
Regional Development in China: Transitional Institutions, Embedded Globalization, and Hybrid Economies

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Abstract: This paper by a recognized specialist reviews the substantial recent literature on regional development in China, emphasizing studies of regional inequality and local development. It attempts to critically assess progress and changes in the structure of such research, highlighting the important role of institutions and geography, as well as emerging theoretical notions of transitional institutions, embedded globalization, and hybrid economies. The paper identifies intriguing and important questions that remain understudied, and highlights concepts deserving further development. In so doing, it raises questions relating to future research and explores avenues for moving the field forward. *Journal of Economic Literature*, Classification Numbers: O10, O15, O18. 145 references. Key words: regional inequality, transitional institution, globalization, embeddedness, hybrid economies, China.

INTRODUCTION

China's spectacular rise has ignited the imagination of many serious thinkers, and best-sellers like Ohmae (1990) and Friedman (2005) have drawn heavily from the experiences of that country. In the same vein, De Blij (2005) considers the rise of China to be one of the three challenges facing America where "geography matters." Oddly, despite the currents of globalization and the significance of China in global competition and national security, geography has become more parochial in terms of its research focus (Dicken, 2004). In the early 1990s, "new" regional geography was promoted as the future of regional geography (e.g., Thrift, 1990), which, as some have argued, however, has been turning regional into systematic geography, with the "regional" missing (Holmen, 1995). Dicken (2004) lamented geographers' missing out on globalization and called for a revitalization of regional geography. In fact, many "regional" geographers do study various facets of globalization, but their work has largely escaped the attention of non-regional geographers. Thus, there is a genuine need to revitalize regional geography and improve the dialogue between regional and systematic geographers in order to heighten awareness of the rest of the world and increase geography's impact on the

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globalizing society. We must treat the experiences of China and other developing countries seriously if we want to study development “on the ground” and incorporate the role of cities and regions in the theory of development (Scott and Storper, 2003).

On the other hand, China’s emergence and transformation do raise many intriguing questions for geographers. What forces underlie the transformation of China? How are regions shaped by and shaping reform and transition? Do diverse regions of China benefit equally from the transition? What are the roles of regions and foreign investment in spatial restructuring? These are some of the questions economic geographers working on China have been investigating. The body of literature on regional development in China is large, but has not been thoroughly reviewed, and this contrasts sharply with the many reviews of urban geographies of China (e.g., Lin and Wei, 2002; Ma, 2002; Li, 2005; Ma and Wu, 2005). Among the few exceptions, Wei’s (1999) piece on regional inequality in China reviews mostly publications from the 1980s to the mid-1990s, and since then, the literature has grown substantially. Liu and Lu’s paper (2002) is a historical overview of the work of economic geographers in China from the 1950s to the 1990s. Yeung and Lin’s (2003) introduction to a special issue discusses the situatedness of theories and the development of Asian economic geography. Williams (2002/2003) and Fan et al. (2003) have a broad coverage on China, albeit with limited materials on regional development.

This paper updates and reviews the recent literature on regional development in China, especially regional inequality and local development, areas to which this author has devoted particular attention. Research issues related to agriculture, transportation, services, culture, environment, and the countryside are therefore largely beyond the scope of the paper. Through such a review process, I attempt to critically assess the progress and structure of the field. I will demonstrate that recent work on China is embedded in the country’s reform and transition process, as well as theoretical developments in economic geography and regional development. I highlight the important role of institutions and geography in regional development, and theoretical notions of transitional institutions, embedded globalization, and hybrid economies that have emerged from the work on China. Lastly, I raise questions for further investigation, and argue that many intriguing, significant questions remain understudied, and that some worthwhile concepts need to be further developed. I also explore avenues for moving the field forward, and call for increased attention to the rise and transformation of China and greater involvement of non-China geographers in research.

REGIONAL INEQUALITY: BEYOND CONVERGENCE AND DIVERGENCE

Regional inequality has been the subject of intense debate among proponents of the convergence,² divergence, inverted-U, and endogenous growth models. There has been a renewed multidisciplinary interest in regional inequality since the late 1980s and especially the early 1990s, fueled by dissatisfaction with the neoclassical doctrine and concerns over the effects of globalization and liberalization. First, regional inequality is a key issue in former socialist countries, where scholars are debating intensively the social and spatial effects of reforms and transition (e.g., Petrakos, 2001; Bradshaw and Vartapetov, 2003; Kepka, 2004; Bradshaw and Prendergrast, 2005). Second, the literature on regional development in Asia has been expanding, particularly on the effects of the “Asian Miracle” and the

²In other words, the tendency toward reduction or equalization of regional economic disparities.

persistent regional differentials within countries (e.g., Hill, 2002; Akita, 2003; Fan and Scott, 2003), although some maintain that globalization and liberalization have brought development to the poorer regions. Third, recent development in spatial analysis techniques has advanced methodological rigor, and enabled researchers to reveal complex spatial phenomena and mechanisms (e.g., Rey and Montouri, 1999; Le Gallo and Ertur, 2003). Lastly, social scientists, especially economists, are “rediscovering” geography and reopening the convergence debate. They are increasingly aware of the role of geography in growth, development, and inequality (e.g., Krugman, 1991; Bloom and Sachs, 1998).

Scholars have identified and studied two concepts of convergence: (1) σ (sigma)-convergence, the most often studied, occurs when the divergence of per capita income or outputs across regions declines over time; (2) β (beta)-convergence refers to the tendency for initially poorer regions to grow more rapidly than richer ones (Barro and Sala-I-Martin 1995; Wei, 2000). The new convergence theory (e.g., Barro and Sala-I-Martin, 1995), particularly influential in economics, argues for the convergence of income across regions, with estimates of β of about 2 percent per year in the various contexts. Consequently, research on regional inequality has been revitalized, with an explosion of theoretical and empirical studies (Rey and Janikas, 2005).

Within these broad contexts, regional inequality in China has attracted considerable scholarly interest. Given its size, diversity, history, and identity as a transitional, developing country, China is one of the best laboratories for such studies. Indeed, even in the early 1970s, China scholars debated over the impact of Mao’s policy on regional inequality; the Lardy-Donnithorne debate representing two theoretical perspectives on China that have evolved to the present day: the totalitarian approach and the fragmentation approach. The debates have intensified since the late 1980s, with increasing concerns over the effects of reform and transition on inequality (Veeck, 1991). Due to data constraints, the publications in the 1980s and even early 1990s only provided a partial picture of regional inequality, and there was no consensus regarding change of regional inequality under Mao and during the reform. There were also questions of underlying mechanisms.

Work in the mid-1990s, using newly released data, revealed a more complete picture of regional inequality in China, with significant contributions by geographers (e.g., Fan, 1995; Wei and Ma, 1996; Zhao, 1996). Their work challenged the conventional wisdom of regional convergence under Mao and regional divergence during the reform period. As summarized by Wei (1999) and Fan et al. (2003), they argued for the dynamics and multi-scalar nature of regional inequality and the significance of institutions and regions in uneven development. Since the mid-1990s, scholars have attempted to uncover sources of regional inequality, with notions of transitional institutions, multiscale and multi-mechanism, externally driven development, and place-based development et al. (e.g., Wei, 2000; Wei and Fan, 2000; Ma and Cui, 2002). The literature has also examined the effects of fiscal decentralization, foreign investment, state investment, labor mobility, technology, and privatization on regional development (e.g., Ma and Wei, 1997; Wei, 2000; Fan, 2002; Lu and Wang, 2002; Skinner et al., 2003; Ying, 2003; Sun and Wang, 2005). Along with economists and scholars in China (e.g., Raiser, 1998; Bao et al., 2002; Luo et al., 2002; Lu, 2003), geographers have uncovered the intensification of the coastal-interior divide, the decline of interprovincial inequality in the 1980s due to problems in SOE (state-owned enterprise)-dominated regions favored by Mao’s industrialization-military policy, and the emergence of a group of coastal provinces driven by foreign investment and non-state enterprises. Wei’s (1999, 2000) multiscale and multi-mechanism (or “333”) framework conceptualizes the process of China’s economic reforms as a triple process of decentralization, marketization, and globalization, and argues

that multiscale regional inequalities (interregional, interprovincial, intraprovincial) are driven by a multiplicity of agents (including the global investor, the state, and the local agent) unleashed by the triple process, which have interactively and jointly produced the uneven landscapes of regional development in China.

