Chapter 6.

Conclusions and discussion
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This thesis has examined the role of entrepreneurship in areas that are undergoing demographic changes, specifically population decline and population ageing, as well as with different population densities. With a combination of different data and different methods, we have studied the reciprocal relationship between the regional context and entrepreneurship. In this Chapter we discuss the main findings to the research questions and aims formulated in the introduction and throughout the thesis. The limitations of the data and methods are discussed, followed by policy recommendations and suggestions for future research.

6.1 Entrepreneurship is resilient to population decline

It is clear that fewer people will eventually lead to fewer new firms, but this does not mean the relationship is linear. Population decline occurs in different types of regional context, and this can also lead to different outcomes. We therefore studied how population change impacts the level of entrepreneurship in different regional contexts (Chapter 2). The central question was to see whether the relationship between start-ups and population change differed with different rates of population change and across regional contexts. We find that population decline can have a negative impact in the case of mild population decline, but that areas experiencing stronger population decline show relatively high start-up rates.

We used the eclectic framework by Verheul et al. (2001) to formulate our hypothesis. In theory, population growth creates an increase both on the demand side and on the supply side. The theory of branching and self-feeding growth hypothesized by Frenken and Boschma (2007) explains how population change can potentially have an additional effect on new business creation when the change is more intense. According to this evolutionary perspective, growth is self-feeding: the more variety, the higher the probability that new varieties can be created through recombining old routines. The positive impact of growth will be lacking in declining regions. The effect of growth on start-up rates was thus expected to be positive.
The effects of population change on new business creation differ markedly and systematically depending on the context they occur in and the intensity of the population change. Regions facing declining populations exhibit lower start-up rates but, rather surprisingly, the role of population growth in new business creation appears limited. This implies that the relationship between population change and new business creation is primarily determined by the depressing effect of decline and not by the positive effects of growth. The regression outcomes further showed that population decline did result in the expected negative impact on new business creation, but only for mild, not strong, decline. This indicates that population decline, despite adverse economic effects, can also offer opportunities for new business creation. At the very least it suggests that a certain minimum level of entrepreneurship is sustained in such areas.

With the insights gained on the regional level, we changed our perspective to the individual level and asked new business owners how the regional context affected them during their decision making process throughout the start-up of their business (Chapter 3). Population decline and ageing are closely connected. On a national or even European level the ageing population increasingly poses a challenge with predictions of a decline in the workforce by 2030 to the level at which two workers are providing for one non-worker. Rationally and theoretically, location decisions taken by firms would include an assessment of regional conditions and developments. We found, however, that population decline and ageing does not have a negative effect on new business creation per se, which raised the question: why do people choose to start their firm in a regional context of strong ageing and how does this context influence their decision making and ambitions throughout the start-up process?

The start-up process is made up of push and pull factors; most likely a combination of several factors such as a lack of employment opportunities, lifestyle choice, financial motives or a need for independence. Based on the literature, push effects were expected to be greater under less favourable conditions impaired by population decline. Motivation, however, comes hardly ever solely out of necessity. We established that the small business owner feels unaffected by the declining workforce and the ageing population and does not act upon these developments, which is in line with our findings in Chapter 2. While population decline and ageing turned out to have a rather small impact on new business creation or motivation, we find strong evidence that the degree of urbanization is highly significant, and this is dealt with in the next section.

6.2 The context mediates the effects
Theoretically, agglomeration has a positive impact on the rate of new business creation (Armington and Acs, 2002; Audretsch and Fritsch, 1994; Bosma et al., 2008), but the
relationship between urban and rural regions in the Netherlands is exceptional within Europe. Peripheral regions are connected through a dense infrastructural network, providing inhabitants with a fairly easy link to the urban centres. Rural regions in the Netherlands are therefore more connected to urban areas as reflected, for instance, by increased commuting between these regions (OECD, 2008). The countryside in the Netherlands is different, with no predominantly rural regions according to the OECD. There are, however, many different countrysides. Rural areas are distinguished by different landscapes and natural environments, but also by their proximity to urban centres and relative isolation (Woods, 2006). The two case study regions in Chapter 3 and 5 were selected to study this difference between the rural in the Netherlands and the rural in more traditional terms. We will return to the - lack of - difference in perception of these two regions in section 6.5.

