

# The Greater Bay Area from Pearl River Delta -- Formation and Integration of Urban Agglomeration

Bingzhao Jiang<sup>1\*</sup> and Jiawei Chen<sup>1\*</sup>

<sup>1</sup>School of Law and Political Sciences, Guangdong Ocean University, Zhanjiang, China

<sup>1</sup>Business School, the University of Auckland, Auckland, New Zealand

**Abstract.** Its objective is to explore the formation, competition and cooperation of the Greater Bay Area urban agglomeration and explore the development mode of the urban agglomeration with the opportunity of the integrated development of the Greater Bay Area. Methods: By combing and analyzing the open government affairs data of the country and cities in the Greater Bay Area, the present situation and future development trend of the Greater Bay Area are introduced by introducing the concept of a city group, and it is concluded that it has a bright future in the region. The difficult problem of city group construction is how to realize the reasonable division of labor and the rational distribution of resources.

## 1. Introduction

The Outline of Pearl River Delta Coordinated Development City Clusters from 2004 ~ 2020 formally proposed the "Bay Area" concept. In 2017, it was clearly proposed in the government Work Report of the "Two Sessions" that the Guangdong-Hong Kong-Macao Greater Bay Area urban agglomeration should be studied and rationally planned and developed. Hong Kong in July, a Framework Agreement for Promoting Greater Bay Area Development on Deepening Guangdong-Hong Kong-Macao Cooperation, marked that with the Central Government's support, Guangdong, Hong Kong and Macao will build a world-class Bay Area. Therefore, the Guangdong-Hong Kong-Macao Greater Bay Area has been placed at the top of the national strategy.

## 2. Urban Agglomeration and the Greater Bay Area

### 2.1 What is Urban Agglomeration?

Based on United States population data in 1950, French geographer Gottmann named the development status of the cities along the Atlantic coast of the northeast United States as metropolitan belt (Jean Gottmann, 1957), namely urban agglomeration. According to Gottman, urban agglomerations have the following features: (1) There are relatively dense towns in the area;(2) There are quite a number of big cities forming their metropolitan areas, and the core cities have close social and economic relations

with the counties outside the metropolitan areas;(3) There are convenient transportation corridors connecting these core cities, and there are close social and economic ties between the metropolitan areas;(4) Population must reach the standard of 25 million or so;(5) It is the core area of the country and plays the role of an international transport hub. That is to say, in a specific region, with a megalopolis as the core, at least three or more metropolitan areas (districts) or big cities as a basic unit, depending on the developed transport and communication infrastructure, finally, a compact spatial organization is formed, the economy is closely connected, and the final realization of a city and a high degree of integration of urban groups. The establishment and development of urban agglomeration can be regarded as an important guarantee and a good foundation for the integrated development of socioeconomic areas.

### 2.2 Overview of Greater Bay Area Urban Agglomeration between Guangdong and Hong Kong and Macao

Premier Li Keqiang introduced the Development Plan in his Policy Address on Government Work for the Guangdong-Hong Kong-Macao Greater Bay Area Urban Agglomeration, transforming the traditional Pearl River Delta city cluster into it, which will promote the Bay Area's economic and social integration. In recent years, because of the special economic and political position of it, many scholars have put forward opinions on how to construct a Regional Greater Bay Area Economic and Social Integration. According to Lu Zhiguo and others, it is necessary to strengthen the inner motive power of

\*Corresponding author: [jiangbingzhao@stu.gdou.edu.cn](mailto:jiangbingzhao@stu.gdou.edu.cn)  
[jche552@aucklanduni.ac.nz](mailto:jche552@aucklanduni.ac.nz)

regional economic growth from economic structure, resource allocation ability, agglomeration spillover effect and international communication network. (Lu Zhiguo, Pan Feng, Yan Zhenkun, 2015); According to Zhang Fulei, the Greater Bay Area is a multi-tier governance framework, which is based on a new regional spatial scale. A coordination and integration among four systems, namely, control and coordination system, cohesion and integration system, task-oriented management system and function-oriented convergence system, should be established. Thus, a three-dimensional Greater Bay Area governance system was constructed (Zhang Fulei, 2019). The Greater Bay Area is one of China's main economic core regions. It is recognized as one of the most dynamic areas in the world because of its superior natural conditions, obvious geographical superiority, sound economic base, advanced scientific, technological, cultural, educational and so on. The economic development of the Greater Bay Area is crucial to the country (see Table 1).