Since the late 1990s, scholars have advanced the study of regional inequality by unfolding recent developments, down-scaling, and using more vigorous methods. First, new evidence suggests the continued rise of the coastal-interior divide despite the efforts of the central government to develop interior China, such as the Great Western Development Strategies launched in 1999. Heilig (2006) has determined that China's provinces encompass the full scope of income differences that exist between developed and developing countries. Interprovincial inequality has also rebounded, with the recovery of Shanghai and the further advance of coastal provinces that are replacing traditional industrial provinces as new engines of regional growth (Lu and Wang, 2002; Yu and Wei, 2003). These findings reject the hypothesis of absolute convergence, and suggest polarization of the coastal-interior divide, as well as the formation of distinct regional "clubs" (e.g., Yao and Zhang, 2002), although some have presented evidence of conditional convergence (e.g., Cai et al., 2002). Regarding sources of regional inequality, three schools of thought have emerged. The state-centric approach attributes the rise to coastal development policies of the central government, whereas the globalization school argues for the importance of foreign investment in development. Still others emphasize reform and development from below (e.g., Ma and Cui, 2002).

Second, China geographers have improved previous studies of regional inequality that are less sensitive to scale and space, and argue that regional development in China can be more thoroughly understood with studies of scalar relations and "thick" analysis. Geographical differences within provinces are as vast as across provinces, and a better understanding of regional development requires more studies in different locales (Ye and Wei, 2005). A finer-scale analysis is made significant because a salient feature of reform is the rescaling of China's political economy, through the process of decentralization of state power from a single unitary national scale to multiple local scales (Ma, 2005). The rescaling has profoundly restructured scale politics in China, and is essential to the rise of locally distinctive models of regional development. Work on central-local fiscal relations has shown the experiential, uneven, and contested fiscal decentralization in China, and its significance in regional inequality (e.g., Zhao and Zhang, 1999; Wei, 2000). Geographers have advanced the research on intraprovincial inequality with "thick" analysis of local development models and paths, especially in Jiangsu, Guangdong, and more recently, Zhejiang Province (Weng, 1998; Wei, 2000; Wei and Fan, 2000; Gu et al., 2001; Xu and Tan, 2002; Huang and Leung, 2002; Wei and Ye, 2004; Ye and Wei, 2005). The research has shown a complex picture of changing intraprovincial inequality sensitive to space and driven by a multiplicity of agents, especially local institutions, geography, and FDI embeddedness.

Third, the work of China geographers has enhanced the understanding of process and bottom-up forces at work. They argue that treating the region as the geographical sphere (i.e., expanding the scale of analysis to encompass the entire planet) is most suited to framing interactions of complex social processes in an era of globalization (Cartier, 2001), and that regional inequality is shaped by the complex interplay of globalization, institutions, and region-specific factors (Wei, 2000). Cartier (2001) has criticized Skinner's macro-region model for its theoretical base in location theory, treating the region as a "container" and ignoring causal processes and transboundary activities. Such a critique is situated in the broadening of economic geography from neoclassical location theory to institutional, relational, and

cultural perspectives. Unlike the conventional work on regional inequality focusing on the macro scale, the efforts of China geographers to scale down research and connect to regional development theories have improved the understanding of how causal forces shape the trajectories of regions and the evolution of regional inequality. The institutional turn in economic geography has placed institutions, particularly the role of development states in China, at the center of the regional development literature (Lin, 1997; Marton, 2000; Wei, 2000). The notion of conditional convergence is limited because it removes some structural, local variables that significantly influence regional inequality (Petraikos et al. 2005).

Finally, China geographers have demonstrated that spatial heterogeneity/association and development trajectories of regions heavily influence regional inequality (e.g., Wei, 2000; Huang and Leung, 2002; Ying, 2003; Yu and Wei, 2003; Ye and Wei, 2005; Yu, 2006). Advances in GIS and spatial analysis, especially exploratory spatial data analysis (ESDA), visualization, spatial regression, and geographically weighted regression (GWR), have made the analysis possible. Conventional inequality indexes and global regressions mask geographical spaces or regions, which are heterogeneous in nature (Yu and Wei, 2003). These geographers have found that regional inequality in China is sensitive to geographical clustering and agglomeration, and that changing trajectories and fortunes of leading or lagging regions have had tremendous impacts on regional inequality. Yu and Wei (2003) have discovered a trend toward spatial agglomeration since the reform, and that the notions of β and σ convergence across provinces during the 1980s failed to identify such a trend. Using the ESDA methods, spatial regression, and GWR, China geographers have uncovered significant spatial dependence and dynamic spatial processes in regional development, as well as complex local socioeconomic structures and varied local development trajectories within provinces. Economists have also argued for the significance of geography in regional inequality (e.g., Bao et al., 2002; Yao and Zhang, 2002). These approaches and the new findings have challenged the conventional “global,” “black-box” approaches of orthodox convergence theorists (Ying, 2003; Yu and Wei, 2003; Ye and Wei, 2005). These lines of research also suggest that a hybrid economic geography has much more to offer than a fragmented one, a view echoing the plea of Scott (2004) on methodological variety and openness and the lament of Yeung (2003) on the underdevelopment of research methodology in practicing new economic geographies.

Despite such progress, research on regional inequality in China can be further deepened and broadened. First, the scalar nature of regional inequality and bottom-up forces at work can be studied further. Most economists working on China deal with regional inequality at the provincial level, with limited studies on intraprovincial inequality, while much of the work of geographers on local development is rarely connected with the study of regional inequality. A scalar perspective presents a typology of regional inequality (Wei, 1999), and has the potential to link inequalities from the macro scale to the micro scale, even everyday life experiences. How multiple mechanisms operate at each scale is extremely complicated and requires substantial attention. At even finer scales, one can analyze intracounty and intraurban inequalities, which have drawn some attention from economists and political scientists working on China (e.g., Friedman, 1991). Second, regional inequality can be manifest in many different forms, such as rural-urban, interurban, and rural inequalities, as well as inequalities in specific sectors, such as the technology divide and social inequality, which remain less studied. With globalization and liberalization, inequalities in those dimensions, especially technology and health care, have been intensified and merit more attention from geographers. Third, with the scaling down of the discipline of geography and the distance to public policy, few geographers are engaging in the debate on regional development policy in China, including the recent

Great Western Development Strategies, although China geographers have been heavily involved in many policy efforts. As many are concerned (e.g., Markusen, 1999; Scott, 2004), geographers cannot afford to abandon “totalization” and distance themselves from large policy and political issues of national and even global significance. Lastly, research on interior provinces remains limited due to problems with data and accessibility.

LOCAL DEVELOPMENT: INSTITUTIONS, REGIONS, AND EMBEDDED GLOBALIZATION

Research on China, as well as East Asia, has long embraced the role of the state, embedded with the broad notion of the developmental state. Such a tradition of the developmental state has been further strengthened by the emergence of institutional economics, the development of economic sociology, and the institutional turn in economic geography. Alternative schools have challenged the neoliberal interpretation of the East Asian Miracle (World Bank, 1993), and argue that East Asian development is institutionally driven and the role of the state is instrumental, even determining the pathways of economic development (e.g., Amsden, 1989; Brohman, 1996). In East Asia, the market is “governed,” and state capacity lies in policy instruments and institutional links with private enterprises (e.g., Wade, 1990). Scholars working on transitional economies have also argued that transition exhibits multiple forms, and is characterized by evolution, path dependency, political fragmentation, recombinant property, and uneven and partial reform of socialist institutions (e.g., Grabher and Stark, 1997). The impacts of institutional schools can be observed in recent publications of the World Bank, which has realized that an understanding of East Asian development requires coming to grips with the political economy of change, governance, and the role of key institutions (Stiglitz and Jusuf, 2001). The rise of institutionalism has had a profound impact on the theoretical perspectives on regional development in China.

The triple process of decentralization, marketization, and globalization has fundamentally restructured the orthodox Chinese socialist state. State restructuring in China is mainly a response to the totalitarianism of orthodox socialism and the failure of socialist ideology and practice in China. The state has shifted from emphasizing egalitarianism, social movement, and self-reliance toward pursuing growth and competitiveness. Decentralization has empowered local states and agents, marketization has reduced state control of the economy and society, and globalization has placed the Chinese state in the global web of institutions. The transition, however, is a gradual, experiential, and uneven process, and Chinese institutions are evolving and transitional in nature (Wei, 2005). Transitional institutions are unstable and internally incoherent, and are characterized by rent-seeking behaviors, conflicts among different organizations, and spatial segmentation, dualism, and hybridity. The nature of transitional institutions, the process of institutional restructuring, and their impacts on regional development are exciting areas of academic inquiry. Western institutional theories are not adequately developed to address the transitional nature and radical change of institutions, making China a fertile ground for enriching institutional perspectives.

