

CAN REGIONAL ECONOMIC DISPARITIES BE REDUCED? THE CASES OF GUANGXI AND GUANGDONG

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Regional economic disparities exist in most countries. In some cases, it is because industry development has been concentrated on a particular area or region, leaving others dependent in more traditional, perhaps agricultural, activities. Elsewhere, some formally industrialised areas have become deindustrialised. Governments trying to create more balanced development have often experienced disappointing results. It is interesting to observe the development in China, where spectacular aggregate economic growth has coexisted with a pronounced regional imbalance. Welfare indicators such as education, employment and housing, show significant regional inequalities. People in peripheral areas encounter higher rates of poverty and poorer health outcomes than those who live in core areas. How to reduce the regional inequalities in China has been debated for decades and has become an increasingly important policy focus.

This article argues that, although greater inter-provincial economic cooperation in China has been witnessed in recent years, continuing obstacles to more even development exist in the central-local decision making and in local interest differences between regions, especially between the core and the periphery. These produce cumulative effects that hinder the effectiveness of the overall political economic agenda, raising the question of whether the central organisation is capable of overcoming the obstacles to more balanced growth.

Qiu, Z. (2019)
**'Can Regional Economic Disparities Be Reduced? The Cases of Guangxi
and Guangdong'**
Journal of Australian Political Economy
No. 83, pp. 86-114.

This article is both descriptive and prescriptive, aiming at providing practical and strategic knowledge. The first section briefly discusses the analytical perspectives of institutional economists and economic geographers who have anticipated the processes of polarisation. The second section emphasises the changing regional patterns in China, especially regarding economic management. The third section discusses inter-local interactions, focusing on a case study of the relationship between Guangxi and Guangdong provinces. The article concludes by discussing policy implication and recommendations.

An analytical perspective

The literature on regional economic development emphasises the tendency toward uneven regional development in developing countries if market forces operate unimpeded (Williamson 1965; Myrdal 1957; Krugman 1993). The terminology of the *core(centre)-periphery* had been used in academic arenas since the mid-1940s (Love 1980: 52-4) to denote a hierarchical structure, reflecting economic integration with the system of politics (Wallerstein 1974). Core regions have a higher level of wages, capital investment per capita, and bigger capitalisation and investment, as well as a higher technological level, all reflected in manufactured products and services and the process of production. More diversity of trade in products and services results from larger concentration of the accumulation of capital. There is a lower rate of wages and a lower human investment rate in peripheral regions. Such conditions lead to a low technological level in the process of production and export of goods in the primary sector, low diversities of trade and a poor capitalisation level. As a result, the peripheral places only have a marginal capability of capital concentration (Chase-Dunn 1998; Wallerstein 1974). Surrounding places primarily generate raw materials and depend upon the core regions for higher-value service and product imports, leading to unequal exchanges between the places (Chase-Dunn 1998; Tilly 1992; Krugman 1993; Frank and Gills 1993).

Periphery and core have been put forward as opposite economic states that reflect a duality within the division of labour (Krugman 1993; Dezzani 2001; Massey 1984; Chase-Dunn 1998; Wallerstein 1974). The core usually has a powerful political structure as well as 'state machinery' with high integration level reflected in the representation of groups (i.e.

participation and democratisation) (Wallerstein 1984; Wallerstein 1974: 349). The periphery has a comparatively weak state bureaucratic and political structure with a low integration within the process of politics.

Such core-periphery relations have been said to operate at both the global scale and within domestic settings. In China, for example, observing only the rural inequalities between states, Gustafsson and Shi discovered that 'a majority of Chinese rural income inequalities was spatial and imbalanced development of the average incomes across states represented the majority [...] of fast income inequality rise' (Gustafsson and Shi 2002: 179). A general agreement exists within the literature that the core regions are the main recipient of new productive investment. The places in China that are the most likely to be ignored by globalisation are the land-locked places. Coastal places enjoy advantages as they did in the colonisation period, although coastal places cannot always be sure of success.

For Myrdal and Hirschman, the tendency toward uneven development between the core and the periphery is understood as the net effect of two causal processes that work simultaneously. On the one hand, the rise of a region tends to produce 'backwash effects' or 'polarisation' as the movements of labour, capital and trade help the core region to further accumulate better endowments, while the less prosperous regions suffer from the capital and human resource deficits. On the other hand, through increased demand and other mechanisms, the growing core region generates 'spread or trickle-down effects' that partially counteract the backwash effect (Myrdal 1957: 23-32). Krugman has recognised dynamic and possibly changing relations due to the alterations in relative transport costs and various economies of scale. However, his reasoning confirms that the most likely outcome is a path-dependent lock-in, whereby free-market practices amplify what began as small and accidental differences (Krugman 1993; 1990; 1981; 1998).

To counter such trends towards polarisation, many regional economists believe that the state should play a crucial role. Myrdal, for example, pointed out that the European welfare states had used a complex arrangement of state policies and institutions to counteract the backwash effects and support the spread effects of market forces, thereby promoting greater regional equality (Myrdal 1957: 25, 39). Recognising the weaker spread effects and weaker governments in less developed countries, however, Myrdal was not optimistic that these countries could do equally well. Indeed, he conceded that 'at that stage the inequalities were a

necessary condition for progress, and perhaps also the lack of political democracy which made their continuation possible' (Myrdal 1957: 46). Nevertheless, he called for recognition that national integration toward greater social mobility and regional economic equality are the preconditions of achieving rapid and sustainable economic development. He stated that an underdeveloped country was supposed to utilise state economic growth policies and plans to strengthen the spread effects and promote regional equality (Myrdal 1957: 79-81). Later Friedmann put forward an 'agropolitan approach' to development, which to some extent drew on China's developmental experience in the 1970s. Friedmann called for a strong central government to balance increased power at district and regional levels to manage territorial tensions and conflicts. For Friedmann, 'the role of the state is at once protective, developmental, facilitative, regulatory, and redistributive' (Friedmann and Weaver 1979: 203).

