decrease, but also persistently strong emigration of particularly young people (Table 1). Being located outside the core agglomerations across Germany (Map 1s and 2), the demographic development in those case regions typically overlaps with other challenges associated with the regions' rural-peripheral location and/or the structural weaknesses of their regional economies. Küpper (2015), for example, stresses that this overlap of manifold, and complex, challenges and the resulting differences between various "types" of regions across Germany should be considered as a point of departure for academics and policy-makers to study contemporary demographic change. In addition, by following a pragmatic approach in the selection of both case regions and empirical methodologies, the findings presented in these thesis do not claim to be representative in a statistical sense. Instead, the aim of the empirical fieldwork has been to describe and, partly, uncover some important in-depth insights into the topics addressed.

- In order to get preliminary insights into not only the importance and perceptions, but also the adaptive strategies of locally-embedded firms, empirical research had already been carried out in 2011 in the NUTS-2 region of "Upper Frankonia", Bavaria (Map 1). Compared to the level of the "Bundesland", Upper Frankonia has lost most of its population in the past and is forecast to face another important population decline (-9.2 per cent by 2030) (Bayerisches Landesamt für Statistik und Datenverarbeitung 2011, p. 132 ff.). Moreover, population ageing and youth emigration are other demographic challenges in the region. The fieldwork in this case region was composed of personal and telephone interviews (n=24) with selected firms from the region, based upon both conceptual assumptions from economic theory (Rosenfeld 2003, 2006) and a heuristic compilation of industries which are considered to be characterised by local-regional sales (see Leick and Matuschewski 2012, p. 3-4).
- A follow-up postal survey, using the Bisnode database (formerly known as Hoppenstedt), was conducted in 2011 among 589 locally-embedded firms in the region, with a response rate of 13.7 per cent (for details, see Matuschewski and Leick 2012; Leick and Matuschewski 2012). The survey made use of the knowledge gained from the preceding interviews and was based upon a standardised questionnaire. The sample encompasses predominantly independent, small-sized and medium-sized enterprises with a local market focus, which are considered as being typical of the locally-embedded firms in the region (see, again, Leick and Matuschewski 2012).
- Between 2011 and 2013, complementary follow-up interviews were conducted in two rural German regions (NUTS-2 level) of Saxony-Anhalt (n=11) and Rhineland Palatinate (n=7). These additional interviews had two aims: first, they were conducted in order to replicate, confirm or reject the observations made with firms about demographic change in the case region of Upper Frankonia. Thus, the first aim was to juxtapose findings from three different sets of in-depth interviews. Second, these follow-up interviews also sought to look more openly into the case-specific "stories" that were told about how firms and managers/owner-managers in firms actually perceive and address demographic change in terms of adaptive strategy-formation. The interviews were aligned to the narrative interview approach (for example, Barry and Elmes 1997, Pentland 1999, and Maitlis 2012) and had a low degree of structure and a narrative core, which has been analysed based upon thematic analysis, while taking into account the case-specific "story-line" told. Thus, these follow-up interviews also served to complete and enrich the findings from the first stage in the empirical fieldwork with in-depth observations at the more case-specific level of the individual firm. The data were analysed according to the similarities and dissimilarities with regard to emerging

themes, for example, the strategic *versus* non-strategic behaviour of firms, specific adaptive strategies and the overarching categories in line with specific models (see Leick, accepted, and also Maitlis 2012).

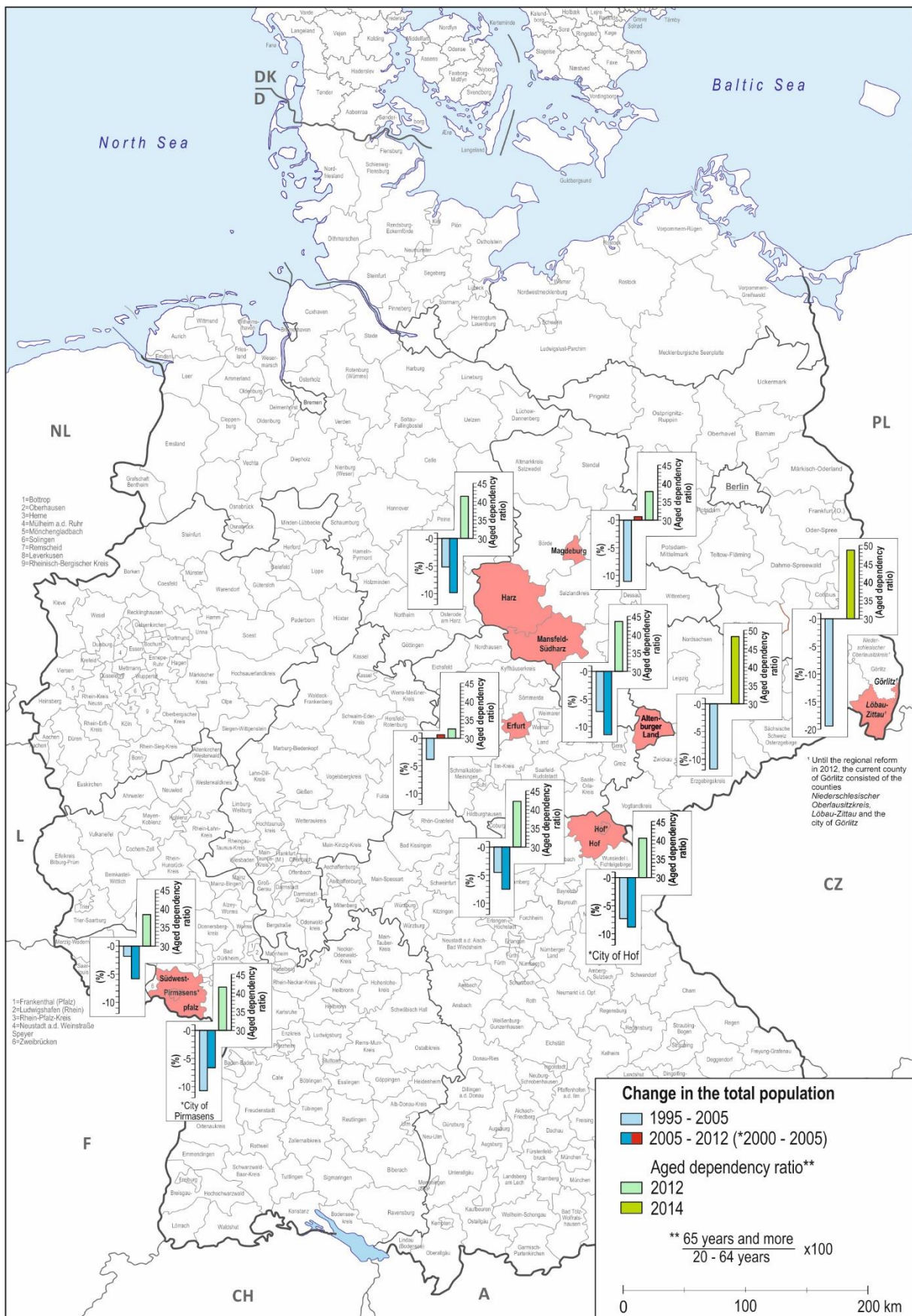
- A final stage in the empirical fieldwork was a longitudinal series with a total of 22 interviews carried out between 2011 and 2015 with different groups of actors aligned to local organisations (see, again, Table 1), which aimed to identify cases of institutional entrepreneurs associated with firms and their endeavours to adapt to demographic change (see Leick 2017b for more details).

*Map 1: Case region Upper Franconia in Bavaria (NUTS-2 level):
Selected demographic indicators*



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth

Map 2: NUTS-3 level case regions in Germany: Selected demographic indicators



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth

1.4. Structure of the thesis

This habilitation thesis is organised in two major parts. The first part contains five chapters including this introduction, which introduces the research gaps, as mentioned above. After the Introduction, Chapter 2 discusses conceptual considerations with regard to demographic change and the regional economy. To this aim, the theories and narratives associated with this theme will be critically assessed, particularly the inter-relationship of demographic (population) changes and economic change and development in the regional economy. Section 2.1. is based upon the article *Leick, B., Glorius, B. (2017). Editorial on the Special Issue "Theorising and Narrating the Geographies of Demographic Change". In: Comparative Population Studies, 41 (3-4): 207-224. [DOI: 10.12765/CPoS-2017-05en]*. Section 2.2. is based upon the article *Matuschewski, A., Leick, B., Demuth, M. (2017). "Growth-Based Theories for Declining Regions? A Note on Conceptualisations of Demographic Change for Regional Economic Development." In: Comparative Population Studies, 41 (3-4): 225-254. [DOI: 10.12765/CPoS-2017-04en]*. Section 2.3. is based upon the article *Matuschewski, A., Leick, B., Demuth, M. (2016). "Growth-Paradigms and The Vicious Circle of Economic-Demographic Decline: A View from an East German Region." In: Regions 302 (2): pp. 8-11. [DOI: 1080/13673882.2016.11742698]*.

Chapter 3 explores the adaptation of firms to localised demographic change from different angles by looking into the perceptions of firms, their strategic *versus* non-strategic responses, and the specific adaptive strategies which firms use. Section 3.1. is based upon the article *Leick, B. (2014). "Demographischer Wandel als Handlungsfeld regional orientierter Unternehmen? Eine Bestandsaufnahme für Oberfranken." In: Mitteilungen der Fränkischen Geographischen Gesellschaft Band 59 (2014). Selbstverlag der Fränkischen Geographischen Gesellschaft: 101-110, and Leick, B. „Steering through Tough Times? Insights into the Strategy-formation of Small Firms to Adapt to Demographic Challenges.“ In: Journal of Change Management. (accepted).*

Section 3.2. is based upon several articles:

- *Matuschewski, A., Leick, B. (2012). "Wirtschaftsentwicklung in demographischen Schrumpfungsregionen. Unternehmerische Herausforderungen und Strategien am Beispiel von Oberfranken." In: Raumforschung und Raumordnung, 70 (6): 515-530. [DOI: 10.1007/s13147-012-0200-0];*
- *Leick, B., Ströhl, A. (2013). "Demographischer Wandel im ländlichen Raum: Anpassungsdruck und Anpassungsstrategien regional verankerter Unternehmen." In: Europa Regional, 19 (1): 41-55;*
- *Leick, B. (2015). "Wie demographische Schrumpfung Unternehmen herausfordert." In: Geographische Rundschau, 9: 12-17;*
- *Leick, B. "Steering through Tough Times? Insights into the Strategy-formation of Small Firms to Adapt to Demographic Challenges." In: Journal of Change Management. (accepted).*

By contrast, Chapter 4 will focus on institutions in the light of demographic change, particularly the institutionalised practices of firms. It will briefly summarise some empirical findings from the fieldwork in Upper Frankonia which address the general role and significance of regional institutions and organisations in this context in the regional economy (Section 4.1.), and then focus on a specific concept, *i.e.*, institutional entrepreneurship, to describe local "*change agents*" of institutionalised firm practices in the light of demographic change in local markets (Section 4.2.).

Section 4.1. is based upon the following articles:

- Matuschewski, A., Leick, B. (2012): “Wirtschaftsentwicklung in demographischen Schrumpfungsregionen. Unternehmerische Herausforderungen und Strategien am Beispiel von Oberfranken.” In: *Raumforschung und Raumordnung*, 70 (6): 515-530. [DOI: 10.1007/s13147-012-0200-0];
- Leick, B. (2014). “Demographischer Wandel als Handlungsfeld regional orientierter Unternehmen? Eine Bestandsaufnahme für Oberfranken.” In: *Mitteilungen der Fränkischen Geographischen Gesellschaft Band 59 (2014)*. Selbstverlag der Fränkischen Geographischen Gesellschaft: 101-110;
- Leick, B. (2015). “Wie demographische Schrumpfung Unternehmen herausfordert.” In: *Geographische Rundschau*, 9: 12-17;
- Leick, B. “Steering through Tough Times? Insights into the Strategy-formation of Small Firms to Adapt to Demographic Challenges.” In: *Journal of Change Management*. (accepted).

Section 4.2. is based upon the article Leick, B. (2017b). “Institutional Entrepreneurs and Small Firms: How Firm Practices are Shaped in Contexts of Market Transformation.” In: *Journal of Small Business and Entrepreneurship*, 29 (1): 1-24. [DOI: 10.1080/08276331.2016.1248055].

The final Chapter 5 gives a concluding commentary and summarises the overarching findings from the thesis by juxtaposing them to the research gaps that have been introduced in the introduction (Section 5.1.). The following Section, 5.2., casts an outlook on some selected future research avenues by particularly advocating to conceptualise regional demographic change as part of a broader topic, *i.e.*, growth perspectives for so-called ‘non-core regions’. It is based upon the article Leick, B., Lang, T. “Re-thinking Non-Core Regions: Planning Strategies and Practices beyond Growth.” In: *European Planning Studies* (in press) [DOI: 10.1080/09654313.2017.1363398].

The second part, *i.e.*, the appendix to this synthesis, contains the ten articles that were published or accepted between 2012 and 2017 (in chronological order).

- 1) Matuschewski, A., Leick, B. (2012). “Wirtschaftsentwicklung in demographischen Schrumpfungsregionen. Unternehmerische Herausforderungen und Strategien am Beispiel von Oberfranken.” In: *Raumforschung und Raumordnung*, 70 (6): 515-530. [DOI: 10.1007/s13147-012-0200-0] *in German language*;
- 2) Leick, B., Ströhl, A. (2013). “Demographischer Wandel im ländlichen Raum: Anpassungsdruck und Anpassungsstrategien regional verankerter Unternehmen.” In: *Europa Regional*, 19 (1): 41-55. [URL: <https://www.ifl-leipzig.de/de/publikationen/zeitschriften-und-reihen/europa-regional.html>. Retrieved on 27/05/2017.] *in German language*;
- 3) Leick, B. (2014). “Demographischer Wandel als Handlungsfeld regional orientierter Unternehmen? Eine Bestandsaufnahme für Oberfranken.” In: *Mitteilungen der Fränkischen Geographischen Gesellschaft Band 59 (2014)*. Selbstverlag der Fränkischen Geographischen Gesellschaft: 101-110. [URL: <http://fgg-erlangen.de/fgg/ojs/index.php/mfgg/article/view/266>. Retrieved on 27/05/2017.] *in German language*;
- 4) Leick, B. (2015). “Wie demographische Schrumpfung Unternehmen herausfordert.” In: *Geographische Rundschau*, 9: 12-17. [URL: <https://verlage.westermanngruppe.de/>

[zeitschriften/sekundarstufe/geographische-rundschau/anlage/4574134/Wie-demographische-Schrumpfung-Unternehmen-herausfordert](#). Retrieved on 29/06/2017] *in German language*;

- 5) Matuschewski, A., Demuth, M., Leick, B. (2016). "Growth-Paradigms and The Vicious Circle of Economic-Demographic Decline: A View from an East German Region." In: *Regions*, 302 (1): 8-11. [DOI: 10.1080/13673882.2016.11742698];
- 6) Matuschewski, A., Leick, B., Demuth, M. (2017). "Growth-Based Theories for Declining Regions? A Note on Conceptualisations of Demographic Change for Regional Economic Development." In: *Comparative Population Studies*, 41 (3-4): 225-254. [DOI: 10.12765/CPoS-2017-04en];
- 7) Leick, B., Glorius, B. (2017). Editorial on the Special Issue "Theorising and Narrating the Geographies of Demographic Change". In: *Comparative Population Studies*, 41 (3-4): 207-224. [DOI: 10.12765/CPoS-2017-05en];
- 8) Leick, B. "Steering through Tough Times? Insights into the Strategy-formation of Small Firms to Adapt to Demographic Challenges." "Accepted for: *Journal of Change Management*, Special Issue on 'Clusters in the Context of Entrepreneurial Ecosystems, Smart Specialisation & Regional Development';
- 9) Leick, B. (2017b). "Institutional Entrepreneurs and Small Firms: How Firm Practices are Shaped in Contexts of Market Transformation." In: *Journal of Small Business and Entrepreneurship*, 29 (1): 1-24 [DOI: 10.1080/08276331.2016.1248055];
- 10) Leick, B.; Lang, T. "Re-thinking Non-Core Regions: Planning Strategies and Practices beyond Growth." In: *European Planning Studies* (in press) [DOI: 10.1080/09654313.2017.1363398]

2. Demographic change and the regional economy: conceptual considerations

This chapter addresses conceptual issues associated with demographic change and the regional economy. To this aim, it summarises the main debates in both different and overlapping areas and shows the open issues, notably, from the perspective of human geography. In particular, the growth-based paradigm that underlies both theoretical approaches and policy-programmes will be discussed for demographic change. Thus, the basic message of this chapter is that such approaches and programmes should be extended by means of integrating new perspectives beyond the growth paradigm (for example, the idea of lasting periods of economic-demographic decline, which is incorporated in the metaphor of the so-called globalisation peripheries), particularly at local or regional levels.

2.1. The geographies of demographic change

Why do we need the perspective of the “geographies of demographic change”?

