

A STUDY ON COMMERCIAL ECONOMIC REGIONALIZATION IN CHINA

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ABSTRACT: Commercial economic region (CER), or commercial geographical region, is the result of socialized production and development of commodity economy, characterized by system holistry, regional independence, interregional openness and relative steadiness. Commercial economic regionalization provides a scientific basis for organizing and building a commodity circulation network system with all directions, multifunction and openness, rational planning the direction of commodity flow. The principles of commercial economic regionalization are as follows: The principle taking a city business center as the core; the optimization principle of integrated function; the difference principle of physical geographical environment; the uniformity principle of human geographical environment; and the order principle of dissipative structure. According to the above-mentioned principles, China's CER can be divided into 4 levels.

KEY WORDS: commercial economic region, potential field, dissipative structure, urban system

I. THE PRINCIPLES OF COMMERCIAL ECONOMIC REGIONALIZATION

1. Principles Taking City as a Commercial Center

The city is a base of the commodity production, a transport junction, a center of trade and a collecting and distributing center of the goods. Circulation and exchange of commodities in a city is the common function of various hierarchies and classification. Therefore the city will change into a core of network system of commodity in a certain region. In a certain area, both higher-level city and lower-level city have many features of commodity flow, the population flow and information exchange. In the social economic field, the attraction

among cities is defined as potentiality, the formula is as follows:

$$I_{ij} = P_i G_i \cdot P_j G_j / d_{ij}^b$$

where; P_i, P_j are the numbers of nonagricultural population in two cities, respectively G_i, G_j stands for national total income in two cities, respectively, d_{ij} for distance of main freight transport between two cities, b as a power value, generally for 2.

We can define the attraction of a central city on the economy as a "field of force", "potentiality" as a "field intensity". The larger the city, the more developed the commercial economy and the more powerful the "field of force". In a certain area, various levels of cities shall form different degrees and multipower's field of force'. This is a commercial economic region of different levels.

The division basis of the commercial economic region is to find out the section or the zone where it is a sudden reduction of the effectiveness each other in the "field of force" of various central city potentialities. The section or the zone is a boundary of the same grade commercial economic region, such as Shenyang, Beijing-Tianjin, Shanghai, Wuhan, Chongqing, Xi'an. All these cities play a more important role in the regional system of the Songliao River system, the Haihe River valley, the Jianghuai Plain, the Zhujiang River valley, the middle reaches of the Changjiang (Yangtze) River, the Chuangjiang River and the Huanghe (Yellow) River, respectively. The cities are the cores of the network of the regional commodity flows.

The cores are formed naturally based on objective law of the commodity flows in history proceeding of commercial economic developing in a certain region. It plays an important part in taking central cities as cores and dividing the city into commercial economic region on organizing reasonable commodity flows, adjusting industrial structure, improving communication condition, perfecting city system and bringing about a region advancing in commercial economic area.

2. The Optimization Principle of Integrated Function

The commercial economic region is a multiple-network system with more factors, more structure and multiplefunction, and is also a master of factors with self-improving ability and a set of order structure.

An optimization commercial economic region of integrated function shall be an independent and integrated urban system, with a network system of communications and transportations formed by current commodity flows. The economic region should have a mechanism of forecasting, improving, and controlling the commodity flows, the materials flow and the population flows and a system of finance, banking and information to supply excellent service for manufacture, supply freight transport and sale in the region.

The key and the system can make various elements in the region commodity economy to get an interrelation, classification and combination, distribution in regional position, and make them into a whole with excellent structure.

According to the optimization principle of integrated function we do not regard the boundary of administrative division and physical geographical division in the first grade regionalization, the Hulun Buir, the Xing'an, and Jirem League in east of Inner Mongolia and the Chifeng City are incorporated into the commercial economic region of northeast; Xilin Gol, Ulangab and Bayannur leagues belong to the commercial economic region of North China; the Ih Ju and Alxa leagues are incorporated into the commercial economic region of northwest China.

