Research on the Dynamic Mechanism of Urban Agglomeration Integration in Bay Area of Guangdong, Hongkong and Macao under Globalization

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Abstract

Since the globalization of the economy, the economic factors have spread spatially on a global scale, which has greatly promoted and upgraded the urban agglomeration economy. The industry continues to gather and spread, and promotes the strengthening of division of labor, exchanges, cooperation and competition within the region. With the acceleration of regional urbanization and the deepening of economic exchanges between core cities in the urban agglomeration, effective integration, clear division of labor in cities and complementary advantages must be taken to reduce the constraints of imperfect mechanisms on overall development, avoid internal competition and enhance overall competitiveness, through which we can achieve common prosperity. The urban agglomerations of Bay Area of Guangdong, Hongkong and Macao are facing increasing competitive pressures under the trend of economic globalization and regional economic integration. Meanwhile, integration will provide new opportunities. This paper explains the urban competitiveness and integration dynamics of the urban agglomerations of Guangdong, Hongkong and Macao, and puts forward relevant suggestions on the integration of urban agglomerations, hoping to be inspired.

Keywords

Globalization, Bay Area, Urban Agglomeration, Competitiveness

1. Introduction

Under the background of globalization, the scope of resource allocation has been expanding, and the pace of regional urbanization and regional industrialization
has accelerated. The global Bay Area urban agglomeration has entered a stage of rapid development, and the original industrial upgrading has become increasingly dominated by the service economy. Obviously, the urban agglomeration of the Bay Area has gradually become an important node for regional resource allocation. However, at the same time of rapid economic development, the disorderly competition\(^1\) between cities is increasing. The overall coordinated development of the regional economy presents incomplete integration under the pressure of competition. Inadequate internal competition and coordination mechanisms are so imperfect to the development of urban agglomerations that urban agglomerations must follow the path of integrated development.

2. Economic Globalization and Economic Development of Urban Agglomerations in Guangdong-Hong Kong-Macao Greater Bay Area

Guangdong-Hong Kong-Macao Greater Bay Area is an urban agglomeration composed of Hong Kong, Macao and Guangzhou, Shenzhen, Zhuhai, Foshan, Zhongshan, Dongguan, Huizhou, Jiangmen and Zhaoqing in Guangdong Province. It is an important space carrier for the construction of world-class urban agglomeration and participation in global competition. The evolution of economic globalization has accelerated the process of global urbanization, and the scope of free movement of economic factors has been continuously expanded. The relationship between regional and urban space has been strengthened. The concentration and diffusion of industries have broken through regional boundaries and brought about population agglomeration. In this context, coastal cities keep attracting new inflows with unique location and resource advantages. The accumulation of production factors, high-density infrastructure construction and urban area expansion has promoted the formation of urban agglomerations in the Bay Area. In the early 21st century, China’s regional economic development changed from the traditional provincial economy and administrative district economy to the urban agglomeration economy. The urban agglomeration \([1]\) became the main spatial form of China’s regional development and formed several important urban agglomeration economies. Under the dual role of economic globalization and China’s reform and opening up policy, the Pearl River Delta region is actively developing an export-oriented economy with its unique location and historical foundation. The infrastructure of the urban area is improving day by day, including various social, economic and technological technologies between cities. The formation of modern transportation network links has strengthened the concentration and spread of industries, while greatly driving the urban agglomeration and rapid development of economy. The economic level of the Pearl River Delta region has generally experienced the evolution from industrialization to post-industrialization. After the reform and opening

\(^1\)Disorderly competition: irrational to compete rather than advancing in the direction of enhancing core competitiveness.
up, the division of labor and cooperation between Guangdong, Hongkong and Macao in the manufacturing sector has played a significant role in promoting the economic development and industrial restructuring of the three regions, and has also promoted the rapid changes in the urban spatial pattern of the region. In 2004, the economic and regional units of the “Pearl River Delta” region began to transform and improve the urban inter-city road facilities, change the urban industrial parks, clean up and eliminate high-polluting industries and labor-intensive industries’ urbanization transfer guidance in urban areas. The economic regional units of the “Pearl River Delta” region have also strengthened the industrial division of labor and cooperation with the Hongkong and Taiwan regions. Hongkong has gradually become an international center of finance, trade, information and tourism. Macao has become an international city featuring gaming and tourism. The Pearl River Delta has developed into an international manufacturing base. After Hongkong and Macao returned to the motherland, the Guangdong-Hongong Cooperation Joint Conference and the Guangdong-Macao Cooperation Joint Conference acted as an official coordination mechanism and played an active role in promoting the industrial division of labor, infrastructure cooperation and trade facilitation cooperation in the Greater Pearl River Delta region [2].

