

Research Series on the Chinese Dream
and China's Development Path

Yiming Yuan *Editor*

Studies on China's Special Economic Zones 4



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Series Preface

Since China's reform and opening began in 1978, the country has come a long way on the path of Socialism with Chinese characteristics, under the leadership of the Communist Party of China. Over 30 years of reform, efforts and sustained spectacular economic growth have turned China into the world's second largest economy and wrought many profound changes in the Chinese society. These historically significant developments have been garnering increasing attention from scholars, governments, and the general public alike around the world since the 1990s, when the newest wave of China studies began to gather steam. Some of the hottest topics have included the so-called China miracle, Chinese phenomenon, Chinese experience, Chinese path, and the Chinese model. Homegrown researchers have soon followed suit. Already hugely productive, this vibrant field is putting out a large number of books each year, with Social Sciences Academic Press alone having published hundreds of titles on a wide range of subjects.

Because most of these books have been written and published in Chinese, however, readership has been limited outside China—even among many who study China—for whom English is still the lingua franca. This language barrier has been an impediment to efforts by academia, business communities, and policy-makers in other countries to form a thorough understanding of contemporary China, of what is distinct about China's past and present may mean not only for her future but also for the future of the world. The need to remove such an impediment is both real and urgent, and the *Research Series on the Chinese Dream and China's Development Path* is my answer to the call.

This series features some of the most notable achievements from the last 20 years by scholars in China in a variety of research topics related to reform and opening. They include both theoretical explorations and empirical studies and cover economy, society, politics, law, culture, and ecology, the six areas in which reform and opening policies have had the deepest impact and farthest-reaching consequences for the country. Authors for the series have also tried to articulate their visions of the “Chinese Dream” and how the country can realize it in these fields and beyond.

All of the editors and authors for the *Research Series on the Chinese Dream and China's Development Path* are both longtime students of reform and opening and

recognized authorities in their respective academic fields. Their credentials and expertise lend credibility to these books, each of which having been subject to a rigorous peer review process for inclusion in the series. As part of the Reform and Development Program under the State Administration of Press, Publication, Radio, Film, and Television of the People's Republic of China, the series is published by Springer, a Germany-based academic publisher of international repute, and distributed overseas. I am confident that it will help fill a lacuna in studies of China in the era of reform and opening.

Shouguang Xie

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Chapter 1

Theoretical Analysis of the Reform of the Basic Economic System of China—In Commemoration of the 40th Anniversary of China’s Reform and Opening-Up



Jiming Cai

Abstract Ever since the reform and opening-up, the basic economic system of China has undergone profound changes: from unitary public ownership to public ownership playing a dominant role and different economic sectors developing side by side; from unitary distribution according to work to distribution according to the contribution of production factors; from a highly centralized planned economy to a socialist market economy; and from a closed and semi-closed society to all-around opening-up. It is difficult for the traditional political economics based on the labor theory of value to explain the reform of the basic economic system. The system of political economics for socialism with Chinese characteristics must be established by innovation of the theory of value, thus providing strong theoretical support for further consolidation and perfection of the socialist basic economic system, a boost for the process of globalization and a buildup of the community with a shared future for mankind.

Keywords Market economy · Mixed ownership · Distribution according to the contribution of production factors · Opening to the outside world · Innovation of the theory of value

In the past 40 years of reform and opening-up, the basic economic system of China underwent profound changes. The traditional theory of political economics could not reveal the essential attributes, but it could only hinder the development and improvement of the new system to a certain extent. In recent years, General Secretary Xi Jinping specially emphasized that “the party committees and governments at all levels must learn to use political economics well, consciously understand and follow the laws of economic development better, and continuously improve and promote the ability to advance and the level for advancing the reform and opening-up, leading

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the economic development and enhancing the quality of and benefits for economic and social development”; he also presided over the collective study sessions of the politburo on the “basic principles and methodology of Marxist political economics”, and proposed to “adhere to the important principles of the political economics for socialism with Chinese characteristics”. However, over these years, the study of political economics in China mostly focused on repeating and interpreting classical works rather than using the Marxist economic methodologies to creatively study practical economic problems. There was virtually no innovation in basic theories and in the basic connotation, but there was an attempt to build up a scientific system of political economics for socialism with Chinese characteristics based on the existing theories. This was just old wine in new bottles.

This paper first of all reviews the changes in the basic economic system of China since the reform and opening-up, then analyzes the severe challenges confronted by the traditional theory of political economics, expounds the general theory of value explored and established by the author in thirty years, and finally utilizes this new theory of value for a logical analysis of the basic economic system, distribution system and modes of resource allocation, as well as the strategy of opening-up in the primary stage of socialism in China, thus providing the most fundamental elements for building up political economics for socialism with Chinese characteristics.

1 Forty Years of Reform of China’s Basic Economic System

In the 40 years of reform and opening-up, the fundamental changes encountered by the basic economic system of China could be summarized in the four dimensions listed below.

(I) **From unitary public ownership to public ownership playing a dominant role and different economic sectors developing side by side**

1. The structure of unitary public ownership took shape

After the founding of the People’s Republic of China in 1949, following the three years of national economic recovery from war, there began the “three big socialist transformations” (agriculture, handicrafts and capitalist industry and commerce). From completion of the “three big transformations” in 1956 to the beginning of the reform and opening-up in 1978, after a number of political movements and the “period of a poor transition”, a unitary type of public ownership took shape: Collective ownership dominated in rural areas, and public ownership was the mainstream in urban areas. The state allowed non-agricultural individual laborers to engage in individual labor involving no exploitation of others, within the limits permitted by law, and emphasized its guidance of these individual laborers step by step along the road of socialist collectivization. In rural areas, commune members were permitted to farm small plots of land for personal needs, engage in limited household side-line production, and in pastoral areas they were also allowed to keep a limited number

of livestock for their personal needs. In 1978, 78.44% of the workers worked in urban enterprises owned by the whole population, and 21.56% of the workers were employed in collectively-owned enterprises.

2. The non-public sector became a necessary supplement to the public sector

At the beginning of reform and opening-up, in the guiding document of the governing party, the existence of a private sector of the economy was absolutely prohibited because it was regarded as the opposite side of the public sector of the economy. The *Decision of the CPC Central Committee on the Reform of the Economic System* (1984) pointed out that: “The existing individual economy of China is linked to socialist public ownership. Unlike the individual economy linked to capitalist private ownership, it plays an irreplaceable role in the development of social production, in the provision of convenience for the people’s life and in the increase in employment. It is a necessary and beneficial supplement to, as well as subordinate to the socialist economy.” This indicated that at the early stage of the reform and opening-up, the individual economy was first distinguished from the capitalist private system by the nature of being subordinate to the socialist economy, but the private economy was absolutely forbidden to exist. For the first time, the 13th National Congress of the Communist Party of China (1978) decided the ownership structure in the primary stage of socialism as public ownership playing a dominant role and different economic sectors developing side by side. Although the non-public sector of the economy had already become a necessary supplement to the public sector of the economy, it was still regarded as something opposite to socialism and thus excluded from the provisions of the basic economic system of socialism.

3. Non-public sector became an important component of the socialist market economy

The 15th National Congress of the Communist Party of China (1997) further prescribed the non-public sector of the economy as an important component to the socialist market economy, included it in the provisions of the basic economic system of socialism and no longer regarded it as the opposite side of public ownership. The 16th National Congress of the Communist Party of China (2002) made a big breakthrough in the process of emancipating the mind, emphasized the need to “unswervingly develop the public sector of the economy, and encourage, support and guide the development of the non-public sectors of the economy”, “all legitimate income, from work or not, should be protected”, and proposed to improve the legal system for protecting private property.

The above ideas and propositions were fully reflected in the Constitution amended in 2004, which included the idea that “legally-obtained private property of the citizens should not be violated”. The socialist basic economic system with public ownership playing a dominant role and different economic sectors developing side by side was finally confirmed in the constitution of China. In the *Property Law* passed in 2007, private property and public property were equally protected.

According to the data provided by the All-China Federation of Industry and Commerce, as of March 2017, the non-public sector of the economy accounted for

more than 50% of China's tax revenue, over 60% of the GDP, 70% of technological innovation, and more than 80% of employment, which constituted 90% of the market players.

In short, after the 40 years of the reform of the economic system, the structure of China's ownership evolved from a unitary public ownership system to a mixed ownership structure with public ownership playing a dominant role.

(II) From the unitary distribution according to work to the distribution according to the contribution of production factors

With the formation of the pluralistic ownership structure in China, there were also diversified distribution modes: In addition to the distribution according to work in the traditional public sector of the economy, individual laborers could earn labor income and obtain certain assets and operating income through lawful operations; when enterprises raised funds by issuing bonds, the bond owners could receive interests pursuant to their creditor's rights; share dividends also emerged with the shareholding system; the income of business operators comprised part of risk compensation; and owners of private enterprises got some non-labor income from employees. All these forms of income distribution could be summarized as labor income and non-labor income. The labor income was composed of not just the distribution according to work in the public sector of the economy, but also the income of individual laborers and the income of employees in private enterprises, as well as a part of income earned by the managers working as laborers; the non-labor income was represented by the income (profit) of entrepreneurs, interest (inclusive of deposit interest, stock dividends (incl. dividends and stock appreciation) and debt interests) and land rents (rents from land sublease), all of which were essentially the non-labor income of the owners of non-labor factors by virtue of their ownership of these factors. Under these circumstances, the 13th National Congress of the Communist Party of China (1978) proposed having diverse forms of distribution, provided that distribution according to work was the principal form in the primary stage of socialism. This recognized the reasonableness and legitimacy of non-labor factors participating in the distribution, at least at the policy level.

More than ten years later, the 15th National Congress of the Communist Party of China (1997) further pointed out that: in the primary stage of socialism, "keep to the system in which distribution according to work is dominant and a variety of modes of distribution coexist, and combine distribution according to work and distribution according to factors of production put in". Compared with the 13th National Congress of the Communist Party of China, it gave a more detailed and clearer description of the relationship of the distribution in the primary stage of socialism.

The 16th National Congress of the Communist Party of China (2002) clearly required to: establish the principle that labor, capital, technology, managerial expertise and other production factors participated in the distribution of income in accordance with their respective contribution. If the "system in which distribution according to work is dominant and a variety of modes of distribution coexist" was only a general description of the distribution phenomenon of income distribution in the primary stage of socialism, the combination of distribution according to work

and distribution according to the contribution of production factors attempted to make a theoretical summary of the relations of income distribution in the primary stage of socialism, but it had a lot of contradictions that could not give a plausible explanation to themselves (Cai, 1998) The 16th National Congress of the Communist Party of China summarized the different modes of distribution in the primary stage of socialism as various production factors participating in the distribution of income in accordance with their respective contribution. This summary unveiled the essential provisions of the relations of distribution in the primary stage of socialism and overcame contradictions in the statement of the 15th National Congress of the Communist Party of China. It was a great development of Marxism with significant implications on theory and on policies.¹

The 17th National Congress of the Communist Party of China (2007) further proposed to: “improve the system of distribution to allow factors of production such as labor, capital, technology and managerial expertise to have a rightful share according to their respective contribution”. This meant that the distribution according to the contribution of production factors changed from being initially established as a principle of distribution in 2002 to a system of distribution in 2007, with the further task of continuous improvement and perfection.

After the 17th National Congress of the Communist Party of China, the important sessions and documents of the Communist Party of China repeatedly laid stress on the mechanism of evaluating the contribution of production factors by the factor market and distributing according to their respective contribution.

For the first time, the 18th National Congress of the Communist Party of China (2012) proposed to improve the primary system of distribution to allow factors of production such as labor, capital, technology and managerial expertise to have their due share of income according to their respective contribution.

The Third Plenary Session of the 18th Central Committee of the Communist Party of China (2013) further insisted on improving the mechanism of remuneration determined by the market of factors such as capital, knowledge, technology and managerial expertise.

The Fifth Plenary Session of the 18th Central Committee of the Communist Party of China (2015) clearly proposed to ensure better allocation of factors of production such as labor, capital, land, technology and managerial expertise, and improve the mechanism of evaluating the factors and distributing according to contribution. It was particularly noteworthy that on this session, the basic production factor of land was added to the four basic kinds of factors (labor, capital, technology and managerial expertise). This indicated that all resources including land would be allocated by the market.

¹ The theory of distribution according to the contribution of production factors was first proposed by Gu and Cai in 1988 (see Gu and Cai, 1988, 1989).

Anyway, after the 40 years of the reform of the economic system, the China's system of distribution was transformed from unitary distribution according to work to distribution according to the contribution of production factors.²

(III) **From a highly centralized planned economy to a socialist market economy**

After completion of the “three big socialist transformations” and the First Five-Year Plan of the National Economy in 1957, China basically established a system dominated by 100% of the planned economy with the absolute dominance of public ownership. This system continued until 1978. Although the planned economy that lasted for 30 years could concentrate necessary human resources, material resources and financial resources of the whole society on the construction of key projects and play a significant role in establishing a complete system of national economy and promoting the industrialization and the building up of national defense, it gradually exposed the weaknesses of low efficiency in resource allocation, an extensive developmental mode, an unbalanced industrial structure, and the low living standards of the people. Therefore, the reform in the 1980s began with the reform of the planned economy.

However, only the reform of the planned economy was not adequate to eliminate all links in the actual production relations that hindered the development of social productive forces and distorted the allocation of resources. To this end, the Report to the 12th National Congress of the Communist Party of China clearly indicated that: “The correct implementation of the principle of maintaining the primary role of the planned economy whilst giving play to the supplementary role of market forces in economic regulation is a fundamental issue in the reform of the economic system.” (The 12th National Congress of the Communist Party of China, 1982) Under the guidance of this reform policy, driven by a few economists, the “double-track price system” with planning and market in parallel was quickly introduced in economic activities.

When the “market” was almost equally matched with the “planning” and even the role played by the market in allocating resources gradually exceeded the planning, the *Decision of the CPC Central Committee on the Reform of the Economic System* (CPC Central Committee, 1984) clearly prescribed that: The socialist economy “is a planned commodity economy based on public ownership”. In the meantime, the

² The Report to the 19th National Congress of the Communist Party of China (2017) did not mention the “distribution according to the contribution of production factors”, but it proposed to “uphold and improve China's basic socialist economic system and socialist system of distribution”, without any new interpretation, supplement or amendment to this basic economic system and system of distribution. Then “China's basic socialist economic system and socialist system of distribution” should still be understood as the basic economic system of the public ownership playing a dominant role and different economic sectors developing side by side and the system in which distribution according to work is dominant and a variety of modes of distribution coexist adhered to since the 13th National Congress of the Communist Party of China, and the principles, systems and mechanisms of distribution according to the contribution of production factors emphasized since the 16th National Congress of the Communist Party of China.

government and the academic circles also proposed a planned mode of a commodity economy with “national regulation of the market and the market supervision of enterprises” (Refer to the 13th National Congress of the Communist Party of China, 1987; Li, 1987).

In 1992, the 14th National Congress of the Communist Party of China emphasized that the market should play a fundamental role in the allocation of resources, and the ultimate replacement of the planned economy by the socialist market economy was identified as the target model of China’s economic reform (Refer to the 14th National Congress of the Communist Party of China, 1992).

The Third Plenary Session of the 18th CPC Central Committee held in 2013 further stressed that the market should play a decisive role in the allocation of resources and the government should play its role better (Central Committee of the Communist Party of China, 2013).

In a word, after 40 years of the reform of the economic system, China had already changed from a highly centralized planned economy to a socialist market economy.

(IV) From a closed and semi-closed society to all-around opening-up

The traditional Marxist view holds that contemporary economic globalization is essentially the globalization of the capitalist mode of production. Developed countries in the West integrated all countries in the world into the world capitalist system, took advantage of cheap labor and raw materials to capture the global market, introduced the basic contradictions of capitalism to the world and spread the economic crisis on a global scale. From the perspectives of international division of labor and resource allocation, economic globalization refers to the trend of increasing the scale and forms of cross-border flows of goods, services, production factors and information, improving the efficiency of resource allocation through the international division of labor, thus strengthening the economic interdependence among countries. It is specifically embodied as informationization, marketization, liberalization, integration, and grouping.

Just when trade protectionism became popular in Europe and America, the United States of America, which had always held high the banner of globalization and free trade, proposed the policy of “America First” and withdrew from the TPP (Trans-Pacific Partnership Agreement), and the United Kingdom left the European Union. However, China held high the banner of globalization, firmly safeguarded the free trade system built by the World Trade Organization, consolidated the multilateral trading system, and reaffirmed its opposition to protectionism. China vigorously promoted the Belt and Road Initiative, advanced the establishment of the Asian Infrastructure Investment Bank, initiated the Silk Road Fund, impelled G20 countries to strengthen the building of the trade and investment mechanism, formulated the strategies of global trade growth and global investment guidelines, and hosted the G20 Summit and the Belt and Road Forum for International Cooperation in a high profile. China had already become the backbone of globalization.

On January 17, 2017, at the opening ceremony of the 2017 Annual Meeting of the World Economic Forum at Davos, President Xi Jinping delivered a keynote speech

entitled “Jointly Shoulder Responsibility of Our Times, Promote Global Growth”, which pointed out that: “From the historical perspective, economic globalization resulted from growing social productivity, and it is a natural outcome of scientific and technological progress, not something created by individuals or countries. Economic globalization has powered global growth and facilitated the movement of goods and capital, advances in science, technology and civilization, and interactions among peoples... There was a time when China also had doubts about economic globalization, and was not sure whether it should join the World Trade Organization. However, we came to the conclusion that integration into the global economy is a historical trend... Therefore, China took a brave step to embrace the global market.”

Obviously, China changed from passively resisting to actively advancing globalization and vigorously advocating the construction of a community with a shared future for mankind.

2 Severe Challenges Confronted by Traditional Political Economics

Over the years, studies on traditional political economics, due to rigidly and dogmatically adhering to the individual theories and expressions of Marxist classics, could not explain the major changes in China’s basic economic system since the reform and opening-up.

(I) The theory of the backwardness of productivity cannot explain the existence and development of the non-public sector

Traditional political economics usually explains the existence and development of the non-public sector of the economy by the theory of the primary stage of socialism, that is, the theory of the backwardness of productivity. This view argues that the future society envisaged by Karl Marx (the whole society shares the means of production) is based on the capitalist society with highly developed productive forces, while China’s current level of productivity is relatively low, still in the primary stage of socialism. Therefore, it is necessary to implement an economic structure of mixed ownership with the public sector playing a dominant role.

According to this interpretation, the non-public sector of the economy will eventually be replaced by the public sector after the rapid development of productivity and the arrival of the advanced stage of socialism. Then, why has the non-public sector of the economy, which was eliminated in 1956 when productivity was still extremely backward, resumed and developed since the reform and opening-up in the 1980s when productivity had been greatly improved after the thirty years of economic construction? Moreover, as socialism with Chinese characteristics has entered a new era today, the principal contradiction in our society evolved from “the contradiction between the ever-growing material and cultural needs of the people and the backwardness of social production” to “the contradiction between unbalanced and inadequate development and the people’s ever-growing needs for a better life”. If the “unbalanced

and inadequate development” means that productivity is no longer so backward, should the development of the non-public sector of the economy be suppressed? Of course, the Report to the 19th National Congress of the Communist Party of China still consistently emphasizes that “our country is still and will long remain in the primary stage of socialism”. So how long does it mean? By 2050, China will be built into “a great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful”. By that time, will productivity still be backward? Will China still be in the primary stage of socialism?³

Besides the “theory of the backwardness of productivity”, the “theory of meritorious exploitation” is usually used as a reason to allow the existence of the non-public sector of the economy. This view holds that since private ownership is also conducive to the development of productive forces in the primary stage of socialism, although private ownership necessarily leads to exploitation, such exploitation is “meritorious” and should be affirmed and recognized as reasonable. This view obviously ties private ownership and exploitation together. To eliminate exploitation, private ownership must be eliminated. At this stage, the development of the non-public sector of the economy and the protection of private property are only expedient measures.

(II) The single factor theory of value cannot provide the basis for the participation of multiple factors in distribution

Traditional political economics, according to the labor theory of value, holds the opinion that all values are created by labor. The owners of non-labor factors only participate in the distribution by virtue of their factor ownership and occupy the surplus value created by the wage earners without compensation. Therefore, all non-labor income obtained from the ownership of non-labor factors is the income of exploitation. Even though the 16th National Congress of the Communist Party of China has acknowledged that the various factors of production can participate in the distribution according to their respective contribution, this view still considers that non-labor factors only participate in the creation of material wealth (use value) rather than social wealth (value), and that the participation of owners of non-labor factors in distribution according to their contribution does not mean recognizing that non-labor factors participate in the creation of value. It implies that the owners of non-labor factors participate in distribution of the social wealth (value) by virtue of their factor ownership instead of their contribution.

This view splits the inner relationship between value distribution and value creation, separates the relationship between the content and form of material wealth and social wealth, partitions the relationship between the value of use and value itself, and regards exploitation and private ownership as twin brothers. It is impossible to provide a theoretical basis for the contribution of production factors, but instead it

³ In fact, the level of productivity can explain neither the existence and development of the non-public sector of the economy in the primary stage of socialism, nor the adoption of public ownership in the primitive society with an extremely low degree of productivity while private ownership in the slave society, feudal society and capitalist society after the remarkable development of productive forces, not to mention that developed countries that have achieved modernization still have no signs of eliminating private ownership.

will become the excuse of radical leftists to restrict and even ban private property and the non-public sector of the economy.

(III) The single factor supply-side theory of value cannot ensure the reasonable allocation of various resources

Traditional political economics recognizes that labor is the only source of value, so that the allocation of resources can only be attributed to the proportional distribution of total social labor among various sectors. This kind of understanding is undoubtedly an ideological barrier hindering the growth, development and improvement of the factor market including land, labor, capital, and entrepreneurs in China. Further, traditional political economics mostly confines the creation of value to the field of production, that is, the supply side, and negates the role of demand in value determination, thus negating the decisive role of the market in the allocation of resources, especially the spatial allocation of population and land. This is another ideological basis for restricting the flow of the population, particularly the population size of megacities and the planned allocation of land resources.

(IV) The single-factor international theory of value cannot explain the international division of labor based on comparative advantages

After the reform and opening-up, China's academic circles had heated discussions on the theoretical basis of international trade. The representative ideas attempted to replace or integrate David Ricardo's theory of comparative advantage by Karl Marx's "international value" and use it as the theoretical basis for China's participation in international trade and international division of labor (Song, 1984; Zhang, 2008). This is obviously futile because Karl Marx's so-called international value is merely a simple application of the labor theory of value in the international exchange, or a weighted average of the domestic socially necessary labor time of the similar type of countries producing the same commodity, and it is entirely different from international exchange value created by the principle of comparative advantages. According to Karl Marx's theory of international value, the exchange of one hour of labor products of developed countries for several hours of labor products in underdeveloped countries is naturally an unequal exchange, that is, rich countries exploited poor countries, or developed countries exploited developing countries. Amin (1973) and Emmanuel (1988) put forward the theory of unequal exchange and took a cautious attitude towards the participation of developing countries in international division of labor and globalization. This view obviously cannot be the theoretical basis for China to actively participate in and promote the process of economic globalization and develop a higher level of open economy.

3 Controversies Over Value in the History of Economic Thoughts

Ever since the birth of economics, the theory of value has always been at the center of controversy, in which the labor theory of value, the neoclassical theory of value and Sraffa's theory of value became trios of the theory of value.

(I) The labor theory of value

As mentioned above, traditional labor theory of value recognized labor as the only source of value, so it was difficult to make a satisfactory quantitative analysis of the role of non-labor factors in the value formation and the income obtained. According to the labor theory of value, the total labor time of workers was divided into two parts: necessary labor and surplus labor. Wages were only equivalent to the value formed by the necessary labor, not the compensation of total labor. It was the transformation of the value or price of labor, but the non-labor income, such as profit, interest and rent, came from the possession of the surplus value created by the laborer during the surplus labor time, thus being income from exploitation. The working-day was determinable, but was per se indeterminate, and the surplus value was per se indeterminate; likewise, the interest rate was determinable, but was per se indeterminate; the absolute rent was determinable, but was per se indeterminate (the corresponding differential rent itself was uncertain). The domestic and international economic circles fully rejected or dogmatically accepted the labor theory of value, or replaced living labor by dead labor to make it vulgarized. In short, the study of the labor theory of value itself failed to make substantial progress over more than 100 years.

(II) Neoclassical theory of value

Although the neoclassical theory of value gave a quantitative solution to the role of various factors of production in the value determination and functional distribution, there were still inherent logical contradictions: for one thing, it presupposed that the factor price already existed when the equilibrium price of the product market was discussed, hence the supply curve constituted by the curve of the cost (namely wages, profit and rent) could be derived; when the factor market was discussed, it presupposed that the product price already existed, so that the curve of factor demand made up of the marginal product income of factors could be formed; for another, because capital was heterogeneous goods, the capital return, that is, profit (interest) rate, was premised on the price of capital, which was in turn premised on the profit (interest) rate. The logical paradox of the neoclassical theory of value was severely criticized by the Neo-Cambridge School.⁴ Faced with the criticism of the Neo-Cambridge School represented by Piero Sraffa and Joan Robinson, Paul Samuelson, a leader of the neoclassical synthesis, had to admit the imperfection of the neoclassical theory of value (Samuelson, 1962).

(III) Sraffa's theory of value

⁴ Marxist economist criticized its "defensiveness" (advocate of class conciliation).

Sraffa's theory of value not only criticized the neoclassical theory of value based on marginal analysis, but also negated Marx's transformation of value to producer price. In the value determination model of Sraffa, both the value and the rate of profit were determined simultaneously in the same process. Sraffa stressed that the rate of profit "cannot be determined before we know the prices of the goods. On the other hand, we cannot defer the allotment of the surplus till after the prices are known, for...the prices cannot be determined before knowing the rate of profits. The result is that the distribution of the surplus must be determined through the same mechanism and at the same time as are the prices of commodities." (Sraffa, 1960, p. 12) The value determination model of Sraffa revealed that the so-called transformation of value to producer price was fictitious and it was actually meaningless to have controversies over the transformation in more than one century.

However, in his book *Production of Commodities by Means of Commodities*, Sraffa did not consider the demand factor, but investigated the determination of commodity prices from the perspective of supply, so Joan Robinson argued that the Sraffa system was only a half equilibrium system (Robinson, 1961, pp. 53–58). On the other hand, Sraffa expressed the linear relationship between wages and rate of profit as: $r = R(1 - W)$, where R is the ratio of net product to means of productions, i.e. the maximum rate of profit; r is the rate of profit; W is the ratio of wage payment from net product. This regards the actual rate of wages as exogenously given, and the determination of the rate of wages and rate of profits were ascribed to laws and traditional custom.

It was based on the above different theories of value that different income distribution theories and even different economic systems were shaped. Each economic system built up its own unique basic domains, such as capital, profit, interest, rent and wage, etc. These domains reflect different economic relations so that the Chinese economic theories at the transition phase lacked a unified foundation.

In fact, all of the above three theories of value were established under different assumptions, and hence only the theories of value in a narrow sense. Through a comparative study of these theories of value in a narrow sense, the author aims to establish a theory of value that reflected the general law of the market economy, in other words, the general theory of value, and reveal the forms in which the general law of value can be achieved under different conditions, so that the theory of value and the income distribution theory are intrinsically unified. The author's research will be helpful for deepening the re-understanding of the labor theory of value, for facilitating the innovation of the theory of value and the income distribution theory, and laying a theoretical foundation for the construction of a system of political economics that meets the needs of the socialist market economy.

4 The Innovation of the Distribution Theory Based on the General Theory of Value

For more than 30 years, ever since 1985, the author has been devoted to research and has advanced a general theory of value that is different from the labor theory of value and the neoclassical theory of value,⁵ in order to provide a logical interpretation for changes in the basic economic system since China's reform and opening-up, and thus laying a value foundation for the political economics of socialism with Chinese characteristics. The basic content of this theory is expounded as follows.

(I) The division of labor stems from the people's pursuit of comparative advantages

The value is the result of the commodity economy, while the commodity economy arises from the division of labor and exchange. Therefore, the origin of the division of labor and exchange is both a logical and historical starting point for the study of the theory of value.

Obviously, the reason why a pair of self-sufficient producer-consumers is transformed into commodity producers is that the utility obtained through the division of labor and exchange is larger than the utility of self-sufficiency; in other words, the product obtained through exchange is more than the opportunity cost of the product given up by itself. Suppose that two commodity producers 1 and 2 produce the two kinds of commodities U_1 and U_2 , their ratio of exchange is:

$$x_1U_1 = x_2U_2$$

If x_2U_2 exchanged by the commodity producer 1 is equal to or less than the opportunity cost of x_1U_1 , that is, the amount of U_2 that can be produced by the same resource for producing x_2U_2 , this type of exchange is meaningless and impossible (even if happening occasionally, it will not be repeated). The same analysis equally applies to the commodity producer 2. The benefit obtained by exchange minus the opportunity cost of the product is the comparative advantage, which is the real cause of the division of labor and exchange.

(II) The general value is determined according to the principle of equal ratio of comparative advantage

The so-called ratio of comparative advantage is the relative amount of comparative advantage. If it is expressed in the physical amount: It is equal to the ratio of the product to be exchanged by the producer minus the opportunity cost of the product to the opportunity cost. When a shepherd can exchange 1 sheep for 20-foot linen, then the ratio of comparative advantage he obtains through division of labor and

⁵ This theory is mainly elaborated in these references: Cai (1985, 1987, 1988a, 1999a, 1999b, 2004, 2010), Cai and Gao (2014), Cai et al. (2014), Cai and Jiang (2009, 2010, 2013), Cai and Li (2001, 2012).

exchange is (20-foot linen—10-foot linen)/10-foot linen = 100%. If it is expressed in the saved time cost: The ratio of comparative advantage is equal to the time that the producer must spend on the production of the exchanged product minus the time spent in exchange for the commodity, and then the difference between the two is divided by the time spent in exchange for the commodity.

The ratio of comparative advantage of producer 1 (or sector 1) = $\frac{x_2t_{12}-x_1t_{11}}{x_1t_{11}}$; the ratio of comparative advantage of producer 2 (or sector 2) = $\frac{x_1t_{21}-x_2t_{22}}{x_2t_{22}}$.

Under the conditions of fair competition, the ratio of comparative advantage obtained by the two producers or sectors through exchange should be equal, as shown in the following equation:

$$\frac{x_2t_{12} - x_1t_{11}}{x_1t_{11}} = \frac{x_1t_{21} - x_2t_{22}}{x_2t_{22}} \quad (1)$$

The balanced exchange ratio R of the two kinds of commodities can be obtained:

$$R = \frac{x_2}{x_1} = \frac{V_1}{V_2} = \sqrt{\frac{t_{11}t_{21}}{t_{12}t_{22}}} = \sqrt{\frac{q_{12}q_{22}}{q_{11}q_{21}}} \quad (2)$$

Solve Eqs. (1) and (2), the values of the two kinds of commodities denoted by Eqs. (3) and (4) can be obtained:

$$V_1 = \frac{1}{2q_{11}} \left(1 + \sqrt{\frac{q_{11}q_{12}}{q_{21}q_{22}}} \right) \quad (3)$$

$$V_2 = \frac{1}{2q_{22}} \left(1 + \sqrt{\frac{q_{21}q_{22}}{q_{11}q_{12}}} \right) \quad (4)$$

(III) Comprehensive productivity and comparative productivity

$\sqrt{q_{11}q_{12}}$ and $\sqrt{q_{22}q_{21}}$ in Eqs. (3) and (4), namely the geometric mean of different levels of productivity in two sectors, are defined as the comprehensive productivity of the two sectors, which reflects the sum of labor productivity of the same sector in multiple kinds of products, as shown in Eq. (5):

$$CP_1 = \sqrt{q_{11}q_{12}}; \quad CP_2 = \sqrt{q_{21}q_{22}} \quad (5)$$

The ratio of comprehensive productivity of the two sectors is defined as the comparative productivity discriminant, which indicates the productivity of the two sectors in terms of the determined specialized production, and can be expressed as:

$$CP_{1,2} = (q_{11}q_{12}/q_{21}q_{22})^{\frac{1}{2}}; \quad CP_{2,1} = (q_{21}q_{22}/q_{11}q_{12})^{\frac{1}{2}} \quad (6)$$

If $CP_{1,2} > 1$ (i.e. $CP_{2,1} < 1$), this means the comparative productivity of sector 1 is larger than that of sector 2;

If $CP_{1,2} < 1$ (i.e. $CP_{2,1} > 1$), this means the comparative productivity of sector 1 is smaller than that of sector 2;

If $CP_{1,2} = 1$ (i.e. $CP_{2,1} = 1$), this means the comparative productivity of the two sectors is equal.

Substitute Eq. (6) into Eqs. (3) and (4), we have:

$$V_1 = \frac{\bar{t}_{11}}{2}(1 + CP_{1,2}) \Rightarrow V_1 = \frac{1 + CP_{1,2}}{2q_{11}}; \quad V_2 = \frac{\bar{t}_{22}}{2}(1 + CP_{2,1}) \Rightarrow V_2 = \frac{1 + CP_{2,1}}{2q_{22}} \quad (7)$$

(IV) Theorem of the general theory of value

First, the exchange value (relative value) of commodity is determined according to the principle of equal ratio of comparative advantage, which is equal to the proportion of the average social labor time spent on producing the commodity: please refer to the Eqs. (1) and (2).

Second, the value of unit commodity is negatively correlated to the absolute productivity and the comprehensive productivity of counterparties in the exchange, but positively correlated to the opportunity cost (comparatively weak productivity). Convert Eqs. (3) and (4) to be:

$$V_1 = \frac{1}{2} \left[\frac{1}{q_{11}} + \frac{q_{12}}{q_{11}q_{21}q_{22}}^{\frac{1}{2}} \right]; \quad V_2 = \frac{1}{2} \left[\frac{1}{q_{22}} + \frac{q_{21}}{q_{11}q_{12}q_{22}}^{\frac{1}{2}} \right] \quad (8)$$

Third, the relationship of commodity value and labor depends on the coefficient of comprehensive productivity, and according to Eq. (7):

$$V_1 = \frac{1 + CP_{1,2}}{2q_{11}}; \quad V_2 = \frac{1 + CP_{2,1}}{2q_{22}}$$

If $CP_{1,2} > 1$ (i.e. $CP_{2,1} < 1$), the value of unit commodity is larger than the unit labor coefficient;

If $CP_{1,2} < 1$ (i.e. $CP_{2,1} > 1$), the value of unit commodity is smaller than the unit labor coefficient;

If $CP_{1,2} = 1$ (i.e. $CP_{2,1} = 1$), the value of unit commodity is equal to the unit labor coefficient.

Fourth, the total value v created by the unit labor is positively correlated to comparative productivity. According to Eq. (7), we have:

$$v_1 = q_{11} \times \frac{1}{2q_{11}}(1 + CP_{1,2}) = \frac{1}{2}(1 + CP_{1,2}) \quad (9)$$

$$v_2 = q_{22} \times \frac{1}{2q_{22}}(1 + CP_{2,1}) = \frac{1}{2}(1 + CP_{2,1}) \quad (10)$$

Fifth, the aggregate commodity value is equal to the aggregate labor of the society:

$$\sum_{i=1,2}^n V_i q_{ii} T_i = \sum_{i=1,2}^n T_i, V_1 q_{11} T_1 + V_2 q_{22} T_2 = T_1 + T_2 \quad (11)$$

Sixth, the ratio of necessary labor input between different sectors depends on the ratio of their comprehensive productivity. Under conditions of equilibrium, the necessary labor input of a sector is negatively correlated to its comparative productivity.

$$T_2/T_1 = \sqrt{(t_{22}t_{21})/(t_{12}t_{11})} = \sqrt{q_{11}q_{12}/q_{22}q_{21}} \quad (12)$$

Equation (9) presents the equilibrium ratio of heterogeneous labor exchange.

(V) Functional distribution based on the general theory of value

1. Participation of various production factors in the determination of general value

Because the comparative productivity of the two sectors (the ratio of the comprehensive productivity between the two sectors) is positively correlated to the amount of value, and the comparative productivity is determined by the four absolute productivities of the two sectors, the variation in determining the productivity will influence the variation of the comparative productivity and finally impact the determination of the amount of value.

According to Karl Marx's analysis: "The productivity of work is determined by various factors, amongst others there is the average skill of the worker, the level of development of science, and the technological applicability, the social combination of the production process, the extent and the capacity of the means of production and the natural conditions" (Marx, 1972, p. 53) The five factors enumerated above by Karl Marx can be grouped into four types of production factors: labor, capital, land, entrepreneurship (assuming that technological progress is ultimately reflected in the production efficiency of labor, capital and land, and the social integration of the production process is done by entrepreneurs).

2. Influence of factor variations on the determination of value

Finding the logarithms and total differentials on both sides of Eqs. (9) and (10), we obtain:

$$\dot{v}_1 = \frac{1}{2}(q_{11}^{\bullet} + q_{12}^{\bullet} - q_{21}^{\bullet} - q_{22}^{\bullet}) \quad (13)$$

$$\dot{v}_2 = \frac{1}{2}(q_{21}^{\bullet} + q_{22}^{\bullet} - q_{11}^{\bullet} - q_{12}^{\bullet}) \quad (14)$$

Here, $\dot{v}_1 = dv_1/v_1$ and $\dot{v}_2 = dv_2/v_2$, $q_{1j}^{\bullet} = dq_{1j}/q_{1j}$ and $q_{2j}^{\bullet} = dq_{2j}/q_{2j}$ represent the ratios of variations of the unit labor value (the value created by the unit labor) and

the unit labor product (that is, absolute productivity). From Eqs. (13) and (14), it is found that the variation of the unit labor value is dependent on the sum and difference of the four absolute productivities. For example: if $\dot{q}_{11} = 50\%$, $\dot{q}_{12} = 20\%$, $\dot{q}_{21} = 10\%$ and $\dot{q}_{22} = 30\%$, the total value of sector 1 increases by 15%. Thus, the total value of a sector can increase only when the growth rate of the production efficiency of two kinds of commodities is higher than another sector. Of course, there may be another situation, that is, even if its own production efficiency does change, but that of another sector decreases, the sector with unvaried production efficiency can still have benefits.

3. The determination of factor value by the two-sector two-factor model

The value of various production factors is defined as changes in the comparative productivity caused by variations of these production factors, ultimately leading to the changes in general value.

Suppose that only two factors, namely labor and capital, participate in the production, the production quantity q can be written as the function of K and L :

$$q = q(K, L) \quad (15)$$

Substitute Eq. (15) into Eqs. (13) and (14), then we get the following Eqs. (16) and (17):

$$\begin{aligned} v_1^* = & \frac{1}{2}(\alpha_{11}^K K_{11}^* + \alpha_{11}^L L_{11}^* + \alpha_{12}^K K_{12}^* + \alpha_{12}^L L_{12}^* - \alpha_{21}^K K_{21}^* \\ & - \alpha_{21}^L L_{21}^* - \alpha_{22}^K K_{22}^* - \alpha_{22}^L L_{22}^*) \end{aligned} \quad (16)$$

$$\begin{aligned} v_1^* = & \frac{1}{2}(\alpha_{22}^K K_{22}^* + \alpha_{22}^L L_{22}^* + \alpha_{21}^K K_{21}^* + \alpha_{21}^L L_{21}^* - \alpha_{11}^K K_{11}^* \\ & - \alpha_{11}^L L_{11}^* - \alpha_{12}^K K_{12}^* - \alpha_{12}^L L_{12}^*) \end{aligned} \quad (17)$$

where α represents the value elasticity of a certain factor supply, that is, the percentage increase in the amount of value caused by the growth of a specific factor in the production of a specific product.

For commodity 1 produced by sector 1, the impact of change in capital and labor on the amount of value is:

$$\begin{aligned} & (\alpha_{11}^K K_{11}^* + \alpha_{12}^K K_{12}^* - \alpha_{21}^K K_{21}^* - \alpha_{22}^K K_{22}^*)/v_1^* \\ & (\alpha_{11}^L L_{11}^* + \alpha_{12}^L L_{12}^* - \alpha_{21}^L L_{21}^* - \alpha_{22}^L L_{22}^*)/v_1^* \end{aligned} \quad (18)$$

For commodity 2 produced by sector 2, the impact of change in capital and labor on the amount of value is:

$$(\alpha_{22}^K K_{22}^* + \alpha_{21}^K K_{21}^* - \alpha_{11}^K K_{11}^* - \alpha_{12}^K K_{12}^*)/v_1^*$$

$$(\alpha_{22}^L L_{22}^\bullet + \alpha_{21}^L L_{21}^\bullet - \alpha_{11}^L L_{11}^\bullet - \alpha_{12}^L L_{12}^\bullet) / v_1^\bullet \quad (19)$$

4. The determination of value by the two-sector multi-factor model

This analysis can be expanded to more factors. In a multi-factor model, F_i represents the i -th factor ($i = 1, 2, \dots, M$). To simplify the description, suppose that the change ratio of the same factor is consistent, then we have:

$$\begin{aligned} v_1^\bullet &= \frac{1}{2} \sum_{i=1}^M [(\alpha_{11}^{F_i} + \alpha_{12}^{F_i} - \alpha_{21}^{F_i} - \alpha_{22}^{F_i}) F_i^\bullet] \\ v_2^\bullet &= \frac{1}{2} \sum_{i=2}^N [(\alpha_{22}^{F_i} + \alpha_{21}^{F_i} - \alpha_{11}^{F_i} - \alpha_{12}^{F_i}) F_i^\bullet] \end{aligned} \quad (20)$$

Set $v_1^{F_i}$ and $v_2^{F_i}$ as the marginal contribution of the factor F_i to the value v_1 and v_2 of sector 1 and sector 2, namely the compensation of F_i , then:

$$v_1^{F_i} = (\alpha_{11}^{F_i} + \alpha_{12}^{F_i} - \alpha_{21}^{F_i} - \alpha_{22}^{F_i}) F_i^\bullet v_1 / \sum_{i=1}^M [(\alpha_{11}^{F_i} + \alpha_{12}^{F_i} - \alpha_{21}^{F_i} - \alpha_{22}^{F_i}) F_i^\bullet] \quad (21)$$

$$v_2^{F_i} = (\alpha_{22}^{F_i} + \alpha_{21}^{F_i} - \alpha_{11}^{F_i} - \alpha_{12}^{F_i}) F_i^\bullet v_2 / \sum_{i=1}^M [(\alpha_{22}^{F_i} + \alpha_{21}^{F_i} - \alpha_{11}^{F_i} - \alpha_{12}^{F_i}) F_i^\bullet] \quad (22)$$

Conclusion: The various production factors obtain compensation according to their contribution to the increased value. The creation of value and the distribution of value are unified; because the distribution of interests among sectors is based on the premise of an equal ratio of comparative advantage, and the compensation of each production factor is equal to their respective contribution, this relationship of income distribution determined by the perfect competition market is harmonious. Non-labor income is not equal to the income from exploitation; and eliminating the exploitation and developing the non-public sector of the economy do not conflict with each other.

(VI) Relationship between general value and narrow value

The value determined according to the principle of equal ratio of comparative advantage is called the general value, and the value determined according to equal labor is the narrow value.

The general value model is applicable to the general situations where the comprehensive productivity coefficient is greater than, less than and equal to 1. The labor value model is only applicable to the situations where the comprehensive productivity coefficient is equal to 1. The general value: This is the general law of price adjustment existing in the production of goods and the exchange of goods in any society, but the laws of general value can be achieved in different special forms under different historical conditions.

Special value: Under the social and historical conditions that all productivity is reflected as labor productivity, the general value takes the form of general labor value; under the social and historical conditions that all productivity is embodied as capital productivity, the general value is expressed as the general producer price; under the conditions that there is a monopoly of land ownership and land operation rights, the general value is expressed as a general adequate price.

Individual value: When the comparative productivity coefficient is not equal to 1, the general labor value, general producer price and general adequate price take the forms of relative labor value, relative producer price and relative adequate price, respectively; when the comparative productivity coefficient is equal to 1, the general labor value, general producer price and general adequate price take the forms of absolute labor value, absolute producer price and absolute adequate price, respectively. Only under this individual condition, is the value of commodity determined by the absolute labor spent on the commodity production as advocated by the traditional labor theory of value. The value determined according to the principle of equal ratio of comparative advantage is called the general value, and the value determined according to equal labor is called the narrow value.

The relations of general value, special value and individual value are shown in Fig. 1.

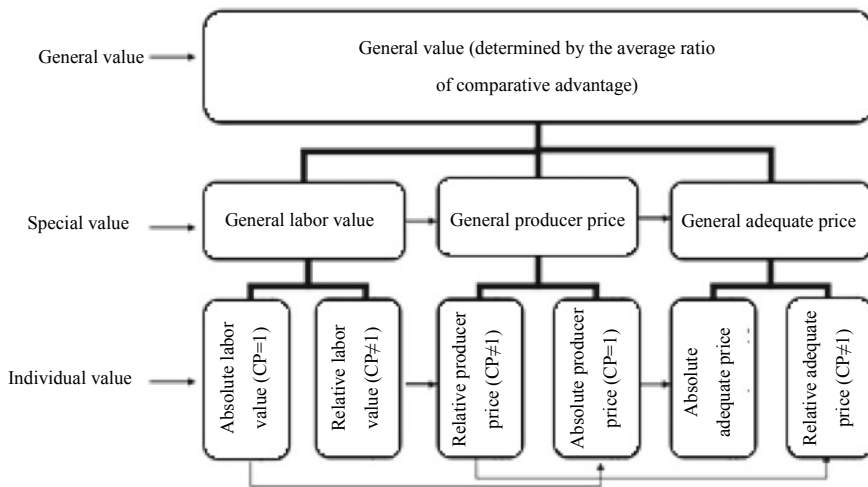


Fig. 1 Relations of general value, special value and individual value

5 The General Theory of Value and the Political Economics of Socialism with Chinese Characteristics

The general theory of value is applied below for exploring issues related to the study of the political economy of socialism with Chinese characteristics.

(I) **The general theory of value is the premise on which the two systems of economic ideologies are integrated**

Undoubtedly, the establishment of the system of political economics of socialism with Chinese characteristics should be guided by the methodology of Marxist political economics, and draw on and absorb the scientific achievements of the modern mainstream economics in the West. From the perspective of Samuelson’s economist (Fig. 2), Marxist political economics and modern mainstream economics in the West are homologues with a common ancestor, Adam Smith. After Adam Smith, the classical economics began to divide. David Ricardo inherited the single-factor labor theory of value from Adam Smith, which was carried forward by Karl Marx. Malthus (Say) inherited the multi-factor theory of value from Adam Smith, which was synthesized as modern mainstream economics by Mill, Malras, Marshall, Keynes and Samuelson. However, the two economic ideologies after separating and going different ways seem to achieve the same end by different means, and they jointly impact transition economics or mixed economics in the East and the West.

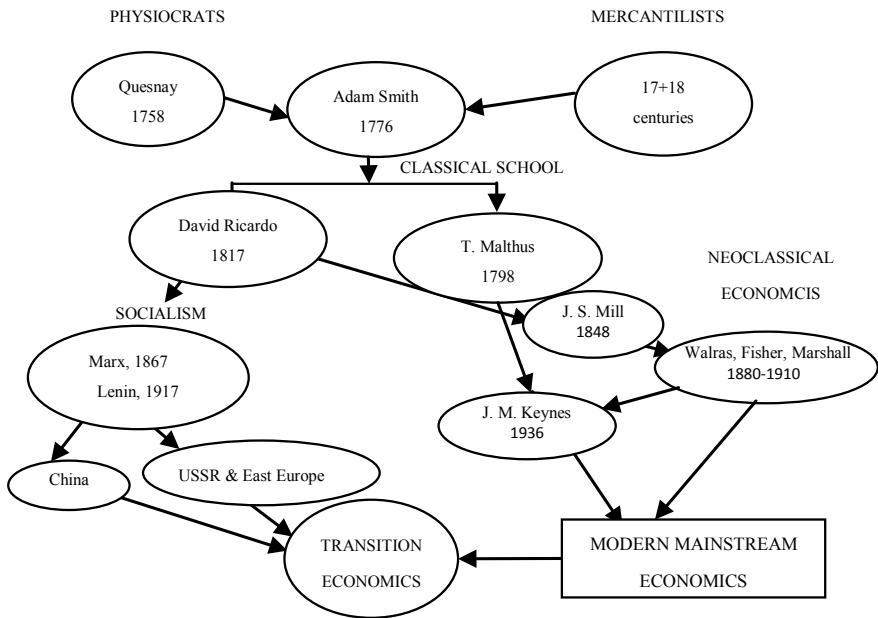


Fig. 2 Family tree of economics (Samuelson & Nordhaus, 1999, cover)

The reason why the two economic ideologies separated from each other is their different understandings or misunderstandings of Adam Smith's theory of value. Adam Smith originally has only one theory of value, that is to say, there is only a simple abstract model that value is determined by a single labor factor if it is assumed that land is not private, capital is not accumulated and labor is the only scarce factor. Once land becomes private and capital is accumulated, the single labor value model naturally translates into a multi-factor value model. From this point of view, Ricardo and Marx only inherited one value model with the limited relative truth of Adam Smith, but Malthus and Say inherited the more truthful and more perfect value model of Adam Smith (Cai & Chen, 2017).

Therefore, the two economic ideologies have evolved from homologous to separated and then to the same end just because of their understanding and differences in the theory of value. The key to the integration of the two economic ideologies lies in whether a unified theory of value can be established. Even though the political economics of socialism with Chinese characteristics refuses to integrate with modern mainstream economics, it still needs to establish its own system by drawing on the ideas of modern mainstream economics, and re-examine its own theory of value to shape a theory of value with more universal applicability and find the common denominator with modern mainstream economics. The general theory of value, as an alternative theory that differs from the labor theory of value and the neoclassical theory of value, may be able to bridge the gap between the two economic ideologies.

(II) The general theory of value is the theoretical basis for distribution according to the contribution of production factors

With a logic unlike that of the neoclassical theory of value, the general theory of value proves the participation of various production factors in the creation of value, thus providing a value basis for the participation of various production factors in distribution according to their respective contribution. Based on this theory of value, the author and Professor Gu Shutang jointly proposed the theory of distribution according to the contribution of production factors,⁶ which has been accepted by the ruling party since the 16th National Congress of the Communist Party of China. Then the principle, system and institutional mechanism of distribution according to the contribution of production factors were established successively.

The general theory of value unifies the creation of value and the distribution of value, production and consumption, supply and demand, the value of use (material wealth) and value (social wealth), thus constituting a theory of the distribution of value by the consistent unified logic together with the theory of distribution according to the contribution of production factors. This is the only theory in the academic circles of China that can reasonably explain China's current system of income distribution.

(III) Distribution according to the contribution of production factors provides a theoretical basis for protecting private property and developing the non-public sector

⁶ Refer to: Gu and Cai (1988, 1989), Cai (1998a, 1998b, 2008a, 2008b, 2009).

In pursuance of the general theory of value and the theory of distribution according to the contribution of production factors, exploitation can be redefined. The so-called exploitation means that the compensation paid when using the production factors owned by others is lower than the contribution, and the essence is the unpaid possession of the contribution of others. The criterion for judging whether it is exploitation is whether the compensation and contribution are consistent: if a person (and the factors he owns) is paid less than his contribution, he is exploited; if his compensation is higher than his contribution, he is exploiting others; and if the compensation is consistent with the contribution, it is distribution according to contribution, that is, there is neither exploitation, nor a state of being exploited (Cai, 1988b, 1989, 2001, 2003).