Demographic challenges and their various effects on European countries and regions have long been debated among policy-makers, practitioners and scholars. Some recent publications provide evidence of this intensive debate, for example, in economics (Bloom and Canning 2008; Börsch-Supan 2008, 2013), in regional studies and politics (Steinführer, Haase 2007; Ferry, Vironen 2011), or in general population studies (Kröhnert *et al.* 2011; Swiaczny 2010). Despite this abundant body of primarily empirical literature in the wider field of the social sciences and population studies, far less attention has been paid to the conceptual foundations underlying the debates.

Notably, the observations made show that the conceptual underpinnings and narrative elements that are associated with the most common terms used in these debates, *i.e.*, “*demographic change*” or “*demographic decline*”, are typically not touched upon (exceptions include, for example, Steinführer 2015, or Klüsener *et al.* 2012). Among other things, this has to do with the fact that there are similar, and related, concepts used in different disciplines, for example, “*demographic change*”, “*demographic/population decline*”, “*demographic transition*”, and “*population change*”. As a result, the disciplines that address these issues have different perspectives on demographic processes and phenomena, and these different approaches are seldom put into relation.

For example, in the field of business and management research, it can be observed that the predominant perspective is a hands-on, practical understanding, as is reflected by publications such as Kohlbacher *et al.* (2014), Pompe (2012), Kunisch *et al.* (2011), and Reidl (2007). While this perspective might be intuitive to management and business practitioners, it lacks conceptual approaches which might explain, for instance, the strategic or entrepreneurial behaviour and perseverance of firms in markets that are marked by long-term crisis. In regional studies and human/economic geography, local case studies and research on specific market segments or industries have dominated the empirical literature, while conceptual issues have been addressed to a lesser extent (exceptions are Steinführer *et al.* 2014; Steinführer 2015; or Leibert and Golinski 2016). In particular, regional planning approaches have become more contested recently, because of their essentialist view on regionalised social or economic problems (see, for example, Wiechmann and Bontje 2015). For demographic change, it is true that many phenomena in these fields have been associated with a “*demographisation of society*” (Barlösius and Neu 2007; see, also, Leibert and Golinski 2016).

Against the backdrop of these findings, Birgit Glorius and I want to reflect critically upon some of the usually taken-for-granted views, theories and concepts about demographic change, as well as selected implications from a multi-scalar, multi-actor and multi-disciplinary perspective. To this aim, this section, which is based upon the editorial of the special issue “*Geographies of Demographic Change: Theories and Narratives*” in the journal “*Comparative Population Studies*” focuses on the so-called “*geographies of demographic change*”. By this term, we understand different and context-specific configurations of localised or regional demographic change. According to our perspective, it is important to study these configurations for three reasons:

- First, by considering the normative dimension of the mainstream discourses on demographic change, this thesis wants to uncover some socio-spatial and socio-temporal contexts associated with demographic change: For example, it addresses the growth-based theories and policies, and shows how they might have bearing upon new ideas of conceptualising demographic change and regional economic development beyond the growth paradigm (Matuschewski *et al.* 2017). While processes of persistent outmigration, rapid population ageing and qualitative population decline interactively result in various complex, and partly unpredictable, challenges for regional economies (for instance, rural regions in Eastern Germany such as Mecklenburg-Vorpommern), the policy responses are still based upon economic growth and competitiveness initiatives and/or programmes. Moreover, it would be important to include conceptual elements to the existing ones, which more adequately describe the economic development perspectives of demographically changing, and often declining, regions. Leibert and Golinski (2016) argue that the concept of peripheralisation can a useful point of departure for planning approaches that aim to overcome the flaws in growth-based policymaking for rural-peripheral regions (Haase *et al.* 2016; Wiechmann and Pallagst 2012).
- Second, a discursive perspective can be fruitful for disentangling the demographic and social elements, as well as the position of actors who hold or lead discourses. Meyer *et al.* (2016) show that “*stigmatisation*” is a relevant discourse that overlays the purely economic facts-and-figures in a demographically-declining region. Thus, demographic change, in this context, not only represents, but also reflects the stigmas attached to a region because the discourse that is determined by demographic change with regard to the case region is detached from the general economic perspectives of the regions. In a similar vein, Bartl and Sackmann (2016) provide insights into a case study of media discourses that are held in a biased, one-sided way, which imply reproductions of negative connotations of demographic change in the local media discourse, instead of showing the full-grained picture for the case region. However, such discourses can be changed by establishing and advancing counter-debates. Christmann (2016) shows how local actors may use the local communication and media channels in order to disseminate proactively their own, more positive discourse on the “*hidden*” or “*uncovered*” opportunities associated with demographic change. Taken together, applying a discursive perspective on demographic change, it is possible to disentangle the cultural, societal or social, and economic phenomena that are all associated with demographics.
- Third, and finally, the latter examples also point out that demographic change should be regarded and analysed as a contextualised process or phenomenon. Contextualisation means that the historical roots of the phenomenon and its path-dependencies, the place-specific social stratifications, and the role and impact of local institutions are central elements related to demographic change. For Nordic countries such as Sweden, demographic change has always been considered as a local and rural-peripheral

phenomenon, rather than a process that involves the whole nation (see Persson 2003). Carsson *et al.* (2016) propose to use the notion of “*demographic resilience*” to describe such long-term, and context-specific, phenomena, which imply demographic and societal change, coupled with the conditions of rurality and peripherality. This additional perspective might provide a more realistic and pragmatic understanding of demographic change because it takes into consideration the historical development as well as the spatial and temporal contingencies of local-regional processes.

What elements do the “geographies of demographic change” address?

Hence, I argue in this thesis that considering the narratives and discourses that are built in practice, policy-making and research on demographic change can be a fruitful engagement and support a better understanding of “*the geographies of demographic change*”. To this aim, several questions are addressed in relation to the conceptualisation and narratives of demographic change (Table 2).

Table 2: Geographies of demographic change – open questions

<i>Conceptualisation</i>	<i>Discourses and narratives</i>
Which conceptual approaches describing demographic change and its effects on societies and economies are used in what fields or disciplines within the social sciences?	Which narratives describe the geographies of demographic change?
How are these concepts connected with the way that demographic change is represented in contemporary debates?	Why is demographic change predominantly negatively connoted in a European context, for instance, with “ <i>decline</i> ”, “ <i>withdrawal</i> ” or “ <i>adaptation</i> ”, instead of more positively connoted terms such as “ <i>renewal</i> ” or “ <i>resilience</i> ”?
How and to what extent is the systemic character of demographic change considered or stressed?	What do alternative – and perhaps more optimistic - interpretations of demographic change (for instance, demographic resilience) look like?
What might be the potential gains of such theoretical explanations? How can (so far) underrepresented conceptual ideas about demographic change enrich the existing academic, public and political discussion in a European context?	What impact does the one-sidedness of negative connotations associated with demographic change in the public and scholarly discourse have?

Source: Own design

An important element of the “*geographies of demographic change*” is the role of *agency*. In this thesis, it is claimed that it is necessary to describe and analyse in greater depth the role that individual actors involved at different levels (civil society, private enterprises and industry, the state and its representatives, *etc.*) play in the process of social-spatial change caused by or accompanying demographic processes. Such actors can be important facilitators of endogenous development due to their resource endowments (human capital, knowledge, and skills) or because they act as gatekeepers between different communities and contextual settings (Leick 2017b; Gretzinger and Leick 2017). However, individual agency may also reproduce existing narratives about demographic change, such as the growth paradigm. This might be the case when negligence and ignorance on the part of key actors towards complex future changes and adherence to past ways of handling processes of change persist, even if and when the need for

changing these procedures becomes visible. Such obvious contradictions have not been fully acknowledged as an important element which might be associated with the “*geographies of demographic change*”. Thus, I argue that an agency-centric perspective is important to understand better demographic processes on different levels. From a policy perspective, policy-makers should pay particular attention to the different, and often paradoxical, roles of agents who steer, accompany and communicate demographic change and associated change processes.

Context and self-reflexivity are other crucial lenses through which to observe demographic change from a multi-level, multi-actor and multi-scalar perspective as a context-specific phenomenon. This makes it necessary to reflect upon the paradigms underlying existing the descriptions and explanations. Such paradigms include the concept of economic growth and the recent post-growth debates (Ferguson 2015; Schulz 2014), the rural-urban divide (Hoggart 1990), and the dominating rationalist, engineering-based planning approaches (Albrechts 2004: 745). Most importantly, criticism of these paradigms should include the extent to which they address the systemic character of demographic change. At local level, the specific conditions associated with demographic change may overlap with problems caused by rural or peripheral contexts, thereby re-inforcing negative prospects for sustainable local development. Consequently, regions and the actors embedded in such regions are “*locked in*” (Hassink 2010), and new approaches to local problem-solving are needed in order to move ahead in such cases.

Normative power also plays an important role for conceptualising demographic change. In fact, policy-making generally seems to ignore the dynamics of demographic change whilst keeping a focus on growth strategies through job creation and the assignment of new housing or production sites. With some exceptions, most policies addressing demographic change are reactive, rather than proactively working with specific constellations such as a certain population size or structure. For the case of Germany, strategies to counteract or mitigate demographic change at local level tend to neglect or even overlook the necessity of context-specific and place-specific governance schemes which could strengthen local resources (including networks and social capital) and enlarge the scope of the core actors (for instance, civil society, private companies, ageing residents, *etc.*). Even though there have been numerous model projects at national and European level regarding how to cope with demographic change, many municipalities widely neglect the effects of demographic changes and pursue a strategy of “*muddling through*”, rather than actively implementing middle-term and long-term multi-level governance strategies of adaptation (see, for instance, Jonda 2012, or König 2014).

2.2. How demographic challenges are inter-related with regional economic development

Exploring the relationship between demographic change and economic development

Without doubt, demographic change is a major factor of regional economic development across Europe. However, despite the large public and political debates about the challenges ahead (for example, an ageing workforce, shortages on labour markets, strains on the public pension system or public goods/service provisions), the mainstream academic discussions on demographic change in the disciplines of economics, regional economics and economic geography only partially address the contemporary and future challenges that many European regions will face (see Hanink 2010, pp. 18-23).

Together with Anke Matuschewski and Marcel Demuth, I argue in the article (published with the journal “*Comparative Population Studies*”) that this observation has its roots in the fact that many mainstream theories and conceptual approaches neglect or simplify contemporary demographic change and its effects on economic development. Consequently, it is hard to find any references to demographic change in the sense of population decline or stagnation within the established theories of growth (*sic!*) and development in economics and related social science disciplines (Martin 2015; Schulz 2012). Most of these theories give only incomplete or inappropriate answers to the overarching question of how demographic and economic processes are interrelated, particularly in the context of stagnation and decline, and what can be learnt from this interrelationship in order to understand the contemporary demographic challenges.

As an endogenous and systemic process, demographic change has far-reaching and long-term effects on the population size and structure. Thus, it severely affects the development prospects of regional economies and societies on multiple layers over a long time-span. Population change in terms of a growing, shrinking or constant population is seldom directly conceptualised. Macro-economic growth models often de-limit the relevance of demography to migration processes, which function as a mechanism to outweigh the disequilibria of income or labour force (see, for example, Lisenkova *et al.* 2010). Hence, in times of contemporary demographic change, as it is understood in the present habilitation thesis, the relationship has become increasingly challenged or even contested. Recent contributions by scholars such as Batey (2016), van der Gaag and de Beer (2014), Liao (2011), Weber (2010) or Headey and Hodge (2009), to name just a few, explore the relationship between demography and economic growth in periods of demographic change in the tradition of macroeconomic models for the political economy.

These challenges result from the fact that mainstream economic theories have some difficulties in modelling and describing the complexity and systemic character of the internal change processes associated with demographic change, because they do not fit the fundamental theoretical assumptions and deterministic thinking of neoclassical or Keynesian growth models very well. In addition, an asymmetry can be observed in the research on the potential interdependencies between economic and demographic variables (Poot 2008, p. 131): while the influence of the economy on demography can be well explained by the models, this is not necessarily the case for the opposite. The latter finding is stressed by Küpper (2015), who illustrates the different channels through which demographic processes might influence economic key indicators.

Another challenge is associated with the finding made by Headey and Hodge (2009, p. 221), who state that: “*a stylized fact in the macroeconomic literature on population growth is the absence of a robust effect of total population growth on economic growth*”. From a macro-level perspective, different isolated demographic variables might counteract each other in a way that offsets negative or positive effects. Finally, Liao (2011) highlights an important lesson. In the case of Taiwan, demographic change that has been caused by rapid fertility decline has adversely affected the country’s economic growth, but the negative total effect was, to a large extent, offset by productivity gains. Thus, it cannot necessarily be assumed that population decline will automatically affect economic growth perspectives adversely (see, also, Headey and Hodge 2009). An even harder task is then to describe through which channels such potentially adverse effects might take place.

The transmission mechanism between demography and the economy for regional economies

Indeed, contrary to the macro-level observations, what seems to be clear is that demographic change affects regional economies in different spheres and through various channels (Davoudi *et al.* 2010). One important channel, a so-called “*transmission mechanism*” of demographic change on the economy, is the public and fiscal sphere (McMorrow and Roeger 2004; Bloom *et al.* 2003; Misoulis 2008). The effect of demographic change, in particular, the decline in total population, on the provision of public goods and services such as the maintenance of technical and social infrastructures is clearly negative (Poterba 1998; Prskawetz and Lindh 2007). As for public infrastructure, such as transport, or water and energy supply, the problems associated with demographic change have already been well-analysed and described (Steinführer *et al.* 2014; Haase *et al.* 2016; Haug 2004). Demographic change also has direct and strong effects on labour markets (Bloom and Canning 2008; Leibfritz and Roeger 2008) as the workforce ages or declines due to retirement (Poot 2008; Brunow and Hirte 2006). In theory, a declining working-age population, seen as a shrinking labour force, would induce higher labour costs for firms, forcing employers to maintain or to raise their firm-level productivity (Feyrer 2008). In this case, demographic change will also induce enterprises to invest more in research and development (R&D) activities and human capital formation in order to sustain their competitiveness in the longer run. As Börsch-Supan (2008, 2013), and Faggian and McCann (2009) argue, supporting R&D and human capital investments are, indeed, important public policies for regional economies that cope with changing labour markets caused by demographic change.

A likely scenario for economies facing demographic change is the deceleration of innovativeness and technological progress and even resistance to technological change among ageing and declining populations that face increasing dependency ratios (see Bönnte *et al.* 2009; and Harhoff 2008), caused by a lack of a young, innovative labour force, shrinking market potentials and divestments by firms (Cutler *et al.* 1990; Dixon 2003; Poot 2008). At the same time, new consumer preferences will emerge because of shifts in the demand for goods and services between ageing and young consumers (Kohlbacher and Herstatt 2011), which will affect the prospects for certain industrial and service sectors (Poot 2008), with some industries expecting growth (see Distelkamp *et al.* 2004; Rosenfeld 2003, 2006). Rosenfeld (2003, 2006) shows that, for Germany, particularly consumer-oriented businesses will be affected by demographic change, depending on price and income elasticities. Examples of industries where a strong impact is highly likely include clothing and textiles, pharmaceutical goods, food, and education. Firms operating in such sectors and serving local-regional markets might need to adjust their business models towards ageing consumers and changing demand.

Börsch-Supan (2013, p. 4-5) stresses that demographic change does not automatically lead to a reduction in the standard of living for households. However, as Kohlbacher and Herstatt (2011) emphasise, all consumer-oriented industries will have to cope with the preference for higher-quality goods and services shown by wealthy elderly consumers, on the one hand, whilst, on the other, poverty is on the rise among elderly people in demographically-declining nations such as Germany (see, for example, Goebel and Grabka 2011). More generally, there will be demand-side changes due to age-specific requirements, particularly in health, leisure, travel and other specific household services. At the level of individual industries or regions, this might result in an increase in potentials in the niche markets of the so-called “*silver economy*” (Kohlbacher and Herstatt 2011). Taken together, and using the region as the unit of analysis, we can assume that the share of these consumer-oriented sectors in a region’s industrial structure will determine the degree to which demographic change affects the regional economy

through shifting consumer preferences (Küpper 2015). Particularly in regions that face population decline and aging, these effects will strike far harder than in regions with a growing or stable population due to positive net migration.

Policy-making for regional economic development in the light of this relationship

Policy plays a crucial role in responding to and directing responses to demographic change (Ferry and Vironen 2011). Thus, I argue, together with Anke Matuschewski and Marcel Demuth, that the criticism of the mainstream theories that explain regional economic development becomes even more relevant when it comes to policy-making. Several authors highlight the problematical growth-oriented thinking in contemporary regional and urban planning approaches and the mainstream policy programmes (for example, Haase *et al.* 2016; Wiechmann and Pallagst 2012). More generally, Bloom *et al.* (2010, p. 607) acknowledge that: “*The problem of population ageing is more a function of rigid and outmoded policies and institutions than a problem of demographic change per se*”.

Since regional policy programmes are typically based upon growth-oriented paradigms, they rely on the basic statistical indicators used for economic theories and modelling. For example, the economic success and competitiveness of a region is usually measured without paying sufficient attention to the demographic process as a factor which influences a region’s long-term growth prospects. Counteracting the challenges associated with regional decline and stagnation, be they in the demographic, economic or both spheres, implies returning to growth as quickly as possible. Accordingly, recommendations are provided that are derived from the ideal-type – in economic terms – of growing and successful regions, irrespective of a region’s long-term growth outlook. In addition, demographic processes (for example, youth emigration) are usually overlooked in initiatives that target economic indicators, although they are important levers for policy intervention.