3. The Difference Principle of Physical Geographical Environment

The regional difference of physical geography environment, such as location of sea and territory, climate difference, geomorphic types and river system character, etc. All these factors can affect production, flow and consumption of the commodity, and are an important principle to divide different grades of commercial economic region. For example, the Hanjiang River valley beyond the south of the Qinling Mountain belongs to the Ankang and the Hanzhong area of subtropical climate and Shanxi Province in administrative regionalization. However, from urban system, it is separated from Xi'an City of screen of the Qinling Mountain. According to the view of the production and consumption of commodities, the region should be the subtropical type, but not warm and temperature type.

From the view of the commercial flow, it belongs to the middle and lower reaches of the Changjiang River, but differs from the Huanghe (Yellow) River system. Therefore, Ankang, Hanzhong, two economic districts, are incorporated into the commercial economic region of central China.

Based on the difference principle of physical geographical environment, climate type, river system and valley, and locations of sea and territory are considered as an important basis to divide the first-grade commercial economic region, geomorphic type, the screen of mountains as an important proof to divide the second grade commercial economic district.

4. The Uniformity Principle of Human Geographical Environment

In the human geographic elements, political regime, economic developing level, national character and population quality etc., all of these can affect directly the regional commercial economic activities. These elements are a main principle to engage in commercial economic regionalization. Relationship between political regime and commercial economic activities actually is the relation of superstructure and economic base. In common commercial economic regime, we must follow a considerable principle in commercial economic regionalization to keep agreement of political regime with economic system. Because

of historical reason, there are two kinds of economic regimes and political systems in our country. In accordance with the principle, Taiwan Province, Hongkong and Macao are incorporated into the same commercial economic region. Guangdong, Fujian and Hainan provinces with special economic characteristics are divided into the same commercial economic region.

In accordance with the uniformity principle of the human geographical environment again, in commercial economic subregionalization, we keep basically it in agreement with administrative regionalization on a county scale. Under the condition of production, supply, transport and salt being formed a close organism, the leading core role of the centre city in the regional commodity flows shall be brought in full play.

5. The Order Principle of Dissipative Structure

In a certain extent, the commercial economic region should be an open commercial economic system with a nonequilibrium state. It makes each subsystem in the region into non-linear relationship through inputting gradually circulation of commodities, material flows and information flows, augmenting negative entrapment and commodity exchange among various regions or foreign trade, and finally forms an orderly commercial economic structure. The distinguished and classified order structure of commodities in the region is an important principle to realize the commercial economic regionalization.

In some commercial economic regions of the commodity economic development in our country, the opening zones and trade ports face two markets of international and domestic trade. In small domestic cycling and large international cycling, the dissipative structure of the commodity flows of order structure on time, space and function will be formed through international and domestic exchange.

II. GRADE ORDER OF COMMERCIAL ECONOMIC REGIONALIZATION IN CHINA

1. The Classification System and Grade Order of Regionalization of a City

A city is an active centre of the commercial economy in a region, and there are three common characteristics between a city and region: in a certain area, there is only a central city or central region; a boundary or a border area must exist between the ranges of the two same type cities or regions; the potentiality of central cities or regions gradually reduces with distance augment. Therefore, we consider the city as a projection of the regional economy. The size, function and grade order of the city are important shape character and index to classify various commercial economic districts.

In the ecosystem of a city, population quantity is an important index of the a city size and field of potentiality. According to J.Stewart's theory, the effect of city on the area

around it is directly proportional to that of population and inversely proportional to that of distance.

Many scholars have analysed the "size grade system" of the cities in the same countries and areas in the world and got a relative formula:

$$r_i B_i = r_1 B_1$$

where B_1 is the population quantity of the largest city in a country or an area, B_i is the population quantity of certain grade cities, is city grade quantity ($r_i < 2$), $r_i = 1$.

Extra big megalopolises are the core and the hub of commercial economic activities in the whole country, their field of force can cover the whole country. And they occupy an important position in the international commercial economic activities.