Therefore, the non-labor income based on the factor contribution should no longer be regarded as exploitation. Exploitation is not necessarily related to ownership: Private ownership does not necessarily lead to exploitation; public ownership may also be subject to exploitation. In this way, the elimination of exploitation and the development of the non-public sector of the economy can be paralleled: The left hand may be raised to oppose exploitation, while the right hand may be raised to develop the non-public sector of the economy. Protection of private property is no longer a matter of expediency, but rather a matter of course. The scientific theory of value and the reasonable theory of distribution can provide the necessary theoretical basis for the protection of private property and the development of the non-public sector of the economy.⁷

(IV) Both capital and surplus value have general, special and individual attributes

The textbooks of political economics (the socialist part) popular in China, including the *Political Economics of Socialism with Chinese Characteristics* published recently, often directly apply Marx's concepts of capital and surplus value, as well as profit, interest and rent, to the socialist economic analysis. As a matter of fact, these domains have been deeply influenced by the capitalist mode of production 150 years ago, so they cannot be directly utilized to analyze the socialist production relations. When some scholars study the socialist economy, in order to distinguish from concepts in Marx's *Das Kapital*, they simply replace the capital with the concepts of "socialist capital", "public capital", "fund" or "capital fund" (Li, 2000; Ma, 1993), the surplus value with "necessary value", "public value" or "dominant value" (Yong, 1985; Kong, 1995; Wang, 1991), wages with "labor income", the labor force market with "labor service market", or simply added socialist qualifiers before profit, interest and rent, so as to highlight the difference between the socialist production mode and the capitalist production mode. Hovering around the concepts, they were not only unable to truly reveal the essential characteristics of the socialist production mode and the capitalist production mode, but they also denied the common attributes shared

⁷ Of course, eclecticism, the theory of convergence, the theory of mediation and the resulting theory of historical materialism also provide the objective basis for the formation of a mixed economy. See Cai (2015).

by the socialist production mode as a commodity economy or a market economy and the capitalist production methods mode as a commodity economy or a market economy.

The correct practice should be first distinguishing between general, special, and individual attributes of economic domains according to the general, special, and individual dialectics, and then using different levels of concepts for different attributes of the object of analysis. Marx pointed out: “As a rule, the most general abstractions arise only in the midst of the richest possible concrete development, where one thing appears as common to many, to all. Then it ceases to be thinkable in a particular form alone.” (Marx, 1979, p. 42).

Then, some basic concepts of political economics are re-defined from the general, special and individual perspectives as follows:

As far as the laws of economics are concerned, the law of saving time and the distribution of total social labor according to proportion is general, the law of rule (or market regulation) and the regulation by planning as the general laws of economics are special, and the perfect competition market, perfect monopoly market, monopolistic competition market as well as mandatory regulation by planning, guiding regulations by planning and the double track system are individual when they are realized as the market mechanism and the planning mechanism. Refer to Fig. 3.

In terms of the mode of production, the labor process is general (the general property of any production by mankind), the value formation process is special (the commodity economy relative to product economy and planned economy), and the process of value increment is individual (and can be divided into capitalist commodity production and socialist commodity production);

As regards the productive labor, the labor for producing value of use is general (including physical products and spiritual products, tangible products and intangible products, i.e. labor services), the labor that creates value is special (relative to the labor in the self-sufficient economy and labor in the planned economy), and the labor

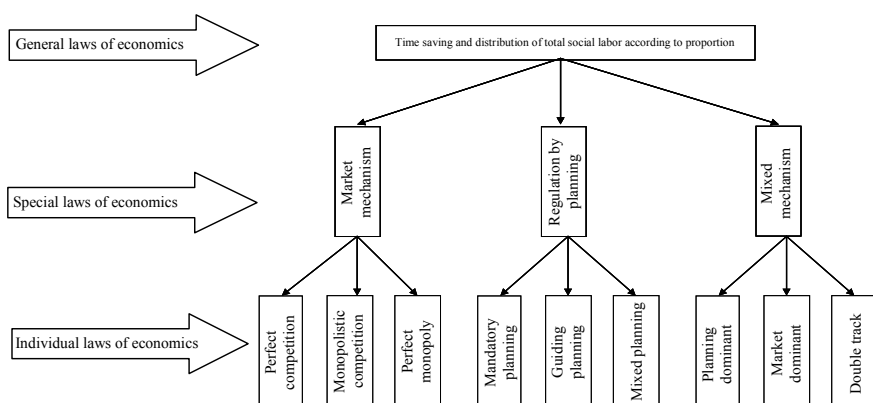


Fig. 3 General, special and individual laws of economics

that creates the surplus value is individual (and can be divided into capitalist surplus value and socialist surplus value);

From the perspective of the economic surplus, the surplus product with an output that is larger than input is general, the surplus product in the form of value, that is, surplus value, is special, and the surplus value occupied by the capitalists without compensation is individual (relative to the individual self-production by the laborer or collective production, and the joint creation and ownership between laborers and capitalists);

With regard to the capital, material capital as both input and output is general, the capital in the form of money or value is special, and the state-owned capital, collectively owned capital, and private capital are individual.

Only after distinguishing and defining general, special and individual as mentioned above, can the scope of application of relevant domains be found in the system of political economics of socialism with Chinese characteristics.

(V) The equal ratio of comparative advantage lays a foundation for building the community with a shared future for mankind

According to the general theory of value, globalization and international division of labor must adhere to the principle of “equal ratio of comparative advantage”; in other words, the ratio of the comparative advantage obtained by the parties involved in international trade to the opportunity costs paid by them must be equal. The distribution of trade interests determined according to this principle is fair, and there will be doubt about who is exploiting or who is being exploited.

Since the commodity value is positively correlated to comprehensive productivity, the one-hour labor product of a country with high comprehensive productivity can be exchanged for several hours of labor products of another country with low comprehensive productivity, but as long as the ratio of comparative advantage obtained by the two sides are equal, the exchange is equal and fair.

A country’s level of comprehensive productivity depends both on the absolute productivity of export products and on the absolute productivity of import products, as well as on the absolute productivity of import and export products of trading countries. Hence, no matter in which country technological progress occurs, it will increase the level of comprehensive productivity of that country, thereby increasing its trade interests. Therefore, the following conclusion is arrived, that: economic entities in the international division of labor and exchange system, namely countries, should not only pay attention to the interdependence and reciprocity brought by the division of labor, but also to its ability of self-sufficiency, that is, economic entities should not just improve their comparative advantage in the division of labor and exchange relations, but also reduce their own comparative disadvantage.

The international trade theory based on the general theory of value lays a theoretical basis for China to actively promote globalization, advocate the buildup of the community with a shared future for mankind and enable all countries to share trade interests equally and fairly.

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Chapter 2

The Achievements of and the Prospects for the Development of the Special Economic Zones in Guangdong During the 40 Years of Reform and Opening-Up



Shenglan Li and Miaomiao Wang

Abstract Based on the background, process and economic development of special economic zones in Guangdong Province, this paper expounds the origin, achievements and problems of special economic zones. Although the special economic zones in Guangdong Province play an important role for the economic development of China in terms of institutional innovation and economic guidance, they are still subject to the problems of unclear positioning and unbalanced and inadequate development within the zone. With this in mind, the path of the future development is proposed for the purposes of promoting high-quality development of special economic zones, constructing a modern economic system, building a new pattern of all-around opening-up, and achieving the synergic development of special economic zones and non-special economic zones.

Keywords Special economic zones · Achievements of development · Prospects · Path

In the late 1970s, developed countries were confronted with economic transformation. Factories were transferred to places with abundant land and cheap labor so that they could devote efforts to the development of high technology. After the Cultural Revolution lasting ten years, China had the urgent need for putting an end to the backwardness. In such a historical background, guided by the theory of “unbalanced development”, China put forward the idea of reform and opening-up, that is to say, “We should be bolder than before in conducting reform and opening up to the outside world and have the courage to experiment. We must not act like women with bound feet. Once we are sure that something should be done, we should dare to experiment and break a new path”. The prelude to the establishment of the Shenzhen Special Economic Zone began to sound, and special economic zones sprang up like mushrooms. Forty years ago, the horn of reform and opening-up blew on the land of China, and the magnificent reform and opening-up worked miracles. Forty years later, in the new era, General Secretary Xi Jinping required Guangdong to strive

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to achieve “four forefronts of the country”, in other words, “at the forefront of the country in building the institutional mechanisms to promote high-quality economic development, developing a modernized economic system, forming a new pattern of all-around opening-up and creating a model of social governance based on collaboration, participation and common interests”. The economic development of special economic zones should clarify achievements and problems in the past 40 years and have new prospects under the guidance of the “four forefronts of the country”. The development of special economic zones is not only related to the new development of China in the new round of opening-up, but also to the balanced development of a regional economy, as well as income distribution, social equity and political stability (Li and Wang, 2017).

1 Origins of the Special Economic Zones

The establishment of special economic zones (SEZs) and exploration of the model for the development of SEZs are determined by China’s national conditions. The background and process of the economic development of SEZs should be elaborated from the current status and needs of China’s development.

(I) **The urgent need for putting an end to the backwardness drives China to reform and opening-up, and Guangdong takes the lead**

On May 11, 1978, an article entitled “Practice Is the Sole Criterion for Testing Truth” was published in the *Guangming Daily*. Later, at the Central Work Conference held on November 10th, Deng Xiaoping delivered an important speech entitled “Emancipate the Mind, Seek Truth from Facts, and Unite as One in Looking to the Future”, and proposed the idea of letting some people and some areas get rich before the others. This was also the guiding ideology for the establishment of special economic zones. China gradually explored the reform and opening-up for economic development. In April 1987, the former Vice Premier Gu Mu of the State Council required the State Planning Commission and the Ministry of Foreign Trade to organize an economic and trade delegation for field investigation in Hong Kong and Macao. He proposed drawing on the experience of Hong Kong and Macao, he designated the two adjacent counties, namely Bao’an and Zhuhai, as export bases and gradually constructed them to be modern production bases, processing bases and tourist destinations attracting tourists from Hong Kong and Macao. In July 1978, Xi Zhongxun, the then Second Secretary of the Guangdong CPC Provincial Committee, paid a visit to Bao’an County. He sent Zhang Xunfu, the then Deputy Director of the Provincial Planning Commission, to lead a working group for an in-depth investigation of Bao’an and Zhuhai. In early October, Guangdong Province submitted the *Report on the Foreign Trade Base and the Plans for the Municipal Construction of Bao’an and Zhuhai* to the State Council. On January 25, 1979, Xi Zhongxun presided over the enlarged meeting of the Standing Committee of the CPC Provincial Committee. This meeting made clear that Guangdong Province could take advantage

of its favorable geographic location adjacent to Hong Kong, make use of foreign capital, introduce advanced technology and equipment, and focus on compensation trade, processing and assembly, and partnered operations. In order to better implement the basic national policy of reform and opening-up, the Guangdong CPC Provincial Committee decided to upgrade the two counties, Bao'an and Zhuhai, to the status of cities. On March 5, 1979, with the approval of the State Council, Bao'an County and Zhuhai County were renamed Shenzhen City and Zhuhai City, and it was decided that 150 million yuan would be provided within three years as the startup funds for the construction of export commodity bases, tourist areas and new border cities. Furthermore, the China Merchants Bureau under the Ministry of Transport put forward the suggestion for building an industrial zone in Shekou Commune, Bao'an County, Guangdong Province. At the end of 1978, Yuan Geng, the then Vice Chairman of the China Merchants Bureau, realized that if he could use the land and labor of Guangdong adjacent to Hong Kong and Hong Kong's capital along with foreign capital, technology, market and equipment, the favorable factors of the mainland and Hong Kong could be integrated. As a result, on January 16, 1979, Guangdong Province and the Ministry of Transport presented the State Council with the *Report on Establishing an Industrial Zone in Bao'an, Guangdong by the China Merchants Bureau*. On January 31st, Li Xiannian gave instructions for approval. After the repeated feasibility study of constructing export processing zones in Shenzhen, Zhuhai and Shantou, a general consensus emerged among the leaders, but the specific naming was not finally confirmed. In April 1979, during the Central Work Conference, Xi Zhongxun pointed out that Guangdong should make full use of its favorable geographic location adjacent to Hong Kong and Macao with many overseas Chinese and actively conduct international economic and technological exchanges. He expressed the wish of implementing special policies in Guangdong and let Guangdong take the lead.

(II) **Founding of special economic zones and exploring the path for reform and opening-up**

Deng Xiaoping said: "We will construct only one special zone, and Shaanxi-Gansu-Ningxia was always a special zone". At the mention of supporting construction funds, Comrade Deng Xiaoping pointed out that: "The central government will not make any investment, and you may blaze a trail on your own!" The idea was accepted by the central government at the central work conference. On July 15th, File No. 50 of the Central Government (1979) clearly stipulated that "export special zones" were currently being constructed in Shenzhen and Zhuhai. After experience accumulated, they would also be built in Shantou and Xiamen. On December 16, 1979, Wu Nansheng used the term "special economic zone" for the first time in the *Several Issues Concerning the Establishment of Special Economic Zones in Guangdong* reported to the CPC Central Committee and the State Council. He reckoned that "special economic zone" was better than "export special zone" because the special zone would operate not just factories, but also other economic activities. The central government approved the report of Guangdong, officially finalized the term "special economic zone" in March 1980 and decided to implement it in

Shenzhen. In essence, the special economic zone was also one of the main forms of free port areas in the world, which achieved the goal of promoting economic and technological development by means of taking the preferential measures such as tariff reduction and exemption and by creating a good investment environment, encouraging foreign investment, and introducing advanced technology and scientific management methods. Special economic zones implemented the special economic policies, flexible economic measures and special economic management systems and adhered to the developmental goal of an export-oriented economy. On May 16, 1980, the CPC Central Committee and the State Council issued the *Approval of the Minutes of the Meeting of Guangdong and Fujian*, which prescribed that Guangdong should first concentrate on the construction of the Shenzhen Special Economic Zone, and then Zhuhai. On August 26, 1980, the 15th Meeting of the Standing Committee of the Fifth National People's Congress, presided over by Chairman Ye Jianying, approved the promulgation of the *Regulations of the People's Republic of China on Special Economic Zones in Guangdong Province*, which required dividing 327.5 km², 6.7 km² and 1.67 km² from the three cities in Guangdong Province, namely Shenzhen, Zhuhai and Shantou, for the establishment of special economic zones. Until then, the decision-making and legislative procedures for the establishment of special economic zones were formally completed and this marked the birth of special economic zones. China officially announced to the world that special economic zones had been founded in China. The birth of special economic zones represented China's determination to explore the path of reform and opening-up. The special economic zones originated from exclusive policies granted by the central government. Such exclusivity made Guangdong Province a "test field" on how to develop a market economy throughout the country and also opened the window for the economic takeoff of Guangdong. With the improvement and development of the special economic zone policies, their rapid takeoff opened a perfect chapter for the reform and opening-up of China.

2 Achievements of Economic Development and the Problems of Special Economic Zones

SEZs are special economic zones in which China adopts special policies and flexible measures to attract external funds, especially foreign funds, for development and construction. SEZs can: expand foreign trade; introduce more foreign capital, technology and management expertise; increase employment opportunities; accelerate economic development of specific regions, and form new industrial structures and social and economic structures that play an important role of absorption and radiation over the national (regional) economic development; and get more benefits from land sales, transfer and leasing. Functionally, SEZs are the windows, leaders and test fields for the reform and opening-up of China. This is a summary of not only the special policies, special systems and special developmental paths of SEZs, but also their historical mission and practical role.

(I) SEZs led the reform and institutional innovation of China

The economic development of SEZs was inseparable from the policy support, which was the first institutional innovation for China's reform and opening-up and integration into the world.

1. The bidirectional market-oriented and management innovations of "Bringing in" and "Going Global"

In accordance with the *Regulations of the People's Republic of China on Special Economic Zones in Guangdong Province* (approved for implementation at the 15th Meeting of the Standing Committee of the Fifth National People's Congress on August 26, 1980), Shenzhen formulated a series of preferential policies to attract foreign investment, including autonomy of operations, taxation, land use, foreign exchange management, product sales, and entry and exit management. By the forms of processing with supplied materials, compensation trade, joint ventures, cooperative operations, sole proprietorship and leasing, it attracted a large number of foreign investments and accelerated the rapid development of the special economic zone.

The central government conferred great economic management powers to the local government of the SEZ, and its authority for granting approval for investment projects was equivalent to the provincial level; according to the requirements of the market economy, adequate autonomy of operations was granted to enterprises in the SEZ. The government issued no mandatory production plans to enterprises. On the premise of compliance to laws, enterprises could independently make investment decisions by market demand. They could make production and operation plans within the approved business scope, decide the prices of products, arrange production and sales, determine the establishment of management structures, and recruit and dismiss employees. The preferential tax rates were provided for enterprises in the SEZ, with the corporate income tax of 15%. Any production enterprise aiming to operate for more than 10 years with foreign investments could enjoy the full tax exemption of 2 years and a half tax exemption of 3 years (namely levied as per 7.5%) from the year when it began to make a profit. After the expiration of the tax exemption period, for an enterprise for the exportation of products, after application and approval, it could pay the tax at the reduced rate of 10%. For non- production enterprises with a foreign investment of more than 5 million US dollars and a business term of more than 10 years, they could enjoy the full tax exemption of 1 year and a half tax exemption of 2 years from the year when it began to make a profit; no customs duties and value-added tax would be levied on export products made by enterprises in the SEZ using imported materials; and such taxes were exempted fully for export products made with domestic raw materials, except for a few products for which the state had clear stipulations; and the customs duties and value-added tax were also exempted for machinery, equipment, parts, components, raw materials, fuels and freight vehicles, tourism, ingredients used by the catering service, a reasonable quantity of office supplies for self-use and means of transportation imported by administrative organs, institutions and enterprises in the SEZ for construction and production. However, all other products shipped to other regions of China that included tax-exempt contents

should pay customs duties and value-added tax in accordance with the regulations; investors could obtain the land use rights for a certain period by agreements, or through bidding and auctions. The land price could be paid in a lump sum or in installments. Foreigners and overseas Chinese from countries (regions) with which China had diplomatic relations or official trade relations, as well as compatriots from Hong Kong, Macao and Taiwan, could apply for entry visas at the ports of the above SEZs if they were negotiating business, engaging in technological exchanges, visiting relatives and friends or travelling in SEZs, but could stay in the Shenzhen SEZ for no more than 5 days and in the Zhuhai SEZ for no more than 3 days. Foreign investors and their foreign employees and family members could apply for the visas of multiple entries; foreign companies, enterprises and other economic organizations or individuals, according to the principles of equality and mutual benefit, after approval by the SEZ government, could found joint ventures with Chinese partners in the SEZs to share profits and losses and assume risks pursuant to the proportions of their respective registered capital. In joint ventures, the investment proportion of foreign operators should not be less than 25%. They could also set up cooperative enterprises for which the investment or cooperation conditions, returns or losses were determined by agreement, or the wholly foreign-owned enterprises. Meanwhile, they could utilize the existing plants, equipment and labor of the Chinese side for processing with supplied materials, processing with supplied samples and assembly with supplied parts. Foreign merchants paid for the labor costs and acquired all products. They could also carry out compensation trade, equipment leasing, as well as the purchase of stocks and securities.

2. Innovation was demonstrated for exploring the planning, construction, management and operation of megacities in the new era

Pursuant to the *Official Reply of the State Council on Approving the Cancellation of the Control Line of the Shenzhen Special Economic Zone* (No. 3 [2018] of the State Council), in order to promote the integrated development of the Shenzhen Special Economic Zone, considering the new situation, new mission and new tasks faced by the construction and development of the SEZ, the State Council agreed and ordered Guangdong Province and Shenzhen City to be responsible for the cancellation of the control line of special economic zones. By taking this opportunity, Shenzhen implemented the unified urban and rural planning and construction management to further optimize the urban functional layout, improve the transportation infrastructure, advance the economic and intensive land use, strengthen the environmental protection and ecological construction, orderly increase the supply of public goods and services, achieve higher quality urbanization, and accumulate experience and demonstrate as a model for the planning, construction, management and operation of megacities in the new era.

After the cancellation of the control line, the Shenzhen Special Economic Zone would further strengthen the first-line control along the border of Guangdong and Hong Kong, enhance the construction of infrastructures and ensure the continued stability of the Guangdong-Hong Kong border.

(II) **SEZs blaze a trail in the progressive development of the regional economy in China**

1. **Three SEZs of Guangdong have an increasing amount of influence on the national economy**

Ever since the reform and opening-up, the total GDP of the three SEZs, including Shenzhen, Zhuhai and Shantou, achieved substantial growth. In 1980, their total GDP was 1.536 billion yuan and accounted for 0.33% of the country’s GDP; in 1990, it increased to 28.555 billion yuan and accounted for 1.54% of that of the country, with an average annual growth rate of 0.1%; in 2000, it grew to 247.271 billion yuan and accounted for 2.77% of the country’s GDP, with an average annual growth rate of 0.2%, which was relatively stable; and in 2016, it rose to 2378.994 billion yuan and accounted for 3.20% of that of the country, with an average annual growth rate of 0.32%. It is worth mentioning that due to the impact of the economic and financial crisis of 2008, the total GDP of the three SEZs accounted for 2.92% of that of the country, which was lower than that in 2005, but with the recovery of the market, the proportion of the total GDP of the three SEZs in the country gradually increased and their influence on the Chinese economy was also extended (Fig. 1).

In addition to the economic aggregate of the three SEZs, the change in per capita GDP was a specific characterization of whether the quality and efficiency of economic operations of the special economic zones had improved. In 1980, the per capita GDP of the three SEZs was 553 yuan/person, slightly higher than the national average; in 1990, it increased to 5434 yuan, which was 3800 yuan more than and 3.33 times the national average; in 2000, it grew to 25,610 yuan, which was 18,532 yuan more than

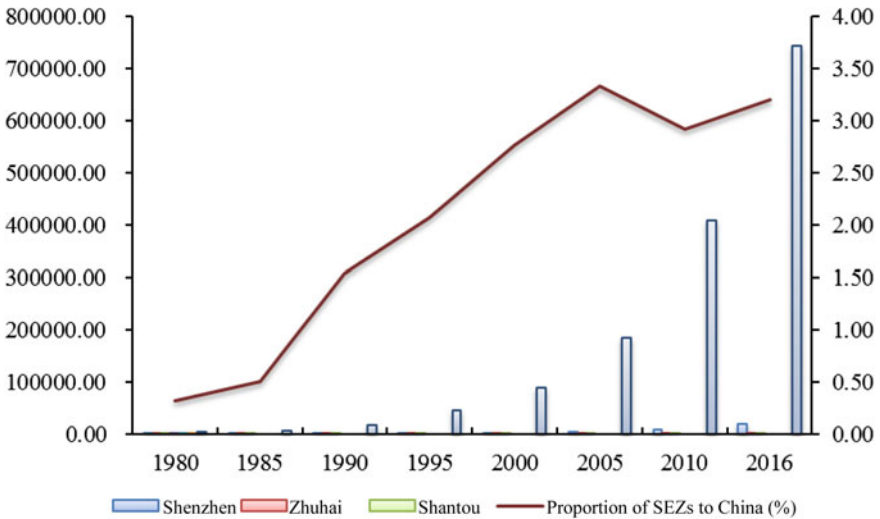


Fig. 1 Changes in the total GDP of the three SEZs of Guangdong (Unit 100 MRMB)

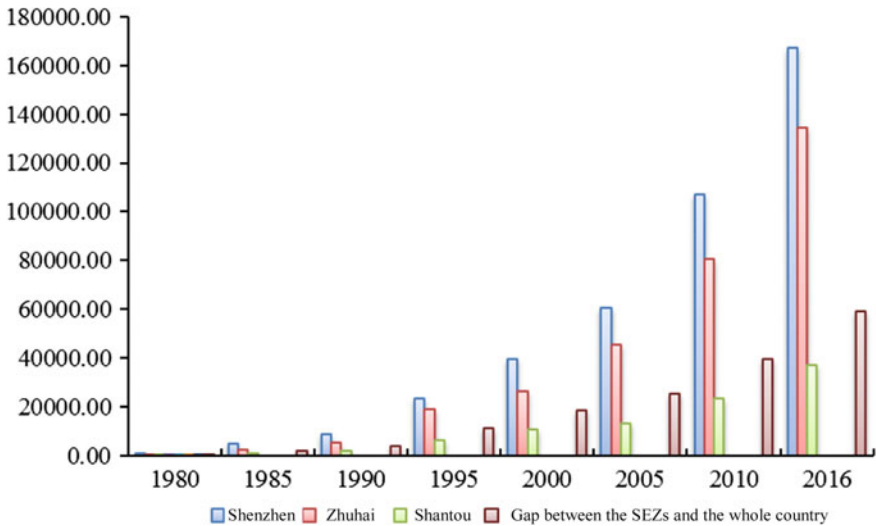


Fig. 2 Changes in the per capita GDP of the three SEZs of Guangdong (Unit: yuan/person)

and 3.62 times the national average; and in 2016, it rose to 113,100 yuan, which was 59,120.33 yuan more than and 3.00 times the national average (Fig. 2).

As the economic aggregates, quality and efficiency of the three SEZs continued to improve, their financial resources were also increasing. In 1980, the financial revenue of the three SEZs was 183 million yuan, accounting for 0.16% of that of the country; in 1990, their financial revenue reached 3.221 billion yuan, which accounted for 1.10% of the national total and was 17.61 times what it was in 1980; in 2000, it reached 18.76 billion yuan, which accounted for 2.15% of the national total and was 157.24 times what it was in 1980; in 2016, it was 356.588 billion yuan, which accounted for 2.23% of the national total and was 1,949.63 times what it was in 1980 (Fig. 3). The financial revenue of the three SEZs achieved growth by leaps and bounds.

2. The height and quality of the industrial structure of the three SEZs of Guangdong took the lead in China

After the reform and opening-up, the industrial structure of the three SEZs was rapidly optimized. The proportion of the primary industry declined quickly, but those of the secondary and tertiary industries steadily increased and the tertiary industry slightly surpassed the secondary industry. The average ratio of the three industrial sectors changed from 33.5:33.6:32.9 in 1980 to 1.73:49.27:51.71 in 2016. In 2016, the proportion of the secondary industry was 9.47% higher than that of China, and the proportion of the tertiary industry was 0.11% higher (Fig. 4). This further indicated that the height and quality of the industrial structure of the three SEZs exceeded the national average level.

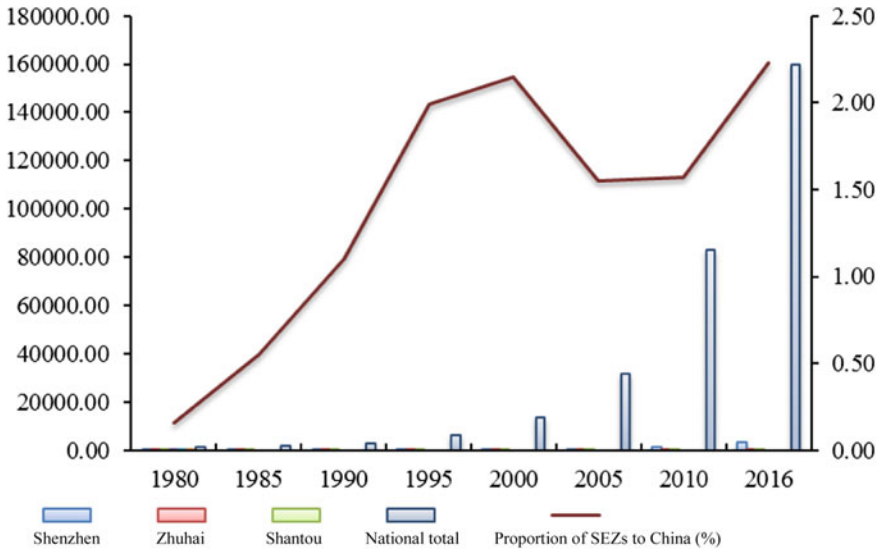


Fig. 3 Changes in the financial revenues of the three SEZs of Guangdong (Unit 100 MRMB)

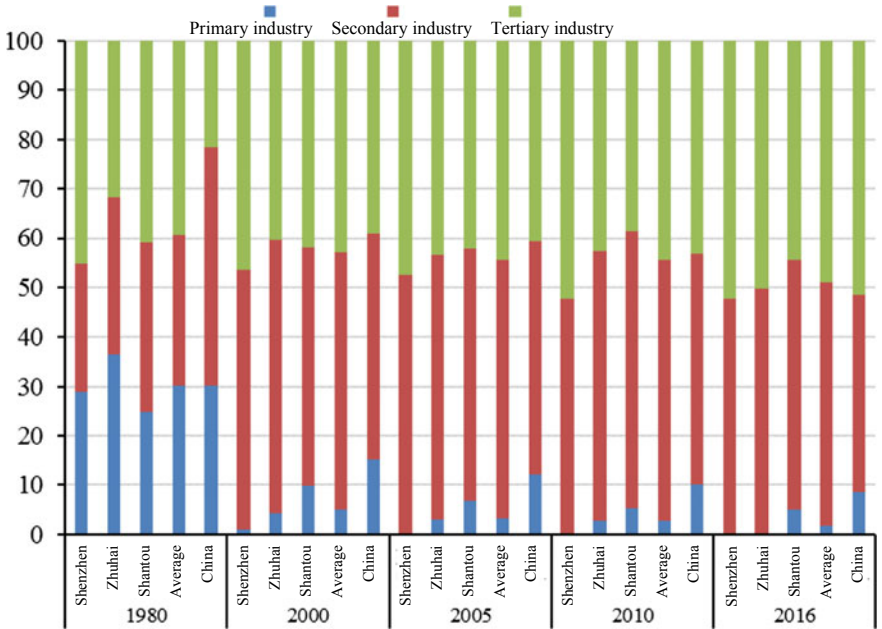


Fig. 4 Changes in the industrial structure of the three SEZs of Guangdong (Unit %)

3. The three SEZs of Guangdong represent a barometer for the development of the export-oriented economy in China

The three SEZs, ever since their establishment, have taken the export-oriented economy as their developmental goal and continuously expanded foreign trade and foreign economic and technological exchanges and cooperation. By 2016, the three SEZs had established trade relations with many countries and regions in Europe, America and Asia. The total value of imports and exports increased from 288 million yuan in 1980 to 2959.214 billion yuan in 2016, which was 10,279 times what they were in 1980. It accounted for 12.16% of those of the entire country with a fast growth rate (Fig. 5).

With regard to the number of outbound tourists of the three SEZs, tourism developed very fast. In 1980, the number of outbound tourists was 155,300, which increased to 2.0132 million in 1990 with an average annual increase of 20.13%; in 2000, it grew to 2.971 million, with an average annual increase of 18.58%; and in 2016, it rose to 16.8764 million with an average annual increase of 139.05% and accounting for 12.19% of those of the entire country. Riding the wave of reform and opening-up, besides their advantageous tourism resources, the perfect public service facilities were also an important factor for attracting tourists. Tourism was one of the key industrial sectors that the SEZs attached importance to (Fig. 6).

(III) The economic development of the SEZs has an unclear positioning

The establishment of special economic zones in China considered the national conditions first, and then they were set up by absorbing the developmental experience of similar foreign special economic zones. By far, the cities with SEZs had

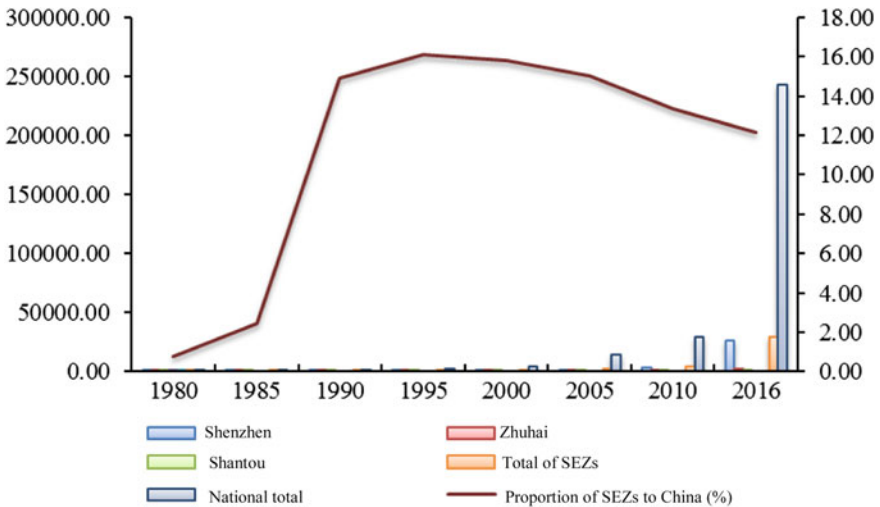


Fig. 5 Changes in the total value of imports and exports of the three SEZs of Guangdong (Unit 100 MUSD)

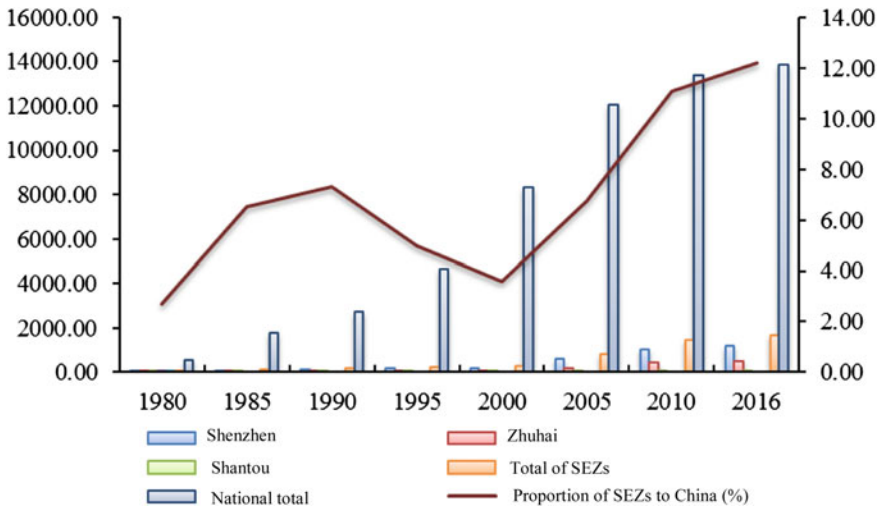


Fig. 6 Changes in the number of outbound tourists of the three SEZs of Guangdong (Unit 10 K persons)

different levels of development. For example, Shenzhen was a comprehensive special economic zone, but how should Zhuhai and Shantou be positioned in the new era? In fact, the comprehensive nature of the SEZs was consistent because it was closely linked to the SEZs with urban development, it boosted urban development through the development of the SEZs, and thus it played a role of radiation. From the industrial point of view, the industries in the SEZs mainly included international trade, export processing, tourism, real estate, finance, port-based industries, logistics and so on. All of them adopted the export-oriented model of development and had similar products and industrial structures. The similarity of their products was neither conducive to the complementarity of the regional economic development and the use of their respective advantages, nor was it conducive to participating in the international competition and influencing the radiating effect over adjacent regions. Therefore, to clarify the positioning of different cities with SEZs is of great significance for the healthy development and leading role of the future economy of the SEZs.

(IV) The internal economic development of the SEZs is still unbalanced and inadequate

With the gradual deepening of the reform and opening-up, the process of urban and rural integration of the three SEZs accelerated, and the income of urban and rural residents increased significantly. In terms of the income of urban residents, in 1980, the per capita income of the urban residents in the three SEZs was 110 yuan, the national average level was 476 yuan, and it was 366 yuan less than the national average; in 1990, the per capita income of urban residents in the three SEZs was 3030.67 yuan, the national average level was 1686 yuan, and it was 1344.67 yuan more than the national average and had achieved leap-forward development as

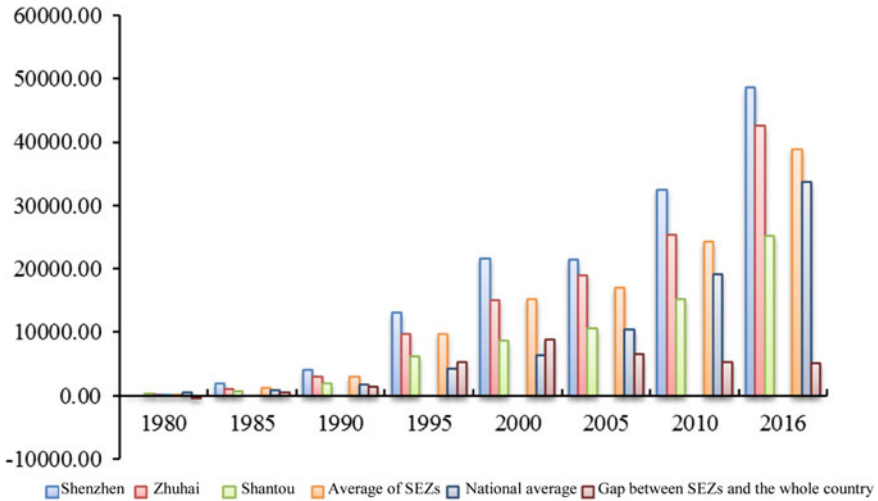


Fig. 7 Changes in the income of the urban residents of the three SEZs of Guangdong (*Unit yuan/person*)

compared with what it was in 1980; in 2000, the per capita income of urban residents in the three SEZs increased to 15,147.67 yuan, which was 8867.67 yuan more than the national average, witnessing a rapid growth; and in 2016, the per capita income of urban residents in the three SEZs grew to 38,784.47 yuan, which was 5168.47 yuan more than the national average and 353 times what it was in 1980 (Fig. 7).

From the perspective of the income of rural residents, in 1980, it was 264.33 yuan, which was 86.33 yuan more than the national average income of 178 yuan; in 2016, it increased to 18,276.20 yuan, which was 5913.20 yuan more than the national average income and 69 times what it was in 1980 (Fig. 8). In 2016, the income of urban residents was 2 times as large as that of rural residents, the gap was narrowing, but the process of urban–rural integration was still relatively slow.

Generally speaking, among the three SEZs of Guangdong, there are a large number of rural areas in Zhuhai and Shantou, and the income of rural residents is relatively low. In 1980, the per capita income of rural residents in the three SEZs was less than 300 yuan, with a very small gap. By 2015, in Zhuhai and Shantou, the per capita income of rural residents was 20,510 yuan and 12,455 yuan, but the per capita income of urban residents was 38,322 yuan and 18,996 yuan. The gap between rural and urban residents reached 1.89 times and 1.53 times. In contrast, the unbalanced and inadequate development between urban and rural areas was a serious problem. The income of rural residents was relatively low, and the economic development of rural areas was relatively slow. As a result, the sustainable development and leading role of the SEZs in achieving modernization were also affected. Therefore, in the process of development, it was an inevitable trend and top priority for the SEZs to focus on rural development. Only with urban–rural integration and coordinated urban–rural

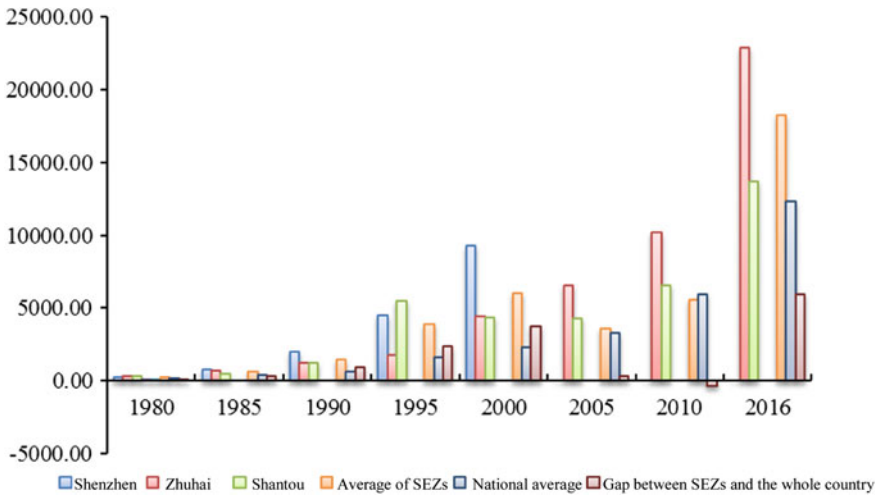


Fig. 8 Changes in the income of the rural residents of the three SEZs of Guangdong (Unit yuan/person)

development can we accomplish the comprehensive and sustainable development of special economic zones.

3 The Prospects of Economic Development for the Special Economic Zones

In the past 40 years of reform and opening-up, although Guangdong’s special economic zones have made remarkable achievements, there are still problems, such as unbalanced and inadequate regional development. In particular, General Secretary Xi Jinping visited the Guangdong delegation at the first meeting of the 13th National People’s Congress and delivered an important speech, demanding that Guangdong should strive to achieve “four forefronts of the country”, in other words, “at the forefront of the country in building the institutional mechanisms to promote high-quality economic development, developing a modernized economic system, forming a new pattern of all-around opening-up and creating a model of social governance based on collaboration, participation and common interests”. Guided by the “four forefronts of the country”, SEZ cities should seize the opportunities brought by the “21st Century Maritime Silk Road” and the Guangdong-Hong Kong-Macao Greater Bay Area. They should deal with difficulties, be bold to innovate and make new achievements in the fields of high-quality economic development, construction of a modernized economic system, development of a new pattern of all-around opening-up, and coordinated regional development.

(I) Institutional mechanisms are innovated to promote the high-quality economic development of the special economic zones

In the Report to the 19th National Congress of the Communist Party of China, General Secretary Xi Jinping pointed out that “China’s economy has been changing from a phase of rapid growth to a stage of high-quality development.” This important judgment also made clear three key areas of high-quality economic development, namely, model of development, economic structure and drivers of growth. The model of development included the organization and allocation of resources and factors, the efficiency of economic output, the relationship of economy and ecology, etc.; the economic structure included industrial structure, supply and demand structure, income structure, urban and rural structure, regional structure, etc.; and the drivers of growth consisted of the “troika”, innovation drive, optimization and the upgrading of traditional drivers and the fostering of new drivers of economic growth. The high-quality economic development covered supply, demand, allocation, input and output, income distribution and the economic cycle. In short, high-quality development is the development that can meet people’s growing needs for a better life. It is the development that reflects the new concept of development and that the innovation becomes the first momentum, coordination becomes one of the endogenous characteristics, green becomes the universal form, opening-up becomes the only way and sharing becomes the fundamental goal. Since their establishment, the three SEZs in Guangdong have regarded “reform” and “opening-up” as the keywords and have taken the lead in the country. However, when the economic development in the new era entered a stage of high-quality development, the SEZs with the label of “reform” and “opening-up” should have continued to pilot the innovation of institutional mechanisms first. To promote such innovation for the high-quality economic development of the SEZs, we should continue to make full use of the highly market-oriented institutional advantage, the cultural advantage of pluralism, freedom and equality and the system of scientific and technological innovation.

To make full use of the highly market-oriented institutional advantage, attention should be paid to subjectivity and innovation of the private sector, the high level of development, and deep integration into international and domestic markets. Based on this, the relationship between the government and enterprises should be handled well to clarify the service role of the government. Guided by the profitability of enterprises, the government and enterprises should influence and promote each other.

To make full use of the cultural advantage of pluralism, freedom and equality, the three SEZs of Guangdong were enlightened by the highly market-oriented environment for a long time, plus the inherent advantage of migrants, the cities where the SEZs locate gradually developed a pragmatic, honest, and daring city culture. The city culture is an endogenous factor that boosts the local economic and social development. The cultural system of pluralism, freedom, equality, and rule of law has become the main influencing factors for improving the high-quality development of the economy. In the future, the three SEZs should continue to explore the role of the relationship between institutions and culture in promoting the high-quality development of the economy.

With respect to the system of scientific and technological innovation, the drive towards innovation is the main factor driving the economy to achieve high-quality development. The three SEZ cities should continue to vigorously implement the strategy of making the city prosper by insisting on high quality, adhering to the supply-side structural reform as the main line, sparing no efforts in developing the real economy, accelerating the replacement of old drivers by new drivers of growth, supporting the combination of technological innovation and urban design in all aspects, integrating the urban design in all aspects with the quality of urban development, urban standards, urban brands and urban credibility, and synergistically advancing the high-quality economic development of SEZ cities.

(II) Construction of a modernized economic system in the special economic zones

The modernized economic system was first proposed in the Report to the 19th CPC National Congress. The modernized economic system is an intrinsic requirement for the evolution of the principal contradiction in Chinese society in the new era and for the implementation of the socialist economic construction with Chinese characteristics, the basic path for the new journey towards securing a decisive victory in building a moderately prosperous society in all respects and moving on to all-out efforts in building a great modern socialist country, and the urgent need for changing from a phase of rapid growth to a stage of high-quality development, transforming our growth model, fostering new drivers of growth and achieving all-around and balanced development. Hence, it is far-reaching and significant. The modernized economic system is the system of smart economic theory and the form of a smart economy, which, guided by the government's macro-regulation, based on mass entrepreneurship and innovation, with the big health industry as the core, achieves industrial upgrading and sustainable and high-speed economic development through industrial integration (Chen, 2018). The modernized economic system has the six basic features, namely more efficient economic output and growth rate, a model of higher-quality economic growth, a more balanced pattern of regional and urban-rural development, a better market economy system, more all-around opening-up, a more perfect modernized industrial system, spatial layout structure and degree of coordination (Wang, 2018). In the light of the economic development of SEZs over the past 40 years, the modernized economic system of the SEZs should be constructed in the following three aspects to promote the healthy and sustainable development of the SEZ economy.

From the aspect of industrial transformation and upgrading, SEZ cities should take the real economy as the focus of economic development and promote the transformation and upgrading of the manufacturing and infrastructure industries. In the process of promoting industrial transformation and upgrading, the improvement in the quality of the supply system should be the principal direction. While strengthening the development of advanced manufacturing, efforts should also be devoted to the deep integration of Internet+, big data and artificial intelligence with the real economy, accelerate the formation of new advantages of modernized industries,

promote high-quality economic development and foster the advantage of high-quality economic development.

From the aspect of the mechanisms for regional development, SEZ cities should improve their mechanism for regional development and facilitate the coordination, synergy and common development of urban and rural areas. The biggest problem existing in the regional development of SEZ cities is the unbalanced and inadequate development between urban and rural areas. Therefore, through the integration of urban and rural planning, and the planning of infrastructures, industries, public service facilities and the ecological environment, we can enhance the construction of rural infrastructures and the level of public services of SEZ cities, gradually improve the production and living conditions in rural areas, achieve the integration of three systems of modern agricultural industry, production and operations, as well as the integration of multiple planning, accomplish the integration of the urban and rural land markets, drive the bidirectional interaction of people, materials, capital and technology between urban and rural areas, and finally develop a new pattern for the equal exchange of factors and balanced allocation of public resources between urban and rural areas of the SEZs.

Regarding the aspect of technological innovation and the construction of a mechanism for talents, SEZ cities also need to accelerate the construction of institutional mechanisms and talent mechanisms for scientific and technological innovation. They should further strengthen the ability of enterprises' original innovation while improving the capability of sustainable scientific and technological innovation. Cooperation with universities and R&D institutions should be enhanced to explore the frontiers of global science and technology, conduct basic and prospective studies, lead the breakthrough of original innovations, and provide strong support for the development of the real economy. Regarding the construction of a mechanism for talents, great importance should be attached to talent development, talent entrepreneurship, talent mobility, overseas Chinese, immigrants and students studying overseas, to give play to the dividend role of talents and contribute to economic development.

From the aspect of enhancing the open economy, the focus should be put on the quality of Chinese enterprises' "going global", in order to raise the level of the open economy in all aspects.

From the aspect of dealing with the relationship between the government and the market, a better institutional environment should be created to realize the decisive role of the market in the allocation of resources and give better play to the role of the government. We should continue to transform the government's functions, streamline administration and delegate powers, establish a fair and equitable system to guide the development of enterprises, reduce the transaction costs of enterprises, stimulate the enterprises' ability to bring about innovation, and create a good business environment.

(III) **Developing a new pattern of all-around opening-up for the special economic zones**

The Report to the 19th National Congress of the Communist Party of China systematically answered the important questions at the height of considering domestic and international situations and from the two dimensions of theory and practice, such as whether opening-up is needed in the new era, what kind of opening-up is needed, and how to better advance that opening-up. The opening-up in all aspects as proposed in the report had rich connotations, including not only the expansion of scope, the broadening of fields and the deepening of hierarchy, but also the innovation of the model of opening-up, layout optimization, and quality improvement. It is an important part of Xi Jinping's thoughts on socialism with Chinese characteristics and a basic strategy in the new era.

The three SEZs of Guangdong have an advantageous geographical location, culture and open innovation. In the new era, they should implement the strategic measures of the new pattern of the all-round opening-up of the country from the following five aspects, not only to realize the dream of the SEZ, but also to help realize the Chinese dream.

In terms of expanding new space for the development of the national economy, SEZ cities should integrate the introduction of foreign investment, technology and talents. While using foreign capital, they should introduce cutting-edge technologies, advanced operational concepts, leading managerial experience and market opportunities, so as to drive enterprises in the SEZs and even other Chinese enterprises to be fully embedded in the global industrial chain, the value chain and the chain of innovations, strengthen various forms of cooperation in different fields of innovation, further enhance the technology spillover effect and the industrial upgrading effect of the utilization of foreign capital, and boost high-quality and high-level economic development.

In terms of promoting the deep structural adjustment by a high level of opening-up, SEZ cities should also significantly ease market access, further open the service sector, promote the orderly opening of finance, education, culture, healthcare and other service sectors, and lift limits on access for foreign investments in childcare, care for the elderly, architectural design, accounting and auditing, trade and logistics, electronic commerce and other such service sectors.

In terms of expanding foreign trade and accelerating the transformation of the manner of the development of foreign trade, SEZ cities should continue to expand their foreign trade from four aspects. First, to accelerate the transformation and upgrading of trade in goods, expedite the transformation and upgrading of foreign trading bases, trading platforms, and international marketing networks, encourage the exportation of high-tech and brand products, and guide the transformation and upgrading of the processing trade. Second, to promote the innovation and development of trade in services, encourage the exportation of services such as culture, tourism, construction, software, R&D and design, vigorously develop service outsourcing, and build a national brand of "special zone services". Third, to cultivate new trading patterns and new models, support the healthy development of

cross-border e-commerce, market procurement trade, comprehensive foreign trade services, and create new growth points for foreign trade. Fourth, to implement more active policies of importation and promote the balanced development of imports and exports.

In terms of improving the foreign investment environment and innovating the cooperation in outbound investment, innovation and reform should be conducted to strengthen the legalization of the use of foreign capital, establish a sound system of managing foreign investments and create a perfectly competitive market environment, so as to fully improve the investment environment for foreign investors. Moreover, the cooperation in outbound investment should be strengthened to encourage cooperation on international capacity, enhance the guidance on overseas mergers and acquisitions, regulate overseas business practices and render overseas investments and service guarantees perfect, thus having the national demonstration effect on the global network of trade, investment, financing, production, and services.

In terms of trade promotion and investment liberalization and facilitation, SEZ cities should promptly formulate high-level policies on trade and investment liberalization and facilitation in accordance with new situations in the new era, starting from the two aspects, namely raising their own level of opening-up and actively creating an external environment for opening-up.

(IV) Multidimensional cooperation and synergic development

The term “synergy” was first introduced by Igor Ansoff to describe the effect that the combined return of a whole is greater than the sum of the returns from the individual parts (Ansoff, 1965). Synergy, in essence, was an interactive relationship (Zhou & Sun, 2016). With respect to “regional synergy”, local multi-entities should, based on the correct handling of the relationship between fairness and efficiency as well as the relationship between man and nature, advocate the isotropic goals, harmony and tolerance, resource and revenue sharing, risk sharing, mutual benefit and common development, build up the collective decision-making mechanism and cooperation mechanism of negotiation, exchange, commitment and consensus, and ultimately shape a new pattern of the regional development of transportation, industry, markets, urban and rural areas, ecological environment, public services and people’s livelihood (Mao, 2017). These are collective actions at a higher level than regional cooperation and regional synergy (Mattessich & Monse, 1992). According to the experience of regional cooperation and development in foreign countries, regional synergic development can play a significant role in boosting regional economic development. There are huge differences in the economic and social development between SEZs and non-SEZs. Therefore, in addition to their own development and outward-looking development, SEZs should also highlight the inward-looking links inside the country and exert its radiation effects and spillover effects on the surrounding areas and even the central, western and northern regions of China. This makes it necessary for the social participation entities of SEZs and non-SEZs in the regional synergic development to reasonably divide their respective functions and improve relevant laws and

regulations, establish a comprehensive social mechanism for regional synergic development, and advance the synergic innovations of SEZs and non-SEZs in industrial synergy, factor market synergy, and public service construction and sharing.