Our results clearly indicated the importance of the regional context in terms of urbanization: the relation between the start-up rate and population change largely depends on the context. Rural municipalities showed less extreme results than urban regions. In the case of decline in rural regions, a moderate positive effect on the start-up rate was observed, suggesting that these start-up rates are a response to the minimum levels of supply of services and activities that are needed regardless of a declining population. In contrast, urban regions showed a great difference between moderate decline and strong decline: In the specific context of an urban region, strong decline showed a solid positive impact on new business creation whereas moderate decline indicated a strong negative impact. This suggests that even though urban areas appear less favourable for new business creation than intermediate areas, they seem more resilient and able to absorb the effects of decline better than both intermediate and rural regions (Chapter 2).

Literature also suggests that the quality and potential contribution of new firms depend on motivation and the regional context. New business creation is the result of interaction between an individual’s characteristics and their environment, which we approach through the concept of structuration, narrowed to the notion of embeddedness (Chapter 3). Embedding is ‘the mechanism whereby an entrepreneur becomes part of the local structure’ (Jack and Anderson, 2002, p. 467), providing better access to local information, knowledge and support. This access is considered crucial in the context of a remote and ageing region.

We found that rurality was primarily a trigger for the new business owners. It greatly influences the motivation, type of firm and with that also growth aspirations. The in-depth interviews with new business owners revealed that the location choice is above all a residential choice. The priority of these individuals is quality of life, they choose a residence location regardless of the possibilities for employment. The lifestyle choice is
highly connected to the rural nature of the area. The lifestyle entrepreneur chooses the region because of its rurality, despite some obvious drawbacks. These new business owners choose to locate in these areas, not so much to maximize the performance of their firm, but rather to maximize their own overall utility or happiness.

In conclusion, while the trend of ageing and decline is likely to be too recent and gradual for these entrepreneurs to incorporate into their decision making, the rural context has a much richer history and has been part of a conscious location choice, which happens to included ageing. This also holds for the case study region in the North East of England, a region that has faced population decline for over two decades but as been stable over the last ten years.

6.3 Strong employment effects of new businesses
New business creation is often seen as a means to secure employment opportunities in the present and the future, particularly in regions that are undergoing population decline. Regions with a declining population have to deal with a decreasing labour and consumer market, although we know (Chapter 2) that despite these processes impeding new business creation, the actual number of new firms does not necessarily drop. But do (new) firms in declining regions generate the same employment benefits as they do in growth regions?

Beforehand, we expected to find both positive and negative impacts on employment growth in the short, medium and long term. Following the method by Fritsch and others (e.g. Fritsch and Mueller, 2004) using Polynomial Distributed Lags (PDL) we disentangled direct and indirect employment effects within several cohorts of start-ups over the course of a decade. The direct effect refers to the new jobs that are created in the start-ups, this effect is primarily immediate, positive by definition at first but usually lasts only for a short period because new firms are prone to close down quickly or remain the same size in number of employees. A start-up will not initially affect incumbent firms, but allowing for some response time there is a stage of exiting capacities resulting from the exit and decline of incumbents. The last stage reflects the theoretically improved competitiveness due to increased competition and the crowding out of the weakest incumbents, thereby strengthening the innovation and productivity capabilities of the market. These supply side effects should result in a positive impact on employment. This process takes about 9 years to play out.

Many arguments suggest that a context of population decline is likely to generate lower quality start-ups and theory suggests that long term positive effects will only occur through the process of creative destruction when the quality of the firm is high enough. Our analysis, however, showed clearly that start-ups have a positive and significant
impact on employment change, despite the adverse circumstances regions facing population decline. Start-ups in population declining regions do generate less direct employment growth than in other regions but the total impact of start-ups on job creation is higher in declining regions than it is in stable or growing regions. Thus, population decline in itself is not a reason for concern regarding employment growth. New business creation in depopulating regions does have an effect on the pattern over time. The negative effect of displacement is fairly steep in growing and stable regions, which is not the case in declining regions. This indicates that established firms in declining regions are impacted less by newcomers, which could indeed be explained partially by relative low quality and growth ambition of the newcomers due to push motivation and selection processes.