The implementation of this series of measures has enabled economic factors and population to gather in the core economic regional units of the “Pearl River Delta” region and also spread to its peripheral economic regional units and the county towns. Through the integrated adjustment and optimization of the economic positioning of the cities in the “Economic Zone” and the economic spatial structure of it, the “Pearl River Delta” regional economy has experienced a qualitative leap, and the urbanization rate of the core cities has risen rapidly.

3. Analysis of the Integration Mechanism and Dynamics of Urban Agglomerations in Bay Area of Guangdong, Hongkong and Macao under Globalization

In the past, the cities in the urban agglomerations of Guangdong, Hongkong and Macao have been independently planned, resulting in division of industrial development, functional labor, urban system, infrastructure, cultural construction and ecological environment, etc. Without considering the law of economic integration and development of urban agglomerations, the division of labor and weakening of cooperation have little synergy. Hongkong and Macao are independent customs zones, which implement different economic and social systems from the mainland. There is a lack of deep cooperation between Guangdong, Hongkong and Macao. The cities and cities are separated so that the allocation of resources cannot be allocated as full as free trade. Regional functional layout needs to be further optimized prone to industrial development, repeated construction, overcapacity, excessive market competition, etc. Under the background of economic globalization, the urban agglomerations participate in the
competition with the overall cooperation, survive and develop in a fierce competitive environment. For the urban agglomerations of Guangdong, Hongkong and Macao, there are competing relationships among the core cities, ports, airports and industries. As China’s influential urban agglomerations of Guangdong, Hongkong and Macao, it is necessary to carry out economic integration to avoid conflicts so that cities can form a collaborative division of labor and deep integration, jointly promote economic transformation and urban agglomerations upgrading and enhance international competitiveness.

3.1. The Composition and Operation of the Economic Integration Mechanism of the Urban Agglomeration in Guangdong, Hongkong and Macao

The economic integration mechanism of the urban agglomeration of Guangdong, Hongkong and Macao should be composed of cross-regional structure organization, public infrastructure construction, basic conditions analysis and evaluation of group development, public resource utilization and management, industrial misplaced interaction development and unified economic operation. From the development experience at home and abroad, the economic integration mechanism of urban agglomerations includes rigid, administrative, cross-regional, administrative organizations and also flexible, consultative, non-administrative organizations. Many government entities exist in the urban agglomerations of Guangdong, Hongkong and Macao with conflicts in the maintenance of their respective interests. Once competition is involved, their own interests will be given priority. The differences in the system and policy formed by “one country, two systems” may become an important factor restricting the process of economic integration. Therefore, the urban agglomeration of Guangdong, Hongkong and Macao must have a clear administrative structure and establish a cross-regional organization with real power consisting of the central government of Guangdong, Hongkong and Macao.

Construction of transportation facilities. The development of urban agglomeration economy and infrastructure sharing are important contents of economic integration of urban agglomerations. The urban agglomerations of Guangdong, Hongkong and Macao need infrastructure interconnection and complementary urban functions, but the urban agglomerations of Guangdong, Hongkong and Macao Uniform cross-border planning especially the implementation of transportation network construction planning is difficult. Therefore, it is necessary to break the management of the system, establish an overall coordination mechanism for infrastructure construction and improve the efficiency.

The integration of economy needs the country’s overall strategy and regulation, maintain common interests and directions on the basis of consensus. Due to the overlapping of the aggregation and radiation functions of the urban agglomerations of Guangdong, Hongkong and Macao, Hongkong is facing more than other core cities. The effects of radiation and the formation of industrial are quite serious. The internal consumption competition between core cities is in-
evitable. Therefore, while making economic decisions, core city governments should reasonably examine internal economic cooperation and conflicts of interest and focus on reducing internal waste of economic resources.

