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The effect of foreign trade and investment liberalization on spatial concentration of economic activity

Yener Kandogan *

School of Management, University of Michigan – Flint, 303 E. Kearsley, Flint, MI 48503, United States

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ABSTRACT

I examine the varying responses of countries to foreign trade and direct investment liberalization on spatial concentration of their economic activity by taking into consideration moderating factors such as their market size and level of economic development. I argue that liberalization increases the concentration under normal conditions but large market size, and underdevelopment can disperse economic activity. Using data from 168 countries for the period of time starting in 1980s, I found support for all hypotheses.

1. Introduction

In the past several decades, the world experienced large scale liberalization, when many countries reduced their international trade and investment barriers with their natural partners through regional trade agreements and as part of the global GATT/WTO obligations. While the general trend across the countries has been toward lower barriers, the pace and timing has been different. While some countries, such as those in the European Union, started the liberalization process fairly early, others came in much later after observing its positive results in Europe. In developing countries, Structural Adjustment Programs of the IMF and the World Bank included reductions in trade and investment barriers as part market reforms.

The effect of these liberalization efforts on the spatial concentration of economic activities has not been very clear. Of particular interest is whether liberalization leads to an increase in the concentration of economic activity or disperses it to a larger geography, and the underlying factors affecting this relationship. Unfortunately, empirical literature on this subject is very limited and the results are too industry- or country-specific to make any generalizations. Only a handful of studies examined individual industries or particular industries in several countries, such as Hanson (1997) on the implications of NAFTA on Mexico, Storper, Chen, and De Paolis (2002) on European economies, analysis of Spain by Tirado, Paluzie, and Pons (2002), He, Wei, and Xie (2008) on China, Sanguinetti and Volpe Martincus (2009) on Argentina's manufacturing industry, and Sjoberg and Sjoholm's (2004) work on Indonesia's manufacturing industry. While the empirical study of Sjoberg and Sjoholm (2004) on Indonesia's manufacturing industry finds that concentration did not decrease as a result of liberalization, Hanson (1997) finds that NAFTA led to a less-concentrated spatial distribution in Mexico as firms found it more profitable to locate along the border to the US rather than old industry centered in Mexico City. In other words, results in these limited-scope empirical analyses have been inconclusive and in support of both arguments.

Similarly, in the theoretical literature, one can find arguments on either side. Briefly speaking, some argue that liberalization reduces concentration since under protectionism, companies tend to locate closer to main domestic markets and that strategy changes with liberalization (Behrens, Gaigne, Ottaviano, & Thisse, 2007; Henderson, 1982; Krugman & Livas, 1996). Others suggest that expansion of international trade and investment primarily favors existing industrial centers, leading to higher concentration (Haaparanta, 1998; Paluzie, 2001; Rauch, 1991; Yeboah, 2000). After conducting an extensive literature survey, Brulhart (2011) finds that the theoretical outcome depends on the modeling choices. He concludes that whether liberalization leads to concentration or dispersion of economic activity depends on each country's specific characteristics.

This article aims to contribute to both the empirical and theoretical literature on this subject. Since the existing theoretical literature on the implications of foreign trade and investment liberalization on the concentration of economic activity is inconclusive, one of this article's key contributions is contextualizing this

* Tel.: +1 810 237 66 75.
E-mail addresses: yener@umich.edu, yener@umflint.edu

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relationship by considering how the impact of liberalization on concentration is affected under the presence of moderating factors. In particular, this article considers country specifics such as market size and level of economic development. Further, the empirical analyses on this subject suggest that the result of liberalizations might have been affected differently by such specifics affecting the industries and/or countries analyzed. The mixed results in these empirical studies emphasize the need for a comprehensive study on this subject covering multiples of countries' overall economy over an extended period of liberalization.

The intention of this paper is to fill this gap with a study covering the experiences of 168 countries, which provides sufficient diversity in terms of country specifics. This study covers the time period since the 1980s – a period of extensive liberalization efforts of different intensity across countries with a range of different effects on spatial concentration. Using this comprehensive dataset in terms of country coverage and time period, I measure and analyze how the concentration of economic activity has been impacted by trade and investment liberalization. I also identify the role of country specifics such as market size and economic (under)development. I believe that from a policy perspective, discriminating between these two sets of outcomes and identifying the factors under which dispersion or concentration occurs would be of considerable interest.