**Table 1** Major Economic Indicators and their Status in the Greater Bay Area (2021)

Region	GDP (RMB 100 million)	Fiscal revenue (RMB 100 million)	Total foreign trade (RMB 100 million)	Science and innovation investment (RMB 100 million)	Number of QS100 universities
the Bay Area	About 126000	9365	164128	About 3800	5
nation wide	1149237	202539	About 391000	About 27900	11
proportion	10.96%	4.62%	41.98%	13.62%	45.45%

Data sources: National Bureau of Statistics, Guangdong Government Affairs Openness, HKTDC

The Guangdong-Hong Kong-Macao Greater Bay Area is one of China's most urbanized areas. The internal system of the Bay Area is complete. The urban system consists of large cities, medium-sized towns and small towns. The whole administrative level system is made up of special administrative areas, sub-provinces and prefectural-level cities. (see Table 2).

Sub-provincial cities in the large bay area shoulder the political center should play a role. Guangzhou and Shenzhen, respectively, play economic development, hub portal, scientific and technological innovation, cultural lead, comprehensive services, social integration and other important roles. At the same time, Guangzhou and Shenzhen, the two deputy provincial cities, belong to the first-tier cities camp. is the core of the big bay area engine. Guangshen, the two core cities fly wing to wing, for the first economic province, Guangdong, to speed up the transformation and upgrading, leading the province's economic development, to a large bay area and the national economic development.

The special Administrative Region, however, has unique advantages and functions in the construction of the

Guangdong-Hong Kong-Macao Greater Bay Area by virtue of its different system characteristics from the inland areas. In terms of internal links, Hong Kong and Macao have close and in-depth political, economic and cultural relations with the mainland, but they also have close ties with the international market. Both Hong Kong and Macao are the important business and trade service centers in the Asia-Pacific region, with a high influence on regional and international economic and financial organizations and platforms. At the same time, Hong Kong's legal system can be better in line with the international market standards.

**Table 2** Administrative hierarchy of the Greater Bay Area Urban Agglomeration

Grade	City name
Special Administrative Region	Hong Kong and Macao
Sub-provincial city	Guangzhou and Shenzhen
Prefecture-level city	Zhuhai, Foshan, Dongguan, Zhongshan, Jiangmen, Huizhou, Zhaoqing

Source: Outline of the Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area issued by The State Council

Guangzhou was the Greater Bay Area's first center city. The Pearl River Delta Bay Area has been a city since the Ming and Qing Dynasties. Except Zhaoqing, all cities in the Greater Bay Area are all in the same city. The CPC Central Committee and The State Council issued the "Guangdong-Hong Kong-Macao Greater Bay Area Development Plan" on 18 February 2019. The Guangdong-Hong Kong-Macao Greater Bay Area will be made up of four cities: Guangdong, Hong Kong, Shenzhen and Macao, it said. Hong Kong will become an international hub of finance, shipping, commerce and aviation. Macao is the world's tourist and recreational centre, and the Sino-Portuguese Business Cooperation Platform. As the center of the nation and the integrated gateway city, Guangzhou plays a leading role in the overall enhancement of its functions as an international commercial centre and integrated transport hub, and the promotion and improvement of the scientific, technological, educational and cultural centre. Shenzhen is the SEZ, the National Economic Center City and the National Innovative City.

Make full use of the Greater Bay Area's unique geography and strong industry base, the construction of a comprehensive region's economy and society is the main impetus for the effective stimulation of economic production.

### 3. Formation of the Greater Bay Area Urban Agglomeration Municipalities and Its Internal Differences

The Seventh Session of the Guangdong Provincial Party Committee on October 8, 1994 suggested that the Pearl

River Delta Economic Zone be built. Originally, the Pearl River Delta consisted of nine cities. The CPC Central Committee and The State Council issued the "Guangdong-Hong Kong-Macao Greater Bay Area Development Plan" on 18 February 2019. According to the plan, the Hong Kong Special Administrative Region, the Macao Special Administrative Region and the cities of the Pearl River Delta of the joint development of the Guangdong-Hong Kong-Macao Greater Bay Area in Guangdong Province. Not only will it be a world-class urban cluster, but it will also be an international centre for technological innovation, and it will be an important pillar of the Belt and Road Initiative. It is also a model area for in-depth cooperation with Hong Kong and Macao, and it is also a good residential area suitable for residential, commercial and tourist activities. Superior geographical environment and highly homologous cultural connotation are the objective potential basis for the formation of the Greater Bay Area city cluster, and the rapid economic development over 40 years since the reform and opening up has successfully transformed the potential foundation into a practical basis. At the same time, the four major central cities also have strong agglomeration and adsorption capacity.