The results indicate that employment in new firms in declining, stable and growing regions is responsible for all growth, whereas others have mainly found that growth in incumbent firms is the driving force of employment change. We did find the largest impact of decline in incumbent firms. The older firms seem to adjust their employment to fit the population declining circumstances, the younger firms do not. The analysis also suggests that established firms in declining regions are less impacted by newcomers than established firms in other types of regions, and implies that modest rates of decline may be manageable and hardly noticeable.

### 6.4 The social side of the story

Theoretically, there are three domains that are relevant for assessing the role of local businesses for the community quality of life; environmental, community and economics. In order to see the full potential impact of local businesses it is necessary to consider wider aspects (Chapter 5). The challenge was to go beyond the economic impact of new and existing firms and investigate the social side of the business impact on community life by taking the perspective of the inhabitant. We provide new insights from the wider community where others have focused on the perspective of the entrepreneur, and reveal entrepreneurship to be a mechanism for building social capital and enhancing quality of life.

The economic aspects are important when assessing the community quality of life, entailing factors such as employment growth (Chapter 4), but businesses also generate income and contribute to the diversity of the local economy. Our main focus however, has now shifted to the social aspects of entrepreneurship, with special attention paid to social capital which is being formed and maintained as a result of local businesses (Chapter 5). Social capital is divided into bonding and bridging capital. Bonding capital refers to the close ties among similar individuals or groups, such as family and close friends. Bridging social capital provides ties external to the group, allowing people
better access to resources and reducing dependency. Both are crucial in the successful development of community quality of life. Local businesses, alongside local institutions, can serve as key gathering places, strengthening both bonding and bridging ties.

The analysis of the focus group discussions with inhabitants showed that local businesses contribute mainly to bridging capital. Bridging capital is needed to counteract social lock-in. People buy local products and services to contribute to the survival of locally-based firms, as they recognize their importance for the community quality of life. Buying locally, despite the higher costs involved, is a clear sign of community involvement and an indication of a high level of social capital. The inhabitants appreciate the distinct aesthetic of these small, mostly independently owned businesses. The variety of businesses make communities more attractive places to visit, attracting both inhabitants and tourists to the village centres. The benefits of entrepreneurship go beyond private, economic profit, indicating that local businesses can also be seen as a public good. The local businesses enhance social interaction and inclusion, they are an integrated part of the community’s identity and contribute to community quality of life.

6.5 Perception of rurality
The quantitative analyses indicate the importance of rurality for new business creation. These analyses were set in the very specific context of the Netherlands. From an international perspective, it can be difficult to see if and where the rural regions are in the Netherlands, as explained throughout this thesis and for example according to the OECD definition (OECD, 2008). One might even claim that there is no countryside in the Netherlands. At the same time, we know that perceptions, rather than objective measures, may be equally important in determining rurality (Haartsen, 2002). To assess the role of rurality in terms of perceptions for business creation, a comparative case-study was conducted between the relatively remote, rural area of Northumberland in the UK and the well-connected rural area of Westerveld in the Netherlands. We suggested that perceptions could be taken as the leading factors instead of population density. We find that it does not matter significantly just how rural or accessible the countryside factually is for the importance of local businesses according to the inhabitants.

Perceptions of rurality indeed turned out to be profoundly important for the way people use their business. For the new small business owners, their location in the countryside had a big impact on their start-up process either on the type of firm chosen, on their growth ambitions or on the decision whether to start-up in the first place. There were few differences between the two case study regions, despite the large difference in
population density, accessibility of the community and links to nearby urban centres. The differences we did find could be related to the different countrysides: in Northumberland all entrepreneurs were clearly pursuing a specific lifestyle, much more intense than the entrepreneurs in Westerveld, which seems to result in more hobby-type-businesses and thus also more a-typical businesses in Northumberland.