The cultivation of industry should focus on chain network of the core city and have the function of spatial matching, thus forming an association at the industrial level beyond geographical restraint, forming a regional industrial chain. From the perspective of industrial space layout, Guangdong, Hongkong and Macao The industrial development and urban agglomeration of the core cities in the east coast has reached a considerable scale in recent years. Part of the development of these leading industries can avoid the internal consumption competition through complementary integration, playing the spatial effect of the expected industrial scale and coordinated development.

Unified open marketing environment is an important factor in promoting the economic integration of urban agglomerations. As the urban agglomeration of Guangdong, Hongkong and Macao has no unified market system, it is necessary to build a large area based on the principle of regional differentiation and comparative interests. The economic integration and synergy development mechanism enables Bay Area cities to benefit from integration through interest coordination and benefit sharing.

The utilization and management of public resources in the urban agglomeration of the Bay Area will help to improve the quality of urban agglomeration and economic development, besides, to enhance the attractiveness of urban agglomerations. It is necessary to use market economic methods to promote the market-oriented allocation of public resources, protection and governance to create a good ecological environment for the urban agglomeration.

3.2. Internal and External Competition Provides Power for the Integration of Urban Agglomerations in Guangdong, Hongkong and Macao Bay Area

The driving force for the integration of urban agglomerations in the Greater Bay Area of Guangdong, Hongkong and Macao comes from the need for development within and outside the urban agglomeration. External motivation: 1) fully participating in international competition. The political powers in the region competed at a higher level to seize the commanding heights of high-end economic development. The redistribution of economic resources and the reconstruction of new trade barriers have accelerated the transformation and development speed of both developed and emerging economies. The “gateway city” is of great significance to the development of the country and world economy. The Guangdong, Hongkong and Macao Bay Area have “gateway city” just like this, which is the hub for the Chinese cities to go abroad in the global structure. As China integrates into the global industrial system further, cooperation with surrounding areas is gradually deepening due to the Bay Area. Basing on the brand new environment, the construction of the Great Bay Area of Guangdong, Hongkong and Macao has become an important part of China’s globalization.
strategy. The existing industries of the Guangdong, Hongkong and Macao Bay Area urban agglomerations need to foster new economic growth points, promote industrial upgrading and transformation and improve their international competitiveness. The major adjustment of the global urban system and the industrial system competition pattern has provided a rare and significant opportunity for the economic integration of the Guangdong, Hongkong and Macao Bay Area, which should respond to the new environment with a proactive and integrated attitude, accelerate planning and layout of industry and urban space, meanwhile, actively participate in global industry division of labor and expand international market space. 2) Foster a global competition platform to enhance the development of international competitiveness. Under the “new normal”, China’s economy has changed from high-speed growth to medium-high speed. The quality of economic development, the resources and environment are under great pressure. The urban agglomerations in the coastal areas of the Bay Area will continue to be the leaders of China’s economic and institutional reforms. Institutional innovation has become a truly globalized region with international competitiveness. The economic integration and development of the urban agglomeration of Guangdong, Hongkong and Macao Bay Area will help Hongkong to solve the hollowing out of the industry and help Macao’s economic development to be moderately diversified. In this sense, the economic integration of the urban agglomeration of Guangdong, Hongkong and Macao is to further promote the deepening of cooperation between the Mainland and Hongkong and Macao. To ensure the long-term prosperity and stability of Hongkong and Macao, we need to keep the unique advantages of Hongkong and Macao, enhance its position in the international economic system and strengthen the country’s opening up function, finally develop into a global transportation hub, global financial center, global technology center and global headquarters economic cluster. 3) It will drive the need for cooperation and development in the Pan-Pearl River Delta region. The core cities’ agglomerations include Foshan, Zhongshan, Jiangmen and Zhuhai in the Guangdong, Hongkong and Macao Bay Area will accept the global industrial transfer, adhere to the combination of modern manufacturing and traditional manufacturing, develop the electronic and electrical industry, light textile food industry and realize the industrial integration of urban agglomerations. Complementary and joint development is a long-term goal. With the global industry and market, Shenzhen, Dongguan and Huizhou combine the industrial characteristics of Hongkong and Macao in developing the technological and capital-intensive high-tech industries while improving the innovation level and technical content of the manufacturing industry. When high-tech industry is being developed, the innovation level and technological content of the manufacturing industry will be enhanced and will develop into an export base for high-tech industries and developed manufacturing industries. It also can maintain the sustainable advantages of the eastern manufacturing industry, especially to highlight and strengthen Hongkong in finance and information part. The advantages of logistics and other mature market economy aware-
ness which combined with the hinterland space will drive the complementary and coordinated development of the Pan-Pearl River Delta region.