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Chapter 3

The Construction of Subjectivity in TNCs and National Transformation in East Asia



Yi Zhang

Abstract Large corporations of East Asian countries, particularly transnational corporations, have endogenous political attributes, and they are different from their counterparts in Western countries, where political entities participating in global governance are non-state entities with exogenous political attributes. Large conglomerates in East Asia are following the path that the Western countries always experienced to some extent. The development of transnational corporations in East Asia does not benefit more from the opening-up policy of their respective country, but from the highly centralized state capital. China's overseas investment in developing countries has successfully demonstrated the idea of the community with a shared future for mankind with mutual benefit as proposed by the Belt and Road Initiative, but its difficult investment and M&A in European and American developed countries is important for the "Belt and Road" strategy. By analyzing and reflecting on the principal stages during the growth of East Asian transnational corporations, the international experience may be provided for Chinese enterprise to participate in global governance and successfully implement the Belt and Road Initiative.

Keywords Transnational Corporations (TNCs) · East Asia · Chinese enterprises · Confucian culture

1 East Asian Enterprises and Politics and the Culture of East Asia

The traditional Confucian culture in East Asia emphasizes the social ethics and social responsibility, clearly defines the code of conduct for enterprises and builds the model and philosophy of the development of traditional enterprises on the basis of solid social group ethics. This is reflected in enterprises' concern for employee welfare and loyalty, but it is neutral for larger social spaces and social groups that are not

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directly related. The behavioral patterns of enterprises and other social groups can only be demarcated through government legislation.

According to the understanding of the Confucian scholar Du Weiming, in terms of Weber's analysis of the industrial modernization of developed countries in the early stages and their leading role in industrial globalization, Weber's method is a description of a phenomenon, plus the method of affinity (namely correlation variable). If Weber's proposition is extracted, to put it simply, it can be said to be the superficial point of view, that is, Confucian ethics influence the economic development of industrial East Asia, or there is a "selective affinity" between Confucian ethics and the development of the industrial economy in East Asia. If the system is formulated by the government's strategy, for example, in the development of Taiwan, the framework for economic cooperation has played a particularly prominent role. Japan's Ministry of International Trade and Industry has also made significant achievements together with think tanks in all aspects of industry, trade and international development. Both the Hong Kong Trade Development Council and the Singapore Economic Development Board are worth learning. These countries and regions have connections with Confucianism, and the Confucian culture is connected with the Chinese and East Asians. It is not the fact that the Caribbean countries develop their economy after becoming adherents to Confucianism. Likewise, East Asians develop their economy without believing in Christianity. Large corporations in East Asian countries, especially transnational corporations (TNCs), have endogenous political attributes, and they are different from their counterparts in Western countries, where political entities participating in global governance are non-state entities with exogenous political attributes.

The transformation of a country from an authoritarian system to a democratic system will achieve different results due to the differences in the relationship between government and business organizations. Countries with rapid transformation often experience the painful struggle of tension in the political system and occasional "reverse growth", because "the mixture of excessive democracy and existing conspiracy in the relationship between government and business organizations often leads to more and more invalid decisions". The institutional traditions of East Asian countries have become historical burdens. The premature birth of democracy will lead to the paradox of more haste and less speed, but some developing countries with slow transformation demonstrate the existence of the "late-mover advantage" and successfully achieve a virtuous circle of political transformation and enterprise development. The relationship between government and business organizations in East Asian countries is generally like the swing of the pendulum. The more deliberately it is advanced, the more difficult it is to stabilize. Only after the exogenous impact and the endogenous political inertia achieve a mechanical balance can positive development be achieved.

Large conglomerates in contemporary East Asia are, to some extent, experiencing the path that Western countries have always taken. Just as at the beginning of the last century, many large groups in the United States controlled market resources and monopolized the market with power. The developmental history of the United States Steel Corporation, the Mobil Corporation and JP Morgan Chase, etc. were

strikingly similar. It is not surprising that the family attributes of large companies are universal in many countries. However, the highly centralized oligarchic “network” of companies has been fully-fledged in some developing countries of East Asia. For example, the Lopez family in the Marcos era has long dominated more than a dozen large companies in the Philippines such as the Manila Electric Company, SCAN, the Philippine National Power Corporation, the Philippine Telegraph and Telephone Corp, and the Lopez Foundation. The Philippine government in the era of Marcos fostered a number of new capitalists for rent-seeking purposes, rather than making companies more competitive on the international market. This enables large companies to play another role in the process of national transformation.

2 Political Role of East Asian Transnational Corporations

In some East Asian countries, especially the developing countries, the costs of social transaction are very high due to the transfer of large amounts of resources and efforts from the development of efficient industries to the political protection that can serve economic interests. TNCs in developed countries can provide multi-faceted financial support for the social development of developing countries. In the Philippines, the Manbog School in Manila is now the most important educational institution in the city. It used to be a dilapidated place that was often harassed by livestock and noise from surrounding farms. Children’s education was affected and there were security risks. In the 1990s, a US company invested \$9500 for construction and the situation improved a lot. With the rapid economic development in East Asia, the infrastructure projects and funding sources of East Asian countries gradually shifted from overseas countries to overseas institutions. In 2017, the Philippine government negotiated with the Asian Infrastructure Investment Bank (AIIB), and the AIIB was to provide the financial support for commencing the Manila Flood Management Project. The total cost of the project is 500 million US dollars, the AIIB and the World Bank were to provide the loans of 207 million US dollars, respectively, and the Philippine government was to take on the remaining 86 million US dollars of the cost.

Large TNCs known as “chaebols” or “zaibatsu” in East Asian countries continuously strengthen their political ties as an important business strategy. Gigantic “chaebols” or “zaibatsu” expand their scale at the expense of the interests of small and medium-sized enterprises. It is common knowledge that market liberalization and globalization can greatly reduce the phenomenon of capital rent-seeking, and thus restrict the power of the “chaebols” or “zaibatsu”, but that does not tally with the facts. For the four big “chaebols” in South Korea, namely Hyundai, Samsung, LG and Daewoo, their proportion of the GDP rose from 5.9% in 1986 to 9.3% in 1995.

The development of TNCs in East Asian countries does not benefit from their opening-up, but from the highly centralized state capital, thus gaining vitality through power rent-seeking or policy access. For example, in South Korea, big companies such as Samsung or Daewoo have the privileges of snatching state capital and influencing policies, so that the government basically serves the private interests of these

“chaebols”, but the society also benefits from the acquisition of employment opportunities and the improvement of social infrastructure. Rent-seeking is inevitable as long as one party, either business organizations or the government, occupy too many political resources. The tension between the process of the modernization of East Asian countries and the development of TNCs is suffering from the tearing pain in the violent swings.

At the intersection of international politics and domestic politics, and within constraints by domestic institutions and international pressure, leaders must deal with foreign governments on the one hand, and survive in domestic politics on the other hand, and there is also a need for introducing effective economic policies. The bigger share large-scale conglomerates have in the economy, the more likely it will be that they will intervene in the political policy, and the more likely they will exert influence on the government’s public power. They are different from small companies operating in a single sector with a low level of mixed operations. If it is likened to a spectrum, the individual handicraft is at one end, while Japan’s “zaibatsu”, South Korea’s “chaebols”, and the Philippines’ giant family businesses are at the other end.

Soon after the *Agreement between the United States of America and the Republic of the Philippines Concerning Trade and Related Matters during a Transitional Period Following the Institution of Philippine Independence* was signed in 1946, the *Philippine Trade Act* (also called the “*Bell Trade Act*”) proposed by Jasper Bell, the Chairman of the the Philippine Commerce Committee of the US House of Representatives became effective. This act had previously been passed in the Philippine Congress and the US Congress. The *Philippine Trade Act*, based on the extension of the free trade period and the principle of preferential treatment for the United States, prescribed that both the United States and the Philippines must maintain a “free trade” system after the independence of the Philippines, and the preferential trade rights were to be extended for 28 years until July 3, 1974. The *Bell Trade Act* conferred special treatment to US companies in the Philippines so that US-based Philippine TNCs controlled the Philippine domestic economy. TNCs from the Western countries often exert an implied or an express influence on the political situation of the host country with a strong ideological impact and an obvious orientation towards “universal value”. For TNCs based in East Asia, their home countries are basically in the process of development and transformation with relatively weak political cohesion and inadequate governance by the government, so the government is restricted by business organizations, so the business influence and interest orientation are purer and more distinct.

Similar problems exist in the transformation of large state-owned enterprises in Malaysia. The state-owned automobile manufacturing company PROTON, which was founded in 1983 by the “Father of Modernization” Mahathir, once occupied 70% of the domestic market, and this figure fell to 12.5% in 2016. Scholars indicated that the reason for the failure of industrialization lay in the fact that the state did not truly accept mechanisms for international technological innovation while they vigorously supported industries and large enterprises.

As a developed country in East Asia, Japan’s TNCs have their unique trajectory of development. However, they are in the East Asian Confucian cultural circle and reflect

many common aspects in competition on the global market. Many Japanese TNCs have the same problems in history. For example, the Sumitomo Bank and Honda were always punished by laws of the host country for gender and racial discrimination against their employees. Hitachi was investigated by the US Federal Bureau of Investigation for illegally acquiring IBM's trade secrets. A series of historical blemishes on Japanese companies prevented the establishment of Japanese government funds. The motorcycles produced by Suzuki were criticized by the American public for defects in their quality. Moreover, the Japanese transportation vehicle manufacturing industry has repeatedly been brought to court in the United States of America.

With the maturity of Japan's industrial society, the pressure from interest groups is growing, and Japanese companies are adopting more and more social projects. Some of these social projects are subtly linked to the economic activities of enterprises. The Japanese concept of social responsibility is narrower than that of Americans. This situation has always been the case in history and tradition and will continue in the future. In the view of Weber's understanding of the Protestant ethic and the spirit of capitalism, enterprises have obligations to resources, environment, industrial development, and social behavior, hence trade unions should be enhanced to check and balance large enterprises through political interest groups. Therefore, it can be understood that the expansion of large-scale enterprises in Europe and the United States of America has always been accompanied by the growth of trade unions, and the trade union movements have become an important barometer in the party politics of the United States of America.

3 Shortcomings of Chinese Enterprises and the International Participation of TNCs

How to earn the recognition of local countries under the existing international rules and achieve a win-win situation, especially operations in compliance with local regulations and policies of the host country, is an important threshold for Chinese enterprises to successfully go global. Avoiding risks in the rule interfacing by a perfect system of management and management culture is an embodiment of the competitive advantage of modern global enterprises and the "soft power" of TNCs.

The China National Chemical Corporation acquired Krauss Maffei in 2016 at a price of 925 million euros. The German company with a history of 180 years and over 5000 employees retained its headquarters in Munich, and executives kept their core technologies in the company. They planned to rely on Chinese investment to continue their growth on the Chinese market and other international markets. The "Made in China 2025" strategy greatly increased China's overseas investments and turned the ever unidirectional growth of capital and technology flow to China into bidirectional development. In addition to large state-owned enterprises, private enterprises also achieved overseas growth under the vigorous promotion of the Chinese government.

Chinese enterprises gradually became active for international M&As in recent years. Midea acquired KUKA, a robot manufacturer in Augsburg, Germany, at the price of 4.5 billion euros. GEELY acquired 10% of the shares of Daimler, and Putzmeister, KION Forklift Truck Group in the heavy industry and Hauck & Aufhäuser in the financial sector were acquired by Chinese capital. Capital flows have their own rules, and the international landscape that “the East is rising and the West is declining” is also accompanied by the flow of capital itself. Developing a country’s market can be accelerated if there is an inflow of capital into the country. This is an important reason for the international capital outflows from developed countries to developing countries. For example, the development of the German company PREH on the Chinese market was supported by its Chinese shareholders. Traditional TNCs have evolved into global corporations in the process of economic globalization. Their competition evolves from pure market competition to competition for the dominance on the global value chain, and the mode of competition has changed. TNCs need to learn and master international rules as the governments of different countries demand strict adherence to regulations, and international organizations participate in governance.

The ZTE incident in April 2018 showed that large TNCs in developing countries lack the awareness of rules in participating in leading international markets and exposed their shortcomings in core technological capabilities. Although it was investigated by the US government, ZTE still did not handle it cautiously and failed to take the opportunity to block its management loopholes. The uncooperative attitude led to stricter export control over the company and ultimate losses. The information disclosed by the Bureau of Industry and Security (BIS) under the United States Department of Commerce had adequate evidence of ZTE violations. Although ZTE’s independent technologies developed rapidly, some key components with high technical content still relied on foreign suppliers. For example, the core components, such as the high-speed optical communication interface purchased by the global value chain of ZTE, were banned by the United States of America in accordance with export control regulations. Production was unsustainable, and this forced ZTE to reconcile with the judicial authority of the United States of America. Compared with the ZTE incident, a more successful case was GEELY’s wise move to abandon the sale of 1500 cars to Iran, so it was not sued by the US government with the excuse of international laws. It is important to note that TNCs must abide by the rules of globalization and enhance their awareness of creditworthiness and rules. The improvement of the internal mechanisms and the connection with the laws and regulations in the host country are major tasks besides market development and technology research and development. It is a must-learn to follow the market rules of the host country while effectively participating in the commercial system.

The government of the home country should encourage the compliant operations of domestic companies. The regulation of TNCs around the world is constantly strengthening. The World Bank, the UN Global Compact, the International Organization for Standardization, and other specialized international organizations are setting standards and rules for the mechanisms of credit reporting of TNCs. Many developed countries, with the UK Bribery Act and the US Foreign Corrupt Practices

Act as examples, have established perfect regulations and punitive measures for the overseas operations of large TNCs. Not only in China, but throughout East Asia, is the government's influence on companies enormous. The government must first give priority to social development and national transformation, and meanwhile, take active and effective measures to promote the overseas standardized management of TNCs.

4 Conclusions

The shortcomings faced by Chinese TNCs in their "going global" are mainly reflected in three aspects. First, large-scale cross-border M&A projects are still dominated by foreign banks, and Chinese institutions are marginalized. Second, the particularity of the overseas legal environment determines that some cross-border projects need to use foreign institutions to solve legal issues. Third, due to the differences in the culture and traditions between China and the countries where M&As are located, the integration of corporate culture afterward faces challenges.

China's overseas investment in developing countries has successfully demonstrated the idea of the community with a shared future for mankind with mutual benefit, but its difficult investment and M&As in European and American developed countries is important for the Belt and Road Initiative. The "Indo-Pacific Strategy" proposed by the United States of America in conjunction with Japan, India and Australia intended to shape a four-sided mechanism against the Belt and Road Initiative. Although China's large state-owned enterprises still play a dominant role, private enterprises are gradually growing and become important in overseas M&As. Large Chinese enterprises are going global and they have gone through four stages in overseas M&As. It was the budding stage from the 1980s to 2000. At this stage, there were few M&As and only traditional industries such as petroleum and chemicals were positive. The starting stage lasted from 2001 to 2007. During this stage, the M&A entities became more and more diversified with increasingly concentrated industries, broader geographical locations and expanding scales from manufacturing to high-tech and new services. The period from 2008 to 2013 was a stage of rapid development. During this stage, private enterprises began to occupy an important position with more diversified industries and the rapid rise of the financial sector. Private enterprises were concentrated in the manufacturing sector, state-owned enterprises in traditional sectors such as electricity and mining, and the financial sector was mainly reflected by insurance and banking. It has been a stage of rapid development from 2014 until now. During this stage, a large number of technologies, products, concepts and models created by China have developed rapidly towards overseas markets, and the industries involved have become more and more diversified.

As a participant in the global market, the cross-border M&A models of Chinese enterprises are in the process of gradual transformation. In the past, mainly large state-owned enterprises from China participated in overseas investment and cross-border M&As, with the principal target being the energy sector. After 2013, large

state-owned commercial banks became active. As of the end of 2017, ICBC has supported 212 cross-financial financing projects along the route of the “Belt and Road” with cumulative loans of 67.4 billion US dollars. The participation of many small and medium-sized private enterprises also expanded rapidly from the energy sector to the introduction of technology and the service sector.

The successful implementation of the Belt and Road Initiative requires countries along the route, including participating entities, to reach a consensus and have common rules for compliance. The success of the Belt and Road Initiative requires not only the outflow of capital and production capacity from China, but also the output of rules and the Chinese culture, so that TNCs can embody the Confucian ideas possessed by Confucian culture. The historical process of TNCs in both East Asia and developed countries have proved that “going global” is confronted with the impact of laws and rules and the collision of cultures and traditions. Weber attempted to solve this problem with the “Protestant ethic and the spirit of capitalism”. However, the East Asian culture, especially the Confucian cultural circle, needs to find another way to realize the “great world” by “different routes to the same destination”, which is also the meaning of the community with a shared future for mankind interpreted by the Belt and Road Initiative.

Chapter 4

Special Economic Zones and the Selection of China's Path for Institutional Changes



Yitao Tao

Abstract Special economic zones, as the breakthrough points for the Chinese reform and opening-up, began the journey of exploring the path of China's institutional changes. They constitute an imposed institutional arrangement that breaks the status of balance under the traditional system and makes the unbalanced development the best path selected for China's institutional changes. The brilliant achievements of typical special economic zones represented by Shenzhen embody the “backwash effect”, the “spread effect” and the “trickle-down effect” in the traditional theory of regional economics by the “Chinese” mechanism in a “non-classical” manner, and interpret the unique path of China's institutional changes. The transition from typical empirical special zones to special economic zones in a broad sense and then to the establishment and formation of free trade zones and bay areas, which are the extended forms of special economic zones, is the result of organically integrating “gradient development” and “reverse gradient development” and the harvest of institutional changes. The trajectory of the institutional changes reflects the internal logic of special economic zones and institutional changes, and constitutes the theoretical mechanism.

Keywords Special Economic Zones (SEZs) · Institutional change · Unbalanced development · China's path

1 Introduction

Thinking and research on the special economic zones and China's selection of a path for institutional changes is not only a reflection on the process of reform and opening-up over the past 40 years, but it is also a study of China's path of modernization and a theoretical and practical exploration of the inherent logical relationship between special economic zones and China's path, because the difficult and glorious course that China has undergone over the past 40 years of reform and opening-up is a process

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of changing from a traditional planned economy to a socialist market economy, from pervasive poverty to common prosperity and from closing the door to the outside world to full policy and institutional opening-up, and what's more, a great and beautiful journey to build a moderately prosperous society in all respects and realize the Chinese dream. This not only begins with the establishment of special economic zones, but it also constitutes the evolutionary trajectory of China's institutional changes.

If exploring a path to modernization that suits the national conditions of China was the historic responsibility and mission of the Communist Party of China (CPC) in the 40 years of reform and opening-up, then the establishment of special economic zones can be said to be a great creation for practicing the great exploration by the CPC. In my opinion, from the perspective of the historical process of China's institutional changes and the formation of China's path, it is no exaggeration to speak very highly of special economic zones. For today's China, the special economic zone itself is neither simply a product of special policies, nor an expedient measure, but a logical starting point for China's institutional changes and China's path. It constitutes an important part of China's path. It can even be said that without the establishment of special economic zones, there would be no practice of China's reform and opening-up; without the "early and pilot implementation" of special economic zones, there would be no selection of a path for China's institutional changes; without the practice of special economic zones, there would be no exploration of China's path; without the demonstration and guidance of special economic zones, there would be no development and accumulation for building a moderately prosperous society in all respects; without the expansion and innovation of special economic zones, there would be no solid institutional and material power to realize the Chinese dream. Therefore, from the perspective of the political background at the beginning of China's reform and opening-up, special economic zones are undoubtedly the only path for China to undertake in order to realize transformation from the traditional planned economy to a socialist market economy, and thus launching the social transformation in all directions; from the perspective of the exploration of the path to modernization, special economic zones are undoubtedly the only path to take to avoid the conflict between ideals and reality, and thus achieve socialism with Chinese characteristics of common prosperity; from the perspective of the selection of China's path for institutional changes, special economic zones are undoubtedly the only path to take to break the rigid traditional system and ideological dogma in a country where the traditional ideology has always dominated, and thus completing the social transformation and institutional changes from top to bottom; from the perspective of developmental strategy, special economic zones are undoubtedly the only path to take to truly abandon the blindness that "man can conquer nature" and the absurdity that "we prefer socialist grass to capitalist rice" in a country where the "ultra-leftist" ideology has always dominated, thus embarking on scientific development in the form of unbalanced development and the practice of "progressive reform".

In the *Theses on Feuerbach*, Karl Marx pointed out: "The question whether objective truth can be attained by human thinking is not a question of theory but is a practical question. It is in practice that man must prove the truth, that is, the reality and power,

the this-sidedness of his thinking... Social life is essentially practical. All mysteries which lead theory astray into mysticism find their rational solution in human practice and in the comprehension of this practice... The philosophers have only interpreted the world, in various ways; the point, however, is to change it.” (Marx & Engels, 2012a). In my opinion, when reviewing, summarizing and thinking about the great course of China's 40 years of reform and opening-up, the study of Chinese special economic zones (SEZs) cannot simply talk about them or stay at or be confined to the study of SEZs themselves. Rather, from the perspective of China's history of reform and opening-up, SEZs should be put under the framework of China's institutional changes, in the process of formation, development and improvement of the socialist market economy, and on the journey of exploring China's path in the new era. From the perspective of historic evolution, the irreplaceable status, function and unique historic mission of China's SEZs are evaluated; from the clue of institutional changes, the intrinsic link between SEZs and the selection of China's path for institutional changes is interpreted; from the inherent logic of institutional changes in the transitional society, the particularity of China's path and the generality contained in that particularity is demonstrated, and thus further providing an alternative choice for other transition countries. Let history prove history and let history foretell the future.

2 Establishment of Special Economic Zones and the Initiation of China's Path

China's institutional changes with the establishment of the socialist market economy as the main line have constituted the arduous and splendid process of the emergence, growth and development of SEZs. The practice of reform and opening-up of the SEZs in China, represented by Shenzhen as a typical example, has not only explored an effective path for institutional changes suited to China's national conditions, but it has also revealed a unique path of modernization with Chinese characteristics. With the selection of the correct path and the glory of development, it has promoted the establishment, development and improvement of China's socialist market economy, advanced the historic process of social transformation, accelerated the pace of modernization, and proved the correctness of China's path.

The “special zone” refers to a region where special policies are implemented. Along the historic track of China's reform and opening-up, special economic zones (SEZs) can be broadly divided into four types: typical special economic zones, special economic zones in a broad sense, emerging special economic zones, and extended forms of special economic zones. The typical special economic zones are also called early special economic zones, and this mainly refers to the cities that were established at the early stage of China's reform and opening-up, deployed as the overall

national strategy and specifically delineated at the national level, and fully implemented special economic policies and special administrative and economic management systems with specific functions and specific missions. They mainly include early comprehensive special economic zones such as Shenzhen, Zhuhai, Shantou, Xiamen and Hainan. This type of special economic zone is the focus and main subject of this study. Because both in history and reality, they are truly the initiators of China's institutional changes, pioneers of reform and opening-up, forerunners of the socialist market economy, explorers of China's path, and trailblazers of the process of modernization.

The special economic zones in a broad sense refer to the forms of special economic zones with specific pilot functions approved by the State Council after the establishment of the typical special economic zones, including national new areas, national high-tech zones (technical parks), bonded areas, export processing zones, bonded logistics parks, bonded port areas, comprehensive bonded areas and national comprehensive reform pilot areas. This type of special economic zone is also the product of special economic policies. Their functions and missions are also to break the shackles of the traditional system and advance the reform and opening-up of China, thus gradually forming a new landscape for the market economy. However, compared with typical special economic zones, they are not cities of independent administrative divisions, but relatively independent and specific areas within cities of independent administrative divisions; unlike most of the special economic zones, which have the centrally-recognized separate state planning and independent legislative powers, they are still administratively affiliated to cities; their missions of reform and opening-up are mostly more specific and specialized, rather than comprehensive and all-around; they, to a considerable extent, implement, validate, complete or improve the concept and measures of a certain matter of reform and opening-up in the country, and will also innovate and create in practice, but most of them are different from typical special economic zones, which were born with the mission of early and pilot implementation and give demonstrations to the whole country. Then, the statuses and roles of special economic zones in a broad sense in the process of China's reform and opening-up are also different. The Shanghai Pudong New Area and the Tianjin Binhai New Area are not only the earliest state-level new areas, but they also have a more important position in the process of China's reform and opening-up, especially the Shanghai Pudong New Area, which shares very similar functions and roles with typical special economic zones. They are often referred to as the "five plus two" special economic zones with typical special economic zones.

Generally speaking, although special economic zones in a broad sense do not have the mission of early and pilot implementation and take the lead in institutional innovation, they play an indispensable role in the process of China's gradual institutional changes. Their existence and practice constitute the realistic content and developmental content of China's path. In this sense, they should not only be written into the more complete chronicles of the emergence, development, and evolution of Chinese special economic zones, but they should also be written into the history of China's reform and opening-up and the process of exploration and practice of China's path.

The emerging special economic zones mainly refer to the Xinjiang Kashgar Special Economic Zone and the Khorgos Special Economic Zone established at the beginning of this century with the overall layout plan of China's reform and opening-up expanded from the opening up of the coastal area to the implementation of the opening-up strategy along the border. They are SEZs approved by the central government to be given the names of cities after typical special economic zones at the early stage of the reform and opening-up. Their actual scope is neither like typical special economic zones nor cities with their name, and there are also rumors about the recognition of their status as SEZs. However, they not only exist in reality, but they are also shaping policy highlands and growth poles of regional economies in terms of the functions of special economic zones and regional coordinated developmental strategy. Meanwhile, in the implementation of the Belt and Road Initiative, they are building a new landscape for China's regional economy with irreplaceable geographical advantages.

The extended form of the special economic zone refers to pilot free trade zones and bay area economic belts. It can be said that the establishment of the pilot free trade zones and bay area economic belts does not mean the end of the functions and missions of SEZs, but the natural results of the establishment, development and improvement of the socialist market economy by means of constructing SEZs, the inevitable trend to gradually realize the social transformation and institutional changes by means of constructing SEZs, the gradual harvest to achieve the unbalanced developmental strategy by means of constructing SEZs, the successful practice of exploring China's path by means of constructing SEZs, and the extended form of SEZs that undertake the new mission of reform and opening-up in the new era. Therefore, the free trade zone of China is said to be the most important action taken by the government for the purpose of building an upgraded version of China's economy. Its influence and significance are comparable to the establishment of the Shenzhen Special Economic Zone in the 1980s and the development of Pudong in the 1990s. The core lies in the creation of an international business environment that conforms to international common practice and is internationally competitive for both domestic and foreign investments (Huang, 2017). The formation of the bay area economic belt is the result of the development of SEZs from the "aggregation effect" to the "radiation effect". They not only reflect the overlapping of the triple "identity" of special economic zone, free trade zone and bay area in the political-geographical location, but they are also like typical special economic zones as the early and pilot implementation in the manner of institutional innovation also historically becomes their mission of the times.

Two historic meetings could not be ignored when it came to China's reform and opening-up. The first meeting was the 36-day CPC Central Work Conference held in Beijing from November 10 to December 15, 1978. It was historically known as the "Jingxi Conference". On December 13, 1978, Deng Xiaoping made an important speech entitled "Emancipate the Mind, Seek Truth from Facts, and Unite as One in Looking to the Future" at the closing ceremony. According to him, emancipating the mind was a vital political task, democracy was a major condition for emancipating the mind and solving old problems would facilitate the shift of the focus of the whole

party and looking to the future, so we must study the new situation and tackle the new problems (Deng, 1994). This speech actually became the basic guiding ideology for the upcoming Third Plenary Session of the 11th CPC Central Committee. Therefore, the “Jingxi Conference” was not only ideologically prepared for the convening of the Third Plenary Session of the 11th CPC Central Committee, but it also became a historic meeting for the reform and opening-up of China.

The second meeting was the Third Plenary Session of the 11th CPC Central Committee held three days after the “Jingxi Conference”. From December 18 to 22, 1978, the Third Plenary Session of the 11th CPC Central Committee was held in Beijing. The plenary session clearly proposed to: completely negate the “Two What-ers”, re-establish the ideology of emancipating the mind and seeking truth from facts; stop using the slogan “taking class struggle as the key link” and firmly made the great decision of shifting the focus of the party and the state to economic construction and adopting the policy of reform and opening-up (Deng, 1993a). It could be said that the Third Plenary Session of the 11th CPC Central Committee officially ushered in the new historic period of reform and opening-up, and its influence on today’s China was far-reaching and historic. In this regard, the Report to the 17th CPC National Congress made an accurate and incisive statement when reviewing and summing up the great historic process of reform and opening-up in the 29-year period during which the Third Plenary Session of the 11th CPC Central Committee fundamentally broke through the ideology of “leftism” and clearly pointed out that the scientific system of the Mao Zedong Thought must be fully and accurately grasped. The strategic decision was made to re-establish the Marxist ideological, political and organizational lines, and shift the focus of the party and the state to socialist modernization and to reform and opening-up. The central leader delivered a famous speech entitled “Emancipate the Mind, Seek Truth from Facts, and Unite as One in Looking to the Future” at the Central Work Conference held before the Third Plenary Session of the 11th CPC Central Committee. In his speech, an important argument was made, namely “when everything has to be done by the book, when thinking turns rigid and blind faith is the fashion, it is impossible for a party or a nation to make progress; its life will cease and that party or nation will perish”, which represented the great awakening of the Chinese Communists in the new era (Deng, 1994). It could be said that under the guidance of the ideological line of emancipating the mind and seeking truth from facts re-established by the Third Plenary Session of the 11th CPC Central Committee, hundreds of millions of Chinese people broke through many old ideas that had long controlled the minds of the people, they shook off a lot of shackles and confinements in their minds, invigorated the great spirit of innovation and made brilliant achievements in development that attracted the attention of the entire world; under the basic judgment of the Third Plenary Session of the 11th CPC Central Committee that rejected “taking class struggle as the key link”, the party and state shifted their focus to economic construction, and in the process of reform and opening-up, hundreds of millions of Chinese people created and continued to create a vibrant type of socialism; under the guidance of the correct developmental direction established by the Third Session of the 11th CPC Central Committee, the Chinese Communists opened up a new realm of Marxism in China

while exploring the practice of socialism with Chinese characteristics, they won the support of the people and became the strong leadership core of the cause of socialism with Chinese characteristics (Wang & Lin, 2008). As pointed out by Marx, "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past." (Marx & Engels, 2012b). Following the track of 40 years of reform and opening-up, along the exploring trajectory of China's path, we can make the following judgments on the statuses, roles, functions and missions of the SEZs in the process of China's reform and opening-up:

First, SEZs are a breakthrough for China's reform and opening-up while going on a journey of exploring China's path for institutional changes. Since then, China's modernization has embarked on a path towards development with Chinese characteristics that is different both from the traditional Soviet model and from the capitalist Western model, and that is also different from the "Washington Consensus" adopted by the former socialist countries in Central and Eastern Europe and Latin American transition countries.

In the modern and contemporary history of China, the special economic zone was an epoch-making symbol of reasoning and passion, thinking and exploration. It marked the end of an era and the beginning of another era, the transformation of China from a traditional planned economy to a socialist market economy, the official opening of the country that was confined for 30 years, the coming of the emancipation of the mind and the renewal of ideas, and a big country on the brink of economic collapse truly taking the right path of "development is the absolute principle". Therefore, to the founders, the special economic zones were not only the product of poverty giving rise to a desire for change, but also the product of challenging the "truth" and the tradition and conducting a self-revolution. Its success and future could not be predicted at once, but the political risks and social unrest that it possibly caused seemed to be predictable then. For this reason, from January 24 to February 10, 1984, when visiting the Shenzhen, Zhuhai and Xiamen SEZs, Deng Xiaoping pointed out that: "The special economic zone was proposed by me and decided by the central government, so I must take a look at whether it can be successful." (Party Literature Research Center of the CPC Central Committee (ed.), *Chronicles of Deng Xiaoping*, 2004a). Thus, in February 1979, Wu Nansheng, the then Secretary of the Guangdong Provincial Party Committee proposed that Guangdong should pilot in Shantou because it had experience in foreign economic activities, and because it was located in the eastern part of Guangdong, the influence would not be great if something went wrong (Wu, 1998). At the Work Conference of the CPC Central Committee held in Beijing from April 5 to 28, 1979, Xi Zhongxun, the then First Secretary of the Guangdong Provincial Party Committee, requested the central government to decentralize some powers so that Guangdong could take the lead. Deng Xiaoping answered: "The central government will not make any investment, and you may blaze a trail on your own!" (Party Literature Research Center of the CPC Central Committee, 2004b).

Looking back on the 40 years of reform and opening-up, the epoch-making significance of the special economic zones is not only the political wealth that can be

recorded in the history of China's reform and opening-up, but also the institutional power to create history and work miracles. For example, the early and pilot implementation and continuous institutional innovation of typical special economic zones bring infinite life and vitality to the gradual realization of all-round reform and opening-up; the universal establishment and successful practice of special economic zones in a broad sense boost the development and improvement of the socialist market economy, and show the release effect in the process of gradually solving the imbalance of regional economic development; the approval of emerging special economic zones, and the establishment of free trade zones and bay areas as the extended forms of special economic zones can further deepen the reform, build a new landscape for the Chinese economy, gradually solve and even eliminate the state of inadequate and unbalanced social development, and thus play the role of demonstration in undertaking the new mission of leader in the new era.

Second, the special economic zone, as an imposed institutional arrangement, broke the general balance under the traditional system and made the unbalanced development the best path for China's institutional changes, thus becoming a choice for exploring China's path. It was the path towards unbalanced development that enabled China, a large country that had adopted a highly centralized planned economy for 30 years, to quickly and successfully make a transition to a socialist market economy marked by "some regions and some people getting rich before the others". As a product of the path towards unbalanced development, the special economic zone and unbalanced development made up important parts of China's path.

If the absolute dominance of the centralized planned economy in a country with a vast territory and a large population was the background of China's reform and opening-up, the pervasive poverty and the seriously unbalanced economic development among different regions and between urban and rural areas were the most serious constraints in China's institutional changes. The development of the socialist practice in the past three decades full of twists and turns, especially the status of the Chinese economy in the late 1970s, clearly proved that the Soviet model did not work, nor did the planned economy; egalitarianism did not work, nor did balanced development; the large-scale reform did not work, nor did the original system. In a backward large, poor country bound by a planned economy, faced with a highly centralized planned economy and the corresponding egalitarian distribution system, the only path was to break various internal defects and blaze new trails to venture down the path of unbalanced development. This path of unbalanced development was what Deng Xiaoping meant in 1985 when he said that "we should encourage some regions and some people to get rich before the others" (Deng, 1993b).

The practice of 40 years of reform and opening-up proved that the path of unbalanced development was a correct choice. Its implementation could effectively get rid of the shackles of the traditional system, and make full use of the developmental imbalance that existed within the original system. The weakest points of the planned economy were most likely to be where the market economy grew. The reform and opening-up 40 years ago began with the creation of oases of a market economy in the vast ocean of a planned economy. Shenzhen, Zhuhai, Shantou and Xiamen, being the weakest points of the planned economy, became those oases by virtue of their

advantageous geographical location (either as neighbors to Hong Kong and Macao, or because they were far from the center of the planned economy). These regions were not important cities of the planned economy and were far away from political centers. In case of failure, there would be no serious impact on the national economy. For this reason, they became fertile grounds for China's reform and opening-up. This was a choice that could reduce political risks and reform costs, and it was also a choice full of political intelligence and suited the national conditions of China. Therefore, as a top-down formal institutional arrangement, the special economic zone not only greatly lowered resistance of the dominant traditional ideology against institutional changes and reduced the cost of institutional innovation under the dominance of the traditional system, but it also successfully circumvented the various risks and violent social unrest that the reform and opening-up might cause, so that the performance of institutional changes could quickly emerge in the short term and be effectively demonstrated throughout the country. From January 24 to February 10, 1984, when visiting Shenzhen, Zhuhai and Xiamen, Deng Xiaoping wrote that "the development and experience of Shenzhen prove that our policy of establishing special economic zones is correct"; the "Zhuhai Special Economic Zone is good", and "the special economic zones must be operated faster and in a better way" (Deng, 1993c).

On February 24th, Comrade Deng Xiaoping pointed out when talking with the central leaders that "the impression Shenzhen leaves me is one of prosperity" (Deng, 1993c). On June 12, 1987, Deng Xiaoping said when meeting with foreign guests that: "Comrades from Shenzhen told me that more than 50% of the industrial products are exported, and foreign exchange receipts and payments can be balanced. Now I can boldly say that our decision to establish special economic zones was not only correct but also successful. All doubts can be cleared up." (Deng, 1993d). In the early spring of 1992, in the famous "Southern Tour Speech", Deng Xiaoping put forward the following requirements for special economic zones: "We should be bolder than before in conducting reform and opening up to the outside world and have the courage to experiment. We must not act like women with bound feet. Once we are sure that something should be done, we should dare to experiment and break a new path." (Deng, 1993e). At the 14th National Congress of the Communist Party of China held in Beijing in October 1992, it was clarified that the goal of the Chinese reform was to establish a socialist market economy. The formation of this historic judgment was inseparable from the successful practice of special economic zones and the effective implementation of the strategy of unbalanced development. It could even be said that without such a successful practice, it would not be possible to make such a historic judgment.

It is worth noting that the unbalanced development, as the choice for China's path towards institutional changes and an important part of China's path, does not simply have the connotation of unbalanced development in the Western regional economics represented by Karl Gunnar Myrdal and Albert Hirschman, but a logic of and a path towards development that contains the theory of regional economic growth and reflects the national conditions of China. First, in a considerable period at the early stage of reform and opening-up, the resources were not input to regions and industries with a high degree of efficiency as indicated by the classical theory, but first of all, the

economically backward regions were selected because they were weak in the planned economy with low resistance and a low cost of reform. Second, the resources invested were not tangible funds, technology or other scarce production factors, but special policies on production factors that look forward to attracting and driving economic startup and development. Third, the theoretical logic of the rapid economic growth of regions input with more resources driving the development of other regions, in the process of China's unbalanced development, is reflected more or mainly as the result of special policies and the courage to reform, especially at the beginning of the reform and opening-up. The "aggregation effect" and the "spread effect" that drive regional development are manifested as the effects of special policies on the one hand, and the potential and institutional power interacting with special policies and continuously promoting and reshaping the reform and development on the other hand.

After 40 years of reform and opening-up, when looking back on the special economic zones from the perspective of institutional arrangements, and introducing the unbalanced growth into our research horizon, the SEZs are not only the product of special policies, but also a path suitable to China's national conditions and institutional changes with Chinese characteristics. Judging from the historic evolution of China's reform and opening-up, the affirmation of special economic zones is a complete denial and subversion of the ultra-leftist trend of "taking class struggle as the key link". It is an affirmation of the historic significance of the ideology that "development is the absolute principle", the theoretical recognition of the choice of China's path for institutional changes and the reflection of the absolute confidence in that path.

Third, the special economic zones, as a top-down formal institutional arrangement, constitute an important practice model for China's progressive reform under the concept of "crossing the river by feeling the stones", and the "early and pilot implementation", "taking the lead in demonstration" and "bold to pioneer" constitute the important connotations and quality of this important model of practice. If unbalanced development is a mode of development when confronted with constraints, then progressive development is a developmental step when confronted with constraints. As two aspects of mutual support and mutual promotion in the same process of reform, they can jointly guarantee the natural occurrence of induced institutional changes dominated by imposed institutional changes in the course of China's reform and opening-up; the steady transformation from local to whole; the effective combination of reform within the system and outside the system; the marketization of the economy and the progressive occurrence and realization of the reform in all aspects; and the mutual coordination of reform, development and stability; thus proving the practical value and practical significance of China's path by the practice of reform suited to the national conditions of China.

China's reform and opening-up has the basic characteristics of "progressive reform", and meanwhile "progressive reform" constitutes a distinctive feature of China's institutional changes. "Progressive reform" is dominated by imposed institutional changes with induced institutional changes as potential; the economic reform as the entry point, all-round reform as the direction; economic development as the

focus, growth in all aspects as the goal; unbalanced development as the path, and coordinating and shared development as the aim. This logical line of the reform basically reflects the evolutionary trajectory of China's institutional changes.

In theory, the "progressive reform" is a market-oriented reform based on industrialization and a socialist constitution in a country where the macroeconomy is relatively balanced and stable. It highlights the fact that countries undergoing reforms make full use of the resources of existing social organizations, especially the state power, to initiate and advance the reforms. It has the characteristics of transitional and imposed inductiveness of the double-track transition and shows the distinctive features of the reform from local to overall, and reform in the system and promotion outside the system, coordination of reform, development and stability, as well as the advancement of the reform of the political system by the pilot market-oriented economic reform (Wang, 2002), and "early and pilot implementation" is the most vivid expression and practice of China's "progressive reform".

It can be said that "early and pilot implementation" is the "innate" character that transitional China has given to special economic zones, the "privilege" in policies that imposed institutional changes have given to special economic zones, the "priority" to reform with wisdom and courage that the strategy of unbalanced development has given to special economic zones, the "trial" accompanying risks and costs that the progressive reform and opening-up has given to special economic zones, and the reason why the special economic zones can be invigorating all the time. Forty years ago, the Shenzhen Special Economic Zone took the lead in the great and arduous practice of the socialist market economy with the "privilege" policy of "early and pilot implementation". Under the banner of "early and pilot implementation", the Shenzhen Special Economic Zone not only output the most fundamental concepts and practices of a market economy, such as the law of value, market competition, labor and commodity, and stock dividends to the whole country, but it also shouted the slogans of "time is money" and "efficiency is life" loudly in China.

The main functions of special economic zones aim at taking the lead in realizing, demonstrating and completing the construction of a socialist market economy in a planned economy, and promoting the universal establishment of a socialist market economy throughout the country. However, special economic zones, as China's choice of a path for institutional changes, must not only facilitate the formation of a socialist market economy with its own practice, but it must also improve the socialist market economy with its own development, thus advancing China's reform and opening-up towards in-depth development. Therefore, as China's great cause of reform and opening-up deepens, with the great expectations of people for more profound institutional changes to China, the "early and pilot implementation" has been continuously given the deeper and broader connotations of the times and the missions to deepen the reform. For example, with the courage, wisdom and strategy of "daring to be the first", SEZs explore and practice the social institutional environment, operational regulation and legal system that adapt to a socialist market economy; they explore and practice the routes to deepen the reform of the political administrative system, build the social security system benefiting all people, and construct the mechanism for social innovation that reflects incentives and efficiency;

moreover, they explore and practice the routes towards transforming the economic growth model, achieving sustainable development and accomplishing the supply-side reform as well as exploring and practicing the new measures to maintain their leading role in building a moderately prosperous society in all respects, speeding up the construction of an innovative country, expediting the improvement of the socialist market economy, promoting the formation of a new pattern of opening up in an all-around way, and comprehensively realizing modernization, thus continuing to be the “pioneers” for deepening the reform and opening-up of China in all aspects. “Early and pilot implementation”, as the operational path for the “progressive reform” or institutional changes of China, drives the realization of the top-down imposed institutional changes and boosts the conscious experiment and practice of institutional innovation in leading regions, that is, the natural occurrence of the induced institutional changes dominated by imposed institutional changes. Also, the “early and pilot implementation” ensures that the institutional changes and social transformation progress steadily from local to overall, and it also shapes the performance-based model of institutional change combining imposed and induced institutional changes.

As stated above, the special economic zone in China is by no means a temporary economic phenomenon, nor simply a product of special policies, nor a stopgap. As a product of special policies, it accomplishes the mission of exploring and demonstrating the transformation of China from a planned economy to a market economy; as an institutional arrangement, it is the best path to have chosen to achieve social transformation at a minimum cost in a large country with unbalanced development; as an important practice model of progressive reform, it reduces the risk of China’s reform and opening-up and improves the performance of institutional changes; as an important part of China’s path, with the agglomeration and radiation effects of regional economy, it continuously changes, improves and shapes the new landscape of the Chinese economy and becomes a “shortcut” with institutional performance to modernize China.

A special economic zone is not just a city. It is an explorer of the path of China’s institutional changes, a pioneer in the construction of a socialist market economy, and an indispensable component of China’s path. The formation of China’s special economic zones is far greater than the formation of a city; the growth of special economic zones is more significant than the growth of a city; the development of special economic zones is far more important than the development of a city; the influence of special economic zones is far beyond the influence of a city. Only by putting the understanding of and research on special economic zones in the historic process of China’s reform and opening-up can we explain, get to know and comprehend the unique roles and missions of special economic zones, and then we can find the evolutionary path of China’s institutional changes, discover the theoretical mechanism of China’s path, figure out the driving force behind the “Chinese miracle”, and make it clear why special economic zones can provide a replicable developmental path for China’s institutional changes in a path-dependent manner.

3 Unique Status of the Shenzhen Special Economic Zone and the Comparison of Domestic and Foreign SEZs

As the most typical and successful special economic zone, the Shenzhen Special Economic Zone (“Shenzhen SEZ”) has made tremendous historic contributions to China’s reform and opening-up. After 40 years of reform and opening-up, the Shenzhen SEZ, with the double identity and status of free trade zone and bay area, still plays a prominent role in leading the important institutional innovation in the process of deepening the reform of China. The vitality of special economic zones stems from the correct choice of path for China’s institutional changes, the institutional performance of the strategy of unbalanced development, the scientific nature of the practice model of the progressive reform and the vitality of China’s path itself. The successful practice of China’s special economic zones, represented by Shenzhen, not only directly boosts the effective implementation of the opening-up strategy from coast to border areas, but also continuously builds the new landscape of the Chinese economy in a manner of unbalanced development.

According to some scholars, Shenzhen, as the most typical and successful special economic zone, made four historic contributions to China’s reform and opening-up. First, it took the lead in exploring, demonstrating and practicing the socialist market economy and contributed a “new system” to Chinese economic development—a socialist market economy, which provided a basic guarantee for China’s reform and opening-up and institutional changes in terms of institution-ideology. Second, with its development and success, it validated a “new path” for the modernization of China—China’s path, so that China began to change from pervasive poverty to the goal of common prosperity by adopting the strategy of unbalanced development. Third, the “pilot” practice and the courage of being “dare to be first” provided a “new spirit” for advancing the process of China’s reform and opening-up—dare to innovate, thus expediting the revolution that renewed the mind of hundreds of millions of people and encouraged the formation of the mind suited to a socialist market economy and the new culture of reform and innovation. Fourth, the wealth of taking the lead in development and the achievements guiding the reform and opening-up of China proved a truth—the free development of human beings was the content and goal of social development; the creativity of each citizen was not only the source of social development, but also the driving force behind realizing the Chinese dream; deepening the reform was not only a path for China to achieve modernization, but also a path to realize the Chinese dream (Su & Zhong, 2010).

First, the development of the Shenzhen SEZ was a process full of creations and miracles, which continuously adjusted developmental strategies, optimized the industrial structure and transformed the model of economic development during trial and error and exploration, and explored the transition from a traditional planned economy to a socialist market economy, from an economically growing society to a welfare society being developed in all aspects. This process fully reflected the practical evolution of institutional changes by the practice of early and pilot implementation.

The Shenzhen Special Economic Zone began with “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade”. The selection of such a model of development was determined by the factor endowments then. At the beginning of the reform and opening-up, Shenzhen was only a small fishing village that was relatively weak in its development of a planned economy. The comparative advantages of Shenzhen then were low-cost labor and land, but it lacked capital, technology and management expertise. In the late 1970s and the early 1980s, the “Four Little Dragons in South Asia” including Hong Kong had the need for industrial upgrading and structural adjustment. Under the guidance of the reform and opening-up policy, Hong Kong’s labor-intensive industries, mainly the processing sector, settled in Shenzhen in a timely and appropriate manner. It could be said that the gradient transfer of inter-regional industries was never a sheer flow of materials. Shenzhen, which had just been established and was eager to find opportunities for development, would inevitably transfer capital, technology, management expertise and modern enterprise systems to this young, growing city while undertaking the industrial chain that was transferred from Hong Kong. Inheriting the industrial renewal chain of regions and countries with a well-developed market economy, Shenzhen not only reduced the starting cost of economic development, but also greatly reduced the cost of learning from the market economy and determined the characteristics of an export-oriented economy. Meanwhile, the “input” of the processing sector also spawned the rise and development of the tertiary industry from its derivative needs (Tao & Lu, 2017). By 1993, 87% of Shenzhen’s foreign trade came from the net export of the three types of foreign-funded enterprises and the levy on “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade”; the tertiary industry accounted for 46% of Shenzhen’s GDP, and employment within these enterprises accounted for 32.2% of Shenzhen’s labor force (Tao & Lu, 2008).

When the economy of Shenzhen was on a track of high-speed growth, the constraints of its inherent shortage of natural resources quickly emerged and attracted the attention of policy-makers. The inherent shortage of natural resources meant that the selection of any growth model with the consumption and use of natural resources would result in high prices paid by the people for the creation and development of wealth due to the law of scarcity, and hence the cost of economic growth would also increase due to the high cost of the creation of wealth (Tao & Lu, 2017). Moreover, Shenzhen, as an emerging city developing a market economy with a demonstration effect in the country, could neither repeat the developmental model and path of the traditional industrial sectors, nor take the unsustainable developmental path of the creation of wealth with the consumption of wealth. Therefore, to explore and try a new model of economic growth and creation of wealth for demonstration to the country became the responsibility and mission of the Shenzhen SEZ.

From “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade” to high-tech industries as the pillars, Shenzhen not only selected a sustainable developmental path, but also one with significant factors in the government decision-making for institutional changes

(special funds and policy preferences, etc.), it solved the problem of initial insufficiency of funds, and relieved the pressure on high-tech enterprises alone; moreover, it created an institutional environment for high-tech industries to settle in, grow in, develop in and innovate in with the unique broad mind of reformers, and attracted a large number of prestigious high-tech enterprises at home and abroad to settle in Shenzhen; finally, it provided the solid intellectual guarantee for the follow-up development of high-tech industries with the vision of the changers, and some well-known universities and various scientific research institutions took root in Shenzhen. In 1999, the first "China International High-tech Achievements Fair" (High-Tech Fair) was held in Shenzhen, which was a symbol or milestone for Shenzhen in taking the direction of industrial development led by high-tech industries. By the year 2000, Shenzhen's production of magnetic heads for computers ranked third in the world, its production of microelectronic computers accounted for 25% of that of the entire country, its production of program-controlled switches occupied 50% of that of the country, and its production of genetic interferons accounted for 60% of that of the country; also, it was China's largest production base of printers, hard disk drives and cordless phones and it shaped five high-tech pillar industries, namely electronic information, biotechnology, new materials, opto-mechatronics and the laser (Tao & Lu, 2008).

If it could be said that the labor-intensive economy enabled Shenzhen to gain the competitive advantage of capturing the market by low cost, then the global financial crisis exposed the problems inherent in the growth model of the labor-intensive economy, including low product capital and technical added value and the lack of core competitiveness, and solemnly proposed the transformation of its model of economic growth as an inevitable strategic choice to achieve scientific development.

If a country had abundant labor resources with low labor costs or prices, in the absence of factor endowment advantages such as capital and technology, the low-cost labor force became the best choice at the start of economic development and the natural choice with the lowest cost of development. This was also Shenzhen's primary choice and even that of the whole country for economic start-up and initial development at the early stage of development. The development of most economically backward developing countries was faced not with the problem of resource shortage in the sense of natural endowments, but with the problem of resource constraints in the sense of factor structure. The resource constraints in the sense of factor structure meant an inferior "factor endowment structure"; in other words, the economic development of a country or region was lacking in advanced factors such as capital, technology, education, management experience and legal system, but had an abundant labor force without education or with a low level of education. Hence, the inferior "factor endowment structure" became the root cause of the inferior economic structure. When there was only a simple labor force in the factor stock, the labor-intensive economy became a natural choice. Therefore, "changing the quality and structure of factors is a realistic and logical premise to improving the industrial structure." (Fan, 2009).