The state is a critical agent of economic and regional development in China, and is considered essential to the growth, transformation, and globalization of Chinese cities under notions of the growth machine, the entrepreneurial city, the global city, and urban governance (e.g., Lin and Wei, 2002; Ma, 2002; Wu, 2003; Li, 2005; Wei and Leung, 2005). In population research, the state is considered critical as well, exerting influences through state institutions such as the household registration system, working units, and employment permits, which are transitional in nature. The power of the Chinese state lies in the strong state

capacity and state-society relations. Despite liberalization, land ownership and cadre promotion remain under the control of the state. The state still largely controls hospitals, educational institutions, SOEs and state-controlled shareholding companies, as well as the courts and police, through the direct control of the monopolistic Chinese Communist Party. Economic growth has also empowered the state's financial strength and investment capacity. There is no clear sign of an upscaling of state power to supra-national organizations, as is argued by the rescaling literature. The central government of China often deactivates civil society, disciplines labor, and suppresses dissent in order to maintain a favorable environment for investment and development (So, 2003). Scholars have conceptualized the Chinese state as an authoritarian state, a developmental state, and more recently, an entrepreneurial state, with spatial and scalar perspectives and notions of neo-authoritarianism, local state corporatism, red capitalism, market socialism, etc. Four types of local states exist in China: developmental, clientelist, predatory, and entrepreneurial (Baum and Shevchenko, 1999). The Chinese state therefore has multiple layers, scales, and dimensions, which challenges the simplified notion of the East Asian developmental state.

State policy is critical in the rise of the coastal-interior divide in China, the coastal concentration of foreign investment, and the development of China's high-tech industries. Even during Mao's interior industrialization and military build-up, decentralization and regionalism laid the foundation for the revival of coastal economies and the development of township and village enterprises (TVEs). Post-Mao reforms have given birth to a new diversity in organizational forms, a plurality of property rights (Nee, 1992), and ownership re-arrangements (Wei, 2004). The reform has empowered local governments to seek economic growth and fiscal responsibility, and made local economic growth the priority of local governance. The development of southern Jiangsu, known as the TVE-centered Sunan Model of development, has been conceptualized as local state-led development, or in Oi's (1992) theorizing, local state corporatism. Such a conceptualization treats TVEs as components of a larger corporate whole directly under the control of township and village governments, who act as managers or board directors, with the need for fiscal responsibility and career advancement. Local states control TVEs through labor and resource allocation, and they run their jurisdictions like industrial firms (Walder, 1995). Such a role of local states as entrepreneurs directly engaging in business separates the Chinese state from the East Asian developmental state, and lays the foundation for the fuzzy boundaries between state and nonstate enterprises, between state officials and private capitalists, and between socialism and capitalism (Wei, 2004). It is also the basis for corruption, nepotism, and rent-seeking of state officials, and the operation of *guanxi* (interpersonal relations, personal connections) networks in China. Local state corporatism, however, as illustrated in the next section, has been criticized lately.

Researchers have uncovered the significance of state policies and places in the location of foreign direct investment (FDI). FDI is heavily concentrated in coastal China, especially in the coastal cities enjoying preferential policies and agglomeration economies (e.g., Gong, 1995; He, 2002). Such coastal stickiness is a manifestation of the gradual opening up of China to the outside world and the locational advantages of coastal cities. The establishment of development zones, mainly coastal in location, is a major state effort to use external resources and prepare for global competition (Wang, 2004). The role of the state is significant in the locational decision of foreign investment, and the state's intervention and selected openness have improved the embeddedness of foreign investment in China (Yeung and Li, 1999). Unlike Eastern Europe, with its "thin" global-local networks conceptualized as "Cathedrals in the Desert" (Hardy, 1998), my field work in the Yangtze Delta disclosed an intensifying trend toward localization and local embeddedness of foreign firms. Localization is driven, on one

hand, by the emerging power of the Chinese market and local governments, and on the other by the development of labor markets and supply networks consisting of thousands of domestic firms and joint ventures (Wei and Leung, 2005). The large and growing market of China is becoming an increasingly attractive location for strategic R&D facilities of multi-national multinational enterprises (MNEs; Sun, 2003). Local firms' collaboration with MNEs provides them with vital technological and organizational training (Zhou and Tong, 2003). The bargaining power of the Chinese state and the potential of the Chinese market have given rise to embedded globalization in China (Sit and Liu, 2000), challenging the "hollowing out" thesis and contrasting sharply with the East European conceptualization.

Intrigued by the significance of local states and places in regional development, researchers have "scaled down" to study the "winning" city regions, especially the Pearl River Delta (PRD) and the Yangtze Delta; both have been at the forefront of China's reform and globalization. Distinct models of regional development have emerged, produced by the incentives and constraints contained in the institutional frameworks in place at the beginning of the reform era (Whiting, 2001), as well as the rescaling and decentralization of China's political economy. Globalization and China's institutional reforms are generating new spaces of uneven development and changing the configuration of regional development models and clusters. The earlier reform and opening of the PRD has led to an infusion of investment from Hong Kong and its "one step ahead" of other regions in growth and transition (Lin, 1997). The development of the PRD, or the PRD model, has been conceptualized as externally driven development, Hong Kong-infused development, and exo-urbanization (e.g., Eng, 1997; Sit and Yang, 1997), with an increasing presence of outside players and the strengthening of the PRD cities over the years (Yeung, 2006). Through investigations of the complex interactions among ethnicity/culture, business networks, and industrial districts, *guanxi* has been placed at the heart of theories of global networks and industrial development (e.g., Leung, 1993; Hsing, 1998; Yeung and Lin, 2003). Investors from Hong Kong and Taiwan have also made small city regions, especially Dongguan, emerging centers of high-tech assembly in China (Walcott, 2003), transforming Dongguan from an export orientation based on cheap labor in the 1980s to a domestic market orientation since the late 1990s (Yang, 2006). The formation of such spatial clusters characterized by intense global-local production networks enriches the cluster theory by illustrating the significant role of the Chinese state, places, and ethnic networks (Wang et al., 2001).

The Yangtze Delta, especially the drastic globalization of Shanghai, is a recent focus of research. Researchers have argued that cheap labor alone cannot explain the infusion and concentration of FDI, and challenge the notion of "the end of geography" and the new international division of labor theory. China geographers have criticized the global city literature's de-emphasis of the role of the state in the process of global city formation, and have discovered the salience of state strategies, world factories, and industrial districts in the evolution of global cities (Wei and Leung, 2005). They have revealed the massive drive by the state to remake Shanghai into a global city and world production center, with the infusion of state investment, favorable open door policies, and the empowering of local governments through decentralization (e.g., Wu, 1999, 2003; Wei and Leung, 2005). The formation of a new automobile industry cluster in Shanghai is supported by the state in various forms and characterized by a focal, hierarchically structured production system (Depner and Bathelt, 2005). Walcott (2002) has proposed a "high-technology bridge" category to reflect the ties that promote technology transfer, as well as the multiplicity of types of companies and support structures. Research on Suzhou has uncovered a complex network developed by the Chinese state, global capital, and Singaporean government in the making of Suzhou

(Singapore) Industrial Park and the transformation of Suzhou into a booming center of FDI and high-tech production (Cartier, 2001; Pereira, 2002). Kunshan has become a hub of foreign investment and IT production based on its state strategy, local resources, and location near Shanghai (Marton, 2000; Wei, 2002). China geographers have demonstrated that it is the complex interplay of global capital, scalar states, and local geographies and development paths that has transformed the Yangtze Delta into the engine of growth in China and one of the largest emerging global city regions of the world.

Beijing-Tianjin, the third-largest emerging global city region of China, has also been undergoing reform and globalization. Both the central and municipal governments spearhead the transformation and globalization of Beijing, with four emerging themes: attracting foreign investment, building a world-class central business district (CBD), constructing Zhongguancun as “China’s Silicon Valley,” and preparing for the 2008 Olympic Games (Wei and Yu, 2006). These themes are state-directed and involve many aspects of globalizing the city, which attests to the difference between the globalization process in Chinese city regions and their counterparts in developed countries. Zhongguancun, with a highly supportive local governance structure (Segal 2003), leads China in high-tech investment, innovation, and production. The dynamics of its high-tech cluster lie in global-local networks centered on the hundreds of small firms well connected to the nation-state, transnational corporations (TNCs), universities, and research centers (Zhou, 2005). Tianjin has also been making tremendous efforts toward globalization. China geographers argue that such efforts have been constrained by local institutions and geographies, which challenges the orthodox notion of global cities de-emphasizing the power of places and institutions (Wei and Jia, 2003).

