

U. Fratesi · L. Senn
Editors

Growth and Innovation of Competitive Regions

The Role of Internal and
External Connections

ADVANCES IN
SPATIAL SCIENCE

 Springer

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Editors

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The Role of Internal and External Connections

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Part I
Foundations of Growth in Interconnected
Territories

Regional Growth, Connections and Economic Modelling: An Introduction

Ugo Fratesi and Lanfranco Senn

1 Framing the Problem

With increasing globalization over recent decades, the impacts of economic stimuli at the national level have diminished in terms of their importance for economic processes; the stimuli are increasingly originating at the international level. As markets integrate, the competitors of firms are generally firms from other countries and the domestic market is no longer and not necessarily the most important one. At the same time, the internal resources of firms are no longer sufficient for their competitiveness in a globalized World, and, to sustain their growth, they have to rely increasingly on external resources, knowledge in particular, which are normally accessible at the local and regional level (Audretsch 1988). The regional scale, therefore, has increased in importance for economic growth as a result of globalization forces; competition is now centered on region-region interactions with the regions often located in different countries.

This book is concerned with the study of regional economic growth in advanced countries. The focus is essentially on the dynamics of regional performance and on the mechanisms that allow some regions to grow more rapidly than others, to become more competitive and to remain so in the long run. This book therefore draws on regional science literature that is concerned with the growth of regions with the primary purpose of clarifying which mechanisms are at work and the secondary purpose of clarifying which development policies ought to be applied. The distribution of economic activities, involving the detection and explanation of location and agglomeration, its efficiency and its evolution, is the other traditional body of economic geography literature from which the analysis in this book also draws heavily (Isard 1956; Gabszewicz et al. 1986; McCann 2002).

These two strands of literature cannot be considered as separate; on the contrary, they are clearly complementary since no agglomeration takes place without growth differentials; nor can the dynamics and development patterns of regions be studied or influenced without knowing what drives location decisions and what

agglomeration/dispersion forces are at work. However, the study of regional growth remains essentially a study of the dynamics within and between regions, where elements of change are more important than comparative equilibria.

The study of the determinants of regional growth is not only interesting from a speculative point of view because it sheds further light on some under-investigated aspects of the phenomena; it is much more interesting when it provides a theoretical basis for more effective development policies. In this respect, it is clear that the situation and characteristics of regions belonging to advanced countries are different from those of regions belonging to emerging or under-developed countries. Since only a small set of the theories developed for the study of the former are applicable to the latter, this book limits itself explicitly to advanced countries and the word *development* will hereafter only refer to lagging regions of these countries.

Having been conceived with a strong interest in theories with policy applications, this book starts from concepts deriving from the observation of real facts, and analyses the different ways in which it is possible to enhance regional growth in a competitive world. It is therefore concerned with:

- (a) The growth of regions (both advanced and lagging) in the developed world, in particular the causal variables that could be an endogenous trigger to growth. In this sense, particular attention is paid to innovation because, in developed countries, competition is no longer achievable through cost reduction alone, but through a continuous process of upgrading production in both manufacturing and services. Innovation itself is seen as a process based on knowledge and learning;
- (b) Regional competition, because in an integrated world the processes taking place locally are not independent of external ones. One of the main pre-conditions for regional competitiveness is regional attractiveness, because firms look for the best production conditions. Competition is a dynamic process and implies continuous change and adjustment; this is why innovation (of product, process and organization) is so important;
- (c) The agents of innovation and competition. They are not anonymous and may consist of individual agents (such as firms, entrepreneurs, skilled workers and public institutions) but more and more frequently these agents integrate in networked and interacting systems. The individual agents often have some sense of belonging to their localities but, even more importantly, the interaction among agents takes place more easily when they agglomerate. This keeps the local scale fundamental in the consideration of all economic processes notwithstanding the presence of globalization forces that have generated larger and larger numbers of footloose firms.

The approach of this book is neither microeconomic, investigating individual firms, nor macroeconomic, investigating the system as a homogeneous aggregate; the most fruitful approach is a meso-economic one, investigating the interactions between both micro and macroeconomic forces.

To illustrate the approach, consider the representation of space presented in Fig. 1, where the three main dimensions of the economy at a macro level, the

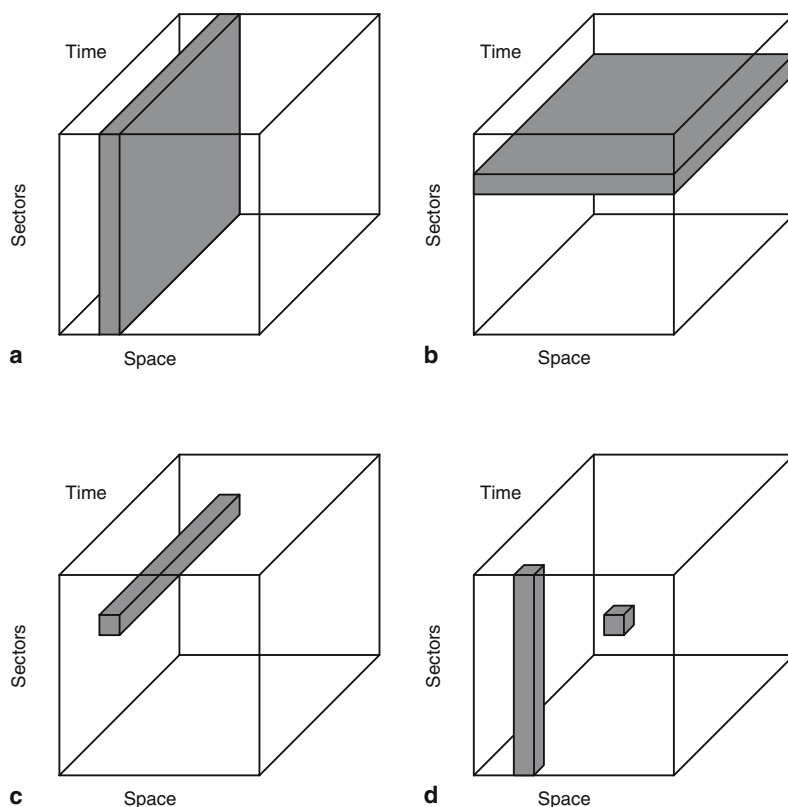


Fig. 1 Different possible scales for growth and innovation analyses

spatial dimension, the sectoral dimension and the time dimension are represented. In Fig. 1a, regional development analyses are revealed, where the economy is sliced vertically into regions and their dynamics are investigated.

The study of the evolution of industries, typical of evolutionary industrial economics, is represented in Fig. 1b, where the economy is divided horizontally into sectoral slices. This approach has progressed considerably in recent years (see Malerba 2006, for a recent survey). Modifications of industries have important spatial implications, which however are not normally at the core of these analyses even though spatial patterns of innovation differ greatly from sector to sector (Breschi 2000).

Our approach operates in the manner of Fig. 1a and we will focus on regions, extending the analysis to industries only where this is regionally and structurally relevant. Hence, the approach in the book belongs to the tradition of regional development theories, but, in contrast to the more traditional analyses, we will not consider the region as an economic unit per se. Rather, interactions between and within regions are very relevant to the performance of individual regions in an integrated world and will be at the core of the analyses of the following chapters.