From a pragmatic viewpoint, it makes little sense to apply “*best practice*” policy strategies that are drawn from demographically growing, and often economically prosperous, regions to demographically changing, and probably declining, regions, because such strategies are highly likely to fail and neglect the specific needs of regions facing decline or stagnation beyond temporary periods of downturn. In the case of rural-peripheral regions, long-lasting periods of stagnation or decline, in terms of the population/economic growth prospects, challenge this approach to policy-making (see Leick and Lang, in press; Leibert and Golinski 2016). Such regions typically host mature or “*low-technology*” industries, and lack a critical mass of enterprises capable of providing sufficient entrepreneurial and innovative activities which are needed to catch up (Noronha Vaz *et al.* 2006; Copus and Skuras 2006; Huggins and Johnston 2009). In spite of these stylised facts, these regions are also able to host competitive economic activities (Küpper and Margarian 2010; Meng 2013; Stocker 2013), although demographic change exacerbates the existing economic weaknesses (Küpper 2015).

The metaphor of globalisation peripheries to connect demographic-economic challenges

Based upon these considerations, I argue that the concept of globalisation peripheries (Scholz 2004, 2007) offers some promising conceptual ideas about decline and stagnation that may be appropriate to describe peripheralised and both economically- and socially-marginalised spaces, ranging from entire nations to regions or even city districts. The metaphor conveys the image of the losing areas, which are being decoupled from global economic dynamics and have no, or, at best, low, prospects for economic recovery and sustainable economic development. Being neither the sites of the major drivers of economic activities and the locations of key actors

(such as transnational companies or global organisations), nor integrated into global production networks and value chains, key actors on the global scale such as large corporations and organisations typically overlook globalisation peripheries. From their perspective, such regions are either too small as consumer or labour markets, or too scarcely endowed with resources, be they natural, infrastructural, or human capital.

With this picture, Scholz (2004, 2007) paints a dramatic image of depleted and marginalised regions or nations, an image that fits many developing nations in the so-called “*Global South*” (Scholz 2003). Because of its broad perspective on persistent “*non-growth*” in multiple interconnected spheres, and its openness to multi-scalar perspectives, the concept is also suited for describing the development prospects of demographically-declining regions across Europe, illustrating demographic change and its inter-relationship with economic change. Thus, in the parlance of Scholz (2004, 2007), a number of European regions including the ones facing significant demographic change can be labelled as globalisation peripheries, because they face multiple challenges in the economic, social, political and demographic spheres, challenges that cannot be solved through quick fixes or external stimuli (see, also, Leick and Lang, in press).

The concept can be explicitly used to describe the inter-relationship between demography and the economy as a systemic complex of multi-layered challenges. Peripheralisation is one major characteristic of Scholz’ original model that fits remote regions which are located at some spatial distance from the core capitals and major cities, and are, in addition, decoupled from substantial economic activities (Leibert and Golinski 2016; Lang 2015; Lang *et al.* 2015; Kühn 2013). In addition, many such regions also suffer from demographic change coupled with long-term economic stagnation or decline, *i.e.*, perspectives of non-growth in the core sense. As a result, cases of European globalisation peripheries are not affected by isolated problems alone, but are marginalised through their low economic power and dynamics, the structure of their population and its social stratification, and a low degree of global integration (Bernt and Liebmann 2013; Danson and De Souza 2012; Wirth and Bose 2007). Accordingly, I argue that using the globalisation peripheries concept can substantially improve the understanding of regional economic development in the light of demographic change.

Demographic change in globalisation peripheries and the resulting policy implications

What are the general lessons for regional policy-making in the context of demographic change, based upon the above criticism and using the concept of globalisation peripheries as a point of departure?

- A first lesson is that it will be important to accept demographic-economic decline or stagnation as a complex process that is, at least partly, associated with demographic change. As a matter-of-fact, regions facing demographic change undergo long-term systemic changes and cannot simply return to a path of economic growth. In such cases, resource limitations play an important role; the pre-conditions for growth in the context of regional demographic change are thus strikingly different to that of regions with stable or growing populations, such as large agglomerations with sufficient net migration. Thus, policies for regions affected by demographic change should focus on additional and alternative goals that might not necessarily be in line with growth-oriented targets (see Bernt *et al.* 2014; Haase *et al.* 2016; Leick and Lang, in press). Economic stabilisation and qualitative development are appropriate adaptive approaches in such constellations to complement policies envisaging quantitative economic growth only (see Thrun 2003; Persson 2003).

- A second important lesson, which is closely related to the first one, is that accepting demographic change and “*de-problematizing*” its effects in the practice of policy-making implies acknowledging that globalisation peripheries in the context of demographic change cannot realistically hope and wait for “*big investors*” to initiate and generate significant economic growth qua external investments, jobs and income. In a similar vein, external migration to such regions will be far too insignificant in most cases to compensate for population losses due to ageing and outmigration, although return migration might play a role in stabilising the regional economy, as evidence for Eastern Germany shows (Fuchs and Weyh 2016; Matuschewski and Nadler 2013). Instead, globalisation peripheries need to rely much more on local endogenous potentials in line with Hahne (1985) in order to shape their future development trajectory.
- Finally, a third lesson is that proactive policy approaches are clearly needed to tackle the local challenges associated with demographic change (for example, population ageing and out-migration, changing labour markets or problems of business succession), because local potentials must be identified amongst the problems and deficits such as less people, less investment, less infrastructure and less tax income. A proactive stance based upon perceiving opportunities instead of problems is closely associated with what Steinführer *et al.* (2014) call “*Bewaeltigungsstrategien*” (coping strategies) in the context of demographic change. Coping strategies go well beyond adaptation to a declining regional economy because they include the notion of acceptance of decline and lead them to seek ways to work with a decreasing population, reduced tax incomes, and limited opportunities for public service provisions (Steinführer *et al.* 2014).

To sum up these lessons, asserting that decline and stagnation in both the demographic and economic realm needs to be accepted as a new, but not necessarily pre-determined and unavoidable path for the future of globalisation peripheries offers scope for new ideas in policy-making beyond growth-based approaches (Rydin 2013). One important point of reference for such ideas may be the finding that the endogenous forces of demographic change matter, and should, therefore, be integrated into the long-term approach to regional policy-making. For example, population ageing as one such endogenous challenge should not be considered solely as a locational disadvantage, but also as a source of local potentials: making use of senior expertise, supporting high-quality services for the elderly, implementing local initiatives to keep skilled labour and youth in the region through the engagement of elderly residents are all ideas that can be developed and capitalised on.

2.3. Demographic change and economic challenges: A case study

As discussed in the previous section, most regional development concepts and policies are growth-based, focussing on economically-thriving model regions. Far less attention is devoted to regional stagnation or decline, conditions which are considered to represent short-term deviations from a normative growth path. Consequently, the paradigm underlying most regional development strategies and policies is that of growth and economic recovery post-crisis. In reality, however, many regions both on Europe’s rural-peripheral fringe and the enclaves within core regions experience long-lasting periods of decline or stagnation, marked by persistent out-migration of young people of working-age, population aging, weak industrial bases, industrial downturn and structural backwardness, or economic turmoil after the recent global financial and economic crisis. These regions seem to be “*locked*” in decline and economic marginalisation, with no signs of return to economic success (see, also, Meyer *et al.* 2016). This raises the question concerning how such regions can escape the vicious circle of economic

stagnation or decline, and which planning strategies are appropriate for recovery. In the present section, I explore a case study, together with Anke Matuschewski and Marcel Demuth, of a region that seems to be trapped in a vicious circle of multiple dilemmas. The paper that this section is based upon has been published in the journal of the members of the Regional Studies Association, the “*Regions Magazine*”.

The case study of “Altenburger Land” as a globalisation periphery?

The NUTS-3 level region “*Altenburger Land*” in the East German state of Thuringia (Map 3) represents a proto-typical example of a demographically-declining region that also suffers from low economic development prospects. Altenburger Land experienced quite a unique economic, social and administrative transformation in the past, but nowadays it represents a marginalised and peripheralised region that is experiencing significant demographic change (see Meyer *et al.* 2016). Once a backbone of uranium and coal mining and its downstream industries (machinery and automotive) as well as farming in the former GDR, the local population grew due to specific policies which aimed at attracting mining workers into the region. This artificial expansion to a medium-sized city region kept the local economy booming for a long time. As German re-unification turned a socialist economy into a market economy, Altenburger Land had to face substantial out-migration and population decline, mainly to West Germany. Due to the fact that competitive pressures increased and industries that were formerly shielded by state regulation lost most of their COMECON export markets, a shock-like transformation of the local economy led to the breakdown of entire industries, followed by dramatic rises in unemployment.

Against this background, demographic change for Altenburger Land is associated with complex challenges in the economic, demographic, social and political spheres (Matuschewski *et al.* 2016; Meyer *et al.* 2016) and historical path-dependencies. Sharply decreasing fertility rates after re-unification exacerbated the exodus of young, skilled persons and intensified the economic-demographic decline and stagnation dilemma of Altenburger Land. Since 1990, it has lost about 30 per cent of its population and will continue to do so (1989: 130,000 inhabitants, 2014: 95,000 inhabitants, 2030 projection: 70,000 inhabitants). Moreover, the dependency ratio is expected to skyrocket to 122.1 per cent in 2030 (2012: 69%). On top of this, local young adults do not consider Altenburger Land to be a place which offers any economic perspective whatsoever. Although there have recently been signs of the demographic and economic decline slowing down, the region has never recovered from the long-lasting periods of mutually-reinforcing economic-demographic decline since the early 1990s. These negative path-dependencies influence the region’s development potentials today.

Inter alia, the region lacks a major or leading industry or a competitive business network or cluster that connects firms either within or across local industries (for example, through technologies or a common repository of knowledge), which would allow it act as a gateway to outside industries. The local economy mainly consists of small- and medium-sized enterprises (SMEs) in low- to medium-technology industries such as mechanics, metalworking and processing, plastics, automotives, mechanical engineering, and construction. Many firms have not been able to integrate themselves in the automotive and mechanics clusters in close geographical proximity. Ownership and management structures after the post-socialist transformation partly account for this weak economic base.

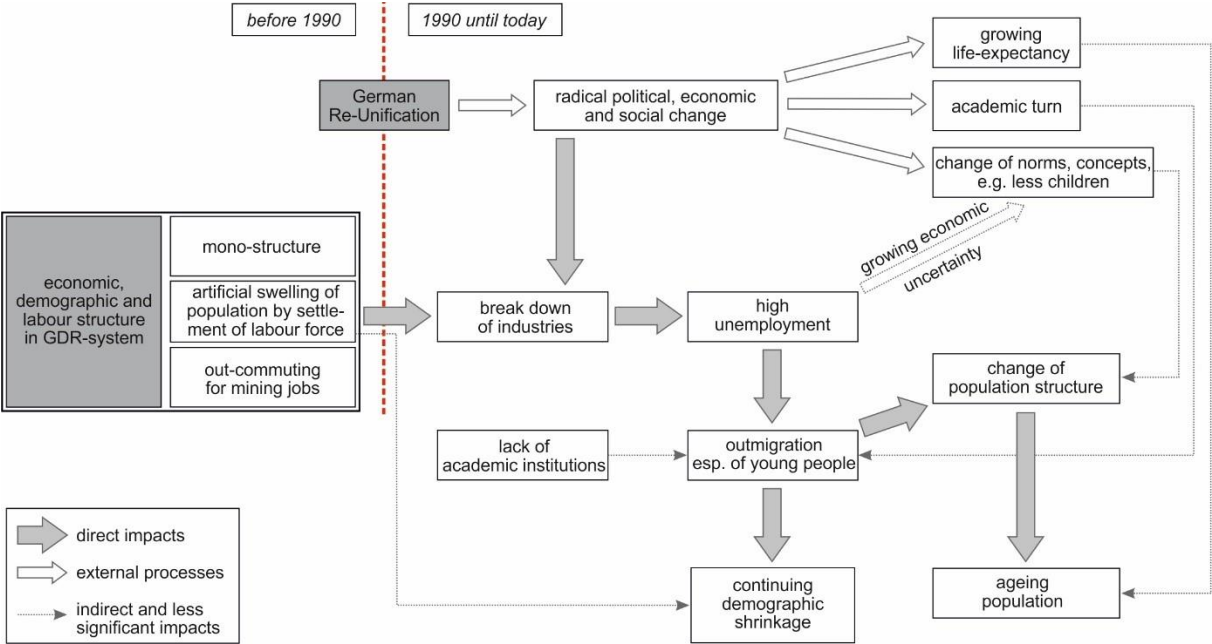
Map 3: Location of Altenburger Land



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth

To date, local policy-makers have experimented with various mainstream strategies to counteract the region’s decline. Most of them have not proven to be success stories. Greenfield industry development combined with heavy investments in transport infrastructures (motorway and railway connections, and a local airport) was one of the strategies to boost economic development, based upon external investment, aimed at attracting firms and jobs to the region. Because of the complex demographic-economic-social and political situation, the resulting historical path-dependencies and the mental “lock-in” of local stakeholders (including policy-makers) into established growth-based approaches to combat decline clearly challenge and limit the scope for regional policy interventions in this case (Figure 3).

Figure 3: Cumulative causation of economic-demographic decline in ‘Altenburger Land’: A vicious circle?



Source: Marcel Demuth.

Overarching lessons from the case study

Today, Altenburger Land seems to be trapped in a vicious circle, consisting of multiple, self-reinforcing deficits and barriers which impair regional economic development. These deficits are connected with demographic (population losses and outmigration), societal (urbanisation and youth outmigration, a preference for academic education) and economic challenges (low competitiveness and low international activities of local industries, below-average wages of local firms, etc.; see Figure 3), all of which are mutually re-inforcing themselves and induce major constraints on local economic growth and impede an escape from the vicious circle.

On top, both a lack of local identity and low municipal co-operation act as further barriers to embark on a sustainable regional development path. As administrative unit, Altenburger Land has no historical roots in its current territorial shape, but has been constructed because of several fast, top-down led administrative and territorial reforms after German re-unification. Although municipal co-ordination and collaboration have been introduced as two guiding principles to define and implement policies, local policy-makers lack a more clear-cut collaborative approach to build consensus about local development goals and to share public tasks, for

instance, when it comes to defining industrial settlement strategies or granting permissions for large retail sites.

Against the backdrop of these observations, the case study highlights how demographic change, *i.e.*, population ageing, in combination with the continued out-migration of young, skilled persons, and a bundle of locational disadvantages originating from historical path-dependencies, shape both the demographic and the economic outlook for such regions. In such cases, the established conceptual approaches from economics or economic geography and regional economic development studies which focus on partial models or single explanatory factors seem to be insufficient or even inadequate to describe regional development. Thus, notions of rurality or peripherality or peripheralisation and marginalisation (see Kühn 2013) that look beyond the growth paradigm and are, moreover, open to positivist interpretations (for example, through bottom-up “*de-peripheralisation*”, as Leibert and Golinski 2016 claim) may be an avenue to conceptualise local-regional development for “*globalisation peripheries*” in the context of demographic change.

3. How firms adapt to demographic change

This chapter addresses the question of how the perceptions and behaviour of firms, particularly their strategic activities, can be described and explained with regard to demographic change. As a matter-of-fact, demographic phenomena such as population ageing or youth emigration are typically addressed at macro-level. From an economics perspective, the changes in markets, both supply-side and demand-side, can be well-modelled, for example, with regard to the relative position of rural or peripheral regions and the future challenges for local supply or demand in such areas, as compared to metropolitan agglomerations (Rosenfeld 2003, 2006; Distelkamp *et al.* 2004; see, also, Table 3). Hence, the potential demand-side and supply-side changes caused by demographic change seem to be obvious when thinking in terms of the categories of the standard macro-economic models. However, the picture becomes more fine-grained and diverse, and therefore less obvious, by looking at these phenomena from a micro-spatial level, *i.e.*, the perspective of the individual firm that is located in, or operates in, a regional economy subject to demographic change.

Hence, this chapter also addresses some of the transmission mechanisms of demographic change to the economy from the macro- to the firm-level. Based upon the stylised facts that are established by Rosenfeld (2003, 2006), it is assumed in the chapter, as in the thesis in general, that the embeddedness of firms in local markets plays a key role for understanding their attitude towards, and specifically, their adaptation to, demographic change.

Table 3: Expected effects of demographic change on the level of local industries

<i>Local industry</i>	<i>Expected change of local demand</i>
Manufacture of food products, beverages and tobacco	Negative
Manufacture of goods for children (for example, play toys, strollers, <i>etc.</i>)	Negative
Manufacture of medical and pharmaceutical products	Positive
Retail trade	Negative
Retail trade	Negative
Personal services	Negative
Health and care services	Positive
Transport services	Positive
Education	Positive
Tourist services	Unclear
Agriculture and farming	Unclear, but rather negative
Mail order wholesale/retail trade	Positive

Source: Adapted from Leick (2014, p. 103).