To summarize, the rise of institutionalism has had a profound impact on research on China. First, China geographers, like other social scientists, have embraced the role of the state, embedded with the broad notions of the “governed” market and the developmental/entrepreneurial state (Fan, 1995; Lin, 1997; Marton, 2000; Wei, 2000). They view institutions as transitional, and embedded in space and place. Second, unlike the state-centric or the globalization approach, China geographers argue that it is the complex articulation of global, state, and local institutions and geographies that has transformed China into an engine of growth. Third, they have investigated the complex interactions among ethnicity/culture, business networks, and industrial districts, and placed *guanxi* at the heart of the theories of global networks and industrial development (Leung, 1993; Hsing, 1998). Fourth, they have also embraced the power of place, and argue that transition exhibits multiple forms and local trajectories (Ma and Cui, 2002; Wei, 2004). The winners of China’s reform race are coastal globalizing city regions; they enjoy policy preferences and agglomeration effects, and are locomotives of China’s miraculous rise. China geographers argue that the role of the state has strong geographical foundations, and is constrained by local institutions and geographies, which challenges orthodox notions of state centralism, the East Asian developmental state, and the global city (e.g., Wei, 2002; Wei and Jia, 2003).

The dynamics of China have raised many issues for future investigation. First, we should further study the notion of transitional institutions and their role in regional development. The huge body of literature on the nature, restructuring, and role of the Chinese state is theoretically significant, and the state theory of geographers should have a strong geographical component. This significance led Erik Swyngedouw, in a presentation at the 2004 AAG meeting in Philadelphia,³ call for more research on the Chinese state, although he was clearly

³Session 4524, “Economic Geography—Then, Now, and the Future V,” Centennial Meeting, Association of American Geographers, March 18, 2004, Philadelphia, PA.

unaware of the huge body of literature built by dozens of social scientists working on China. Second, work on *guanxi* has lost some momentum lately. The extent to which *guanxi* relations are unique and important in shaping economic geographies, and whether marketization and power relations have replaced personal trust with business and political rules, remain understudied. Yeung (2004) admits that his belief that *guanxi* essentially shapes the behavior and activities of ethnic Chinese business firms is false, and realizes that fascination with culture and ethnicity in shaping economic organizations is substituting one form of (economic) essentialism with another—cultural essentialism. This may have much to do with the fading of research on *guanxi*. More broadly, notions like *guanxi*, *hukou* (household registration system), and *danwei* (working units) are significant institutions, but they are specific to the Chinese context. How to make them “travel” beyond China and incorporate them into mainstream theories of institutions remains a daunting task. Third, more work is needed to strengthen the argument that institutional change and economic development have strong geographical foundations. Despite the rediscovery of geography by social scientists, geographers have been eager to embrace institutional and cultural turns, and the role of geography has become fuzzy. Some geographers are also eager to discard the work of economists framed by neoclassic economics without recognizing that the latter have moved far beyond orthodox economics and regional science, and their work, like Krugman’s (1991) new economic geography and Sachs’s (2005) research on poverty and regional development, is innovative and of great theoretical and policy significance. More work is needed to unfold the process of regional development and improve the understanding of the role of geography in development, a message in Jeffrey Sachs’s address at the 2004 AAG Annual Meeting as well.⁴

Lastly, embedded globalization is another exciting concept, and more work is needed to unfold the process of localization and embeddedness, the role of the Chinese state, and the effect of global production networks. The work on the significant role of the state in the embeddedness of MNEs in China is heavily concentrated in the auto industry (e.g., Yeung and Li, 1999; Sit and Liu, 2000; Depner and Bathelt, 2005), a special sector under heavy state control. The nature of the embeddedness in other manufacturing sectors and changes of embeddedness over time are less well studied. Moreover, work on global production networks is losing momentum as well. Scaling down through the study of China is one way to advance the research.

REGIONS DECONSTRUCTED: HYBRID ECONOMIES, MARGINALIZED PLACES, AND THE LIMITS TO TRANSITIONAL INSTITUTIONS

China’s reform is a gradual, experiential, and path-dependent process, and its multiplicity of space-times and geographical heterogeneity are underinvestigated (Wei, 2004; Hu, 2005). The reform and transition can be understood as a process of hybridization, involving and generating hybrid agents, urbanization, and regional economies. Hybrids are humans and non-human entities that “travel” between and connect existing divisions, and hybridization entails movement that seeks to integrate elements that are thought to be incompatible or conflicting (Kwan, 2004). The transitional, exploratory nature of the reform has produced a group of hybrid, multi-scalar regional economies of China, shaped by the interplay of

⁴Session 3639, “Plenary: The AAG at 100: External Perspectives on Geography’s Status and Potential,” Centennial Meeting, Association of American Geographers, March 16, 2004, Philadelphia, PA.

multiple forces and agents operating at the global, national, and local scales. The change of the organization of Taiwanese personal computer (PC) investment in China is a hybridization process of de-coupling and re-coupling with the goal of strengthening the firms' core competence (Hsu, 2005). The Chinese state, or East Asia's development state in general, is a hybrid product of Western capitalism and Confucian parental governance (Han and Ling, 1998). The behaviors of local states are transitional and hybrid as well, with a fuzzy mixture of entrepreneurial, clientelist, predatory, and developmental state modes. Such a notion of hybridization challenges the simplified notion of a linear, convergent "transition to capitalism." Muldavin (1998) argued that the Chinese hybrid economy is not necessarily a transition to capitalism, but more an emergent form of modernization and development.

The transformation of ownership structure in particular is a process of hybridization, and attests that orthodox "thick" state institutions, a fundamental feature of state socialism, have limits. For Mao's China, SOEs were the major form of ownership, as a hallmark of state socialism. Central to the failure to reform SOEs are problems of state ownership and property rights, or "thick" state institutions, including ambiguous property rights, rigid tax and administrative systems, heavy welfare and service responsibilities, and poor risk management and competitiveness (e.g., Lin, 2001; Wei, 2004). The reform since 1997 has attempted to "separate government from businesses," and has focused on ownership restructuring by privatizing and transforming SOEs into hybrid enterprises, including limited-liability companies, shareholding companies, and Sino-foreign joint ventures, giving rise to hybrid organizational forms. The advantage of hybrids in the transitional economy is their capacity to economize on transaction costs in interorganizational relationships (Nee, 1992), and reduce uncertainty associated with transitional institutions. Minority-state-owned hybrids are compared favorably with other ownership types in the Chinese setting (Jing and Tylecote, 2005). However, SOEs and their hybrids are not a homogenous entity; their performance is embedded in multi-scalar power relations (Hu, 2005) and locally distinct institutional development settings.

TVEs, which were well positioned in the institutional environment of the 1980s, have been undergoing restructuring and hybridization as well (Han and Pannell, 1999; Wei, 2004). Collective ownership and state control over TVEs increased rent-seeking and bureaucratization, leading to the loss of collective assets (asset-stripping), declining profitability, corruption, and mismanagement (Sun, 2002; Ho et al., 2003). Moreover, TVEs tend to be small, low-tech, and are less capable of technical innovation and meeting the management requirements of modern corporations. The reforms intended to clarify the property rights of TVEs by phasing out local government ownership and transforming TVEs into hybrid modes (Wei, 2004). By the late 1990s, most TVEs had been transformed into hybrid ownership forms, which signaled the end of the historical role of TVEs and the orthodox Sunan Model of development (Wei, 2002). The restructuring of TVEs in Sunan has been so pervasive that it can be seen as the "second industrial divide" in the region's economy (Shen and Ma, 2005). China's transformation has challenged the orthodox notions of capitalism and socialism, and China has developed hybrid forms intermediate between command and capitalist economies (Wei, 2004).

As a result of TVE restructuring, the notion of local state corporatism has been criticized for geographical bias, misinterpretation of the nature of transition, and a narrow conceptualization of the state. The notion of corporatism understates the diversity within society during the reform process (Yep, 2000), and the work of local state corporatism depends on the institutional structure of a region and the objectives of development (Segal and Thun, 2001). The positive developmental role of TVEs in the 1980s is an outcome of a unique period and is

specific to certain localities; local state corporatism fails to explain their relative failure in northern, central, and western China, because all local governments in the country share a basic set of economic and political incentives (Wang, 2005). Restructuring and privatization of TVEs have falsified the implication of local state corporatism that TVEs can grow without privatization. Geographers have argued for the significance of space and place and the interaction of global, national, and local actors in state restructuring and local development (Marton, 2000; Wei, 2002).

A sign of regionalism and bottom-up processes at work is the state-induced regionalism and protectionism common across China. With the drive for economic growth and intensifying competition, regional “resource wars,” such as the “wool wars” and “silk cocoon wars,” have erupted, in which local states used legal/illegal administrative instruments to protect their local markets and restrict interregional resource flows (e.g., Cannon and Zhang, 1996; Brown et al., 2005). Regions are still partially insular, with some of the markings of cellular economies. Devolution of power and increasingly active local states have further intensified local protectionism, construction duplication, and poor coordination. The behaviors of transitional institutions underlie these problems, another sign that institutional thickness and collective action, as promoted by institutional economic geography, do have limits and risks.