The capability of the Chinese state to play such a role is a currently important question. From 1949, the central government in Beijing had been engaged in regional planning with the aim of achieving economic growth and social development objectives (Wang, Li, and Linge 1997). Since the era of pro-market reforms began in 1978, however, the patterns of regional disparity have become more problematic. With market economic reforms and extensive decentralisation of powers, the backwash effects have appeared to overwhelm the spread effects. As decentralisation has gradually proceeded in recent decades, the central government has no longer had the previous mechanisms, either politically or financially, at its disposal.

Contemporary scholars such as Golley (2007) suggest that China during the era of pro-market reform followed a strategy based on 'new economic geography'. The latter term relates to analysis deriving from Krugman's basic theoretical model (Krugman 1993; 1998). This model includes two economic sectors: agricultural production employing immobile labour producing at constant returns to scale, and a mobile industrial labour force producing at economies of scale, where the two types of labour also constitute the market for both goods. Depending on transport costs and consumer preferences, the model shows manufacturing production being concentrated in relatively few locations. It is this concentration of industry that defines a core, and the lack thereof that defines a periphery: this is a purely attributional definition (Lange and Quaas 2010).

According to Krugman and Venables (1990), production location relies strictly upon the comparison between centrifugal and centripetal force, determining which countries/regions can undergo the process of industry agglomeration (Krugman and Venables 1990). Centripetal force usually refers to a pecuniary externality that relies upon market interaction, rather than physical proximities. The increasing return to scale produces the geographical concentration of production. When the cost of transportation comes into play, appealing production locations are those that are near the suppliers and markets, if other variables are equal. The production concentration within those locations will then attract mobile production factors. For instance, employees have consumption opportunities and better jobs in locations with production concentration. The consequent labour force concentration results in more consumption within those regions, making these regions more appealing for the producer. Once regions have a high production share, the pattern may strengthen itself: regions become appealing for firms as a great number of other firms have already produced in these regions (not due to endowments of superior resources). On the other side, centrifugal forces work against agglomeration because of immobility among production factors including people, natural resource, and land. For example, production concentration within regions might raise housing prices and land rents and might result in environmental issues. Lack of migration of labour may push producers to choose a location near employees, and, meanwhile, spatially-dispersed factors may bring about a dispersed market that encourages firms to produce close to the consumers. Also, if immobile production factors (e.g. natural reservoirs and hydroelectric power stations) exist within surrounding places, firms from the 'core' might prefer to move there instead.

According to Yang, the prosperous places would intend to translate their economic muscle into political power, to better maintain their economic achievements (Yang 1997). If the system of political mobility is porous enough, then the rise in a region's economic fortune will also be likely to translate into improvement in that region's political influence in national politics. To secure the economic foundation of their power as well as other forms of political support, national politicians have a strong incentive to incorporate politicians from wealthy places. Greater representation of rich areas at the pinnacle of political power will, in turn, reinforce the process of cumulative causation in regional development that Myrdal has identified. Such patterns of regional elite representation have emerged in

China. Whereas Mao and a significant number of his senior colleagues hailed from the interior regions, the economically strong provinces have been the most politically preeminent since the economic reforms began in China.

Hirschman once characterised Myrdal's analysis as 'excessively dismal' (Hirschman 1958: 187). Instead, he argued that once regional polarisation has proceeded for some time 'a strong force leading to a turning point' will emerge and 'thoughtful policy of economy would play a role for situation correction' (Hirschman 1958: 187-190). The famous advocate of disequilibrium and unbalanced growth thereby posits that regional imbalances will unleash forces that tend toward some sort of spatial equilibrium (Yang 1997: 11). Hirschman's hypothesis was premised on the realisation of a distinctive elite career choice mechanism. He posited that, while a more prosperous region tends to produce elites who work in business, 'the country's poorer section in which careers in trade and industry are unpromising, usually produces, therefore, most successful politicians of the country and hence acquire spokesmen who are influential in governmental councils' (Hirschman 1958: 193). Moreover, owing to the rising influence of politicians originating from poor regions, 'the government will, to the best of its ability, attempt to counteract in part the polarisation effects resulting from market force operations' by counterbalancing emigration of capital and talent from the poor regions and offering special tax advantages and public investment in these areas (Hirschman 1958: 194).

This discussion of regional differentiation serves as an analytical foundation for explaining changes in China's regional development. However, we also have to consider how the patterns of regional development have changed before and during the period under discussion. Looking at China's post-Mao reforms and the ongoing realignment of central-local relationships helps to show the nature of these processes and the current challenges for reform.