2. Theoretical framework and hypotheses development

Economic geography has a long history of contributing to the analysis of globalization (Clark, Feldman, & Gerther, 2000; Krugman, 1991, 2000). Scott (2000) rightly states that this stream of research is enjoying a rebirth that should be noted by international business scholars. Consistently, Buckley and Ghauri (2004) identify analysis of globalization arising from multinationals on the world economy with a focus on economic geography as an important research area for scholars. There are close connections between economic geography and the mainstream work in international business. In fact, location plays a major role in theories of FDI, particularly Dunning's OLI paradigm (Dunning, 1977, 1995, 2000).

The motivation behind the location decisions of multinationals facing lower trade and investment barriers is an important research topic among international business scholars (Dunning, 1998; Vernon, 1974). Dunning (2000) studies how liberalization, increases in intellectual capital, alliance capitalism, and new major players affect the ownership and location of global activity. In this article, the focus is on the impact of liberalization, and the ownership question is separated from the location question in exploring the impact of liberalization on the concentration of economic activity.

In assessing how concentration of economic activity around the world is affected, traditional motivations behind multinationals' location decisions are explored as well as new motivations for relocating activities worldwide. Traditional reasons include the need to seek new markets, to achieve efficiency primarily through economies of scale, and to search for inexpensive or scarce resources (Dunning, 1993). Searching for strategic assets such as knowledge or talent, and other strategic motivations is among the reasons more recently considered (Dunning, 2000).

Market expansion is the main motivation for the market-seeking multinationals. They are driven by better access to markets, including those of competitors (Graham, 1978), existence of high tariff barriers, and ability to establish relationships with customers and thus develop market knowledge. There are also factors linked to proximity issues, such as minimizing transportation costs (Driffield & Munday, 2000; Loewendahl, 2001) as spreading activities would lead to higher transportation and distribution costs (Buckley & Ghauri, 2004). Within this framework, the determinants of foreign direct investment (FDI) location can also be linked to several factors such as the size, per capita income, and growth potential (Thomsen, 2000).

Multinationals seeking efficiency in their FDI locations are primarily driven by differences in costs of traditional factors of production between locations. Tax and performance incentives offered by local governments are also considered among motivations for efficiency-seeking multinationals (Dunning, 1993). This type of FDI results from a desire to rationalize their activities in order to take advantage of specialization, economies of scale and scope, and potential synergies (Loewendahl, 2001). Labor market factors, including the supply, cost, skills, productivity, and the quality of industrial relations are all potentially significant factors in the location choices of multinationals seeking efficiency (Yeung & Strange, 2002).

Resource-seeking multinationals are attracted to different locations for their specific high quality and/or low cost resources. Firms need to locate in a particular site to access these resources that are immobile. Transaction costs or market failure leads the multinationals to engage in FDI rather than importing these resources. Availability and quality could be the critical criteria for the location decision instead of just cost (Dunning, 2000). Labor costs seem to be only marginally associated with this kind of FDI (Mucchielli & Saucier, 1997; Slaughter, 1999). Zaheer and Manrakhan (2001) argue that the possibility of remote access to these resources would reduce such resource-seeking activities.

Other multinationals are motivated by the desire to sustain or advance competitiveness by exploiting know-how related intangible assets such as scientific and technological expertise in foreign locations (Cantwell & Janne, 1999; Dunning, 2002; Enright & Roberts, 2001). The availability of highly developed management and organization skills can also be a key influence on attracting direct investment from multinationals, leading to clusters of innovation (Cantwell, 1989). The focus in such FDI is on knowledge and information, and the opportunity to capitalize on such strategic assets can be a major factor in location decisions (Burt, 1992; Mosakowski & Zaheer, 1999). Analyzing and using the current information acquired from around the world to respond to customers or in new product development is considered essential.

2.1. Concentration, trade and FDI liberalization

Both classical Ricardian trade theory and the trade theories of the new economic geography suggest that liberalization will lead to rearrangement of economic activities within a country, generally becoming more specialized to reflect each country's comparative advantages or scale effects, respectively.

Krugman and Livas (1996) propose that industrial concentration is likely to decrease as a result of liberalization of trade. They argue that when firms are producing solely for the domestic consumers, they minimize transportation costs by locating their production facilities close to the main domestic markets. Consequently, their suppliers are attracted to the same region, strengthening the industrial concentration further. When international trade is liberalized, domestic markets lose significance and more of the required inputs get imported. Domestic markets merge into the global marketplace and companies tend to source inputs from different markets to stay competitive. All of these reduce the centripetal forces that had led to industrial concentration. Further considering high labor and land costs associated with highly concentrated industrial locations, they suggest firms relocate at the periphery as a result of liberalization leading to lower industrial concentration.