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Spatial Economics in the Era of One Belt One Road and Counter-Globalization

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Abstract

After an overview of spatial economics, we review China's recent One Belt One Road (OBOR) Initiative, and the contrary counter-globalization forces in the contemporaneous geopolitical and social landscapes. We then discuss their impact on and new paradigms in spatial economics.

Keywords

One Belt One Road Initiative, Counter-Globalization and Bilateral Trade Agreements, Political and Societal Constraints

1. Introduction

Spatial economics, also known as *location theory* or *regional economics*, is the subfield of economics examining where certain types of economic activities take place and the underlying economic theory and econometric methodology [1] [2]. In the past two decades, it has evolved into an important area of economic research, and has undergone extensive developments. The 2008 Nobel Prize in Economic Sciences was awarded to Paul Krugman for his outstanding contributions in New Economic Geography and New Trade Theory. In his 1999 book [3] with Fujita and Venables, Krugman describes the emergence of New Economic Geography "in the last few years" as the "fourth wave of the increasing returns revolution in economics", saying:

Our sense is that the state of the "new economic geography" is currently similar to that of the new trade theory circa 1984, *or the new growth theory circa* 1990. *That is, an exuberant and initially exhilarating growth of theory has reached the point at which it has become difficult to see the forest for the trees, and yet* *there is, if one looks for it, a strong element of commonality among many if not all of the analyses. The integration of new trade and new growth theory was, we believe, powerfully aided by the appearance of judiciously timed monographs that endeavored to synthesize each field into a coherent whole: Helpman and Krugman's* Market Structure and Foreign Trade (1985) *and Grossman and Helpman's* Innovation and Growth in the World Economy (1991)*. This book is, of course, an effort to do the same with the new economic geography.*

In Section 4, we describe new paradigms in spatial economic in the past two decades that can be viewed as continuation of the revolution (or innovation) in economic theory beyond increasing returns. An important feature of these paradigms that we want to highlight is the geopolitical and/or societal constraint, which varies with time, in spatial economics. Geography also connects to history and culture, and how it interacts with technological innovations and high-speed yet low-cost transportation leads to new economic phenomena and principles. Section 2 describes a concrete contemporary development by using China's One Belt One Road (OBOR) Initiative, Free Trade Zones and Special Economic Zones. Yet there is also a contrary counter-globalization movement that we will review in Section 3. The new paradigms in Section 4 can address this paradox.

2. China's OBOR Initiative, Economic Development, and Free Trade Zones

From the perspective of spatial economics, China's One Belt One Road (OBOR) Initiative has epoch-making significance. The Eurasian economic sector has exhibited a strong pattern that it is well-developed on both ends, but underdeveloped in the middle. The economic volume of East Asia represented by China, Japan, and South Korea currently accounts for more than 65% of Asia, and Western Europe which includes Germany, Britain, and France, accounts for more than 70% of total economic volume of the European Union.

When President Xi Jinping of People's Republic of China visited Kazakhstan and Southeast Asia in September and October 2013, he outlined an initiative of building the land-based Silk Road Economic Belt and the complementary initiative of a "Maritime Silk Road" through South China Sea, the South Pacific Ocean and the Indian Ocean to foster collaboration of China with Southeast Asia, Oceania, and North Africa. The "Belt" includes countries situated on the historical Silk Road through Central Asia, West Asia, the Middle East and Europe, and the initiative aims at integration of the region into a cohesive economic network by building infrastructure and broadening trade, while also promoting (a) cultural exchanges to renew the historical linkages and (b) university alliances to train engineers and scientists for the Belt and Road development. To fund the infrastructure projects, the Asian Infrastructure Investment Bank (AIIB) was proposed by China in 2013, and the Articles of Agreement were signed in Beijing in 2015, with an authorized capital of over 100 billion US dollars coming from the countries in the agreement, and with China being the largest stakeholder that holds 26% of voting rights. Firzli and Nicolas [4] point out that the Belt and Road Initiative is a strategic spatial extension of the infrastructure-driven economic development policy which has sustained the past steady growth of China's economy since Deng Xiaoping's economic reforms. They also point out that the deliberate under-investment in transportation infrastructure in the advanced industrialized countries after 1980 has allowed China to become preeminent in high-speed railway and other land transportation technologies.