Changing Chinese regional patterns

Establishing one centrally planned economy in the 1950s equipped the Chinese political leaders with the levers of centrally directed investment and greatly facilitated its ability to channel investment to target areas (Yang 1997: 17). The Planning Commission in Beijing determined both

local and central expenditure and revenue plans on an annual basis. The heavily centralised fiscal system was based on the principle of 'unified expenditure and unified revenue' (*tongshou tongzhi*), meaning that all government expenditures and revenue should go through the central government. Local governments possessed no independent budgets: instead, their budgets were monitored and formulated by Beijing in the same way as the central budget. In this system, while peripheral provinces such as Guangxi, Sichuan, and Yunnan received a large proportion of the fiscal resources allocated, investments obtained in medium and small-scale projects made some, but not decisive, impact on their economies (Hendrischke 1997: 31).

After several failed attempts to rebalance the economy, it was only after the reforms of 1978 that fundamental changes took place. Decentralisation in the 1980s required each local government to bear the primary responsibility for the economic development of their areas and to carry the burden of fiscal expenditure. Local governments played a more important role in offering public services during that time. Consequently, the financial power of local governments increased drastically, while the financial power of the centre fell.

The central government in Beijing turned to other forms of policy to redress regional disparities. Experiments with new regional forms were designed for overcoming existing obstacles to the inter-provincial economic activities, and for creating new economic activity centres. A large part of this new approach to regional development depended on interactions between other economic reforms and increasing trade between provinces. For instance, the cooperation among provinces aimed to facilitate the economic activities which cut across the administrative boundaries between provinces, thus encouraging inter-provincial linkages (Yang 1997: 48). Since 1980, by linking the poorer inland provinces with relatively well-off coastal ones, the problem could be resolved, as far as Beijing was concerned (Yang 1999: 202).

Beginning with the 7th Five-Year Plan (7FYP) in 1986, and with increased emphasis on the following FYPs, the focus of central-regional policy shifted from the coastal/central/western divide to the significance of what was called the Greater Regions, most of which included coastal and inland provinces (Jacob 2007: 109). These regions were expected to provide the coordination between richer and poorer provinces by facilitating horizontal links, as well as the division of labour based on

complementarities among them (Yang 1997: 48). In policy terms, this was a significant readjustment from encouraging unequal development during much of the reform period to the demand for coordination and equalisation. In practical terms, however, this policy showed little effect, as inter-provincial interactions had no administrative power and were not able to reinforce regional integration vis-a-vis provincial governments. It did not reduce the differences in economic development between coastal and inland regions (Hendrischke 1999: 6).

A crucial obstacle lay in the decentralisation of both political and economic structures, particularly in the budget contracting system and the way its impacts on centre-provincial relations led to the emergence of local economic identities. The governments of local areas were motivated to seek the maximisation of revenue, resulting in copying investment projects, hence fierce competition. Local governments set up trade barriers for stopping production and goods resource flows. With local bank branches under their scrutiny, they also could obtain simple access to credit and neglect any negative macroeconomic results of their decisions (Gu and Chen 2002: 5). With much of the economic development monopolised at the provincial level, the central government also faced increasing difficulty in exercising macroeconomic controls, as central revenue came under pressure and the ratio of central investment in the total investment declined (Watson, Yang, and Jiao 1999).

In the 1980s, as central investment gradually lost its significance in local economic development, peripheral regions were the major victims in this political transition, since their capability was limited and highly dependent on central subsidies. Economic development in core regions, on the other hand, benefited as institutional constraints were lifted on farming-based households. Then, because state-owned enterprise restructuring and township and village enterprises led to a fast urban-based process of industrialisation in the early 1990s, urbanisation became an integral part of China's industrial agglomeration process and its unique transition from a planned economy to a market one. Initially, its 'open door policy' enhanced the climate of investment within coastal provinces. This started with special economic zone (SEZ) construction in 1980 within four cities in Fujian and Guangdong provinces, variants of which were subsequently extended to other coastal provinces, ultimately reaching each provincial capital in the 1990s. During the early 1990s, a formal status was accorded to the 'gradient development model', which considered western, central, and coastal regions as three ladders of economic development. Beginning

development from the coast provided big benefits for the coastal area as the first reform mover. This was supplemented by the 'big inputs, big exports' strategy, centred within coastal regions, for stimulating trade of material processing and attracting foreign direct investment (FDI). Those preferential policies supported the natural geographic advantage of coastal regions, and coastal places took off as economic centres, while places in the western periphery were relatively laggard (Golley 2007).

Shifting fiscal policies also supported the open-door policy, which offered incentives to conduct experiments at an early reform stage in the coastal provinces of Fujian and Guangdong. This was enhanced by the incentive that favoured allocation of public investment to the provinces that had a stronger financing ability. Thus, the share of public capital expenditure that came to coastal provinces rose from around 50% during the middle 1980s to approximately 65% by the middle 1990s (Huang 2010).

Much of the increased financial resources provided support for major expansion of the communications and transportation networks of the country, initially along coastal places and then expanding to inner regions. This drastically decreased the effective distance between main internal markets and let competitive forces re-shape the industrial structure between provinces. By decreasing transport cost as a percentage of traded products' final prices, this helped to connect the main centres of production with external and internal customer markets. China has spent over 5% of its GDP on investment in transportation every year (some RMB 100 billion for the past few years), which is a record level, according to global standards related to its economic size (Huang 2010). During the early 1990s, a focus was also put on upgrading the logistical services of coastal cities to improve their connectivity with the outer world.