Consequently, the topic will be approached from a relational perspective (Boggs and Rantisi 2003) that focuses on the local and social embeddedness of firms (Granovetter 1985) as a key perspective for understanding the firms' approach vis-à-vis demographic change (see Hess 2004; Glückler 2001). In a broader sense, firms are conceptualised as actors or entities that are embedded in local-market and network relationships with other enterprises (inter-firm business collaboration and networks) or have associations with private/public organisations representing local institutions (Dicken and Malmberg 2001; Grabher 1994). A central premise of a relational perspective, applied to firms, is that locally-embedded firms are confronted with multiple and complex challenges as a result of regional demographic change.

Approaching the topic from a relational perspective, this chapter will explore the firm-specific perceptions of demographic change and how the challenges associated with demographic

change are being translated into subjective perceptions and responses. Strategic adaptation is a key notion which is used to describe these patterns (Schindehutte and Morris 2001; Chakravarthy 1982). An important point of departure here can be found in the work of Harrigan and Porter on strategic decision-making in declining industries (Harrigan and Porter 1983; Harrigan 1980). The chapter is based upon several publications that were published between 2012 and 2014 or have recently been accepted in journals, both in human geography/regional development and business and management studies.

3.1. Perceptions of demographic change in the local economy: the viewpoint of locally embedded firms

As a matter-of-fact, market transformations induced by demographic change pose a great challenge to the strategy-formation of many firms, because the effects of demographic change on firms are complex and partly non-predictable, and will only be slowly evolving over time (Leick 2017b). However, regional economies embrace different types of enterprises and industries, which are dependent on local resources, input factors, and market relationships to varying degrees, for example, according to their spatial market orientation. It can, therefore, be assumed that enterprises will have different, and perhaps contradictory, perceptions about regional demographic change, depending on the extent to which their operations are rooted in local markets. In particular, firms that hire locally and/or sell their products/services to local consumers will need to meet manifold challenges (Leick and Ströhl 2013).

These basic assumptions follow Rosenfeld (2006), who has stressed that, with regard to demographic change, the importance of market-related challenges vary across industries. In a comparative view, firms that are able to access other, non-local markets and even venture abroad will have relative structural advantages compared to locally-bound enterprises such as regional banks, small retailers or service providers (see Commerzbank 2009, Keil 2007, p.126f.; Audretsch and Dohse 2007, and Justman 1994). Against the backdrop of these considerations, it is likely that the latter types of local firms in particular will have to reconsider their established business models against demographic change, and thus will need to seek ways to cope with the market changes caused by the demographics in their localities, taking the associated complexities and uncertainties into account.

In this respect, it is worth mentioning that demographic change does not necessarily need to be seen as a process which puts a strain on firms. Although both market size and market potential may be decreasing from a bird's eye view, such a context may offer new business opportunities, for instance, through access to new and growing market niches or market segments in the "*silver economy*" (Kohlbacher and Herstatt 2008), based upon product innovation in consumer goods, customisation or new promotional approaches (Kohlbacher *et al.* 2014). In a similar vein, firms may design and implement innovative approaches to cope with rising shortages of labour (Verworn *et al.* 2009; Streb *et al.* 2008). Information and communication technologies might offer additional advantages to firms located in areas that are economically or structurally lagging behind.

Open questions and conceptual ideas about the business perspective on demographic change

Despite the importance of these issues for business researchers, management practitioners and public-policy, the complexity of the opportunities and challenges associated with market transformations caused by demographic change has not been systematically addressed in the contemporary academic and public discourses. Earlier contributions, for example, McRae (1996), Greller (1990), Johnson (1990), and Pol (1986), have picked up some relevant issues, but the topic of demographic change has re-entered the agenda of business, management and marketing scholars only recently. For instance, Kunisch *et al.* (2011), Kuebler *et al.* (2009), and Strack *et al.* (2008), discuss both the inherent character of contemporary demographic challenges and their effects on business organisations. However, there are still some important questions left open in these publications with regard to the firm and its embeddedness in local economies, including the following, for example:

- What importance does demographic change have for locally-embedded firms in general?
- What are the perceptions of such firms with regard to the phenomena that are visible or those which they discuss? How are demographic challenges viewed based upon or according to the perceptions?
- To what extent can demographic change be considered as a relevant factor which influences the behaviour of firms in the local-regional context?
- How do firms that face, for instance, declining and changing markets because of demographic challenges cope with these major transformations in their business environments?
- Do they build adaptive strategies to respond to these changes, and, if so, which strategies are actually applied?

Although firms and industries could, in theory, make use of the basic statistical indicators about demographic change for their region, the individual firm, particularly if it is small or faces resource limitations, encounters some difficulties in predicting the complexity and long-term effects of these processes at the level of its business organisation. With statistical forecasts ranging from approximately 20 to 50 years, the time horizon of such general data only partially overlaps with the shorter planning periods of firms in general and small businesses in particular (Stonehouse and Pempertone 2002; Leick 2017b, p. 21). Thus, from the perspective of the individual firm, market changes due to the demography might not be perceived as a state of profound transformation and crisis that occur overnight.

In the present thesis, and in line with Lozoda and Calantone (1996) and Casson (2005), I argue that both the uncertainty and complexity that are inherent to demographic change processes and the resulting transformations of the local business environments challenge the adaptability of firms that depend on local markets. In such contexts, strategic activities in terms of intentional and future-oriented action-plans are particularly important for their coping behaviour (Mintzberg 1987; Mintzberg and Waters 1985). Adaptive strategy-formation (Chakravarthy 1982) can be conceptualised as a process that starts with the identification of external or internal changes and the need for change, according to the individual perceptions of the actors aligned to the firms and their business organisations (Schwenk 1995; see, also, Fuchs 2012 on the role of perceptions). Contributions such as Elbanna (2006), Fletcher and Harris (2002), and Hart

and Banbury (1994), stress that improvisation and practiced, yet perhaps unintentional and emergent, behaviour is typical of strategy-formation in complex and dynamic business environments. By contrast, Slevin and Covin (1997) and Lozoda and Calantone (1996) emphasise the importance of a rational planning attitude as an important “*mile-stone*” in the adaptive strategy-formation of firms.

I argue, in this thesis, that both perspectives are necessary to describe and understand this process, especially with regard to small and locally-embedded firms and in the light of demographic change (see Leick, accepted). Accordingly, the understanding of adaptive strategy-formation in the present thesis is based upon a balance of improvisation and flexibility, on the one hand (Cope and Watts 2002; Ebben and Johnson 2005), and planning, foresight and information management, on the other (Casson 2005; Lozoda and Calantone 1996; Saebi *et al.* 2016). Thus, a first cornerstone of a conceptual perspective on the adaptation of firms to demographic change is the perception of demographic processes by individual firms that are embedded in regional economies.

The exploratory empirical research approach to describe the perceptions of firms

The empirical evidence about the perceptions of firms with regard to demographic change in the regional economy was gathered in broader fieldwork which took place between 2011 and 2013. In order to analyse the topic in a first exploratory step, empirical research was carried out in the NUTS-2 region of Upper Frankonia, Bavaria. The fieldwork combined a series of in-depth interviews (n=24) with owner-managers or executive managers from locally- embedded firms (according to the aforementioned understanding of local embeddedness) with a postal survey among firms, which was based upon a structured questionnaire (n=81) [for more information on the research design, see Leick and Matuschewski 2012; and Matuschewski and Leick 2012]. In a later stage of this fieldwork, n=18 complementary narrative interviews were carried out in other German regions facing demographic change in terms of population ageing and decline, or youth emigration. The NUTS-3 regions were Pirmasens and Suedwestpfalz in Rhineland Palatinate and Harz and Mansfeld Suedharz in Saxony-Anhalt. These regions were selected according to the recommendation given by experts in the greater NUTS-1 regions, *i.e.*, the “*Bundesländer*” of Rhineland Palatinate and Saxony Anhalt, to look further into these smaller units and the firms located there because these rural-peripheral local economies were supposed to be affected extremely hard by demographic change and local market transformations. Thus, expert interviews accompanied the step-wise process of interviewing, transcribing and interpreting the results in this stage of the fieldwork.

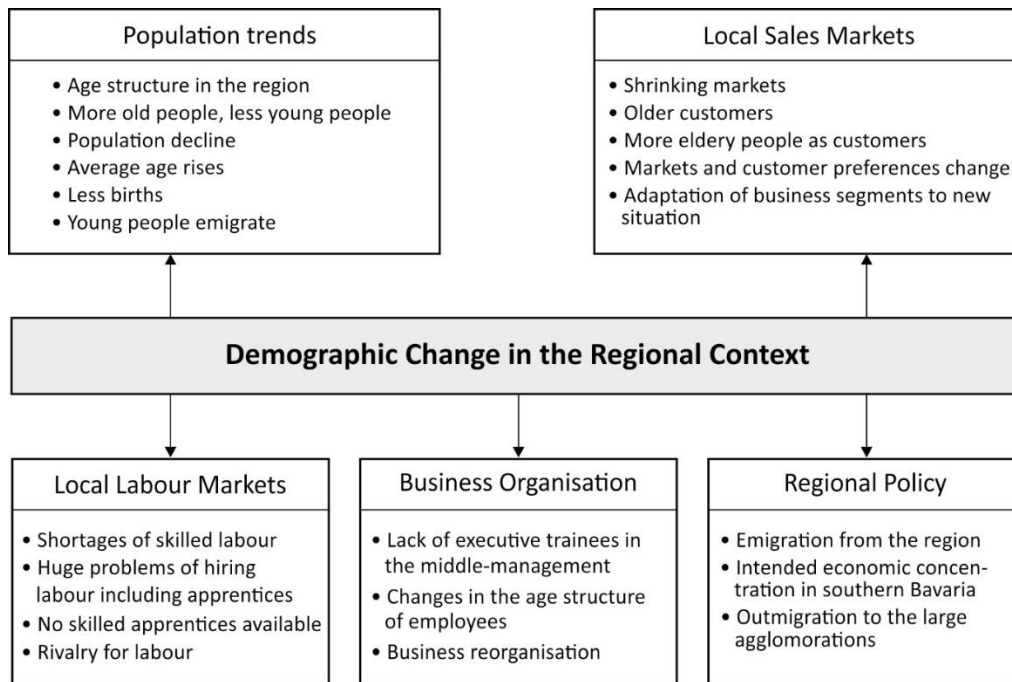
The research process was overall exploratory in nature because it sought to identify, describe and interpret patterns of perceptions on the part of the key informants. Additional insights from expert interviews and documents (such as presentations, leaflets, *etc.*) were used to substantiate the observations made. In the course of the process, the findings that were made were increasingly categorised and systematised with the aim of arriving at a more conceptually-prone understanding to support theory-building (see Leick 2014, p.105 on this).

Perceptions about demographic change: evidence from field observations

The empirical fieldwork was guided by the following questions (Leick 2014, p. 104; Leick, accepted): What general importance has demographic change for the firms? What associations do they make with it and which attributions are made by them on which levers? Is there evidence that demographic change with its cumulative nature is a relevant factor influencing their behaviour in the local-regional context? Among other questions, an introductory question to the

topic in the firm survey was the following: “*What do you personally understand by demographic change?*” The resulting statements have been grouped into different categories (Figure 4) which highlight the fields or activity spheres in which key actors associated with locally-embedded firms perceive demographic change. Besides the observation that their perceptions reach beyond the business organisation and refer to societal and political implications, another general finding is that both labour and sales market changes have been reported.

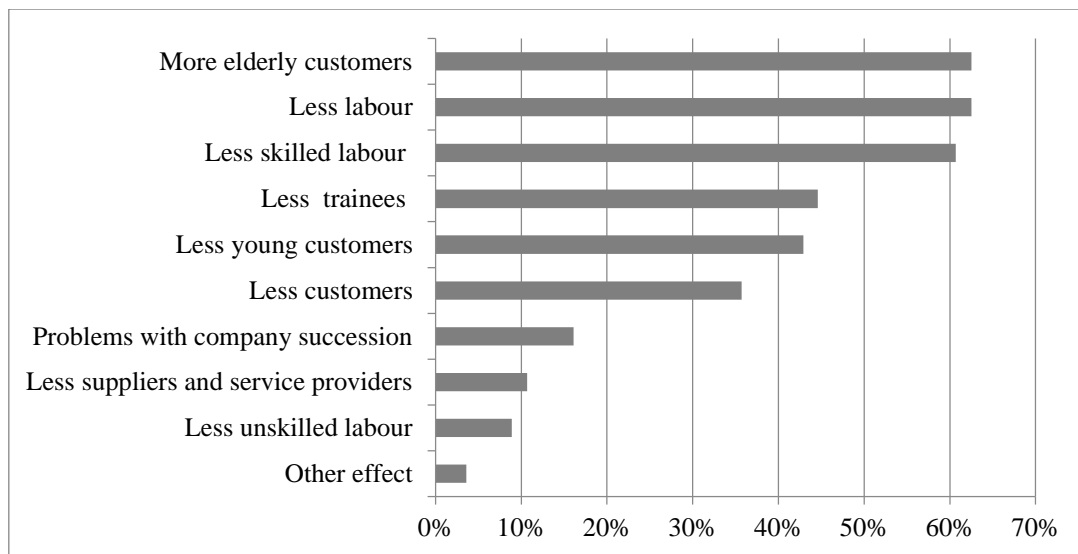
Figure 4: Demographic change: Associations and attributions of key informants from firms



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth. Data source: Firm survey in Upper Franconia, 2011.

This observation was replicated by the finding in the firm survey (see Leick 2017, accepted) that two thirds of the firms indicate that they perceive demographic change in their local markets. Most importantly, they observe changes in local labour markets, particularly a rising shortage of skilled labour. Firms also report challenges related to hiring candidates for vocational training, which is becoming increasingly difficult due to local labour shortages. The topic of firm succession caused by retirements and a change in generation also plays a role. Changes in local sales market are also being observed by the firms interviewed, while changes in purchase markets, *i.e.*, business-to-business relationships of locally-embedded firms in their locality, are obviously affected to a much lesser degree by demographic change (Figure 5). In addition to these findings, Table 4 illustrates how the individual perceptions are associated with key transmission mechanisms from the macro-economic level down to the individual firm, *i.e.*, changes in local labour and sales markets.

Figure 5: Firm-specific effects of demographic change



Source: Own illustration, based upon Leick, accepted.

Altogether, the findings from both the firm survey and the personal interviews suggest that firms do perceive the manifold changes and challenges associated with demographic change in local markets. This picture, however, changes when it comes to questioning firms about the strategic relevance which the key respondents attribute to demographic change. Only about 11 per cent of them deem the issue as a topic of high strategic relevance (Leick 2014, p. 105), compared to other strategic themes. Hence, these results seem to be puzzling because the key persons in locally-embedded firms perceive manifold effects of demographic change in their regional economies, but obviously do not deem these effects as being of high strategic relevance. One explanation of this puzzle might be that demographic change is perceived at different levers and to different extents, as Figure 1 has illustrated (see Leick 2014 in the following):

- Effects in local markets, notably labour markets, but in sales markets as well, are well perceptible by the key informants from the locally-embedded firms.
- Less evident, however, are the perceptions about potential changes in the own business organisation, for example, an change in generation among the management, coming closer due to retirement of owner-managers, business re-organisation of models or even complete firms which are associated with the firm succession, or general leadership tasks related to demographic change.

Table 4: Macro-economic effects of demographic change versus individual perceptions made by key respondents in firms

Macro-economic effects	Firm perspective (Illustrative quotation)	Firm-level perspective
Declining, shrinking sales markets in quantitative terms	“The older customer is no longer the pawn you can count on as it has been in former times. The older customer uses the internet, too. (...) We do not only have the problem of ageing consumers but there is also less money spent by these elderly consumers.“ (Retailer)	⇒ Promotion ⇒ Sales ⇒ Marketing
	“People are getting older, teachers are getting older. And our courses are getting smaller because we have less participants due to ageing.“ (Educational agency)	
	“Some firm-owners reach a certain age and want to retire. At this point they need to think about firm succession: What happens with the company when the owner retires? Does it only disappear as our customer or will there be more risks for us?“ (Regional bank)	⇒ Sales ⇒ Regional networks
Qualitative changes in local sales markets	“We offer a whole series of specific courses for elderly people. The main difference to the regular courses is that we give more time for training and exercises in the courses, which is something the elderly ones need and want.“ (Educational agency).	⇒ Sales ⇒ Promotion ⇒ Marketing
	“... the fact that we offer rehab sports, this is the main door-opener to attract elderly people to our gym who otherwise would not come here.“ (Fitness club and spa owner)	
Rising demand for specific consumer goods in the “silver economy“	„The sales market is no problem for our company. Our devices and machines are easy to handle by concept. And this is now a very positive development for us because we produce these machines for the medical and health area, but also for fitness clubs and gyms.“ (Producer of medical devices including exercise machines)	⇒ Sales ⇒ Promotion ⇒ Marketing
	“The customer group 50 plus is the one that produces the greatest revenue and volume among almost all bank customers. It is the only age group of our clients that will remain stable overall.“ (Regional bank)	
	“Demographic change means that I benefit from the elderly. The young people here, they are using the internet. Here in the countryside, much business takes place via personal contacts, and this is what the elderly prefer.“ (Travel agency)	
Declining, shrinking labour supply	“Demographic change means for our company that I have to invest more in recruiting trainees. In the past years we have received less and less applications for traineeships.“ (Craft firm in the field of sanitary installations and equipment)	⇒ Human Resources ⇒ Firm succession
	“It has become much more difficult to recruit qualified staff in that region, particularly those with a university degree.“ (Producer of medical devices including exercise machines)	
	“By 2022, 28 employees will be retired. Including the executive staff!“ (Regional bank)	
	“In my talks with other owner-managers from engineering companies, I often hear that they are seeking qualified staff, engineers. And they complain that nobody would like to move here to the countryside. Or they find a candidate who will leave again after one year.“ (Craft firm)	
Qualitative changes in labour markets	“We are currently making really bad experiences with our apprentices and trainees, compared to what we had ten or twelve years ago.“ (Producer of medical devices including exercise machines)	

Source: Own illustration, based upon interviews in Rhineland-Palatinate.