### **3.1 The Radiant Force of the Central City and the Response of Other Cities**

The emergence and development of the Greater Bay Area city cluster is closely related to the role of the leading cities centered on Guangzhou-Shenzhen-Hong Kong-Macao. Each city in the Greater Bay Area is centered around Guangzhou and Shenzhen, which are the two regional growth poles, forming several economic power circles and spreading in spatial form. It forms two major inter-city strategic cooperation areas, namely "Guangzhou-Foshan" and "Shenzhen-Dongguan", and then the other five cities, Zhuhai, Zhongshan, Jiangmen, Huizhou and Zhaoqing, form second division circles. The economic development level of each circle and the degree of urbanization, basically present a cascade of diffusion. Every city responds to the demands of the economy and industry from different perspectives, takes the initiative to accept the development strategy of broad and deep radiation, and undertake industrial transfer. Along with the adjustment of the industrial structure of each city, the division of labour in the area has become distinct. This close connection will be beneficial to the development of the Guangzhou-Shenzhen economy and the economic integration of the Greater Bay Area Urban Group.

### **3.2 The Rapid Development of the Trade Economy and Its Influence Abroad**

The Guangdong-Hong Kong-Macao Greater Bay Area has witnessed strong economic growth since the 1980s, when Hong Kong returned to China. So far, it has been one of the most powerful areas in China, and it is also one of the most important areas of Chinese foreign trade. In 2021, the total volume of foreign trade in the Greater Bay Area reached RMB 16,412.8 billion, ranking first among all bay

areas in the world. Compared with 2019, the volume of imports and exports increased by 11.6% and 15.1% respectively, accounting for about 42% of the total volume of foreign trade in the country in 2021. Four ports along the Pearl River, including Guangzhou, Shenzhen, Zhuhai and Dongguan, have entered the Mega Level, and Guangdong-Hong Kong-Macao Greater Bay Area is the core of a world-class port group. Shenzhen Port and Guangzhou Port rank fourth and fifth in the world in container throughput respectively. Foreign trade has become a major economic growth point in it.

### **3.3 Complete Industry System and Clear Division of Labour**

The Pearl River Delta, formerly known as the Guangdong-Hong Kong-Macao Greater Bay Area City Cluster in the 1980s, was characterized by a vertical division of labour in manufacturing. In the early 21st century, after the signing of the Closer Economic Partnership Arrangement (CEPA), the cooperation between the three places gradually shifted to service trade as the core. In 2019, the Central Government issued the Guangdong-Hong Kong-Macao Greater Bay Area Development Plan Outline, requiring cities in the Bay Area to transform into high-end industries, actively participate in international industrial competition with high technology and innovation, and the four major central cities to fulfill their respective responsibilities to accelerate the comprehensive development of the Greater Bay Area.

### **3.4 Economic Geography Advantage is Obvious**

The Pearl River Delta, home of the nine big cities of the Guangdong-Hong Kong-Macao Greater Bay Area, was once known as "The Pearl River Delta" or simply "Yuejiang Plain". Located in the middle and south of Guangdong Province, the South China Sea. The geographical location of the Guangdong-Hong Kong-Macao Greater Bay Area is favorable. The coastline is long, the harbor is good, the ocean is broad, the economic hinterland is broad. Meanwhile, it is a key area in the "belt and road". It is also where the old Silk Road began. The Greater Bay Area can be used as a link between English, Portuguese and overseas Chinese. It has an obvious geographical advantage in connecting the three cultural regions of English, Portuguese and overseas Chinese, as well as Southeast Asia, South America, North America and Oceania.

### **3.5 Regional Economic and Social Integration**

Regional economic and social integration means that the economic, cultural, political and social resources of the region are improved to form a whole, to optimize the distribution of elements and resources, and maximize the benefits, so as to achieve interconnected, mutually beneficial and common development. From global development, it can be seen that the status and role of top metropolises in regional cooperation or global

competition and cooperation are increasingly obvious. Urban agglomeration is an important component of many cities' economies and society. The Greater Bay Area is an area with the highest degree of integration, which is the precondition of the Greater Bay Area's development.