After 2000, more priority was given to investment in the infrastructure of the central and western regions, as reflected in highway mileage expansion of 45% between 1999-2004, compared with 30% for coastal areas (Huang 2010). Those investments have helped narrow the big regional differences in prices and wages which previously were fostered by vast distances and artificial provincial boundaries. With the deeper integration of markets, the industrial structure of provinces became more specialised, with higher-tech or more service-oriented industries concentrated in urban places of coastal regions, and domestically-oriented and resource-based industries expanded in a wider way. Furthermore, the urbanisation process that had started with agrarian reform and township and village enterprises (TVE)

attracted surplus labour forces from rural areas to more urbanised wage-paying activities. This ultimately resulted in a huge movement of migrant labour, estimated to be 150-180 million people, flowing across boundaries of regions and concentrating within major new commercial centres in the Bohai River Delta (BRD), the Yangtze River Delta (YRD), and the Pearl River Delta (PRD) (Huang 2010).

Competition between the developed and underdeveloped provinces reached a climax in the late 1980s in the form of industrial protectionism and blockades of raw materials and agricultural products on various inter-provincial borders (Jacob 2007: 129). There were fears of the fragmentation of the Chinese economic system, and observers pointed out that there was considerably less economic integration between China's provinces than between European Union member countries (Yang 2014: 255).

However, during the transition to a socialist market economy, ad hoc and temporary economic and technical cooperation between provinces became more stable and focused on long-term growth, expanding from industrial projects to infrastructure development (Wang, Li, and Linge 1997). The gains of some areas were not necessarily at the cost of others (Breslin 1993: 149). In the middle of the commodity wars, there was already a steady rise in efforts by local authorities for promoting inter-regional cooperation. 'Special economic coordination' offices were established in each provincial unit to coordinate resource flows and jointly invest in the production of raw materials. To secure the raw materials their economies needed, most leadership of core provinces also entered into cooperation agreements with their counterparts in peripheral provinces (Yang 1997: 73).

The central government encouraged the process of cooperation and the flow of investments between the core and the periphery provinces in the interest of achieving mutual economic benefits. Furthermore, rising labour costs and land prices, energy shortages and environmental degradation meant that the core provinces had to leave labour- and resource-intensive industries to the periphery, while they focused more on high-tech and service industries (Yang and Wei 1996: 77-78). In the early 1980s, one of the proposals made to restructure Shanghai's economy was to move its traditional industries out to the neighbouring areas. The focus was on high-tech industries and opening up to the outside world for ensuring the upgrade of its industries, particularly the export sectors. This policy was

called '*neilian waiji*' or 'linking with neighbours and pushing itself outward' (Lin 1998: 58). Such a development strategy for Shanghai continued into the 1990s (Lin 1998: 64).

In August 2013, Zhejiang also closed its last coal mine, deciding to depend completely upon other provinces for coal supplies. Zhejiang took the first step due to exhaustion of local supplies as well as its mining industry's low cost-effectiveness, and it signed long-term contracts with Shanxi and Inner Mongolia for ensuring that its coal supply was stable. Zhejiang was also encouraging local businesses to make investments in the mining industries of its neighbours Anhui, Jiangxi and Shandong (Shi 2013). Earlier in 1995, Guangdong had placed a moratorium on the construction of new coal, oil and gas power stations in the Pearl River Delta (PRD), as a way to handle environmental concerns. While Guangdong is the site of several new nuclear power stations, a large proportion of its energy supply continues to come from thermal power plants, meaning that, similar to Zhejiang, it also draws considerably on inter-provincial linkages (Rong, Li, Linge, and Forbes, 1997 48; Yang 1999: 201).

In short, since the reform process began in 1978, the central government has gradually loosened its grip on the issue of regional disparities. The reasons for doing so included the lack of fiscal power and changed developmental ideology. The result is intense inter-provincial competition and drastic escalation of uneven regional economic development. However, in recent years, cooperation between provinces themselves, especially between the better-off eastern coastal ones and their energy-concentrated western counterparts, has gradually taken place, accompanied by the centre's new ways of intervention.

Guangdong and Guangxi: a case study

An example to illustrate the developments in China's inter-provincial relationship dynamics is the project of the Guangdong-Guangxi Interprovincial Pilot Cooperation Special Zone. It relates to the two provinces, whose location is shown opposite in Figure 1. The rationale for setting-up the Pilot Zone is that cooperation between the two neighbouring provinces could narrow the previous regional economic disparity between them, and increase overall economic prosperity.

Figure 1: Map of Guangxi and Guangdong (identifying the Pilot Zone's location)



Source: AAA Minerals International 2004

Guangdong has been a region of very rapid economic growth. However, persistent labour shortages and rising production costs, coupled with the limited land resources for the development in the Pearl River Delta (PRD) region, have led companies there to invest in the automation of their production facilities and increased operational efficiency. Some labour-intensive enterprises have been relocated outside, going to countries or regions with more abundant labour supply and lower operating costs. A survey of Hong Kong-owned companies in the PRD, carried out by the Chinese Manufacturers' Association of Hong Kong (CMA), demonstrated that 32% of such companies were considering to move their production activities to a more remote part of Guangdong, to another region within China, back to Hong Kong or relocating to another country entirely (CMA 2013).

