



Globalization, industrial restructuring, and regional development in China

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A B S T R A C T

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China's rapid growth and structural change since the reform in the late 1970s have generated many intriguing issues for scholarly research. This paper notices the drastic rise of China in foreign investment, export, and ICT production. Through a comprehensive review of the literature on globalization, industrial restructuring and regional development, this paper holds that the research on China is embedded in China's reform process, as well as theoretical development in economic geography. It highlights the important role of institutions and global-local interactions in industrial and regional development.

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Introduction

China's drastic rise and structural change since the launch of reforms in the late 1970s have raised many intriguing issues for scholars and have ignited the imaginations of economic/urban geographers working on China. China has overtaken Germany as the world's biggest exporter and Japan as the world's secondary largest economy, challenging the hegemonic status of the U.S. Such a rapid rise is a phenomenon rarely seen in human history. The velocity and complexity of the restructuring, in terms of the economic, social, political, and environmental dimensions, is truly unprecedented and merits a careful examination and assessment. China challenges Western hegemony, not only in the economic and political arenas, but also in theoretical inquiry. Papers in this special issue study changing China through an examination of the processes of globalization, industrial and technological advancement, and regional development.

This special issue draws from an excellent pool of papers that were presented in the sessions titled "China and Globalization I, II, III, IV, V" at the Annual Meeting of the Association of American Geographers in Washington, D.C., April 14–18, 2010. In addition, we have also collected papers presented at the International Conference on Globalization, Innovation, and Urban-Regional Development held in Shanghai, June 18–20, 2009, and the International Open Workshop on Transnational Corporations, Knowledge and Networks in China's Regional Economy held at Justus Liebig University, Giessen, Germany, June 21–23, 2010. Papers were selected through a rigorous anonymous review process.

The contributors have completed many years of fieldwork in different regions of China with sound track records of publications on globalization, industrialization and regional development in China. They produce high quality work that is well grounded in empirical details and theoretical articulation. Each paper considers the problem-oriented and application-oriented focus of the journal. The authors provide conceptual and empirical analyses and discuss the practical consequences of their findings as well as ways to translate them into theoretical notions and policy measures.

China rising: economic transition and regional development

China's transition intertwines with global restructuring and the flourishing of academic thinking. The intensifying process of globalization has generated heated debates and led to the development of paradigmatic schools of thinking. Notions of industrial districts and agglomeration have generated renewed scholarly interest, and theories of industrial clusters have drawn even a broader academic attention. Such notions of regionalism and localism have been challenged by globalist perspectives, championed by developments in global value chains (GVCs), global commodity chains (GCCs), and global production networks (GPNs) (e.g., Gereffi, Humphrey, & Sturgeon, 2005). The global city literature asserts the power of leading world cities in the global economy but also acknowledges the global expansion of capital and corporate functions (Taylor & Aranya, 2008).

These theoretical debates on globalization and localization/regionalization, the role of nation states, and the nature of territory can also find their footprints in the research on China. Scholars have been debating about the nature of economic reforms in China, and they tend to investigate its transition from the lens of either decentralization, or marketization, or globalization. However,

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China's transition could be understood as a triple process of globalization, decentralization and marketization, and China's gradual transformation, driven by the triple process, has made the experiences of China hard to theorize and conceptualize by the Western perspectives centered on market economies dominant in the literature of economic/urban geography (Wei, 2006).

Geographers contribute to China studies in a broad academic environment by addressing issues of globalization, industrialization, urban/regional development, and environmental change. A number of recent publications have enriched and even challenged Western theories, and particularly relevant to this special issue are works that account for the development and transformation of Chinese cities and regions by examining globalization (e.g., Wei, 2010; Yang, 2009), foreign investment and trade (Lemoine & Ünal-Kesenci, 2004), industrial districts and clusters (e.g., Wei, 2009; Wei, Li, & Wang, 2007; Wei, Lu, & Chen, 2009), agglomeration and concentration (He, Wei, & Fan, 2007; He, Wei, & Xie, 2008), innovation and creativity (e.g., Kroll & Liefner, 2008; Liefner & Zeng, 2008; Lin & Wang, 2009; Wu, 2007; Zhou, Sun, Wei, & Lin, 2011), regional development and inequality (e.g., Fan & Sun, 2008; Li & Wei, 2010a,b; Lu & Wei, 2007; Wei, 2007), and to a lesser extent, urban development (e.g., Luo & Wei, 2009; Wu, Xu, & Yeh, 2007).

This special issue adds to our existing knowledge on China. The six papers address broad issues related to China's transition and development, including globalization, foreign investment, and trade (e.g., Li, Dunford, & Yeung, 2012; Meyer, Schiller, & Diez, 2012; Wei, Zhou, Sun, & Lin, 2012), industrial location and agglomeration (e.g., Bathelt & Zeng, 2012), innovation (e.g., Liefner, Brömer, & Zeng, 2012; Wei, Zhou, Sun, & Lin, 2012), and regional development (e.g., Yang, 2011).