In the history of the development of the Shenzhen SEZ from the formation of "processing with supplied materials, assembly with supplied parts, processing with

supplied samples, and compensation trade” characterized by labor-intensiveness, to the development of high-tech industries characterized by capital and technology-intensiveness and the formation of a new idea of independent innovation, and then to the transformation of the model of economic growth to establish a sustainable socio-economic model of development, while experiencing and winning the glory and accumulating the wealth, the Shenzhen SEZ solved and corrected problems existing in development by its cognition of scientific development and its concept of harmonious development. These footsteps and gains were also Shenzhen’s line of thought and reflection for advancing forward. Perhaps this trait and spirit of constant self-revolution made Shenzhen, the city prospering in the reform, still the forerunner and pioneer, confronted with new missions in the new era, to advance the strategic layout of the “Four Comprehensives”, achieve the general layout of “Five in One”, vigorously expedite the process of building a moderately prosperous society and take the lead in realizing the Two Centenary Goals.

After 40 years of reform and opening-up, Shenzhen had already entered a mature period of steady development. In 2017, Shenzhen’s economy grew by 8.8% over the previous year (calculated at comparable prices); its economic aggregates rose from 196 million yuan in 1979 to 2.24 trillion yuan in 2017, ranking third in the country; and the per capita GDP increased from 606 yuan in 1979 to 183,100 yuan in 2017, which was 27,100 US dollars converted at the average exchange rate in 2017 and thus it ranked first among China’s large and medium-sized cities (GDP and per capita GDP data, 2017). It could be said that Shenzhen brought wealth and prosperity to diligent people along a fast-growing track. As is known to us, GDP is the material basis of social development, but it cannot be the ultimate goal of social development. The growth of GDP and per capita GDP without an improvement in social well-being and the free development of human beings can only be regarded as simple material growth that lacks soul and humanistic care. The growth and development of the Shenzhen SEZ not only demonstrates the true meaning of all-around and shared development, but it also highlights the institutional charm of transitional China.

Whether in the successful practice of the Shenzhen SEZ or the great achievements of China’s reform and opening-up, Hong Kong was an extremely important factor. In the past 40 years of reform and opening-up, Hong Kong was the most direct and convenient window for the mainland to learn about the world, learn the market economy and integrate into the international community. At the early stage of reform and opening-up, the government (mainly the mainland government) provided policies to encourage Hong Kong’s private capital to flow freely to the mainland. It was the manner of cooperation that was widely adopted and implemented by Hong Kong, Shenzhen, Guangdong and even the whole country, and the introduction of Hong Kong capitals, joint ventures with Hong Kong people and sole ownership of Hong Kong people were the most basic and primary manners of cooperation in a considerable long period. In 2003, the implementation of CEPA was mainly to open up the market to Hong Kong, and allow Hong Kong capital to participate in competition on the mainland market with preferential policies. In 1999, the investment from Hong Kong and Macao accounted for 50.70% of Shenzhen’s actual use of foreign capital; in 2016, this figure reached 88.14% (The data of the foreign capital actually absorbed

by Shenzhen, 1999). It should be said with certainty that Hong Kong's capital, materials, commodities, technology, talents and other economic factors truly expedited the process of reform and opening-up of the mainland, especially in Shenzhen and Guangdong. This not only accelerated the transition from a planned economy to a market economy, but it also brought institutional and cultural powers from competition and a market economy that were sufficient to change the traditional system. At any time, we could not simply understand the market economy as technology, science, tools and means, because fundamentally the market economy was a system, a mechanism, a culture and a civilization.

Hong Kong showed us a set of mature social management frameworks and administrative procedures constantly tested and proven by practice and revised and improved through trial and error. Hong Kong could provide reference for us in terms of functions and efficiency of the social governance, decision-making rules and procedures of the government, service consciousness and law-abiding awareness of government officials, and democratic and equal value orientation in social life. The institutional advantages of Hong Kong were a valuable resource. Learning from advanced institutions could help us overcome and avoid the conservativeness and low efficiency of the government in the transitional society. For example, the vested interests and traditional ideologies in the original system could directly affect the preferences of officials in the process of institutional changes, and the demonstration effect of the advanced system enabled people to throw off the shackles of traditional ideology in a short period of time, avoid limitations of human reasoning, and thus enhance the cognitive ability of institutional changes. For another example, in the process of institutional changes in the transitional society, it was often the case that even if the government intended to establish new institutional arrangements to restore the institutions from imbalance to balance, due to the lack of knowledge in social sciences, the government could not accomplish correct institutional arrangements. As a result, the short-term efforts in maximizing profits could lead to the pursuit of persistent ineffective activities (when the institutional constraints were given), and even if they pursued productive activities, this could also lead to unpredictable results (North, 1994). Hence, learning from an advanced system could eliminate the time lag, decrease the cost and reduce intangible losses in institutional changes, and meanwhile it could make the government mature, rational and responsible with the value orientation of serving the society and people in the process of making institutional changes. Hong Kong was a region with a mature, perfect and highly internationalized developed market economy. It showed us the efficiency of a service-oriented government, democratic and transparent discussions and procedural orders, a market order of fair competition and a perfect and inclusive social security system. After 40 years of reform and opening-up, the development and prosperity of China not only benefited 7.3 million Hong Kong residents, but it also improved Hong Kong's regional competitiveness to some extent. According to the *Global Innovation Index 2017*, Shenzhen-Hong Kong ranked second in the world with 41,000 international patents, Tokyo-Yokohama topped this ranking with 94,000 patents, and San Jose-San Francisco (where the Silicon Valley is located) ranked third (World Intellectual Property Organization (WIPO), 2017). But in a sense, learning from the institutional

advantages of Hong Kong is still a valuable resource that we can use to deepen reform. Nietzsche once pointed out: "Nothing is needed more than truth among philosophers." (Nietzsche, 1991). The advancement of human society requires not only diligence and enthusiasm, but also thinking and rationality.

Second, the Shenzhen SEZ, the most typical and successful representative of China's special economic zones, has an irreplaceable status. It is not only the cradle of China's reform and opening-up in the true sense, but it also leads the direction of China's reform and opening-up with its own practice in a long historic period, and constantly creates new ideas and concepts that can affect the mind of hundreds of millions of people. Although the SEZ is not just a city from the selection of China's path for institutional changes and the practice of China's path, Shenzhen is a city that is emerging by taking the lead in the reform and opening-up, and it should undoubtedly be recorded in the history of China's reform and opening-up.

Today, when one mentions China's special economic zone, they almost always refer to Shenzhen. After 40 years of reform and opening-up, Shenzhen has become synonymous with and a glory symbol of China's special economic zones in a considerable sense. As the "test field" for the transition from a planned economy to a market economy, Shenzhen historically undertakes the missions of reform, exploration and demonstration; as the "window" for opening up to the outside world, Shenzhen firmly undertakes the missions of exploring, trying and finding the path; as the "pioneer" of China's reform and opening-up, Shenzhen is inborn with the missions of being bold to try and take risks, creating and producing scalable and replicable experience. Hence, not only many world-shaking practices and experiences in reform and opening-up are generated and extended from Shenzhen to the whole country, but many reforms and practices to deepen the reform are tested in Shenzhen first. In the long historic period of reform and opening-up, providing the country with replicable experience and an exemplary path for institutional changes is a unique function and mission of the Shenzhen SEZ. Today when China advances towards a new era of deepening reform, in the process of realizing the "Four Comprehensives" and "Five in One", Shenzhen, as the most successful and typical special economic zone with the double identity and status of free trade zone and bay area, is still important for taking the lead in institutional innovation.

Forty years later, the Shenzhen SEZ is not the only region with the most developed market economy in China. However, the experience of taking the lead in the construction of a socialist market economy and the geographical advantage as a window for opening up to the outside world make today's Shenzhen still the most convenient "window" for opening-up. If at the beginning of the reform and opening-up, the establishment of a market economy throughout the country by the demonstration effect is an important function and role of the Shenzhen SEZ, 40 years later, boosting the deepening of China's reform with continuous institutional innovation becomes an important historic responsibility of the Shenzhen SEZ. The evolution of intrinsic functions of special economic zones is a sign that China has evolved from imposed institutional changes aiming at breaking through the traditional system to induced institutional changes motivated by the harvest of potential benefits. China has not gone from the era of reform to the era of development. Reforming and developing

are still the internal motivation for China to advance forward. The reform has not yet been completed, and the path is still tortuous and long. The special economic zone is an effective “shortcut” for China to realize modernization. Its mission is continuing, and there is still a long way to go.

The Shenzhen SEZ, as the earliest region to practice the socialist market economy, has accumulated not only material wealth after 40 years of reform and opening-up, but also spiritual wealth in 40 years of reform and innovation, and good social regulations and legal environment in the process of learning from international practices. These will undoubtedly become the unique material and political capital for the Shenzhen SEZ to accomplish its new historic missions. Of course, in order to complete the new historic missions in the new era, special economic zones must continue and maintain certain special qualities, such as the courage to persist in reform, the verve to deepen the reform, the wisdom to realize the reform and the art to implement the reform. Beyond doubt, the most important thing is to have a fearless spirit and courage to take the risks of reform.

Although Shenzhen almost becomes synonymous with China's special economic zones, it is not all of the Chinese special economic zones. As China's reform is being deepened, the new special economic zones, especially the establishment and formation of pilot free trade zones and bay areas, not only prove the correct way to complete China's institutional changes and further establish, develop and improve the socialist market economy by the choice of founding special economic zones, but it also demonstrates that the special economic zone itself is an effective path for China to achieve modernization and an important connotation of China's path. Accordingly, a special economic zone should be studied as the growth pole of a city or an administrative region, and also as a kind of institutional arrangement; and the study must focus on both the particularity and the generality of special economic zones. Only by probing into them and transcending a specific special economic zone can we truly understand the status and role of special economic zones in China's reform and opening-up and institutional changes.

Strictly speaking, special economic zones are the product of special policies. When there are no special policies, SEZs should cease to exist. The original intention of Comrade Deng Xiaoping in establishing special economic zones was to make them a breakthrough point for China's institutional changes, a window for opening up to the outside world, and a test field for the market economy. Forty years later, they not only have completed this initial mission well, but they have also developed from a single spark to a prairie fire. However, if we judge that the SEZs can be contained in the historic museum gloriously, it is too short-sighted and shows a lack of a sense of history. In my opinion, the vitality of the SEZs stems from the vitality of China's path, the choice of a path for the strategy of unbalanced development, and the need for a practical model of the progressive reform. If there is still a historic mission today when the socialist market economy has been widely established in China, this mission is to deepen the great cause of reform and opening-up concerning China's destiny. In this sense, China's SEZs will run through the entire process of the reform and opening-up. Furthermore, it is my belief that under the call of the new mission

in the new era, the Chinese SEZs, as a banner for the reform and opening-up with Chinese characteristics, will fly beautifully in the sky of history.

Third, no matter whether from the cause, function, status or concept, China's special economic zones are not the same as those in foreign countries. Although China's reform and opening-up starts from economic construction, the political mission of special economic zones or the mission of reform is the greatest mission and the most fundamental mission; their political significance is greater than economic significance; their significance for reform is greater than their significance for growth.

The special economic zone is not an invention of China, but it already existed before China decided to establish special zones. The term "Special Economic Zone" is usually used by foreign researchers to refer to an area delineated by a country or region for constructing infrastructure within the area, implementing special preferential policies such as exemption from tariffs, developing the processing trade and entrepôt trade, promoting the development of the economy and trade in the area and neighboring areas, and increasing fiscal revenue and foreign exchange earnings. Historically, in the thirteenth century, with the development of the commodity economy, there emerged some early forms of modern free ports in coastal cities in European countries such as Venice in Italy and Hamburg in Germany. Some scholars divided the emergence and development of special economic zones in the world into three phases: the first phase, lasting from 1228 to the 1950s, was the period of the development of free ports and free trade zones around the world; the second phase, lasting from the 1950s to the mid-1970s, was the period of the emergence and development of export processing zones around the world; and the third phase, lasting from the 1970s until now, is the period of developing special economic zones towards the scientific, integrated and transnational development (Zhong, 2002). Without the division according to the phases of development, some scholars have also pointed out that the "special economic zone" was generally a term in the broad sense covering a wide range of different parks, such as free trade zones, export processing zones, industrial parks, economic and technological development zones, high-tech zones, scientific and technological parks, free ports, bonded areas and enterprise zones, etc. (FIAS, 2010).

It can be said that despite the fact that they are the product of special policies, the Chinese special economic zones have different meanings from foreign ones. First of all, from the background of the emergence, China's special economic zones are not the inevitable result of social and economic development, especially the rising and prosperous international trade, but the product of the social economy on the verge of collapse and the desire for change. Therefore, although the Chinese special economic zones also have forms and titles like free ports, free trade zones, bonded areas, export processing zones and scientific and technological parks, they are created, exist and play their functions and roles according to the overall strategic deployment of China's reform and opening-up, not just for the simple economic goal of expanding foreign trade. Second, with regard to the functions and roles, as mentioned above, the Chinese special economic zones undertake the mission of ending an era and opening an era beginning on the date when they are founded. Their emergence aims to find a path for the transformation of China, and their development aims to explore China's path

for institutional changes. They can enhance the performance of institutional changes by reducing the ideological cost of the reform and the cost of trials and errors, and provide the emulative and replicable institutional arrangements for social transformation. Moreover, in terms of status and significance, special economic zones are the product of special policies and the product of political wisdom. As the product of special policies, they have the same attributes as foreign ones. However, as the product of political wisdom, they reflect the uniqueness of China. This uniqueness lies in the fact that as a top-down imposed institutional arrangement, they drive economic development forward and guide the overall direction of the country's all-round reform. In a certain sense, for China, the political mission or the mission of reform undertaken by the special economic zones is the greatest and the most fundamental mission; the political significance of establishing special economic zones is greater than the economic significance; their significance for reform is greater than their significance for growth. Therefore, in the historic process of China's reform and opening-up, both typical special economic zones, special economic zones in a broad sense, which is close to the concept of special economic zones in foreign countries, and extended forms of special economic zones, are not a simple economic phenomenon, but the administrative division for undertaking different missions of reform in different eras.

In fact, such a difference between Chinese and foreign special economic zones is an interesting focus for the study of the history of the development of China's special economic zones. On the one hand, Chinese special economic zones enrich the types and the developmental history of special economic zones throughout the world with their unique functions and missions; on the other hand, the successful practice of Chinese special economic zones different from others around the world proves the country-specific choice of a path for institutional changes and the uniqueness and replicability of China's path. Meanwhile, the study of the successful experience of Chinese special economic zones also has practical significance for sharing wisdom with the world.

4 SEZs and the Internal Logic of China's Selection of a Path for Institutional Changes

From the perspective of the theory of institutional change and the theory of regional growth, both typical special economic zones, special economic zones in a broad sense, and free trade zones and bay areas, are all regarded as an institutional arrangement carrying out the different missions of early and pilot implementation in different periods and stages of China's reform and opening-up, thus realizing the country's overall strategy of development; the choice of an effective path towards achieving social transformation, a "shortcut" to accelerate the realization of modernization and the exploration and enrichment of the essence and connotation of China's path. This trajectory towards development, while continuously shaping the growth poles

for the regional economies of China, gradually achieves the balanced development, the coordinated development and the all-round development of China. From typical special economic zones to special economic zones in a broad sense, and then to the establishment and formation of free trade zones and bay areas as the extended forms of special economic zones, they reflect the organic integration of the choice of a path of “gradient development” and “anti-gradient development”, which not only verifies the fact that China’s path of gradient development and anti-gradient development is the best in terms of institutional performance, but also further proves the correctness of China’s choice of a path for institutional changes in the process of deepening the reform, and interprets the uniqueness and creativity of China’s path.

Furthermore, from the logical starting point and choice of a path of China’s reform and opening-up, the unbalanced development is the dominant strategic choice. However, with the creation of an increasingly greater number of special economic zones and the general establishment and development of the market economy, the situation predicted by Williamson’s hypothesis with an inverse U-shape curve gradually emerges. This theoretical logic reflects the realistic logic for the evolutionary path of China’s institutional changes and constitutes the theoretical mechanism of China’s path.

Marx pointed out that: “The degree of realization of a theory in a country depends on the extent to which the theory meets the needs of the country.” (Marx & Engels, 2012c). The practice of China’s reform and opening-up in the past 40 years proves that unbalanced development is the choice of a path with the best performance and the lowest cost to achieve development in an all-around manner in a big country with unbalanced economic development, especially for reducing the trial-and-error costs and the ideological costs of the reform and opening-up. If China’s institutional changes by establishing special economic zones in the past aimed at reducing the political risks and the trial-and-error costs of the reform and opening-up, then the establishment of various special economic zones later intends to foster economic growth poles with the power of policy. Through the release of the “backwash effect”, the “spread effect” and the “trickle-down effect”, institutions demonstrate institutions, regions drive regions and the growth poles formed and accumulated by the early and pilot implementation gradually promote and realize balanced development and development in all aspects.

First, when the theory of regional economic development is applied to explain the functions and roles of China’s special economic zones, on the one hand, the brilliant achievements of the typical special economic zones represented by Shenzhen powerfully interpret the functions and roles of special economic zones and the mechanism and connotation of China’s path in theory; on the other hand, the unique background of China’s institutional changes and the uniqueness of the choice of a path for those changes resulted therefrom constitute another interpretation of and supplement to the theory of regional economic development. Like the imposed, top-down institutional changes, the “backwash effect”, the “spread effect” and the “trickle-down effect” in the traditional theory of regional economics are embodied in the “Chinese” mechanism in a “non-classical” manner.

According to the principle of circular and cumulative causation proposed by Karl Gunnar Myrdal, the founder of the Stockholm School of Economics and one of the pioneers of the development economics (Myrdal, 1944), the process of economic development is not simultaneously occurring and uniformly spread in space, but begins from some regions with good conditions. Once these regions develop ahead of other areas due to their initial advantages, they continue to advance by means of the process of cumulative causation by virtue of vested advantages, thus further strengthening and exacerbating the regional imbalances and leading to the spatial interactions among growing regions and backward regions. Then, two opposite effects occur: One is the “backwash effect”, that is, production factors flowing from underdeveloped regions to developed regions, which continuously expands regional economic differences; the other is the “spread effect”, that is, production factors flowing from developed regions to underdeveloped regions, which can narrow the regional economic differences. Under the influence of the market mechanism, the “backwash effect” is much larger than the “spread effect”, that is, developed regions become more developed and backward regions become more backward. Given this situation, Myrdal put forward the policy proposition of regional economic development. In other words, at the early stage of economic development, the government should give priority to the development of regions with better conditions, in order to seek better investment efficiency and a faster economic growth rate, and promote the development of other regions through the spread effect; however, when the economy develops to a certain level, to prevent the infinite expansion of the gap between the rich and the poor by circular and cumulative causation, the government must formulate a series of special policies to stimulate the development of backward regions in order to narrow economic differences.

1. The situation in China is different from the theory of Myrdal because the reform and opening-up began not in regions with better conditions, but in underdeveloped regions which performed worse in the planned economy. For example, Shenzhen at the beginning of the reform was just a small fishing village that was virtually unknown. However, as mentioned above, the common feature is the low cost of reform and the low risk of failure.
2. The “backwash effect” has existed as an attraction of the reform and opening-up policy for a considerable period, rather than the result of a purely market economy. Taking Shenzhen as an example, with regard to the important factor of production—the flow of human capital, the initial attraction is not from the factor price itself, but from the loose institutional and cultural environment that is gradually formed by special policies and conducive to the reform and opening-up. By the same token, the earliest entry of foreign capital is not entirely driven by profit maximization, but by the optimistic view of the reform and opening-up policy, and the optimistic expectation for tremendous economic benefits brought about by institutional changes. Meanwhile, because the production factors can benefit from special policies only after entering the special economic zones, the policy of the “backwash effect” of taking the lead in the reform is greater than that induced economically, and the regional developmental gap by the “backwash

effect” is basically narrowed in the process of the reform and opening-up. In theory, only when the market economy is generally established, can the production factors truly return gradually from the policy-oriented flow preference to the flow preferences determined by the laws of the market economy (Tao & Lu, 2017).

3. The “spread effect” does not occur to a considerable extent as a cause, but as a result. By referring to “as a result”, it means that the reform process and the strategic deployment of the central government play a considerable guiding role in the “spread effect”, which is also the characteristic of the top-down imposed institutional changes in China. In view of the theoretical mechanism, with the development of leading developed regions, under the influence of the “spread effect”, the production factors flow from developed regions to underdeveloped regions, which narrows the regional developmental differences. However, in the process of China’s reform and opening-up, this “spread effect” is formed on the one hand with the general establishment and improvement of the market economy and released with the industrial upgrading of the early-developed regions, such as the Double-Shift Strategy of Guangdong Province, and accompanied on the other hand with the adjustment of the national policies for development and the advancement and expansion of the regional layout of the overall strategy of development, such as the proposal and implementation of the scientific outlook of development, the transformation of the economic growth model and supply-side structural reform, as well as the execution and extension from coastal opening-up to border opening-up, free trade zones and bay area economic belts and the Belt and Road Initiative.
4. In a certain sense, the “trickle-down effect” as the content and path of reform and opening-up, rather than the result after development, was strategically formulated at the beginning of the reform and opening-up. The “trickle-down effect” is an important point of view of Albert Hirschman’s theory of unbalanced growth. It refers to the fact that no special preferential treatment will be given to the poor, vulnerable groups or poverty-stricken regions in the process of economic development, but the early developed groups or regions provide benefits to them by consumption and employment, and boost their development and prosperity, thereby better promoting social and economic growth (Hirschman, 1958). The goals of China’s reform are to accomplish the transition from a planned economy to a market economy and to explore the path from pervasive poverty to common prosperity. The path to achieve the latter goal is to let some people get rich before others by the institutional power of the reform. A large number of peasants liberated from the land swarm into the early-developed regions. They not only constitute a unique labor force that takes on the historical significance in the process of China’s reform and opening-up, in other words, the migrant workers, but they also become the production factor with the biggest price advantage for working the “Chinese miracle”. This can be said to be the most representative “trickle-down effect” accompanying the reform and opening-up. Such a “trickle-down effect” with Chinese characteristics first objectively gives

people, especially those who have been firmly bound to the land by the traditional household registration system, the right of free choice and narrows the developmental gap between urban and rural areas and among different regions. Moreover, with the possibility of giving peasants the right of free choice, it changes the living conditions of some peasants (Tao & Lu, 2017).

As the formal institutional arrangements for China's imposed institutional changes, the typical special economic zones represented by Shenzhen, the special economic zones in a broad sense represented by Pudong in Shanghai, and the extended forms of special economic zones represented by free trade zones release the "backwash effect", the "spread effect" and the "trickle-down effect" in the deepening of the reform and the process of modernization of China with their leading role in development, and they are also embodied as the result and product of the above "effects" at different developmental periods, time points or phases. They, while continuously forming the regional economic growth poles of China, gradually realize a balanced development, a coordinated development and an all-round development, and they explore, practice, validate and construct the theoretical mechanism of China's path.

Second, special economic zones, development zones, new areas or free trade zones, as the result of China's institutional changes and the important connotation of China's path, are the policy growth poles that have been given unique functions from the outset. Moreover, the functions of these growth poles, such as the "spread effect" to achieve gradient transfer, are not a natural release after simple development, but a policy-oriented release for achieving the national strategy of development based on the market mechanism. The interactions between market choice and policy attraction and the combination of market power and institutional power make China's social and economic development reflect a unique trajectory and a high speed. The establishment of the Xiong'an New Area is not only the organic combination of a gradient and anti-gradient choice of a path of development, but it also interprets the uniqueness and creativity of China's choice of a path for institutional changes in the process of deepening the reform.

The theory of gradient development (gradient transfer theory) (Vernon, 1966) points out that priority should be given to supporting and promoting the development of high gradient regional economies in the order of regional economic development, thereby achieving high economic benefits and driving and promoting the development of low gradient regional economies. The "theory of gradient development" also holds the opinion that the rise and fall of the regional economy mainly depends on the strengths and weaknesses of the industrial structure, and the industrial structure depends on the regional economic sectors, especially the stage in which the specialized sectors of the leading industries are located. If the regional leading specialized sectors are composed of thriving sectors at the stage of innovation, it is a high gradient region; otherwise, if they are composed of sectors at the late stage of maturity or aging, it belongs to a low gradient region. Meanwhile, most of the new industrial sectors, new products, new technologies, new production management and organizational methods originate from high gradient regions, and under the influence

of the spread effect, they are gradually transferred from high gradient regions to low gradient regions. Gradient transfer is mainly achieved through the gradual expansion of the urban system. Wilbur et al. called the creative application of this theory of life cycles in regional economics vividly as the phenomenon of “industrial location penetrating down.” (Gao, 2014).

1. Just as the emergence and formation of China’s economic growth poles (typical special economic zones, special economic zones in a broad sense, and extended forms of special economic zones) are the products of special policies, the occurrence of gradient transfer is manifested as the result of policies or national strategies. Different growth poles jointly fostered by special policies and regional factor endowments, in the process of combining with the gradient development layout of the country as the national overall strategic deployment, created and undertook the chains and opportunities of gradient development at different periods by different means. Under institutional arrangements of the national overall layout of the strategic development, the gradient development of China expands at an exponential rate. For example, from 1984 to 1986, the country established the first batch of national economic and technological development zones in 14 coastal open cities. Later, with the advancement and deepening of the reform and opening-up, according to the needs of national strategies of development in different periods, the construction of national economic development zones as special economic zones in a broad sense also expands by gradients from coastal areas to cities along the Yangtze River, along the border and in inland provinces, as well as central regional cities. As the cause and result of gradient development, with their own function as the regional economic growth poles, national economic development zones become an important point of support for the realization of the national strategic goals of development, such as opening up from the coast to the border and the development of the western region, the revitalization of the northeastern part of China, and the rise of the central region, and they constantly construct a new landscape for the regional economies that fully reflect the evolutionary logic of China’s path. In the process of successive approvals of national economic and technological development zones as special economic zones in a broad sense, we can also observe the unique trajectory of China’s economic gradient development in one facet.
2. The southeastern coastal regions are the first gradient regions of the Chinese economy where the earliest typical special economic zones and those in a broad sense came into being. The innate geographical advantages of opening up the coastal areas to the outside world objectively provide the possibility of early and pilot implementation and development that inland cities did not have, especially at the early stage of the reform and opening-up. Typical special economic zones and early new areas and development zones, as the growth poles of China’s regional economy, have continued to build up the strength and radiation effect of the first gradient regions with their industrial structure, technological development, level of comprehensive management and innovative capabilities. The central and western regions, as the second and third gradient regions of China,

while undertaking the gradient transfer of industries and technologies, have naturally accepted the non-economic factors and resources that can boost the reform and opening-up and the improvement of the market economy, such as new ideas, advanced culture and good social regulations. In my opinion, "transfer" in this sense will continue to run through the process of China's gradient development for a long period of time. Therefore, gradient transfer is not a purely regional economic concept in China, but a process that accompanies the general establishment of the market economy and the process of deepening the reform and opening-up. Fundamentally, the resolution of major social contradictions in the new era and the mitigation and gradual elimination of imbalances and inadequacy in social development are also not purely the result of laws of economics, but the harvest of the more profound institutional changes and further deepening of the reform.

3. The theory of anti-gradient development (Zhang & Wei, 2005) points out that the development of backward regions can skip developed regions and directly develop underdeveloped regions not pursuant to the current situation but according to needs and possibilities. If China's path for institutional changes is investigated by the "gradient transfer theory", it can be said to be a strategic choice to organically integrate "gradient development" with "anti-gradient development". "Gradient development" plays a dominant role, especially in the period when the market economy was just established, and "anti-gradient development" is the national strategic decision. "Anti-gradient development" embodies the concept of balanced development, coordinated development and shared development; it reflects the institutional power of imposed, top-down institutional changes and demonstrates the unique choice of a path for eliminating the regional developmental gaps in a big country with a large population and economic development imbalances. The "anti-gradient development" in China is manifested not only in the establishment of policy-driven growth poles in economically underdeveloped regions, such as the Kashgar and Korgos Special Economic Zones established in 2010, to promote the extraordinary economic development of backward regions, but also in the powerful function of institutional innovation for the early and pilot implementation by the policy-driven growth poles in late developed regions together with those in early-developed regions. Hence, from the time line of national development zones and new areas as the special economic zones in a broad sense, the trajectory of institutional changes for combining "gradient development" and "anti-gradient development" can be clearly observed. For example, the establishment of THE Xiong'an New Area is very convincing evidence. The selection of a path for anti-gradient development can facilitate institutional innovation and create an institutional supporting environment for the extraordinary development in regions where the market economy is not well developed. The practice of China's reform and opening-up makes it possible to organically integrate "gradient development" and "anti-gradient development" in the overall strategy of the development of the country and constitute an integral part of China's path.

Third, after 40 years of reform and opening-up, China has shaped the “policy highlands” with different functions and missions made up of special economic zones, national development zones, national new areas and free trade zones, from local to global, from individual regions to cities and urban agglomerations, from city clusters to regional economic belts. On the one hand, the strong growth poles distributed throughout the country and made up of these “policy highlands”, under the joint effect of gradient development and anti-gradient development, not only shapes the cores with different levels of development—peripheral economic circles or economic belts, but it is also very likely that in a relatively short period, the development among the regions will quickly show the trend of Williamson’s inverse U-shape curve. On the other hand, the process of the formation of different policy-driven growth poles, such as emerging special economic zones, national new areas, free trade zones and bay areas, with their unique functional orientation and specific mission, clearly reflects the fact that the internal path for deepening the reform in an all-around manner makes China’s institutional changes starting from the economic reform to gradually expand from the economic sphere to a wider range of areas such as politics, culture, mechanisms of social management, laws and regulations. If the important function of the typical Special Economic Zone represented by Shenzhen in that year was to become a test field for the transformation from planned economy to market economy, and to promote and promote the establishment of the socialist market economy system in the whole country, today, the more important mission of the free trade zone and the Bay area, as the expansion form of the special economic zone, is to become the demonstration zones for the deepening of reform, coordinated development, and the all-round reform and opening-up of China. Of course, the government’s vision and self-revolutionary capabilities will, as always, determine the performance of China’s institutional changes and the value of the sustainability and exploration of China’s path.

John Friedmann, an American contemporary economist, puts forward the “core-periphery theory” that echoes the growth pole theory and the gradient development theory, while considering the long-term evolution of inter-regional imbalance (Friedman, 1966). This theory first divides the spatial structure of the economic system into two parts: the core and the periphery. The core is a sub-system of social regional organizations, which can generate and attract a lot of innovations; the periphery is another sub-system, which interacts and is interdependent with the core, and whose direction of development mainly depends on the core. The core and the periphery not only form a complete spatial system, but also a complete binary spatial structure. The conditions of the development of the core are superior, with relatively high economic benefits and an almost absolute dominance, but the conditions of development of the peripheral are inferior, with relatively low economic benefits in a position of being dominated. Accordingly, at the initial stage of economic development, there will be a net transfer of production factors from the peripheral to the core, or just the “backwash effect”, without the “spread effect”. The binary structure of the social economy at this stage is very obvious, showing a single-core structure. However, as the economy proceeds to the take-off stage, the single-core structure will be gradually replaced by a multi-core structure under the influence of

the “spread effect” and gradient development. When the economy proceeds to the stage of sustained growth, with the intervention of government policies, the boundary between the core and the periphery will gradually disappear, and the economy will be integrated across the country.

Friedman further uses Schumpeter's innovative ideas to explain his core-peripheral theory (Yan & Yuan, 2004). Development can be seen as a process of discontinuous accumulation of groups of basic innovation that eventually merge into a large-scale system of innovation. A rapidly developing metropolitan system usually has conditions conducive to activities of innovation. Innovation often spreads from big cities to peripheral regions. The core is a subsystem of regional social organizations with a high degree of innovation and ability to transform, and the peripheral system is a regional social subsystem determined by the core according to the relationship of dependency with the core. The core and the peripheral together constitute a complete spatial system, in which the core dominates. Friedman places great emphasis on the role of the core in the spatial system. In his opinion, the existence of a core that dominates important decisions in the periphery is decisive because it determines the existence of the regional spatial system. Any particular spatial system may have more than one core, and the geographic scope of a particular core will vary with the natural size or scope of the spatial system. Friedman has always predicted that the limits of the core expansion can eventually be reached when there is only one core within the scope of human habitation.

1. Friedman's core-periphery theory, as a model for explaining the evolution of the economic spatial structure, attempts to explain how a region can become a regional system from unconnected and isolated to interconnected unbalanced development, and then from extremely unbalanced to interconnected balanced development. In the process of China's institutional changes, this evolution is not only amazing, but also because the core is basically the administrative core regions, under the unified deployment of the central government and the top-down vertical leadership; once the regional strategy of development is formed, local governments on the periphery of the subsystem will promote the development and improvement of core-periphery economic belts under the overall strategic deployment of the country with positive institutional arrangements, and the institutional transaction costs between the core and the periphery in terms of positioning and cognition will also be relatively low. In my opinion, the so-called “China is an exception to all rules” (Russell, 1984) can be explained here as China's adherence to the universal laws and can take its own path in the process of development and making progress by human beings. For example, the formation of the Pearl River Delta Economic Circle, the Yangtze River Delta Economic Circle and the Bohai Bay Beijing-Tianjin-Tangshan Economic Circle basically follows the conventional evolutionary logic in terms of the developmental trajectory: First, the economic growth pole is shaped, the “backwash effect” accelerates the development and economic extension of the growth poles, the “spread effect” forms and advances the gradient transfer, the developmental effect of gradient transfer spreads, and the core-periphery economic

belt is then formed. But fundamentally speaking, if the “policy-driven growth poles” are regarded as the premise and background, without powerful administrative appeal and executive force of the central and local governments for resource allocation, integration and concentration, the evolution will last long, the institutional transaction cost will increase, and the corresponding release effects of various mechanisms will be reduced due to the dispersion of goals.

2. The practice of many developing countries proves that the great impetus for economic progress will focus economic growth around the initial starting point, and the emergence of growth poles (either a product of policy or a natural outcome of market development) necessarily means the imbalance of growth between different regions, which is inevitable in economic growth and even a prerequisite for achieving overall economic development. At whatever stage of economic development, further growth always requires breaking the original balance. Unbalanced growth is both the prerequisite for and the result of growth. Although the situation of China’s social development also shows a similar trajectory, the government’s policies to promote regional coordinated development and the powerful role as the carriers for the early and pilot implementation increasingly reflect Williamson’s hypothesis with an inverse U-shaped curve. Williamson’s hypothesis with an inverse U-shaped curve (Williamson, 1965) predicts that the substitution relationship between balance and growth will change nonlinearly over time. During periods with a high degree of economic development, growth is dependent on balance. That is, when the economy develops to a certain high degree, each development is no longer simply breaking the existing balance, the balance is the premise of continuing development, and there is an inverse U-shaped relationship between the developmental stage and the regional difference. Perhaps it can be said that on the one hand, without the balanced development among regions, it is difficult to achieve overall development; on the other hand, development not only breaks the original balance, but also advances towards a higher degree of development with balanced development as its premise. In this sense, special economic zones, development zones, new areas, free trade zones and bay area economic belts are both the product of unbalanced development and the result and premise of balanced development. As the product of unbalanced development, they release the functions and effects of economic growth poles; as the result of and premise to balanced development, they are narrowing the gap among regions and demonstrating the level of economic development, and increasingly reflect dependence of a high level of economic growth on balance. From the perspective of the logical starting point and choice of a path of China’s reform and opening-up, unbalanced development is the dominant strategic choice, especially at the early stage of reform and opening-up. However, the emergence of the extended forms of special economic zones, such as free trade zones and bay areas, reflects the transition of China from the strategic choice dominated by unbalanced to balanced development. The arrival of such a transition is based on the strategy of unbalanced development for a long period of time. Therefore, in the 40 years of China’s reform and opening-up, it can be precisely said that the emergence of the extended forms

of special economic zones, such as free trade zones and bay areas, is the result of China's transition from unbalanced towards balanced development. Their mission is to promote and realize China's coordinated development, balanced development, shared development and all-round development. As the expansion form of special economic zones in the new era, to realize the balanced development of Chinese society through the reform path of unbalanced development is not only the constant historical mission of special economic zones, but also the important connotation of China's path.

3. Either the "aggregation effect", the "spread effect", or "gradient development", "anti-gradient development" and "hypothesis with an inverse U-shaped curve" theoretically clarify the functional mechanism of special economic zones as the product of special policies, and explain the inherent logic of the existence, development and evolution of various types of special economic zones in theory. The "aggregation effect" is a good interpretation of the possibility of piloting the reform and opening-up on "policy highlands"; the "spread effect" gives the theoretical interpretation of the "demonstration effect" of special economic zones from the perspective of the market-oriented flow of all factors including institutions; the "gradient development theory" and the "anti-gradient development theory" not only theoretically expound the practical significance of unbalanced development, but also convincingly prove the institutional performance of unbalanced development guided by the national strategy in imposed institutional changes (such as the combination effect of the "gradient development theory" and the "anti-gradient development theory" as mentioned above); the "hypothesis with an inverse U-shaped curve" expatiates on both "instrumentality" and "purposiveness" of unbalanced development in terms of the possible substitution relationship formed between balance and growth as time goes by. All of the above theories can demonstrate the inherent logic and theoretical mechanism of special economic zones and China's institutional changes.

The special economic zone is not only the starting point of China's institutional changes, but also the product of those changes; it is not only China's path selection for institutional changes, but also shows the evolutionary trajectory of those changes; it is not only a shortcut to the modernization of China, but also an important part of China's path. Unbalanced development is the philosophy followed by China's institutional changes. This philosophy increases the marginal benefits while reducing the costs and risks of the reform and opening-up. Various types of special economic zones, with different missions in different historical periods of the reform and opening-up, as the "growth pole" of policy creation, continue to facilitate the process of institutional changes by the "aggregation effect" and the "spread effect", create the increasingly broad economic growth poles, drive China's institutional changes to a deeper level, and thus achieve development in all aspects to solve the problem of unbalanced and inadequate development in the process from unbalanced development to the deepening of the reform.

The missions of special economic zones still continue as the product of and the choice of a path for China's institutional changes. Here, institutional innovations

will take place and successful practices and experiences to be practiced will be replicated throughout the country. More importantly, here, many explorations and practices will be changed from policies to institutional arrangements, and then to laws and regulations, thus transforming “early and pilot implementation” into the institutional power of building a modernized country. A powerful country and a developed market are what we need, but a society ruled by law is the prerequisite for them; a prosperous country and the people’s livelihood with well-being are what we expect, but the government’s vision is the political and institutional guarantee for their realization.

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Chapter 5

Development Miracles in Asia: Growth Patterns and Special Economic Zones



CheolSoo Park

Abstract After the remarkable growth that occurred in the twentieth century, the market economy had been separated from our society where many of the people's needs were arranged and provided through non-market channels as well as public goods and care services, and this is called the phenomenon of *decoupling*. For understanding economic and social development represented by the rise and disappearance of miracles over half of the twentieth century, this article explores the diversity of economic activities, which is the way to the new 'untapped wealth' in the twenty-first century. Transformation in domains of economic activities and policy regimes could work for *re-coupling* the market and the society in a novel way within the inclusive macro economic system, which consists of three domains: the domains of the market economy, the public economy and the social economy. The paper explains the patterns and the path of the economic growth focusing on East Asia and China's high growth in conjunction with the special economic zones (SEZs). As a growth pattern of Asian economies, the study pays attention to the growth mode which shows that an economy can grow endogenously in the early stage of its development due to abundant amounts of labor. The dynamics of the miracle in China can be explained by a similar pattern as that in Japan, but with the variation of a prolonged span towards transition. The growth strategy of the SEZs is interpreted as an extra-exceptional case of geospatial and institutional experiments for the mechanism of diverse governance. In exploring the diversity of the domains of economic activity and opening up a new way to "untapped wealth," the importance of the infrastructure commons management as a novel design of the mechanism of governance is also emphasized

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in conjunction with diverse motivations and goals as well as innovative organizations for the process of institutional reform in the inclusive socio-economic system.

Keywords Economic miracle · Growth pattern · Special economic zones · Social experiment · The market-state dichotomy · Governance mechanism · Infrastructure · Commons management · Innovation platform · Social enterprise

1 The Rise and Fall of Miracles

In previous research on the growth patterns of countries throughout the world with postwar economic miracles, the category of growth patterns is divided into three distinct groups, among other patterns; the first pattern is the pattern following that of West Germany, the second is the one following the pattern of the UK-USA, and the third one is the one following that of Japan.

The representative miracles right after World War II were those of West Germany and Japan. Both the representative patterns of West Germany and of Japan pay attention to economic growth with abundant labor resources and scarce capital in order to better understand the economic miracles which have occurred since the end of the Second World War.

However, their patterns were distinct, one from the other. One pattern of the growth mode is based on an economy that was fully industrialized even before the Second World War, evidenced by West Germany in its early developmental stage. The other pattern is, by contrast, based on an economy that was not fully industrialized by the time Japan was defeated in the War in 1945. In view of economics regarding the growth mechanism, the Japanese miracle could be identified as the pattern of the Lewis (1954) mode in the early stage of development, whereas that of West Germany was that of the Solow (1956) mode in the sense that the ratio of West German capital/labor was far below the steady state after the war.

Further, in general, it was analyzed that the Japanese-type patterns are representative of Asian economic miracles with variations of their own. Luck, besides labor abundance in the process of development, also played a role in favor of the miracles. Under the occupation of the allied forces just after the defeat of World War II, Japan had a hard time due to the punitive measures imposed on it by the GHQ of the USA. The Cold War after World War II helped to mitigate the shocks to the economy and society. The Korean War was tragic for the two Koreas, but it was a great help to the German and Japanese economies. The boom of the Korean War made the war demand increase rapidly for products produced by those economies, and this helped the Japanese economy out of the crisis caused by the country's anti-inflation policy put into force by the USA as the occupying forces at that time.

Given the luck inside the country and outside of it, an endogenous growth emerged in a situation which caused the rate of real wages to be fixed due to the abundant labor force in an economy equipped with a constant returns-to-scale technology so that the marginal product of capital did not decrease or at least remained constant

with accumulation of capital. However, high-speed growth was sustained only for a limited span of time until the full utilization of the labor force was achieved. It can be pointed out that Japan's era of high-speed growth after the war is another expression of endogenous growth due to an abundant labor force and industrialization.

2 Asian Patterns of Miracles and Challenges

The Asian countries were in the midst of the crisis of the second half of the twentieth century, and after the turmoil of the Second World War and the Korean War, also in the early stages of the Cold War. Though the East Asian economies faced a financial crisis in the years 1997–98 and were also troubled with the global financial crisis of the twenty-first century, the span of economic growth continued through the real economy, with an intensification of production and trade relations within the Asian region. Many miracles, including the East Asian Tigers, China and Indonesia had been increasing in influence around the globe since the latter half of the twentieth century.

There is a strong argument that almost all of those miracles are of the Japanese pattern to varying degrees. It is also noteworthy that many of the transition economies in Eastern Europe, including the economies of Poland, The Czech Republic, Slovenia etc., seem to follow the growth pattern of Japan during the early stages of its development after World War II.

What is the feature of Japan's mode of economic miracle? Let me summarize one of the main stories of Japan's pattern of growth. A miracle is temporary so high growth will disappear in the long run. This transitional break with the saddle path to a steady state implies that the end of the miracle may be a normal transient process of reaching towards a state of high income and a slow path of growth with a variation of the width of the span. How does endogenous growth emerge during the miracles in Japan? Under the circumstance in which the rate of real wages is fixed due to an abundant labor force in an economy equipped with a constant returns-to-scale technology, the marginal product of capital is constant so that an endogenous growth emerges. In other words, once the Japanese economy with an abundant labor force achieved appropriate social capability, it entered the endogenous growth phase and the standard of living improved rapidly during the period of high growth. In the case of Japan, social capability was supported by state leadership with bureaucrats, reforms in institutions by the occupying allies, an attitude towards saving, policies for acquiring and allocating the means of accumulating capital and so on. However, high-speed growth can be sustained only for a limited span of time until the full utilization of the labor force has been achieved. After the miracle emerged in Japan, it took sixteen years before the transition, when we define the period of high-speed growth as the period from 1956 to 1971.

Let me also tell a story of transition from a growth path induced by labor from the contemporary perspective. When comparing with East Asian economies, an economic interpretation from the rise to the disappearance of the miracle is also

consistent with the case of the post bubble economy from the late 1980s, called Japan's lost decade. Thus, the consequent era of "low-speed" growth may be considered another expression of a hybrid-type of endogenous growth due to the structural sources of the fall of the miracle, for example, a non-abundant labor force, mismatched labor, and abundant or excess capital, though there are academic controversies regarding the path of Japan's slow growth as well as regarding Japan's lost decades.

One argument is that staggered total factor productivity, in which all sorts of impediments may appear, arises from either/both institutions themselves (structure, katachi) and/or the governance mechanism (function, hataraki). An impediment may be the mechanism of dominant governance that is supposed to coordinate or take care of the relations of multi-shareholders, as well as the fact that the general public may not work well. Or it is simply too old to function and respond to the changes in the society with the new technological progress and income growth of individuals as both the consumers specifically and the stakeholders in general.

3 Dynamics of the Miracle in China: Prolonged Span Towards the Path to Transition

The Chinese economy of an abundant labor force after the war and before the period of reform and opening-up was struggling under poverty, and this is obviously due to the lack of an attitude towards saving before the era of the strategy of reform and opening-up. Like the underdeveloped economies, China also faced a credit constraint on the world financial market so that the economy was in the trap of a vicious circle of low investment, low per capita capital stock, low labor productivity and low incomes.

Given the dual risks of its economic and political systems, China had chosen the mode of strategic development by creating the SEZs in local areas. Within the extra-exceptional spaces where the Special Economic Zones were created, an economy with an abundant labor force achieved appropriate social capability through reforming and experimenting with the institutions in question and sequentially implementing policies for acquiring the means of accumulating capital by attracting foreign capital from the international market.

This process allowed the selected regions in China to enter the phase of endogenous growth so that the standard of living could improve rapidly within the limited regions of the SEZs. Note that the path towards growth lasted for a longer span in comparison to the average one of East Asian economies. Thus, we can say that China's path of growth would be one of the categories of the Japanese growth pattern but it could define an extra-ordinary range of its developmental stage under the structural constraints.

To identify the sources of miracles regarding the span of growth in Asia, we need to understand the mechanism of growth by clarifying the stages that a country like China goes through on its route to industrialization. The pattern of the Chinese miracle

follows the same patterns, with some variations and time lags, as those of Japanese and Northeast Asian economies in the sense that China's miracle can be explained by the Lewis growth mode rather than by the Solow growth mode. Northeast Asian countries, for example, include South Korea, Hong Kong, and Taiwan, among others. Among the growth patterns of Asia's miracle that the Japanese pattern followed, China's growth pattern shows the notable exception in the span of its growth with a prolonged period but a seemingly unsustainable state when following the conditions of the Lewis mode within the theories of development and growth.

China is enjoying an exceptionally long span of highly sustained growth. The span is 40 years (1978–2018) when taking 1978 as the starting year, and it is 35 years (1978–2018) if the year 1983 is taken as the starting year. The span is longer than the average spans of East Asian miracles, which mostly ended in fewer than thirty years. However, the underlying mechanism of China suggests that everything seems to indicate an approaching break away from high-speed growth to converge on a stable saddle path system. This predicts that the economic miracle represented by the endogenous phase of high growth induced by labor had been prolonged, but will not permanently persist because the growth mode induced by labor is, by structure, temporary in a dynamic sense. This means that there is a limit to the span of growth under the given conditions and structure. The transitional period of the early stage of development, for example 35–40 years, will eventually end as a high growth path in the dynamic growth process in economic history. China is not likely to remain in the early stage of development forever. The country needs to break out of the current stage and move on to the next stage of a balanced developmental path in conjunction with social and economic coordination.

Let me clarify two important but different issues regarding the mechanism of development. One is obtaining the forces for a phase of endogenous growth and the factors of an important but exogenous prerequisite for initiating that growth path. The other is the duration of the miracles or the span of the high growth path and its determinants. It is useful to discuss the dynamics of the pattern of growth during the period of high growth and the prolonged miracle in China. The important characteristic that it shows of the Lewis mode of the miracle is that the growth is temporary though it has the longest span of growth in the East Asian miracle.

It is now generally accepted that continuing its growth at such a high rate is essentially impossible. In order to predict the coming path of growth in China, historical trends of growth in both South Korea and Japan with a certain difference in time will be helpful. For an economic policy and further social innovations, we can share some historical facts and experiences of high growth induced by labor abundance and the substantial challenges that China faces in its attempts at reaching the condition of a stable and mature developed country.

4 Growth Strategy and an Extra-Exception of the Clustered Geospace

Installing special economic zones (SEZs) throughout the selected regions might be interpreted as a growth strategy with experiments on gradual hetero governance, while it is an extra-exception of geographical space where activities were allowed within the clustered and limited domain of a market economy. So far, the results have been quite mixed: some countries, such as China, Singapore, Malaysia, South Korea among others, have been very successful, while others are still struggling. China's steep growth trajectory over the past three decades has attracted immense attention due to prevailing myths concerning China's economy and the understanding of factors and mechanisms to uncover its process of growth in conjunction with experiments regarding the transformation of its economic system under the incumbent political system of marginal change.

The basic economic strategy pursued in the SEZs since the late 1970s combines two approaches. One is the model of the 'East Asian developmental state' of state-led industrial development. The other is the 'transitional' model of gradual transformation of the original Communist centrally-planned economy into a more market-oriented one. The high economic growth rates during the early stage of development would have an impact on two aspects: an increase in the accumulation of the aggregate capital stock by the mobilization of resources and the other is a change in domains for economic activities over resources. That is, the gradual shift of control of those resources from the public domain (the state sector) to the market domain (the private sector). However, China had accumulated an excess stock of capital during the era of resource mobilization, resulting in a decrease in efficiency gains.

The process of reform is contingent to institutional change (priority value orientation) as Yuan (2017) pointed out. It means that traditional institutional change was mainly the construction of a mechanism for the operation of a market economy. In order to develop a set of inclusive systems on the basis of existing systems in conjunction with "self-independence" induced by "creativity", we need to have diversity in both domains for economic activities and the players who are participants in the various domains. Challenges facing the SEZs which need macro and micro and/or national and regional responses include: leveraging the lure of consumers; export-led investment-induced growth; investments in health and education; growth in productivity; an investment bubble stage trap; the issue of complementarities; a reform on the margin (within the SEZs *inside-out SEZ*); the quality of institutions, among others.

5 Infrastructure Commons as a Novel Design for the Mechanism of Governance

Let us discuss the issue regarding fundamental institutions and common infrastructures because it gives us important implications over the mechanism of the governance of resources and institutions. A new design for the mechanism of governance is needed in order to meet the structural changes in the diverse economic domains in the next developmental path of the twenty-first century faced with the dynamic progress of science and technology. It would be useful to have a perspective in order to view the basic fundamental resources, such as the commons management, as a platform for the new path. The broad concept of infrastructure includes traditional and non-traditional ones, which are dominant all throughout our daily lives.

As factors or root-sources to explain both the rise and disappearance of miracles of development, it is also useful to view infrastructural resources in a different way. If we can think of linking *infrastructure* with *commons management*, then we can treat it as a mixture of both the infrastructure resource and the method of governance as commons management in the modern sense because the era of information and knowledge is connected in a complex way to the existing institutions and systems.