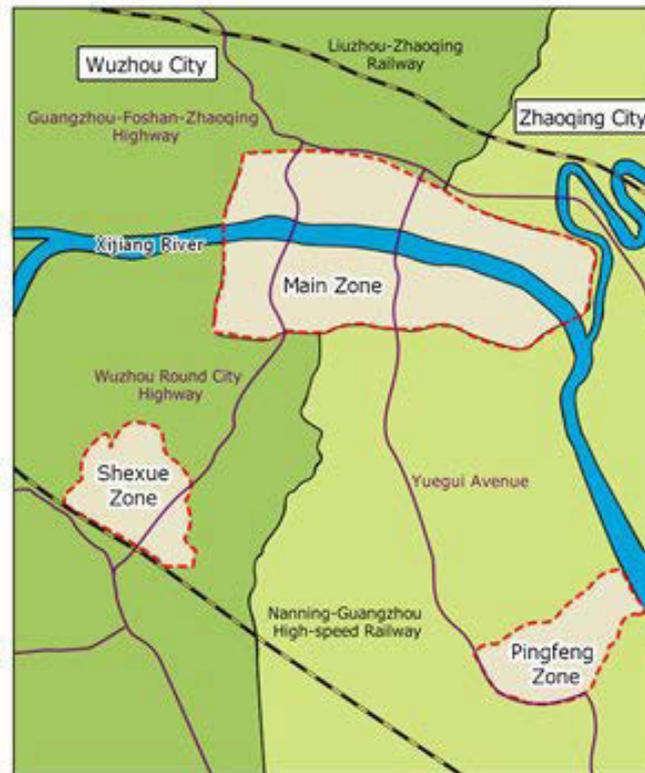
In October 2010, the National Development and Reform Commission of the People's Republic of China (NDRC) established a demonstration zone, including Wuzhou city (and three other cities: Guigang, Hezhou, and Yulin), with the express purpose of relocating the industries from Guangdong to Guangxi (HKTDC 2015). According to figures from the Wuzhou Municipal Bureau of Commerce, approximately 1,040 enterprises from eastern Guangdong relocated their production plants to Wuzhou after 2010. With the *Zhujiang-Xijiang Economic Belt Development Plan* becoming a national strategy, Guangxi has been further encouraged to accommodate any Guangdong industries looking to relocate. In October 2014, Guangdong and Guangxi jointly signed the *Guangdong-Guangxi Interprovincial Pilot Cooperation Special Zone Implementation Plan* (HKTDC 2015). This plan accelerated the construction of the Pilot Zone and its neighbouring areas in a series of phases and is formulated to test a new type of cooperation between provinces regarding industrial relocation.

The Guangdong-Guangxi Interprovincial Pilot Cooperation Special Zone (Pilot Zone) consists of the development zone and the Main Zone (as shown in Figure 2). With the boundary between Zhaoqing and Wuzhou as the central axis of it, the Main Zone covers an area of 100km² in total and spans Xijiang River's two banks (GGCZ Management Committee 2017). Serving as the administration, office and integrated management centre for the Pilot Zone as well, the Main Zone will also form part of the Pilot Zone's logistics base, linking up with the Wuzhou Round City Highway, Lijiazhuang wharf and the commercial logistics park being planned for Zhaoqing (GGCZ Management Committee 2017). The focus of the Main Zone will be put on developing a specific range of industries, especially the electronic information, food production, forestry products and chemicals, biotechnology, emerging materials, equipment manufacturing, medical and health, energy saving as well as environmental protection.

Through the cooperation between Guangdong and Guangxi, and between Zhaoqing and Wuzhou, an interprovincial zone development management model has been built, with 'the province/region as the engine, the city as the main body, and independent operation' (GGCZ Management Committee 2017). A joint conference, under the auspices of the mayors of both cities, serves as the decision-making body for the construction and development of the Pilot Zone. This joint conference is responsible for planning, building, managing and operating the Pilot Zone, which is in line

with Guangdong and Guangxi's commitment to break administrative boundaries, implement unified planning for industrial development and infrastructure construction, as well as to formulate a unified policy for attracting enterprises to the Zone.

Figure 2: Guangdong-Guangxi Interprovincial Pilot Cooperation Special Zone



Source: HKTDC 2015

What makes this Pilot Zone special is that enterprises operating there can enjoy the benefits of the existing preferential policies of both Guangdong, which belongs to the core region, and Guangxi Zhuang Autonomous Region, which is a peripheral region, according to the Western Development Initiative (WDI) criteria. For instance, the income tax rate of Guangdong business is 25%, but under WDI, Guangxi-based industries operating in several designated categories can claim a 15% preferential income tax rate (NDRC 2014). Wuzhou-registered enterprises in the Pilot Zone are entitled to this lower tax rate. In addition to tax breaks, under the *Several Opinions on Further Advancing the Work of Industrial Transfer* (General Office of People's Government of Guangdong Province, 2010), this Pilot Zone also allows industrial projects falling into the encouraged category in the *Catalogue for Guiding Industrial Restructuring in Guangdong Province*. Moreover, enterprises can acquire industrial land at 70% of the minimum standard of land price, which helps lower the land-use costs for enterprises.

Economic performance

Table 1: Gross Domestic Product per Capita – Guangdong; Guangxi; Guangxi's ratio to Guangdong; National average (numbers in RMB)

Year	Guangdong (core)	Guangxi (periphery)	Ratio to Guangdong (%)	National average
1952	101	67	66.3	119
1978	370	225	60.8	385
1994	6,530	2,675	50.0	4,081
2016	72,787	37,876	52.0	53,935

Source: State Statistic Bureau of China 2018

Table 1 shows the different economic conditions of both Guangxi and Guangdong provinces since the formation of the PRC. It shows the phenomenal economic growth performance in both provinces and a changing gap in their relative economic performances. The data shows China's GDP per capita growing 46 times larger over the 64 year period. Guangdong's grew 75 times larger; while Guangxi's grew 56 times larger. The 2016 figures show the improved relative economic performance of the latter region, although the absolute size of the gap between average incomes in the two provinces has continued to widen.

