



THE NEW ECONOMIC GEOGRAPHY: AFTER TWO GOLDEN DECADES

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Abstract: *The aim of this paper is to celebrate the two „golden decades“ of the New Economic Geography (NEG), outlining the main achievements of this new field of study, and at the same time, to critically examine the actual stage of NEG and to formulate some opinions regarding its future.*

Key words: *new economic geography, spatial economics, core-periphery model, centripetal forces, centrifugal forces*

1. INTRODUCTION

At 20 years from the birth of the New Economic Geography (NEG), marked by the publishing of Paul Krugman's „core-periphery“ model (1991), and at 10 years from the first issue of the *Journal of Economic Geography*, a theoretical and methodological re-examination of this field of study becomes mandatory, in order to celebrate the achievements of the two „golden decades“ of NEG and to foreshadow the path to follow.

At the same time, NEG must be critically examined. Without undermining the importance of the models established within NEG literature regarding the achievement of major results in spatial economics within a frame of general equilibrium, we cannot avoid asking ourselves questions connected to the consistency of the internal model and to the verisimilitude of the assumptions on which it is based, whether it can explain the spatial distribution of economic activities better than the regional models, whether it represents a plausible process of knowledge.

2. THE TWO GOLDEN DECADES OF NEG

A major stream in spatial economic literature was created due to the papers of Paul Krugman, who, since 1990, has turned to the study of economic geography and particularly location issues, his contribution in this field representing the cornerstone of the New Economic Geography (NEG). One of the tasks of economics, the author said, is to understand why economic activities emerge and develop in one place rather than another. His theory generated a mainstream in economics of agglomeration, which has developed exponentially in the 1990s, culminating in the work of Fujita, Krugman and Venables, „The Spatial Economy: Cities, Regions and International Trade“, published in 1999.

For the past two decades, a growing interest on location has appeared in economic literature. The developments made in shaping market structures and transport costs, combined with the increasing processing power of computers, have led to the discovery of the mechanisms that control agglomeration. This line of research of the New Economic Geography is based on a series of prior contributions such as: the monopolistic competition model of Dixit-Stiglitz (1977), which opened new perspectives in economic research; the „iceberg“ model of transport costs of Samuelson (1952); the research on imperfect market structures and on the origins of international trade (Helpman & Krugman, 1985).

These major theoretical contributions have enabled NEG researchers to operate with several key-terms: *the general equilibrium model of a spatial economy*, which is different from the approach derived from the traditional theory of location and economic geography; *increasing returns or indivisibilities* of the individual producer, which prevent the economy to degenerate into a „backyard capitalism“ (in which every household produces for personal consumption); *imperfect competition*, due to increasing returns; *transport costs*, which make location matter; changing the location of production factors and consumers is a prerequisite for agglomeration. (Fujita & Krugman, 2004)

3. CRITICAL ISSUES SURROUNDING NEG

A first criticism concerning NEG comes from economic geographers. Indeed, for the past years, the relationship between economic geography and spatial economics has been full of controversy. On one hand, many geographers react extremely negatively to the renewal of economists' interest in spatial issues, and on the other hand, economists tend to ignore the research work performed by geographers. Despite these difficulties, we believe that geographers can learn from the more rigorous approach of economists and, at the same time, they can become a real source of inspiration for them.

Moreover, after the birth of NEG, the international trade and economic geography became more united through new theoretical perspectives, which emphasize that the same basic forces simultaneously determine the specialization process in different countries, under an international distribution of production factors (trade theory), and the long-term location of these factors in different countries (economic geography).

However, the papers on economic geography elaborated by geographers are currently devoted to international markets, business services, telecommunications, regional or national economies, surpassing the explanatory character towards the creation of theoretical approaches. This is a new qualitative leap that places the economic geography among the indispensable sciences which deal with the contemporary economic reality.

In addition to the negative reactions of some regionalists and urban economists who saw themselves threatened by „the invasion of paradise“ (Fujita & Krugman, 2004) that was considered the economic geography or spatial economics in the early 1990s, NEG is also accused of ignoring reality as much as the old trade theory.