The work on the Wenzhou model, known for its private enterprise-centered development path, has disclosed the tremendous efforts of local entrepreneurs and their placed-based networks in making Wenzhou one of the wealthiest places in China, building upon hundreds of years of local entrepreneurship and the drive for business success (Ma and Cui, 2002; Ye and Wei, 2005). Wenzhou is in a new phase of economic hybridization in which an interrupted native tradition of household and market economies and the introduction of overseas capitalism have released the forces of a ritual economy (Yang, 2000). Unlike the local state-centered Sunan model, in Wenzhou the state is playing a supportive, managerial, and developmental role, overshadowed by the local entrepreneurs and social networks (Ye and Wei, 2005). Such a role of the state attests to the hybridity of the Chinese economy, as well as the unevenness and geographical embeddedness of local states. However, the future development of Wenzhou is most seriously challenged by the limits of institutions and institutional lock-in. While scholars have promoted the concept of institutional thickness, the experience of Wenzhou proves that whether thick institutions work is contingent on specific times and places. Wenzhou’s thick local institutions, in the form of gift economies, *guanxi* networks, governance bureaucracy, and unique local language and culture, have increased business costs and isolated local economies from external capital. Wenzhou has successfully broken previous lock-ins through restructuring since the late 1980s, and its internal dynamism may also overcome the recent challenge. Beijing’s Zhongguancun is also in great need of a modern institutional infrastructure that supports innovation, such as information transparency, networks of business support services, and a fair and enforceable legal system (Zhou, 2005).

The rise of China has been accompanied by the rapid disappearance of rural agricultural land, land degradation, habitat fragmentation, biodiversity loss, and sustainability challenges (e.g., Rozelle et al., 1997; Yeh and Li, 1999; Xie et al. 2005), although those issues are marginal to the present paper. Even *The People’s Daily* (China Acknowledges, 2006) has admitted that government studies show that at least 40 million farmers have been left landless in recent years, often because of illegal seizures by officials who exploit the current policy. Rent-seeking and land loss have strong institutional bases. Hangzhou, the second-largest city in the Yangtze Delta, also faces problems of chaotic and wasteful construction. Scholars have found that the exploratory nature of transitional institutions is incompatible with master planning that requires prediction of the future, forcing Hangzhou, as well as other Chinese cities,

to constantly revise its urban plans and to struggle with urban management (Wei, 2005). Such institutional conflicts are inherent to transitional institutions and are a deep cause of urban problems in China.

China's poorer western region faces even greater challenges, and has lagged further behind the coastal region in development. China must walk the fine line between strengthening agglomeration and competitiveness of the coastal city regions on one hand, and improving the development of poor regions in the interior. Beijing has revisited the relationship between coast and the interior (or more broadly, efficiency and equity) by placing it at the top of the government's agenda. The campaign to develop the west has not been able to attract the levels of investment and development sought in many rural areas (Brown et al., 2005). Studies indicate aspects of path dependency in economic change, and illustrate difficulties and challenges faced by China's western and minority areas (e.g., Eng, 1998; Yan and Qian, 2004). The western drive has encountered economic, political, and cultural obstacles, including corruption, poor management, ethnic conflicts, and economic inefficiency (Lai, 2002; Yeung and Shen, 2004). It is further argued that the campaign to Open Up the West has intensified the long-term pattern of western primary resource exploitation and implies a continuation of uneven patterns of exchange between coast and interior (Oakes, 2004). Moreover, substantial inequalities in urban and regional development also exist within western provinces (e.g., Han and Qin, 2005; Pannell and Schmidt, 2006; Wei and Fang, 2006). Western development policies are centered on key interior city regions, and cities such as Xian are joining the economic resurgence in China's restructuring economy, "jump-started" by technology-intensive growth (Walcott, 2003). In northwest China, problems with water shortages and environmental degradation have much to do with ill-guided urbanization and rural development policies. The issues of development and sustainability also concern scholars working on southwest China (e.g., Eng, 1998; Yeh, 2003).

Despite recent progress, many issues merit further investigation. First, while the notion of hybridization challenges the simplified notion of linear, convergent "transition to capitalism," hybrid modes are transitional and unstable, and my field work shows that some hybrid firms have experienced further privatization. It is necessary to conduct follow-up studies on ownership restructuring, especially the recent trajectories of Sunan, Wenzhou, and the Pearl River Delta. Second, exactly how institutional transformation in China has taken place and how networks of state and nonstate agents shape local development models require further investigation. Even within Sunan, while Suzhou is moving ahead through globalization, Changzhou, another prototype of the Sunan model, is lagging behind. Third, the behaviors of transitional institutions underlie many problems in China. Are those problems really transitional, or endemic to capitalism? The restructuring of SOEs and TVEs and the recent problems with the Wenzhou model provide powerful evidence that "thick" institutions (as promoted by the notion of institutional thickness) do have inherent problems. The problem in China is not the lack of collective action, but the literature offers little guidance on the extent and the effective ways. Moreover, the role of the state in Wenzhou testifies to the hybridity and geographical embeddedness of states, and challenges the notions of local state corporatism and the Asian developmental state. Better conceptualization is needed to capture the structure and role of local institutions and collective action in regional development. Finally, the fact that places remain poor or "trapped" in poverty despite institutional efforts is precisely because of the geographical foundation of institutions. However, little empirical work has been done to investigate the embeddedness and the failure of institutions in those places. The notion of institutional lock-in has potential in the understanding of regional development. But how does one measure path dependence and institutional lock-in?

ASSESSMENT AND CONCLUSION

China is dynamic and driven toward growth. Constant reforms, swift change, and unprecedented growth have fueled much speculation and debate about China. Work on regional development, on the one hand, attempts to address issues arising from China's reform and transition and, on the other, is increasingly influenced by Western theories of economic geography and regional development. Publications therefore have two common features. First, they often draw on Western literature, not necessarily testing Western theories but using such theories as research frameworks, especially for work on globalization, institutions, regional inequality, and industrial districts. Second, research issues tend to be situated in China, tied closely to pressing socio-economic problems. The notion of transitional institutions is unique to transition countries, and reflects the institutional turn in economic geography. Unlike their Western counterparts, who should reintegrate "the 'national' as a dimension of scalar relations" (Mansfield, 2005), China geographers have placed the role of the Chinese state in geographical change in complex vertical webs of global-national-local relations and horizontal webs of economy, society, and polity.

A review of the literature leads me to conclude that publications on China have regional, scalar, and thematic focuses. While Yeung and Lin (2003) argued that much of the work of economic geography is situated in a few places, the work on China also shows evidence of regional and thematic focus. The core areas of the coastal region, or the globalizing city regions of China, including the Yangtze Delta, the Pearl River Delta, and Beijing, have attracted much scholarly attention, with research issues particularly relevant to China's core city regions and heavily influenced by the frameworks of institutional change, global networks, high-tech centers, and global city regions. Such a regional bias is due to their advantages in accessibility, data availability, and local collaborators, especially with scholars at Beijing University, Nanjing University, East China Normal University, Zhongshan University, and the Institute of Geographical Sciences and Natural Resources Research of the Chinese Academy of Sciences. Scholars in Hong Kong, many trained in the West, have been actively publishing in international journals, especially on the cities and development of the Pearl River Delta. The emphasis on these coastal locales is consistent with the shift of the discipline of geography toward theoretically informed locality studies. The downscaling of research from the national scale, however, has increased the distance of China geographers (and geographers in general) from national studies and comparative research.

In terms of paradigm shifts, the waves of the quantitative revolution and spatial science reached China only in the mid-1980s, upon the country's opening to the West. Unsatisfied with socialist ideology as the guiding principle, Chinese scholars searched for alternative paradigms in academic inquiry. The flexible production literature had a limited impact, because of its focus on deindustrialization and economic decline at a time when China was undergoing rapid industrialization and economic growth. The failure of the West to provide a proper theoretical framework for reform and development in China made growth pole theories, as well as their promoters such as Francois Perroux and John Friedmann, influential in China's regional policy. Since the early 1990s, theories of globalization, institutions, networks, clusters, and scalar politics have become guiding frameworks for research on China. China geographers are more sensitive to hybrid geographies and tolerant of diverse perspectives and methods. Indeed, a hybrid economic geography should recognize and utilize a variety of methodological strategies, quantitative and qualitative, statistical and story-based, and not be methodologically monist (Barnes, 2005). With the trend toward global economic geographies,

geographers of China have unprecedented opportunities to make more significant contributions to geographical theories.

However, mounting challenges remain. Theoretical development is heavily situated in Western contexts, largely ignoring the contexts of China and other developing countries (Yeung and Lin, 2003). Cartier (2001) challenged the Western-centrism retained by many political economic analyses of China and the larger Asian region. Pannell (2003) questioned whether our conceptual models and working theories are adequate to accommodate the dynamics and complexity of transitional China. The country is considered exceptional, and the findings based on China have rarely been incorporated into major geographical theories. Dicken (2004) is especially disturbed by the inward turn of geography, and the lack of dialogue between economic geography and development geography or world regional geography.