There is already much study of the successful Guangdong story, but the struggle for neighbouring Guangxi's economic development is less well documented. Traditionally, Guangxi was a remote and isolated part of China. Despite its political significance in modern Chinese history, there is not much to say about its economic integration in pre-1949 history, except that the opium trading route passed through the province (Lary 1974). Guangxi's exogenous factor-based development history started from here: due to its peripheral position, both economically and politically, instead of becoming a relatively independent development powerhouse itself, the province's economic role was fixed as a passageway between the inland southwest provinces and coastal Guangdong, while under the central government's financial support (Yeung and Shen 2004).

Incentives for both provinces

Between the late 1960s and early 1970s, the central government in Beijing started the 'Third Front' strategy (*sanxian jianshe*). As a coastal provincial region, Guangxi has been granted preferential policies since 1984. However, genuine advance in economic reform, opening up and development only started after 1992 (Yeung and Shen 2004). Because it adjoins Guangdong and bordering Vietnam in the west, Guangxi is the only region in the Chinese periphery that shares both a land border and a sea link with an ASEAN country. The possible growth of the ASEAN economy and the shared cultural background (e.g. Cantonese is commonly spoken in Guangxi) are factors that Guangdong businesses could capitalise on. With the Western Development Initiative (*xibu dakaifa*) currently being vigorously implemented, Guangxi has been specially earmarked by the central government in Beijing as the preferred destination for industries relocating from Guangdong. Recently, an increased number of

Guangdong's labour-intensive, export-oriented, and high energy consumption industries are about to either expand or relocate their factories and production lines into Guangxi.

How much of Guangxi's economic growth is generated by its endogenous capability remains in question. One particular figure worth mentioning is the difference between one region's 'regular resident population' (*changzhu renkou*) and 'registered resident population' (*hujirenkou*). Due to China's current household registration (*hukou*) system¹, 'regular resident' in general means all the people who live in the region, including people with non-local *hukou*; 'registered resident' on the other hand, only means the people with local *hukou*. The numerical difference between the two can be used as an indicator of each region's migration status, as shown in Table 2.

Table 2: Regular and Registered Resident Population Difference of Guangdong and Guangxi (numbers in millions)

Year	Guangdong		Guangxi	
	Regular resident	Registered resident	Regular resident	Registered resident
2005	91.94	78.99	46.60	49.25
2011	105.05	86.37	46.45	51.99
2017	111.69	93.16	48.85	56.00

Source: Guangdong Statistic Bureau 2018; Guangxi Statistic Bureau 2018

Unlike Guangdong, whose regular resident population is always more than its registered resident population (meaning that more people would like to move in to seek jobs etc.), people from Guangxi in recent years prefer to move out from the region. This finding is consistent with Myrdal and Krugman's arguments in the earlier section about labour polarisation and concentration: Guangxi's economic development is indeed facing fundamental, endogenous source problems. Compared with several other

¹ For a better understanding about China's *Hukou* system, please see Daniel Goodkind and Loraine A. West's *China's Floating Population: Definitions, Data and Recent Findings* (Goodkind and West 2002).

coastal provinces, Guangxi has been perceived as economically lagging. Its growth, however, has been gathering pace lately, following China's efforts to develop its western regions. In July 2014, the State Council elevated the *Zhujiang-Xijiang Economic Belt Development Plan* to the national strategic level. This move accelerated its programme of road and waterway construction, and further improved the layout of inland ports, to help transform the Zhujiang-Xijiang Corridor into a core, comprehensive channel for waterway logistics, while strengthening its supporting functions of rivers and ports in Guangdong and Guangxi. In short, the cooperation with Guangdong could be yet another opportunity for Guangxi to enhance its economic capability.

For Guangdong, on the other hand, its motive for promoting the concept of the Pilot Zone lies in the constraints it faces on sustainable industrialisation, including the province's troublesome industrial upgrading process, and an ever-increasing gap between the PRD region and the rest of Guangdong (the city in question here, Zhaoqing, is in the western part of this province). Within just over two decades, due to successful reforms and its proximity to Hong Kong and South East Asia, the PRD has successfully turned itself from an agricultural backwater into a juggernaut in light manufacturing.

Nevertheless, this 'world factory' was formed mainly by a combination of business service, technology, foreign investment, and endless low-priced labour of the inland provinces. To date, it has produced competitively-priced goods rather than innovative products. Its focus on value-added manufacturing has caused the economy of PRD to be at the quite low end of a global value chain. After years of extensive growth and excessive competition, PRD is beginning to experience, at various degrees, bottlenecks and a lack of resources, including the supply of labour, particularly skilled labour, and available land. It is perceived that the significant disadvantages of the PRD, compared with the other two Chinese economic powerhouses, the Yangtze River Delta (YRD) and Bohai Rim Region (BRR), are its less versatile factors of production, lack of comprehensive service industry, and a small and uneven hinterland, economically speaking (Zhang 2008). If PRD wants to maintain its vitality, it needs to upgrade its industries and expand its hinterland.

Another institutional aspect that cannot be neglected is the central-local politics. Since the campaign of the Western Development Initiative was launched, any cooperation between the eastern coastal provinces and their

western counterparts has been widely publicised. Because WDI is such a 'big state-led' campaign, despite suggestions of China's gradually federalised economic system², the local governments generally would not hesitate to engage in '*bandwagoning*' to launch their development initiatives (Wang 2014). The two provinces, Guangdong and Guangxi, have been partners in both economic cooperation and poverty alleviation for many years, having a positive attitude towards such participation that cannot be assumed to exist in other areas.