Let me define the core concepts of “infrastructure” and “commons” to identify the distinction between the two terms. “Infrastructure” is a particular set of resources defined in terms of the manner in which they create value, while “commons” is defined as a principle of resource management by which a resource is shared within a society (a region or a community, regardless of geographical regions or fields). The shared infrastructures through the diverse and specific ways, thus, should be recognized as the fundamentally basic institutions that shape our lives, our relationships with each other, the opportunities we enjoy, and the environment we share. The basic supporting infrastructure that we rely on daily is critical to the fabric of our society.

There is a wide variety of infrastructure resources, from traditional ones to contemporary ones. Traditional infrastructure, such as roadways, railways, telephone networks, and electricity grids, satisfy this definition, as do a wide range of resources not traditionally considered as infrastructure resources, such as ideas, intangible things, mobile networks and the Internet. In discussing sources of development and urgent reform in a long-term perspective, we can categorize the infrastructure defined above into three sorts: commercial infrastructure, public infrastructure and social infrastructure. If we accept the very notion that basic fundamental infrastructure is critical to the fabric of our society, human society beyond regional, administrative and political borders, then we have to remind ourselves that basic infrastructure contributes to more than just commercial goods which are often best provided through market domains. The basic infrastructure has an untapped potential for improving social capability so that it also contributes to social and public goods in such core needs and risks of our daily life as public health, medical care and education as well as cultural needs for quality life.

In the process of innovative reform and transformation in conjunction with transition from high growth to the next path, it is useful to reflect on the key functional features of ‘infrastructure’ as a *resource* and ‘commons’ as a *mode of resource management* or *social adjustment* as well as *economic adjustment*. It means that there are significant “non-market” uses for the infrastructures that are not well reflected in the demand for and willingness-to-pay for access to infrastructure resources of all sorts. Therefore, relying on market provisioning of these goods or resources will result in under-consumption by public and non-market producers of goods and services, although there had previously been attempts to directly subsidize these producers of public and non-market outputs, resulting, in many cases, in ineffective performance as outcomes of a system where markets are the only dominant and accessible domain.

From an economic perspective, it makes sense to manage, not all of, but a certain amount of, infrastructure resources in an openly accessible manner because doing so makes it possible for a wide range of downstream producers of private, public, and non-market goods to flourish. The point is not that all infrastructure resources (traditional or nontraditional) should be managed in an openly accessible manner.

As mentioned recently in published articles of *Studies on China’s Special Economic Zones*, scholars at the China center for CSEZR suggested that the government and the public sector should refrain from leading the social economy with their own wishes. It may be more efficient to design and create an institutional environment to develop the new mechanism of governance for the fundamental resources such as the modern type of management of the ‘knowledge commons’ in addition to the traditional infrastructure commons, while respecting the reform of the overshooting market mechanism for a just and fair function per se. This agenda is also closely linked to measuring the quality of the reform in the process of the consumption-led and social developmental path as well as the economic growth path. We, of course, have to note that for certain classes of resources, the economic arguments for managing those resources in an openly accessible manner vary in strength and substance, depending upon the problem and on the context where the people live and in which they face that problem.

6 Diverse Domains and Innovative Organizations

For the economy and society to have room for an adjustment mechanism like ‘infrastructure commons’, it is helpful to have the architecture of the economy at large. I call it an “inclusive socio-macro-economy” in the book, Park (2018). The contemporary economic system could generally be characterized by three domains of economic activities, which consist of the market economy domain, the public domain and the social economy domain. The market-based domain and a varying level of governments deliver a need for services in conjunction with the social sector, with variations among regions and countries. We need to extend the conventional dichotomy of the market-state/government in economics by setting out a framework for a *tri-layered*

socio-macro economy with diverse institutional arrangements beyond the dichotomy of two domains.

The approach introduces a new way of looking at a shared resource towards a new common one that is subject to a social dilemma. I suggest that the ‘commons’ arrangement in the natural environment provides a template or platform for examining the mechanism of governance in the new commons type of management, and such infrastructure resources include not only traditional resources but also non-traditional resources such as intangible resources, contents, information and knowledge in the data-rich cultural environment.

And it is useful for the quality of institutional reform to be improved based on structural changes in economic activities. It is also useful to understand the characteristics of organizations and the self-decentralized governance within the social economy domain in addition to both the market and the public economy domains when facing the steady state of the path with a slow and a low rate of growth. The novel approach helps to clarify the process of reform and policy-development in conjunction with when labor with diverse abilities and the diverse forms of capitals can be governed through diverse mechanisms of governance within the *overlapped and boundary domain* with markets. The scheme corresponds to the *trilateral or tri-layered property regimes* in practical and implemental senses in order to solve the social and economic problems over various levels, for example, both at local-geographical locations and in the contemporary era.

In this regard, it is worth paying close attention to the recent re-emergence of hybrid activities in both the market domain and in the social economy domain above the developed economies in which the “decoupling issue” is considered as an issue of high priority on the social agenda. What then is change in the role of firms and organizations such as social economy organizations (SEOs), social enterprise businesses, and social entrepreneurships in the boundary or overlapped domain within the economic system?

In the architecture of the economic system in contemporary global societies, each type of economic actor performs a specific institutional role that explains and justifies their existence as a distinct institution in the economy and society in question. The two central actors are *governments in the public domain* and *corporations (business organizations)* in the market domain. Governments are focused on the public interest and establish the market infrastructure, while corporations (the for-profit business organizations, commercial entrepreneurs) pursue value appropriation strategies that deliver efficient economic outcomes. Other institutional actors might include charities, social activists, foundations, and social entrepreneurs (social economy organizations, SEOs), depending upon different political-cultural and regional contexts.

The organizational terrain is made up of “various types of organizations” whose activities are coordinated through the *institutional and policy network*, rather than through the dominating organizations per se.

A preliminary description of the development within the architecture of firms, companies, hybrid organizations in the study of Park (2018) provides the practical and theoretical clues for the East Asian economies with an inclusive social economy domain. The variety in types of organization within the Japanese organizational

terrain could be interpreted as the ideal institutional characteristics in that each SEO has the dual property of both/either individual motives and/or social motives to which formation of private and social values are linked. In Korea, various research projects have been actively promoted to clarify boundaries and characteristics of a social enterprise after legislation regarding social enterprises and co-operatives. Within the category of the SEOs in Korea, there are four dominant ones in the social economy domain during the early stage of the inclusive economy. The institutional actors in Korea include co-operatives, social enterprises, local community enterprises, self-sufficiency enterprises as the four major actors among seven types of SEOs within the social economy domain in Korea. SEOs in Japan had a long history of their own but they became active recently after such sequential disasters as mega earthquakes, abrupt floods, and a tidal wave of an unexpected entity, although the major SEOs exist only as non-profit organizational types. The hybrid type of SEO like companies of social enterprises are under consideration in academics. The future research agenda includes the related discussion and the foundation of innovative enterprises with diverse motivations by tracing the evolution in Asia of mapping the market economy and the social economy organizations and firms with a purpose or/and a social mission.

7 Concluding Remarks

The negative aspects of the miracle have been widely discussed as economic and social phenomena reflected in diversified forms of disparities and as a polarizing of the social stratification and a division in both social classes and beliefs. It includes income disparity, regional disparity, and the generation gap, among others. What are the origins of recent challenges? It is argued that the historical root of economic and social problems is the phenomenon of *decoupling*. Decoupling can be defined as the breakdown of economic progress and social progress and various disparities such as income disparity, regional disparity, the generation gap and the factors of the bipolarization of the social class.

What is the root of decoupling? Some attention has been paid to the following three huge trends as the structural sources of this phenomenon. Three mega trends include globalization, digitalization, and financialization. However, we have already seen the dimension of the variety of the problems in most countries that seem to arise from the structure of the growth that economies had constructed up to the achievement of their economic miracle. There is widespread social recognition regarding the fact that it is necessary to proceed through a somewhat new process of solving the social dilemma during the transition to a new path of developmental process.

In the market domain, there is a strong tendency towards the “personalization of social problems” to progress as emphasizing self-responsibility or individual responsibility as the principle of operations in the market domain. As a result, given the structure of the circulation that separates the economy from the society, the surplus benefits generated by the market economy had not worked well in bringing benefits

to society so that the phenomenon of *decoupling* had to be sustained in the structure of the economy as a whole.

The measurement of the decoupling fact could be represented by extracting signals of “social and political emotions” explicitly emerging in society where it was more positively communicated through the emergence of new media. In society and economy, *people* and *labor* matter, but are not enough to get the full story, as an economist with passion mentioned: “An economic miracle is intrinsic to a modern economy in the sense that people are its *seed*. However, having a seed is one thing, germinating it is another.”

From a long-run and innovative perspective, what should we do in order to stabilize the saddle steady state in the stages of the developmental process? It is necessary to pay attention to *growth factors* which are related to the *ability of people* and to their *capability*. Through the distribution of ability, the rate of the growth factor (sustainable growth factor), such as the sustainability of technological progress, the accumulation of human capital and to cultural capital for enhancing creativity (cultural intelligence) channels will be created to affect and to sustain the critical level of developmental growth that is slow and low by structure. The growth rate increases with the growth factor, and this is called the scale effect. However, the scale effect will not be implausible in the long run because the growth rate is temporary and will disappear eventually in the long run, though the span of growth may be a prolonged one, contingent on structural factors as well as on the initial conditions.

It is the breaking space as overlapping domains that innovations from diverse domains come into integration to create both private value and social value through firms and companies with hybrid motivations and goals.

In order for active and free economic activities to be functioning over the diverse domains through the transactions of interacting diverse players (i.e. participants, organizations and companies), it is also important to note that values of outputs are generated by combining diverse forms of capitals under a supply chain of multi-level layers, such as industrial capital, financial capital, human, social capital or cultural capital in the framework of the socio-economic system. Regarding commons management as a governance mechanism, it is also worth noting that “social common capital” includes not only traditional infrastructure, but also institutional capital, knowledge and contents, cultural capital. These sorts of capitals are sharing the non-rivalry of economic characteristics so that leads to increasing returns, and can thus make it necessary for us to put priority on social values as well as on private values. It is critical for the potentially important role of the new capitals to be revealed for market structure. It requires *capability* to establish a concrete moral floor for any minimally just society. Ten central capabilities as core political entitlements are articulated as follows: life; bodily health; bodily integrity; senses, imagination, and thoughts; emotions; practical reasoning; affiliation; other species; play; control over one’s environment.

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Chapter 6

A New Structural Economics Perspective on the Ethiopian SEZs: A ‘Shenzhen Miracle’ in Africa in the Making?



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Abstract This paper analyzes how Ethiopia has been trying to follow the Chinese experience of SEZ-led development. My analysis is based on the theories of New Structural Economics (NSE) and exploits a unique dataset of three waves of field interviews gathered in Ethiopia. I first analyze the binding constraints that are holding the Ethiopian economy back from realizing its latent comparative advantage; then I use these primary data to analyze to what degree the SEZs in Ethiopia have been able to resolve these binding constraints and contributed to structural transformation. The identified constraints are access to finance, electricity, customs and trade regulation, weak local supply chains and a lack of industrial culture. On average they definitely improved the business environment but many of the issues still remain, but at a lower level of intensity. The macroeconomic data suggests that no structural transformation took place due to the SEZ program. Policy recommendations will be provided.

Keywords Special economic zones · New structural economics · Ethiopia

1 Introduction

The recent economic developments in Ethiopia show many similarities to the developments in China after the reform and opening-up policy. Both countries are ancient and proud civilizations that in the twentieth century found themselves in a position where they were economically vastly behind Western nations. Also, both experienced a period of a communist planned economy with disastrous economic consequences followed by a transition towards a more market-based economy. As Ethiopia's transition process started considerably later, the Ethiopian government has been eagerly seeking inspiration from the Chinese experience (Cowen, 2018). This has also been actively supported from the Chinese side through a number of measures such as the Forum on China-Africa Cooperation (FOCAC), reduced interest rates loans for Chinese companies investing in Ethiopia and consulting and training services.

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The Chinese businesswoman Helen Hai tells the story of how Professor Justin Lin Yifu from Peking University advised the Ethiopian prime minister at that time on the country's industrialization strategy and arranged the first leads for the prime minister to attract the first anchor investor—Huajian Shoes—into the country's light manufacturing sector (Olander, 2016).

The Ethiopian economy was one of the fastest growing economies in the world in recent years. The average GDP growth over the last decade was around 10 percent per year. At the same time, the poverty rate fell from 44% in 2000 to 23.5% in 2015/16. And the IMF forecasts the economy to grow by 8.5% in 2018 making it one of the fastest growing economies in the world (IMF, 2018). Figure 1 shows Ethiopia's GDP over the recent decades. There is potential for further growth given Ethiopia's competitive unit labor cost. The McKinsey Global institute writes: "For example, its unit labor costs for the manufacture of polo shirts are \$0.14 per unit, less than half the level in China and Vietnam. In the case of leather loafers, its unit labor costs are one-third those in Vietnam and one-fifth those of China" (McKinsey Global Institute, 2016, p. 78).

All of this has happened from a very low base and even after a decade-long growth spurt, the GDP per capita in 2016 was only 707 USD (World Bank, 2018). Also the political instability before the appointment of Abiy Ahmed as prime minister showed how fragile the political-economic situation in Ethiopia still can be (Donahue, 2018).

Similarly as in the Chinese experience of development, Ethiopia is emphasizing the role of Special Economic Zones (SEZs) in its transition, development and FDI strategy. The first industrial park in Ethiopia—the Addis Industrial Village—dates back to the 1980s. Since then there were no new developments on this front till 2010. The Eastern Industrial Zone (EIZ) in 2010 was the first SEZ to open since the Addis Industrial Village. The EIZ is a privately-operated industrial park in proximity to Addis Ababa. In 2015 the first government owned SEZ—Bole Lemi—opened.

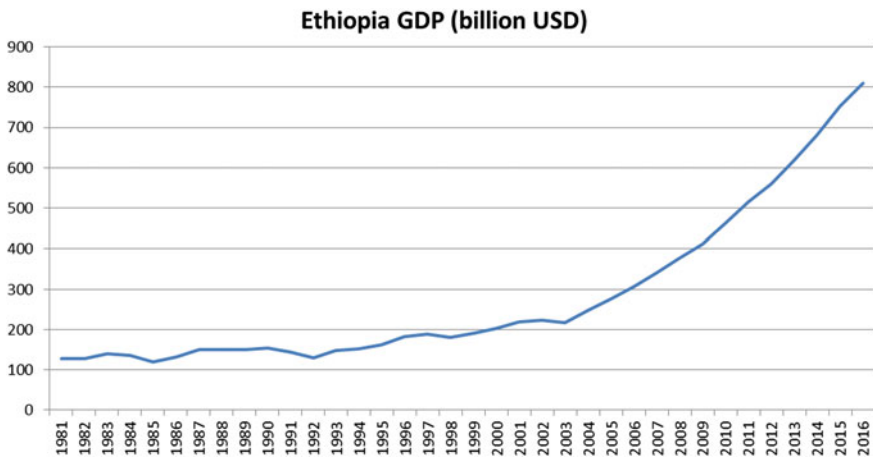


Fig. 1 Ethiopia GDP (1981–2016). *Source* World Bank (2018)

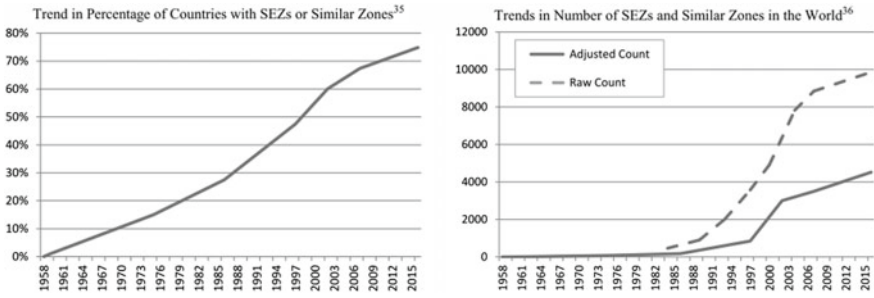


Fig. 2 Number of SEZs over time. Source Bell (2016)

Since then a lot more zones have been completed or are currently under construction (UNDP, 2015).

Worldwide, there are now over 4000 SEZs (Bell, 2016). More countries in the world have some kind of Special Economic Zones (SEZ) than countries which do not have them (The Economist, 2015). Even though they exploded in numbers—see Fig. 2 from Bell (2016)—most zones are considered failures whereas a few of them became famous for their allegedly miraculous success stories (The Economist, 2015). Of these, Shenzhen might be the most outstanding example.

Even though SEZs have become such a common phenomenon, they have received little attention in the mainstream literature on development economics. Also, still little is understood about the great variance in outcomes of different SEZs and SEZ programs.

Compared to this global trend Ethiopia is a latecomer to SEZs, and its long-run performance is still uncertain. As Ethiopia’s transition process started considerably later than China’s, the Ethiopian government has been eagerly seeking inspiration from the Chinese experience. Besides these intellectual contributions, the development of the Ethiopian SEZs in recent years has been interwoven with China due to the FDI flows stemming from China. Also, many of the SEZs are constructed by Chinese construction companies and some are even operated and financed by Chinese entities.

However, there are also significant differences which will be discussed later in more detail. When China opened up its economy, it had economies in its neighborhood that were already industrialized and looking for places with cheap labor to relocate their labor-intensive industries to. But Ethiopia has no Hong Kong, Taiwan, Japan and Korea nearby so it will have to overcome this challenge in some way. Also, China had some previous experience of industrialization during the republican era and in the treaty ports and had experienced a state-led heavy industry drive before the opening-up reforms. So the demonstration effect that industry is viable in China was already there.

Considering these aspects, the Ethiopian SEZs are a very important and insightful case study to undertake. This paper will exploit a unique dataset of interview questionnaires conducted with stakeholders in Ethiopia over three consecutive waves in

December 2016, August 2017 and December 2017. The analysis will be based on the theoretical framework of New Structural Economics (NSE) and will focus on the industry targeting of the zones, the ability to resolve binding constraints and its contribution to structural transformation. This paper will analyze the Ethiopian SEZ program and will try to answer the following main research question: Have the Ethiopian SEZs been able to resolve the binding constraints which are holding back investments into areas of comparative advantage? For this, I will first identify the binding constraints of Ethiopia's economy and then analyze the SEZs under these considerations. In the end, policy recommendations will be provided.

The paper is structured as follows: Sect. 2 provides a review of the literature. Section 3 lays out the methodology of this paper. Section 4 identifies the binding constraints of the Ethiopian economy. Section 5 analyzes the Ethiopian SEZs. For this, first an overview of the zones is provided, followed by an in-depth analysis of the Bole Lemi Industrial Park zone. Besides, an evaluation of the interview surveys macroeconomic data is used to estimate the contribution to structural transformation. A discussion section provides policy recommendations and an outlook for the near future. The last section concludes.

2 Review of the Literature

There is no clear definition of SEZs and the term is often used to describe a whole range of economic-geographical phenomena on a spectrum from simple Industrial Parks all the way to a fenced-in zone with a different legal system. The easiest definition is that "SEZ" refers to a geographically defined area in which a different set of rules applies from that outside of this area. If we imagine a continuum in how different these rules are from the rest of the country ranging from simple Industrial Parks on the left all the way towards highly autonomous SEZs (e.g. Dubai International Financial Center) on the right then the Ethiopian SEZs fall towards the left of this spectrum. They are industrial parks that combine a targeted hard infrastructure with fiscal and non-fiscal incentives for businesses to locate there (INSE Interviews).

Research on the Ethiopian SEZs has so far been constrained by two main factors: First, as the SEZ program is still very new and a big number of SEZs are still under construction, there has not been very much time for a bigger amount of literature to develop yet. Second, the data availability on the level of the zones is not given. Macro-economic data on Ethiopia is available through the normal sources. But in order to research the SEZs one requires more information on the zones themselves and the firms operating within the zones.

There are only very few studies that focus on the Ethiopian SEZs specifically. One of them is the World Bank conducted case study of the Hawassa Industrial Park focusing on PVH's¹ involvement and investment decisions (Miretu & Llobet, 2017). Giannecchini and Taylor (2018) conducted a case study on the Eastern Industrial

¹ PVH is a major apparel company.

Zone. UNDP (2015) focused on a comparison of Chinese and African zones but also included a lengthy case study of the Ethiopian zones. Given the dynamism of recent years, this study is not up-to-date anymore and it is also not as in-depth on Ethiopia as this paper aims to be.

Then there is literature on the Ethiopian development in general that includes information on the zones as a side note (Xu et al., 2017). Arkebe (2015) is the most important publication on Ethiopia's industrial strategy, but it does not refer to the current SEZ program.

There is a bigger amount of literature on SEZs in Africa in general and often with a comparative approach with China. These include Farole (2011), Bräutigam and Tang (2011), El-Gohari and Sutherland (2010), Farole and Moberg (2014), Wollfrey (2013), Zeng (2015), Zhang and Ilheu (2014), Tao et al. (2016) and the previously mentioned UNDP (2015). Sun's (2017) book on manufacturing in Africa also provides some insights into the role of African SEZs.

This paper contributes to the literature in four ways. First, it is the most up-to-date study on the Ethiopian SEZs. This is especially valuable due to the fast pace of change and development in Ethiopia. Second, it is the first study aiming at a comprehensive study of the whole SEZ program. Other studies so far have either focused on one zone as a case study (Miretu & Llobet, 2017) or have covered the zones only as a side note of the general economic development but not as the center of their research (e.g. Xu et al., 2017). Third, I make use of an extensive set of primary data collected through field interviews. This especially makes it possible to shed more light on the firm perspectives as well as on the zone operator and government agency experiences. Through the temporal nature of the data over three consecutive field visits, it is possible to take a dynamic perspective and to observe changes over time. Fourth, by applying an NSE framework this paper is able to provide a different theoretical and analytical perspective.

3 Methodology

Theory

The analysis of this paper is based on the theoretical framework of New Structural Economics (NSE). NSE was proposed by Justin Lin Yifu during his tenure as Chief economist of the World Bank. It aims to provide a new framework for development (Lin, 2012) and tries to reconcile structuralist economics with neo-classical theory. It stresses concepts such as comparative and latent comparative advantage, structural transformation and industrial policy. Assuming that the resources of a developing country are limited, it recommends that governments engage in targeted investments to support industries in which the economy is expected to have a comparative advantage given its factor endowments (Lin, 2012; Lin & Monga, 2017). It takes the factor endowment structure of an economy as the starting point. NSE then sees development

as an evolutionary process which involves industries, technology, the importance of infrastructure and the design of institutions.

Let us first take a look at what role the SEZs play within a NSE framework. In the Ethiopian case—as well as in the Chinese case—SEZs were an important part of economic transition as a step-by-step liberalization of the economy. Lin (2009) focuses on the importance of a gradual reform. SEZs can play an important role in testing and experimenting with policies in a geographically limited area. NSE sees structural transformation at the core of economic development. The starting point is factor endowments. These define the comparative advantage of the economy. There might be binding constraints that hold the economy back from fulfilling these potentials. NSE sees here a role for the government to target scarce resources to resolve these binding constraints in a concentrated manner. SEZs are supposed to drive structural transformation. As certain industries given a comparative advantage drive, gradually more and more capital gets accumulated in the economy and the comparative advantage shifts towards more capital-intensive industries. NSE considers the government to have a guiding role in this process. SEZs are seen as a useful tool to concentrate investment and as a way to overcome binding constraints in a targeted manner due to budgetary and political constraints; remove soft (business environment) and hard (infrastructure) constraints in a concentrated space to unlock comparative advantage. This will then open up further possibilities for the development of the economy. The theory seems to be inspired by the historical experience of development (Lin, 2009; Lin, 2012; Lin & Monga, 2017).

The success of the SEZs under a NSE perspective can then be evaluated by whether binding constraints have been successfully been resolved, structural transformation (in accordance with the comparative advantage) has taken place and whether FDI has been attracted and jobs have been created.

Lin and Monga (2017) provide a laundry list of recommendations derived from NSE for creating successful SEZ policies. SEZs should provide the appropriate environment for a targeted industry and these industries must have comparative advantage following (CAF). The zones should also include commercial and professional services. Foreign and domestic investors should be treated equally. Fiscal incentives should be based on industry not location. Effective institutional arrangements are crucial in the successful implementation of the SEZs. A wide range of services and facilities should be available within the zone to support businesses operating within the zone. Land rights play an important role in manufacturing investment—we will see the importance of these issues later for the Ethiopian case. Private developers should be allowed to supply utilities. Infrastructure investment is crucial. Rent seeking and corruption are encouraged by comparative advantage defying (CAD) policies and zones, if the zones target CAF industries, business will be viable and there will be less scope for corruption as no protection and subsidies are needed. And lastly, the government should support training for workers (Lin & Monga, 2017).

The Growth Identification and Facilitation Framework (GIFF) is an application of NSE to derive concrete policy recommendations depending on the specific circumstances of a country. It works as follows: First, pick a country that is 20 years or 100% ahead in terms of GDP per capita, and look at the tradable industries it is exporting.

Then look at which constraints firms in these industries are facing in your country. Try to resolve them through targeted investments and encourage FDI and support private enterprise in these sectors. Also, the government should help to set up SEZs and industrial parks. As the first movers into new industries face additional risks and uncertainties which they privately face, but they also uncover knowledge and demonstrate the viability of certain business practices. This knowledge can be used by all new incoming entrepreneurs. So, costs are private but there are social spillovers to success. So, the government should consider ways to compensate pioneers (Lin & Monga, 2010; Lin & Xu, 2016).

Data

This research project exploits a unique dataset of field interviews conducted with stakeholders in Ethiopia over three consecutive visits to Ethiopia in December 2016, August 2017 and December 2017. These interviews have been conducted by experts from the Institute for New Structural Economics (INSE) at Peking University. The interviewees range from foreign firms operating within the zones over Ethiopian government agencies to financial institutions, zone developers, international NGOs and research institutes. Some of these interviews were conducted in English and some in Chinese.

There is no quantitative data available in order to run multivariate regression models on a specified key performance indicator (KPI) as the dependent variable; hence the analysis needs to be of a qualitative nature.

Table 1 provides descriptive statistics of the interviews conducted. The total number of interviews conducted is 64. Twenty-three of these took place in December 2016, 13 in August 2017 and 28 in December 2017. Of the surveyed organizations, 17 are firms, 14 government agencies, 10 zone developers, 4 financial institutions, 3 research organizations, as well as one NGO and one Business Association each.

Most of the organizations were surveyed only once (38 of them), 10 were surveyed during two of the field studies and 2 organizations during all three field visits. Of the surveyed organizations, the biggest bulk is from China and Ethiopia, whereas most of the Ethiopian respondents are from the government sector whereas most of the Chinese respondents are firms. The rest is fairly evenly spread across with only one or two observations per country. A full list of interviewed entities can be found in Appendix A1. Due to data confidentiality reasons, the names of the respondents have been anonymized and most of the information gathered during the INSE field interviews may not be attributed to the interviewees. Only a few respondents were willing to be named.

There is a sampling bias mainly towards Chinese firms in the sample, making it not representative. But still, it provides very valuable first-hand information which is otherwise not yet available to researchers. Due to the unrepresentative nature of the sample, quantitative analysis cannot be undertaken and hence the analysis will be solely qualitative.

Table 1 Descriptive statistics of field interviews conducted in Ethiopia

Respondent Category	Firm	Government Agency	Zone Developer	Financial Institutions	Research Organization	NGO	Business Association	Total
Count of interviews	23	17	15	4	3	1	1	64
Count of organizations/interviewees	17	14	10	4	3	1	1	50
<i>Number of Interviews per field visit</i>								
12.2016	08.2017	12.2017	Total					
23	13	28	64					
<i>Country of origin of interviewed entities</i>								
Ethiopia	21							
China (mainland)	15							
India	2							
Taiwan	2							
The USA	2							
Sri Lanka	2							
Turkey	1							
Korea	1							
Sweden	1							
Bangladesh	1							
UAE	1							
Hong Kong	1							
Total	50							
<i>Entities that were surveyed during 1, 2 or 3 of the visits</i>								
During 1 visit	38							

(continued)

Table 1 (continued)

Respondent Category	Firm	Government Agency	Zone Developer	Financial Institutions	Research Organization	NGO	Business Association	Total
During 2 visits	10							
During all 3 visits	2							
Total	50							

Source INSE Interviews, author's analysis

Additionally, I am utilizing secondary literature for further background information. I also undertook field trips to the Shenzhen SEZ and the Shanghai Free Trade Zone (FTZ) to conduct interviews with stakeholders there. Twelve interviews were conducted there. A full list of responding entities can be found in Appendix A2.

4 Binding Constraints

Background on the Ethiopian economy and its transition

Ethiopia is commonly referred to as the only African country to never have been colonized (Marcus, 1994). Its more recent economic history has been dominated by political events. After the Italian occupation, Emperor Haile Selassie resumed the throne till he was overthrown by a Marxist revolutionary movement in 1974. The resulting government—the so-called Derg—established a one-party state and a communist planned economy. After the big famines in the 1980s anti-communist insurrections sprang up across the country, culminating in the overthrow of the government in 1991. Since then the country has been ruled by the Ethiopian People's Revolutionary Democratic Front (EPRDF) and has administratively been reformed to a federal system. Since then Ethiopia can also be seen as being in transformation towards a market-based economy. This process shows a number of similarities with China. For example, land is still solely government-owned and individuals and firms are only able to get leases for a certain period of time. The political system is an effective one-party system. Inspired by the experience of the Asian fast developing economies of the recent decades, Ethiopia is also betting on the SEZs in their bid to open up the economy and to attract investment and technology (Adejumobi, 2016). Even though the first designated Industrial Park in Ethiopia—the Addis Industrial Village—started in the 1980s (IPDC, 2018), the big push for SEZs just started in the 2010s. The Growth and Transformation Plan (GTP)—which lays out the economic policy strategy for 2010/11 to 2014/15—identifies SEZs as one of its main focuses (UNDP, 2015). The government is trying to create an African 'developmental state' (Clapham, 2017). The Growth and Transformation Plans (GTP) are the five-year plans describing the economic strategy of the country.

Identifying the binding constraints

In the next step, let us take a look at the binding constraints of the Ethiopian economy. Ethiopia's GDP in current USD is USD707. Ethiopia has a population of 102 million and an estimated labor force participation rate of 84% for those aged 15–64 (World Bank, 2018). A total of 64% of the population is aged 24 or younger (CIA, 2018). Ethiopia lacks significant amounts of natural resources in minerals but has a rich endowment related to agricultural production which has the potential for the country to produce significant amounts of coffee, cotton etc. Also, big livestock

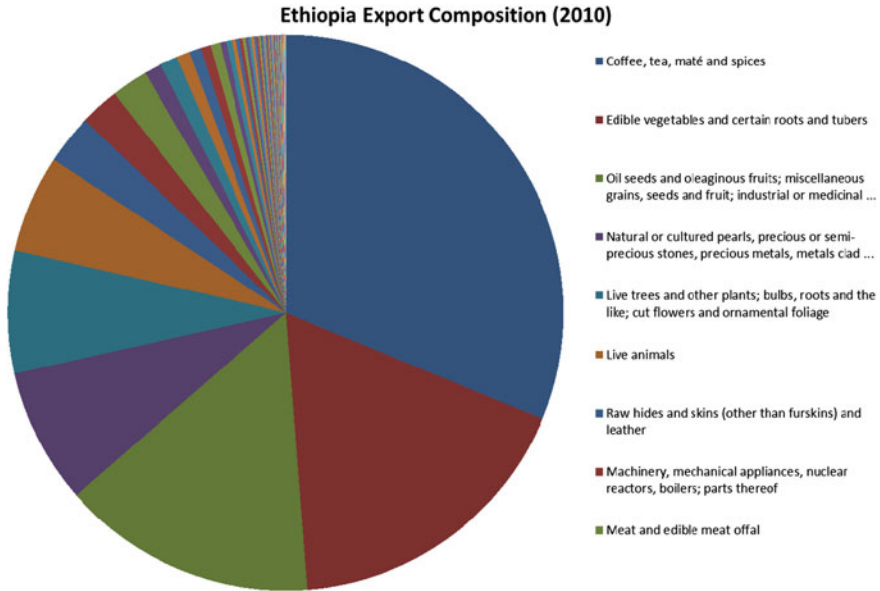


Fig. 3 Ethiopia Export Composition (2010). *Source* Trade Map (2017)

is an endowment that could be utilized for a potential leather processing industry (Arkebe, 2015).

Given these factor endowments we can expect Ethiopia to have a comparative advantage in labor-intensive and relatively little capital-requiring industries. Lin and Monga (2017, p. 309) list as low-tech manufacturing sectors: food and beverages, textiles and apparel, wood and paper.

This suggests very typical developing country comparative advantages in sectors such as apparel² and agro-processing and food and beverages. This also provides opportunities for the development of backward linkages with Ethiopia’s endowments in the agricultural sector.

In Fig. 3 showing the export composition, we can see that Ethiopia—in 2010 before the start of the SEZ program—actually made use of its factor endowments in agriculture and had a revealed comparative there, but labor-intensive manufacturing outputs were miniscule to non-existent. So, let’s next put our focus on the reasons why Ethiopia is not fulfilling its comparative advantage. What is holding it back?

Ethiopia ranks 142 out of 180 worldwide and 27 out of 47 in Africa in the 2018 Economic Freedom Index (The Heritage Foundation, 2018). Similarly in the Ease of Doing Business Ranking published by the World Bank, Ethiopia ranks 161 out of 190 (World Bank, 2017). The indicators of these indexes are mash-up indexes and

² Apparel is labor intensive; against a common misperception, textile production is actually relatively capital intensive.

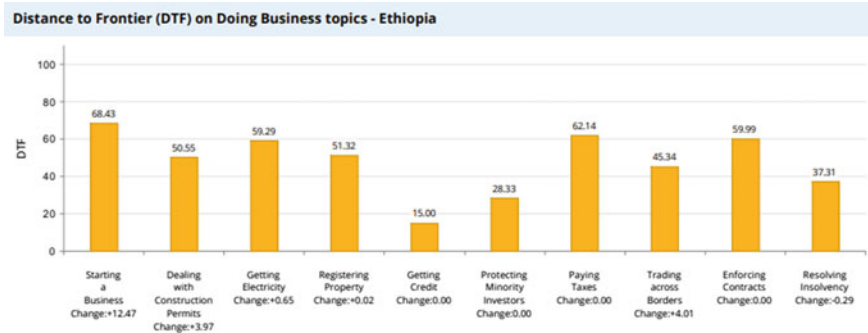


Fig. 4 Ease of Doing Business—Distance to Frontier. Source World Bank (2017)

therefore have their issues. Nonetheless, looking at the weak points in the subcategories can give us some valuable insights into the binding constraints of Ethiopia’s economy.

Figure 4 represents Ethiopia’s distance to the frontier on the subcategories of the Ease of Doing Business Index whereas 100 represents the frontier and 0 the worst possible value. So, we can see that getting credit and protecting minority investors are sources of major concern for doing business in Ethiopia. The category of Starting a Business has seen the biggest improvements.

A total of 40% of all the firms surveyed in the most recent edition of Enterprise Surveys named access to finance as an obstacle to their business (see Fig. 5). Other main concerns are electricity and customs and trade relations which were reported as obstacles by 10% of the respondents each. These kinds of surveys obviously contain



Fig. 5 Enterprise Surveys—main obstacles

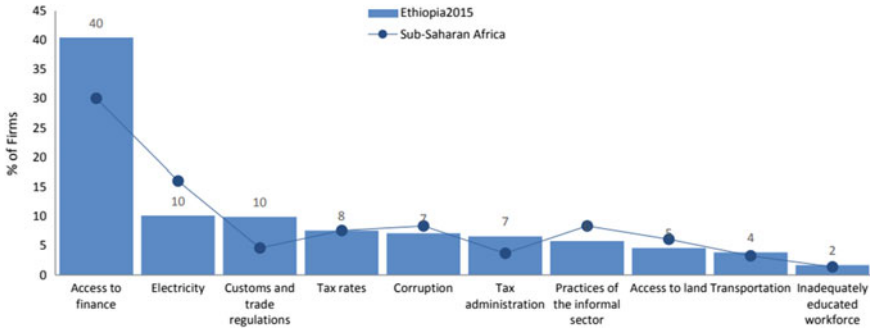


Fig. 6 Top ten business environment constraints (percent of firms). *Source* Enterprise Surveys (2015)

the issue of “the seen and the unseen”. So to us, it reports the obstacles that firms operating in Ethiopia face. All these are able to operate and conduct business in the country. It does not tell us about the firms who are not operating in Ethiopia as they thought the obstacles were prohibitively high. Also firms who have never been founded due to these obstacles cannot be considered (Fig. 6).

According to this analysis, based on ease of business indicators, the major binding constraints are: Access to finance, electricity, customs and trade and protecting minority investors. (As corporation law-related issues such as protection of minority investors and resolving insolvency are not being addressed by this SEZ program, I choose to not select these constraints for further investigation).

Along similar lines, Xu et al. (2017, p. 9) see “poor infrastructure, poorly functioning domestic supply chains and the challenges of transitioning from a command economy” as significant binding constraints. Later, they identify “four major nationwide constraints faced by Ethiopia: (1) electricity generation, (2) financing, (3) routes to market and transportation, (4) poorly functioning backward linkages between industry and the wider economy” (Xu et al., 2017, p. 14). The government itself is also active in trying to identify sector-specific constraints. This is done in close interaction with the private sector through regular investor meetings (INSE Interviews).

So, based on the field interviews, the Ease of Doing Business (World Bank, 2017) and the Enterprise Surveys (2015), the major constraints against which we will be evaluating the SEZs on in the next section are in order of importance: First, access to finance. Second, electricity. Third, customs and trade regulation. Fourth, weak local supply chains. Fifth, a lack of industrial culture.

From a successful SEZ program, we would expect it to resolve these issues within the defined area of the SEZs in order to enable investment in the industries of the latent comparative advantage. In the next section, we will take a look at how well the SEZs have been able to achieve this.

5 Analysis of the Ethiopian SEZ Program Under an NSE Angle

The zones and their characteristics

The first legal basis for SEZs in Ethiopia was the investment proclamation which is part of the Regulation No. 769/2012. It defines SEZs and lays out that the development “shall be undertaken by the federal government or, where deemed necessary, by joint investment of the government and the private sector” (§ 32.2). An authority managing the operations was founded in the same year which is now called the Industrial Park Development Commission (IPDC). But previously established private zones are not subject to its administration. An updated and more comprehensive proclamation on SEZs came into effect in 2015 (Proclamation No. 886/2015) (UNDP, 2015).

Table 2 provides a list of all SEZs in Ethiopia. Eight of them are currently finished whereas the remaining 13 are currently in the planning phase or under construction. According to Ethiopian law, SEZs can be run by private or public entities or by public–private partnerships. The IPDC is the public authority developing and running the public industrial parks. The Ethiopian government offers a list of incentives that they are offering in the SEZs. (A detailed list can be found in Appendix A3.) The incentives can be split into hard (fiscal incentives) and soft incentives (general non-fiscal support). The hard incentives include income tax exemptions for 15 years for investments in the SEZs outside the greater Addis Ababa region and for 10 years in the Addis Ababa region. Capital goods imports and the importation of raw materials that are needed for production are customs duty exempted. Industrial park space is being made available at a promotional rate to investors. All export products are export tax exempted with the exception of semi-processed hides and skins. The soft incentives are made up of One Stop Shops (OSS) in the SEZs. The OSSs are supposed to provide a number of services to investors, including customs clearance, permits and licenses, and banking services. Certain customs facilitation schemes, expedited visas as well as the right to own immovable property, are provided to zone investors. The EIC also claims a guarantee against expropriation. Electricity in the SEZs is provided at a reduced rate of 3 US cents per kWh and dedicated power stations are provided that are supposed to guarantee continuous power supply. Investors are allowed to freely remit funds and to open and operate foreign currency accounts (EIC, 2017). Besides these incentives, infrastructure plays a major role in facilitating investment in these zones and will be more closely analyzed at a later stage.

As can be seen from Table 2, at least 11 zones have been or are currently being constructed by major Chinese construction companies. A major competitive advantage for them is that they are able to access loans at lower interest rates from China. As can be seen from the table, there is an over-proportionate amount of the zones located around the capital Addis Ababa. Otherwise they are relatively evenly spread with a zone in nearly every federal unit. The main transportation artery of the country is currently the Addis Ababa—Djibouti corridor. Ethiopia is a land-locked country and the port of Djibouti is the main point of entry and exit of goods into and out of

Table 2 SEZs in Ethiopia

No.	Name	Location	Area	Ownership	Constructor [1]	Stage
1	Huajian Light Manufacturing City [2]	Addis	1.38 km ²	Huajian	Private Firm	Under Construction
2	INDODE New City	Addis	–	Jointly owned [3]	TBD	Planning
3	Hawassa	Hawassa	1.3 km ²	IPDC	CCECC	Built
4	Bole Lemi 1	Addis	1.5 km ²	IPDC	CGCOC	Built
5	Bole Lemi 2	Addis	1.8 km ²	IPDC	CGCOC	Built
6	Dire Dawa	Dire Dawa	30 km ²	IPDC&CCECC	CCECC	Built [4]
7	Adama	Adama	20 km ²	IPDC	CCECC	Built
8	Adama Zone (previously Hunan-Adama)	Adama	–	IPDC	CGCOC	Planning
9	Jiangsu Sunshine	Adama	2 km ²	Jiangsu Sunshine	Private Firm	Planning
10	Mekelle	Mekelle	10 km ²	IPDC	CCCC	Under construction
11	Arerti	Arerti	1 km ²	CCCC	CCCC	Under construction
12	Eastern IP 1	Addis	2 km ²	Jiangsu Yongyuan	Private Firm	Built
13	Eastern IP 2	Addis	1.67 km ²	Jiangsu Yongyuan	Private Firm	Planning
14	Kombolcha Industrial Park	Kombolcha	0.75 km ²	IPDC	CCCC	Built
15	Velocity Zone [5]	Mekelle	1.5 km ²	Velocity Apparelz	unnamed Chinese firm	Built
16	Addis Industrial Village	Addis	0.88 km ²	IPDC		Built
17	Kilinto IP	Addis	2.79 km ²	IPDC	China Tiesijiu Civil Engineering	Under Construction
18	Bahir Dar Industrial Park	Bahir Dar	0.75 km ²	IPDC	CCECC	Under Construction
19	Jimma Industrial Park	Jimma	0.75 km ²	IPDC	CCCC	Under Construction

(continued)

Table 2 (continued)

No.	Name	Location	Area	Ownership	Constructor [1]	Stage
20	Air Lines Logistic Park	Addis	2 km ²	IPDC		Under Construction
21	Debre Behran Industrial Park	Debre Berhan	10 km ²	IPDC?		
22	Modjo Industrial Park	Modjo		George Shoe		

Source Own compilation based on INSE Interviews

Ethiopia. In 2018, the electric railway running between Djibouti and Addis Ababa commenced commercial operations, which should improve logistics from and to the port of Djibouti. The railway provides both passenger and freight operations and has been financed by a loan from China Exim Bank (Xinhua, 2018). It is planned to expand the railway network to connect all parts of the country with it. However, the next line—the northward extension aimed to reach Mekelle—has currently come to a standstill due to financing problems (Berhane, 2017). Some of the zones such as Dire Dawa and Modjo IP are along the Addis-Djibouti transportation corridor. Whereas the first zones have been filled quickly with investors there are rumors that some of the new SEZs being developed are struggling to rent out all their sheds to investors (INSE Interviews).

Case Study: Bole Lemi Industrial Park

The Bole Lemi Industrial park is the first government-operated SEZ in Ethiopia. As it was the first park, the progress was rather slow and lessons were learnt for future zone development. But as it is the first one, we also have the longest time period to analyze; we can then compare that with the recent developments in the newer zones. It consists of a phase 1 and a phase 2 development. Phase 1 covers an area of 178 ha and phase 2 covers 171 ha. Construction started in 2012 and finished in 2015 and was at least partially conducted by a major Chinese construction company. Phase 1 took 3 years to finish and phase 2 was finished within one year (UNDP, 2015; INSE Interviews). It was funded with USD113 million by the Ethiopian government and USD 250 million by the World Bank (UNDP, 2015). Bole Lemi exported USD20 million worth of goods in 2016 (INSE Interviews). To the latest count, there are 12 firms active in the park and these firms stem mainly from Asia (China, Korea, India etc.). There are currently around 20,000 workers employed in Bole Lemi. The government expects this to go up to the 25,000–30,000 range. As of December 2016 the OSS was not in place yet and there were worker housing units under construction (INSE Interviews). Originally, water access was delayed which forced some firms to delay production (UNDP, 2015). This had been resolved by December 2017 and the firms report now that the water supply is satisfactory (INSE Interviews). There has been a mobile power station in the zone since 2015 to resolve the country-wide issue

of power cuts within the zone (UNDP, 2015). Bole Lemi is located to the southeast of Addis Ababa and hence has, due to its location, access to Addis Airport and the Addis Ababa-Djibouti transportation corridor. Helen Hai, who was instrumental in setting up the Huajian operations in the Eastern Industrial Zone, supported the government in the process of setting up Bole Lemi (Olander, 2016; INSE Interviews).

However, there are still some challenges based on what firms reported (INSE Interviews). There seem to be coordination issues between different government agencies which led to the OSS still not being established by the end of 2016. The OSS was established by the end of 2017, but the last services were just moving in. The customs service is a source of complaints as well as the annual documentation work. Since 2015/16 the regulatory environment has improved. Also, getting visas for expat personnel has improved. Multiple firms have complained about insufficient investment aftercare services. A common sentiment was that the government should care more about existing investors. All firms surveyed in Bole Lemi mentioned the low productivity of workers. Usually they referred to a lack of industrial culture and a lack of understanding “efficiency”. Some firms also named high labor turnover as a major issue. The state of logistics is another common source of dissatisfaction. It is considered to be bad—expensive, risky and lengthy. This might have changed since the railway started commercial operations after the last round of interviews. The zone location is also not considered to be very good, as it is far away from where the workers live. One firm mentioned the payment system as an issue; so they resorted to conducting all payments via their headquarters overseas. An Ethiopian-based respondent from a major international NGO mentioned his two main lessons that the government should draw from Bole Lemi and for future zones: “The government should build faster and focus on attracting big investors [anchor investors] who can help to resolve issues” (INSE Interviews).

As of December 2016 production for many firms was under capacity as has been reported by one manager of a firm operating in the zone (INSE Interviews). According to reports, the train to the port of Djibouti is also running below the expected capacity (Aglionby & Feng, 2018).

Arvind is an Indian garment company operating in the Bole Lemi zone. The African Growth and Opportunity Act (AGOA) which grants tariff-free access to the US market for products from least developed African countries was a big reason for the firm to set up production in Ethiopia. Arvind was allowed by the Ministry of Industry to use their own logistics service instead of the government monopoly which was an improvement for their shipping needs. They report that the power interruptions have been fully solved after the installation of the mobile station. They used to have problems recruiting workers as workers did not know whether they could apply to work in the factory, but after some time they started receiving more applications from workers. Also, they used to face more issues with the productivity and skill level of the workers. But this has improved as there have been more skilled workers available over time. Before the railway opened, Arvind managers voiced unhappiness over the high transportation costs as everything had to pass through the port of Djibouti. The government services improved, at the beginning they were done on a case-by-case basis but have since been formalized and are applied equally to all

firms. Even though worker productivity and transportation costs are higher than in India, the overall unit costs are still cheaper in Ethiopia (INSE Interviews).

How well has Bole Lemi been able to resolve the binding constraints of Ethiopia? First, access to finance: Since 2017 there is a bank branch operating in the zone. Only one firm voiced issues. (They choose to only transfer and accept payments through their head office overseas.) Second, electricity: The reliability of electricity used to be a big issue, but now it is good according to the firms surveyed. Third, customs and trade regulations: The regulatory aspects are a rather smaller issue. More important is the state of the logistics service sector. The service offered by the government monopoly is unsatisfactory for many firms in Bole Lemi. Some firms—like Arvind—were granted exceptions to operate their own logistics. Fourth, weak local supply chains: This is an important issue in Bole Lemi, but more for the development of the local economy than for the firms themselves. As the firms can import duty-free, they import what they need from abroad. This situation is hence more of an issue regarding developing linkages with the local economy. Fifth, a lack of industrial culture: The productivity and the workers' unfamiliarity with factory life is still a major concern, but it has started to improve. The Ethiopia Textile Industry Development Institute provides training, but all firms still train their workers in-house (INSE Interviews).

Country-wide contribution of the SEZs to resolving the binding constraints: evidence from the interviews.

After this case study, I will lay out a few additional patterns that became clear through the field interviews across the different zones.

First, access to finance remains an important aspect of doing business in Ethiopia. One important observation has been that getting financing in Ethiopia is relatively more expensive and that Chinese firms have an advantage when they are able to get financing from China at relatively cheaper rates. It was also mentioned by some managers of Chinese firms operating in Ethiopia that they felt they profited from the Belt and Road Initiative.

Second, the provision of electricity has improved. Most parks now have their own substations, which brought an end to power cuts. Still, the provision of electricity remains a government monopoly which means private park developers and operators are not allowed to install their own electricity substations.

Third, customs and trade regulations: Especially the state monopoly on logistics services is an issue leading to higher prices and standard services. Nonetheless, some of the firms surveyed were granted exemptions and set up their own logistics service. By now, all the operational zones have the OSS set up which hosts a customs service within the zone which is supposed to facilitate easier customs procedures for the SEZ firms. Especially transportation used to be one of the major concerns of the firms, but it has begun to improve over time. On the first of January 2018 the Addis-Djibouti railway started its commercial operations (Xinhua, 2018). As this was after the last round of interviews were conducted it is not impossible with the data analyzed in this study to judge whether or how much it improved logistics for the firms. But at least it shows the government's understanding of the issue and its

commitment to trying to solve it through the construction of infrastructure along the Addis-Djibouti corridor.

Fourth, weak local supply chains: This issue has been confirmed by most of the respondents. The most common way of producing in the zones is to import all the needed raw materials and intermediate input and then export the assembled products. This leads to two main issues. First, it increases the lead time and costs for the manufacturers operating in the zones. As they need to import all their materials usually from Asia or other markets this adds time and transportation costs to the production process. Second, there is a major concern that the zones will develop into enclaves without backward or forward linkages with the local economy. It is also noteworthy that there are virtually few to no Ethiopian-owned firms in the zones.³ If these linkages fail to materialize, there is a real threat that the zones will fail to facilitate an overall structural transformation of the Ethiopian economy. There have also been Corporate Social Responsibility concerns about sourcing from Ethiopia mainly connected to evictions for cotton farms.

Fifth, the reported lack of industrial culture: This shows the same story in the sense that most firms still consider it a major issue, but there have been improvements over the recent time period. However, all the firms mentioned that their productivity in Ethiopia is lower than in their home base. The Ethiopian government is trying to fix the skills shortage through training programs provided by the Ethiopia Textile Industry Development Institute. All the firms surveyed still train their workers in-house. A general issue is the location of the zones. They are too far away from residential areas making it difficult for workers to get to work and hence also limiting the potential labor pool. Some zones are now in the process of constructing worker housing within the zones, but this seemed to have originally not been prioritized. A manager of the Indian textile firm Arvind told the following story regarding the industrial culture:

The former factory owner was a Muslim. He allowed the factory workers some time for prayer each day. While Arvind was setting up, they allowed the practice to continue, but once the manufacturing lines were established this could not continue. Meanwhile, more and more people joined the prayer groups and were taking increasing time out of the productive day for religious practices, causing production to get off schedule. The arbitration made the young women call their father's one by one and ask if they had ever been able to do long prayers in the middle of the workday. When the girls' fathers told them that they did not, the girls returned to working the normal schedule, avoiding a potentially serious issue over religious freedom. (INSE Interviews)

This shows a successful example of how the supposed barriers towards an industrial culture can be overcome.

Generally, there are complaints by firms above different zones about administrative issues leading to slow bureaucracy and delayed services. These are seen to stem from a lack of coordination among different government departments. Some firms also voice concerns over a lack of professionalism of the government agencies they were working with (INSE Interviews).