Globalization, foreign investment and regional development

China rises at the historic juncture of an era of accelerated globalization, and China itself is a critical force in accelerating globalization. The rapid growth and structural change in China would never have been achieved without extensive foreign direct investment (FDI) and trade. On the other hand, the pace of globalization depends on China's role in taking over parts of modular production, in becoming the world's factory, and becoming a key player in worldwide financial flows. There is little doubt that China's rise and globalization have reinforced each other.

FDI is a major instrument of multinational enterprises (MNEs) incorporate restructuring and profit making and a key agent of globalization and spatial transformation. The orthodox work on the location of FDI focuses on locational factors in determining FDI, such as labor cost, market size, union membership, and transportation. With the broadening of research scope and methodology, scholarly efforts have uncovered the significance of globalization, nation states, networks, and place characteristics in firm location and business organization (Dicken, 2003; Poon & Thompson, 2004).

China is the leading developing country in attracting foreign investment. Similarly, FDI in China is unevenly distributed; the coastal region, where land and labor are more expensive, dominates FDI, often accounting for 85–90% of the total, most of which goes to the three emerging global city regions: the Yangtze Delta, the Pearl River Delta, and the Beijing–Tianjin Region. Geographical research on FDI in China started with macro studies of FDI distribution across cities and provinces in the late 1980s and early 1990s (e.g., Gong, 1995; Leung, 1990). Since China's open door policy was firstly implemented in south China, the focus was the location choice and spatial impact of FDI in the Pearl River Delta, which has been conceptualized as externally driven industrialization, Exo-urbanization, and Hong Kong-induced development (e.g. Eng, 1997;

Sit & Yang, 1997). Scholars have emphasized the importance of state policy and interpersonal networks in the uneven distribution of FDI (Hsing, 1998; Leung, 1996). More recent research, while still arguing for the role of the state (Wei, Leung, Li, & Pan, 2008), notices the rising significance of market forces and place characteristics in FDI location and organization (Wei, Luo, & Zhou, 2010). Geographical research on foreign trade has been rather limited, compared to research on FDI.

However, many questions remain with respect to globalization and development in China. How have foreign investment and trade contributed to economic development and industrial upgrading in China? Will China be able to use globalization for an effective upgrading of technology and production? Will China become an innovative nation that introduces radically new products to the world market? Will China's distinct institutional setting evolve into a role model for other Asian or African or Latin American countries?

The articles included in the special issue take up the issues of dynamics and institutional developments, hence reflecting on the prospects of the relation between China's rise and globalization. This special issue intends to enrich the literature focused on the development of China and critically examine China's transition in the context of globalization, including how globalization affects China's industrial and urban/regional development and vice versa. These papers raise important questions about the dynamics within China in pursuit of industrial and technological advancement, regional coordinated development, and restructuring of urban/regional landscapes.

Wei et al.'s paper analyzes the nature of FDI local networks in production and R&D activities in China. Based on a large-scale survey of ICT firms conducted in three mega-city regions of China: Beijing, Shanghai–Suzhou, and Shenzhen–Dongguan, their study of foreign ventures in the information and communication technology (ICT) industry shows that in China these ventures are gradually localizing their production, but the extent of local embeddedness is still limited and contingent upon home country effects, local specific contexts and FDI-host region relationships. They have also found significant influence of industrial agglomeration on FDI location and network decisions. For regions dominated by FDI such as Suzhou and Dongguan, FIEs are thinly embedded with local economies and tend to establish global networks among themselves; local embeddedness is limited by a series of technological, institutional, spatial, and structural mismatches. Li et al.'s paper examines the trade and economic ties between China and the developed world, particularly the European Union (EU). The paper updates our knowledge about the transformation in China from a socialist redistributive system to a market economy under globalization and flexible specialization. This special issue also includes Chun Yang's paper on the cross-border development of the Greater Pearl River Delta, which elaborates how the Pearl River Delta and Hong Kong developed collaboratively into a world-class manufacturing region. Liefner et al. look at knowledge absorption of Chinese companies as facilitated by linkages to foreign firms.

Industrial location, agglomeration, and regional development

There has been a long tradition in geography of studying industrial districts, which has been revitalized by scholars like Allen Scott in his study of Southern California. Closely related is Porter's cluster theory, which built upon the notion of industrial districts and has drawn the imagination of geographers. The most recent work has more critically examined the theories of industrial districts and clusters, including work on the restructuring of industrial districts, the emergence of knowledge clusters, and the globalization of production networks. All these research themes have found their imprints in China.