In sum, despite political pressures from the central government, one could argue that the intra-provincial cooperation between Guangdong and Guangxi in establishing the Pilot Zone is largely based on their mutual economic interest in the local level. Chung Jae Ho calls it 'reciprocity' (Chung 2016: 135). This seems to answer Myrdal and Yang's concerns about core regions cumulating too much political and economic power: as long as the central government and the local governments from the periphery play their cards well (in this case, emphasising the complementarity of both provinces), it is quite possible to facilitate mutually beneficial cooperation between core and periphery regions.

Conflicting interests

During the implementation process of the Pilot Zone cooperation, however, difficulties were encountered, the most challenging of which is the issue of coordination. The Pilot Zone itself has not integrated comprehensively into one organic entity. Despite its 'joint venture' appearance, both provinces and cities have different incentives and agendas, leading to an increasingly fragmented project.

Discussions of Guangdong's successes tend to overlook the fact that the dynamic PRD region is the primary driver of the province's economic growth. When the PRD embarked on fast growth after implementing the preferential policies that central government granted, it began to forge ahead much more rapidly compared with the province's other parts. The gap between the prosperous PRD and the poorer mountainous counties in the hinterland has attracted the attention of provincial leadership. To handle this disparity, state agencies adopted several strategies. In 2008, the

² For a better understanding about China's unitary political system, please see Guangbin Yang's *Decentralization and Central-Local Relations in Reform-Era China* (Yang 2014)

State Council endorsed *The Outline Plan for the Reform and Development of the Pearl River Delta* (The State Council of the People's Republic of China 2008). This plan states that the influence of the PRD should promote the 'dual relocation' of industries and labour force for mobilising the industrial development of eastern and western Guangdong and their neighbouring peripheral regions, hence forming multiple tiers of industrial clusters through the integration of factor endowments. Based on the plan, the provincial government introduced the *Guiding Opinions on Promoting the Revitalisation and Development of Western Guangdong Region* in 2009 to facilitate the integration between western Guangdong and the PRD (Guangdong Development and Reform Committee 2009).

All the plans above mean that western Guangdong seems a better choice as a destination for industrial transfer than eastern Guangxi. From the perspective of the provincial government, Zhaoqing (which is situated partially inside the PRD) has already been a relatively better-off city in the region. Moreover, because the other half of the Pilot Zone is out of its jurisdiction, the provincial government of Guangdong does not have the incentive to either transfer its industry or put significant resources into the Pilot Zone as a whole, especially with Wuzhou now becoming more competitive in attracting transferring industries and investments.

Furthermore, for Guangdong, the limited land resources for PRD development are becoming a bottleneck to its upgrading progress. It is crucial for it to get rid of traditional high energy consumption and low value-added industries as fast as possible. The city of Dongguan, for example, recently closed 72 factories in the papermaking industry, which had 5,300 million tonnes of paper production capability (Paper.com.cn 2016). According to a local source, the local government bought all the assets with more than 1 billion RMB, in exchange for the land they occupied. Meanwhile, the city contracted with numerous firms in high value-added businesses, such as the design industry, to fill the void. The profit those new companies are about to generate in one year exceeds profit made in the conventional papermaking industry since it started.

The PRD local governments still needed to sell equipment left by the previous businesses after the upgrade. Some of it would end up in newly established companies in industrial transfer zones, especially in those that have less strict environmental protection regulations, which poses another problem. Guangdong, as a relatively developed region, needs to upgrade its industry and abandon heavily polluting ones. Guangxi accommodates

many of those low-end, polluting industries from Guangdong. Geographically, Guangxi is located upstream of Guangdong, meaning that if Guangxi's environmental regulations are not as strict as Guangdong, this would jeopardise Guangdong's efforts to improve and reinforce its environmental quality. But if Guangxi raises environmental protection standards, who is going to compensate for the local economic loss?

A recent and ongoing development in the environmental sphere might provide useful insight. In March 2016, both the Ministry of Environmental Protection and Ministry of Finance held a conference to implement the establishment of a horizontal eco-compensation mechanism (Xinhua News Agency 2016). This mechanism is one institutional arrangement for regulating economic interest between ecological destructors, beneficiaries and protectors, by methods including transfer payments, taxes and fees, as well as other market and fiscal measures based on ecosystems' service value, ecological protection cost and development opportunity cost (Liu 2012; Wang, Wan, and Zhang 2006). A three-party joint operation, negotiated between the two provinces, coordinated and partially financed by central institutions, could avoid both the problems of a lack of top design and unappreciated local participation.

The Pilot Zone also needs to meet other challenges affecting the development programmes of both provincial governments. For Guangdong, its other hinterland regions require attention as well. Guangxi also needs to focus on developing the Beibu Gulf Economic Rim. These projects have high estimated costs and can generate contradictory results. For instance, Guangdong could choose to transfer its old industries from PRD to its northern hinterland instead of Zhaoqing or Wuzhou. All the above conflicting interests cannot be easily resolved without mediation and coordination.

