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A SPATIAL MODEL OF ENTREPRENEURSHIP AND GROWTH (INTERACTIVE PAPER)

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INTERACTIVE PAPER SESSION

A SPATIAL MODEL OF ENTREPRENEURSHIP AND GROWTH

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Principal Topic

Our understanding of the role of entrepreneurship in economic growth is severely limited due to unavailability of the conventional production functions to take entrepreneurship explicitly into account (Leibenstein, 1968; Audretsch and Keilbach, 2004). Recognizing organization as a primary entrepreneurial function (Harbison, 1956), this paper presents a model of entrepreneurship and growth in a spatial setting in which entrepreneurs organize factors of production, including human capital, physical capital, and technology through location choice and firm structure. Our spatial model is motivated by the observations that both location and internal structure account for the performance and productivity of firms (Webber, 1929; Chandler, 1962), and that firm location and organization are closely related to agglomeration economies and diseconomies (Nove, 1969; Wood and Parr, 2005). Therefore, the growth and survival of a firm may depend upon the way its owner the entrepreneur exploits the tradeoff between agglomeration economies and agglomeration diseconomies.

Method

This paper examines the roles of firm location and organization by linking spatial agglomeration of production with firm growth. The extent of agglomeration is evaluated by the size of a factor of production relative to the area of the factor’s geographical range, which is measured by the mean distance of the factor with reference to its centroid in space (Zhao, 2006). Our model shows that output of a firm is not only a function of the three factors of production, but also a function of their spatial ranges. Here technology is counted in terms of those that are embedded in products regardless of their origins.

Results and Implications

The proposed spatial model shows that entrepreneurship is the visible hand in the growth process. At the firm level, the nature of scale economies rests upon the choices of location and internal organization made by entrepreneurs. In a dynamic extent, for example, an entrepreneur may change the amount of factor inputs, restructure their spatial arrangements, or simply relocate the whole firm. At the aggregate level, an economy is spatially organized by a number of entrepreneurs who take advantage of production externalities prevalent in geographical agglomerations of the economy. Most importantly, our model demonstrates that growth and production are the result of economic and social choice.

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