#### 4. Competition in the Greater Bay Area Urban Agglomeration

##### 4.1 The Competition to Enhance the Economic Strength of Cities

In the Guangdong-Hong Kong-Macao Greater Bay Area

**Table 3** Comparative Analysis of Economic Strength of Major Cities in the Greater Bay Area Urban Agglomeration (2021)

Index	Unit	Guangzhou	Shenzhen	Foshan	Dongguan	Zhongshan	Zhuhai
Gross domestic product	RMB 100 million	28231.97	30664.85	12156.54	10855.35	3566.17	3881.75
Total Value of Goods Import and Export	RMB 100 million	10825.9	35400	4757.9	6331.6		3320.1
Total fiscal revenue	RMB 100 million	4257.8	1883.2	808.1	769.5	316.5	448.2
Per capital Disposable Income of Urban People	RMB 1	70847	68908	61700	62126	57901	61390

Data source: Statistics Bureau of each city (vacancy grid means no published data)

##### 4.2 Competition to Attract Investment and Talent

The direction selection of external investment is mainly in industries with advantages in technology and scale, fast investment recovery and high return on investment. It has an important meaning to optimize and to upgrade the industrial structure of every city. External capital investment is an important driving force for cities to develop high-tech industries and promote various systems and institutions to international transformation. In a certain degree of time and space, the total amount of external investment is stable, and the increase of investment received by one city often leads to the decrease of investment received by another city. Talent is an important driver of economic growth and social change, and with the economic rise of cities in the southwest and central China, the Southeast, represented by the Greater Bay Area, is losing its edge in attracting Labour. Each city in the Bay Area has made concessions to some extent (see Table 4) to attract more young talents to settle down.

**Table 4** Some Talent Settlement Policies in Guangdong-Hong Kong-Macao Greater Bay Area

City name	Representative policy
Shenzhen	Opinions on the Implementation of "Peacock Plan" for Introducing Overseas High-level Talents (Shenfa (2011) No.9)
Guangzhou	Opinions of Guangzhou Municipal Committee of the Communist Party of China and Guangzhou Municipal People's Government on Accelerating the Gathering of Leading Industrial Talents (De Zi (2016) No.1)
Zhaoqing	Opinions on the Implementation of Xijiang Talent Plan (Zhaofan (2016) No.3)
Huizhou	Opinions on Deepening and Improving the "Talent Double High Plan" and implementing

City Cluster, Guangzhou-Foshan City and Shenzhen-Dongguan City Partner City have similar economic development (see Table 3), and their comprehensive strength is similar. Competition exists to accelerate development and improve their economic status. Both partner cities have their advantages, such as the petrochemical industry, automobile manufacturing, electronic product manufacturing, high-tech industry, ceramics industry, textile industry, non-ferrous metal industry, hardware industry, furniture industry and iron and steel industry. Shenzhen-dongguan has a high-tech industry, financial industry, logistics industry, cultural industry, textile and clothing, food and beverage, furniture manufacturing and electronic information manufacturing.

	the "Talent Double Ten Action" (Hui Municipal Power Generation (2016) No. 3)
Jiangmen	Opinions on Improving the System and Mechanism and Accelerating the Construction of a Talent-Strong City (Jiangfu (2016) No.6)
Zhongshan	Opinions on Further Gathering Innovative and Entrepreneurial Talents (Zhongshan Fa (2017) No. 2)
Foshan	Opinions on the Reform and Implementation of Talent Development System and Mechanism in Foshan City (Fofa (2018) No. 2)
Zhuhai	Some Measures to Accelerate the Gathering of Innovative and Entrepreneurial Talents in the New Era by Implementing "Zhuhai Talent Plan" (Zhuzi (2018) No.6)
Dongguan	Opinions on Implementing the Quality Improvement Project of One Million Labor Force and Building a "Capital of Skilled Talents" Dongfu (2018) No.104

Source: Institute of Consulting Talents, SYSU

During the "Talent War" process, the entire Guangdong-Hong Kong-Macao Greater Bay Area has carried out a variety of new personnel policies. In terms of quantity, the number of talent policies issued in some regions is large, but the number of talent policies is not completely proportional to its competitiveness. Focusing on the goal of "attracting, retaining and making good use of", the Greater Bay Area has taken a variety of measures to encourage talented people by introducing talents, cultivating talents and retaining talents. In talent introduction, the relocation subsidy is the main incentive measure adopted by the municipalities and districts in the Greater Bay Area. It aims to solve the problem of the relocation of talents and enterprises. It is a key step in the process of talent introduction. In the personnel training process, municipalities and districts in the Greater Bay

Area mainly adopt three incentive measures: financial support, talent selection award and research allowance. In the link of talent retention, there are various incentive measures which involve various needs of talents. At the same time, all cities are trying to solve practical problems such as high housing costs and lack of high-quality degrees, and have launched a series of talent-related policies tailored to local conditions, striving to maintain the ability of talent.