Megalopolises are located mainly at the monsoon area of East China, but there is not any one in Inner Mongolia, Xinjiang, Qinghai and Tibet in the west. The difference reflect the relationship between commercial economic developing level and city size. The extended area of the megalopolis has gone beyond the boundary of administrative regionalization at province grade and has formed eight large city systems: Shenyang and Harbin, Beijing and Tianjin, Shanghai and Nanjing, Guangzhou and Wuhan, Chongqing, Xi'an and Hongkong.

Large cities, totally 19 cities according to the data in 1987, were affected by the field of force of extra big megalopolis. Most of them were the cores of the second grade commercial economic area. Their extent is the same as that of administrative regionalization of provincial grade.

Large and middle-sized cities have formed their own urban system, communication system and commercial network. In commercial economic regionalization in China, they belong to the third grade classification system called as commercial economic districts.

Small cities include county town and are generally the centre of the town and countryside supply and sale system at county grade and collecting and distributing commodities. They are the central cities of the fourth grade commercial economic region in China, called as small commercial economic district, their extent of field force is the same as that of administrative regionalization at county grade.

Based on actual level of commercial economic developing and structure of urban system in China, the whole country is divided into 9 commercial economic regions, 29 commercial economic areas, 238 commercial economic districts and 2133 commercial economic small districts.

1.1 Commercial economic region

The commercial economic region is relatively independent regional unit of production, flow and consumption of commodities, which is formed by taking a certain megalopolis as a core and taking perfected communications information, finance and banking systems as a

network. It is generally composed of provinces, municipalities directly under the central government or autonomous regions.

1.2 Commercial economic area

The commercial economic area is a subsystem of commercial economic region and generally takes the extra large city as a core. The core city is the centre of politics, economy, culture, education and communication of the province and the autonomous region. It is not only the base of commodity production in its commercial economic area, but also a junction zone of commodity flows and exchanges. It is also a bridge between industry and agriculture, city and countryside, production and consumption.

1.3 Commercial economic district

The commercial economic district is a subsystem of the commercial economic area, a production base of self-sufficient consumer goods and a collecting and distributing centre of goods and materials and a transport junction in the district. It takes large and middle-sized cities as a core and undertakes a task of special production of commodities. Its extent of field of force covers generally several counties.

1.4 Commercial economic small district

The commercial economic small district is a subsystem of the commercial economic district. It takes the small city and county town as a core, and its extent is in agreement with that of administrative regionalization at county grade. It is not only an allocating district of industrial products to countryside, but also a collecting and distributing centre of agricultural products and sideline production, and a processing base of certain agricultural and sideline products.

2. The Classification Index of City Function

Quantitative analysis and comprehensive classification of the single professional function of various cities are important indexes to acknowledge regional commercial central city. According to the data at present, the cities in China are divided into ten kinds of function type, industrial, communication and transport, educational, scientific, commercial, tourist, political, comprehensive, subcomprehensive and general cities, derived from five kinds of city function: industry, communication and transport, commerce, education and science.

In accordance with quantitative and qualitative analysis, we acknowledged the index of a central city grade order in commercial economic regionalization:

1) The central city of the commercial economic region is to take multiplefunction megalopolis with seven kinds of professional function of industry, commerce, communication and transport, education, science, tourism and politics as a core.

2) The central city of the commercial economic area is to take large city with professional function of industry, commerce, communication and transport, education, science

and politics as a core.

3) The central city of the commercial economic district is to take large and middle-sized cities with professional function of industry, commerce, communication and transport as a core.

4) The central city of the commercial economic small district is to take county town with professional function of commerce, communication and transport and politics as a core.

III. REGIONALIZATION OUTLINE

1. The Commercial Economic Region of Northeast China

Shenyang is the core of the commercial economic region of northeast China. The region includes Liaoning, Jilin and Heilongjiang provinces, and Xing'an, Hulun Buir League and Jirem League and Chifeng City of Inner Mongolia. They may be divided into three commercial economic areas, Liaoning, Jilin and Heilongjiang, and twenty-eight commercial economic districts.