Conducting research on China is challenging; there is limited funding, harsh field conditions, a lack of institutional support, and Eurocentrism in academic practice (e.g., McGee, 1991; Yeung and Lin, 2003; Wei, 2006). However, China does matter. Books on China are among the best sellers; for example, Tom Friedman's (2005) *The World is Flat* deals extensively with China. There are also increasing publications on China, not only in disciplinary but also area journals. This author (Wei, 2006) has proposed the following five paths for further development: (1) test Western theories; (2) either validate or reject them (in total or in part) as applicable to China; (3) develop context-sensitive theories, as promoted by China geographers; (4) be a Sinologist, but move beyond the academic ivory tower; and (5) simply be a better scholar. This view is broader than the recent call for theorization among geographers working on China/Asia (Lin and Wei, 2002; Yeung and Lin, 2003). Indeed, China geographers should assume a larger role in studying the country's transition and transformation, although I somewhat doubt that context-sensitive theories of China will attract much attention from systematic geographers. Geographers could also challenge the messages delivered by heated, fear-based publications on China through academic rigor and balanced research. I encourage more human geographers to tackle the challenging theoretical and empirical questions raised in this paper.

REFERENCES

- Akita, T., "Decomposing Regional Income Inequality in China and Indonesia Using Two-Stage Nested Theil Decomposition Method," *Annals of Regional Science*, **37**, 1:55–77, 2003.
- Amsden, A., *Asia's Next Giant*. New York, NY: Oxford University Press, 1989.
- Bao, S., G. Chang, J. D. Sachs, and W. T. Woo, "Geographic Factors and China's Regional Development under Market Reforms, 1978–1998," *China Economic Review*, **13**, 89–111, 2002.
- Barnes, T. J., "Culture: Economy," in P. Cloke and R. Johnston, eds., *Spaces of Geographical Thought*, London, UK: Sage, 2005, 61–80.
- Barro, R. and X. Sala-I-Martin, *Economic Growth*. New York, NY: McGraw-Hill, 1995.
- Baum, R. and A. Shevchenko, "The State of the State," in M. Goldman and R. MacFarquhar, eds., *The Paradox of China's Post-Mao Reforms*. Cambridge, MA: Harvard University Press, 1999, 333–362.
- Bloom, D. and J. Sachs, "Geography, Demography, and Economic Growth in Africa," *Brookings Papers on Economic Activity*, **2**, 207–295, 1998.
- Bradshaw, M. J. and J. Prendergrast, "The Russian Heartland Revisited," *Eurasian Geography and Economics*, **46**, 2:83–122, 2005.
- Bradshaw, M. J. and K. Vartapetov, "A New Perspective on Regional Inequalities in Russia," *Eurasian Geography and Economics*, **44**, 6:403–442, 2003.

- Brohman, J.**, "Postwar Development in the Asian NICs: Does the Neoliberal Model Fit Reality," *Economic Geography*, **72**, 2:107–130, 1996.
- Brown, C. G., A. S. A. Waldron, and J. W. Longworth**, "Rural Development in China," *International Journal of Social Economics*, **32**, 1/2:17–33, 2005.
- Cai, F., D. W. Wang, and Y. Du**, "Regional Disparity and Economic Growth in China," *China Economic Review*, **13**, 197–212, 2002.
- Cannon, T. and L. Zhang**, "Inter-region Tension and China's Reforms," in I. G. Cook, M. A. Doel, and R. Li, eds., *Fragmented Asia*. Aldershot, UK: Avebury, 1996, 75–101.
- Cartier, C.**, *Globalizing South China*. Malden, MA: Blackwell, 2001.
- "China Acknowledges Corruption on Land," *People's Daily*, March 15, 2006.
- de Blij, H.**, *Why Geography Matters: Three Challenges Facing America: Climate Change, the Rise of China, and Global Terrorism*. New York, NY: Oxford University Press, 2005.
- Depner, H. and H. Bathelt**, "Exporting the German Model: The Establishment of a New Automobile Industry Cluster in Shanghai," *Economic Geography*, **81**, 1:53–81, 2005.
- Dicken, P.**, "Geographers and 'Globalization': (Yet) Another Missed Boat?," *Transactions of the Institute of British Geographers*, **29**, 1:5–26, 2004.
- Eng, I.**, "The Rise of Manufacturing Towns: Externally Driven Industrialization and Urban Development in the Pearl River Delta of China," *International Journal of Urban and Regional Research*, **21**, 4:554–568, 1997.
- Eng, I.**, "Historical Contingency and Commercialisation in Xishuangbanna, China," *Tijdschrift voor Economische en Sociale Geografie*, **89**, 4:446–458, 1998.
- Fan, C. C.**, "Of Belts and Ladders: State Policy and Uneven Regional Development in Post-Mao China," *Annals of the Association of American Geographers*, **85**, 3:421–449, 1995.
- Fan, C. C.**, "Population Change and Regional Development in China," *Eurasian Geography and Economics*, **43**, 6:425–442, 2002.
- Fan, C. C., L. J. C. Ma, C. W. Pannell, and K. C. Tan**, "Geography of China," in G. L. Gaile and C. J. Willmott, eds., *Geography in America at the Dawn of the 21st Century*. Oxford, UK: Oxford University Press, 2003.
- Fan, C. C. and A. Scott**, "Industrial Agglomeration and Development: A Survey of Spatial Economic Issues in East Asia and a Statistical Analysis of Chinese Regions," *Economic Geography*, **79**, 3:295–319, 2003.
- Friedman, E., P. G. Pickowicz, and M. Selden with K. A. Johnson**, *Chinese Village, Socialist State*. New Haven, CT: Yale University Press, 1991.
- Friedman, T. L.**, *The World is Flat*. New York, NY: Farrar, Straus and Giroux, 2005.
- Gong, H. M.**, "Spatial Patterns of Foreign Investment in China's Cities, 1980–1989," *Urban Geography*, **16**, 3:198–209, 1995.
- Grabher, G. and D. Stark, eds.**, *Restructuring Networks in Post-socialism*. Oxford, UK: Oxford University Press, 1997.
- Gu, C. L., J. F. Shen, K. Y. Wong, and F. Zhen**, "Regional Polarization under the Socialist–Market System Since 1978: A Case Study of Guangdong Province in South China," *Environment and Planning A*, **33**, 1:97–119, 2001.
- Han, J. and L. H. M. Ling**, "Authoritarianism in the Hypermasculinized State," *International Studies Quarterly*, **42**, 1:53–78, 1998.
- Han, S. S. and C. W. Pannell**, "The Geography of Privatization in China, 1978–1996," *Economic Geography*, **75**, 3:272–296, 1999.
- Han, S. S. and B. Qin**, "The Cities of Western China," *Eurasian Geography and Economics*, **46**, 5:386–398, 2005.
- Hardy, J.**, "Cathedrals in the Desert? Transnationals, Corporate Strategy and Locality in Wroclaw," *Regional Studies*, **32**, 7:639–652, 1998.
- He, C. F.**, "Information Costs, Agglomeration Economies and the Location of Foreign Direct Investment in China," *Regional Studies*, **36**, 9:1029–1036, 2002.