## **5. Cooperation in the Greater Bay Area City Cluster**

### **5.1 The Inevitability of Urban Cooperation**

In the process of forming an urban agglomeration, the connections between cities are bound to become. Urban agglomerations and find out their functional positioning in urban agglomerations. The development experience of other countries their functional positioning in urban agglomerations. The development exploration in urban agglomerations, like the Japanese Greater Tokyo Metropolitan Area, the Bosworth urban of labor and cooperation in the agglomerations, such as the Greater Tokyo metropolitan area in Japan, the Bosworth urban agglomeration effect and development scale that is difficult for a single city to form within the scope of urban conurbation. So that we can better plan and distribute production factors, and optimize the distribution of urban agglomeration, cities need to adapt to local conditions, combine their strengths with the overall development of urban agglomerations and find out their functional positioning in the agglomerations. The development experience of other countries and areas also shows that it is very important for the city agglomeration to divide the labour and cooperate reasonably. Such as the Greater Tokyo metropolitan area in Japan, the Bosworth urban agglomeration in the United States, and the London-Liverpool urban agglomeration. Each central city has its specific exclusive functions and dominant industrial sectors, and are becoming more and more involved in the development process.

### **5.2 The Future of Urban Cooperation**

#### **(1) Transportation infrastructure**

Infrastructure development, including joint planning and construction of infrastructure. As the GZ-SZ-HK High Speed Railway officially opened, the HK-ZH-Macao Bridge and Nansha Bridge are completed and opened, the Greater Bay Area has made it easier to communicate with each other. In the future, the Nansha Bridge, together with the Shenzhen-China Corridor and Huangmaohai Corridor under construction, as well as the HK-ZH-Macao Bridge and Humen Bridge already completed, will form a group of cross-sea and cross-river corridors in the Greater Bay Area, boosting the economic development of the Greater Bay Area. In addition to the Shenzhen-China Road, it is speeding up the construction of a number of major transport infrastructure projects. The Dongguan Marina

Bay Bridge has been opened to traffic, the Shenzhen Shekou-Guangzhou Jiao Xin combined port has opened, and the Guangzhou-Zhuhai-Macao high-speed railway is planned. The Bay Area will be a transportation circle that takes one hour between major cities, two hours between major cities and mainland cities in Guangdong province, and three hours between major cities and neighboring provincial capitals. At the same time, a large number of underground rail transit and intercity rail transit projects centering on Guangzhou are under construction. By 2025, the railway network in the Greater Bay Area (including trunk and intercity railways) will be in operation and is being built to a total of 4,700 km, covering the core cities and hubs in the Greater Bay Area, as well as major metropolitan areas like Guangzhou and Shenzhen. The operational length of mainland urban rail transit in the Greater Bay Area reached 1,700 km. By 2035, the railway network (including trunk and intercity railways) in the Greater Bay Area, which is currently being built, will have a total area of 5,700 km, covering 100 percent of cities at or above county level. In the field of aviation, the Guangdong-Hong Kong-Macao Greater Bay Area is expected to have seven airports, 17 runways, 420 million passengers and 20 million tons of freight. It will become a world class airport cluster, leading the world in quality development. A sound transport infrastructure will play an important role in promoting the Guangdong-Hong Kong-Macao Greater Bay Area's economic and social integration.

(2) Science, education, culture and health resources are shared

The construction of the Guangdong-Hong Kong-Macao Greater Bay Area is a major step to realize this strategic objective. Guangdong, Hong Kong and Macau have their features and advantages in the education system, education structure, resource level and concept of development. In recent years, the Nine JUPAS Schools in Hong Kong have been established in cooperation with nine Bay Area cities to establish the mainland campus. Along with the deepening of its educational integration, there has been gradual improvement in the sharing of higher education resources between Guangdong, Hong Kong and Macao, making the universities in the Bay Area move from mutual learning to mutual support and even mutual integration.