We also found very few differences in the specific needs and value attributed by inhabitants regarding the local businesses in their rural communities. The relative distances to other services and amenities had little effect, it did not seem to matter significantly just how rural, the rural actually was for the importance of local businesses as judged by the inhabitants. There was an unrelated aspect that seemed to influence the importance the most, which was the individual’s personal mobility: being confined to a limited range of distance, for example due to physical restraints, determined which shops and which amenities mattered most. In both case study regions, people saw their home location as both rural and central. Northumberland is less accessible and typical travel time is longer, but the perception of being in the countryside and still being relatively central is the same in Westerveld.

6.6 Data and method considerations
A variety of methods was applied, ranging from quantitative to qualitative with a Spatial Durbin Model in Chapter 2 and a Polynomial Distributed Lag model in Chapter 4 and interviews and focus group discussions in Chapter 3 and 5, respectively. This section reflects on the data and methods used throughout the thesis.

The analyses presented in Chapters 2 and 4 are executed at the municipality level. As explained in these Chapters as well as in the introductory Chapter, the small scale was preferred primarily to identify the declining regions and to understand specific local issues in the Netherlands. However, there are also some drawbacks of the low aggregation level. Regardless of the theoretical implications - discussed these Chapters - there is also a data issue which can only be solved by using models that take spatial dependence into account. In Chapter 2, both a spatial lag model and a spatial error model were indicated based on Lagrange Multipliers, which is dealt with accordingly by estimating a Spatial Durbin Model. In Chapter 4 however, this was not possible given the specific aim of the Chapter to disentangle the long and short term effects as well as the direct and indirect employment effects. The wish to identify these effects led to the choice for the PDL model. To deal with the likely spatial dependence, we opted to include spatially lagged variables (calculated in Geoda, using a spatial weights matrix based on first-order contiguity) and also commuting behaviour.
In Chapter 2 the aim was to gain more insight into the relationship between population change and new business creation. Given the restrictions of the database, we used start-ups as a proxy for entrepreneurship. In the case of our dataset, a new start-up equals self-employed, as registration with the Chambers of Commerce is mandatory in the Netherlands. Self-employment and new business creation are the most common proxies for entrepreneurship, but have been criticized for being both too narrow and too broadly defined - as not all entrepreneurs start their own business and not all start-ups are entrepreneurial. Other options are to focus only on innovative firms or including addition information for instance from the Global Entrepreneurship Index, GEINDEX (Acs and Szerb, 2009). For our purpose, start-ups as a proxy was the best option, but it should always be kept in mind when interpreting the results from an entrepreneurial point of view.

The study benefitted from a mixed methods approach. To complement the findings from the quantitative studies, we conducted interviews and focus group discussions in two case study regions. These qualitative methods allowed us to understand why certain results appeared in the quantitative Chapters. The data collected for the two qualitative Chapters do also have some limitations. First of all, the recruitment of the new small business owners in the two case study regions differed. Participants in the Netherlands were systematically recruited via a list of new establishments retrieved from the Chamber of Commerce. Additional respondents were recruited using snowballing. In Northumberland, such a complete list was unavailable and we had to go through key organisations, key people and snowballing to find participants. In both cases we reached a saturation level after the same number of interviews and found no indication that the different recruitment methods had any impact on the results.

In Chapter 5, the recruitment process was the same for both regions. The challenge for this study was to include enough ‘regular’ inhabitants, people who were not actively involved in the community such as local policy makers or running the community centre. The inhabitants participating in the focus group discussions are mostly people who are to some extent more involved with their community than the average inhabitant, as many people felt they ‘had nothing to contribute’ or ‘had no knowledge’. We therefore used many different approaches to find participants. Even though there is possibly some selection bias, the variety of backgrounds, opinions and the intensity of discussion ensure that the outcomes represent the whole community.

6.7 Implications for Policy and Future Research
In this thesis we have studied the effects of and the effects on entrepreneurship in regions facing demographic change. Even though population change and ageing have been salient developments in the Netherlands for some time now, there are still many
unknown relations of cause and effect that are relevant on a societal level. This thesis provides valuable insights for local and national policymakers to help them prioritise and to provide an understanding of the underlying mechanisms and consequences of their actions.