Internal motivation: 1) the need for coordinated development within the urban agglomeration. In recent years, Hongkong has always faced the problem of a single industrial structure in the economic transformation and the slow development of emerging industries such as innovative technology and cultural creativity [3]. The development space of Hongkong and Macao industries is very limited. The urban agglomerations of Guangdong, Hongkong and Macao need to form free flow of elements gradually. The open market and efficient allocation of various resources have promoted the expansion of the industrial division of labor. In the 40 years’ reform and opening up, the development pattern of the urban agglomerations of Guangdong, Hongkong and Macao has been a one-sided trend, which means no cooperation. This kind of structural growth needs to be balanced and an open network is formed as a whole [4]. Spatial structure and the economic integration of the urban agglomeration of Guangdong, Hongkong and Macao Bay Area will jointly build global industrial centers, financial centers, trade centers and shipping through helping reduce market entry barriers, promoting the free flow of production factors and integrating services Hongkong of in the Pearl River Delta. The Center will accelerate the gathering of various resource elements, effectively integrate regional resources, promote industrial synchronization and resource sharing and the revitalization between the East and West of Guangdong province. Second, promote the upgrading of industrial structure and accelerate the transformation of economic development mode. Enhance the industrial level of Guangdong, Hongkong and Macao Bay Area, promote the upgrading of traditional industries and build a modern industrial system from a high starting point. The transformation of the economic development mode and will be accelerated re-innovate by the economic development of the urban agglomeration of Guangdong, Hongkong and Macao, and the comprehensive development of other advanced industries will be promoted to improve the traditional industrial structure and categories. The economic integration of the urban agglomeration of this Bay Area is to highlight the development strategy of misplaced complementary to guide the joint development of the industry, especially the rational functional division of labor based on the economic conditions. Therefore, in the context of economic globalization, the bay area should participate in the international division of labor and assume a certain international division of labor in the urban system of the whole region.

The economic integration of the urban agglomerations in Guangdong, Hongkong and Macao is not only based on the simple sum of economy, urban size and population, but also on the integration of higher levels of resources on the basis of economic globalization, industrial space integration and resource agglomeration. From the current point of view, Hongkong’s financial, information, logistics, mature market economy awareness and other advantages still do what it does. Macao’s internationalization advantages are obvious, too. Hongkong, Guangzhou and Shenzhen have sufficient strength to integrate the Bay
Area urban agglomerations. Each core city in the district urban agglomerations should strengthen internal horizontal linkages, break down regional division, avoid internal consumption and competition, effectively allocate economic elements, share infrastructure, and move toward a modern urban agglomeration of commercial trade, logistics, finance and information integration in order to participate in the organization and management of global production systems and global market networks directly or indirectly [5].

4. Analysis on the Competitiveness of Urban Group Cities in Bay Area of Guangdong, Hongkong and Macao

Urban competitiveness mainly refers to the attraction, competition, possession, control and transformation of resources that a city compares with other cities in the process of competition and development, competing for, occupying and controlling the market to create value and provide benefits to its residents. Given the availability of indicator data, this article selected some indicators. The results of data processing are shown in Table 1.

Hongkong has the highest comprehensive competitiveness score and comprehensive strength, and has absolute advantages. Shenzhen has the strongest scientific and technological strength. Guangzhou is obviously superior to other cities in terms of industrial structure. Hongkong, Guangzhou and Shenzhen have strong competitiveness. In terms of comprehensive strength, in Guangzhou and Shenzhen, although the total economic output is high, the foreign population is increasing year by year, the per capital level is far lower than that of Hongkong, and the score is not high. The comprehensive strength scores of Dongguan and Zhuhai are second only to Hongkong, and other cities have relatively low scores (shown in Table 1).