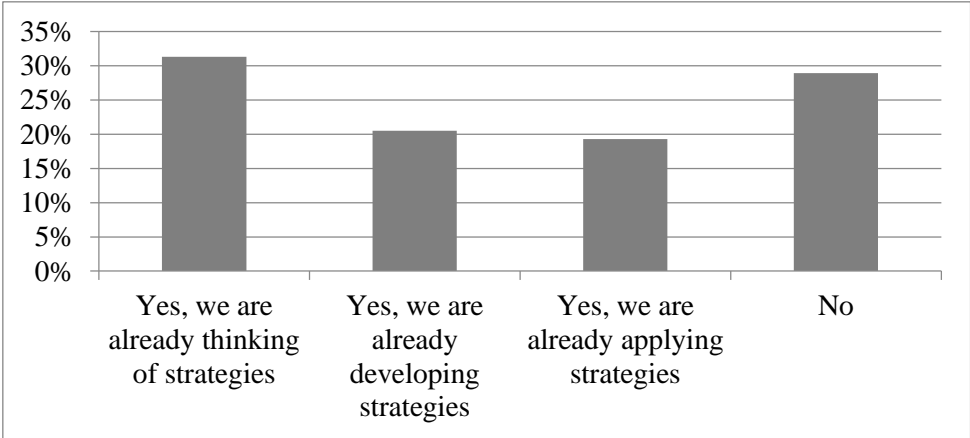
Against the backdrop of these findings, I draw the following tentative conclusions.

- First, due to the cumulative nature of demographic change, these market-based effects on individual firms are manifested in the demographic transformation process much earlier than other effects, for example, changes in local networks or in the institutionalised practices of local actors such as the owner-managers in firms (see Figure 1).
- Second, the varying firm-specific resources and capabilities are another factor that might explain the different patterns of the perceptions and resulting “*coping behaviour*” with regard to the market effects of demographic change. While some firms are able to adapt to a changing business environment very swiftly, based upon their learning capacity, flexibility, and leadership, and also because their existing business model allows them to do so, others will probably have to cope with an adaptation process which might be hard to achieve due to established business processes of the past. Thus, there is ample room for a small business economics perspective on the topic that incorporates entrepreneurial features and resource-based explanations, but also a policy perspective, which are linked with an economic geography framework of the regional economy, in particular a relational one.

3.2. Strategy-formation in response to demographic change?

In the light of the, to some extent, puzzling findings, another important focus of the thesis is concerned with investigating whether and, if so, why firms apply a strategic approach towards demographic change in regional markets (or not). Figure 6 illustrates that, when asked about whether firms think about, develop or actually apply strategies, less than 20 per cent of the firms included in the postal survey (2011) in Upper Frankonia, Bavaria, were actually applying strategies (see Leick, accepted). This finding can be interpreted as saying that, at that time when the investigation took place, the majority of the firms surveyed had not yet been ready for strategy-formation or even rejected the idea of building strategies in response to demographic change.

Figure 6: Strategy-formation: Preparation, active involvement and rejection



Source: Own illustration, based upon Leick, accepted.

By looking further into the attitude of firms towards strategy-formation in response to demographic change, there is evidence that the strategy-formation is influenced by the proactivity of the individual firm or its key persons in dealing with such issues. Table 5 suggests that proactive behaviour, coupled with the observation of any effects of demographic change

on the firm, be they positive, be they negative, actually drives firms to respond strategically. Indeed, the case analysis among firms in different regional settings (Saxony-Anhalt and Rhineland Palatinate) seems to confirm the importance of the individual characteristics of the firm-owner and its opportunity-seeking and proactive stance towards the changes in the market. More generally, two opposite patterns result from the narratives provided by interviewees (Leick, accepted):

- Some firms take a clearly strategic approach to tackle the complex challenges for their business in response to demographic change. The activities that their leaders perform are based upon the search for and collection of the relevant information, intensive market research, learning-by-doing approaches, and experimentation. Information management and a learning-based, opportunity-seeking mentality appear to be two important pillars of their strategy-formation (see Chen and Hambrick 1995; Jones 2004).
- By contrast, other firms show no clear-cut strategic outlook with regard to demographic change because they either downplay or even ignore the effects that they actually observe in the local markets. Their behaviour can be characterised as reactive strategy-formation or even non-strategic behaviour (Schindehutte and Morris 2001; Inkpen and Choudhury 1995), which targets short-term and operational problem-solving only, thereby ignoring not only long-term threats and challenges, but also opportunities. Some firms that exhibit such non-strategic behaviour state that they feel overwhelmed by the demographic outlook and its long range.

Table 5: Perceptions of demographic challenges and strategy-formation

		<i>Proactive dealing with demographic change?</i>	
		<i>Yes</i>	<i>No</i>
<i>Developing corporate strategies in response?</i>	<i>Yes</i>	30,2%	6,7%
	<i>No</i>	69,8%	93,3%
Chi square: 6,011, p<0,014, N=73			
<i>Applying specific corporate strategies in response?</i>	<i>Yes</i>	32,6%	6,7%
	<i>No</i>	67,5%	93,3%
Chi square: 6,922, p<0,009, N=73			

		<i>Perceptions of specific effects of demographic change on the firm-level?</i>	
		<i>Yes</i>	<i>No</i>
<i>Developing corporate strategies in response?</i>	<i>Yes</i>	28,6%	4,2%
	<i>No</i>	71,4%	95,8%
Chi square: 5,877, p<0,015, N=73			
<i>Applying specific corporate strategies in response?</i>	<i>Yes</i>	26,5%	12,5%
	<i>No</i>	73,5%	87,5%
Chi square: 1,853, not significant, N=73			

Source: Leick, accepted.

3.3. Adaptive strategy-formation of locally embedded firms: case studies

From the perspective of strategic management, demographic change can be considered as a context of market crisis and turbulence, which unfolds its complexity over time. Hence, adaptation to change in business environments characterised by demographic change can be considered as a task that requires both the monitoring of the changes, based upon information management, and flexibility and learning (Jones 2004; Ebben and Johnson 2005). This reflects the idea that firms build their strategies in order to sustain their competitiveness and stay in the market in a changing environment (De Smidt and Wever 1990, p. 11). However, it cannot be automatically assumed that demographic change pressurises firms into adopting a strategic repositioning according to the changes perceived. In this section, I try to reconcile the two opposite ideas about strategic adaptation of firms with regard to demographic change.

End-game strategies for demographic change? The rationale of the Porter-Harrigan strategic matrix for market decline

Starting off from Porter’s definition of competitive strategy as the long-term, intentional actions or action-patterns of firms (Porter 1996, p. 64), it can be argued that such strategies aim at achieving enduring or long-term competitive advantages in a market, even if the market changes (Johnson *et al.* 2008, p. 2). The concept of competitive strategies can be adapted for conditions of market decline, as Harrigan (1980, 1985) and Harrigan and Porter (1983) explain, based upon a simple strategic matrix (Table 6).

Table 6: Strategic matrix for market change and decline

	<i>Firm has relative competitive strengths</i>	<i>Firm has relative competitive weakness</i>
<i>Favourable industry structure for endgame</i>	Increase the investment or hold the investment level (leadership or niche)	Shrink selectively or harvest the investment (harvest or divest quickly)
<i>Unfavourable industry traits for endgame</i>	Shrink selectively or harvest the investment (niche or harvest)	Short-term market exist (divest quickly)

Adapted from Harrigan and Porter (1983).

In this conceptual model, demographic change is a source of market decline along with technological obsolescence and the rise of new consumer preferences. These so-called “*end-game environments*” are typically marked by high levels of uncertainty with regard to the current and future demand of consumers, a situation that Harrigan (1980, p. 1) refers to as the problem of “*coping with substantially less demand for the products of such a business ... where there is little hope for re-establishing consumption at its formerly high levels*”. Such environments can be found with industries that are experiencing a gradual, long-term decline of sales, for example, because new technologies are about to replace their products or services or due to a decline in the population. Demographic change differs from the danger of technological obsolescence and replacement because there is less danger of products and/or services being replaced by substitute goods (Porter 1998, p. 258). Hence, according to Porter (1998), in this context, there are market opportunities which are based upon this lack of substitute goods, in that the established firms producing the goods and services demanded can strive to stay in the market. However, as Harrigan (1980, p. 25) acknowledges, market changes caused by demographic change bring greater uncertainties than technological change with

regard to future market potential; thus, they increase the individual risk of the firm (see Leick and Ströhl 2013).

Porter (1998) and Harrigan also argue that a bundle of complex factors influences the strategic choice of firms in contexts of market decline, for example, the price-elasticity of demand and income, the existence of business collaborations and networks, an established brand or name, the switching costs for customers and their loyalty, and the opportunities to diversify existing business segments. For instance, in markets characterised by low price-sensitivity and strong customer loyalty, firms can probably defend their competitive advantage in spite of a declining market. Additional involvement in local supplier networks can also be supportive of achieving this goal. If, however, uncertainty about future demand and competition is fairly high, or if local customers are highly sensitive to price increases, given low switching costs, then the chances are high that firms will leave the market, rather than defend their former competitive positions.

Therefore, the basic model developed by Harrigan and Porter (1983) considers the nature of the market and the demand as well as the structure of the industry in question; it outweighs the firms' internal strengths and resources against external influences. Within this framework, Harrigan and Porter (1983) suggest different types of adaptive strategies (Table 6) in order to respond to market decline.

- A first response is that of adopting market leadership strategies, which aim to sustain the firm's competitiveness in the market, based upon enduring competitive advantages such as comparative cost advantages, patents, or a high reputation. Porter (1998, p. 267 ff.) distinguishes market leadership strategies from niche-market strategies. The former aim to increase investment in order to gain dominance and cost-efficiency, thereby turning into the market or industry leader. For example, market leadership in a declining market or market segment can be achieved by avoiding price competition, increasing the investment in a specific product or service (including marketing/promotion efforts) or taking over competitors, all of which serve to reap above-average profitability. By contrast, niche-market strategies refer to holding the level of investment in the short term and waiting for a market niche to be developed over time. Accessing niche markets is a related strategy for contexts when segments with predictably stable demands are likely to prevail in an overall declining market or when high returns are possible based upon the firm's competitive position and/or the industry structure.
- An opposite scenario can be found in market divestment strategies, which will generally be chosen if a firm wishes to exit a declining market in the short or longer run. This is the case when a firm does not perceive the potential of a market or market niche for growth or does not have sufficient competitive strengths in order to persevere in the market. Market divestment can take place as selective shrinking along with the market to re-position the firm in a changing market and harvest the investment; it can, however, also take the form of divestment as a quick exit from the shrinking market. Harvesting as a long-term and divestment as a short-term adaptive strategic response to declining markets can be considered as controlled disinvestment, for instance, by reducing the range and breadth of the products/services offered, focusing on large customers only, or cutting down on pre- or post-sales-services within a short or long period of time.

Although it is insightful, the model developed by Porter and Harrigan is based upon inductive empirical observations from industries in the US context back in the 1970s, which might, perhaps, no longer apply to firms that operate in a global marketplace, even locally-embedded

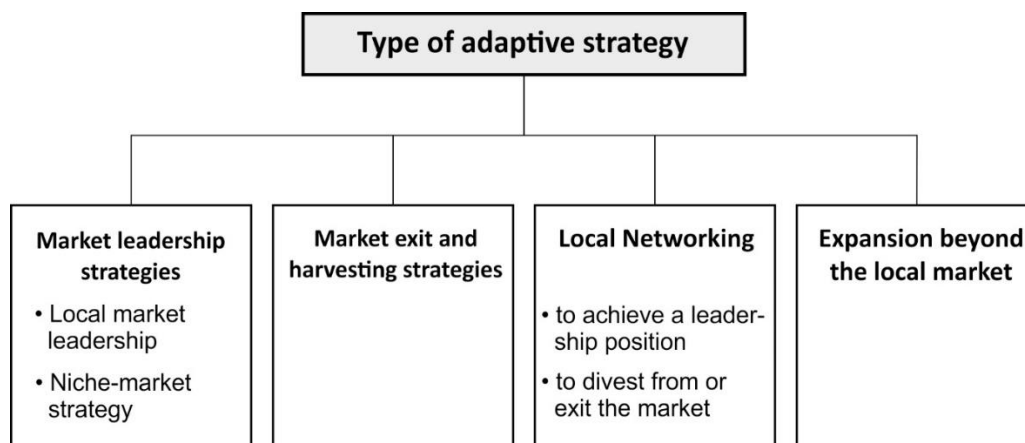
ones. It is, moreover, a prescriptive model that stands in the tradition of a once popular research strand in the strategic management literature in the 1980s and 1990s, which placed emphasis on the role of competition and industry traits (see Mintzberg *et al.* 2005). From an economic geography perspective, the model lacks an explicit mention of the role of location; in addition, it also misses some relevant variables from the business organisation such as firm size. In the present thesis, the model is, nevertheless, used as a point of departure for identifying and classifying different types of adaptive strategies in the context of regional demographic change.

Empirical evidence of end-game strategies for demographic change? An overview of empirical findings

Based upon the schematic options for strategies in declining markets derived from Harrigan (1980, 1985) and Harrigan and Porter (1983), I identify specific adaptive strategies for local markets that can be generally categorised as follows (Figure 7):

- Firms apply leadership strategies in order to remain a local-market leader in spite of declining numbers of customers, ageing consumers, and changes in their preferences, *etc.* Using such strategies, firms aim to sustain their strong position, or build and defend niches in an overall declining local market.
- By contrast, divestment strategies, *i.e.*, market exit strategies, are applied to a lesser extent, particularly strategies of quick divestment, and firms use this type of adaptive strategy either to shrink the firm size intelligently with the local market or even to leave it over time.
- In addition to these competitive strategies, which Harrigan and Porter (1983) describe, local networking and expansion to non-local markets are found as two complementary strategies, which typically accompany the adaptation through leadership or divestment strategies for local sales markets.

Figure 7: Overview of the adaptive strategies identified in the empirical fieldwork



Source: Jürgen Feilner, Cartography, Chair of Economic Geography of the University of Bayreuth

- *Market leadership strategies.* When applying adaptive strategies to sustain a leadership position in a local market, firms - both in the postal survey and the interview series - typically use product adaptation and product development in accordance with the specific wishes of elderly customers, as well as customisation and transformation of single products or services into service packages that include intensive consultation or additional services for elderly customers. In doing so, firms are enabled to diversify their product range. A repeated pattern found in the sample is that firms combine several strategies in order to sustain leadership. Product innovation takes place through the introduction of new products or services, the upgrading of established products through extra services, the use of strong brand names and logos, and/or the offering of a broader range of services, often in packages, through local business networks. Investments in promotional activities, events, or product/service development and service provision provide another example of such adaptive strategies. What these specific strategies have in common is that they reflect the wish to achieve leadership in local markets as the overarching competitive strategy.
- *Niche-market strategies:* In some cases (personal interviews), firms use adaptive strategies for niche markets and are then able to defy negative effects of regional demographic change at firm level. Cases include a local hairdresser who targets young people exclusively or a specialised travel agency acquiring both customers and employees extra-locally. In some rare cases, demographic change is even associated with a new, sustainable business model that strengthens a given specialisation of firms in specific niche markets because elderly customers represent a growing and, in the medium-term, stable target group, compared to young persons who tend to leave the demographically declining region.
- *Harvesting and divestment strategies.* When firms choose exit options, they gradually reduce part of the range of products/services that they previously offered to local customers, or stop serving branches located in the most disadvantaged areas of the home market. In other cases, firms focus exclusively on top-selling or high-return products. Some firms cannot give up local markets and compensate losses in local markets by expanding their non-local operations, because of legal or institutional restrictions (for example, regional banks, local real-estate corporations) and thus choose gradual divestment and harvesting as market exit strategies. However, these decisions are always integrated in a market leadership strategy to adapt to demographic change, a strategy which also encompasses customers in stable or growing niche markets (such as wealthy elderly consumers in the case of regional banks). In some cases, firms focus on specific segments of the market alone and exit from other market segments, but continue to offer their products/services as part of a local network of suppliers or a local supply-chain. Based upon this observation, local business networking is considered as another adaptive strategy, along with market expansion elsewhere (see, again, Figure 7).
- *Market expansion and local business networking as complementary strategies.* Business networking among local firms, particularly with customers and suppliers (vertical supply-chain) or potential competitors (horizontal co-operation), is another strategy for small businesses to adapt to demographic change. In some cases, firms establish a strategy that combines high-quality products/services, customisation and local business networking to differentiate themselves from local competitors that offer standard services only. By adopting network-based strategies, firms are able to focus on profitable niches, whilst keeping their range of products complete or even extending it in spite of market decline based upon network complementarities. Through such networks, firms can maintain full-package offers, but only specialise on those products or services with a sufficiently high

potential that allows them to sustain a market-leader position at home, thereby safeguarding long-term niche markets. Firms also use networks in order to shrink intelligently with the market by focusing on high-return products or services only in the local network and/or by shutting down specific branches. In addition, market expansion by selling outside the local market and/or exporting abroad is another strategy that accompanies adaptive strategies for local markets.