The commercial economic region of northeast China has formed a perfect enormous urban system. A linked organism of production, freight transport and sale of area commodities is formed by the main transport lines of the commodity flows in northeast China, i.e. Harbin to Dalian transport line through Harbin, Changchun, Shenyang, Anshan and Dalian, etc..

Modern economy in south Liaoning Province developed early. The area has a great population quantity and concentrated city and borders on sea and ocean. The total output value accounts for over 50% of the whole region.

The steel and iron, machine, electric power, and chemical industry are main industries in the region. The industries of textile, paper-making and light industry are also in the first position of the whole region. It supplies an amount of steel and iron, machine, ore, building materials, raw salt, textile product, aquatic product, fruit, etc. for the northeast area; meanwhile, it is also northeastern gateway to the sea.

Jilin and Heilongjiang have rich resources of forest, oil, coal and hydroelectric. Since 1949, the industries of machine, oil, coal, chemical industry, paper-making and fine sugar, etc. have been set up. At present, the two provinces have changed into a production base of grain and sugar, beef and wood. All the products support Liaoning Province and are transported to the whole country.

In the commercial economic region of northeast China, a city system with a reasonable functional structure, close relation and multiplefunction has been formed.

Several urban groups, Shenyang, Jilin and Changchun, Harbin and Qiqihar, and Dalian, taking Shenyang as a core, have been divided. Dalian faces the Pacific Ocean and is

close to Japan with economy and technology developing. Dalian will change into an important city of industry and trade, and the largest international trade port in northeast China along with establishment of economic development zone. Heihe and Hunchun areas have a huge potential condition being set up into an international trade base and will change into a "land bridge" of international trade to link China, Japan and Russia in the northeast region of Asia.

2. The Commercial Economic Region of North China

The area includes Beijing, Tianjin, Shanxi, Hebei, Shangdong provinces and cities, and Xilin Gol, Ulanqab, Bayannur and Ih Ju Leagues of Inner Mongolia. The valley of the Haihe River, the valley of the Fenshui River and Shangdong Peninsula are commercial economic developed zones in the region. The commercial economic region of North China is an important production base of coal, steel and iron, chemical industry, oil, machine and the light textile industries, etc. It is also an important productive area of commodity grain, cotton and tobacco. The region is divided into three commercial economic areas and twenty-nine commercial economic districts. Tianjin, Qinhuangdao, Yantai and Qingdao are foreign ports in the region.

3. The Commercial Economic Region of East China

The region includes Jiangsu, Anhui and Zhejiang provinces and Shanghai City. The region is located at the lower reaches of the Changjiang River, has 200 million population. It is a commercial economic region with limited land, dense population, concentrated cities and towns. The region is composed of three commercial economic areas, Jiangsu, Anhui and Zhejiang provinces, and twenty-seven commercial economic districts. Three main transport line from Beijing to Shanghai, the Changjiang River for shipping, from Zhejiang to Jiangxi railway in the region have formed a network system of commodity flows and have become an organism with commercial economic activities in the whole country.

The opening foreign ports of Shanghai, Nantong, Lianyungang, Ningbo etc. are bridges to input and export in China. The the Changjiang River Delta is also a main opening zone in China and has close relations with international market under condition of the open economic policy. Shanghai is the largest and the most populous city in China. Shanghai's economic geographical position is very advantageous. It is the largest multiple-industrial production and trade base, the largest scientific center, information center and the largest port city opening to foreign countries in China. Machine, textile, chemical industry, metallurgy and electronics industries are main industries in the region. Most products of them are in the first position in the whole country.

4: The Commercial Economic Region of Central China

The region includes Henan, Hubei, Hunan, Jiangxi. It is located at the central section of China. the middle reaches of the Changjiang River, the middle part of the Beijing—Guangdong railway line, with five large commercial economic regions of North China, South China, East China, northwest and northeast. The region is divided into four commercial economic areas and fourty—three commercial economic districts.