#### **(3) Tourism cooperation**

As one of China's major economic development strategies, the Guangdong-Hong Kong-Macao Greater Bay Area has the potential to be the biggest tourist destination in the world. Guo Xuanxuan thinks that tourism development needs to be clarified, fully utilize the functions of different cities and build the characteristics of coastal and rural tourism(Guo Xuanxuan, 2017). Further pushing forward the city's strategic building, strengthen the city link.

#### **(4) Industrial division of labor**

How to achieve the division of labor is a key problem in urban agglomeration construction. If there is no rational industrial division, there will be no truly integrated urban agglomeration development, and no urban conurbation with organic complementary advantages can be formed.

Considering the core functions and industries in it, we should work out a new road to develop in harmony with other cities, strengthen the construction of high-end industries while protecting the advantages of the former industry, to realize the integration of the economy and society of Guangdong-Hong Kong-Macao Greater Bay Area, we will create a world-class coastal and first-class urban cluster.

## 6. Conclusion

This study explores the structure and profile of the urban agglomeration in the Guangdong-Hong Kong-Macao Greater Bay Area. In the policy planning, the urban agglomeration cities in the Guangdong-Hong Kong-Macao Greater Bay Area continue to radiate surrounding cities through in-depth cooperation, driving the rapid improvement of trade and economy, maximizing the benefits of economic and social resources in the region through deep integration and cooperation with the division of labour. Cities within the region compete to accelerate industrial upgrading and develop economic status, attracting more investment and accelerating talent introduction. This study can conclude that urban cooperation may become more necessary. Planned urban cooperation can allow cities within the scope to undertake different development functions and form a strong and closely connected economic and social integration urban agglomeration through the division of labour and resource sharing. In this study, there is no detailed research on the division of labour and the functions of each city in the urban agglomeration. Future research will conduct in-depth research on the details of the specific division of labour in different cities and the impact of cooperation with cities on the region's economic structure.

## References

1. Xu Kangning, Zhao Bo, Wang Qi. Yangtze River Delta urban Agglomeration: Formation, competition and cooperation [J]. Nanjing Social Sciences,2005(05):1-9.
2. Zhang Shasha. A Preliminary study on the financial system and mechanism helping the development of Guangdong-Hong Kong-Macao Greater Bay Area [J]. Journal of Shanxi Finance and Taxation College,2019,21(02):3-6.
3. Zhang F L. Regional space and institutional construction under the multi-level governance framework: A study on the governance system of the Guangdong-Hong Kong-Macao Greater Bay Area [J]. Executive Forum,2019,26(03):95-102.
4. Sheng Laifang. Research on coupling development of rail transit and urban space based on spatio-temporal perspective [D]. Beijing Jiaotong University,2012.
5. Person in charge of the National Development and Reform Commission responds to hot issues of economic and social development [J]. Macroeconomic Management,2020(06):94.
6. Wu Zhicai, Zhang Lingyuan, Huang Shihui. Spatial structure and cooperative mode of tourism economic links in Guangdong-Hong Kong-Macao Greater Bay Area [J]. Geographical Research, 20,39(06):1370-1385.
7. Lv Gang, Fan Jida, Tang Deshan. Strategic thinking on building the Yangtze River Delta global Urban Belt [J]. Economic Research Reference, 2008(34):22-24.
8. Liu D P. Integration and spatial structure optimization of the Greater Pearl River Delta urban Agglomeration. Open News Guide, 2006(02)
9. GUO Xuexuan. Development path of tourism economy in Guangdong-Hong Kong-Macao Greater Bay Area. Taxation & Economic, 2018(02):19-25.
10. Lu Zhiguo, Pan Feng, Yan Zhenkun. Comparative and comprehensive evaluation of global Bay Area Economy [J]. Science and Technology Progress and Countermeasures,2015,32(11):112-116.
11. CAI Chimeng. The strategic significance and practical challenges of the construction of the Greater Bay Area Urban Agglomeration. Guangdong Social Sciences,0 017(04):5-14+254.
12. Qiu Shan. Dimension analysis on the development direction selection of the Guangdong-Hong Kong-Macao Greater Bay Area Urban Agglomeration. Guangdong Social Sciences, 2017, (04):15-20.
13. Gottmann. J. (1957), Megalopolis: or the Urbanization of the Northeastern Seaboard, Economic Geography,33:189-220.
14. Gottmann, J. (1961), Megalopolis: the Urbanized Northeastern Seaboard of the United States, New York: The Twentieth Century Fund.