A core-periphery power struggle also arises from the development of Eastern Guangxi as a recipient of transferred industry from Guangdong PRD. Guangxi, due to its abundant hydroelectric capacity, has the country's three major hydropower bases, yet its electricity prices remain one of the highest among all the western/periphery provinces, even some core provinces, including Guangdong (see table 3). One reason is the ownership of those hydroelectric power stations. While physically they are in Guangxi, they were built primarily by funds from Guangdong electricity companies. As a result, Guangdong enjoys better deals compared with Guangxi (21st Century Business Herald 2013). This high cost of electricity

power has become one of the major weaknesses in the development of the local economy in Guangxi, especially for the energy-intensive industries.

Table 3: General industrial and commercial electricity price (in August 1, 2018, not exceeding 35 kV Voltage Grade)

Province	Guangxi (P)	Guangdong (C)	Guizhou (P)	National average
Price ¥/kWh	0.7065	0.6956	0.6249	0.6588

Note: P stands for periphery province, C stands for core province.

Source: ESCN 2018.

Overall, we can see Guangdong-Guangxi relations as an example of inter-provincial cooperation and tensions within China's current east-west dynamics. Under the present institutional decentralisation trend, Beijing still manages to implement its regional rebalancing policy. Taking the Pilot Zone case as an example, so far, the gains from co-operation have been remarkable. Most major economic indicators in both parts of the Pilot Zone have registered significant gains since 2010. With more and more firms from the PRD region deciding to transfer their operations into the Pilot Zone, local business opportunities have flourished, creating more jobs and raising wages. Meanwhile, challenges remain: for example, the decentralised nature of the inter-provincial relationship and the lack of top-level coordination may inhibit the Pilot Zone initiative.

Policy recommendations

Karl Polanyi once emphasised that 'There was nothing natural about *laissez-faire*; free market could never have come into being merely by allowing things to take their course [...] *laissez-faire* itself was enforced by the state' (Polanyi 2001: 145). A sustainable and balanced market economy needs the central government to devise a variety of institutional mechanisms to promote the market order. That seems likely to require a more systematically-inclusive and participatory central-local consultation

arrangement, while maintaining the balance of policy implementation effectiveness and decentralisation.

According to Dali L. Yang, the theory of agency predicts that once local governments are given some motives, including part of fiscal revenue, they would pursue local interests (Yang 1997: 44). Nevertheless, the central government might exercise other mechanisms. For example, the nomenclature system (whereby the Communist Party 'capitalises' key positions throughout the governmental system, as well as throughout the party's hierarchy) counterbalances locals' action. Both Wang's (1991) and Huang's (1996) studies argue that the centre's macroeconomic direction has remained quite substantial during the reform era in China (Huang 1996; Wang 1991).

It is crucial to identify the preconditions for the central government in Beijing to push its initiatives throughout the whole country. Three factors are particularly vital. First, as pointed out by Yang (1997:101-2), the central-local information asymmetry strengthens Beijing's hand in the balance of bargaining powers. Second, in most cases, an initiative from the central government triggers different responses from different regions. Third, Beijing still possesses the ultimate power of appointment and removal of provincial-level leaders via the nomenclature system, and it exercises these powers comprehensively. All of which indicates the unbalanced power relationship between the centre and local regions, but it also puts the central government in the ideal position to coordinate the core-periphery issues. Endeavours are supposed to be made to establish a higher coordinating mechanism, consisting of each concerned state commission and ministry and each concerned regional governmental department, aiming to provide a more participatory and reliable institutional structure for securing cooperation between the different parties.

In the case of the Guangdong-Guangxi regional economic imbalance, the current development of inter-provincial collaboration between the two provincial governments could be seen as a new attempt at the local level to benefit from national preferential policies in the existing political-economic system. Nevertheless, the Guangdong-Guangxi Interprovincial Pilot Cooperation Special Zone does set an interesting inter-provincial integration precedent and example for future researchers and policy-makers.

Conclusion

Regional economic disparities are a persistent problem. This study has examined the central-local dynamics and the change in regional disparities in China over past decades. It shows that some general features of regional economic inequalities that were identified by Myrdal and Hirschman, and later by Krugman's school of new economic geography, persist in the processes of spatial polarisation/concentration. It also shows that the evolution of regional patterns coincides with different phases of China's official economic development strategies. Moreover, as recent Chinese history attests, 'crises beget reforms' (Campos, Hsiao, and Nugent 2010: 1670). A political economic crisis, such as escalating regional disparities, provides an opportunity for the different tiers of government to reform their growth strategies. This process has already begun. Previously, the central government had failed to promote regional integration under its aggregate growth-focused development strategy, but recent institutional innovation in intra-provincial arrangements is geared towards improving the economic conditions in the periphery by market-driven industrial transfers from the core regions. Looking forward, the crisis of regional disparities may prove to be a turning point in rebalancing China's regional development.

It is essential that initial investments by the state ultimately trigger self-sustaining growth in the poorer provinces. Directing a higher proportion of state-controlled funding to the peripheries would signal the state's commitment to balanced development. A growing non-state sector can also draw on the resources and technological know-how of local industry, as demonstrated in the Pilot Zone case. This could be an effective way to speed up the processes by which domestic and foreign firms relocate to the periphery. In the case of Guangxi, ongoing institutional efforts to reduce transport costs, to reduce inter-regional barriers to trade and cooperation, all have a significant role to play in reinforcing the 'spread effects' to counteract the 'backwash effects', making the region a more attractive location for industrial production in the future. The experience of other countries where markets are modified by various forms of government 'intervention', such as tax concessions, subsidies and infrastructure spending, can provide relevant lessons. Adopting economic policies that operate in conjunction with the market can thereby facilitate sustainable, endogenous place-based development in peripheral regions.

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