



SCIENTIFIC FINAL REPORT

Regnr Östersjöstiftelsen: 63/15

Project manager: Marcus Box

Project title: Firm demography and entrepreneurship in Eastern and Central Europe and in the Baltic Region

Answers to questions 1 to 5 should include at least 3 and a maximum of 5 pages of text (Times New Roman 12).

1. Purpose of the project

The purpose of the project has been to study the demography of firms and industries in Sweden in a long-term perspective, with a focus on entry, growth, survival of firms. Research with a distinct long-term approach has often covered (mainly) Anglo-Saxon economies. The project contributes through the study of different economic and institutional contexts. A demographic approach makes it possible to distinguish the general and universal from those particular cases (be it firms, industries, economies, or specific periods and events) that deviate, stand out, or are “unique”, regardless of time and place. Scholars in entrepreneurship and small business have called for new perspectives and approaches. This includes longer historical analyses, comparative longitudinal research, and a combination of micro and macro perspectives. The proposed project has three interrelated aims. First, to study the demography of firms in the long term in a comparative context; second, to make a methodological contribution to entrepreneurship and the demography of firms, and third, to collaborate with researchers from mainly Central and Eastern Europe.

2. The three most important results of the project and what conclusions can be drawn from them

The project’s main results and conclusions are the following. The demography of firms mainly concerns firm dynamics at the population- and industry level. Decades of research show that there is a complicated relationship between how business firms and entire business populations enter, grow, decline and, perhaps, vanish and exit – ranging from physical and environmental conditions to political, institutional and real-economic conditions (such as business cycle changes).

One important result concerns the conditions for the level of entrepreneurship and firm exit and survival and on business conditions in general. One part here concerns failure and bankruptcy. Historical research on business failures and bankruptcies has been dominated by different case study approaches. Many of these often descriptive studies have provided valuable insights. In-depth studies have also created fascinating knowledge about how companies were organized and how the credit networks and commercial structures functioned and have contributed with new information about the importance of personal credit networks and trust in daily business life. Notwithstanding all of these benefits, the case study approach is often not suitable for generalization. We rarely know if something is



unique and time-bound or general and possibly formulaic behavior. Similarly, the project's empirical studies on the conditions for business, for firm-survival and self-employment in comparative perspective show how economic and institutional conditions at founding and time-varying conditions over the course of time – including changes in the physical environment – would affect the level of entrepreneurship and the extent to which firms survive.

But it is not only the external milieu and social change that would affect changes in firm populations. Another part of the project's results concern how population-level changes in firm behavior – supply-side changes (entrepreneurial behavior) in the form of committed bankruptcy frauds – affect the economic system in an asymmetric way. Entrepreneurship is commonly associated with innovation and the increase of welfare. However, it is also possible to distinguish between three main types of entrepreneurship: productive, unproductive, and destructive. In the last two cases, entrepreneurial activity results in redistribution of wealth, and new values are not created; entrepreneurship may therefore have a negative effect on society. The project has thus, as one important main result, been able to develop empirical measurements of theoretical constructs (destructive entrepreneurship), providing results that are important for methodological development.

Finally, and closely related to the above, the project has adopted newly developed methodologies and approaches in the relevant research area(s) in two main ways. To begin with, it has demonstrated the advantages using historical and archival data in the study of the demography of firms. Moreover, it has demonstrated the potential with several recently developed methods. For analyses of long series, the project has utilized various econometrics methods employed for dealing with structural breaks, asymmetric responses, long-run equilibrium, and short-run adjustments. Analyses in the frequency domain, used in the project, show that the understanding of periodic behaviors (over, e.g., the business cycle) can be enhanced. Allowing relationships to be time-varying we have been able to identify structural shifts (pertaining, e.g., to transitional processes and institutional periods) in key relationships – such as survival and exit. General causal inference techniques, such as difference-in-difference, have helped to identify the impacts of important changes in firms' environment. Overall, these approaches should be pursued in future research.

3. The project's contribution to the international research frontline

The project shows that multidisciplinary approaches and the use of quantitative data that are based on historical, archival and contemporary sources that are combined add new knowledge to research on the demography of firms – in particular comparative research and research on time-varying and longitudinal/diachronic research. The project has contributed to research on entrepreneurship and institutions, to research on the economics of crime, and to research on entrepreneurship in transition.

4. New research questions that the project has led to

The quality of social, economic and political institutions regulate benefits and costs for economic action. However, it is only more recently that comparative entrepreneurship research has started to analyze how legal and regulatory frameworks in different countries



influence entrepreneurial choice. Since institutions affect the level of uncertainty in a society, shaping transactions- and opportunity costs as well as the society's reward system, the extent to which individuals desire and/or pursue business venturing activities – or how business firms (and, indeed, entire business systems) are created, survive and grow – are likely to be shaped by institutional determinants. Ultimately, variations in entrepreneurial and business activities are affected by institutions and institutional change. The project finds that transformation and change – entry, growth, survival – across time and across economies should receive further research attention. More refined cross-country (comparative) studies are called for, since there is a lack of such studies – particularly studies going beyond analyses of established market economies. Furthermore, both contemporary and historical data should be used to greater extent in order to make analyses of longer trends. In particular, researchers should make efforts into creating new and more refined empirical datasets that describe firm dynamics, both on long-standing market economies and on transitional and post-socialist economies.