6.7.1 Policy recommendations
Population decline is not a problem per se. The idea of population growth and economic growth permeates the public and scientific debate. This thesis has shown that population decline also offers new opportunities, although it undoubtedly also comes with important negative effects, particularly for certain groups. Rather than addressing population decline head-on and in its entirety, it seems more worthwhile to address specific problems and opportunities associated with these structural changes. Throughout the thesis it has become clear that a certain degree of path dependency, habits and perceptions are imperative for the way we cope with changes. Demographic decline and ageing will cause (some) facilities to be discontinued, people living in these areas will need to change their mindset and adjust the way they perceive distance. This will take time and local policy makers can play an important role in facilitating this process.

The foremost policy recommendation is to continue to facilitate new business creation in regions undergoing demographic changes. For policy makers it is important to realise that business formation will continue in these regions. In addition, population declining regions still see positive employment effects resulting from new business creation. Mainstream thinking suggests that these regions are not the most obvious location choice, but people still want to start their own business, even with less than favourable conditions. For them, the location is the best option. The new business owners are happy with their location, they are aware of the demographic transitions but make a conscious choice for the quality of life in the countryside. New business owners often feel a strong connection to their region and community and want to contribute in their own way (Chapter 3). These contributions range from occupying and maintaining otherwise empty buildings to creating jobs or attracting tourists. Policy should target local community feeling and facilitate local embeddedness, to ensure that people want to stay and want to contribute to their region.

Furthermore, the results from Chapter 4 showed that entrepreneurship in declining regions have a strong positive impact on employment change over time. Even though entrepreneurship in population declining regions generates fewer economic benefits compared to other regions in the short term, the effects are positive. Therefore, our results suggest that aiming to foster local start-ups remains a desirable strategy for local government.
When dealing with population decline and population ageing measures including those facilitating new business creation should be tailored to the scale most appropriate. That is, local policymakers need to be aware of local issues but also include the wider community. The inhabitants see themselves as being part of a certain community, programmes therefore need to be embedded in the region. Demographic change does not stop at the border, issues that arise from demographic change should also be dealt with within the larger area. In addition, policies aiming at promoting entrepreneurship should be tailored to the specific regional context. Rural regions have different needs to urban regions and will also respond differently to policies implemented. These insights imply that there should be different focuses for policymakers in cities to in the countryside.

Local government should focus on facilitating these mechanisms, stimulating new development and providing knowledge and information when needed. Demographic change is a fairly slow process. The results of the qualitative studies also showed that people were aware of this, but did not see it as a big issue. Given that the changes are slow, market mechanisms will be able to deal with some of the new developments. In many occasions, people will be able to adapt to the new situation. Still, in other areas, there will be a need for stronger interventions, in particularly if the labour market (or housing market) is no longer fully functioning. It is important to note that we have focused on slow population decline, which is probably very different from rapid decline. Slow decline provides the opportunity for people and policy makers to adjust to the new situation, to plan for it whereas rapid decline will require a different, more intensive approach.

6.7.2 Future research

The new insights gained with this thesis also generate follow-up research questions and opportunities, such as the wish to include individual characteristics of the business owners to obtain even more precise answers to the questions asked in the quantitative chapters. Multilevel analysis including at individual, local, regional and national levels can fully disclose the regional effects of new business creation. The changing composition of the demand market will eventually require a changed supply of goods and services. For future research it would thus be very interesting to look into sector developments within the context of both population decline and ageing.

Surprisingly, the direct employment effect turned out to be the main reason for employment growth: the immediate effect was much larger than the sum of the displacement and induced effects (Chapter 4). Based on previous studies, we expected that the induced effects, also known as the supply side effects, would be the driving force of regional employment growth. The precise explanation for this different finding
is unclear and needs further investigation. Another addition to this study would be to look at relocations within these areas or even to focus on discontinuation in declining regions versus growing regions.

For this study, we included two case study regions but only one per country. We found many similarities confirming the importance of regional characteristics. We argue that small local businesses help to diversify the local economy and add to the identity and charm of a place. Local businesses, particularly those fully embedded in the community, function as facilitators in strengthening and promoting several aspects of social capital, improving social inclusion, and community quality of life in rural areas. It would therefore be interesting to do comparable research in other regions, in the same but also in other countries, to check for regional similarities and differences, not only in other rural communities, but also in urban settings.

References