³ There is one bigger Ethiopian-owned and operated firm, but the owners are from the diaspora and all their funding and network comes from abroad.

Macro indicators on structural transformation

After the previous analysis at the micro level, let us take a quick look at the macro level to evaluate the impact the zones might have on a macroeconomic scale and whether there is an economy wide structural transformation taking place.

As can be seen in Fig. 7 the importance of agriculture has been declining and since 2012 the share of industry in GDP has picked up. When looking at the subcategories of industry we see that this increase has been driven by the non-manufacturing part of the industry sector. This increase is mainly due to construction activity (Xu et al., 2017). So, this falsifies the hypothesis that the SEZ program has been driving structural transformation. The share of manufacturing in the GDP has actually been declining since 1997. In absolute terms we do see growth in the manufacturing sector, but slower than in industry overall and slower than in agriculture and services.

When looking at the export data of Ethiopia (see Fig. 8) one can see that light manufacturing exports have actually taken off since the start of the SEZs and the arrival of the first export oriented investors there. Footwear and apparel exports had been nearly non-existent before. But looking at the overall composition we can see that Ethiopia is still mainly an agricultural raw material exporter. Also, from comparing the growth of exports in the manufacturing sector to the growth of the value of all exports (blue line), one can see that manufacturing exports are still miniscule compared to exports overall and also their growth has been below the average.

So, on the macro level and in the export data we cannot trace any significant structural effect of the SEZ program so far. However, we see that Ethiopia has started exporting certain light manufacturing goods—footwear and apparel – which might have important long-run effects. It demonstrates that Ethiopia is able to produce and export these goods, which puts the country on the map of buyers and investors. Often the first step of going from zero to one is more difficult than going from one to n. Considering this, we should carefully observe whether growth in the manufacturing sector will take off in the near future.

6 Discussion: Policy Recommendations and Forecast

After this analysis of the Ethiopian SEZs from an NSE perspective and highlighting to what degree they are able to resolve the binding constraints holding the economy back from realizing its comparative advantage let us now turn to recommendations and an outlook.

Given the previous analysis, there are a number of policy recommendations for the Ethiopian policy-makers.

First, the government should maintain its focus on resolving binding constraints. Transportation and logistics remain a major concern. In order to improve this crucial service sector the government should end the state monopoly so that private providers as well as all firms can offer logistics services or use their own logistics services. This

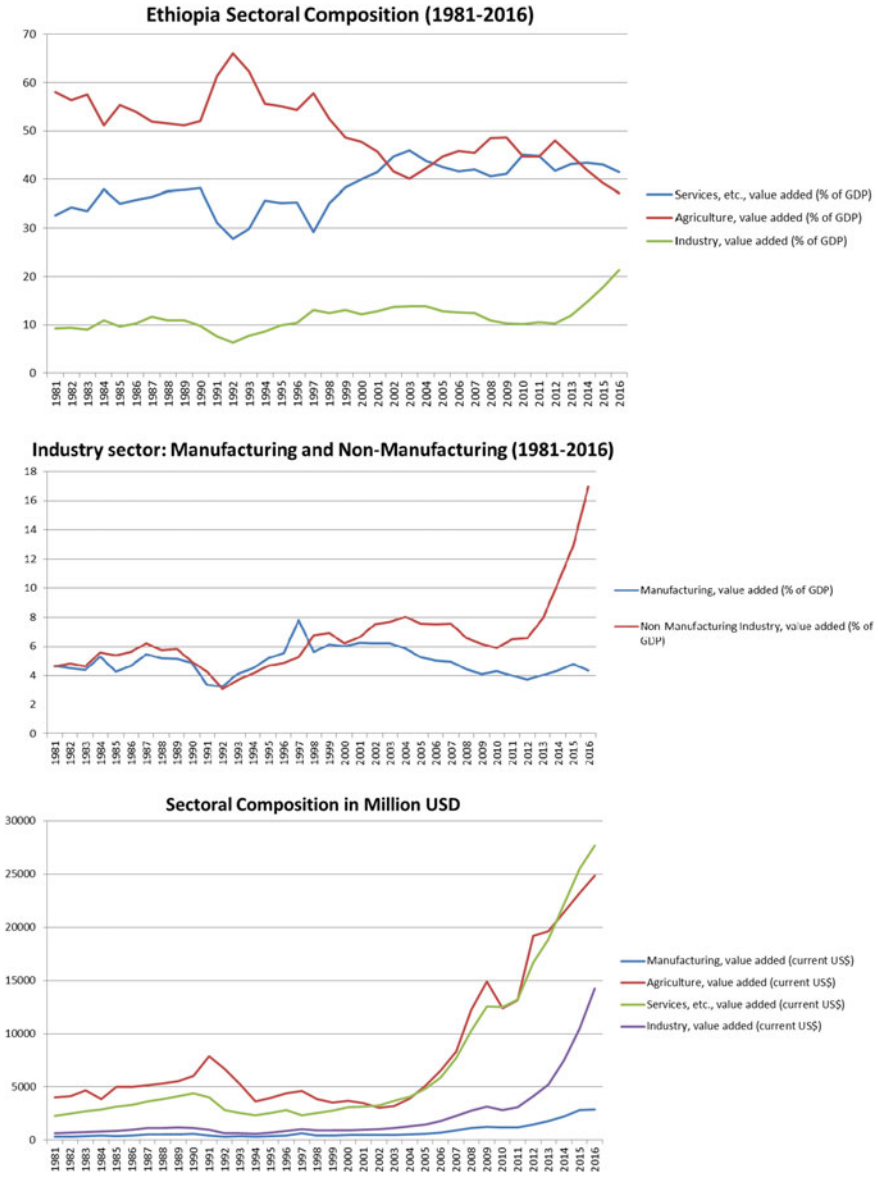


Fig. 7 Sectors of the economy, Ethiopia (1981–2016). NB: Manufacturing is a sub-category of Industry. *Source* World Bank (2018)

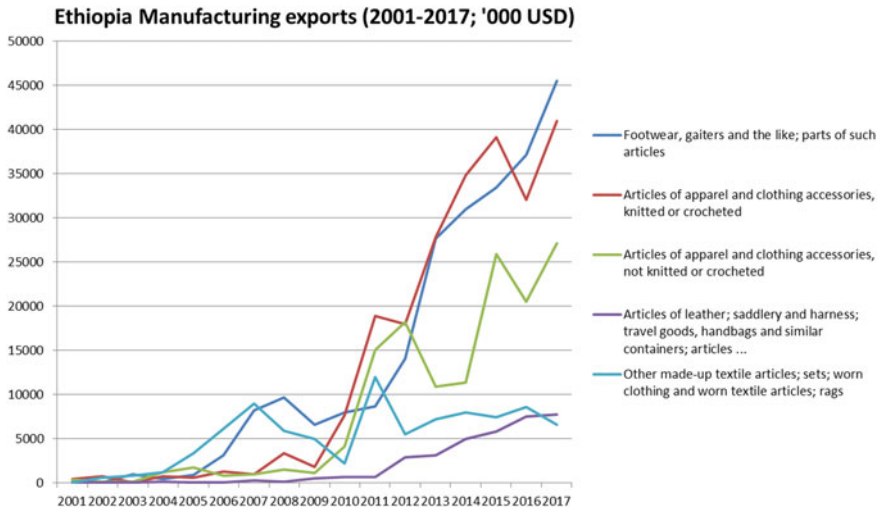
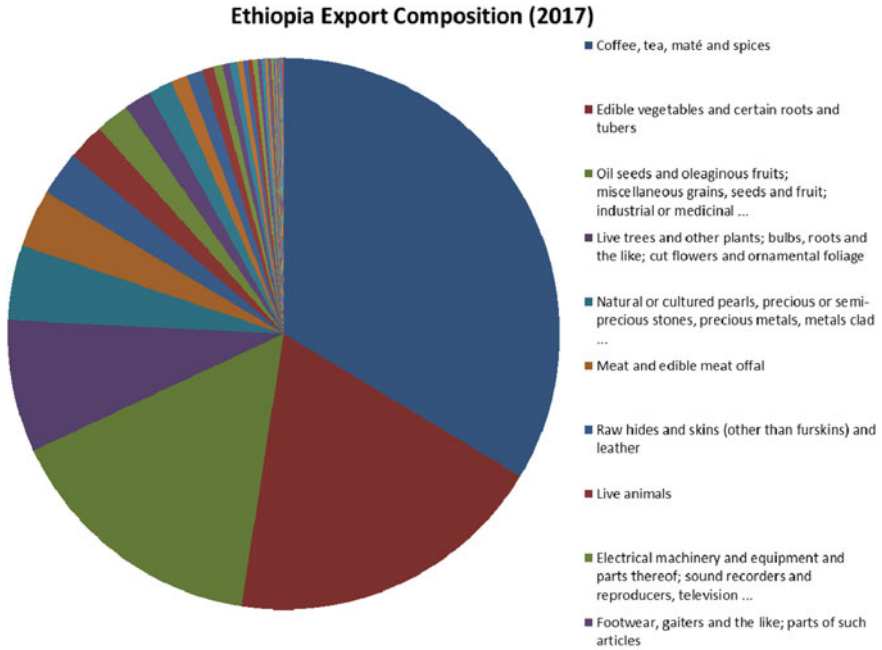


Fig. 8 Ethiopia Exports. Source Trade Map (2017)

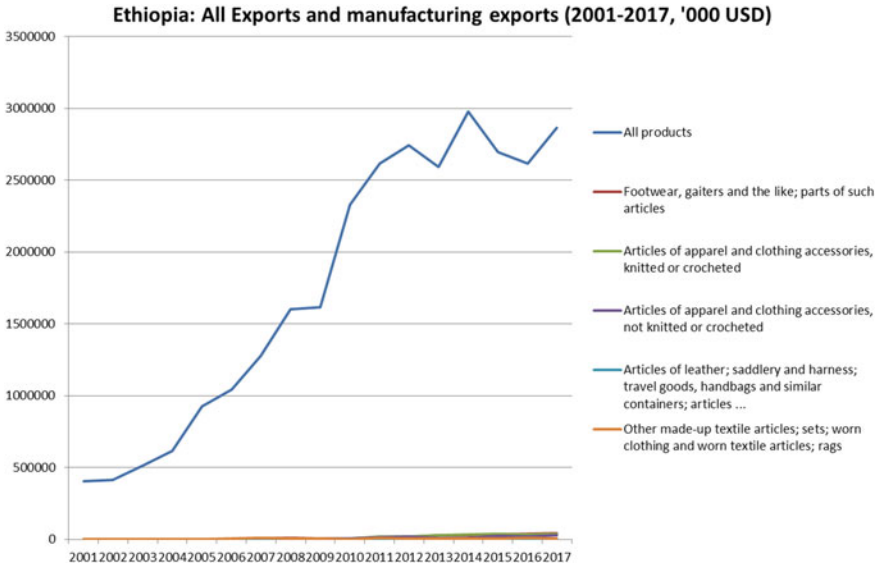


Fig. 8 (continued)

should improve the quality and cost and hence the overall business environment. Once the logistics sector is improved it has the potential to start a virtuous cycle by making it a more attractive investment destination. More firms requiring these services should lead to economies of scale in logistics and further improve the sector.

Second, closely connected to this is infrastructure. So far the government has set the right focus by concentrating public investment on improving the infrastructure. Being a land-locked country the development of the corridor to the port of Djibouti is especially important and the development of the railway link should pay off in the near future.⁴

Third, the issues of firms to recruit and hold on to good workers are to a large part due to the labor policies. Firms complain about labor turnover rates and absenteeism. So, there is scope for improvement. The government is recommended to liberalize the labor market to such a degree that firms are able to hire workers directly without going through a government-run recruitment process. Also by abolishing the policy of fixed wages, firms would be able to pay efficiency wages to their workers to decrease turnover rates. The government should also continue its program of training workers and should do so in close collaboration with the firms so that the skills will meet the labor market demands. The worker productivity issue mentioned by many firms will resolve itself once factory work becomes more common and an industrial work culture develops.

⁴ There have been signs of an official peace with Eritrea (BBC, 2018). If Ethiopia and Eritrea are able to solve their longstanding conflict, Ethiopia might be able to also use Eritrea’s ports. This would reduce the dependency on Djibouti and would especially help the northern parts of the country that are situated closer to the Eritrean coast than to Djibouti.

Fourth, reliable electricity supply is crucial for attracting manufacturing industry. The government has done a good job recently to improve the reliability of electricity within the zone. This is especially important as the cheap price of electricity is a key competitive advantage for Ethiopia. To further improve the situation of electricity, the government should allow private providers and firms to establish their own substations.

Fifth, internet access is nowadays a crucial location factor for businesses. There have been complains over the slow speed of the internet in the zones. These should be addressed in order to retain and recruit new investors.

Sixth, many SEZ firms currently need to fulfill a 100% export requirement. This may seem like a sensible policy under many different considerations. Especially as an export-focused development it is important in order to raise foreign exchange and have firms exposed to the productivity enhancing the discipline of international markets. Nonetheless, allowing firms to sell into the domestic market would give them more flexibility during business cycles. It also helps to attract more investors who want to take advantage of the 100 million people strong Ethiopian market. Last but not least, domestic consumers will benefit from that.

Seventh, Ethiopia is currently dependent on Djibouti for most of its international trade. This is a risky situation and the government should try to create additional import and export channels to hedge against a potential fallout with Djibouti as well as to generally increase its bargaining power. The investment in the port of Berbera has been a step in the right direction (Fikade, 2018) and developing links with ports in Kenya and Eritrea are potential options for the future.

Eighth, politically, probably the most problematic issue in Ethiopia is land policy which unfortunately is heavily tied to the SEZ program.⁵ All land is currently government-owned. The SEZs are a good starting point for reforming towards a more private property-based land regime. This would reduce potential sources of conflict as the government cannot as easily expropriate farmers, enable local people to participate in economic development through rising land values and to make it easier and more safeguarded for investors to own their land. The current conflicts surrounding land disputes also make Ethiopia less attractive as an investment destination. Especially, the garment industry, which Ethiopia is trying to attract, has in recent years focused on Corporate Social Responsibility and a clean image after events such as the Bangladesh factory collapse sensibilized global consumers.

Ninth, the Ethiopian zones are rather small especially when compared with the first wave of Chinese SEZs. The government should increase the size of the zones. This would reduce the probability of the zones becoming unconnected enclaves, enable more suppliers and different industries to locate in one zone and also enable workers to live inside the zones, turning them from industrial parks more into full towns. This should solve a lot of the previously mentioned issues in recruiting workers. Looking

⁵ The country has been under a state of emergency recently due to protests by the Oromo ethnic group over land seizures. Mainly the expansion of Addis Ababa into the Oromo region is seen as paving the way towards more expropriations. Acquiring land for industrial parks is in this sense closely connected to the political tensions (Schemm, 2018).

at the success of Shenzhen this can also help to foster a new culture of innovation, efficiency and entrepreneurship.

Tenth, the zones should be granted more autonomy in administration. Currently the zones are centrally surveilled and managed by federal government departments. More decentralized authority can facilitate experimentation and quicker feedback cycles. It can also make better use of local information. Once again, Shenzhen is a prime example of how a high level of autonomy can enable the SEZs to discover and create the best way forward. Another aspect is that this can force the different zones into competition with each other. This can lead to the zones pushing each other to constantly improving their business environment.⁶

What does the future hold for Ethiopia's SEZs? There are potential political uncertainties that could affect the future success of the SEZ program. First, political conflicts inside the country could threaten the future success of the SEZ program. Second, the Ethiopian export-based manufacturing industry is heavily relying on preferential market access under AGOA and EBA. If these could get canceled this might seriously disrupt the Ethiopian industry. Lesotho experienced such a situation a few years ago when the US was considering to not grant AGOA status to Lesotho anymore; during this consideration period half of the country's apparel industry left the country (Sun, 2017).

It is helpful to have influential firms from these countries having stakes in Ethiopia as they can lobby their governments at home. For example, PVH has lobbyists in Washington that were able to get the confirmation from the US government that AGOA would remain for Ethiopia for another 10 years before PVH decided on its big investment in Hawassa (Miretu & Llobet, 2017).

There is also the possibility of a classic case of failure through success. If Ethiopia becomes super competitive in a certain industry e.g. apparel, tariffs may be levied on it. When AGOA and EPA were approved, it was because Ethiopia did not export much. Once cheap products flood the markets, this rationale might change.

Limitations of this research project are the availability of the data. Even though the dataset exploited for this research project is the best and most comprehensive so far, it lacks representativeness and a consistent panel dimension. Interview partners as well as questions changed during the different waves of interviews. Future research will be able to address these challenges. As the developments in Ethiopia's economy and politics are recently unfolding rapidly, there is always the possibility that any information when published might not be up to date anymore.

⁶ In the view of the author this is also the factor behind Dubai's phenomenal success. Dubai's economy is actually only minimally dependent on oil; instead, the whole Emirate is divided into competing free zones vying for investors, each trying to make a better offer than the other zones. Their autonomy while doing this reaches as far as offering a completely different legal system—within the Dubai International Financial Center British common law applies as opposed to UAE law.

7 Conclusion

This paper identified the major binding constraints that, according to the framework of NSE, are holding the Ethiopian economy back from fulfilling its potential according to its comparative advantages. The identified constraints are access to finance, electricity, customs and trade regulations, weak local supply chains and a lack of industrial culture. The paper lists all the Ethiopian SEZs and analyzed them based on the field interview data if and to what degree the SEZs are able to resolve these binding constraints within their boundaries. On average they improved the business environment but many of the issues still remain, but at a lower level of intensity. The macroeconomic data suggests that no structural transformation took place due to the SEZ program. Policy recommendations have been provided. Besides factors from within the economy and zones there are outside factors that could derail the SEZs such as political conflict and the cancellation of preferential trade agreements.

Acknowledgements My thanks go to the Institute for New Structural Economics at Peking University for granting me access to the primary data.

Appendix

List of Interviewees—Ethiopia

Interviews were conducted in three different ways of attribution or data disclosure: fully quotable, with limited attribution and of the record. Three waves of interviews were conducted on the ground in Ethiopia by a team of experts from the Institute for New Structural Economics (INSE) in December 2016, August 2017 and December 2017.

Respondent Category	Code	Country of origin	Month/Year
Business association	BA1	Ethiopia	December/2016
Firm	F1	India	December/2016
Firm	F2	Turkey	December/2016
Zone Developer Public	ZDPub1	Ethiopia	December/2016
Zone Developer Private	ZDPri1	China	December/2016
Firm; Zone Developer Private	F3	Taiwan	December/2016
Firm; Zone Developer Private	F4	China	December/2016
Firm	F5	India	December/2016
Firm	F6	Ethiopia (Ethio-Americans)	December/2016

(continued)

(continued)

Respondent Category	Code	Country of origin	Month/Year
Firm	F7	China	December/2016
Firm	F8	Korea	December/2016
Government Agency	GA1	Ethiopia	December/2016
Research Organization	RO1	Ethiopia	December/2016
Government Agency	GA2	Ethiopia	December/2016
Government Agency	GA3	Ethiopia	December/2016
Government Agency	GA4	Ethiopia	December/2016
NGO	NGO1	USA	December/2016
Firm	F9	Sweden	December/2016
Research Organization	RO2	USA	December/2016
Government Agency	GA5	Ethiopia	December/2016
Government Agency	GA6	Ethiopia	December/2016
Financial Institution	FI1	Ethiopia	December/2016
Research Organization	RO3	Ethiopia	December/2016
Zone Developer PPP	ZDPPP1	China	August/2017
Financial Institution	FI2	China	August/2017
Financial Institution	FI3	China	August/2017
Zone Developer Private	ZDPri2	China	August/2017
Zone Developer Private	ZDPri3	China	August/2017
Government Agency	GA7	China	August/2017
Zone Developer Private	ZDPri4	China	August/2017
Zone Developer Private	ZDPri5	China	August/2017
Zone Developer Private	ZDPri6	China	August/2017
Firm; Zone Developer Private	F4	China	August/2017
Firm	F10	China	August/2017
Firm	F10	China	August/2017
Zone Developer Private	ZDPri1	China	August/2017
Zone Developer Private	ZDPri7 (CCEC Hawassa)	China	December/2017
Zone Developer Private	ZDPri7	China	December/2017
Firm	F11	Bangladesh	December/2017
Zone Developer Public	ZDPub1	Ethiopia	December/2017
Financial Institution	FI4	Ethiopia	December/2017
Government Agency	GA8	Ethiopia	December/2017
Firm; Zone Developer Private	F4	China	December/2017
Firm	F12	China	December/2017

(continued)

(continued)

Respondent Category	Code	Country of origin	Month/Year
Firm; Zone Developer Private	F13	UAE	December/2017
Government Agency	GA9	Ethiopia	December/2017
Firm	F14	Sri Lanka	December/2017
Firm	F1	India	December/2017
Firm	F15	Sri Lanka	December/2017
Zone Developer Private	ZDPri2	China	December/2017
Firm	F16	Taiwan	December/2017
Government Agency	GA10	Ethiopia	December/2017
Zone Developer Private	ZDPri1	China	December/2017
Government Agency	GA10	Ethiopia	December/2017
Government Agency	GA11	Ethiopia	December/2017
Government Agency	GA4	Ethiopia	December/2017
Government Agency	GA12	Ethiopia	December/2017
Government Agency	GA3	Ethiopia	December/2017
Government Agency	GA13	Ethiopia	December/2017
Firm	F5	India	December/2017
Zone Developer Public	ZDPub2	Ethiopia	December/2017
Firm	F16	Hong Kong	December/2017
Government Agency	GA14	Ethiopia	December/2017
Firm	F17	China	December/2017

List of Interviewees—China

Additionally the author conducted field study and interviews in Shanghai and Shenzhen. This field study took place in March and April respectively. The interviews conducted in China are subject to less stringent data protection concerns and are hence not anonymized.

Respondent	Category	Location	Month/Year
BenCham (Benelux Chamber)	Chamber of Commerce	Shanghai	March/2018
Shanghai Free Trade Zone	Free Trade Zone	Shanghai	March/2018
Confederation of Indian Industry	Chamber of Commerce	Shanghai	March/2018
AmCham (American Chamber)	Chamber of Commerce	Shanghai	March/2018

(continued)

(continued)

Respondent	Category	Location	Month/Year
German Chamber	Chamber of Commerce	Shanghai	March/2018
China Center for Special Economic Zones Research, Shenzhen University	Research Institute	Shenzhen	April/2018
Representation of the Free State of Bavaria in China, Guangdong Office	Foreign (economic) representation	Shenzhen	April/2018
Xinfeng Investment Management, General Manager	SOE	Shenzhen	April/2018
Shenzhen Jinjia Color Printing Group	Firm	Shenzhen	April/2018
Gym owner	Firm	Shenzhen	April/2018
Lihe Zhaicha Yefang Binron (Tea trading house)	Firm	Shenzhen	April/2018
Shenzhen Government Tax Bureau	Government	Shenzhen	April/2018

Incentives Available in the Ethiopian SEZs

“Fiscal Incentives.

- Income tax exemption
 - Industrial park developer: 10–15 years income tax exemption depending on location of industrial park (10 years if in Addis Ababa or Special Zones of Oromia surrounding Addis Ababa, and 15 years in other areas)
 - Industrial park enterprise: Up to 10 years income tax exemption - Up to 6 years exemption depending on sector of engagement—Additional 2–4 years exemption for industrial park enterprises with at least 80% exportation
 - Expatriate employees of industrial park enterprises: Up to 5 years personal income tax exemption after issuance of business license by the investment.
- Customs duty exemption
 - Capital goods and accessories: Can be imported duty-free by manufacturing industries.
 - Spare parts: Up to 15% of the total value of the capital goods can be imported duty-free.
 - Machinery spare parts: Enterprises inside industrial parks with 100% exportation can enjoy importing 100% of machinery spare parts duty-free.

- Construction materials: Can be imported duty-free based on approved Bill of Quantity (BoQ).
- Motor vehicles: During construction, a maximum of 2 pickup trucks can be imported duty-free. After getting business licence and commencement of operations or exportation, a maximum of 3 minibuses, 2 cargo trucks, 2 SUVs, 3 hybrid SUVs and buses required to transport permanent employees can be imported duty-free. Also, special purpose trucks such as crane trucks, garbage trucks, ambulances, fire trucks, refrigerated trucks, etc. can be imported duty-free in line with the specific investment needs and for own use.
- Partial exporters: Can import duty-free a maximum of 2 station wagons upon reaching paid up capital investment of Ethiopian Birr 200 million or above, and over 60% export performance for 3 consecutive years.
- Industrial Park developers: Can import duty-free a maximum of 2 SUVs and 3 hybrid SUVs after getting business licence and becoming operational.
- All raw materials needed for the production of export commodities can be imported duty-free.
- Personal effects of industrial park residents can be imported duty-free.
- Export tax exemption
 - For all export products except semi-processed hides and skins
- Ease of access to industrial park space at promotional rate
 - For industrial park developers
 - 60–80 years land sub-lease period depending on the location of the land
 - Industrial park developers can import construction materials and construction equipment necessary for their industrial park construction as per special agreement.
 - For industrial park enterprises
 - Option to rent or buy factory sheds, or sub-lease developed land at promotional rate to construct own production facility.

Non-Fiscal Incentives.

- One-stop shop service
 - Issuance of investment permits
 - Issuance of business licences
 - Commercial registration certificates
 - Issuance of work permits
 - Registration of trade or firm name
 - Technology transfer agreements
 - Notarizing memorandum and articles of association
 - Issuance of customs duty exemptions
 - Issuance of tax identification number (TIN)
 - Customs clearance in industrial parks
 - Banking services.

- Customs facilitation
 - Transportation of imported raw materials straight from customs post to factory through bonded warehouse or voucher scheme.
- Expedited visa procedure
 - Expedited procedure of securing entry, work permit and certificate of residency for expatriate personnel working in industrial parks and their dependents.
 - Better visa terms for investors in industrial parks—multiple entry visa of up to five years.
- Guarantee against expropriation
 - Guarantee against measures of expropriation or nationalization.
 - Payment of compensation corresponding to the prevailing market value of investment property in case of expropriation or nationalization for public interest.
- The right to own immovable property
 - Foreign investors have the right to own a dwelling house and other immovable property required for the investment.
- Subsidized utility rates for manufacturing industries:
 - Electricity is sold at an estimated rate of 3 US cents/kwh
 - Reliable access to electricity within industrial parks—government avails dedicated power station for parks.
- Guarantee for remittance of funds
 - A foreign investor can freely repatriate in convertible foreign currency profits and dividends, principals and interest payments on external loans, proceeds from the sale or liquidation of an enterprise as well as compensation paid.
- The right to open and operate foreign currency accounts
 - A foreign investor has the right to open and operate foreign currency accounts in authorized local banks.”

Source: EIC (2017).

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Chapter 7

Research on the Development of the Shenzhen-Shanwei Special Cooperation Zone from the Perspective of the Enclave Economy Model



Yaodong Chan

Abstract The “enclave economy” springs up like mushrooms all over the country. As a new model of regional cooperation and coordinated development, it introduces into the economic field the concept of “enclave” in the political sense—economically developed “exclaves” manage the economically backward “enclaves” by virtue of their funds, talents and systems, so as to break through the spatial barrier of administration, eliminate systematic and institutional obstacles and finally achieve the complementarity and win–win situation of the two regions with big differences in resource endowments and development. Based on the theoretical framework for the “enclave economy” model, this paper analyzes the background and historical evolution of the Shenzhen-Shanwei Special Cooperation Zone, expounds the main problems existing in the evolutionary process of the cooperation zone and explores solutions. Considering the current development of the cooperation zone, its prospect is reviewed and the relevant experience or implication for developing and innovating the “enclave economy” model is summarized according to the developmental practice of the cooperation zone.

Keywords Enclave Economy · Model · Shenzhen-Shanwei Special Cooperation Zone

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1 Formation and Evolution of the Cooperation Zone from the Perspective of the “Enclave Economy” Model

(I) “Enclave Economy” and the model

1. Background for the emergence of the “Enclave Economy”

An “enclave” refers to a small portion of an economic zone that is different from the surrounding areas in economic structure, economic crops and economic status. The “enclave economy” is an economic pattern presented in the “enclave” area, reflected in a variety of forms, including industrial “enclave”, park “enclave”, or culture, talent, military and other “enclaves”.

The origin of the “enclave economy” can be traced back to the global colonial plunder by Europe in the fifteenth century. Although the term “enclave economy” was not coined at that time, the history of the trade of the British East India Company was sufficient to prove that the Western colonialists were the earliest practitioners of an “enclave economy”.

The economic term “enclave economy” appeared on mainland of China for the first time in 2004. After over 20 years of reform and opening-up, the “unbalanced development” model that dominated the Chinese economy led to the coexistence of sustained economic growth and serious regional imbalances. The rapid economic development of the eastern coastal regions is in sharp contrast with the “collapsed” central region, the backward western region, and the old industrial base in the north-eastern region bearing the heavy “burden”. Meanwhile, since the long-term adoption of the export-oriented strategy in foreign trade, the Chinese coastal cities or regions had become the overseas “enclaves” of foreign enterprises, which manufacture products with low added value, low technical content and a short industrial chain. These regions are not closely linked to the economy of inland regions to any extent, frequently subject to trade protection against China, and they finally lead to a negative impact on the sustainable development of local regions and the national economy.

2. Theoretical origin of the “Enclave Economy”

According to urban economists, the “enclave economy” is an economic pattern that utilizes the resource endowment advantages of the “enclave” itself, and achieves coordinated development with the surrounding areas by virtue of their comparative advantage and industrial linkage. It is a comprehensive application of the growth pole, regional comparative advantage and other theories.

To be specific, the “enclave economy” is a model in the process of regional development. It means the whole batch of projects output from economically developed cities, while the remote and underdeveloped cities and regions surrender their production factors under the management of the developed cities. The profits and taxes are shared according to the mechanism of benefit distribution, thereby achieving the win-win aim for the inter-regional development. Moreover, this development model is also the result of industrial gradient transfer among regions. Its advantage lies in that it can bypass the barriers of administrative division, give full play to comparative advantages of the regional economy, and effectively avoid the contradiction between environment and development.

The relations between “exclave” and “enclave” include the separation of development spaces, the difference of the cultural and social environment, the complementarity of resource endowments, and the relevance of industries. The final result of developing the “enclave economy” is necessarily economic integration within the region.

In theory, the “enclave economy” can be explained by four theories:

- (1) The theory of regional comparative advantage. There are differences in resource endowments and resource allocation efficiency between the “exclave” and the “enclave”. Therefore, the respective comparative advantages of the two regions can determine the regional allocation of resources. This is the direct cause of the formation of the “enclave economy”.
- (2) Growth pole theory. Growth does not occur in different groups and regions in a balanced and similar manner at the same time. Instead, it first appears at some growth points or growth poles with different strengths, and then spreads outward and innovates to exert all or part of the ultimate impact on other economic units. The accumulation of and priority given to the development of these driving industries in some regions or cities give rise to the center of economic activity—the growth pole. The formation and growth of the “enclave economy” is essentially the formation and radiation process of the growth pole.
- (3) The theory of industrial gradient transfer. Innovation activities are a decisive factor in determining the level of regional development gradients. The regional economy, especially with pillar industries at the stage of innovation in the industrial life cycle, indicates a high gradient region. With the advancement of the industrial life cycle, some industries that have passed through the innovation stage gradually expand from high gradient regions to low gradient regions through the multi-level urban systems. The common cause of many different types of “enclave” economies in China is the adjustment and transfer of industrial structure from high gradient regions. In a sense, the historical process of China’s reform and opening-up is also a process of accepting the transfer of industries from developed countries and regions in the world.

- (4) Symbiosis theory. “Symbiosis” is a biological concept introduced by economists into research on regional development. It means that economic regional units form a symbiotic system by mutual complementarity, and work together, survive together, and sublimate. The symbiosis theory is useful for the “enclave economy” to transcend the simple concept of “enclave” of the economy, and hence the two regions can achieve the optimal situations of all-around cooperation, and synergy for symbiosis and a win–win result.

3. The “Enclave Economy” model

The developmental model of an “enclave economy” can be divided into four modes according to the way of operation: co-management, custody, park-in-park, and project cooperation and exchange; three modes according to the main driving forces: driven by the higher-level government, driven by the immediate government and driven by the government of the same level; as well as two modes according to the entities sharing benefits: exclusivity to one side and multi-side sharing.

The selection of the developmental model of an “enclave economy” depends on the interests and practical needs of all stakeholders. It is the result of the comprehensive balancing of input, benefits and risks among the various stakeholders involved in the activities of the “enclave economy” and can be varied dynamically due to changes in factor endowments, potential relationships, and comparative advantages of both parties.

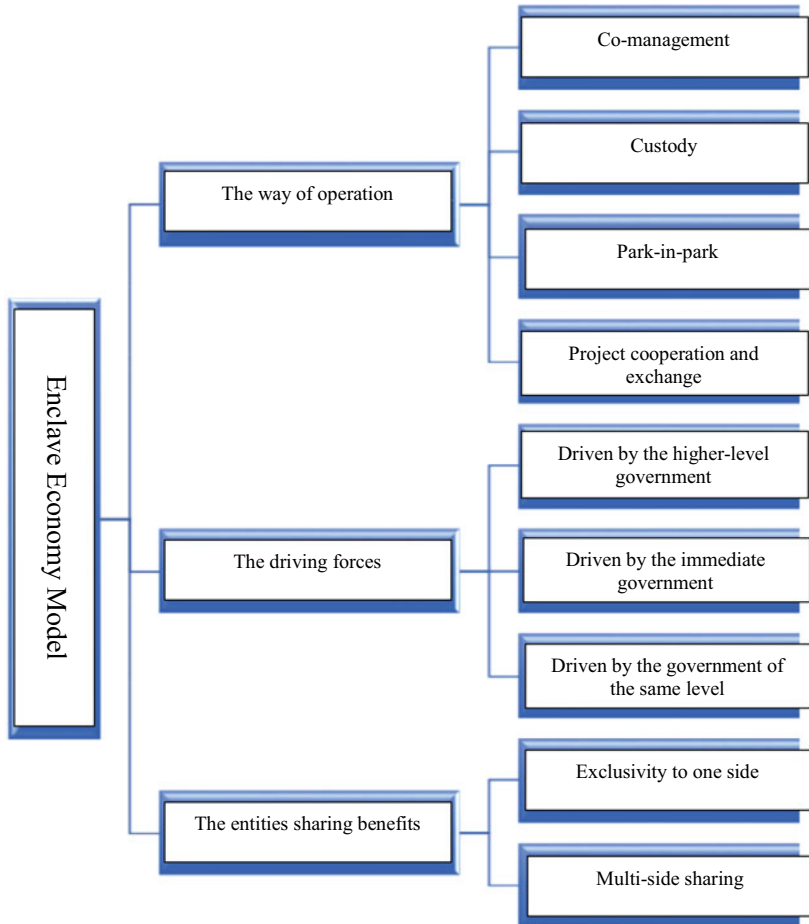
(II) Background of the formation and review of the development of the cooperation zone

1. Background of formation

In the past 40 years of reform and opening-up, Guangdong Province has always been an important window for China’s reform and development. At the same time, however, the imbalance in regional development and the widening developmental gap among the Pearl River Delta and the eastern, western and north regions of Guangdong have become a major bottleneck restricting a better development of Guangdong. It is also a microcosm of the uncoordinated and unbalanced development among different regions in the country.

In order to achieve regional coordinated development and innovate the regional cooperation model, advocated by the Provincial Party Committee and the Provincial Government of Guangdong, the cooperation zone came into being at the right time.

2. Review of development



With the historical missions of achieving regional coordinated development, continuously innovating regional cooperation and giving a demonstration, in the past seven years, the cooperation zone has made progress in twists and turns and has explored in practice.

The cooperation zone formally created on May 21, 2011 as an “enclave” mainly driven by the higher-level government of Shenzhen covered a planned scope of four towns in the western part of Haifeng County, Shanwei City, with a land area of 468 km². The Party Working Committee and the Administrative Committee of the cooperation zone were dispatched agencies of the Provincial Party Committee and the Provincial Government under the co-administration of Shenzhen and Shanwei and exercised the administrative authority of prefecture-level cities.

In December 2014, Shenzhen and Shanwei jointly formulated the Opinions on Further Optimizing the Institutions and Mechanisms of the Shenzhen-Shanwei Cooperation Zone and Accelerating Its Construction and Development (Shenzhen Municipal People’s Government [2014] No. 104), which clarified the division of powers

and the administrative authority of the cooperation zone. The cooperation zone would be gradually adjusted as Shenzhen led the economic construction and Shanwei was responsible for land requisition and social affairs. It would be gradually positioned as the “economic enclave” mainly driven by the Shenzhen Municipal People’s Government.

At the beginning of 2017, on the basis of summing up the developmental experience over the years, the cooperation zone established the developmental principles of “relying on Shenzhen, linking with Shanwei, building in Shenzhen-Shanwei and prospering with diligence”, it gave full play to the dominant role of the administrative committee, attached importance to the construction of the industrial project (with focus on industries and Ebu), and vigorously advanced the construction of basic supporting facilities, thus the economic and social development of the cooperation zone took on a new look. They constituted the great decisions and effective measures of the cooperation zone to actively develop the regional comparative advantages of the “enclave economy”, undertake industrial transfer from the high gradient region, stimulate the endogenous momentum for growth, and create a new growth pole.

On September 21, 2017, the Provincial Party Committee and the Provincial Government officially issued the *Reply on the Adjustment Scheme of the Institutions and Mechanisms of the Shenzhen-Shanwei Special Cooperation Zone* (Guangdong Provincial Party Committee [2017] No. 123), confirming that the cooperation zone was included in the “10 + 1” district administration system of Shenzhen. Pursuant to the standards and requirements of an economic function district of Shenzhen, the cooperation zone would be built to be a demonstration zone for regional cooperation and development, an independent innovation and expansion zone, and a node radiation city in the Guangdong-Hong Kong-Macao Greater Bay Area. After the transformation of the “enclave economy” model according to different driving forces, benefit-sharing parties and way of operations, the cooperation zone has become an “enclave” of Shenzhen with clear driving forces, a clear division of property rights and benefits, and full operational significance, and it has stridden into a new historical stage.

3. Division of the phases of development of the cooperation zone from the perspective of the enclave economy model

At the initial stage, the cooperation zone adopts the co-management mode and later changes to the custody mode; the driving forces change from the Provincial Party Committee and the Provincial Government of Guangdong to the three parties and finally Shenzhen; and the benefit-sharing parties evolve from exclusivity to one side to three-side benefit sharing and finally two-side sharing in 2020 and in the future.

According to the evolutions of the “enclave economy” model, the development of the cooperation zone can be roughly divided into three phases: initial exploration, transformation experiment and “enclave” dominance. Each phase has undergone a certain transformation in the “enclave” economy model. From the co-management of the two cities in the initial phase of exploration, to Shenzhen leading the economic construction and Shanwei responsible for land requisition and social affairs, and finally dominance of construction by Shenzhen, the cooperation zone is constantly

evolving and innovating in the developmental model of the “enclave economy”, and continuously exploring and making breakthroughs along the road of regional cooperation and regional coordinated development (Table 1).

2 Existing Problems and Breakthroughs in the Development of the Cooperation Zone

At the beginning of the cooperation, almost all the “enclaves” are regarded as a perfect match with high expectations. However, in the process of cooperation, numerous contradictions and difficulties emerge in development. So far, there are few examples of successful cooperation in an “enclave economy”.

(I) Existing problems in the development of the cooperation zone

The cooperation zone is also confronted with difficulties. In the past seven years, the following problems have occurred in the economic development and construction of the cooperation zone:

1. Cooperation lacks a unified top-level design

According to the developmental experience of China’s “enclave economy”, the higher-level government plays a vital role in coordinating the process of regional economic cooperation. This means that the cooperation in an “enclave economy” needs systematic top-level design. However, the effective top-level design usually does not exist in the practice of cooperation within an “enclave economy”. For example, there are neither clear rules on the positioning of powers and capacities of the administrative organ of the “economic enclave”, the division of powers and responsibilities between the two parties, mechanisms for the negotiation and resolution of conflicts and the division of property rights, nor specific laws and regulations to guarantee “enclave” cooperation. The cooperation zone is a dispatched agency of the Provincial Party Committee and the Provincial Government under the joint leadership of Shenzhen and Shanwei. In this case, on the one hand, due to the complexity of the management system and the lack of specific rules, the cooperation zone is subject to mixed managerial functions and an unclear division of rights and responsibilities in the management process, thereby the implementation of policies and regulations is impeded by different requirements for management of the two sides; on the other hand, because each side assumes their own part of responsibilities, if the information sharing and transmission are not just and timely, the decision-making will be influenced by the interest and work style of each side, thus resulting in disconnection between decision-making and actual needs, an increase in internal consumption of administrative resources and a reduction of administrative efficiency.

Table 1 Division of the phases of development of the cooperation zone from the perspective of the enclave economy model

Phase	Period	Significant file	“Enclave Economy” model
Initial exploration	May 2011–Aug. 2013	Reply on the Basic Framework Scheme of Shenzhen-Shanwei Special Cooperation Zone (Guangdong Provincial Party Committee [2011] No. 11)	Co-management by two cities Mainly driven by the higher-level government Three-side benefit sharing
Transformation experiment	Aug. 2013–Sept. 2017	(1) Conference Minutes on Optimizing the Institutions and Mechanisms of the Shenzhen-Shanwei Cooperation Zone and Accelerating Its Construction and Development (Minutes of Provincial Government Working Conference [2013] No. 100) (2) Opinions on Further Optimizing the Institutions and Mechanisms of the Shenzhen-Shanwei Cooperation Zone and Accelerating Its Construction and Development (Shenzhen Municipal People’s Government [2014] No. 104)	Economic custody by Shenzhen Mainly driven by the immediate government and the government of the same level Three-side benefit sharing
“Exclave” dominance	Sept. 2017–	Reply on the Adjustment Scheme of the Institutions and Mechanisms of the Shenzhen-Shanwei Special Cooperation Zone (Guangdong Provincial Party Committee [2017] No. 123)	Dominance by Shenzhen Mainly driven by the immediate government Three-side benefit sharing

2. **The administrative organ lacks a clear positioning of powers and capacities**

Theoretically, the responsibilities for the economic development of the “enclave” are transferred from the “enclave” government to the “exclave” government, but the social affairs of the “enclave” should be still governed by the “enclave” government due to the principle of territoriality. However, in practice, the management of these two affairs is not completely separated, but has overlapping functions. With the gradual expansion of economic development, the management of social affairs is intertwined with the management of economic construction and blurs the positioning of powers and capacities of the administrative organ. The Municipal Governments of Shenzhen and Shanwei are not independent of each other in the management of the Shenzhen-Shanwei Special Cooperation Zone, but they have intertwined and mixed functions. This mode of operation severely restricts the process of large-scale development and construction, and problems such as land requisition, illegal hindrance and unlawful construction, excavation and planting cannot be solved effectively. The public security, fire prevention, social insurance, environmental approval and other matters involve both economic and social management, so that enterprises must shuttle between Shenzhen and Shanwei. This leads to an increase in costs and a decrease in efficiency. Moreover, economic construction is seriously affected by social issues such as a lack of schools and hospitals, a weakly-built legal system and scarce water resources.

3. **Both sides lack effective incentives**

The cooperation of local governments in China is mainly driven by benefits. Promoting economic growth and increasing financial revenues are the major drivers of cooperation among them. At this stage, the development of China’s “enclave economy” lacks a mechanism for the distribution of long-term effective benefits because taxes and GDP statistics are calculated according to the principle of territoriality, which is very likely to cause unequal management powers and financial powers of the two sides and the hesitation of the “exclave” to invest in the “enclave”. Although cooperation has reformed the principle of territoriality in GDP and tax statistics, in terms of specific cost-sharing and benefits, in a certain sense, it tends towards the zero-sum game, which weakens the enthusiasm of cooperation and transforms active cooperation to passive cooperation. Together with the time limit of the original cooperation period, these factors seriously affect the determination of cooperation and weaken the confidence of enterprises and the resolution to start construction.

4. **Cooperation lacks a mechanism of effective supervision and restraint**

Stimulated by sharing cooperation benefits, the two sides cooperate and exchange through some regional organizations for economic cooperation, such as the convening of the “joint meeting of executive heads” to discuss key points and difficulties in regional cooperation, and coordinating and resolving problems existing in the cooperation by “meeting minutes”. Although this model of joint meetings can promote cooperation, in the case of specific implementation and effective supervision and evaluation, it clearly lacks pertinence and coercive powers to urge the cooperation of

the two sides, thus resulting in the slow progress or unsuccessful cooperation. From the perspective of the development of the cooperation zone, for one thing, the legal framework does not clearly specify the supervisory body, and for another, there is a serious disconnection between “personnel management” and “affairs management”. The personnel and salary relations of cadres are still retained by the original employer, who is also responsible for their promotion, thus the Party Working Committee and the Administrative Committee of the cooperation zone can only “manage affairs” and there is a great difficulty in supervising them in fulfilling their duties.

5. Soft environmental barriers such as market economy awareness and sense of opening up

According to studies on the distribution of industries among regions, entrepreneurs attach great importance to the business environment when making investment decisions. Due to the restrictions of geographical location and natural environment, the Shenzhen-Shanwei Special Cooperation Zone has been in relatively closed economic conditions for a long time, and the educational level, cultural quality, market economy awareness, sense of opening up, degree of opening up and values of local residents are quite different from those in Shenzhen. Likewise, the business environment, including enterprise services and supporting facilities, lags far behind the level of Shenzhen. These are serious constraints on entrepreneurs’ investment decisions, which, to a large extent, slow down the local economic and social development of the cooperation zone.

(II) Solving problems in the development of the cooperation zone

In the face of problems in the development of an “enclave economy”, especially at the two historical developmental stages of starting and transition, such as unclear division of powers and responsibilities, a lack of supervision and unscientific institutional mechanisms, the cooperation zone, on account of its history and resource endowments, adheres to the direction of the market-oriented reform, bases itself on institutional innovation, gives full play to its regional comparative advantages, continuously deepens the reform, actively promotes the evolution of the “enclave economy” model and institutional innovation, gradually establishes a set of institutional mechanisms that are conducive to scientific development and provides the most fundamental motivations for the development of the cooperation zone.

1. Making clear the rights and responsibilities of cooperating entities and continuously optimizing the management system

The selection of the model of an “enclave economy” cooperation structure is essentially the result of the comprehensive game of cooperating entities for rights, responsibilities, benefits and risks, and depends on the interests and actual needs of stakeholders. Since functional departments of the “exclave” government are embedded in the administrative system of the “enclave” government, it is necessary to deal with the relationship of Guangdong Province, Shenzhen, Shanwei and the cooperation zone,

and rationalize the administrative system of the economic “enclave”. First, it is necessary to clarify the relationship of powers and responsibilities among governments. The cooperation zone enjoys prefecture-level urban management authority. Shanwei gradually authorizes part of the economic management powers to the cooperation zone in the form of “second official stamp”, so as to meet the needs of the cooperation zone for economic development and social service management. In order to further rationalize the institutional mechanisms of the cooperation zone and fully unleash the developmental momentum, in September 2017, the Provincial Party Committee and the Provincial Government of Guangdong adjusted the division of responsibilities between Shenzhen and Shanwei, promoted the formation of the pattern of cooperation with a dominant role given to Shenzhen and active assistance from Shanwei, and achieved the unification of economic construction and social affairs management. This is an innovation that can inspire the development of the “enclave economy” in other regions. Second, it is necessary to establish an effective mechanism of communication and a long-term benefit-sharing mechanism. The People’s Government of Guangdong Province makes clear the benefit-sharing proportions of Shenzhen and Shanwei in GDP, taxes and land revenues, so as to balance the interests of all stakeholders and fully mobilize the enthusiasm of the two sides. The long-term sharing of benefits is the basis for ensuring stable cooperation between the two sides.

2. Clarifying the main driving force and giving play to the dominant role of the “exclave”

In the “enclave economy”, the “exclave” is often a region with a relatively developed economy. It generally has the advantages of capital, technology and management expertise, acts actively in the cooperation of local governments, participates in and boosts the development and construction of the “enclave” by outputting its senior management talents, abundant management expertise and funds. Therefore, it is particularly important and urgent to mobilize the enthusiasm of the “exclave”. After the cooperation zone enters the stage of coordinated development, Shenzhen will be dominant. This means that the cooperation zone will not only be an “enclave park” of Shenzhen, but also an important “new district” for expanding the developmental space, relieving urban functions and experimenting future urban construction. This will greatly enhance the interest links between the “exclave” and the “enclave”. After taking over the economic and social affairs of the cooperation zone, Shenzhen will carry out the top-level design, resource allocation, planning and construction, management and operation of the cooperation zone with the standards and requirements for any district of economic functions in Shenzhen, further arouse the enthusiasm of the “exclave” for the development and construction of the cooperation zone, attract more advantageous resources from Shenzhen and at home and abroad and build a new growth pole for the Shenzhen SEZ.

3. Performing duties and maintaining the “rigidity” of the enclave administrative organ

In order to effectively perform the duties of the economic “enclave”, the administrative organ must be a “rigid” organization. The direct manifestation of this “rigidity” is

the great and flexible power to make decisions in and the use of personnel, affairs and finance. Taking the cooperation zone as an example, the administrative committee is the organ of the enclave management, which continuously enhances leadership and decision-making power in personnel appointments, material management, and financial budget execution in the evolution of the “enclave economy” model by different phases, sufficiently unleashes its positive role and subjective initiative, gradually shapes an efficient system of management, strengthens the internal coordination and communication, jointly makes plans for the important issues concerning the development of the cooperation zone, and supervises the implementation of various decisions to achieve information exchange, proper decision-making and efficient management. These are of great significance for the continuous evolution of the “enclave economy” in the cooperation zone.

4. Innovating the model of industrial development and striving to create a growth pole

The market-oriented clustering and operation of industries constitute the key to the sustainable development of the “enclave economy”. The cooperation zone adheres to the market-oriented operation, takes advantage of the brand effect of Shenzhen, relies on the Shenzhen Enterprise Confederation, the Shenzhen Chamber of Commerce and the Shenzhen Public Companies Association for investment attraction according to the spontaneous market behavior of enterprises, and realizes the maximization of enterprise benefits and regional leap-forward development. The developmental mode of replacing land financing with industrial financing, property financing and equity financing can bring into play the investment and financing platform of the Shen Shan Investment Holding Group, actively introduce social capital, raise funds through multiple channels, and innovate the investment and financing model. With regard to the joint industrial construction, we should actively explore the model of the integration of the industrial chain of “Shenzhen Headquarters + Shenzhen-Shanwei Bases” and “R&D in Shenzhen + Production in Shenzhen-Shanwei”. The industrial planning of the cooperation zone aims at the equal standards of Shenzhen, takes advantage of local resources, sufficiently introduces and undertakes the transfer of strategic emerging industries from Shenzhen. We will focus on local characteristics, target at cutting-edge technology and future industries, attach importance to the development of strategic emerging industries and future industries such as “new-generation information technology, new energy, new materials, marine industry, and life health”, and avoid the old path of extensive development. At present, over 87% of the enterprises that have settled in the cooperation zone come from Shenzhen and 81% of the major projects under construction and put into production belong to the science and technology category. The cooperation zone takes the initiative to use Shenzhen’s city brand and popularity, relies on the standards and elements of Shenzhen, introduces the developmental concept, investment, management expertise, science and technology and market advantages, absorbs various advantageous resources from Shenzhen and even from the whole country, focuses on industrial development, and building Ebu Town, where the Administrative Committee is located, to be a growth

pole for the “enclave” of the cooperation zone through the concentration of industry and the radiation effects.