Integration of the aforementioned multinational region into a cohesive spatial economic network also builds upon China's unique experience with its own economic development and free trade zones. In Deng's economic reforms, the east coast of China opened up for economic development first, at one time 20% of the eastern coastal areas accounted for more than 80% of the total national economic output. Subsequent economic development projects, included "China's Western Development" and "Rise of Central China", after which Chengdu, Chongqing, Xi'an have become another frontier of economic growth, with an annual economic growth of more than 10% in the last 20 years.

These economic development projects have given China regional balance in economic growth, which has been important for the country to sustain a steady annual increase rate of its GDP. Since the 1980s, China has set up more than 230 state-level economic development zones and 150 state-level or city-level high-tech parks. The recent Pearl River Delta Economic Development Zone of Guangdong Province has the novel feature of linking the major industrial and business centers in Shenzhen and Guangzhou through Zhuhai to the Special Administrative Regions (SARs) of Macao and Hong Kong. High-speed railway transportation connecting these five cities will be available within the next two years.

With its own law under "one country, two systems", the SAR of Hong Kong or Macao is basically a cosmopolitan city and *de facto* free trade zone. China has set up 12 Free Trade Zones (FTZs), beginning with the Shanghai Free Trade Zone, which has helped Shanghai to become China's global financial center; Hong Kong has already been a global financial center since 1997 when the former British colony became SAR. Whereas Tianjin has become a major free trade port, the inland city Chongqing has used its FTZ to become a major gateway to the Silk Road Economic Belt.

3. Counter-Globalization Forces and Socioeconomic Impact

Anti-globalization movements began as protest movements against the annual meetings of the International Monetary Fund (IMF) and World Bank in West Berlin in 1988 and against the G7 Summit in Paris in 1989. The participants opposed what they perceived as the geopolitical power of large, multinational corporations, which they accused of seeking to maximize profit at the expense of local labor compensation standards and the integrity of national legislative authorities through international trade agreements. These forces strengthened after

J18—Carnival Against Capital held in dozens of cities around the world on June 18, 1999, and Washington A16—the April 16, 2000 demonstrations and street protests around the IMF that resulted in the arrests of about 1300 people and a subsequent class action suit for false arrests. By 2002, these movements also joined forces with the protest movements against the impending invasion of Iraq. Anti-globalization activists raised their concerns about proper functioning of democracies as the leaders of Span, Italy, Poland and the UK were supporting the war when the majorities of their populations were against it. In 2002, an estimated number of 1500 to 2000 protesters from Anti-Capitalist Convergence, Mobilization for Global Justice, and other groups demonstrated in Washington D.C. against the annual meetings of the IMF and World Bank.

From the perspective of spatial economics, these anti-globalization movements believe that those whom they call "ruling elites" have sought to harness the expansion of world markets to support their own interests and use international aggreements to generate privileges that include the ability to (a) move freely across national borders and (b) extract natural resources, which citizens and small businesses in the respective countries do not have. They think that the IMF, World Bank, WTO (World Trade Organization), OECD (Organization for Economic Cooperation and Development) promote "neoliberalism", which argues that free trade would bring benefits to poor countries and to disadvantaged citizens in rich countries, without consideration of environmental protection and local ethical standards for the well-being of workers. They also object to free trade treaties such as NAFTA (North American Free Trade Agreement) and Trans-Pacific Trade Agreement that give wealthy, industrialized nations (when they often call the "North") advantages over developing nations and widen the global wealth gap between the North and the poor countries.