- Heilig, G. K.**, “Many Chinas? The Economic Diversity of China’s Provinces,” *Population and Development Review*, **32**, 1:147–161, 2006.
- Hill, H.**, “Spatial Disparities in Developing East Asia: A Survey,” *Asian-Pacific Economic Literature*, **16**, 1:10–35, 2002.
- Ho, S. P. S., P. Bowles, and X. Y. Dong**, “‘Letting Go of the Small’: An Analysis of the Privatisation of Rural Enterprises in Jiangsu and Shandong,” *Journal of Development Studies*, **39**, 4:1–26, 2003.
- Holmen, H.**, “What’s New and What’s Regional in the ‘New Regional Geography’?,” *Geografiska Annaler*, **77B**, 1:47–63, 1995.
- Hsing, Y. T.**, *Making Capitalism in China: The Taiwan Connection*. New York, NY: Oxford University Press, 1998.
- Hsu, J.**, “From Transfer to Hybridization? The Changing Organization of Taiwanese PC Investments in China,” in C. G. Alvstam and E. W. Schamp, eds., *Linking Industries Across the World*. Aldershot, UK: Ashgate, 2005.
- Hu, F. Z. Y.**, “Deconstructing State-Owned Enterprises in Socialist China under Reform: A Scalar Examination,” *Environment and Planning A*, **37**, 4:703–722, 2005.
- Huang, Y. and Y. Leung**, “Analysing Regional Industrialization in Jiangsu Province Using Geographically Weighted Regression,” *Journal of Geographical Systems*, **4**, 2:233–249, 2002.
- Jing, C. and A. Tylecote**, “A Healthy Hybrid: The Technological Dynamism of Minority-State-Owned Firms in China,” *Technology Analysis & Strategic Management*, **17**, 3:257–277, 2005.
- Kepka, J. M. M.**, “The Nysa Euroregion,” *Eurasian Geography and Economics*, **45**, 3:162–189, 2004.
- Kwan, M. P.**, “Beyond Difference: From Canonical Geography to Hybrid Geographies,” *Annals of the Association of American Geographers*, **94**, 4:756–763, 2004.
- Krugman, P.**, *Geography and Trade*. Leuven, Belgium: Leuven University Press, 1991.
- Lai, H. Y. H.**, “China’s Western Development Program,” *Modern China*, **28**, 4:432–466, 2002.
- Le Gallo, J. L. and C. Ertur**, “Exploratory Spatial Data Analysis of the Distribution of Regional Per Capita GDP in Europe, 1980–1995,” *Papers in Regional Science*, **82**, 2:175–201, 2003.
- Leung, C. K.**, “Personal Contacts, Subcontracting Linkages, and Development in the Hong Kong–Zhujiang Delta region,” *Annals of the Association of American Geographers*, **83**, 2:272–302, 1993.
- Li, S. M.**, “China’s Changing Urban Geography,” *Issues & Studies*, **41**, 4:67–106, 2005.
- Lin, C.**, “Corporatisation and Corporate Governance in China’s Economic Transition,” *Economics of Planning*, **34**, 1–2:5–35, 2001.
- Lin, G. C. S.**, *Red Capitalism in South China*. Vancouver, BC: University of British Columbia Press, 1997.
- Lin, G. C. S. and Y. H. D. Wei**, “China’s Restless Urban Landscapes 1: New Challenges for Theoretical Reconstruction,” *Environment and Planning A*, **34**, 9:1535–1544, 2002.
- Liu, W. D. and D. D. Lu**, “Rethinking the Development of Economic Geography in Mainland China,” *Environment and Planning A*, **34**, 12:2107–2126, 2002.
- Lu, D. D.**, “New Factors and New Patterns of Regional Development in China,” *Dili Yanjiu (Geographical Research)*, **22**, 3:261–271, 2003 (in Chinese).
- Lu, M. and E. Wang**, “Forging Ahead and Falling Behind: Changing Regional Inequalities in Post-Reform China,” *Growth and Change*, **33**, 1:42–71, 2002.
- Luo, R. F., X. J. Li, and C. L. Tan**, “A Quantitative Analysis of Economic Convergence across Chinese Provinces,” *Dili Kexue Jinzhan (Progress in Geography)*, **21**, 1:73–80, 2002 (in Chinese).
- Ma, L. J. C.**, “Urban Transformation in China, 1949–2000,” *Environment and Planning A*, **34**, 9:1545–1569, 2002.
- Ma, L. J. C.**, “Urban Administrative Restructuring, Changing Scale Relations and Local Economic Development in China,” *Political Geography*, **24**, 4:477–497, 2005.
- Ma, L. J. C. and G. H. Cui**, “Economic Transition at the Local Level: Diverse Forms of Town Development in China,” *Eurasian Geography and Economics*, **43**, 3:79–103, 2002.
- Ma, L. J. C. and Y. H. Wei**, “Determinants of State Investment in China,” *Tijdschrift voor Economische en Sociale Geografie*, **88**, 3:211–225, 1997.

- Ma, L. J. C. and F. L. Wu, eds.**, *Restructuring the Chinese City*. New York, NY: Routledge, 2005.
- Mansfield, B.**, "Beyond Rescaling," *Progress in Human Geography*, **29**, 4:458–473, 2005.
- Markusen, A.**, "Fuzzy Concepts, Scanty Evidence, Policy Distance," *Regional Studies*, **33**, 9:869–884, 1999.
- Marton, A.**, *China's Special Economic Development: Restless Landscape in the Lower Yangzi Delta*. London, UK: Routledge, 2000.
- McGee, T. G.**, "Eurocentrism in Geography—the Case of Asian Urbanization," *Canadian Geographer*, **35**, 4:332–344, 1991.
- Muldavin, J.**, "The Limits of Market Triumphalism in Rural China," *Geoforum*, **28**, 3/4:289–312, 1998.
- Nee, V.**, "Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China," *Administrative Science Quarterly*, **37**, 1:1–27, 1992.
- Oakes, T.**, "Building a Southern Dynamo: Guizhou and State Power," *China Quarterly*, 178:467–487, 2004.
- Ohmae, K.**, *The Borderless World*. London, UK: Collins, 1990.
- Oi, J. C.**, "Fiscal Reform and the Economic Foundations of Local State Corporatism in China," *World Politics*, **45**, 1:99–126, 1992.
- Pannell, C. W.**, "China's Demographic and Urban Trends for the 21st Century," *Eurasian Geography and Economics*, **44**, 7:479–496, 2003.
- Pannell, C. W. and P. Schmidt**, "Structural Change and Regional Disparities in Xinjiang, China," *Eurasian Geography and Economics*, **47**, 3:329–352, 2006.
- Petrakos, G.**, "Patterns of Regional Inequality in Transition Economies," *European Planning Studies*, **9**, 359–383, 2001.
- Petrakos, G., A. Rodriguez-Pose, and A. Rovolis**, "Growth, Integration, and Regional Disparities in the European Union," *Environment and Planning A*, **37**, 1837–1855, 2005.
- Pereira, A.**, "The Transformation of Suzhou," in J. R. Logan, ed., *The New Chinese City*. Malden, MA: Blackwell, 2002, 121–134.
- Raiser, M.**, "Subsidising Inequality: Economic Reforms, Fiscal Transfers and Convergence across Chinese Provinces," *Journal of Development Studies*, **34**, 3:1–26, 1998.
- Rey, S. and M. V. Janikas**, "Regional Convergence, Inequality, and Space," *Journal of Economic Geography*, **5**, 2:155–176, 2005.
- Rey, S. J. and B. D. Montouri**, "U.S. Regional Income Convergence: A Spatial Econometric Perspective," *Regional Studies*, **33**, 2:143–156, 1999.
- Rozelle, S., G. Veeck, and J. K. Huang**, "The Impact of Environmental Degradation on Grain Production in China," *Economic Geography*, **73**, 1:44–66, 1997.
- Sachs, J.**, *The End of Poverty*. New York, NY: Penguin Press, 2005.
- Scott, A.**, "A Perspective of Economic Geography," *Journal of Economic Geography*, **4**, 5:479–499, 2004.
- Scott, A. and M. Storper**, "Regions, Globalization, Development," *Regional Studies*, **37**, 6/7: 579–593, 2003.
- Segal, A.**, *Digital Dragon: High-Technology Enterprises in China*. Ithaca, NY: Cornell University Press, 2003.
- Segal, A. and E. Thun**, "Thinking Globally, Acting Locally: Local Governments, Industrial Sectors, and Development in China," *Politics & Society*, **29**, 4:557–588, 2001.
- Shen, X. P. and L. J. C. Ma**, "Privatization of Rural Industry and de facto Urbanization from Below in Southern Jiangsu, China," *Geoforum*, **36**, 761–777, 2005.
- Sit, V. F. S. and W. D. Liu**, "Restructuring and Spatial Change of China's Auto Industry under Institutional Reform and Globalization," *Annals of the Association of American Geographers*, **90**, 4:653–673, 2000.
- Sit, V. F. S. and C. Yang**, "Foreign-Investment-Induced Exo-urbanisation in the Pearl River Delta, China," *Urban Studies*, **34**, 4:647–677, 1997.