5. The contribution of the research to the knowledge of the Baltic Sea Region and Eastern Europe

Project participants have established collaboration with researchers in Central Europe that is on-going with e.g. planned joint publications in the areas of entrepreneurship and business history. The project has generated new knowledge on how institutions and institutional change are related to the conditions for entrepreneurship across time and in comparative perspective. The transformation of important economic institutions such as bankruptcy law, property rights and corruption are shown to affect the development of entrepreneurial efforts, firm survival, bankruptcy development and economic crime. The effect from economic crimes can have adverse and asymmetric effects and lead to spillover effects to the economic system and create further business failures in the longer run.

Comparative research on institutions and entrepreneurship in post-socialist and/or transition economies has been limited but has partly suggested that business activity and firm performance in these economies is affected differently from institutional conditions compared to mature market economies – for instance, that corruption at societal level might 'grease the wheels' for business activity and therefore would be positive for entrepreneurship in post-socialist countries. The project's results point to that entrepreneurial behavior in terms of e.g. self-employment is affected similarly across all European economies: that stronger protection of property rights has positive effects and the level of corruption generally has negative effects. Increasing self-employment as a means for combatting unemployment and promoting growth is an important goal for European governments. However, a number of countries in Europe and in particular in former transition countries reveal relatively low or even falling scores on these two institutional factors. For that reason, institutional quality in terms of efficient bankruptcy law, control of corruption and protection of property rights – are therefore highly likely to benefit enterprising activity in the long run.



6. Dissemination of the results of the project within and outside the research community

Dissemination through publications in peer-reviewed journals, edited books and at international conferences.

Articles and chapters in books

- Box, Marcus, Gratzer, Karl & Lin, Xiang (submitted/under review), "Self-employment, corruption and property rights. A comparative analysis of European and CEE economies". *SN Business & Economics*. [Open access \(kommande\)](#).
- Falk, M., & Lin, X. (2021). Time-varying impact of snow depth on tourism in selected regions. *International journal of biometeorology*, 65(5), 645-657. [Open access, https://link.springer.com/article/10.1007/s00484-019-01848-1](https://link.springer.com/article/10.1007/s00484-019-01848-1)
- Box, Marcus, Gratzer, Karl & Lin, Xiang (2020), "Bankruptcies in Sweden, 1776–1849. Causes and structural differences" in Nyberg, Klas and Jakobsson, Håkan (Eds.), *Fashion, Luxury and the Early Modern Idea of Credit. Aspects of Early modern and modern bankruptcies in Sweden*. London: Routledge.
- Gratzer, Karl, Hayen, Mats & Nyberg, Klas (2020), "The Swedish bankruptcy system, 1734–1849" in Nyberg, Klas and Jakobsson, Håkan (Eds.), *Fashion, Luxury and the Early Modern Idea of Credit. Aspects of Early modern and modern bankruptcies in Sweden*. London: Routledge.
- Box, Marcus, Gratzer, Karl & Lin, Xiang (2019), "The asymmetric effect of bankruptcy fraud in Sweden: A long-term perspective". *Journal of Quantitative Criminology*, 35(2), 287-312. [Open access, https://link.springer.com/article/10.1007/s10940-018-9380-2](https://link.springer.com/article/10.1007/s10940-018-9380-2)
- Gratzer, Karl (2019) "Medicinturism anno 1678: tidigmoderna entreprenörer inom sjukvården", i Kirsch, F., Ljungbo, K. & Borg, E.A. (red.) (2019). *Medicinturism: gränsöverskridande sjukvård i teori och praktik*. [Möklinta]: Gidlunds förlag.
- Box, Marcus, Gratzer, Karl & Lin, Xiang (2018), "Företagsnedläggningar. Olika perspektiv och forskningsmetoder", *Insolvensrättslig tidskrift*, 1(3). [Open access, https://inrati.se/index.php/inrati/article/view/83/80](https://inrati.se/index.php/inrati/article/view/83/80)
- Box, Marcus, Gratzer, Karl och Lin, Xiang (2017), "New-firm survival in Sweden – new methods and results", *International Review of Entrepreneurship*, 15(4). [Open access, https://www.diva-portal.org/smash/record.jsf?dswid=-2014&pid=diva2%3A1166240](https://www.diva-portal.org/smash/record.jsf?dswid=-2014&pid=diva2%3A1166240)

Conferences

- Lin, X "Modelling the snow sensitivity of winter tourism demand in Europe." The 7th Conference of the International Association for Tourism Economics, La Plata, Argentina, 3-6 September 2019
- Lin, X "Structural changes in the snow sensitivities of winter tourism." 10th Workshop on Tourism: Economics and Management, Tourists as Consumers, Visitors and Travelers, Siena, Italy, 30 May to 1 June 2019
- Lin, X "Time-varying impact of snow depth on tourism in selected regions." Econometric Models of Climate Change, Roma, 6-7 September 2018
- Gratzer, K. Marcus Box and Xiang Lin: Destructive Entrepreneurship in Sweden 1830-2013. The 24th Nordic Academy of Management Conference, Bodø, Norway, 23-25 August 2017