Mountains and hills alternate with alluvial plain distributing in the region, the Jiangnan and Dongting plains are the famous land of fish and rice in China. River and lake systems and the Changjiang River are advantageous to develop shipping, irrigation and hydroelectricity. Wuhan City located at the central section of nine provinces is a central city of the commercial economic region of central China.

5. The Commercial Economic Region of South China

In the region, there are Guangdong, Guangxi, Fujian and Hainan provinces. The region is a commercial economic region with the maximum yearly temperature, the highest precipitation, the longest coastal line and the most ports opening to foreign countries. The Hainan Island and the islands in the South China Sea in China are the thoroughfares from the Pacific Ocean to the Indian Ocean and of commerces and trade among China and countries in Southeast Asia. The region is also famous for living overseas Chinese, and the closest economic region of trade between the mainland and Taiwan province, and Hongkong.

Since 1978, five special economic zones, Shenzhen, Zhuhai, Shantou, Xiamen and Hainan, and opening ports in Fuzhou, Xiamen, Guangzhou, Zhanjiang and Beihai, and two opening zones in Zhujiang and Minnan deltas had been established.

Guangzhou is a transport junction of the land, the ocean and the airway and a center of postal and telecommunications service. All trains from Guangzhou to Shenzhen, from Guangzhou to Sanya, from Beijing to Guangzhou stop here. Shipping in inland river may arrive at various ports of three rivers of east, west and north. The shipping in the sea may reach various coastal ports in China and arrive at the more than 500 ports over 110 countries and regions. The economic region is divided into four commercial economic areas and thirty commercial economic districts.

6. The Commercial Economic Region of Southwest China

There are Sichuan, Yunnan and Guizhou provinces and the Tibet Autonomous Region in the economic region. The region is a border area with various natural environments and rich resources, and areas inhabited by the minority nationalities. The political, economic cultural and scientific development is unbalanced in the region. The Sichuan basin is a core zone with the most developed economy. Chongqing and Chengdu are two core cities of the best development in industry and commerce in the region. Guizhou and Yunnan provinces located at the Yunnan—Guizhou Plateau are a commercial economic district where many

minority nationalities live. Tibet located at the roof of the world is an area to be developed. The area has broad land and a sparse population. Because of relation of geographical position and limitation of economic development law, in the field of the commodity flows, three provinces and a district are closely linked and changed into commercial economic regional system. The region is composed of four commercial economic areas and forty-one commercial economic districts.

7. The Commercial Economic Region of Northwest China

The economic region has Shaanxi, Gansu, Qinghai provinces, the Ningxia Hui Autonomous Region and Alxa League and Ih Ju League of Inner Mongolia. The Guanzhong Plain and the eastern section of the Hexi Corridor are the commercial economic hinter land in the region. It takes railway of Longhai, Lanxin, Baolan and Lanqin as main transport lines. The main transport line makes Qinghai Plateau and Yinchuan Plain into a whole, and extends to the broad desert and the Qilian snow mountain area. Xi'an is the core city of the commercial economic region, Lanzhou for subcenter. Several commercial economic zones, Guanzhong Plain, Gansu Corridor, Ningxia Plain and Huanghuang Valley have been established in the region.

8. The Commercial Economic Region of Taiwan, Hongkong and Macao

There are Taiwan Province and special administrative areas of Hongkong and Macao in the region. The region is not only a unique economic region to remain capitalist politics and economic regime in China, but also the commercial economic region which is the most developed in China's economy. Hongkong is the commerce centre of the region.

9. The Commercial Economic Region of Xinjiang

Xinjiang is located at the border area in the northwest of China, its area accounts for 1/6 of the total land area of China, but its population are only 13 million composed of thirteen minority nationalities. The region is a commercial economic region with broad land and sparse population and rich resources. From the view of current commodity flows, the south and the north of the Tianshan Mountains are an independent commercial economic region, from view of city system, an obvious boundary exists between Xinjiang and commercial economic region in the northwest. Urarumqi City is the core of the city system.

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