- Skinner, M. W., A. E. Joseph, and R. G. Kuhn**, "Social and Environmental Regulation in Rural China: Bringing the Changing Role of Local Government into Focus," *Geoforum*, **34**, 2:267–281, 2003.
- So, A. Y.**, "Introduction: Rethinking China's Developmental Miracle," in A.Y. So, ed., *China's Developmental Miracle: Origins, Transformations, and Challenges*. Armonk, NY: M. E. Sharpe, 2003, 1–26.
- Stiglitz, J. E. and S. Yusuf, eds.**, *Rethinking the East Asian Miracle*. Washington, DC and New York, NY: World Bank and Oxford University Press, 2001.
- Sun, L. X.**, "Fading Out of Local Government Ownership: Recent Ownership Reform in China's Township and Village Enterprises," *Economic Systems*, **26**, 249–269, 2002.
- Sun, Y. F.**, "Strategic or Tactical? Foreign Research and Development in Developing Countries, a Case Study of China," *Asian Geographer*, **22**, 1/2:143–167, 2003.
- Sun, Y. F. and H. Y. Wang**, "Does Internet Access Matter for Rural Industry? A Case Study of Jiangsu, China," *Journal of Rural Studies*, **21**, 2:247–258, 2005.
- Thrift, N.**, "For a New Regional Geography. 1," *Progress in Human Geography*, **14**, 2:272–279, 1990.
- Veeck, G., ed.**, *The Uneven Landscape*. Baton Rouge, LA.: Department of Geography and Anthropology, Louisiana State University, Geoscience Publications, 1991.
- Wade, R.**, *Governing the Market*. Princeton, NJ: Princeton University Press, 1990.
- Walcott, S. M.**, "Chinese Industrial and Science Parks: Bridging the Gap," *The Professional Geographer*, **54**, 3:349–364, 2002.
- Walcott, S. M.**, *Chinese Science and Industrial Technology Parks*. Aldershot, UK: Ashgate, 2003.
- Walder, A. G.**, "Local Governments as Industrial Firms," *American Journal of Sociology*, **101**, 2:263–301, 1995.
- Wang, C. J. et al.**, *Chuangxin de Kongjian (Innovative Space)*. Beijing, China: Beijing University Press, 2001.
- Wang, J.**, "Going Beyond Township and Village Enterprises in Rural China," *Journal of Contemporary China*, **14**, 42:177–187, 2005.
- Wang, S. G.**, "From Special Economic Zones to Special Technological Zones," in C. Hsieh and M. Lu, eds., *Changing China*. Boulder, CO: Westview, 2004, 137–155.
- Wei, Y. H. D.**, "Regional Inequality in China," *Progress in Human Geography*, **23**, 1:48–58, 1999.
- Wei, Y. H. D.**, *Regional Development in China: States, Globalization, and Inequality*. London, UK: Routledge, 2000.
- Wei, Y. H. D.**, "Beyond the Sunan Model: Trajectories and Underlying Factors of Development in Kunshan, China," *Environment and Planning A*, **34**, 10:1725–1747, 2002.
- Wei, Y. H. D.**, "Trajectories of Ownership Transformation in China: Implications for Uneven Regional Development," *Eurasian Geography and Economics*, **45**, 2:90–113, 2004.
- Wei, Y. H. D.**, "Planning Chinese Cities: The Limits of Transitional Institutions," *Urban Geography*, **26**, 3:200–221, 2005.
- Wei, Y. H. D.**, "Geographers and Globalization: The Future of Regional Geography," *Environment and Planning A*, **38**, 8:1395–1400, 2006.
- Wei, Y. H. D. and C. L. Fang**, "Geographical and Structural Constraints of Regional Development in Western China: A Study of Gansu Province," *Issues and Studies*, **42**, 2:131–170, 2006.
- Wei, Y. H. D. and C. C. Fan**, "Regional Inequality in China: A Case Study of Jiangsu Province," *The Professional Geographer*, **52**, 3:455–469, 2000.
- Wei, Y. H. D. and Y. J. Jia**, "The Geographical Foundations of Local State Initiatives: Globalizing Tianjin, China," *Cities*, **20**, 2:101–117, 2003.
- Wei, Y. H. D. and C. K. Leung**, "Development Zones, Foreign Investment, and Global-City Formation in Shanghai," *Growth and Change*, **36**, 1:16–40, 2005.
- Wei, Y. H. D. and L. J. C. Ma**, "Changing Patterns of Spatial Inequality in China," *Third World Planning Review*, **18**, 2:177–191, 1996.
- Wei, Y. H. D. and X. Y. Ye**, "Regional Inequality in China: A Case Study of Zhejiang Province," *Tijdschrift voor Economische en Sociale Geografie*, **95**, 1:44–60, 2004.

- Wei, Y. H. D. and D. L. Yu**, "State Policy and the Globalization of Beijing," *Habitat International*, **30**, 3:377–395, 2006.
- Weng, Q.**, "Local Impacts of the post-Mao Development Strategy: The Case of the Zhujiang Delta, Southern China," *International Journal of Urban and Regional Research*, **22**, 3:425–442, 1998.
- Whiting, S. H.**, *Power and Wealth in Rural China*. Cambridge, UK: Cambridge University Press, 2001.
- Williams, J. F.**, "Geographers and China," *Issues and Studies*, **38/39**, 4/1: 217–247, 2002/2003.
- World Bank**, *The East Asian Miracle*. New York, NY: Oxford University Press, 1993.
- Wu, F. L.**, "The (post-) Socialist Entrepreneurial City as a State Project: Shanghai's Regionalisation in Question," *Urban Studies*, **40**, 9:1673–1698, 2003.
- Wu, W. P.**, "Shanghai," *Cities*, **16**, 3:207–216, 1999.
- Xie, Y. C., M. Yu, G. J. Tian, and X. R. Xing**, "Socio-economic Driving Forces of Arable Land Conversion: A Case Study of Wuxian City, China," *Global Environmental Change*, **15**, 238–252, 2005.
- Xu, W. and K. C. Tan**, "Impact of Reform and Economic Restructuring on Rural Systems in China: A Case Study of Yuhang, Zhejiang," *Journal of Rural Studies*, **18**, 1:65–81, 2002.
- Yan, T. and W. Y. Qian**, "Environmental Migration and Sustainable Development in the Upper Reaches of the Yangtze River," *Population and Environment*, **25**, 6:613–636, 2004.
- Yang, C.**, "Overseas Chinese Investments in Transition: The Case of Dongguan," *Eurasian Geography and Economics*, **47**, 5:604–621, 2006.
- Yang, M. M.**, "Putting Global Capitalism in Its Place: Economic Hybridity, Bataille, and Ritual Expenditure," *Current Anthropology*, **41**, 4:477–495, 2000.
- Yao, S. J. and Z. Y. Zhang**, "Economic Growth and Diverging Clubs: A Case Study of the Chinese Regions," *Applied Economic Letters*, **9**, 12:833–836, 2002.
- Ye, X. Y. and Y. H. D. Wei**, "Geospatial Analysis of Regional Development in China: The Case of Zhejiang Province and the Wenzhou Model," *Eurasian Geography and Economics*, **46**, 6:445–464, 2005.
- Yeh, A. G. O. and X. Li**, "Economic Development and Agricultural Land Loss in the Pearl River Delta, China," *Habitat International*, **23**, 3:373–390, 1999.
- Yeh, E. T.**, "Tibetan Range Wars," *Development and Change*, **34**, 3:1–25, 2003.
- Yeung, H. W.**, "Practicing New Economic Geographies: A Methodological Examination," *Annals of the Association of American Geographers*, **93**, 2:442–62, 2003.
- Yeung, H. W.**, "Researching Hybridity in Social and Economic Geography." Keynote lecture presented at the annual meeting of the Geographical Society of Finland, Joensuu, Finland, November 11–13, 2004.
- Yeung, H. W. and G. C. S. Lin**, "Theorizing Economic Geographies of Asia," *Economic Geography*, **79**, 2:107–128, 2003.
- Yeung, Y. M.**, "An Emerging Development Focus from the Pearl River Delta West to Western Guangdong," *Eurasian Geography and Economics*, **47**, 2:243–250, 2006.
- Yeung, Y. M. and X. J. Li**, "Bargaining with Transnational Corporations: The Case of Shanghai," *International Journal of Urban and Regional Research*, **23**, 3:513–533, 1999.
- Yeung, Y. M. and J. F. Shen**, *Developing China's West*. Hong Kong: Chinese University Press, 2004.
- Yep, R.**, "The Limitations of Corporatism for Understanding Reforming China," *Journal of Contemporary China*, **9**, 25:547–566, 2000.
- Ying, L. G.**, "Understanding China's Recent Growth Experience: A Spatial Econometric Perspective," *The Annals of Regional Science*, **37**, 4:613–628, 2003.
- Yu, D. L.**, "Spatially Varying Development Mechanisms in the Greater Beijing Area," *Annals of Regional Science*, **40**, 1:173–190, 2006.
- Yu, D. L. and Y. H. D. Wei**, "Analyzing Regional Inequality in Post-Mao China in a GIS Environment," *Eurasian Geography and Economics*, **44**, 7:514–534, 2003.
- Zhao, X. B.**, "Spatial Disparities and Economic Development in China, 1953–92," *Development and Change*, **27**, 1:131–160, 1996.

- Zhao, X. B. and L. Zhang**, “Decentralization Reforms and Regionalism in China,” *International Regional Science Review*, **22**, 3:251–281, 1999.
- Zhou, Y.**, “The Making of an Innovative Region from a Centrally Planned Economy: Institutional Evolution in Zhongguancun Science Park in Beijing,” *Environment and Planning A*, **37**, 6:1113–1134, 2005.
- Zhou, Y. and X. Tong**, “An Innovative Region in China,” *Economic Geography*, **79**, 2:129–152, 2003.