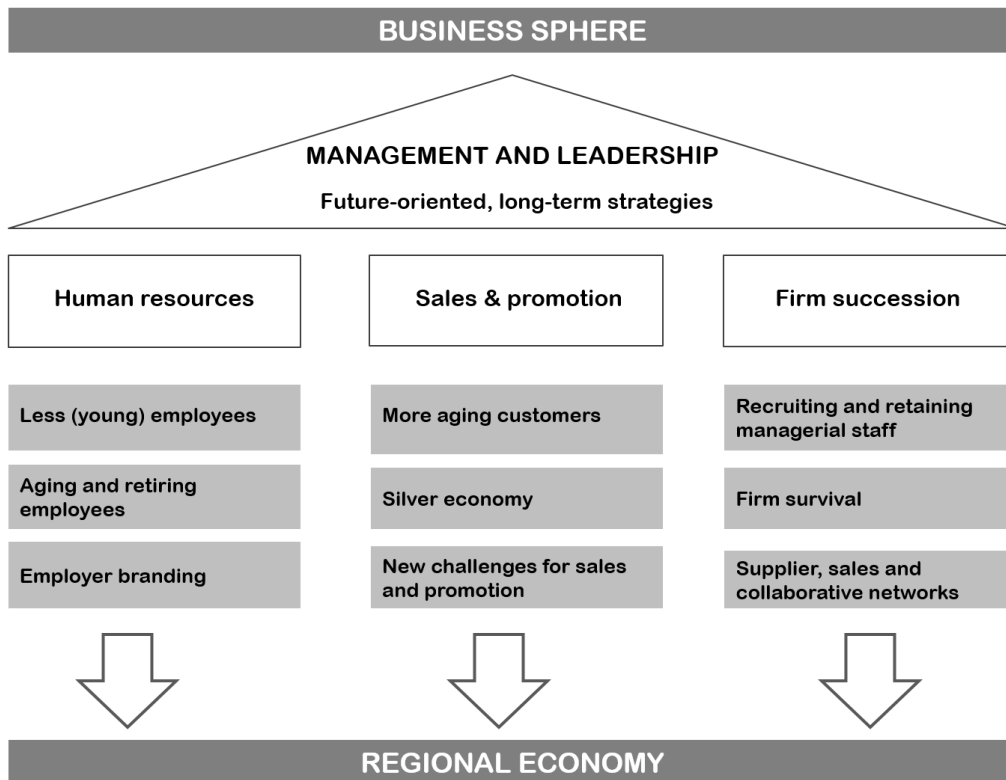
Although these patterns are quite obvious, industry- and firm-specific factors may play a role in determining which strategies firms adopt. Some strategic options, for example, market expansion, are not feasible for locally-bound firms, for example, firms facing high levels of transportation costs in the service sectors, or firms with legal or public mandates to serve local market areas. These firms are not able to offset decreasing sales in local markets by expanding both their operations and sales to other domestic or export markets. Smart adaptation to shrinkage is a necessity then, and not just an option for their strategic approach. However, given the small samples and with an overall exploratory, and thus qualitative, approach, this thesis did not seek to confirm such differences or quantify the importance of industry-specific and structural variables. However, particularly with regard to firm-specific components, it becomes clear that such factors should be addressed in follow-up research.

Summary and outlook

The empirical findings stress a process perspective on the strategy-formation of locally-embedded firms in response to demographic change. Perceptions of risks and opportunities for businesses due to demographic challenges are an important element in this process. Proactivity, in terms of a forward-looking, opportunity-seeking mentality, is another cornerstone for understanding the adaptive strategy-formation of firms in contexts marked by crisis or at least turbulence in the markets. Hence, the results seem to be in line with recent studies on the behavior of small firms in context of market turbulence or crisis, such as Lechner and Gudmundsson (2014), Saebi *et al.* (2016), and Soinenen *et al.* (2012). The findings, moreover, address the variety of adaptive strategies on different levers and in different forms. Among other things, short-term reactive responses, such as “*fire-fighting*” (Smart and Vertinsky 1984), can be differentiated from long-term strategic planning. One particular response can be found in non-strategic behaviour such as the negligence of demographic change (Inkpen and Choudhury 1995).

Moreover, the empirical results show the different levels within the business organisation and beyond in the regional economy, thereby illustrating the interconnectedness of locally-embedded firms and the regional economy in a context which is marked by change and, perhaps, also by long-term crisis. Figure 8 summarises this aspect by showing the inter-relation of the business perspective of managers and entrepreneurs with the regional dimension.

Figure 8: Demographic change: the business versus regional dimensions



Source: Adapted from Leick (2015), p. 15.

4. Demographic change and institutions in the regional economy

An institutional perspective offers complementary insights into the behaviour and practices of locally-embedded firms in the context of regional demographic change. According to North (1990), institutions are considered to represent various mechanisms that structure agents and their interaction. Institutions can be seen as the “*rules of the game*” (North 1990, p. 3), which refers to both formalised rules, such as laws, written regulations, *etc.*, and informal, but socially accepted and legitimised, behavioural patterns of behaviour (such as tradition, norms, moral viewpoints, *etc.*).

For instance, institutions govern the behaviour of economic agents such as key actors in business organisations. According to neo-institutionalist accounts, institutions have different functions (Wilkens *et al.* 2003). By lowering transaction costs and raising efficiency, institutions alleviate the search for relevant information and structure market-based as well as non-market-based interactions of these economic agents; among other things, institutions, according to this understanding, support co-operative behaviour on the part of individual actors, thereby steering, for instance, inter-actor relationships. Moreover, they provide incentives to opt for specific strategies according to cost and efficiency motives and respectively impose sanctions on actors (Ménard and Shirley 2008; MacKinnon *et al.* 2009). Following this line of thought, Amin (1999, p. 367) concludes that “*institutions provide stability in the real economic context of information asymmetry, market uncertainty and knowledge soundness, by restricting the field of possibilities available, garnering consensus and common understandings and guiding individual action*”. Thus, institutions are considered as stabilising mechanism in contexts of uncertainty because they govern economic agents.

A related understanding of institutions is to conceptualise them as the physical or organisational representations or carriers/bearers of the social patterns of behaviour and formal rules in a society (North 1991; Langlois and Robertson 1995). This understanding refers to groups or networks of individuals that incorporate and formally legitimate these rules or norms. Beyond the scope of the individual firm (Langlois and Robertson 1995), this definition addresses the carriers/bearers of institutional practices that are associated with firms and firm behaviour, such as political, economic, and educational bodies (for example, regional development agencies, business associations or chambers), to which the firms in a region are, at least to some degree, affiliated.

Starting off from the regional economy, the understanding of institutions and change in the institutionalised behaviour of firms in the present habilitation thesis is based upon the following assumptions:

- First, institutions govern economic agents and their behaviour in the context of change on different scales in a regional governance infrastructure, ranging from the local and regional to the national and supranational or international level. These levels might overlap, but the scope and scale of institutions in the context of regional demographic change might not necessarily be consistent with the activity sphere of locally-embedded firms. For example, enterprises with a predominantly local orientation might nevertheless interact with extra-regional institutions established at national level or upper-level. However, it is obvious to assume that locally-embedded firms such as small firms from craft industries or locally-bound service providers will mainly interact with regional institutions and the organisations representing these institutions in their local market and business environments.

- Second, organisations as the carriers/bearers of institutional settings on a regional scale are associated with these functions with regard to firms and their patterns of behaviour. It can then be argued, in a normative manner, that they are important in providing and maintaining these functions as stabilising mechanism especially in contexts of regional market transformations, as is the case for demographic change.

Thus, according to these arguments, different institutional settings on the regional scale and beyond support firms in the regional economy in their endeavours to cope with external change, but also delimit their scope of action or reaction (Wilkins *et al.* 2003). By addressing this general trade-off, this chapter will deal with the question of whether demographic change in the regional economy both influences and is influenced by the regional institutions. Its main focus will be the role and activities of agents that act as intermediaries between firms and the institutional settings. To this aim, the concept of institutional entrepreneurship will be used because it acknowledges that institutions are considered to be socially constructed and are, therefore, context-specific, but it also stresses the path-dependency of such institutions (Amin 1999).

To sum up, the notion of institutions will be associated with both the organisations as the carriers/bearers of institutional settings or institutionalised practices in the regional economy, and these practices of particularly locally-embedded firms themselves. Following Amin (1999) who argues that the behaviour of economic agents is embedded in or influenced by the social networks, the chapter also assumes that business networks play an important role for initiating institutional change, *i.e.*, changes in the established, and therefore institutionalised, practices of firms. Before looking into such agency-based channels to change in institutionalised patterns of behaviour of the firms, the next section first gives a brief and general overview of the importance and functions of regional institutions in the light of demographic change.

4.1. Local-regional institutions and organisations: (How) do they matter for firms and their adaption to demographic change?

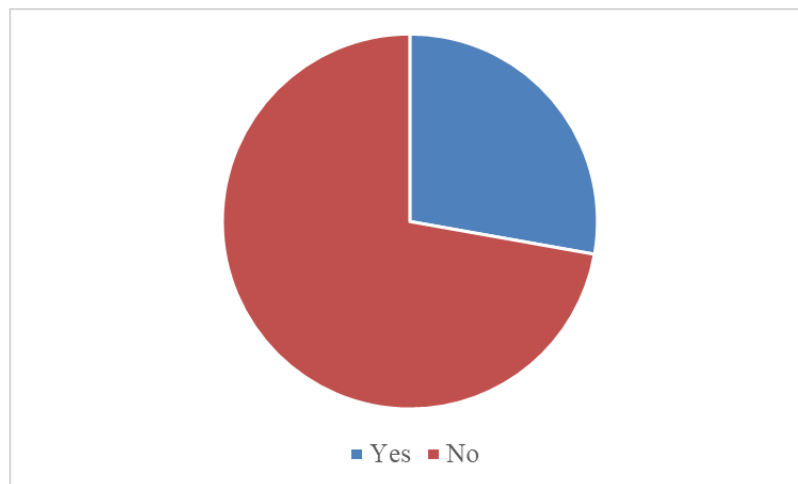
A first area of study in this section is concerned with the question of to what extent demographic change processes in regional economies influence the institutional settings and their architectures including the organisations. Especially in rural-peripheral or structurally-lagging regions, demographic change puts additional pressure on locally-operating firms to take changes in different action fields such as management, HR, sales and firm succession into account (Leick 2015; Leibert and Küpper 2015). These complex challenges that generate considerable uncertainty for individual firms can be considered as a lever for local-regional organisations to take action and complement supra-regional policy support schemes.

Selected empirical findings on the importance and change of institutions in the regional economy

In order to assess the importance of the support provided by regional organisations, *i.e.*, the carriers/bearers of the local institutional setting, firms in the postal survey (Upper Franconia) were asked about their knowledge of local organisations offering support to them with regard to the topic of demographic change. Only a share of less than 30 per cent of the interviewees (27.8 per cent, n=81) actually knew of such regional institutions that address demographic change and its effects in the regional economy in the region in question. This picture was replicated in the in-depth interviews in Upper Franconia (n=24) where most firms reported, in addition, that they do not use the institutional support provided by the regional organisations.

Some exceptions were firms with relations to actors in the municipality, regional chambers of commerce, or nationwide industry associations. Notably, locally-bound firms, *i.e.*, firms that have to operate within a distinct regional area, across different industries report that institutional support from local organisations is important for their adaptation to demographic change. However, thematically, this support almost exclusively focuses on labour-market issues, while many firms state that they are not even able to identify such support for the field of local sales/customer markets.

Figure 9: Knowledge of regional organisations as carriers/bearers of institutions in the context of demographic change? (n=79)



Source: Postal survey in Upper Franconia, 2011. N=79.

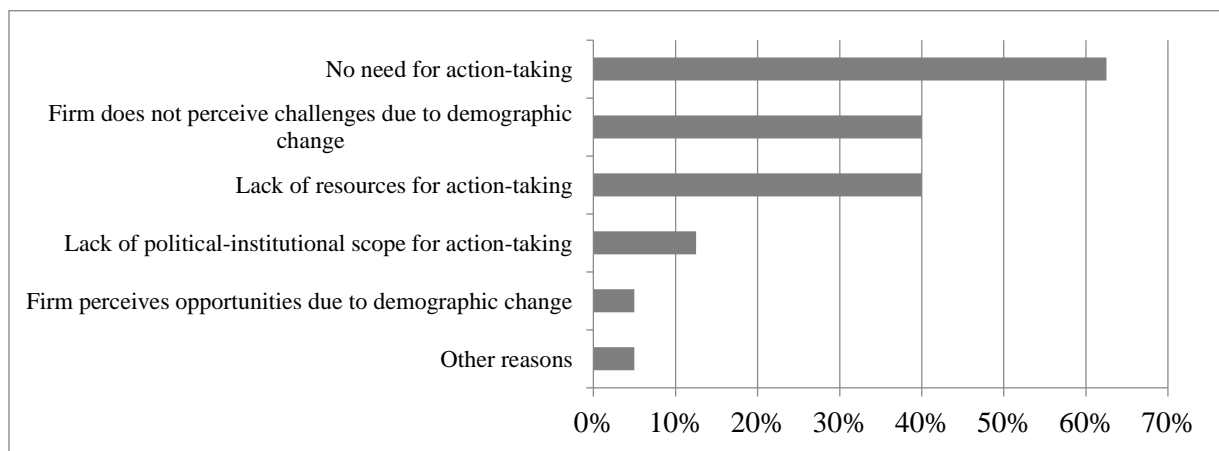
The in-depth interviews in Upper Franconia (n=24) provide further evidence of how firms perceive these local-regional institutional settings in the context of the demographic change in the region. Only a few interviewees from locally-embedded firms state that they observe an institutional thinning in their region. Instead, they emphasise that institutionalised support schemes, for instance, the provision of information, the availability of information sources or the opportunity of institutionalised access to regional networks through local organisations, are held at a constantly high level despite population decline and outmigration from the region.

If the interviewees from firms report change in these institutions, they underline that demographic change in the regional economy cannot typically be held accountable alone for a transformation of the local-regional institutions that is sometimes observed. Instead, these key informants stress that demographic change is coinciding or overlapping with other major trends affecting the region. In particular, some claim that regional policy, which leads to a stronger depletion of *per se* rural and peripheral areas in the process of demographic change, affects the region more than demographic change alone. This observation echoes the statement made by Bloom *et al.* (2010, p. 607) that it is policies rather than demographic change that is perceived as a problem (see, also, Matuschewski and Leick 2012). As points of departure, these respondents claim that some action is needed on the part of regional policy in order to improve the image of the region and to motivate external employees to move there. Altogether, such claims are associated with a policy dimension that critically looks at the role and effects of regional policy-making in the context of demographic change (see Leick and Lang, in press).

Institutions and firm adaptation: barriers or enablers?

Another area of study in the firm survey and interview series in Upper Frankonia was the role of institutional barriers or limitations in the context of demographic change. Figure 10 illustrates that institutional limitations as a lack of political-institutional scope for action-taking are one reason among others which explain why firms do not develop strategies to respond to the effects of demographic change on local markets. Based upon findings from the interview series, firms perceive a lack of scope for action-taking within their organisation and even barriers for adaptive strategies particularly in industries that are subject to public regulations, for example, in the utilities and infrastructure sector, where high fixed costs come into play, for both public or private enterprises taking on public tasks in the health and social sector. For instance, in the latter case, the key respondents state that, despite a growing demand for health and social care services, caused by population aging, manifold barriers including bureaucratic ones delimit a demand-driven growth in these sectors. These barriers are, however, typically not associated with regional institutional settings, but are rather located at national or federal level in the German legal and administrative system. Yet, for companies providing educational services that wish to expand their services beyond the region due to demographic change, differences in the educational laws of the federal states form an important barrier. In a long-term perspective, real-estate firms, in particular, see an important barrier to their adaptation in the practices of municipalities which provide too much space for new construction projects, which is in sharp contradicting to their declining population. Many interviewees also claim that, irrespective of the scale of their operations, the lack of policy support in the region is another barrier.

Figure 10: Strategy-formation: Why firms do not develop strategies



Source: Adapted from Leick, accepted. Postal survey in Upper Frankonia. N = 81.