5. Creating a good “soft environment” and “hard environment”

A good environment is key to attracting investment and starting businesses. To create a good environment of cooperation necessitates that the “exclave” give full play to its own advantages, do well in “passing on experience”, continuously improve its governance capabilities and fully realize the seamless docking with the “enclave”. The cooperation zone should constantly strengthen its awareness of service, rule of law and efficiency that is in line with the market economy and meets the requirements of the development of the “exclave”, continuously improve the government services and optimize the business environment. Further, it should increase financial expenditures, expedite the infrastructure construction in the fields of transportation, electricity, education, medical care and housing, attract more outstanding enterprises, high-quality capital and advanced technologies to concentrate in the cooperation zone and boost the construction of the cooperation zone as a growth pole.

3 Developmental Status and Future Prospects of the Cooperation Zone

Based on the comparative advantages and differentiated needs of the “exclave” and the “enclave”, according to the requirements of the municipal party committee for “being at the forefront in the new era and becoming a pioneer on the new journey”, with the developmental concept of “innovation driving the development and rebuilding the new city”, the developmental model of “headquarters + bases, R&D + production” and the developmental ideas of “planning first, infrastructure construction and platform driving”, the cooperation zone develops industries and the city in parallel, achieves the integration of industry and city, implements the “double-excellent project” of business environment and government services, strives to build a beautiful new Shenzhen-Shanwei Special Cooperation Zone characterized by “an industrial highland, a living paradise and a cultural resort”, and constructs the regional center for the development of eastern Guangdong, the expansion area of independent innovation of Shenzhen and a new coastal city suitable for residence, business and tourism.

(I) Status of development

Currently, the cooperation zone has clarified the pattern of cooperation with the dominant role of Shenzhen and active assistance from Shanwei. The temporary and aided institutional mechanism has gradually been adjusted to become a long-term, stable and sustainable developmental mechanism.

1. Planning with high standards, high positioning and a high starting point

The cooperation zone aims to learn advanced planning concepts from developed regions both at home and abroad, such as the Xiong'an New Area, Greece and Hawaii, and with worldwide benchmark and international standards, construct a world-class smart new city of great domestic benchmarking significance. First, it makes the special plans for land use, infrastructure, municipal works, industrial development and low-carbon ecological construction, and the detailed control plans for the areas such as Ebu, Xiaomo, Chishi and Houmen, with concentrated efforts in the development of the Ebu Area. In light of the adjustment of the institutional mechanisms and the change in the orientation of development, the cooperation zone is making new overall plans together with the municipal planning and land resources commission and includes them in the overall arrangement for the preparation of a new round of urban master planning in Shenzhen. Second, it classifies the overall spatial layout of "one center, four parts and multiple nodes" and "two belts, one axis and one valley": The central part will build a high-end business and government service area; the eastern part will construct an area for science, education and R&D as well as future industries; the southern part will forge a new seaport business and coastal eco-tourism area; the western part will construct an advanced manufacturing cluster; and the northern part will focus on the health resort.

2. Focus on the construction of industrial projects

The cooperation zone will always adhere to the developmental direction of "industry first, real economy foremost, and invigorating the area with industries", implement the new developmental concepts of General Secretary Xi Jinping, accelerate the establishment of an institutional mechanism to boost high-quality economic development, expedite the construction of a modern economic system, and advance the development of the real economy. First, the pace of the construction of the industrial project is quickened. The cooperation zone has 62 industrial projects with land supply, 57 of which come from Shenzhen, with a total planned investment of 31.744 billion yuan. Upon total completion, the annual output value will be 46.064 billion yuan, the annual tax revenue will reach 3.967 billion yuan, and 44,600 jobs will be created. Among them, there are 11 projects that have been completed and put into production, 30 projects are under construction of main structures, 6 projects with the construction of the pile foundations and 15 projects supplied with land and carrying out the preliminary work. Early projects such as Shengteng and Zhongrui are developing well. Second, industrial clusters are beginning to take shape. The cooperation zone will expand and strengthen strategic emerging industries, vigorously develop R&D centers for advanced manufacturing, and promote the formation of a full industrial chain. With the improvement of industrial relevance as an entry point, it will guide the clustering of the five areas in the "eastern, western, southern, northern and

central” parts and extend industries to the high end of the value chain. Four industrial clusters have been initially shaped: The electronic device and electronic product manufacturing cluster represented by Ease Power, Interquip and VAPEL; the big data industry cluster represented by Tencent, China Resources and Topway; the new material industry cluster represented by Jinke, Wedge and Cheermo; and the new energy industry cluster represented by CR Power, SEG and QTRT. Third, it is necessary to attract investments and improve efficiency. The cooperation zone focuses on the identification, tracking and introduction of major industrial projects, adheres to the “three priorities” of major projects, high-end technology industry projects and large-scale agglomeration projects, attaches importance to the construction of the future industrial cluster such as new energy power equipment manufacturing and robots. The new land supply has begun to screen projects, the situation of investment promotion is undergoing significant changes and it is changing from investment attraction to investment selection. Economic development has made great progress. In 2017, the economic indicators of the cooperation zone were included in the index system of Shenzhen for the first time. The annual production value was 4.5 billion yuan, with a year-on-year increase of 80%; the fixed assets investment was 8.5 billion yuan, seeing a growth of 28.6% over the previous year; the total output value of industries above the designated size was 4.36 billion yuan, witnessing a year-on-year increase of 14%. Therefore, it has achieved rapid economic development. From May 17 last year until now, the cooperation zone has communicated with a total of 521 enterprises, and the screening rate of projects through the new land supply reached 1:21. Significant changes have taken place in investment promotion, which has been transformed into investment selection.

3. **Comprehensively expediting the construction of transportation infrastructures**

Taking advantage of the geographical location at the intersection of the Pearl River Delta Economic Circle and the West Fujian Economic Circle, and active planning for the integration into the construction of key infrastructures, such as the Pearl River Delta Great Channel, will be the breakthrough to promote the development of the cooperation zone. It accelerates the “internal connectivity and external linkage” of roads. First, a new skeleton of the road network is being constructed. Stress has been laid on the construction of the network of “five horizontal and six vertical” trunk roads, including Shenshan Avenue, Fazhan Avenue, Honghai Avenue, Chuangxin Avenue and Tonggang Avenue. Fifteen traffic routes are under construction with a length of 47.7 km²; 23 routes are under construction with a length of 71.21 km²; and 20 routes bring the preliminary work to a length of 22.33 km². An interconnected municipal road network with horizontal and vertical connectivity has basically taken shape in the Ebu Area. Second, a new pattern of traffic in the zone is being expedited. The planning and construction of major transportation infrastructures have been strengthened in active cooperation with the planning and route selection of the 350 km/h high-speed railway from Shenzhen to the cooperation zone. Support from relevant departments of the province and the cities is being sought for coordinated advancement of the construction of important external link projects, such

as the Guangzhou-Shanwei Intercity Railway, the Shenzhen-Shanwei High-speed Railway, the Shenzhen-Shanwei Second Expressway and the Houmen Section of the Shenzhen-Shanwei West Expressway, and planning of connectivity with Shenzhen and surrounding areas, so as to shape a new traffic pattern of “three railways and four roads” as soon as possible. The construction of the breakwater and public waterway has been sped up for the Xiaomi International Logistics Park, and passenger transportation by water in Houmen is being studied, in order to shape a traffic system via water and land.

4. Vigorously boosting the construction of supporting facilities

First, the construction of public facilities is being accelerated. The cooperation zone plans to construct 22 supporting facilities with a total investment of 12.374 billion yuan. Among them, 3 projects have already been constructed and put into use, namely the Chishi 220 kV Substation, the Comprehensive Water System Treatment Project of Nanmen River, and the Life Center; the main structures of eight projects are under construction, inclusive of the Neighbourhood Center and the Ebu Sewage Treatment Plant; and the pile foundations for four projects are under construction, such as the East Tower, Glory No. 1, the Zhenye Era Residence, and the Houmen Station Front Square and Traffic Yard Station. The medium pressure gas pipeline has been laid with a length of 6696 m, Bus Line 1 and Line 3 are open to traffic, the Topway cable TV network is open for operations, and the Shenzhen-Shanwei Jianyue Book Bar in the Shenzhen Book Mall has been constructed and open to the public. Second, the construction of reservoirs and pipe networks is being enhanced. The cooperation zone has accelerated the construction of the Ebu Pipe Network, the West Water Plant and the Ebu Sewage Treatment Plant, and is coordinating and advancing the construction of supporting facilities for production, including the West Water Source and Supply Project, the Mingxi Reservoir, the Beikeng Reservoir, the Baipenzhu Reservoir Water Diversion Project and the Gongping Reservoir Water Diversion Project. Third, the construction of educational and medical facilities is being expedited. The cooperation zone has advanced the planning and construction of nine-year public schools and municipal public grade-3 level-A hospitals and clinics.

(II) Future prospects

The overall goal: to build a new medium-sized city with a population of about 1.5 million, with the planning and construction in line with the standard of accommodating 3 million people.

Developmental goals in different phases:

By 2020, the construction land of the cooperation zone will reach 40 km², and the population will be 220,000. The initial area of 30 km² will be basically completed. The basic framework of the Ebu Cluster Area of Advanced Manufacturing, the Xiaomi Emerging Harbour Business Area and the construction of urban infrastructures will be basically shaped. With the integrated pattern of development of policy coordination, traffic connectivity, financial integration, unimpeded mobility of talents

and people-to-people bonds with Shenzhen, the cooperation zone will achieve the regional GDP of 22.5 billion yuan and the per capita GDP of about 100,000 yuan. The integration of harbor, industry and city will initially take shape.

By 2025, the construction land will reach 80 km², and the population will be 800,000. The main framework of the new modern coastal city will be constructed and will include relatively complete urban infrastructures and public service facilities, the clustering of high-end industries and distinctive features with mountains and oceans.

By 2035, the construction land will reach 145 km², the population will be 1.5 million, and the public facilities will be configured according to the standard of accommodating 3 million people, thus a medium-sized coastal city will be constructed.

4 The Line of Thought on the Developmental Practice of the “Enclave Economy” in the Cooperation Zone

Through seven years of painstaking exploration and unremitting efforts, after drastic changes in institutional mechanisms and the continuous evolution of the “enclave economy” model, practice has proven that it is of great significance and strategic value to construct the cooperation zone. From the perspective of national strategy, the cooperation zone is something new for regional coordinated development, and the construction of the cooperation zone is the specific measure to implementing the poverty alleviation project of the central government and building a moderately prosperous society in all respects, as well as the “Guangdong model” proposed by the province for innovating regional coordinated development. From the regional perspective of Guangdong Province, the cooperation zone is the “test field” of the Provincial Party Committee and the Provincial Government for implementing the strategy of revitalizing the eastern, western and northern parts of Guangdong, driving old areas forward with special zones, helping those left behind to get rich, advancing the joint industrial construction and realizing the integration of industry and city. It is an important innovation of the “enclave economy” model. By summarizing the practice of developing the “enclave economy” in the cooperation zone over these years, we have shaped the following three levels of thinking aiming to provide a reference for the development of the “enclave economy” around the world.

(I) Macroscopic Level¹

To enable the market to give play to its dominant role, make full use of the forces of the government, the market and the society, pay attention to the duties of each of them, and allow for benign interaction. The dominant role of the market lies in fully

¹ The macroscopic level refers to the allocation of resources needed for the development of the “enclave economy”.

respecting and utilizing the decisive strength in the allocation of resources, innovating the financing and investment modes, actively interfacing with social capital, rationally performing the role of financial leverage in market forces, and attracting various types of capital to participate in “enclave” construction. In the process of the development of the “enclave economy”, the government’s main responsibility is to improve the soft and hard environment of the “enclave” and “create a good business environment and platform”, such as the enhancement of planning and policy support, the improvement of public services and the investment environment, doing a good job in “delegating power, streamlining administration and optimizing government services”, and the establishment of the hard environment of the construction of infrastructures and a system of public service support as soon as possible. Meanwhile, the construction of the soft environment such as policies, systems, and culture should never be neglected, and a sense of cooperation and culture must be vigorously fostered to create a good social atmosphere of cooperation and development, common progress, mutual trust, tolerance and understanding. The positive role of social forces in the construction of the “enclave economy” is mainly to evaluate and monitor the objectivity, professionalism and neutrality of the market and social services and be able to effectively complement with the government forces and market choices.

(II) Mesoscopic Level²

To continuously optimize the institutional mechanisms and gradually improve the management systems. In order to achieve linked evolution and development, the “enclave economy” must constantly pay attention to the optimization of institutional mechanisms. First, the “exclave” must continue to carry out policy innovation, take its own standards as a benchmark for the economic, social, political, and cultural systems of the “enclave”, and enhance its leadership and influence on the development of the “enclave economy”. Second, the “enclave” management system established by local governments must be rationalized to grant more autonomy to the “enclave” administrative organ, establish and improve the modern government administration system with “separation of government and affairs, clear rights and responsibilities, and efficient management”, clarify the responsibilities and managerial authority of each department, avoid mixed responsibilities and multi-side management, and improve the decision-making effectiveness and executive efficiency of the “enclave”.

(III) Microscopic Level³

To establish and improve the internal governance mechanisms including the division of powers and responsibilities, the distribution of cooperation benefits, equal consultation and dispute resolution, take the institutional advantages to make up for the deficiencies that are difficult to solve in the exploration of the two cooperation regions, achieve the gaming balance of multiple stakeholders in the cooperation on

² The mesoscopic level refers to the institutional mechanisms and management systems for developing the “enclave economy”.

³ The microscopic level refers to clarification of the interest relations among stakeholders in the process of developing the “enclave economy”.

“enclave economy”, and strengthen the sustainable development of special cooperation. The key to solving the game lies in the establishment of a relatively stable and reasonable mechanism for the sharing of benefits. First, according to the principle of “benefits for those making investments”, the benefits of cooperation on “enclave economy” are distributed among several stakeholders. Second, the principle of territoriality in GDP and tax statistics should be reformed so that they can be broken down among stakeholders; and a mechanism for the resolution of disputes and conflicts should be established to solve disputes and conflicts by the higher-level government of the cooperation counterparties of the “enclave”.

Chapter 8

Role Played by China's Pilot Free Trade Zones in the Construction of the "Belt and Road"



Yuanxin Sun

Abstract This paper analyzes the national missions and construction process of pilot free trade zones in China, the framework and effectiveness of pilot free trade zones serving the construction of the "Belt and Road", the new ground in pursuing opening-up on all fronts and the construction of free trade ports. Six suggestions are put forward on how to better play the role of pilot free trade zones and free trade ports in the construction of the "Belt and Road": to grant more powers to pilot free trade zones and free trade ports in carrying out reforms; enhance cooperation and exchange at international customs ports; strengthen the mechanism for the comprehensive coordination of multimodal transportation and important hubs; intensify industrial park cooperation and the capacity for international cooperation; formulate targeted taxation policies for promoting the development of new technology and new models; and provide a Chinese model for reshaping the international economic and trade rules system.

Keyword Construction of the "Belt and Road" · Pilot free trade zone · Free trade port

1 National Missions and the Process of Constructing Pilot Free Trade Zones

The pilot free trade zone ("FTZ"), the important decision of the Chinese government, is a significant measure in promoting reform and opening-up under the new situation. By piloting in some regions, the new policies are tested in the fields of investment, trade, finance, and government functions, so as to replace old drivers with new drivers for economic development, as well as blaze new trails and accumulate new experiences for the whole country.

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The construction of FTZs was implemented in three batches. In September 2013, the Shanghai Pilot Free Trade Zone became the first FTZ. In April 2015, the second batch of FTZs began in Guangdong, Tianjin and Fujian, and the Shanghai Pilot Free Trade Zone was expanded. In April 2017, the third batch of FTZs was deployed in Zhejiang, Liaoning, Henan, Hubei, Sichuan, Chongqing and Shaanxi. Until now, 11 pilot FTZs across the country have formed a “1 + 3 + 7” array. Early FTZs were mainly located in coastal regions, and later FTZs were deployed in the central and western regions, thus reflecting the strategic intention of promoting the opening-up of the central and western regions.

FTZs play the following roles. First, before the adoption of new reform and opening-up policies, in order to prevent systemic risks, local trials were needed, and the pilot zones were the pioneers of that reform. Second, becoming a national-level pilot zone is an honor with the first-mover advantage, local governments responded positively and the central government mobilized their enthusiasm for reform in this way. Third, the content of FTZ construction should reflect the needs of the country and enhance the national awareness and coordination of local governments. Fourth, new experiences and practical cases formed by FTZs can be replicated and borrowed throughout the whole country.

Data show that FTZs have a high degree of opening-up, thus being representative. In 2016, the total population of the 11 provinces and cities where FTZs are located was 593.6 million with the regional GDP of 36.84 trillion yuan, accounting for 43.8% and 47.8% of the national total, respectively. The total value of imports and exports of goods was USD2.32 trillion, and the total investment of foreign-invested enterprises was USD2.91 trillion, accounting for 63.4% and 57.1% of the national total, respectively. From the perspective of the export-oriented degree (export-oriented index I = regional total value of imports and exports of goods/regional GDP, and export-oriented index II = regional total investment of foreign-invested enterprises/regional GDP), in 2016, the national averages were respectively 0.316 and 0.441, but the average values of the provinces where 11 pilot free trade zones are located were respectively 0.419 and 0.526, both of which were higher than the national average.

The export-oriented level of the economy of coastal provinces and cities where FTZs are located is much higher than that of the central and western regions. If the 11 pilot free trade zones are divided into two types as coastal ones and those in central and western regions, the former includes six FTZs in Shanghai, Guangdong, Tianjin, Fujian, Zhejiang and Liaoning and the latter includes five FTZs in Chongqing, Henan, Hubei, Sichuan and Shaanxi. The average regional per capita GDP of the coastal provinces and cities where FTZs are located is 78,100 yuan/year, with the export-oriented indexes I and II being 0.611 and 0.736 respectively. Among them, Shanghai is an international metropolis with a high population density, an industrial agglomeration, and a lot of foreign-funded enterprises. Its export-oriented indexes I and II are 1.022 and 1.73 respectively. The average regional per capita GDP of the central and western provinces and cities where FTZs are located is 46,800 yuan/year, with the export-oriented indexes I and II being 0.117 and 0.196 respectively. This reflects the importance of promoting the degree of opening-up and optimizing the strategic layout of the central and western regions, as well as the

necessity for differentiated institutions in FTZs of different regions. See Table 1 for more details.

The institutional innovation of FTZs covers seven important areas for reform (5 + 2): investment liberalization, trade facilitation, open financial innovation, oversight both during and after the handling of matters, improvement of the business environment, technological innovation and serving national strategies (“Belt and Road” and regional economic cooperation). The first five reform areas are the key points of the first round of reform that reflect the promotion of reform and development through opening-up and the formation of the reversed transmission mechanism. The latter two reform areas are added after an increase in the number of pilot free trade zones and reflect the idea of “open + innovation”. For example, in terms of investment liberalization, FTZs take the lead in implementing the pilot reform policies such as the negative list for the access of foreign investment, further opening-up of the service sector, business registration reform, oversight both during and after the handling of matters, reform of “separating permits from business licenses” and promotion of services for overseas investment. Good results are achieved and these policies have been replicated throughout the country.

2 Framework and Effectiveness of Pilot Free Trade Zones Serving the Construction of the “Belt and Road”

In September 2013, the Chinese government proposed a significant initiative to jointly build the “Silk Road Economic Belt” and the “21st Century Maritime Silk Road” (hereinafter referred to as the “Belt and Road”). In March 2015, it put forward the *Vision and Actions on Jointly Building the Belt and Road*. The countries and regions along the “Belt and Road” will promote practical cooperation in all fields, and work to build a community of shared interests, destiny and responsibility featuring mutual political trust, economic integration and cultural inclusiveness.

FTZs serving the construction of the “Belt and Road” have many advantages. First, they are important nodes and windows for China’s opening-up to the outside world; second, they have a demonstration effect; third, FTZs have abundant resources and internationally important ports, such as Shanghai Port, Shenzhen Port, Guangzhou Port, Tianjin Port, Zhejiang Zhoushan Port, Xiamen Port, Dalian Port, Yingkou Port, etc.; the “Lujiazui Financial Area”, the cluster of international financial centers in Shanghai; important domestic transportation hubs, such as Zhengzhou, Wuhan, Chengdu, Xi’an, etc.; cultural tourism resources, such as Xi’an, the ancient capital of culture; high-tech parks and bases for headquarters, such as the Shanghai Zhangjiang Hi-Tech Park, the Chengdu High-tech Park, etc.; as well as agricultural parks, such as the Shaanxi Yangling Agricultural Area.

The contents of FTZs serving the construction of the “Belt and Road” can be found in the *Master Plan for Pilot Free Trade Zones* of relevant provinces and cities. Due to the differences in geographical location, natural endowments and industrial structure

Table 1 Level of economic development and opening-up of the provinces with pilot free trade zones

National/provincial	Indicators						
	Permanent population at the year-end (100 M)	Regional GDP (trillion RMB)	Per capita regional GDP (10 KRMB)	Total value of imports and exports of goods (100 MUSD)	Total investment of foreign-invested enterprises (100 MUSD)	Export-oriented index I	Export-oriented index II
National	13.558	77.04	5.68	36,679	51,143	0.316	0.441
Province or city with pilot free trade zone	5.936	36.84	6.20	23,242	29,177	0.419	0.526
Percentage in national total (%)	43.8	47.8		63.4	57.1		
Coastal pilot free trade zones	2.882	22.52	7.81	20,716	24,978	0.611	0.736
1. Shanghai	0.242	2.81	11.64	4337	7342	1.022	1.730
2. Guangdong Province	1.099	8.08	7.35	9552	7815	0.785	0.642
3. Tianjin	0.156	1.78	11.45	1026	2225	0.381	0.826
4. Fujian Province	0.387	2.88	7.43	1568	2263	0.361	0.522
5. Liaoning Province	0.437	2.22	5.08	865	2132	0.258	0.637
6. Zhejiang Province	0.559	4.72	8.45	3365	3198	0.473	0.449
Central and western pilot free trade zones	3.054	14.32	4.68	2526	4199	0.117	0.195
1. Chongqing	0.304	1.77	5.82	627	880	0.235	0.330
2. Henan Province	0.953	4.04	4.24	712	822	0.117	0.135
3. Hubei Province	0.588	3.26	5.55	393	993	0.080	0.202
4. Sichuan Province	0.826	3.29	3.98	493	941	0.099	0.190

(continued)

Table 1 (continued)

National/provincial	Indicators						
	Permanent population at the year-end (100 M)	Regional GDP (trillion RMB)	Per capita regional GDP (10 KRMB)	Total value of imports and exports of goods (100 MU\$D)	Total investment of foreign-invested enterprises (100 MU\$D)	Export-oriented index I	Export-oriented index II
5. Shaanxi Province	0.381	1.94	5.08	299	560	0.103	0.192

Source: National Bureau of Statistics, www.stats.gov.cn

Note: Export-oriented index I = regional total value of imports and exports of goods/regional GDP, and export-oriented index II = regional total investment of foreign-invested enterprises/ regional GDP

of FTZs, there are differences in their missions. For example, the Shanghai Pilot Free Trade Zone intends to create a bridgehead serving the construction of the “Belt and Road” and facilitating market players in going global and construct three platforms for international economic and trade cooperation, financial services and a headquarters economy. Guangdong and Fujian aim to become “an important hub and core area of the 21st Century Maritime Silk Road”, and Henan and Chongqing expect to grow into important hubs. There are eight types of FTZs serving the construction of the “Belt and Road”: (I) customs clearance and regulatory cooperation; (II) transportation hub and multimodal transportation; (III) financial cooperation and exchange; (IV) cooperation in technological innovation; (V) cooperation in international capacity; (VI) cultural cooperation and exchange; (VII) establishment of a targeted cooperation mechanism; (VIII) the buildup of an open cooperation service platform. See Table 2 and Table 3 for more details.

The pilot policies were rather effective. Taking Shanghai as an example, from 2014 to 2016, it invested 246 projects in countries and regions along the “Belt and Road” with the actual investment amounting to 5.49 billion US dollars, seeing an average annual growth rate of nearly 1.6 times; it contracted 3,019 projects with the cumulative contract amount of 21.7 billion US dollars, witnessing an average annual growth rate of 9.4%; the trade value exceeded 500 billion yuan; the Shanghai Chamber of Commerce for Import and Export established a trade association with 92 business associations and enterprises along the route. In terms of finance, the “Panda Bonds” for enterprises along the “Belt and Road” issued more than 200 billion yuan. In terms of cultural exchanges, in 2016, Shanghai accepted more than 16,000 international students from countries and regions along the “Belt and Road”, and established the cooperation mechanisms in the fields of art festivals, film festivals, art galleries, museums, music creations and performances. Shanghai achieved direct flights with 24 countries and regions along the “Belt and Road” and established close ties with more than 100 main ports. Throughout the country, multimodal transportation developed rapidly. For example, 1,012 Sino-Euro trains departed from Chengdu in 2017 and ranked top in China.

3 New Ground in Pursuing Opening-Up on All Fronts and the Construction of Free Trade Ports

In October 2017, the Report to the 19th National Congress of the Communist Party of China put forward the request for “making new ground in pursuing opening-up on all fronts” and “granting more powers to pilot free trade zones to conduct reform, and exploring the opening of free trade ports”. At present, more than 10 provinces and cities across the country are actively formulating plans and preparing for the establishment of free trade ports, such as Shanghai, Zhejiang, Guangdong, Fujian, Hainan, Tianjin, Jiangsu, Liaoning, Shandong, Sichuan and Shaanxi.

Table 2 Missions of some pilot free trade zones serving the construction of the “Belt and Road”

Province	Developmental goals	I	II	III	IV	V	VI	VII	VIII
1. Shanghai	Innovating the cooperated development model, creating a bridgehead serving the construction of the “Belt and Road” and facilitating market players in going global	√		√	√	√	√		√
2. Guangdong	Important nexus for the 21st Century Maritime Silk Road	√		√	√	√			
3. Fujian	Constructing the core area for the 21st Century Maritime Silk Road	√		√	√	√		√	
4. Zhejiang	Important demonstration area of the maritime opening-up gateway in eastern China	√		√	√	√			
5. Liaoning	Expanding and enriching regional opening-up and cooperation in Northeast Asia	√		√	√	√		√	
6. Henan	A modern comprehensive traffic hub serving the “Belt and Road”		√	√	√	√			
7. Chongqing	An important hub of the “Belt and Road” and the Yangtze River Economic Belt		√	√	√	√			
8. Hubei	International cooperation on the capacity for production and equipment manufacturing and embracing the “Belt and Road”		√	√	√	√			
9. Shaanxi	An important fulcrum for economic cooperation and cultural exchanges of the “Belt and Road”		√	√	√	√	√		

Source Master Plan for Pilot Free Trade Zone of the relevant provinces and cities printed and circulated by the State Council, and the Plan for Comprehensively Deepening the Reform and the Opening-up of China (Shanghai) Pilot Free Trade Zone, collated by the author

Table 3 Eight types of FTZs serving the construction of the “Belt and Road”

Type	Area	Specific work (matters)
I	Customs clearance and regulatory cooperation	<ol style="list-style-type: none"> (1) Carry out cooperation and exchange in the fields of customs, inspection and quarantine, certification and accreditation, and standard measurement, build electronic port public platforms and conduct international trade information and data exchange and service sharing (2) Explore cooperation on supply chain safety and convenience with countries and regions along the “Belt and Road”
II	Transportation hub and multimodal transportation	<ol style="list-style-type: none"> (1) Carry out multimodal transportation, including land-air and highway-railway intermodal transportation, pilot express land-air intermodal transportation, and build an international logistics center for multimodal transportation (2) Increase flights of international cargo airlines, and intensify the Sino-Euro trains (Zhengzhou, Wuhan, Chongqing, etc.) (3) Explore the coordinated linkage between domestic transportation hubs and important foreign hub cities
III	Financial cooperation and exchange	<ol style="list-style-type: none"> (1) Provide more financial services, such as the issuance of “Panda Bonds”, and direct investment activities such as the establishment of, capital increase or participation in financial institutions with RMB
IV	Cooperation in technological innovation	<ol style="list-style-type: none"> (1) Build innovative platforms in countries along the route and encourage companies to set up overseas R&D centers (2) Encourage youth communications, volunteer exchanges, academic communications and exchanges (3) Explore the construction of the Information Silk Road starting from the telecommunication and internet industries

(continued)

Table 3 (continued)

Type	Area	Specific work (matters)
V	Cooperation in international capacity (incl. modern agriculture)	<ol style="list-style-type: none"> (1) By the principles of opening-up and sharing, enhance the construction of overseas economic and trade cooperation zones, industrial cluster areas, agricultural cooperation zones and cooperation on international capacity such as “double parks in two countries” (2) Support domestic enterprises in establishing regional operation headquarters for overseas marketing, logistics and settlement, etc. in countries along the “Belt and Road” by means of self-construction, acquisition and equity cooperation (3) Build an international cooperation center for modern agriculture of the “Belt and Road” in the Yangling Demonstration Zone
VI	Cultural cooperation and exchanges	<ol style="list-style-type: none"> (1) Cooperate on the protection of cultural relics and archaeological research, and carry out international exchanges for and cooperation regarding museums (2) Sign the tourism cooperation framework agreements and jointly organize international tourism exhibitions (3) Conduct extensive cooperation in the fields of prevention and control of key infectious diseases, prevention and control of acute infectious diseases, emergency medical rescue, traditional medicine, health systems and policies, and the health industry (4) Carry out joint education, exchanges and cooperation among universities and foster multi-bilateral trade and investment talents
VII	Establishment of targeted cooperation mechanism	<ol style="list-style-type: none"> (1) Liaoning cooperates and exchanges with northeastern Asia
VIII	The buildup of an open cooperation service platform	<ol style="list-style-type: none"> (1) Economic and trade cooperation with high standards to promote investment and trade facilitation (2) Enhance the functions of financial services, provide financing and insurance services, and deepen cooperation within financial markets (3) Explore internationally competitive offshore tax arrangements

Source Same as the previous table, collated by the author

With regard to making new ground in pursuing opening-up on all fronts, pilot free trade zones (FTZs) and free trade ports (FTPs) are interlinked, mutually supportive, and complementary to each other. There are overlaps between the two, but some differences also exist.

FTPs have the following differences from FTZs. First, the starting point is different. The FTZs are regarded as the “test field” for institutional innovation and for gaining experience that can be replicated and promoted, but the FTPs are special economic function zones that must continuously serve their economic functions. Second, they have different industries. The FTZs are actually the pilot zones for the all-around reform with bonded areas, logistics hubs, high technologies, finance, high-end manufacturing, tourism, agriculture and headquarters economy, but the FTPs mainly center on the “port” with relatively concentrated industries. Third, they have different aims of construction. The construction of FTPs can be seaports, airports, inland ports, islands and important national ports with good basic conditions.

FTPs have natural connections with FTZs. First, the aims of construction are highly relevant. In China, regions with a highly prosperous trade and a high degree of opening-up are selected for the construction of FTZs, such as Shanghai, Guangdong, Fujian, Zhejiang, Tianjin, Liaoning, etc. These regions have good foundations for ports, so they are also preferred for the construction of FTPs. Second, the continuity of reform and preliminary trials of FTZs, such as cross-border e-commerce, international repairing, new modes of port supervision, “single window” of international trade, and the regulation of cargo status by categorization, are also the key contents of FTPs. Third, both of them have the characteristics of experimentation. There are hundreds of seaports, airports and inland ports in China. The construction of FTPs must provide new experiences and set good examples.

The construction of FTPs must meet the highest international standards and reflect Chinese characteristics. There are two meanings of meeting the highest international standards. One is benchmarking new international agreements, such as the WTO Trade Facilitation Agreement, and the other is high international efficiency, as well as good experience and advanced management models of other countries. International benchmarking should not be simply regarded as a link to preferential policies.

FTPs can form a “1 + X + Y” system of industrial functions. “1” refers to ports, port services and shipping; “X” refers to the general industries around the port, such as the importation and exportation of cargo, international transit, bulk commodity trading, international procurement and distribution, shipping finance, tax refund from port of departure, service trade, bonded display, financial leasing, etc., and “Y” refers to emerging industries, namely new technologies, new business patterns and new models, such as sea-railway intermodal transportation, cross-border e-commerce, global supply chain management, global aircraft and ship repairing, cross-border R&D, remanufacturing, high value-added services at ports, and intelligence industries at ports.

FTPs can shape an institutional design of “1 + X”. “1” is the fundamental policy arrangements applicable for all free trade ports, such as the customs supervision mode, market access rules, intensive organizational structure, measures to support financial and personnel exchanges, taxation system and risk prevention; “X” is the

differentiated policy arrangements that are determined according to the geographical location of free trade ports and regional cooperation requirements, such as facing Northeast Asia, Guangdong-Hong Kong-Macao cooperation, and cross-strait economic cooperation.

The construction of FTPs requires a systematic perspective, which mainly involves eight factors: port integration, regulatory system, organizational structure, taxation policy, capital flow, port infrastructure, industries with distinctive local features, and an inland economy. The policies that the government may adopt include: relatively loose regulatory rules; fully authorized integrated management institutions; clear and transparent tax policies; and encouraging competitive industries with distinctive local features.

In the next 3–5 years, there is the expectation of building another 10 national free trade ports, including seaport-airport integrated ports, such as Shanghai and Guangdong; islands, such as Hainan; regional shipping centers, such as Xiamen in Fujian and Dalian in Liaoning; special-purpose ports, such as Zhoushan in Ningbo; and inland airports, such as Chengdu. Therefore, the FTZs and FTPs will become important hubs for serving the construction of the “Belt and Road” by China.

4 Countermeasures and Suggestions

Considering the new situations of profound changes in the international economic structure, the rise of anti-globalization and trade protectionism, and increased trade frictions, it is of great significance to accelerate the construction of high-quality and high-level pilot free trade zones and free trade ports, and better serve the construction of the “Belt and Road”. Thus, relevant countermeasures and suggestions are recommended as follows:

First of all, to grant more powers to pilot free trade zones and free trade ports to carry out reforms. The meanings of powers to conduct reform are explained as follows. First, new reform and opening-up policies are piloted according to national needs, with some local experiments for the accumulation of experience, such as policies of opening up to foreign investment and financial opening-up. Second, according to regional economic developmental needs, some new policies and management models are piloted, such as new policies within the powers of local governments. Third, from the perspective of facilitating the development of industrial parks, new market access and taxation policies are granted to pilot free trade zones and free trade ports so that they can make full use of their resources, take the lead in accelerating the development of “Made in China 2025”, new technologies and new models, and actively respond to international competition and play a demonstration role.

Second, to enhance cooperation and exchange at international customs ports. International trade frictions can increase the cost of trading enterprises, but improving the efficiency of customs ports may reduce their costs. For example, reducing the administrative cost of importing and exporting per unit container, shortening the time for import and export customs clearance and port loading and unloading. In

1989, Singapore adopted the TradeNet 1.0 trade network system, which was similar to a “single window” of international trade. It was upgraded to version 4.0 in 2007 and then upgraded to the TradeXchange trade regulation system. It can exchange information with the United States of America, Canada, Australia and other countries, strengthen cooperation with countries along the “Belt and Road” in the fields of customs, inspection and quarantine, certification and accreditation and standard measurement, and achieve data exchange and the sharing of services.

Third, to strengthen the mechanism for the comprehensive coordination of multimodal transportation and important hubs. The Sino-Euro trains (Zhengzhou, Wuhan, Chongqing, etc.) provide special railway lines between the central and western regions of China and European cities, and boost the increasing trade links of the “Silk Road Economic Belt”. However, most of the Sino-Euro trains rely on subsidies to operate with unbalanced development and fierce competition for cargo, and reflect the operational mode of “one house for one family”. The mechanism for comprehensive coordination should be formed. First, the horizontal coordination mechanism should be formed to realize the collection and transportation, and unified scheduling of trains, and the sharing of all train transportation resources. Second, various types of intermodal transportation may be explored, such as land-air intermodal transportation, highway-railway intermodal transportation, and pilot express air-railway intermodal transportation. Third, the international logistics center for multimodal transportation should be established to explore the coordination and linkage between domestic transportation hubs and important foreign hub cities.

Fourth, to intensify industrial park cooperation and international capacity cooperation. Against the background of global innovation, the goals of park cooperation are not simply technology transfer and the opening of markets, but also the formation of a “community” dedicated to global markets, cross-border innovation cooperation, and complementarity of innovation resources. The pilot free trade zones have the successful experience of operating industrial parks, thus laying the foundation for cooperation and exchange. The Chengdu Area of China (Sichuan) Pilot Free Trade Zone (the “Chengdu High-tech Zone”) is launching the global top science park partnership program (TSPPP) to shape an international innovation network platform. This program not only blazes new trails for international cooperation, but also becomes a new carrier for cooperation in science and technology parks, and promotes cross-border R&D and international cooperation by various enterprises, especially small and medium-sized enterprises.

Fifth, to formulate targeted taxation policies for promoting the development of new technologies and new models. The future construction of pilot free trade zones and free trade ports should provide carriers for the development of emerging industries. For example, international transit consolidation, global supply chain management, global aircraft repairs, global ship repairs, remanufacturing, new types of trade in services, offshore investments, offshore businesses, etc. The taxation system should have a broad base and reflect fairness; taxation policies should have international competitiveness and be leading; and policies should reflect targeted functions. During the introduction of emerging industries, special taxation policies can be adopted to boost the development of these industries. For example, financial

leasing and preferential tax policies for cross-border e-commerce can contribute to the development of these industries.

Sixth, to provide a Chinese model for reshaping the system of international economic and trade rules. FTZs in different regions actively carry out differentiated institutional innovations. Shanghai enhances the pilot reform of integrating open innovation with high international standards and advanced levels, with consideration for domestic situations; Zhoushan in Zhejiang advances institutional innovation of the whole petroleum industry chain; Chongqing implements the strategy of developing the western region; Sichuan builds the new highland for the inland economy; Liaoning is open to Northeastern Asia; and Xiamen in Fujian constructs a shipping center in southeastern China. After years of efforts, plenty of new experiences and best practices have been obtained by these pilot free trade zones. After refining and sorting, they can form the Chinese model, experience and typical cases to enrich the connotation for the construction of the “Belt and Road”.

Chapter 9

A New Goal of Hainan: From Pilot Free Trade Zone to Free Trade Port with Chinese Characteristics



Yahui Qi

Abstract With a review to the thirty years of development of Hainan from the establishment of the provincial special economic zone to the construction of an international tourism island and a pilot free trade zone, the theoretical analysis and practical validation of relevant problems are explained to summarize experience and lessons and make suggestions for future development.

Keywords Hainan · Pilot free trade zone · Free trade port

On April 13, 2018, at the historical node of the “thirty years” of Hainan Province, General Secretary Xi Jinping attended the 30th anniversary in celebrating the establishment of the provincial special economic zone of Hainan, and announced that the CPC Central Committee supported the important decision of Hainan on comprehensively deepening the reform and opening-up. This meant supporting the construction of the pilot free trade zone in Hainan Island, and gradually exploring and steadily boosting the construction of a free port with Chinese characteristics and building Hainan up to becoming a pilot zone for comprehensively deepening the reform and opening-up, a national ecological civilization pilot zone, an international tourism consumption center and a service guarantee area for important national strategies (Xi, 2018a). This is the third time the significant mission and development goal has been allocated by the central government and the third important opportunity for development during the 30 years of the establishment of the provincial special economic zone of Hainan.

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1 Major Phases of the Reform and Opening-Up in Hainan

(I) Phase 1: Construction of a Provincial Special Economic Zone

On April 13, 1988, the First Session of the Seventh National People's Congress passed the *Decision on the Establishment of Hainan Province* and the *Resolution on the Establishment of the Hainan Special Economic Zone*, which put Hainan, a poverty-stricken backward border region, at the forefront of China's reform and opening-up. The construction goals established that year mainly included: establishing the institutional framework of "small government, big society", setting the reform goal of "complete market economy", constructing the ownership structure "without public ownership playing a dominant role", building up the industrial structure "dominated by industry, with the parallel development of industry, agriculture, trade and tourism" and implementing the second tariff mechanism of "first-tier liberalized and second-tier controlled" (Liang, 2018a, 2018b). These developed goals were creative, pioneering and forward-looking in time and space and the background of political policies 30 years ago. Just for this reason, it triggered a sensational social event of "100,000 talents going to Hainan".

The implementation of this goal was divided into three steps in twenty years. First of all, in three to five years, the economic development of Hainan might catch up with the domestic average level; and then after another five or seven years, it might reach the level of the developed regions of China; and a further ten years or a longer period of time might be spent in overtaking the advanced level of Southeast Asia. However, due to various reasons, Hainan failed to take this opportunity, the preferential support policies given by the central government were not fully implemented and the developmental goals of Hainan were not realized.

(II) Phase 2: Construction of an International Tourism Island

At the end of 2009, the State Council promulgated the *Several Opinions on Promoting the Construction and Development of the Hainan International Tourism Island*, which officially upgraded the Hainan International Tourism Island to a national strategy. The *Several Opinions* established six strategic positions of Hainan Province in the construction of an international tourism island: the tourism reform and innovation pilot zone of China, a world-class island destination for leisure and holiday tourism, a demonstration zone for the construction of an ecological civilization in China, an important platform for international economic cooperation and cultural exchange, a base for resource development and service in the South China Sea, and a national base for tropical modern agriculture, which constituted the so-called "two zones, three bases and one platform". The construction cycle was planned for 10 years, that is, from 2010 to 2020, and divided into two phases, the first five years and the last five years.

Now a review may be given on the achievement rate of these goals. The planning goals in the first phase were that by 2015, the value added of the tourism in Hainan could account for more than 8% of the regional GDP, the value added of the tertiary industry could account for more than 47% of the regional GDP, the proportion of

employed people in the tertiary industry could reach more than 45%, the provincial per capita GDP and the urban and rural residents' income could reach the medium and high level in China and the quality of the comprehensive ecological environment could take the lead in the country. As a matter of fact, according to the data of the *Hainan Statistical Yearbook 2016*, in 2015, the value added of tourism in Hainan accounted for 7.58% of the GDP, the value added of the tertiary industry accounted for 53.25% of the GDP, the proportion of employed people in the tertiary industry was 46.09%, the per capita GDP was 40,818 yuan, the per capita disposable income of urban and rural residents was 18,979 yuan and the quality of the comprehensive ecological environment was leading the country. The per capita GDP ranked 18th and the per capita disposable income of urban and rural residents ranked 19th in the country. Both of them failed to reach the medium and high level in China.

The goals of the second phase of the plan was that by 2020, the value added of the tourism in Hainan would account for more than 12% of the regional GDP, the value added of the tertiary industry would account for 60% of the regional GDP, the proportion of employed people in the tertiary industry would reach 60%, the provincial per capita GDP, urban and rural residents' income and quality of life could reach the advanced level in China, the quality of the comprehensive ecological environment could maintain the leading role in the country, and the capacity for sustainable development would be further enhanced. The *2017 Statistical Communiqué on the National Economic and Social Development of Hainan Province* shows that in 2017, the value added of the tourism in Hainan accounted for 7.79% of GDP, the value added of the tertiary industry accounted for 55.70% of GDP, the per capita GDP was 48,430 yuan, the per capita disposable income of urban and rural residents was 22,553 yuan, and the quality of the comprehensive ecological environment continued to lead the country. The per capita GDP ranked 16th and the per capita disposable income of urban and rural residents ranked 14th in the country. Both of them basically reached the middle level in China. In the next three years, whether it can reach the domestic advanced level is what we expect.

2 Phase 3: Construction of the Pilot Free Trade Zone and Steady Advancement to the Free Trade Port with Chinese Characteristics

(I) A New Goal and the New Mission of Hainan

In April 2018, the central government made an important strategic decision for Hainan's comprehensive deepening of reform and opening-up and supported Hainan Island in constructing the pilot free trade zone on Hainan Island, and gradually exploring and steadily advancing the construction of a free trade port with Chinese characteristics. The CPC Central Committee and the State Council specially formulated the *Guiding Opinions on Supporting Hainan's Comprehensive Deepening of Reform and Opening-up* (File No. 12), which established four strategic positions as

the future development goals, that is to say, Hainan would be constructed as a pilot zone for comprehensively deepening the reform and opening-up, a national ecological civilization pilot zone, an international tourism consumption center and an area to guarantee services for important national strategies in 30 years.

The construction plan will be implemented in four steps. First, by 2020, the goal of building a moderately prosperous society in all respects will be accomplished together with the rest of the country, and it is procured that the rural poverty-stricken population will be lifted out of poverty according to the existing standards and all poverty-stricken counties will cease being poverty-stricken counties; important progress will be made in the development of the pilot free trade zone, rendering the level of international openness significantly higher; the public service system will become more robust, and the fulfillment of the people will be conspicuously heightened; moreover, the system of ecological civilization will be basically established, and the ecological and environmental quality will continue to maintain its first-class status across the country.

Second, by 2025, the quality and efficiency of economic growth will be dramatically improved; the free trade port system will be initially established, and the business environment will be first-class domestically; democracy and the legal system will be sounder, and the governance system and governance capacity will be noticeably modernized; the level and quality of public services will be advanced domestically, and the equalization of basic public services will be fundamentally realized; and the ecological and environmental quality will continue to lead the way in the country.

Third, by 2035, it will be at the forefront of the country in socialist modernization; the institutional system and operating mode of the free trade port will be more mature, and the business environment will rank among the best in the world; the people will be more affluent, the entire population will take a solid pace towards common prosperity, the high-quality public services and the innovation and environment for entrepreneurship will be internationally advanced; the quality of the ecological environment and the efficiency of the utilization of resources will be world-leading; and the modern pattern of social governance will have basically taken shape, and the society will be full of vitality, harmonious and orderly.

Fourth, by the middle of this century, it will take the lead in realizing socialist modernization, shape an institutional system with a high degree of marketization, internationalization, rule of law and modernization, and become a region leading in comprehensive competitiveness and cultural influence. The common prosperity of the people will be basically achieved, and a beautiful new Hainan featuring economic prosperity, social civilization, ecological habitability, and people's well-being will be built.

(II) Great Significance for the New Mission of Hainan

The new deployment of the central government to the reform and opening-up of Hainan is not only an important developmental opportunity for Hainan, but also a new mission given to Hainan by the central government. It is of great practical and historical significance.

This is an important decision made, deployed and urged by General Secretary Xi Jinping. Since the 18th National Congress of the Communist Party of China, with Comrade Xi Jinping as the core, the CPC Central Committee has made two key decisions while planning for the development of China today, the rejuvenation of the Chinese nation, and the happiness of the Chinese people. The two decisions will be profoundly influential by constructing the Xiong'an New Area around Beijing and building the pilot free trade zone and the free trade port with Chinese characteristics on the coast of the South China Sea, thus shaping a strategic layout of "Xiong'an in the north and Hainan in the south".

This is an important step in the comprehensive deepening of China's reform and opening-up in the new era. When socialism with Chinese characteristics enters a new era, we will be faced with a complex and ever-changing international environment. The USA and Britain are undermining globalization, trade protectionism and the populism have sprung up, "black swan" incidents have broken out one after another, and the world's multilateral trading system is confronted with an unprecedented impact and challenge. China, as a beneficiary of economic globalization and a participant in and defender of the multilateral system, must take active actions to put in due efforts to safeguard the world's multilateral system. At the beginning of 2017, when attending the Davos Forum and delivering a keynote speech, President Xi Jinping clearly stated China's advocate for continued opening-up and called on all countries to adhere to free trade and to safeguard the WTO's global multilateral trading system (Xi, 2017a). In the report delivered at the 19th National Congress of the Communist Party of China (CPC), General Secretary Xi Jinping pointed out China's policy propositions and guidelines for deepening the reform and opening-up (Xi, 2017b). In the "two sessions" of the nation in 2018, General Secretary Xi Jinping reiterated China's firm stance on opening-up (Xinhua News Agency, 2018). In the keynote speech of the 2018 Annual Meeting of the Boao Forum for Asia, President Xi Jinping solemnly released four policy proposals and institutional arrangements for the enhancement of opening-up (Xi, 2018b). On April 13, 2018, General Secretary Xi Jinping announced the important decision on the construction of a pilot free trade zone on Hainan Island, and the gradual exploration and steady advancement of the construction of a free trade port with Chinese characteristics, thus building a new benchmark for China to have a higher level of opening-up to the outside world (Xi, 2018a). This process fully demonstrates the strategic decision and strategic determination of the CPC Central Committee with Comrade Xi Jinping as the core to firmly advance China's comprehensive deepening of reform and opening-up.

This is an important upgrading of Hainan's strategic position. Hainan is a small province among the provincial administrative divisions of China. However, due to its unique geographical location and geographical pattern, Hainan has a special strategic position in the overall reform and opening-up of the country. Therefore, Hainan's reform and opening-up should serve the key national strategy, build an important strategic fulcrum to promote the construction of the "Belt and Road", become an important base for the implementation of the strategy for the development of military-civilian integration, and grow to be a frontier region for the strategy of constructing a maritime power; Hainan's reform and opening-up should serve the comprehensive

deepening of reform and opening-up of the country, set a new benchmark, and make due contributions to China's efforts in constructing a global governance system that promotes the building of a community with a shared future for mankind.

(III) New Characteristics of the New Goal of Hainan

If the establishment of a special economic zone and the construction of an international tourism island are two small steps in the process of the reform and opening-up of Hainan, then the construction of a pilot free trade zone and the steady advancement of the construction of a free trade port with Chinese characteristics on Hainan Island can be regarded as a big step in the process of the reform and opening-up of Hainan. It is a new goal of Hainan's development in the new era, with new features different from the past.

First, Hainan's new goal is to build a free trade port with "Chinese characteristics". Looking around the world, there are various kinds of free trade ports, and Hong Kong and Singapore, which are close to Hainan, are recognized as successful free ports in the world. The flexibility and operational efficiency of the mechanisms they create, and the resulting appeal to global business activities, are highly appreciated by the industry, academia and political circles around the world. Hainan can learn from, but never directly copy, their experience. Because, not to mention that Hainan and Singapore belong to different countries, their mechanisms of economic and social development and operation and management are different as a result of different state systems and regimes; moreover, even though Hainan and Hong Kong are within the territory of China, Hong Kong and the Chinese mainland are under the policy of "one country, two systems", so Hainan and Hong Kong play different roles in the national strategy. Therefore, while building a free trade port with Chinese characteristics in Hainan and focusing on the common standards and characteristics of the construction and development of an international free trade port, Hainan must also highlight the different connotations and objectives of the mission of the Hainan Free Trade Port.

Second, Hainan's new goal must fully reflect the strategic significance of the decision made by the central government. As mentioned above, the central government has given Hainan a new mission due to Hainan's special geographical location and geographical pattern, as well as the need to serve and obey the major strategic layout of the country in the new era. Therefore, Hainan was selected for the construction of pilot free trade zone and free trade port with Chinese characteristics to highlight the responsibilities of China for reform, development, opening-up and a win-win situation in the new era, China's determination and confidence in supporting the WTO's multilateral trading system and promoting economic globalization. Hainan will be set as a new benchmark for China to deepen the reform and opening-up in the new era.

Third, the construction of a pilot free trade zone and free trade port with Chinese characteristics on the entire Hainan Island must be guided by the overall realization of the four strategic positionings, consider the actual situation of Hainan, find the correct starting step, plan for the starting strategy, act after planning and steadily advance to avoid violent fluctuations. By deeply understanding and accurately grasping the strategic positioning of Hainan's new goal and new mission, we can clearly recognize

that the key to and highlights of Hainan's comprehensive deepening of reform and opening-up lie in institutional innovation, rather than more preferential policies.

3 Insights on Key Points

(I) **Why must the central government's decision on and deployment of Hainan's development be grasped from a holistic perspective?**

The new goal and new mission given by the central government to Hainan has very rich connotations. In the important speech on April 13, 2018, General Secretary Xi Jinping requested Hainan to shape a new pattern of comprehensive opening-up, plan for a high starting point to advance the reform, take the lead in the country in boosting high-quality development, pilot the reform of the system of ecological civilization, benefit more people fairly by reform and development, and strengthen the Party's overall leadership (Xi, 2018a). The Central Government File No. 12 provides 31 bits of guiding opinions for supporting Hainan's comprehensive deepening of the reform and opening-up. The so-called grasp of the central government's decision and deployment refers to accurately understanding and resolutely implementing the core meanings of the central government's decision on and deployment of the development of Hainan, correctly taking the direction of the four strategic positionings, avoiding the dangers of "mistaking the part for the whole" or "seizing upon one point and ignoring the overall picture", not being confused by the so-called "hot spots" or "bright spots", being careful not to be "penny wise and pound foolish" and resolutely excluding the misunderstandings on and distortions of the mind, public opinion and social expectations.