Table 1. Competitiveness scores of cities.

<table>
<thead>
<tr>
<th>City</th>
<th>Ranking</th>
<th>Comprehensive strength</th>
<th>Scientific and technological strength</th>
<th>Industrial structure</th>
<th>Competitiveness score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hongkong</td>
<td>1</td>
<td>8.94</td>
<td>−0.22</td>
<td>−0.08</td>
<td>4.58</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>2</td>
<td>−0.35</td>
<td>4.28</td>
<td>−0.60</td>
<td>3.12</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>3</td>
<td>−0.83</td>
<td>0.20</td>
<td>3.49</td>
<td>2.04</td>
</tr>
<tr>
<td>Dongguan</td>
<td>4</td>
<td>0.12</td>
<td>−0.79</td>
<td>0.24</td>
<td>−0.46</td>
</tr>
<tr>
<td>Foshan</td>
<td>5</td>
<td>−1.38</td>
<td>−0.30</td>
<td>−0.31</td>
<td>−1.21</td>
</tr>
<tr>
<td>Zhuhai</td>
<td>6</td>
<td>0.14</td>
<td>−1.03</td>
<td>−0.81</td>
<td>−1.36</td>
</tr>
<tr>
<td>Jiangmen</td>
<td>7</td>
<td>−1.84</td>
<td>−0.41</td>
<td>−0.21</td>
<td>−1.49</td>
</tr>
<tr>
<td>Zhongshan</td>
<td>8</td>
<td>−1.07</td>
<td>−0.65</td>
<td>−0.65</td>
<td>−1.57</td>
</tr>
<tr>
<td>Huizhou</td>
<td>9</td>
<td>−1.71</td>
<td>−0.44</td>
<td>−0.58</td>
<td>−1.68</td>
</tr>
<tr>
<td>Zhaoqing</td>
<td>10</td>
<td>−2.00</td>
<td>−0.64</td>
<td>−0.50</td>
<td>−1.97</td>
</tr>
</tbody>
</table>
In terms of scientific and technological strength, Shenzhen is particularly prominent, far higher than other cities, followed by Guangzhou and Zhuhai; in terms of industrial structure, Guangzhou has the best performance, Dongguan is second, 2) other cities score lower, traditional industries need to be improved and optimized, Hongkong Although the economic aggregate is large, the industrial structure is single, and it is necessary to form an open and collaborative situation with the mainland to promote the diversification of the industry. On the whole, the competitiveness of cities and towns in the Greater Bay Area of Guangdong, Hongkong and Macao is quite different. Hongkong, Guangzhou and Shenzhen have obvious urban agglomeration effects, attracting the influx of various production factors. Guangzhou has many universities and scientific research institutions, and it is also the earliest in China. The development orientation in the Guangdong, Hongkong and Macao urban agglomeration is to build an international innovation and technology hub, an international financial center and a modern system with international competitiveness. Shenzhen has a unique location adjacent to Hongkong. Advantages and technological innovation advantages, positioning for innovation to lead the city; Judging from the competitiveness score factor, the favorable conditions of Guangzhou and Shenzhen have not been fully utilized, and the existing advantages have not formed a unique core competitive advantage. Guangzhou faces the problem of continued transformation and upgrading of the industry. Shenzhen lacks land resources, population density is too large and lacks high-end manufacturing industries and service industries. Although Hongkong and Macao have obvious advantages in internationalization, they all have problems of single production structure and insufficient industry categories. Other cities undertake excess capacity in Guangzhou, and the industry has an isomorphic trend, causing internal consumption competition, which restricts the flow of resources within the region and the coordinated development of the city.

Guangdong, Hongkong and Macao Bay Area is a master plan. The free flow of resources within the region, the flow of resources from Hongkong and Macao and external elements, and the smooth integration of international cooperation can form a regional growth pole that gathers multiple cities for cooperation. Therefore, we must actively promote various urban clusters [6]. The city and Guangdong, East and West, and Hongkong and Macao interconnected, breaking internal barriers, effectively integrating various resources and enhancing the overall competitiveness of the urban agglomeration.