Research on China has unfolded the substantial regional inequality and multiple pathways of regional development (Wei, 2007). Research on industrial districts have found that while the orthodox notion of industrial districts can be used to study regional development models, particularly the Wenzhou model, the recent restructuring of development models in China have added new meanings to the notion. The Wenzhou model has been restructured and scaled up through four strategic choices: institutional change, technological upgrading, industrial diversification, and spatial restructuring (Wei, 2009; Wei, Li, & Wang, 2007). The Sunan model, which was centered on the local state directed township and village enterprises, has been globalized through attracting foreign investment (Wei, Lu, & Chen, 2009). The Pearl River Delta has also attempted to domesticate foreign investment and make the region more innovative (Lu & Wei, 2007). Research on industrial clusters has emphasized the role of the state and globalization in cluster development and the dynamics of industrial clusters in China. Scholars have studied the example of leading cities and high-tech parks as they showcase how innovation and learning benefit from cooperation in close proximity (Liefner & Zeng, 2008; Liefner, Hennemann, & Lu, 2006; Zhou, 2008). Scholars have also used the notions of GVCs/GPNs in research on China (e.g., Yang, 2007), and some have argued for the third way of regional development in China, moving beyond the divide between new regionalism and global production networks (Wei, 2010).

This special issue refines the discussion on industrialization in China with a focus on the most recent industrial developments in specific cities and clusters. We investigate industrial location from an inter-urban perspective, including how foreign and domestic firms organize their production in Chinese cities (Wei, Zhou, Sun, & Lin, 2012), the rise of Chinese latecomer firms, and how Chinese firms endeavor to enter the high-tech industries like optoelectronic industry (Liefner, Brömer, & Zeng, 2012). Our refined studies of industrialization in China with knowledge absorption and technological changes will allow us to theorize and test whether, and how, particular configurations of global production networks interact with the local industrial development in China. The special issue also explores broader implications of globalization and industrialization on urban/regional development in China. It has become clear that the interaction between globalization and China's transitional economy has restructured the urban/regional landscape in the country.

Globalization, economic restructuring, and Chinese cities

China's transformation has also empowered its leading cities as centers of economic space and global interactions. Shanghai has quickly surged as the subject of a burgeoning literature on globalization and development in China; it is followed by Beijing, and research on the rest of the Yangtze Delta has also been increasing over the years. Reflecting the institutional turn in human geography, the findings point to path dependence and the indisputable role of the state in the globalization of Chinese cities, with notions such as embedded globalization, transitional institutions, transitional cities, globalizing cities, and emerging global cities (e.g., Sit & Liu, 2000; Wei, 2007). The miraculous resurgence of Shanghai and Beijing as emerging global cities has attracted considerable scholarly attention. Secondary cities in global city regions, such as Suzhou, another major destination of FDI in the YRD and known for its Singapore Industrial Park, have also drawn increasing attention (e.g., Wei et al., 2009).

Orthodox theories of foreign investment, such as John Dunning's ownership-location-internalization framework, mainly explain why investing abroad, but do not address investment in specific cities and sites. Space has been increasingly recognized as an integral component of FDI location decision, since FDI can be

grounded and realized only with proper sites. In developing countries, overwhelming evidence has shown that foreign capital is "sticky", heavily concentrated in selected developing countries and their core city regions, often emerging global city regions, each of which is centered on an emerging global city and supported by a network of secondary globalizing cities. Substantial differentials also exist within globalizing cities, where traditional centers and varied emerging centers, often foreign-investment zones, compete with each other for resources and preferential policies. Grant and Nijman (2002) found the emergence of multiple centers that are differentially integrated in the wider economy, at local, national, and global scales. Foreign investment zones and districts are the most globalized places in globalizing cities and function as critical nodes of globalization and global–local interface. These zones or districts are also fragmenting urban spatial structures, where traditional urban centers and neighborhoods coexist with new economic spaces created by globalization and spatial restructuring.

In this special issue, several papers deal with the leading global cities of China, particularly Shanghai (Bathelt & Zeng, 2012; Liefner, Brömer, & Zeng, 2012; Wei, Zhou, Sun, & Lin, 2012). They point out the significance of foreign investment and trade in the globalization of Chinese leading cities and the emergence of networked economies of the Yangtze River Delta. Shanghai in particular is remaking itself as a global city and transforming into an innovative city. While Shanghai is indeed moving up in the global system of cities, the city is facing more challenges in the development of indigenous innovation and headquarter economies.

Conclusion

China's transition since the late 1970s has raised many research issues for scholars. This special issue documents the drastic rise of China in foreign investment and export and industrial production. It also notices the rise of China in global ICT production and even in R&D and the knowledge economy. Chinese cities and regions have also experienced dramatic growth and structural changes. The works collected in this issue show the power of the Chinese state and the role of public policy in driving the rise and transformation of China.

They also contribute to a more China-specific use of key terms and theories. For example, Liefner et al. (2012) discuss the difficulties of applying theories of Western origin to the case of China, when some implicit assumptions of the theory are not given. Theories may thus need fundamental adaptations if they are to become useful tools for explaining China's rise and regional restructuring. The country's unique approach to market economy calls for new explanations. That is, some theories may not be applicable to the Chinese case and some may need considerable modifications. Moreover, this special issue underlines the need for theoretical approaches that better incorporate the characteristics of China's economy, such as a strong role of the state.

The articles in this special issue take a regional perspective, but relate their findings to theoretical concepts. They analyze regional economic dynamics as determined by institutional and global factors and use the results to challenge parts of the established conceptual understanding in economic geography. We hope this special issue has made another step toward improving the understanding of changing China and contributing to the linkages of theories and empirical evidence.

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