Open questions: Agency and institutional change

Taken together, these selected findings about the perceptions and role of local-regional institutions from the perspective of firms that face demographic change highlight that institutional settings may influence firms in their approach to cope with demographic change, both as an enabling factor and a barrier. However, the evidence found is far too unspecific and leaves many questions unresolved. As it seems, the picture found gives no specific answer as to whether firms perceive institutional settings in the regional economy as being supportive with regard to their firm-level adaptation to demographic change, or as neutral, *i.e.*, not affecting their business activities in this respect, or even as detrimental. Hence, one open question among others is how institutional settings can be influenced and changed in order to enable locally-embedded firms to cope with demographic change better. The idea of moulding

the institutional setting is closely associated with the broader concept of institutional change, which, for example, Gertler (2010, p. 6) describes as “*the process by which new institutional forms come to be ‘layered’ upon older, pre-existing institutions, thereby setting in train a dynamic of path-dependent, locally distinctive institutional evolution*”.

Another open issue pertains to the channels through which this process can be achieved, particularly with regard to the bottom-up initiatives of local actors including representatives of locally-embedded firms. This question refers to the structure-agency dichotomy that underlies most institutional theories in the social sciences. It is, moreover, associated with governance schemes or models for contexts such as demographic change (see Hills and Hupe 2002, p. 41 ff. on this). Martin (2010) and Kalantaridis and Fletcher (2012) emphasise that influential actors or groups of actors may use such bottom-up channels to instigate change in the institutional settings. For example, Bathelt and Glückler (2014) and Battilana and Casciaro (2012) hint at the potential of such actors or groups of actors to overcome the inertia of existing institutions by using and establishing networks and power and pushing an agenda for change.

4.2. Institutional entrepreneurship: human agency and institutional change in the context of demographic challenges

In order to explore the latter topic in-depth, this section specifically addresses individual agents and their power to instigate change in the established institutionalised practices in the light of regional demographic change. From an organisational sociologist stance, market changes caused by demographics are conceptualised as conditions of turmoil or crisis which generate considerable uncertainty from the perspective of firms (Leick 2017b). By evolving as a complex, yet slow transformation of society and the economy, demographic change will put a strain on particularly small and locally-embedded firms that serve those gradually changing markets (see Jones 2004; Schindehutte and Morris 2001). In the thinking of organisational institutionalism, demographic change can be considered as a context in which the established practices of these firms may become contested and new practices may emerge in the light of changes in the market or industry or as a result of public policies (Maguire 2008).

Grounded in organisational sociology, firm practices are understood as the socially constructed and embedded systems of rules, norms and habits that economic actors use for their decision-making (see Hodgson 2007). Although this broad definition embraces both formal rules and informal, practised patterns, the understanding used in this section mainly refers to the collectively adopted (and therefore institutionalised), yet mostly informal, underlying rules that firms apply for their business decisions. For example, such established ways of operating refer to the existing recruiting strategies of firms or to their approach to develop local sales markets. In the context of market transformation, caused by demographic change, these practices are subject to change, for instance, through the involvement of influential individuals or groups that seek to advance that change (Kalantaridis and Fletscher 2012).

Against this background, this section looks into agents who work to change these firm practices in the context of demographic change in local markets. In order to study the activities or behaviour of these influential agents, the concept of institutional entrepreneurship is used (DiMaggio 1988; Hardy and Maguire 2008). Institutional entrepreneurship is associated with the characteristics and activities of individuals, firms, business or non-profit organisations or networks that are willing to exploit opportunities, thus acting entrepreneurially, and proving themselves capable of leveraging the necessary resources to modify established practices or of

introducing new ones to firms and getting them institutionalised (McCarthy 2012; Lounsbury and Crumley 2007).

Institutional entrepreneurs are described here as agents who stimulate both change in, and the renewal of, firm practices, thereby supporting enterprises in the process of adapting to demographic and market changes. Thus, this section presents a summary of a case study that shows how such agents influence small and locally-embedded firms in Germany, taking into consideration demographic change as a context of uncertainty and complexity from the perspective of these firms.

Introducing the concept of institutional entrepreneurship

Sociological institutionalism points out that institutionalised patterns of behaviour can be influenced, modified, and even renewed through the commitment and actions of powerful individuals and organised groups, for example, large corporations and political movements (see Martin 2000). In particular, contexts of change or crisis in markets and industries may induce such agents to seek a supportive institutional setting for the strategies that they apply or wish to apply. Hence, change in markets or industries is an important context for studying how firms and their institutionalised practices are challenged through the endeavours of such “*change agents*” (Battilana and Casciaro 2012; Cels *et al.* 2012).

DiMaggio (1988, p. 14) calls these agents “*institutional entrepreneurs*”, and describes them as “*organized actors with sufficient resources*” who “*see ... an opportunity to realize interests they value highly*”. Reflecting DiMaggio (1988), Beckert (1999, p. 781) emphasises that institutional entrepreneurs raise and command resources in order to influence the institutional setting according to their interests. In more conceptual terms, the concept of institutional entrepreneurship offers two points of departure (see Kalantaridis and Fletcher 2012; Bruton *et al.* 2010):

- First, it reflects the characteristics of an entrepreneurial person in terms of forward-looking and opportunity-seeking behaviour, but rests on a broader understanding of entrepreneurship beyond corporate entrepreneurship and new firm creation (see Hwang and Powell 2005).
- Second, the concept, which is embedded in institutional theory, focuses on power and legitimacy as two important elements of agents of change in established institutional settings (Maguire 2008; Garud *et al.* 2007; Hardy and Maguire 2008).

Hence, institutional entrepreneurship is associated with the behaviour and mechanisms of agents who are endowed with a vision to break with the prevailing institutionalised practices, on the one hand, whilst being equipped with the necessary resources, power and legitimacy to enact this break, on the other. Reaping opportunities and getting new, and potentially diverging, practices legitimised are other properties linked with institutional entrepreneurs (see, for example, Sotarauta and Pulkkinen 2011).

Who and what are institutional entrepreneurs?

Given that the concept can be applied to the actions of all kinds of individuals, organisations, networks, associations, social movements “*or even (policy) networks*” (Perkmann 2002, p. 124), the question is then who and what qualifies as an institutional entrepreneur. This question is important because “*not all actors working for change are institutional entrepreneurs*”, as

Sotarauta and Pulkkinen (2011, p. 100) state. To address this issue, this section provides a categorisation of institutional entrepreneurs, based upon a literature review (see Leick 2017b, pp. 4-6). Table 7 summarises the categories associated with the main behavioural features and actions of institutional entrepreneurs.

Table 7: Key characteristics of institutional entrepreneurs

Strategic outset	<ul style="list-style-type: none"> - Having self-interest as motivation to establish a specific institutional arrangement - Pursuing their strategy by using collaborative arrangements - Mobilising resources to achieve their goals - Recognising opportunities arising from the field they are working in or familiar with - Being endowed with a vision about a specific institutional setting - Using uncertainty or crisis in the field as stimulus to design problem-solving
Interpretative and network power	<ul style="list-style-type: none"> - Having the ability to convince others to collaborate and build networks - Being endowed with the power to forge alliances and create collective action - Giving others reason to join collaboration by creating meaning and offering alternative ways of problem-solving - Gaining legitimacy for the practices they wish to introduce
Political entrepreneur	<ul style="list-style-type: none"> - Accompanying and directing learning processes - Championing their own interests or the interests of the parties they are involved in - Exerting power through social skills, negotiation and communication - Building powerful coalitions to promote desired institutional features

Source: Based upon Leick (2017b), p. 5.

- With regard to strategic outset, institutional entrepreneurs are supposed to be strategically driven by their self-interests to establish a specific practice through strategies based upon resources (Leca *et al.* 2008). They envision change and recognise the opportunities arising from the institutional fields in which they are working or with which are familiar (Phillips and Tracey 2007, see Leick 2017b, p. 4, on the definition of fields). Hence, institutional entrepreneurs advance their own interests and fight for power positions by taking intentional and strategic actions (Sotarauta and Pulkkinen 2011, p. 101). Through the legitimisation and institutionalisation of novel practices in reward-promising fields, they build common ground among the groups that they want to influence (Maguire *et al.* 2004). Moreover, resource-mobilisation also belongs to this category of activities (Leca *et al.* 2008).
- Within the category described as interpretative-network power, it is assumed that institutional entrepreneurs are capable of mobilising resources and building alliances among the various stakeholders to promote change according to their interests. In addition, an important characteristic associated with institutional entrepreneurship is an actor's capacity to convince others to collaborate and help establish a specific practice (Dorado 2005). To this aim, institutional entrepreneurs forge networks in terms of new inter-actor relationships; moreover, they bring about collective action (Hardy and Maguire 2008).

They are convincing not only in that they give others reasons to co-operate, but also because they create meaning about the change and the practices that they favour in order to achieve it (Weik 2011, p. 486; Garud *et al.* 2007, p. 962 f.). Within the interpretative capacities, institutional entrepreneurs are considered to be able to call into question the prevailing, and often taken-for-granted, approaches and offer alternative meanings or interpretations (Leca *et al.* 2008; Sotaurauta and Pulkkinen 2011, Battilana and Casciaro 2012).

- In addition, institutional entrepreneurs are described as being policy-driven (Hwang and Powell 2005; Perkmann 2002) in that they apply political strategies, “*choreographing and directing learning processes*” (Sotaurauta and Pulkkinen 2011, p. 103). This capacity refers to the social skills of agents who promote their own interests or the interests of parties to whom they are aligned. They achieve this through a process of communication discourse-building and negotiation (Hardy and Maguire 2008; Battilana and Casciaro 2012). Bruton *et al.* (2010) emphasise that this takes place as a genuinely social process of communication, negotiation and interaction.

Institutional entrepreneurship to facilitate the renewal of firm practices against demographic change: a conceptual model from a process perspective

In line with publications such as Dorado (2005) and Greenwood *et al.* (2002), I argue in this section that, in complex configurations with high uncertainty (such as contemporary demographic change), agents of change can make sense of the complexity of the social-economic problems faced by firms and, moreover, can disseminate fresh ideas, information or knowledge about how to solve these problems. Therefore, institutional entrepreneurship can be considered as a process in which the activities conducted by institutional entrepreneurs influence firms in their established practices, for example, hiring practices and approaches for local sales markets, *etc.*, towards adopting different ones.

Figure 10 outlines the idea of the process of institutional entrepreneurship as a model. From this process perspective, the triggers constitute a first step towards activating institutional entrepreneurs. DiMaggio (1988) points to uncertainty, but also to the problems, tensions and contradictions associated with established institutionalised practices as potential triggers. Indeed, demographic change is clearly a context that is marked by uncertainty about the future, and the long-term, development of markets; there are no fixed scripts available for firms, which prescribe or give orientation about how they should prepare for or respond to the observed or expected market transformations. Uncertainty arises then because firms find it hard to assess the probable outcomes of their choices and establish appropriate “*recipes*” for coping with uncertainty (see Beckert 1999, p. 779; see, also, Leick 2017b, p. 7).

Another related trigger, in the parlance of organisational sociology, might be the tensions and contradictions in association with changing markets caused by demographic change. Such triggers could lie in the rising shortages of labour and the resulting difficulties to hire employees, for example. Here, due to the overall youth-centric approach (Thompson and Thompson 2009), firm strategies might face important limitations and become challenged, for example, with regard to their recruiting and training practices (see Thun *et al.* 2007). In a similar vein, the fact that there are no established, and collectively legitimised, practices for certain aspects of local demographic change in society and the economy can be regarded as another trigger for institutional entrepreneurship. This is the case for the newly emerging discourse on age-friendliness or the important demand of elderly consumers, which is very heterogeneous in nature (see Kohlbacher and Herstatt 2011). In the latter case, the strategies of firms to absorb

this demand and/or to integrate the newly emerging trend will most probably be based upon established patterns of action that need to be renewed accordingly.

Several authors hint at sense-making as another important element in the process of institutional entrepreneurship (Dorado 2005; Zilber 2007). Sense-making is associated with the creation of meaning through narratives, discourses and frameworks (Sandberg and Tsoukas 2015; Maitlis and Christianson 2014); it also requires persuasion (Zilber 2007; Maguire 2008). Through sense-making about demographic change and the creation of meaning, institutional entrepreneurs can support firms to identify and frame the main challenges or problems (Greenwood *et al.* 2002). These activities associated with institutional entrepreneurship are particularly relevant for small firms that face difficulties in extrapolating hands-on strategies out of the complex and uncertain market transformations or lack the necessary resources.

In addition, institutional entrepreneurs can facilitate the diffusion of novel ideas and disseminate information about alternative practices (Greenwood *et al.* 2002). In particular, the dissemination of knowledge can result in new specifications of an existing practice or the introduction of a standard (Garud *et al.* 2002; Casile and Davis-Blake 2002), certification (Leca *et al.* 2008), or local innovations (Sotarauta and Pulkkinen 2011) as potential outcomes of the institutionalisation efforts of institutional entrepreneurs.

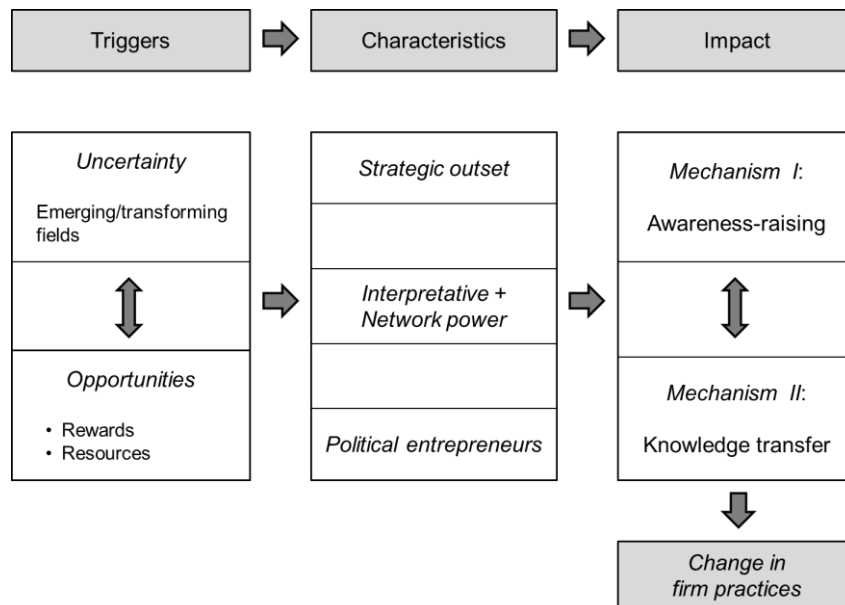
How do institutional entrepreneurs promote change in the prevailing firm practices in the context of demographic change?

Based upon a case study analysis of four initiatives that have been selected and classified as institutional entrepreneurship (see Table 8 and Leick 2017b for details on the research approach and design as well as on the selection of case studies), the behaviour and actions of the leaders associated with the initiatives are characterised according to the findings from the literature review. The initiatives are located across Germany (Table 8, Map 1, see, also, Leick 2017b). Figure 11 summarises the overarching findings from the case study analysis.

Table 8: Key features of the case initiatives portrayed in Leick (2017b)

<i>Case initiative</i>	<i>Founding year</i>	<i>Main topics addressed concerning firms and demographic change</i>	<i>Scale & target groups</i>
“Demography Network Thuringia”	2006	Labour shortages, recruiting and training	Firms from the social and health sector, high-technology firms Thuringia, East Germany
“Age-friendly local government Magdeburg”	2011	Ageing residents and consumers, age-friendliness of the local administration	Public employer, employees and executives in the local administration and related bodies (real estate firms, associations for elderly residents) Saxony-Anhalt, East Germany
Private business consultant (anonymous)	2000	Business consulting on demography (HR planning, investment decisions, health prevention for ageing employees, recruiting)	Small industrial firms Bavaria, West Germany
“HOGA Recruiting Initiative”	2012	Labour shortages, recruitment and retention, training, employer branding	Small firms in the tourism sector, Saxony-Anhalt, East Germany

Figure 11: The road to change in the practices of firms through institutional entrepreneurs in the context of demographic change: A conceptual model



Source: Own illustration based upon Leick (2017b).

- The case analysis indeed stresses that uncertainty triggers institutional entrepreneurship in the context of demographic change. It arises from transforming local markets because the mainstream firms are being challenged and their models are being contested, as the new needs of employees and/or consumers emerge or problems occur due to lack of structure or meaning about the newly-emerging topics, such as age-friendliness.
- Reward-seeking agents seek and find opportunities in such configurations because discourses about specific facets of demographic change are missing or incomplete, unclear, flawed or controversial. This is evident for the challenge of lack of skilled labour caused by local shortages in labour markets. Here, firms face uncertainty in terms of “*what to do exactly*” and “*how to do this*”. Often, there is also a lack of awareness of the necessity to take action.
- However, the institutional entrepreneurs portrayed in Leick (2017b) do not work out of a sense of altruism, but expect rewards. Rewards can be tangible assets such as financial remuneration, or intangible because the institutional entrepreneurs can gain power and legitimacy. Such intangible rewards may also pertain to windows of opportunities opening up to the entrepreneurial agents who can act as a first mover. Gaining reputation and dissemination across wider circles are other examples of such rewards.
- The case analysis also illustrates the strategic outset of the institutional entrepreneurs, which is associated with a vision about a specific setting of the regional economy. The institutional entrepreneurs clearly wish to achieve such a setting that enables firms and industries to cope with local demographic change. Out of this vision, they devise strategies and forge coalitions, actions which are related to their leadership approach.
- Building alliances and networks is, indeed, an important activity in this context. The institutional entrepreneurs, moreover, communicate and negotiate within these coalitions

and particularly with the firms that they wish to influence. Using their discursive and interpretative power, they create meaning about new and/or alternative interpretations of local market change, for example, the newly-emerging topic of age-friendliness or alternative management approaches that explicitly internalise demographic challenges.