The aforementioned "anti-globalization" movements have been considered a misnomer by some of its participants, notably Noam Chomsky and S. A. Hamed Hosseini who are opponents to protectionism and argue that there are alternative pathways to globalization besides the corporate globalization or neoliberalism whom they oppose. Moreover, "anti-globalization" does not distinguish between global social justice in their "alter-globalization" and the nationalist anti-globalization movements, such as the French National Front, Austrian Freedom Party, German Nationalist Democratic Party, and the Greek Golden Dawn, that argue for the protection and advancement of the nation-state. The past four years, with globalization highlights in China's Road and Belt Initiative and Free Trade Zones described in the last section, also witnessed a surge in nationalist sentiment against globalization in the United States and European Union (EU), culminating in Brexit (Britain's exit from EU) and Donald Trump's presidency in the US. Voters for Brexit voted against free-market and winner-takes-all capitalism under which unskilled native workers receive less pay than educated and skilled workers from other countries working for multinational companies. Similar sentiments led to the election of President Trump who claimed that he would lower the corporate tax to stop American multinational companies from locating in other lower-corporate-tax countries such as Ireland and that he would discontinue multinational free trade agreements and renegotiate NAFTA for terms more favorable to US workers.

Although their works are not anti-globalization, some distinguished economists who have disagreement with neoliberalism have strong influence on counter-globalization. The Tobin tax on financial transactions, proposed by the 1981 Nobel laureate James Tobin, has become part of the agenda of the anti-globalization movement. The 1999 Nobel laureate in Economic Sciences, Amartya Sen, argues in *Development as Freedom* that the third-world development requires policies oriented to health and education for the expansion of human capability of the workers and not just to the nation's GDP. The 2001 Nobel Laureate Joseph Stiglitz, who was also chief economist of World Bank from 1997 to 2000, gives a critical view of the management of globalization and argues for debt relief, land reform, improvements in transparency and accountability in his book *Globalization and Its Discontents*. David Korten, who moved from Harvard Business School to USAID (United States Agency for International Development) as Asia-region adviser on development management, has written that he became disillusioned with the foreign aid system and raised public consciousness of the expansion of corporate power at the expense of democracy, equality, and environment in his well-known publication *When Corporations Rule the World*.

4. New Paradigms in Spatial Economics and Discussion

We now return to the second paragraph of Section 1 about the innovations in economic theory, led by spatial economists, beyond increasing returns. China's Belt and Road Initiative and Free Trade Zones described in Section 2 are in sharp contrast to the counter-globalization forces that led to Brexit and other anti-globalization "political vectories" in past two years. This paradox suggests that a) time-varying regional sociopolitical constraints have to be incorporated into the economic theory, b) the collective versus individual gains/losses have to be incorporated into a multi-objective optimization problem, and c) management of globalization has proved to be a difficult task and should be an important area of research in spatial economics. We are currently working on new spatial economic paradigms and analytical tools to address these issues. A similar problem has undergone major progress in the past five years, namely new spatial financial paradigms, culminating in the recent book [5] by Nyambuuand Tapiero:

As we enter the new millennium, information technology—by crushing the cost of communications—is accelerating the globalization of manufacturing, commerce, and especially finance, thereby morphing national financial markets into one huge efficient global marketplace for capital. Indeed, the relentless rise of the digital cyber-economy is weakening the grip of the nation-state as government policies are subjected to a continuing referendum by financial markets.

And yet die-hard sovereigns are holding firmly to their prerogatives of having a national currency, a national regulatory framework, and a national tax code of their own and much more.

Against this background, [5] is a "powerful recast of core international pricing markets in a world of gated/segmented capital markets" and defines "risks and opportunities in a world of incomplete financial globalization," says a review and summary of the book. Chapter 7 of another recent book [6] describes recent advances in smart order routing for trading in the exchanges of different countries with different time zones and in dark pools of the gated/segmented capital markets, while its Chapter 8 considers the underlying Informatics, Risk Management and regulatory issues. Insights and techniques from globalization in finance should be helpful for the development of new paradigms and analytical tools in spatial economics.

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