Urban evolutions and agglomeration economies in Italy: trends in spatial structures and their economic Implications

David Burgalassi[*] e Paolo Veneri[†]

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David Burgalassi

ABSTRACT

This paper aims to provide an empirical contribution study the effects of spatial distribution of people and jobs on the economic performance of Italian Urban Regions. In the last decades, cities and regions have been experiencing deep changes in both their spatial extent and economic structure. We argue that those changes may have determined an evolution also in the agglomeration economies characterizing urban environments. Cities have become a "regional" phenomenon (Meijers and Burger, 2010), meaning that they are not anymore consistent with their administrative boundaries, extending their influence over other urbanized areas and their commuting hinterland. This process of integration or coalescence brought about the formation of what are now called functional regions, which are self-contained areas that can be looked at as relatively autonomous territorial economic systems. This above-mentioned phenomenon is relevant in many respects. First, it is important to understand which spatial patterns cities have followed in the last two decades: the increasing territorial integration at the basis of the current shape of urban systems may have been characterised by increased dispersion of activities across space, centralization or polycentricity. Second, a relevant research question consists in understanding how different spatial patterns can affect the economic performance of cities: each spatial pattern can have different implications in terms of economic development, environmental sustainability and social inclusion. In order to answer to those questions, it is necessary to reflect on the concept of agglomeration economies. The concept of spatial structure is related to the distribution of people and jobs over space, and spatial distribution is linked with agglomeration economies. Agglomeration economies, which occur in urban environments through several forms, are generally conceptualised as related to the scale or the density (Ciccone and Hall, 1996) of economic activity. When considering urbanization economies, the main findings are that i) they are an increasing function of scale-density and ii) a decreasing function of the distance from the centres (Rosenthal and Strange, 2004). Thus, structure is implicitly incorporated in the concept of agglomeration economies by mass and density. Relatively little attention has been devoted for the role of the urban and interurban structure, other than size or density, for the economic performances. However, dramatic changes to the structure and development of cities occurred in the last decades. In fact, urban areas have shown patterns of suburbanization, driven by several factors, such as technological progress in transport systems, change of preferences, migration. Cities expanded their scope and, especially in Europe, new functional urban regions – or cities de facto – arose as result of territorial coalescence of pre-existing self-contained cities (Calafati

[*] IRPET- Istituto Regionale di Programmazione Economica della Toscana. 1, Via Pietro Dazzi, 1. 50141 Firenze, Italy. david.burgalassi@irpet.it

[†] OECD - Organisation for Economic Co-operation and Development. Public Governance and Territorial Development Directorate. 2, rue André Pascal. 75775 Paris, France. paolo.veneri@oecd.org

and Veneri, 2011). This kind of pattern yields to complex spatial structures that are dependent on both history, change of preferences and technological and economic development. Hence, it should be distinguished from the simple physical expansion of cities from a congested urban centre. Given the above-mentioned complex dynamics of urban and regional development, spatial structure of regional urban systems has started to attract the interest of urban and regional researchers and planners. The structure of urban areas is supposed to affect economic performance, and thus urban growth, through two different aspects, apart from the size, which reflect two distinct phenomena characterizing urban regions: dispersion and polycentricity of economic activities across space. Our empirical analysis aims at understand the role of characteristics of spatial structure on economic growth of Italian Functional Urban Regions (FURs). Our analysis draws mainly from the works by Lee and Gordon (2007) and Meijers and Burger (2010). Both contributions approach spatial structure by using the taxonomy of dispersion and polycentricity. We also conceptualise structure in terms of size, polycentricity and dispersion. On both characteristics there is a lack of empirical assessment and even theory is not sufficiently clear. However, the spatial patterns of urban growth are gaining increasing policy relevance. Such relevance is particularly high for Italy, which has been subject to massive territorial and economic changes during the last century and where a huge debate about the necessity to re-organize the boundaries of regions in a more efficient way is currently at stake (Calafati and Veneri, 2011). Building on previous literature, several indicators of spatial structure are proposed in our analysis, both in terms of polycentricity and dispersion. Then, the main spatial trends followed by the Italian cities in the last two decades (1991-2011) are assessed. Finally, an equation of growth of population and employment is estimated through a cross-section of Italian Functional Urban Regions (FURs). In this framework, characteristics of spatial structure are conceptualized as sources of increasing returns of scale, hence as determinant of urban dynamics. Urban evolutions are conceptualised in terms of growth of residents and jobs within functional regions. Our findings allow a critical reflection on the role of structure for the development of regional urban system and on verifying whether the “regionalization” of cities has been followed by a regionalization of agglomeration economies.

Key-words: Spatial structure, Polycentricity, Dispersion, Agglomeration externalities, Functional Urban Regions.

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