However, although the economic model was able to establish significant results in geographical economics within a frame of general equilibrium, it has taken more than ten years after „reinventing“ economic geography for the theoreticians to realize the lack of realism of NEG models (Robert-Nicoud, 2004). But, like Ricardo's model with two countries and two goods, considered by Samuelson as „the most wonderful idea in economics“, also Krugman's model and its extensions that followed were based on assumptions designed to simplify a

complex reality, circumscribing themselves into the general study of economics.

Certainly, as the Ricardian model, so the “core-periphery” model can be extended to better match the real world. Thus, to answer criticism on its simplicity and also with the intention of reaching similarities with the economic reality, a number of assumptions were relaxed. The initial ignorance of transport costs for agricultural goods, which represents a significant gap in the initial “core-periphery” model, also perpetuated by the subsequent versions of the model in NEG literature, has been overcome by also taking into consideration the commercial costs for these goods. With this addition the model does not change significantly (Fujita et al., 1999). Another amendment of the initial model is the introduction of asymmetric costs between regions and transport costs inside regions (Leite V. et al., 2008).

A final criticism that we want to approach in this paper refers to the strategic simplifications declared by the authors of Spatial Economy (Fujita et al., 1999) through a slogan: “Dixit-Stiglitz, icebergs, evolution and computers”. These “cheap intellectual tricks” as even the authors call them (Fujita & Krugman 2004), represented the simplest possible way (at that moment) of developing “a new general-equilibrium machinery” to enable them to explain how the geographical structure of an economy is shaped by the tension between centripetal forces which together “pull” business and centrifugal forces, which “push” out, and explain these forces in terms of fundamental microeconomic decisions.

4. PERSPECTIVES OF THE NEG

In the future, NEG should consider enlarging its theoretical framework, developing empirical research and analysis of social and political implications. As a corollary of these three directions, Fujita and Krugman (2004) consider that we need to develop theoretical quantitative models that will allow us to perform real simulation exercises. In some economic fields (public finance and international trade) such models play an important role as analytical tools. These models would constitute a major step in considering the theoretical economic geography as a real predictive discipline, capable of evaluating the impact of hypothetical shocks on the spatial structure of economy.

Related to the theoretical developments, if for two decades NEG focused on the macro-heterogeneity of locations, showing how this can be generated endogenously by the decisions taken at micro-economic level by individuals and identical companies, the specialists (Octaviano, 2011) show that the future research should analyze more deeply the micro-heterogeneity of individuals and companies, throwing a light upon how interactions between the two levels of heterogeneity affect the existence and intensity of the agglomeration economies.

The transition to the next step – empirical research – can be done successfully only after the inclusion within the NEG models of all centripetal forces (linkages, thick markets, knowledge spillovers) and centrifugal ones (immobile factors, land rent/commuting, congestion), as well as after the analysis of how the predictions of these models depend on the relative importance of these forces. Only after doing such an exploration we will be able to interpret the results of empirical research and analyze their implications for social and economic policy.

5. FINAL THOUGHTS

The theoretical and methodological re-examination of NEG revealed us two “golden decades” characterized by significant contributions of developing “a new general-equilibrium machinery” which enabled us to explain how the geographical

structure of an economy is shaped by the tension between centripetal and centrifugal forces. The criticisms concerning NEG over time have allowed the extension of the initial model by relaxing some assumptions in order to better respond to the real world.

In the future, NEG should consider enlarging its theoretical framework and developing empirical research and analysis of social and political implications. We appreciate that a generalized development of the central model of NEG literature could help to explain many aspects of the social and economic life, such as: the substantiation – from a spatial point of view – of integrative groupings, the links between trade policy and degree of urbanization; it could also turn into a theoretical support for the international trade, for the degree of urbanization of a country. NEG has to be more convincing, plausible, more anchored in the social reality.

In the spirit of field development, we intend to focus, in our future research, on NEG implications within the social and economic policy of Romania, a country located at the Eastern border of the European Union, and which is facing significant socio-economic changes induced by space. The question we ask ourselves is: what do Romanian policy makers have to learn from the New Economic Geography?

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