Economy vs. history

What does actually determine the distribution of shops’ locations in cities?

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Abstract This study examines in which cases economic forces or historical singularities prevail in the determination of the spatial distribution of retail shops. We develop a model of location choice in discrete space. The main force towards an agglomerated structure is the reduction of transaction costs for consumers if retailers are located closely, whilst competition and transport costs work towards a disperse structure. We assess the importance of the initial conditions by simulating the resulting distribution of shops for identical economic parameters but varying initial settings. If the equilibrium distributions are similar we conclude that economic forces have prevailed, while dissimilarity indicates that ‘history’ is more important. The (dis)similarity of distributions of shops is calculated by means of a metric measure.

JEL Classification C61 · L11 · R12

1 Introduction

Founder of a shop have to decide simultaneously a number of questions. One of the questions that are crucial for the profitability or even survivability of the firm, is the location of the shop. Should it be located where competitors are most distant to increase market power, or is it more profitable to locate precisely where the competitors are and many consumers are attracted? In any case, the locations of the existing shops matter for the choice of a newcomer. The locations of these firms in turn have been chosen taking into account the distribution of the then existing firms, and so on. This brings about that the initial situation may determine at least to some extent the long-run
distribution of shops. We refer to the initial situation as ‘history’ throughout this study, as opposed to economic forces like the demand and the costs structure of firms. Of course, ‘history’ rarely fully determines the choices of all subsequently entering shops. Rather, the distribution of firms is shaped simultaneously by both, path dependencies and economic forces, ‘history’ and ‘economy’, which mutually interact with varying relative weight until eventually a stationary situation is reached.

Our aim is to examine in which cases economic forces or historical singularities prevail in the determination of the long-run distribution of retail shops. A glance at the actual distribution of different types of shops reveals that the factors that decide the location are varying. Therefore, we do not hope to find that one determinant is generally more important than the other one, or vice versa. Instead we intend to identify conditions that increase the probability that ‘history’ or ‘economy’ decide the final distribution of shops. The reason why we restrict the analysis to final or ‘equilibrium’ distributions of firms is that the influence of the initial situation may only be temporarily in some cases. Consider for example the simple case, where the stationary long-run distribution of firms is perfectly even across the entire market area, with one firm at each potential location. This situation may be reached from any initial distribution of firms, hence ‘history’ has no impact on the firms’ long-run distribution. Yet, until the final situation is reached, each newcomer chooses a location that is not yet occupied by other firms, i.e. the existing shops’ locations matter temporarily.

Furthermore, we restrict our analysis to the distribution of retail shops within cities, i.e. at a relatively low geographic scale. The reason is that at larger geographic scales the partial equilibrium view we employ would not be appropriate. If, for instance, the concentration of financial institutions in London is at issue, or the concentration of sports car manufacturers around Modena in Italy, the consideration of specialized labor or the self-reinforcing effect of a large market would certainly matter. These ‘forward and backward linkages’ that play such a prominent role in the ‘New Economic Geography’ (see Fujita et al. 1999) require a general equilibrium framework. Yet, at a lower geographic scale these effects lose some of their importance, so that a partial equilibrium framework may suffice to explain the location choices. For instance, in many cities antique shops and fashion boutiques are concentrated strongly. But neither of them requires specialized labor that could make up an advantage for neighboring locations. In the same vein, the additional income that these shops generate cannot explain the additional demand that makes it profitable for them to locate at close quarters.

Instead of forward and backward linkages our study considers another positive externality of agglomerations, namely the saving of transaction costs. If similar shops are located closely together, it is easier for consumers to gather information on prices and quality of goods. Therefore, more consumers are frequenting the shops. Another example for the reduction of transaction costs through concentration is the time and money consumers have to spend searching for a suitable parking lot. These costs are fixed in that they are independent of the amounts purchased. They bring about that we

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1 We do not focus on the question under which conditions agglomerations arise, since both, economic forces and ‘history’ may operate against or in favor of agglomeration. Yet, because we model the location choice of firms to assess the importance of these determinants, the degree of spatial concentration is determined as a by-product.