5. Conclusions and Recommendations

In the context of globalization, the economic development of urban agglomerations should focus on the long-term interests and realize the maximization of the industrial interests of the urban agglomeration economies rather than local interests. The industry of central cities has changed from generalized functions to specialization. However, the high-end service industry that is consistent with
urban positioning still cannot form its unique core advantages and competitiveness. The transformation and upgrading of industrial structure urgently need to be driven by new engines. Hongkong and Macao still have unique geographical advantages and industrial advantages in the urban agglomerations of Guangdong, Hongkong and Macao Bay Area. However, through the integrated division and cooperation of urban functions, core cities can form an effective division of labor and industrial docking with other cities in the Bay Area, which will help Hongkong and Macao’s economic development. And the improvement of international competitiveness, as to the strategy of forming new economic pattern, this paper puts forward the following suggestions:

5.1. Giving Full Play to the Advantages of Hongkong and Macao

Hongkong is a highly international city with capital, talent and information advantages from home and abroad. Good business environment and governance experience can provide reference for the high quality development of the Mainland. Hongkong is also a leading international financial center in Asia. A large number of financial institutions and related service industries can effectively promote the development of related industries in other cities in the Bay Area. At the same time, under the background of “one country, two systems”, Hongkong can connect and fully develop the vast market in the Mainland and retain Hongkong’s unique institutional culture and services. Macao can give full play to its regional advantages and precise linkages, promote diversified economic development, and build a comprehensive new open service for Guangdong, Hongkong and Macao [7].

5.2. Strengthening the Professionalization of Urban Industrial Functions in the Pearl River Delta Region and Organically Combining Multiple Cities

Continuing to deepen reform and opening up, Guangzhou and Shenzhen have the foundation and conditions to take the lead. Shenzhen, which is the South center of science and technology, the engine of South China’s economy, should actively create a world-class business environment, promote the development of local science and technology industry and form a technological innovation industry chain. While strengthening the development of Guangzhou’s transportation and public service industry, attempting to drive the entire region to build an industrial system of solid economy, technological innovation, modern finance and human resources.

5.3. Innovative Management System and Legal Arrangements

Guangdong, Hongkong and Macao Bay Area are intertwined by three different legal jurisdictions. The systemic construction of the rule and law is complicated. The legal system and the rule of law determine the flow of international talent, capital, information and currency. Therefore, Guangdong, Hongkong and Macao should be self-contained in legislation. The system should concentrate on
respecting the principle of “one country, two systems” and strengthening law enforcement cooperation without unifying legislation, and guarantee the full flow of production factors such as labor currency, information and technology in Bay Area cities, meanwhile, boldly innovate and realize the advantages of inter-communication of Guangzhou, Hongkong and Macao, the convergent development will be achieved.

5.4. Optimizing Infrastructure Construction

The high integration of urban agglomerations in Guangdong, Hongkong and Macao Bay Area is based on a developed transportation network dominated by rail transit, and the entire district’s urban agglomerations don’t form a comprehensive connection and efficient environment. The overall inter-connectivity of the urban agglomerations in Guangdong, Hongkong and Macao is insufficient. The core cities should strengthen the rational layout in the overall planning, avoid duplication of construction and competition, and establish a high-efficiency urban agglomeration and convenient modern integrated transportation system in Guangdong, Hongkong and Macao.

5.5. Deficiency of the Article

This paper only illustrates the existence of internal competition in the Bay Area, the great disparity of competitiveness among cities and the insufficient integration of comparative advantages from the perspective of competitiveness. However, it does not further explore and elaborate on the current situation of industrial integration in the Bay Area. In addition, the special feature of the Bay Area of Guangdong, Hong Kong and Macao lies in the cross-border of the two sides, and the integration of systems is particularly important. This paper concentrates on the trend of world economic situation and shows the necessity of urban integration in the Gulf region without considering the particularity of policy. If there are readers interested in this topic, you can continue to study in this direction as a reference.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References