- In particular, the institutional entrepreneurs visualise and make firm experience “*what*” could happen and “*what to do*” when it happens. To this aim, they establish a link between the well-known demographic trends and statistical indicators and the firm-specific practices. Thereby, they address the uncertainty associated with markets under transformation and make sense of the new practices that they favour.
- Besides raising awareness, which is linked to sensemaking and framing, institutional entrepreneurs also transfer fresh ideas about existing problems and disseminate knowledge about alternative ways of problem-solving to the firms. They systematically establish and deploy knowledge bases as powerful resources to achieve this. Based upon communication, information exchange and negotiation, they accompany and even steer learning processes with firms, thereby influencing their behaviour. Knowledge transfers can take place in formalised ways, referring to codified knowledge, but also more implicitly, involving tacit knowledge.
- The case analysis finally elaborates two related channels through which institutional entrepreneurship influences small, locally-embedded firms in the context of demographic change. First, raising awareness in terms of increasing the firms’ sensitivity towards demographic challenges and their effects on the local economy is an important channel through which institutional entrepreneurship unfolds. Indeed, as the key informants report, many firms have indeed increased their awareness of the specific issues which the institutional entrepreneurs promote, which is, however, subject to the agenda and own interests of the latter party. Second, knowledge transfers, with information and knowledge flowing from the institutional entrepreneurs to the firms, is another important mechanism.

Reflection of the case findings and further outlook

The study reveals how influential actors, groups of actors, and networks interact with firms in order to produce an impact on their institutionalised practices to cope with local demographic change. Informed by theoretical insights into the concept of institutional entrepreneurship (DiMaggio 1988; Hardy and Maguire 2008), the study elaborates the triggers for institutional entrepreneurs to become active, their characteristics, and the channels through which they strive to influence firm practices. In doing so, the study describes how institutional entrepreneurs work for change in the context of local market transformations caused by demographic change.

These findings can be linked, at least to some extent, to the previous findings in Chapter 3 about the strategic *versus* non-strategic approach of firms because institutional entrepreneurs act as intermediaries between firms and the complex, uncertain, slowly changing local business environment. Among other things, by using sense-making and transferring knowledge to the firms, such agents can make firms adopt a strategic stance towards demographic change.

In spite of these findings, which contribute to the empirical literature on institutional entrepreneurship (for example, Hung and Whittington 2011; Matthyssens et al. 2013; Sotarauta and Mustikkamäki 2015), and agent-based leadership in regional governance (Sotarauta 2009; Burdack et al. 2013; Harmaakorpi and Niukkanen 2007), the study, however, leaves some

important questions open that can be considered as future research avenues (see, for example, Leick and Gretzinger 2017a):

- How can the trade-offs inherent of institutional entrepreneurs (with their own agenda and interests *versus* the goals that is aligned to a public good) be addressed? The institutional entrepreneurs portrayed clearly act strategically, based upon their capacities and resources, and wish to promote their agendas and gain network power. However, because of these characteristics, opportunism might play an important role. A related question is then the role and the effects of opportunistic behaviour of such agents in the process of institutional entrepreneurship and how it could be prevented. Notably, from a regional perspective, self-interest and opportunism might hinder collaboration and networking, which can be considered as a public good, because inter-firm collaboration aims to transfer knowledge or increase the awareness of firms in the context of demographic change. Hence, regional governance issues come into play when thinking about these trade-offs and how to address them.
- A related question is thus how institutional entrepreneurs can be integrated in a governance structure consisting of various actors and programmes, notably, public policy programmes. As the study addresses the potential of such agents from outside the mainstream organisations to turn into promoters of change and enhance both enterprise and local development, policy-makers should make use of institutional entrepreneurs and make them complement or update the variety of tools and assistance provided by the established organisations including policy-makers (such as chambers of commerce, business development agencies, regional management organisations, business and industry associations, *etc.*). This question thus refers to ideas of how to combine, or even reconcile, existing top-down programmes with bottom-up initiatives that qualify as institutional entrepreneurship, embedded in a multi-level governance scheme.

5. Concluding comments and outlook

The aim of this habilitation thesis is to explore the inter-relationship of firms and institutions in the context of regional economies that are marked by demographic change. Hence, the thesis is based upon the assumption that demographic change represents a locally distinctive process of profound market transformations in variegated scales and temporalities, which implies a locally distinctive potential for adaptation for individual actors or groups of actors (for example, for firms and business organisations, see Kunisch *et al.* 2011), or networks and institutions in the sense of the institutionalised practices of local actors.

5.1. Giving answers to the research gaps on demographic change

By applying such a micro-level perspective on regional economic demographic change, the habilitation thesis addresses three different research gaps and gives at least some answers to them:

Research gap 1: Conceptualisation of demographic change

With regard to the conceptualisation of demographic change, the thesis elaborates and advocates the need to include a narrative and discursive perspective in the existing debates and discussions on demographic change (Leick and Glorius 2017). Such approaches are necessary in order to overcome the predominantly negative connotations associated with demographic change; they moreover support new conceptual ideas which go beyond the growth-based thinking in economics, regional policy and planning (Leick and Lang, in press; Matuschewski *et al.* 2017). More generally, the present thesis adds at least some elements to the rather under-conceptualised understandings of demographic change and its effects in the regional economy. By using a more nuanced, and conceptually grounded, understanding of these phenomena that relates to a human geography/regional development perspective, I argue that demographic change can be understood as a process that leaves space to individuals, organised groups and local policy-makers to think about locally-distinct coping strategies, which rely on different, perhaps more neutral, ascriptions. Therefore, the present habilitation thesis not only reflects upon the established paradigms underlying the contemporary debates, but also paves the way for thinking about alternative ones.

Research gap 2: Understanding transmission mechanisms on the micro-spatial level

Moreover, the thesis takes a closer, and conceptually grounded, look at the business perspective on demographic change in the regional economy. I argue that the inclusion of such a perspective is important in order to understand how locally-embedded firms - which often form the backbone of their regional economy - perceive and respond to demographic change. Based upon this core claim, I acknowledge that important elements of this perspective with regard to firms and their behavioural patterns against long-term market change have not been thoroughly explored, either in business/management studies or in the strands of economic geography which focus on enterprises (such as the “*geography of the enterprise*”; see Dicken and Malmberg 2001; Taylor and Asheim 2001; Beugelsdijk *et al.* 2010; or Schoenberger 1997).

Hence, this habilitation thesis gives some answers to the question of whether firms can survive and maintain their competitive advantages against changing markets and business environments. It specifically explores the strategic approach of locally-embedded firms, highlighting the variety of responses including “*non-strategy*” as a distinct approach to cope

with these issues. The answers given in this thesis endeavour to complement the existing literature on the topic by highlighting how firms are able to cope with the complexity and uncertainty attached to the long-term process of regional demographic change. The findings presented, in general, also confirm the suitability of a relational approach because they point to the competencies and resources of firms, which are associated with their local-social embeddedness in their operations and relationships in the regional economy. In order to describe firm behaviour in this context from a micro-spatial point of departure, as was one aim of the present thesis, the regional perspective needs to be fed with conceptual models from the management and business studies.

Research gap 3: Understanding institutionalised practices in the context of localised demographic change

Finally, the present thesis addresses the role of institutionalised practices, a type or form of institution in regional economies, in the context of firms and their adaptation to demographic change. As such, institutional change is an important concept, which becomes relevant for studying firms and their coping strategies vis-à-vis demographic change as a slowly evolving, path-dependent process of change. The thesis specifically focuses on institutionalised practices and elaborates how they can be changed through institutional entrepreneurs, *i.e.*, local agents with capacities and skills to build alliances and steer change. From a relational perspective, this agency-based perspective on institutions and institutional change can be helpful to explain how the social capital available in the region through the relations of firms and actors (Putnam 2000, Coleman 1998) and the organisations representing these networks interact in relation to shifting business environments. While it seems obvious that changes in markets and business environments induce changes in these networks and organisations, altering them from below in order to instigate change in the institutional settings is a topic that has been rather under-explored for demographic change. Hence, this thesis stresses the relevance of such bottom-up approaches for regional economies, or more generally, the field of regional studies by using and adapting the concept of institutional entrepreneurship to the perspective of locally-embedded firms (Leick 2017b).

5.2. Outlook and future research avenues

The articles that have been collected in the present habilitation thesis cover different thematic areas and thus aim to provide answers to various related questions with regard to the topic of the thesis. Based upon the insights drawn from these articles, I describe three potential research avenues in this section, which can be considered as future or follow-up research of the habilitation project.

The “geography of the enterprise” as a conceptual point of departure for understanding external crisis in the regional economy

Finding an adequate theory on firms in local business environments has been challenging in the process of both conceptualising and practically conducting this research. The topic of locally-embedded firms cannot be understood by using exclusively some relevant concepts and models from the business and management literature. In a similar vein, adopting an economic geography perspective for micro-level phenomena exclusively can also bear risks. As a matter-of-fact, most theories in economic geography explicitly or implicitly work with the regional scale, which might not perfectly fit a micro-spatial perspective of firms or the individual firm that is embedded in the regional economy. This argument is substantiated, for instance, by

Beugelsdijk (2007), who stresses the need to distinguish empirical findings and policy recommendations according to these two layers in order not to arrive at false claims.

Thus, the topic which the present habilitation explores, is neither addressed in the business and management studies for demographic change, nor in most contemporary approaches to economic geography. Notwithstanding this observation, the early attempts to theorise about a “*geography of the firm*” or a “*geography of the enterprise*” offer ample scope for thinking anew about conceptualisations of firms in regional economies (De Smidt and Wever 1990; Taylor and Asheim 2001; Dicken and Malmberg 2001; Maskell 2001; Beugelsdijk *et al.* 2010), in particular in context of change and transformation of the economy. Nowadays, demographic change is not the only external challenge, but represents one trend among many others in the local and global market environments. The recent global financial and economic crisis has shown that global configurations can prove to be instable, leading to shock-like market crisis and implying long-term changes in economies all over the world (Faruquee *et al.* 2010; Papadopoulos 2016).

Thus, revisiting the role of firms in regional economies in line with the ideas stressed by the early “*business geographers*”, as mentioned above, could be a new approach for economic geography to provide nuanced, *viz.*, firm-centric, yet locally-distinctive answers to contemporary challenges in the global world. This perspective could be aligned to established concepts, for example, the embeddedness of firms (Granovetter 1985; Hess 2004) and a relational understanding of the regional economy (Sunley 2008; Bathelt and Glückler 2003).

Agents and institutional change in regional studies

Another potential research direction is the relationship between agency and institutional change in the regional economy. Recent literature such as Sotarauta and Mustikkamäki (2015), Hung and Whittington (2011), or Bathelt and Glückler (2014), emphasise the importance of agency as the promoters or facilitators of institutional change in industries, clusters, or regions. This research strand offers much scope, particularly for looking into the mechanisms of such agents by taking into consideration the inherent trade-offs that originate from their roles or positions, and the extent to which such agents enhance social capital. Therefore, the mechanisms that local “*change agents*” (Cels *et al.* 2012) apply to change the institutional setting in regional economies may prove to be a promising field of inquiry which could offer cross-fertilisation with established, micro-level concepts, for example, “*brokerage*” and “*closure*” for networks (Burt 2005), or “*bonding*” and “*bridging*” mechanisms to enhance social capital (Putnam 2000; Anderson and Jack 2002).

This social capital perspective might also be interesting from a governance perspective. Local agents can be relevant as intermediaries between different groups from the business community, civic society, or politicians, when they act as network facilitators and bridge-builders, crossing scales and groups. By juggling with “*bonding*” and “*bridging*” activities, bridge-builders can enhance the locally-embedded social capital, using their opportunity-seeking, proactive stance to build or transform networks (see Leick and Gretzinger 2017a). It will be important to explore such actors and the mechanisms that they use in order to support the local business community in its endeavours to cope with the contemporary challenges in local and global markets (Gretzinger and Leick 2017). Follow-up research to this thesis could make a contribution to this emerging field in economic geography (Sotarauta 2017; Bathelt and Glückler 2014) and beyond (Bjerregaard and Lauring 2012, Dufays and Huybrechts 2014).

Re-thinking demographic change in a broader context

Finally, a third promising research avenue is the conceptualisation of demographic change within a broader framework that includes debates about social and economic marginalisation, spatial and a-spatial (for instance, political and discursive) peripheralisation (Kühn 2013; Copus 2001), or stigmatisation (Meyer *et al.* 2016). Nowadays, local and regional development is no longer automatically marked by the continuation and replication of economic and population growth; instead, regional polarisation and heterogenisation are ubiquitous phenomena that increasingly overlay political efforts for convergence between regions (Hajdimichalis and Hudson, 2014; Ezcurra *et al.* 2007). The concept of “*non-core regions*” offers some promising points of departure for this avenue, particularly from a social constructivist perspective that takes the various economic, social and demographic dilemmas into account (Leick and Lang, in press).

Such an approach to re-thinking planning can incorporate new ideas about local assets and resources, the role of agency in contested top-down policy approaches, the functions of representations and manifestations of local challenges, and the variegatedness of policy-making in the light of the persistence of dichotomous categories. By arguing that dichotomous categories such as the core *versus* the periphery are normative interpretations, rather than fixed understandings, future research could look into the symbolism and production of spatial categories outside the mainstream, *i.e.*, growth-based and orthodox, approaches, and by keeping the social constructivist dimension in the mind. Governance issues might come into play again when it comes to thinking about new governance schemes for non-core regions and how local initiatives can be reconciled with top-down programme requirements (Leick and Lang, in press).

More specifically, in the paper written with Thilo Lang, which is currently in press with the journal “*European Planning Studies*” and that is the editorial of the special issue with the title “*Re-thinking non-core regions: planning strategies and practices beyond growth*”, I argue why conceptualising non-core regions for regional planning practice and theory can be an important field of research for several reasons:

- First, I acknowledge that the term “*non-core regions*” constitutes and reflects an established representation in itself, rather than being neutral. By emphasising the capacities of non-core regions such as the resourcefulness and pro-activeness of their actors, instead of showing their deficiencies relative to the other category (*i.e.*, the “*central*” and “*core*”, for example), it is possible to shape and change these representations. In turn, these representations might work towards neutralising the negative connotations, as opposed to the positivist view on the “*core*”, as the dominant powerhouses of economic activities. Thus, such alternative ideas pertain, for example, to the power of individual and collective action (social entrepreneurship and innovation, institutional entrepreneurs and powerful local “*change agents*”, amenity-based concepts, *etc.*). Strongly embedded local actors from business communities and civic society can be important carriers/bearers of new representations, which can overcome the negative images of the “*rural*”, “*peripheral*” or “*remote*” area in relation to economically flourishing regions. Such agents may turn into important facilitators or promoters of change, in particular, institutional change by reflecting on and adapting the established discourses and narratives in relation to the existing categorisations.

- Second, I propose that the ideological fix on growth-based thinking (Haapanen and Tapio, 2016) should not dominate local policy-making, despite the acknowledgement that the global world of today is uncontestedly shaped by capitalist economics and politics. Nevertheless, at local level, the capitalist paradigm and its limitations should be - at least - critically reflected upon or be amended by social and cultural values (for example, well-being as a qualitative value, see Pike *et al.* 2016). Social capital can *per se* be regarded as a resource that offers interfaces to and pipelines between different local and non-local communities (business community and firms, civic actors, politicians, non-governmental representatives, *etc.*). However, the social and cultural dimension of local resources can be less visibly materialised in the lifestyle preferences, the regional mentality or identity, and the speeches, discourses or narratives (see Meyer *et al.* 2016; Wiest 2016).
- Third, when it comes to mobilising alternative ideas in local, regional, as well as overarching national, international or supra-national policy schemes, planning practitioners and local policy-makers will face multiple challenges, which, at the same time, offer much scope for institutional learning. Sometimes building coalitions to support development ideas that are alternative to mainstream ones through the initiatives of local actors takes time and thus needs a long-term perspective; in other cases, in contrast, it is the openness of regional, national or transnational frameworks and funding schemes that needs to be recognised as an opportunity which allows for new approaches to be tested and contested. In this context, the introduction of new governance approaches, sometimes with fuzzy boundaries and involving alternative coalitions which cross traditional, *i.e.*, sectoral as well as territorial, boundaries, can help to put alternative ideas into practice and slowly change or supplement institutionalised planning cultures.

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