(II) **Why must we emphasize continuing to emancipate our minds and carry forward the spirit of the special economic zone?**

The new goal and new mission of Hainan are "unprecedented" undertakings that must continue to emancipate the mind. They can be achieved only by boldly thinking about what the predecessors cannot think out. We are not afraid of failure, but we are afraid of not thinking things out; we are not afraid of thinking things out, but we are afraid of not having the courage to think. In the process of practicing the new mission and striving for the new goal of Hainan, we must not lose the spirit of the special economic zone being "enterprising and pioneering with unprecedented motivation". The new goal and new mission of Hainan is the great cause of "advancing with giant strides". Only continuing to emancipate the mind can we take it easy when faced with the enormous challenges and risks that have never been seen before. When the reform and opening-up go deep into the "no man's land", any hesitation and withdrawal will be fruitless, and any follow-suit and copycat will miss the opportunity. In order to fulfill its new mission and strive for the new goal, Hainan must break through the constraints of stereotype rules, remove the ideological ambiguity of "the chicken or

the egg problem”,¹ respond to the call of and follow the directional guidance of the new mission and new goal.

(III) Why must we advance Hainan’s comprehensive deepening of reform and opening-up guided by the construction of a free trade port with Chinese characteristics?

The construction of a pilot free trade zone and the steady advancement of the construction of a free trade port with Chinese characteristics on Hainan Island can be summarized as “two steps and one goal”. The construction of a pilot free trade zone is the initial stage when the regional scope of the pilot free trade zone is clarified to guide Hainan to replicate the experience and practices of the 11 free trade zones faster and better and achieve a good start. The real goal and mission of Hainan’s deepening of the reform and opening-up are to gradually explore and steadily boost the construction of a free trade port with Chinese characteristics. According to the schedule and roadmap determined by the central government, we should neither understand it as two stages of “one goal first and then two steps”, nor as two goals in succession, but two work steps closely linked and integrated with the construction of a free trade port as the orientation of the goal. The schedule given in the *Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan’s Comprehensive Deepening of Reform and Opening-up* stipulated that: by 2020, it should start, complete the replication of the system, experience and practice of the free trade zone and establish a pilot free trade zone; by 2025, the system of free trade ports will be initially established in 7 years; by 2035, after another 10 years, the institutional and policy system of the free trade port will become more mature; and by 2050, a beautiful new Hainan featuring economic prosperity, social civilization, ecological habitability, and people’s well-being will be built.

(IV) Why Must we Inhibit Speculators?

Looking back on the journey of Hainan in establishing the provincial special economic zone and constructing the international tourist island, serious damage caused by speculators to Hainan’s development could be visibly observed, so we can clearly understand the necessity and urgency for inhibiting speculators when Hainan has the new mission and new goal. The damage caused by speculators upon the previous two developmental opportunities of Hainan were embodied as follows. First, they prevented the policies from being implemented. In the process of speculation on the real estate by speculators carrying huge amounts of hot money, the preferential policies of the central government in supporting Hainan’s reform and opening-up were maliciously exploited and overdrawn, or inadvertently abandoned and neglected, thus leading to the failure of such policies and the missing out on opportunities. Second, they affected the realization of the developmental goal. Because of the speculation on real estate, Hainan’s reform and opening-up needs for

¹ The causality dilemma of “the chicken or the egg problem” refers to the problem that “which came first, the chicken or the egg?” This dilemma is not helpful for solving real problems, and may lead to misleading our mind and behaviors and a waste of opportunity for development.

industrial development, institutional construction and social progress were squeezed or suppressed, resulting in failure to achieve Hainan's developmental goals. Third, they misled the directional flow of investments. Due to the exorbitant profits of speculation, all kinds of capital was hugely concentrated in the real estate industry. When bubbles were formed quickly, they emptied the industrial investment funds needed for Hainan's development and resulted in the abnormal development of Hainan's industrial structure, so the shortcomings and weaknesses in the industrial foundation could not achieve a balanced development. Once the real estate bubble burst, this disaster would have a serious impact on the normal economic and social development of Hainan. Fourth, this could strengthen the "rich wealth" mentality and erode the spirit of the special economic zone. After multiple rounds of speculation in the real estate of Hainan, speculators were able to harvest windfall profits. The overwhelming temptation of profiteering spread to all walks of life through the social transmission mechanism. It formed the social-psychological tendency of "speculation all over the country, never missing an opportunity" and induced people to have the psychological expectation of "getting rich in one night" through speculation. This psychological expectation seriously affected honest workers in all industries and seriously eroded the spirit of the special economic zone. In short, the current measures to inhibit all kinds of speculators in Hainan and promptly impose restrictions on real estate purchase are not only necessarily based on historical lessons, but they are also urgent for implementing the central government's decision and deployment. It is the right choice of Hainan's resolution to comprehensively deepen the reform and opening-up with confidence.

(V) **How is it possible to make good plans, arrangements and a good start?**

In the past two months, under the guidance of the central government, the Provincial Party Committee and the Provincial Government of Hainan have made arrangements and achieved a good start.

From the perspective of work arrangements: First, Hainan had a delegation led by provincial leaders, and they visited 11 pilot free trade zones in China to learn from their successful practices and existing experiences that could be replicated and promoted. Second, according to the important speech of General Secretary Xi Jinping on April 13, 2018 and the spirit of File No. 12 of the CPC Central Committee, 356 items were determined as the tasks to be implemented by functional departments under the guidance of provincial leaders. Third, by actively connecting with the relevant ministries and commissions of the central government, the overall plan was made for the construction of a pilot free trade zone and a free trade port with Chinese characteristics in Hainan.

From the perspective of introduction of new policies: Hainan Provincial Party Committee held the Fourth Plenary Session of the Seventh People's Congress to implement the *Decision* of the CPC Central Committee on supporting Hainan's deepening of reform and opening-up, launch the 100-day investment plan, introduce the new talent policies, restrict the purchase of real estate and fueled vehicles in the whole province, construct the Haikou Jiangdong New Area and build a new urban CBD.

From the perspective of work style and mentality: The Provincial Party Committee and the Provincial Government of Hainan will mobilize the whole province, the provincial leaders will set an example by themselves, and the provincial departments and the municipal and county party committees and government officials will lead all industries in the province to work hard. Our slogan is that “One day can be regarded as three days, so we must devote greater efforts”. The cadres, party members and constructors in the province are organized and mobilized to work diligently and make contributions to constructing the pilot free trade zone on Hainan Island and steadily advancing the construction of a free trade port with Chinese characteristics.

4 Expectations of Hainan

In full efforts to implement the central government’s decision and deployment and solidly advance the construction of a pilot free trade zone and a free trade port with Chinese characteristics, Hainan expects all walks of life across the country to pay more attention to Hainan and support Hainan, and correct various misleading ideas and misunderstandings; it expects that experts and scholars in the academic circle of social sciences will be able to do more research on Hainan, give early warnings and provide intellectual support for Hainan’s comprehensive deepening of reform and opening-up; and it also expects tourists and consumers all over the country to visit Hainan frequently, experience the policies of Hainan, enjoy the fruits of development and bring the vitality of development to Hainan.

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Chapter 10

The Advantages of Innovation and the Innovative Development of the Special Economic Zones of Guangdong in the New Era



Yikun Zhou

Abstract In the past 40 years of China's reform and opening-up, with the strong support from the CPC Central Committee, the State Council, the Provincial Party Committee and the Provincial Government, the special economic zones of Guangdong carried out the reform with determination, dared to confront the toughest issues, and through continuous innovation and bold exploration, made great contributions to the reform and opening-up of the country and the socialist construction. In 2018, the CPC Central Committee with Comrade Xi Jinping as the core put forward new requirements for Guangdong and required Guangdong to be "at the forefront of the country in building the institutional mechanisms to promote high-quality economic development, developing a modernized economic system, forming a new pattern of all-around opening-up and creating a model of social governance based on collaboration, participation and common interests". The requirements of "taking four forefronts in the country" are not only the new expectations of General Secretary Xi Jinping for Guangdong, but also the goals of the special economic zones of Guangdong in the new era. These special economic zones should never forget why they started, they should remember their missions, take innovation as the foremost driving force, plan for and advance the construction of special economic zones in the new era and at new starting points and become the pacemakers for realizing the aforesaid requirements in Guangdong Province.

Keywords Special economic zones of Guangdong · Innovation advantage · Innovative development

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1 Challenges and Opportunities for the Innovative Development of the Special Economic Zones of Guangdong in the New Era

In recent years, confronted with the challenges such as a complicated global economic environment, increasingly fierce regional competition and more and more severe constraints on resources and environment, the traditional competitive advantages for the development of the special economic zones of Guangdong have been weakened. Meanwhile, against the background of a new round of scientific and technological revolution and industrial transformation and the development of an economy of innovations all over the world and the comprehensive reform and opening-up in China, the future development of the special economic zones of Guangdong are faced with important opportunities.

(I) Challenges faced by the innovative development of the special economic zones of Guangdong in the new era

1. The complicated global economic environment

After the global financial crisis, the US economy recovered steadily, the economic adjustment of Europe and Japan was slow, the emerging economies were severely divided, the Chinese economy changed from high-speed growth to high-quality development, and the world economy entered a period of low-speed development with in-depth adjustments. In recent years, the competition of the international economic order has become increasingly fierce, the reconstruction of the international trade rule system has been accelerated, the trend of counter-globalization has emerged, geopolitical conflicts have intensified, and the big countries are ideologically competing with each other. In the complicated global economic environment, it is more difficult for the special economic zones of Guangdong to realize a comprehensive opening-up. Uncertainties in the export-oriented development of the special economic zones of Guangdong have increased as China has opened its door wider and wider, with increasing influence on the international economy, constant adjustment of the economic structure, backflow of manufacturing to developed countries, low-cost competition of developing countries' industries, and escalating trade frictions between China and the United States of America. Under such circumstances, if the export-oriented economy is developed based on the traditional industrial structure, it is not only difficult to further expand the developmental space, but may even face considerable risks of being suppressed. The task of transformation and upgrading of the real economy is still very arduous.

2. Increasingly fierce regional competition

With the acceleration of the pace of reform, more coastal open cities (1984), coastal economic open areas (1985), and national new areas (1992) joined the ranks of those opening up. Especially after China's accession to the WTO (2001) and the "income tax integration" (2008), special economic zones no longer exclusively enjoyed the

preferential treatment in reduced tax rates and simplified procedures of approval. More and more cities and regions were conferred with independent legislative power. In March 2015, with the amendment of the *Legislation Law*, the legislative power at the municipal level was expanded from the original 49 large cities to all 284 district-based cities. This meant that the 49 large cities that originally exclusively enjoyed the legislative privilege would gradually lose the dividends of the municipal-level legislative power. In the new era, China launched many regional developmental strategies, such as the Strategy for the Development of the Yangtze River Economic Belt, the Strategy for Beijing-Tianjin-Hebei Integration, the Strategy for the Rise of Central China, the Western Development Strategy, the Strategy for Cross-Strait Economic Cooperation, and the Northeast Revitalization Strategy. Hence, the “test fields” for the opening of the economic system reform were formed from coast to inland and from eastern to central and western regions. On April 13, 2018, General Secretary Xi Jinping announced in the speech at the 30th anniversary of the establishment of the provincial special economic zone in Hainan that the CPC Central Committee decided to support the construction of the pilot free trade zone on Hainan Island, and support Hainan in gradually exploring and steadily boosting the construction of a free trade port with Chinese characteristics. The increasingly fierce regional competition put the special economic zones of Guangdong under the unprecedented pressure of innovative development.

3. More and more severe problems of resources and environment

After nearly 40 years of rapid development, the special economic zones of Guangdong are being confronted with increasingly serious problems regarding land, energy, the environment and the population. It is urgent to solve the problem of redevelopment under the constraints of resources and environment. There are too many people with few lands and the pollution is too serious to continue; the land and space are too limited to be sustainable; the shortage of energy and water resources is very severe and the environmental carrying capacity is overly used. A lot of “hard constraints” can determine the “success or failure” of the special economic zones. Taking Shenzhen as an example, with the continuous reduction of land for development and utilization, the investment cost per unit area of land-based development continues to rise, which has constituted a certain obstacle to attracting large domestic and foreign enterprises to settle in. It is difficult to meet the needs of domestic and foreign investors, and the space for industrial development is largely restricted. Due to the rapid rise in housing prices and the high cost of living, it is difficult for the special economic zones of Guangdong to attract and retain high-level innovative talents. The insufficiency of high-quality, high-level and innovative talents restricts the innovative development of the special economic zones of Guangdong. Against the background of economic development entering a new era, the traditional industries of the special economic zones of Guangdong, especially the manufacturing sector, are faced with the double squeeze of pacemakers in front and chasers behind them. Developed countries accelerate the return of the manufacturing sector, while more developing countries attract the industrial transfer by lower costs. With the disappearance of demographic dividends, rising factor costs, and increasing land and environmental constraints, some

comparative advantages in the past are no longer obvious, and a more advanced modern industrial system needs to be built.

(II) Opportunities for the innovative development of the special economic zones of Guangdong in the new era

1. A new round of scientific and technological revolution and industrial transformation are about to set sail

The next 5 to 10 years is a crucial period for the new round of global technological revolution and industrial transformation from setting sail to springing up like mushrooms. The technologies such as IoT, cloud computing, big data and artificial intelligence will be widely infiltrated into various economic and social fields, and important breakthroughs will be made in 3D printing, robotics and intelligent manufacturing, metamaterials and nanomaterials. The new bio-economy is expected to bring human production and life to a new world, the new energy revolution is changing the existing international landscape of resources and energy, and the creative economy is emerging as a new model of development. The mass technological revolution characterized by intelligence and greenness will lead to major adjustments in the international industrial division of labor. The scientific and technological revolution represented by information technology and “Internet+” gives birth to the new economic model and relations in production organizations, and will effectively promote the accelerated transformation and upgrading of the special economic zones of Guangdong. They are faced with both a rare historical opportunity for catching up and surpassing and a severe challenge of the widening gap. Only by gaining a strong foothold in the tide of scientific and technological innovation can we act on our initiative for development.

2. The country’s strategies for regional development overlap and converge

The special economic zones of Guangdong are situated at the intersection of China’s strategies for regional development such as the “Belt and Road”, the Guangdong-Hong Kong-Macao Greater Bay Area, the pilot free trade zone and independent innovation demonstration zone. Their strategic position in building the highlands for reform and opening-up becomes increasingly prominent due to the convergence of multiple preferential national policies. The special economic zones of Guangdong are faced with not only the country’s historical opportunity to construct the “Belt and Road” and being important hub cities of the Guangdong-Hong Kong-Macao Greater Bay Area, but also the country’s developmental opportunity to vigorously promote the development of pilot free trade zones and independent innovation demonstration zones. These opportunities have provided important conditions for the accelerated innovative development of special economic zones. As significant strategic hubs for the construction of the “Belt and Road” and key windows for China to participate in economic globalization and opening-up to the outside world, the special economic zones of Guangdong in the new era have become important components of the national regional developmental strategies and crucial regional fulcrums for Guangdong to construct the bidirectional platforms for “going global” and “bringing

in”. The national deployment of constructing key platforms such as a pilot free trade zone and a national independent innovation demonstration zone in the Pearl River Delta, promoting institutional innovation and accelerating the reform experiment of all-around innovation is conducive to the accelerated transformation of the economic developmental model, the realization of industrial upgrading and innovative development, and the fostering of new growth engines by the special economic zones of Guangdong.

3. The national strategy of innovation-driven development is fully advanced

Being innovation-driven means that innovation becomes the primary driving force for development. This is a major national strategy of development established by the central government at the new stage of development according to the overall situation, facing the world, focusing on the key and driving the whole. At present, China’s economic development has entered a new normal, the traditional momentum of development is being continuously weakened, and the extensive growth model is difficult to sustain. The innovation must be relied on to drive development forward and foster new economic growth poles. For one thing, China’s innovation-driven development has already laid the foundation for acceleration. There is considerable room for innovation by the combination of the large size of the market, the well-developed industrial system, a diversified consumer demand and improvement in the efficiency of innovation in the Internet era. For another, many industries in China are still at the low-end of the global value chain. Some core technologies of vital importance are controlled by other countries. Developed countries still occupy the leading edge in science and high-tech fields. China’s science and technology reserves that support industrial upgrading and lead future development need to be strengthened. The special economic zones of Guangdong should continue to “blaze a trail” and work hard to explore new paths for innovative development in the new era, and construct new economic growth poles for Guangdong in the next decade or in a longer period of time.

2 The Advantages of Innovation of the Special Economic Zones of Guangdong in the New Era

After nearly 40 years of unremitting efforts and bold exploration, the special economic zones of Guangdong have gained their own innovative advantages in early and pilot implementation, market orientation, industrial innovation, coordinated opening-up and innovation fault tolerance, thus laying a solid foundation for restoring the glory of the special economic zones of Guangdong in the new era.

(I) The advantage of early and pilot implementation

Early and pilot implementation refers to allowing some regions to gradually accumulate the experience of reform by legal innovation within the framework of the existing

legal system. Early and pilot legislation is the biggest institutional advantage of the special economic zones of Guangdong. Especially when it is necessary to make breakthroughs and innovative reforms in some fields, the legislative power of the special economic zones can be flexibly applied to transform the institutional advantages of legislation into the driving force of development and facilitate the comprehensive deepening of the reform. Unlike that of district-based cities, the legislative power of special economic zones belongs to a complete legislative power that does not need to be reported to the provincial people's congress for approval. As long as it conforms to the Constitution and the basic principles of laws and administrative regulations, the specific provisions of relevant legislation may be amended and those amendments can be reported to the Standing Committee of the National People's Congress, the State Council and the Standing Committee of the Provincial People's Congress on record.

Taking the Shenzhen Special Economic Zone as an example, one of the original intentions of the Standing Committee of the National People's Congress is to authorize the city to take a step forward in legislation and explore and provide experience for the national legislation. In the 25 years of legislative practice, a large number of regulations of the special economic zones were enacted by the Shenzhen Municipal People's Congress and its Standing Committee by learning from the successful experience of Hong Kong and foreign countries in the absence of legislative precedents in China. Among the 220 regulations that have been issued, 105 belong to the category of early and pilot implementation and 57 belong to the category of innovation and change. In the category of early and pilot implementation, 41 regulations were issued earlier than the promulgation of the national laws and administrative regulations, so they have provided valuable experience that can be replicated and expanded to the country's enactment of relevant regulations. The remaining 64 regulations never overlap with any national laws and administrative regulations, thus not only filling gaps at the national legislative level, but also providing an effective reference for the local legislation of brother provinces and cities. Under the guidance of regulations, the Shenzhen Special Economic Zone has created more than 1,000 "tops in China" and has become a well-deserved "test field" for institutional reforms.

At the early stage of the construction of the special economic zones, the central government gave many preferential policies to Guangdong, which played a critical role in boosting the development of the special economic zones. With the continuous deepening of the country's reform and opening-up, these special preferential policies have become universal policies, and the legislative power of the special economic zones has become a major institutional advantage now. Although the national legislation is gradually improving, the status and role of the legislation by the special economic zones remain unchanged and this mission continues. Of course, as the reform deepens in the new era, the difficulty of passing legislation and the quality requirements for the legislation of the special economic zones will become greater and greater. As far as the establishment of the institutional mechanisms for high-quality development is concerned, the task of institutional innovation is still arduous, and there is ample room for the legislation of the special economic zones in the future development. The special economic zones of Guangdong should continue to dare to

take risks, pioneering and enterprising, take advantage of the early and pilot implementation of the special economic zones in the new era, focus on institutional innovations, make good use of the legislative power of the special economic zones, explore and build institutional mechanisms conducive to high-quality economic development, and advance the reform and innovation of the special economic zones to a new level.

(II) The advantage of market orientation

The special economic zones of Guangdong are the pacemakers, pioneering places and experimental areas of the reform and opening-up, with their active market economy, abundant private capital and superior environment for entrepreneurship and innovation. Guangdong is one of the regions that reach the highest degree of marketization in China and have a relatively complete market system and basis for the allocation of resources by the market. At present, open innovation is an important trend in the context of economic globalization and innovation networking. As the cross-border movement of information, technology, knowledge and talents becomes increasingly active, various factors and resources for innovation are accelerated to become freely allocated on a global scale. Especially against the background of a new round of scientific and technological revolution and quickened industrial transformation, high-end innovation factors and resources will flow faster and more directional throughout the world. Where the environment is good, the innovation factors flow there. The special economic zones of Guangdong have entered a new stage of innovative development. The acquisition of innovation factors begins to change from introduction to cross-border movement of “bringing-in” and “going global”. Open innovation is conducive to the absorption and integration of the world’s resources for innovation by the special economic zones. In the new era, the special economic zones of Guangdong should adhere to the market orientation, give play to the market-based advantage of special economic zones, grasp the market rules of technological innovation, and let the market be an important means of optimizing the allocation of innovation resources, so that enterprises become the primary force of technological innovation. Meanwhile, the government’s role in macroscopic guidance can be effective, the institutional mechanism can be improved for the allocation of scientific and technological resources for innovation by the market and the cross-border movement of factors of innovation can be encouraged. Thus, the special economic zones can be actively integrated into the global innovation network and make full use of the domestic and international resources and market for innovation to accelerate the innovation-driven development.

(III) The advantage of industrial innovation

At the initial stage of the special economic zones of Guangdong, enterprises were run in the form of “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade”. Many of them gradually developed into the “three types of foreign-funded enterprises” with self-made products. Taking the Shenzhen Special Economic Zone as an example, from processed

in Shenzhen to made in Shenzhen and then to created in Shenzhen, the economy of Shenzhen began with the “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade” at the lowest end of the manufacturing sector, then it went through the labor-intensive original equipment manufacturing process and became one of the cities in China with the most successful industrial upgrading and the most effective high-tech development. In 2017, Shenzhen’s total R&D investment accounted for 4.13% of its GDP, close to the highest level in the world, such as that of South Korea and Israel; its PCT international patents reached 20,400 pieces, accounting for 43.1% of the national total and ranking first for 14 consecutive years. In addition, Shenzhen surpassed Germany (18,900 pieces) and South Korea (15,700 pieces) by only one city and was about four times that of Beijing, which ranked second in China (5,100 pieces). Innovation had already become an important support for Shenzhen’s development. During the development of high-technology in Shenzhen, the successful holding of the China High-Tech Fair since 1999 has played an extremely important role in the links from product R&D to rapid marketization. Of course, the reason why Shenzhen could enter the virtuous circle of industrial innovation and become a city in China with the most intensive scientific and technological innovations was also inseparable from the complete industrial chain in the Pearl River Delta region, the correct guidance and encouragement of the Shenzhen government, and active enterprise R&D. The US sanctions against ZTE in 2018 proved that the core technology had become the biggest hazard to industrial development of China. The developmental history of China in the past few decades has demonstrated that the core technology could neither be exchanged by the market, nor bought even with money. More importance should be attached to basic scientific research, thus filling the gap in the ability for innovation. Therefore, the special economic zones of Guangdong in the new era should give play to their advantages in industrial innovation represented by the Shenzhen Special Economic Zone, with scientific and technological innovation as the strategic support, advance the development of innovation and clustering, accelerate industrial transformation and upgrading, build a high-quality and efficient modern industrial system, and realize better benefits of economic development.

(IV) The advantage of coordinated opening-up

Adjacent to Hong Kong and Macao and facing the South China Sea, the special economic zones of Guangdong are important strategic hubs for the construction of the “Belt and Road” and the Guangdong-Hong Kong-Macao Greater Bay Area, core areas for China to participate in economic globalization and important windows of opening-up to the outside world, thus enjoying an extremely important strategic position. At the initial stage of the establishment of the special economic zones in Guangdong, they took advantage of the geographical location neighbouring Hong Kong and Macao, rapidly obtained external capital, advanced technology and management expertise through external introduction and internal linkage, and made important contributions to exploring the construction of the socialist market economy and forming the economic pattern of all-around opening-up. In the new era, the special economic zones of Guangdong should not only continue their traditional advantages

of opening up to the outside world and carry out the reform with the courage and spirit of “blazing a trail”, but also seize the historical opportunity of the convergence of regional developmental strategies such as the “Belt and Road”, the Guangdong-Hong Kong-Macao Greater Bay Area, the National Independent Innovation Demonstration Zone in the Pearl River Delta Region and the Comprehensive Development Plan for the Coastal Economic Belt in Guangdong Province, give play to its advantage of coordinated opening-up, enhance the open cooperation among the special economic zones of Guangdong, among the pilot free trade areas of Guangdong and with Hong Kong and Macao, accelerate the development of a higher level of an open economy and build a new pattern of comprehensive opening-up.

(V) **The advantage of fault tolerance for innovation**

The market-based competition in the 40 years of reform and opening-up leads to the formation of an innovation culture in the special economic zones of Guangdong. The open, diversified and inclusive innovation culture has a great advantage of fault tolerance. It is the unique innovation culture that respects all of the aspirations of innovation that are conducive to social progress in the special economic zones, encourages activities of innovation, brings innovative abilities into play, recognizes achievements in innovation, and thus creates a good atmosphere of “encouraging innovation and tolerating failure”. Looking back, at the initial stage of the special economic zones of Guangdong, virtually every reform was carried out by violating “regulations”, “laws” and even “the Constitution”. At present, the sharing economy is growing rapidly across the world, entrepreneurship and innovation based on the Internet are booming, new models and new business patterns are emerging and the organizational structure of entrepreneurship and innovation are enriched. Advancing the program of “Mass Entrepreneurship and Innovation” is an important path to enhancing new growth drivers and improving the quality and efficiency of development. In the new era, the special economic zones of Guangdong should continue to give full play to the advantage of innovation fault tolerance, optimize the entrepreneurial and innovative ecology with a more inclusive attitude and more active policies, accelerate the creation of a platform for mass entrepreneurship and innovation, and provide new room for entrepreneurship and innovation.

3 Policy Suggestions for Accelerating the Innovative Development of the Special Economic Zones of Guangdong

Faced with new opportunities and challenges brought by the new round of scientific and technological revolution and industrial transformation in the world, the more and more numerous constraints on resources and environment and the increasingly fierce regional competition under the situation of economic new normal, as well as the historical task and requirements for “taking four forefronts in the country”, in the

new era, the special economic zones of Guangdong should stand at a higher starting point, seize opportunities, overcome difficulties, keep pace with the times and gain new advantages, strive to make new breakthroughs in innovative development, and carry out new explorations for innovation in the reform and opening-up of the country and even the province.

(I) Enhance the advantage of early and pilot implementation and build the institutional mechanisms to boost high-quality economic development

First, the special economic zones of Guangdong should take the lead in creating a market-oriented international and legalized business environment. They should apply the legislative power of special economic zones well and adequately, and clean up, abolish and amend the laws of market entities incompatible with the development of a market economy, as well as the laws and administrative regulations that hinder the development of the factor market for labor, capital, land, property rights and technology. The reform of institutional mechanisms should be pushed through, such as the reform of the pilot free trade zone, the customs clearance reform, the reform of the commercial system, and “delegating power, streamlining administration and optimizing government services”, and the relatively mature and effective reform measures should be upgraded to the regulations of the special economic zones. They should actively strive for state support and explore the construction of free trade ports in Guangdong. In pursuance of the market rules and the principle of not doing anything not authorized by law, they should benchmark with developed countries and regions such as Singapore and Hong Kong, regulate the open and transparent operation of administrative power and confine the exercise of power within an institutional cage. Second, the special economic zones of Guangdong should take the lead in creating a fairly competitive environment that stimulates innovation. They should break through unreasonable access barriers restricting the development of new technologies, new products and new business models, formulate and implement the negative list of industry access, and support and encourage the development of new business patterns and models. They should also carry out the reform of comprehensive intellectual property management, accelerate the construction of the working mechanism for intellectual property protection, trade secret protection and trial of intellectual property rights and the legal system on investigating infringements of intellectual property rights, improve intellectual property incentive policies, and increase the proportion of the transformation of researchers’ achievements. The intellectual property system should become the basic guarantee for stimulating innovation. Innovative development in the new era is changing with each passing day. New technologies, new products, and new things are emerging one after another. The legislation on innovation must be predictive and inclusive. In the process of law enforcement, the content of relevant legal provisions should be continuously enriched and improved, thus creating conditions for innovation to drive high-quality economic development. Third, the special economic zones of Guangdong should take the lead in creating an environment for high-quality and efficient green low-carbon development. They should adhere to the green and low-carbon development, improve the plans for ecological construction, the system of an ecological civilization

and a carbon trading system, formulate a negative list of environmental protection access, impose stricter responsibilities on polluters, and establish the sound mechanisms for environmental credit system, mandatory disclosure of information and severe punishments. They should also improve the third-party environmental protection system, realize the modernization of the governance system and governance capacity of the ecological environment, and accelerate the construction of a system for the governance of the ecological environment dominated by the government, with enterprises as the main entities and the joint participation of social organizations and the public.

(II) Create a new advantage of market orientation and absorb and integrate domestic and international resources for innovation

First, the special economic zones of Guangdong should perfect the technological innovation system dominated by enterprises, oriented by the market, with the deep integration of government, industry, universities and research institutions. Enterprises should truly become the mainstay of decisions on technological innovation, R&D investment, organization of scientific research and the transformation of achievements, so as to avoid the over-administration of scientific and technological resources. The special economic zones should give play to the guiding role of the market in the R&D direction and technical route of competitive industries and in the allocation of various resources for innovation. A sharing and interactive innovation network must be built to enhance the collaborative innovation ability of the government, industry, universities and research institutions. Second, the spirit of entrepreneurship must be stimulated and carried forward. They should protect the legitimate rights and interests of entrepreneurs, such as property rights, innovation rights and independent operation rights, cultivate excellent entrepreneurs with a global vision and innovative lines of thought, and give full play to the role of entrepreneurs in the allocation and integration of resources for innovation. Third, they should improve the mechanism of the market determining the factor prices, urge enterprises to transform from reliance on excessive consumption of resources and energy and low-cost competition to reliance on innovation and differentiated competition, thus breaking through the constraints of resources and the environment. Fourth, the special economic zones of Guangdong should build a higher-level open innovation platform. They should actively strive for the support from the central government to embed the key projects of open innovation into the overall national strategy of opening up to the outside world, or strive for the early and pilot implementation of important projects of the national science and technology opening-up. The friendship channels of high-level visits, official diplomacy and friendly exchanges should be utilized to raise the level of the open innovation of the special economic zones from the perspective of national diplomacy. Moreover, open innovation should be advanced through strengthening the economic and trade cooperation with international friendship cities, and enterprises in the special economic zones should be encouraged to allocate international resources for innovation and expand overseas business through international friendship cities.

(III) **Increase new advantages in industrial innovation and construct a more advanced modern industrial system**

First, an international scientific and technological industrial innovation center should be built with high standards. Aiming at the forefront of international science and technology, the special economic zones of Guangdong should focus on the major needs of national development, accelerate the construction of innovative platforms such as important scientific and technological infrastructures, basic research institutions and manufacturing innovation centers, and upgrade their capacity for innovation and fill the gaps in original innovation capabilities through the introduction of new research institutions. The links, exchanges and cooperation with international high-quality higher education resources must be enhanced, such as universities in Hong Kong and Macao. The high-quality higher education resources at home and abroad should be vigorously introduced to improve the capabilities of original innovation and integration of important technical systems. With the Shenzhen-Hong Kong Science and Technology Innovation Cooperation Zone and the Guangzhou-Shenzhen Science and Technology Innovation Corridor as the core areas, they should strive to achieve a number of advanced original innovations and build a powerful engine for global technological and industrial innovation. Second, the level of the development of modern industrial sectors should be exalted. Centering on the modern industrial innovation clusters with strategic emerging industries, modern service sectors and advanced manufacturing as the core, the special economic zones of Guangdong should accelerate their transformation from industrial clustering and production bases to bases for talent attraction and innovation. The land supply policies must be formulated and improved to guarantee land use by modern industries. The large project-driven and chain expansion actions should be taken to accelerate the settlement of key projects. The traditional advantageous industries should be developed towards the high-end, considerable efforts should be devoted to the development of high-end manufacturing, intelligent manufacturing and green manufacturing, and the advanced manufacturing clusters such as the electronic information industry and the new energy and biological industry should be incubated to lay a solid foundation for the real economy. Intelligent manufacturing should be taken as the core and main direction for boosting the transformation and upgrading of manufacturing. With the support of building broadband-secure Internet infrastructures, the “Internet+ manufacturing” is actively advanced to expedite the transformation and upgrading of manufacturing. Policies and measures should be issued to support the development of innovation talents in modern industrial sectors, and public services for talents such as housing, education and medical care should be perfected, so that more competitive talent-oriented special zones will be constructed. Third, the financial support for technological innovation must be effective. The special economic zones should quickly implement the funding plans for integrating science and technology with finance, vigorously develop the technology finance, promote the deep integration of the Internet, big data, artificial intelligence and the real economy, build financial holding platforms, broaden the financing channels for innovative enterprises, and improve the effectiveness of finance serving the real economy. Diversified means of

investment are encouraged, the government investment model should be optimized and the support of science and technology funding should focus on the weaknesses in the innovation chain instead of general project support. Green finance should be actively developed, and green credit should be provided for projects such as energy conservation and emission reduction, clean production and circular economy, so as to support green development.

(IV) Build the advantage of coordinated opening-up and accelerate the formation of a new pattern of comprehensive opening-up

First, an open economy of a higher level must be expedited by coordination with Hong Kong and Macao. Taking the opportunity of the developmental plans of the Guangdong-Hong Kong-Macao Greater Bay Area, the special economic zones of Guangdong should strive to incorporate more projects in the special implementation plans for scientific and technological innovation and infrastructure. They should take systematic docking and institutional innovation as the core, and vigorously propel the coordinated opening-up and complementary development with Hong Kong and Macao in key cooperation fields. To be specific, the Shenzhen Special Economic Zone should work with Hong Kong to boost the development of the Lok Ma Chau Loop, speed up the construction of the Shenzhen-Hong Kong Science and Technology Innovation Cooperation Zone, drive the financial innovation of Qianhai, and actively strengthen the docking with Hong Kong in financial talents, financial rules and regulatory mechanisms. The Zhuhai Special Economic Zone must seize the opportunity of Hong Kong-Zhuhai-Macao Bridge open to traffic to promote the construction of the Zhuhai-Hong Kong-Macao Logistics Cooperation Park, build the bridge economic zone and create the Hengqin International Leisure Tourism Island. Second, the developmental plans of the China (Guangdong) Pilot Free Trade Zone should be optimized at a high level. Sticking to the direction of “pressing home advantages, serving the country and facing the world”, the special economic zones of Guangdong should expedite the construction of the pilot free trade areas in Shenzhen Qianhai, Zhuhai Hengqin and Guangzhou Nansha, incubate and expand new business patterns and models such as cross-border e-commerce and trade in services, enhance the overall, systematic and coordinated opening-up of the China (Guangdong) Pilot Free Trade Zone, and support Shenzhen in exploring the construction of a free trade port. The pioneering area for the coordinated reform of the pilot free trade zone in Guangdong should be explored. National development zones and industrial cooperation parks with institutional advantages and advantageous platform functions in Guangdong should be selected to participate in the coordinated reform of the China (Guangdong) Pilot Free Trade Zone. Shantou should be encouraged to make use of its advantages of characteristic overseas Chinese pilot zone and bonded areas, and strive to join the pilot free trade zone as soon as possible. Third, the level of external connectivity must be strengthened. Taking the opportunity of advancing the “Belt and Road” and constructing important hub cities in the Guangdong-Hong Kong-Macao Greater Bay Area, the special economic zones of Guangdong should strengthen their open cooperation with surrounding areas and with a focus on infrastructure connectivity and industrial cooperation, jointly improve

the level of external connectivity. Shenzhen should take the initiative in cooperating open-mindedly with neighbouring cities, such as Hong Kong, Guangzhou, Dongguan, Huizhou and Shanwei, build the Shenzhen-Hong Kong Science and Technology Innovation Cooperation Zone and the Guangzhou-Shenzhen Science and Technology Innovation Corridor as first-class innovation belts to promote the deep integration and development of the “3 + 2” economic circle of Shenzhen, Dongguan and Huizhou, and construct the Shenzhen-Shanwei Special Cooperation Zone from a high starting point. Zhuhai should deepen its cooperation with Zhongshan, Jiangmen and Yangjiang, speed up the improvement of the supporting facilities of the Hong Kong-Zhuhai-Macao Bridge and connected road network, actively advance the connection with the Shenzhen-Zhongshan Expressway by the northern extension section of the Jinqin Express Route, assist the preliminary work on the Zhuhai-Jiangmen-Zhaoqing High Speed Railway and strive for including the Shenzhen-Zhuhai High Speed Railway in the related national and provincial plans. Shantou should propel the integration of Shantou, Chaozhou and Jieyang, accelerate the construction of the Shantou-Chaozhou-Jieyang Harbour Air-Railway Economic Cooperation Zone, and build a characteristic city cluster with integrated development.

(V) Gain the new advantage of innovation fault tolerance and optimize the ecological environment for entrepreneurship and innovation

First, the cultural and social atmosphere of being bold to explore, encouraging innovation and tolerating failure should be advocated. The special economic zones of Guangdong should continue to emancipate the mind, remove unreasonable constraints on entrepreneurship and innovation according to the principle of doing anything that is not prohibited by the law, clean up and abolish the rules and regulations that hinder entrepreneurship and development, and create a relaxed and convenient access environment. Second, more efficient, transparent and high-quality public services should be provided for entrepreneurship and innovation. Following the new trend of entrepreneurship and innovation in the age of the Internet, the special economic zones of Guangdong should strengthen the integration of advanced technologies such as Internet and big data, and develop a comprehensive service platform for open innovation and entrepreneurship. They should innovate the financial input methods, make full use of the guiding function and leverage effect of financial funds, and stimulate the input of various factors and resources to entrepreneurship and innovation, such as banks, insurance, securities and equity funds. The public service platforms and entrepreneurship bases for small and micro enterprises should be vigorously advanced and the government procurement of services should be increased. Third, makerspace platforms should be developed. The coordinated development of makerspaces and emerging industries should be taken as a foothold for boosting the construction of makerspaces. Emphasis should be laid on the support for various new types of specialized makerspaces in strategic emerging industries, modern service sectors and technological finance, thus leading to the positive interaction between makerspaces and emerging industries. The layout of makerspaces should be optimized to construct makerspaces with distinctive characteristics. Based on the effective integration of existing factors and resources, a batch of makerspaces should be

built at low cost, with convenience, total factors, diversification and opening, as well as with distinctive features. Disorderly introduction and homogenized construction should be avoided in the same region. Leading and backbone enterprises in different industries and eligible research institutes should be encouraged to build makerspaces around their orientation of industrial development and create open platforms for innovation and entrepreneurship.

Chapter 11

The Historical Evolution and the Future of Shenzhen-Hong Kong Relations on Economic Development



Yiming Yuan

Abstract Over the thirty-eight years, Hong Kong, which plays a unique and important role in the growth process of the Shenzhen Special Economic Zone, has been called jointly by the academic world and the government “the Hong Kong factor” for the development of Shenzhen. Furthermore, there is a customary expression that an important reason for the development of the Shenzhen Special Economic Zone lies in its geographical advantage. Here, that advantage refers to the support for economic takeoff and development due to its adjacency to Hong Kong. The cooperation between Shenzhen and Hong Kong on development since the beginning of the reform and opening-up of China has undergone 38 years of evolution. There is not an academic conclusion yet on the contribution of the Hong Kong factor in the development of Shenzhen. This conclusion is difficult to arrive at because only 50% of the contribution of the Hong Kong factor has been estimated from the perspective of the visible effects of economic growth. In the future, the role played by Hong Kong in the construction of a global innovation center by Shenzhen cannot be underestimated.

Keywords “One Country Two Systems” · Hong Kong · Economic cooperation

More than 20 years ago, the Chinese people all over the world swelled with pride as the five-starred red flag was rising and the grand ceremony for the handover of power by Britain was held on the land of Hong Kong. This greatly aroused the pride and patriotic enthusiasm in the minds of the Chinese people and also caused a sensation on earth.

The handover of Hong Kong was an innovation in the history of the world because Hong Kong served as a carrier for the realization of the great strategic vision of “one country, two systems”: socialism on the Chinese mainland and capitalism in Hong Kong. Meanwhile, Hong Kong was also the carrier of the two different types of economic systems: the free market economy in Hong Kong and the transition economy on the Chinese mainland. Upon the handover of Hong Kong to China,

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many doubts arose around the world—how Hong Kong could, with a different social system and mechanism, be successfully handed over and how it could be administered afterward. In a long period after that handover, the central issue was to achieve a smooth transition and maintain the stability of Hong Kong. Five years later, the prosperity of Hong Kong became the focus of discussion. In 2017, looking back on the journey of Hong Kong over the past 20 years, and reviewing the political and economic progress of Hong Kong today, the courage and wisdom of the central government dealing with the issue of Hong Kong's handover could be easily observed, as well as the wisdom reflected in the process of maintaining the stability and prosperity of Hong Kong.

1 “One Country, Two Systems”, The Fundamental Institutional Condition for Cooperation Between Hong Kong and the Chinese Mainland

With the basic background of economic globalization and regionalization of the global economy, there are two typical cases of regional economic integration: one is the European Union, and the other is Hong Kong and the Chinese mainland linked by Luohu Bridge in China.

It can be said that the EU is a perfect example of regional economic cooperation. Established among many different economies and different political bodies, the degree of integration of the EU is beyond the expectations of people. Economically, the member countries have entered a state of convergence both in the microeconomic field and with respect to macroeconomic changes. The tradable goods extensively flow among member countries with almost completely equal prices. In the factor market, especially the capital market, after the sufficient direct investment and mergers and acquisitions among member countries, the actual rates of profit are equalized; on the labor factor market, the degree of equalization is slightly lower. In the macroeconomic field, the two indicators, namely the rate of inflation and nominal interest rate, are close to the degree of full integration, the economic cycle of member countries has been synchronized, and the convergence of unemployment and per capita GDP among member countries has been achieved.

The process of European economic integration has gone through two stages at different levels: functional integration and institutional integration. The process of functional integration eliminates the market barriers among different economies so that the economic factors can flow freely among member countries and achieve the integration of economic processes. At this stage, the natural resource endowments and comparative advantages of member countries can be integrated. The flow of factors in the process of functional integration leads to the expansion of the space for the allocation of resources of any member country and brings “dividends” to the development of the European economy.

The cooperation between the Chinese mainland and Hong Kong is a unique paradigm for regional economic cooperation in the history of global economic cooperation. Its unique significance lies in the cooperation between the two regions of different social systems in one country. The institutional background of “one country, two systems” means that the cooperation between Hong Kong and the Chinese mainland is destined to make special contributions to the world’s regional economic cooperation. If the 27 countries in Europe set a classical example of regional economic cooperation with the same social system, similar institutions and mechanisms and the same level of development, then the cooperation between Hong Kong and the Chinese mainland is an example of regional economic cooperation with different social systems, different economic systems and very different levels of development.

In 1980, Hong Kong, with a per capita GDP of 20,000 US dollars, was already an internationally renowned manufacturing center of light industry products and a famous financial, trade, tourism, and information metropolis. Its achievements of economic development were universally recognized, and more importantly, its market system was perfected. The highly liberal market economy enabled Hong Kong to become one of the famous Four Asian Tigers. In contrast to Hong Kong, mainland of China was still at the beginning of the reform of its economic system in 1980. The large-scale planned economy was the main feature of the Chinese mainland economic system at that time. Compared with the mature and perfect free-market economy of Hong Kong, the two essentially different systems were the basic premise and basis for economic cooperation between Hong Kong and the Chinese mainland. On the other hand, there was a huge gap in the level of development: the per capita GDP of the Chinese mainland was just over 100 US dollars. The long-term planned economy led to the low economic efficiency, weak ability to create wealth, extremely scarce production factors such as capital, technology and management, a sharp contradiction between supply and demand and a serious shortage of supply on the Chinese mainland, which was in contrast to Hong Kong’s economy, which was over-supplied with insufficient demand.

It was in the context of institutional differences and different levels of development that the economic cooperation between Hong Kong and the Chinese mainland kicked off: In the early 1980s, a large number of manufacturing enterprises from Hong Kong crossed the Luohu Bridge. In essence, this was a movement of capital, management and general production technologies from south to north. The cross-border movement of hundreds of billions of funds was the primary driving force. The reduction in the average capital return rate of manufacturing in Hong Kong and the low cost of capital financing were the two premises for the movement of capital from Hong Kong. In contrast, even in neighboring Shenzhen, due to a serious shortage of capital at the early stage of development (with a relatively abundant labor force and land), the marginal rate of return of capital was very high. After a short-distance movement from Hong Kong to Shenzhen, capital from Hong Kong were able to realize the transformation from low return to high return. Meanwhile, the dramatic increase in capitals on the Chinese mainland in the short term greatly enhanced the productivity of the two factors, namely land and labor force. The ability

to create wealth on the Chinese mainland developed rapidly and the “growth dividends” of the regional economy began to appear between the Chinese mainland and Hong Kong. For a long period after 1980, capital from Hong Kong was an important part of external capital going to the Chinese mainland, especially in neighboring Guangdong. In more than 10 years by the end of August 2003, the whole province had introduced overseas investments of over 120 billion US dollars. About 82.5 billion US dollars came from Hong Kong and accounted for 68.8% of the total. The northward movement of production factors largely expanded the space for industrial development, and the constraint on the development of Hong Kong due to insufficient land was removed. The advantageous resources of capital, market, information, management and production technologies in combination with the labor force and land of the Chinese mainland enabled Hong Kong to acquire the ability of allocating regional resources on the Chinese mainland, and Hong Kong also enhanced its ability to dispatch international resources by playing the role of a “bridge”.

2 Progression of the Cooperation Between Hong Kong and the Chinese Mainland

The economic cooperation between the Chinese mainland and Hong Kong began in the 1980s, but the development and deepening in an all-around manner emerged after the handover of Hong Kong in 1997. The cooperation went through approximately **three stages**:

The first stage was the period of “front store, back factory”. At the initial stage of cooperation, the Chinese mainland and Hong Kong had a typical vertical division of labor. The Chinese mainland attracted capital from Hong Kong for industrial transfer by virtue of its low land prices, low wages, low cost and special preferential policies of the special economic zones. The economic model of “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade” developed rapidly. The Chinese mainland was responsible for the processing of the products and obtained income from that processing, while the relatively high-profit links in product design, market and technology development in the industrial chain were retained in Hong Kong. This was the basic connotation of the “front store, back factory” model between the Chinese mainland and Hong Kong. Obviously, this was typical inter-regional cooperation by a vertical division of labor. This famous mode of the division of labor between the Chinese mainland and Hong Kong allowed the economic developmental advantages of both sides to be fully exerted, and unleashed the tremendous driving force for the economic restructuring of Hong Kong and the industrial takeoff on the Chinese mainland.

The second stage was the period for the development of “three types of foreign-funded enterprises”. Merchants from Hong Kong invested in Chinese mainland enterprises through shareholdings or relied on the local technical forces on the Chinese

mainland for research and development. In this period, we made full use of the abundant labor force and land resources and powerful technical developmental capabilities of the Chinese mainland and the capital, extensive external relations and developed tertiary industry of Hong Kong. From “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade” to the three types of foreign-funded enterprises, the vertical division of labor was changed, and economic cooperation evolved from the vertical division of labor to the coexistence of the vertical and horizontal divisions of labor. The Chinese mainland shared not only more benefits than the economic model of “processing with supplied materials, assembly with supplied parts, processing with supplied samples, and compensation trade”, but it could also obtain technology and advanced management expertise and cultivate professional talents proficient in international market operations. During this period, the Chinese mainland’s capability for economic development was rapidly formed, and Hong Kong made considerable gains in the development of the hinterland.

The third stage was the period for the advanced level of cooperation. The cooperation mode began to shift to high technology and service sectors. The substantial improvement of the capability for technological innovation and the unexpected growth rate of high-tech industries on the Chinese mainland created a new demand for the service sectors of Hong Kong. A higher level of the industrial division of labor and cooperation between the Chinese mainland and Hong Kong came into being. The transfer of service sectors emerged and substituted the industrial transfer of manufacturing at an earlier stage, and the advanced level of cooperation began.

After the three stages, the economic cooperation between Hong Kong and the Chinese mainland has three characteristics as follows:

First, verticality. The industrial division of labor is typically vertical, and this is already an indisputable consensus. Over 20 years ago, businessmen from Hong Kong transferred production processes or workshops that required a large amount of labor force onto the Chinese mainland and set up organizations for the industrial functions of production, processing and assembly. In Hong Kong, they retained the front-end industrial links such as production management, component assembly, product design, technology development, and even high-tech or high-skill components and parts manufacturing, as well as the back-end links such as market development, sales, after-sales service and related trade, finance, transportation and logistics. This cooperation mode of “front store, back factory” was a vivid expression of the vertical division of productivity between Hong Kong and the Chinese mainland. But now, between the two regions, especially between Shenzhen and Hong Kong, the connotation of the cooperated industries is different. The service sectors, especially those relevant to manufacturing, have already become the new content of their cooperation. The industrial cooperation between the Chinese mainland and Hong Kong is evolving from manufacturing to service sectors, but the cooperation model is still “front store, back factory”. The outsourcing of “services” that is booming on the Chinese mainland still reflects the vertical division of labor in service sectors between them.

Second, spontaneity. The economic cooperation between Hong Kong and the Chinese mainland, which started in the early 1980s, is the result of differences in the conditions of factor endowments between them. The basic driving force is the pursuit of interests by enterprises considering different returns on factors. That is to say, the market forces have always been the primary driving forces for cooperation. Therefore, the cross-regional division of labor between the two regions is a typical market process, and the cooperation is characterized by spontaneity. It is worth noting that, from the outset of the spontaneous cooperation, there is already a premise, namely the implementation of the reform and opening-up strategy on the Chinese mainland. The existence of this premise allows for the opening of the door for factors from Hong Kong to enter the Chinese mainland. However, there is never a situation that institutional arrangements become the main means of coordination and cooperation between the two regions.

Third, effectiveness. The economic division of labor and cooperation between Hong Kong and the Chinese mainland has greatly improved the overall level of welfare of the two regions, and the efficiency of cooperation is the inevitable result of the market process. In the first few years since the beginning of industrial cooperation between the two regions, Shenzhen and Guangdong Province, which took the lead in seizing the opportunity of cooperation, have achieved a high speed of economic growth. The manufacturing driven by capitals from Hong Kong has become prosperous at an unprecedented speed. The export-oriented economy driven by the export-oriented industry is advancing by leaps and bounds. This is one of the many examples of the achievements of cooperation between Hong Kong and the Chinese mainland. Meanwhile, the shared benefits of cooperation of Hong Kong are also phenomenal. The capital of tens of billions of US dollars from Hong Kong has been rewarded with huge profits. What is more important, Hong Kong has an opportunity of industrial upgrading and transformation that is rare in history, hence it can be well prepared in the new period of development for maintaining a strong competitive position in the world. Hong Kong upgrades from the low-level product manufacturing and processing to R&D, design and management. The transformation of the economic structure from manufacturing to service sectors enhances Hong Kong's capability for economic growth so that economic growth can be sustainable. In the late 1980s, the regional GDP of Hong Kong grew at an average rate of 7.5%. It is the effectiveness of cooperation that enables the mutual prosperity of Hong Kong and the Chinese mainland over the past 30 years. This result has become a successful example of the cooperation of regions with different systems and levels of productivity.

For the Chinese mainland, it is a political benefit that we take pride in the handover of Hong Kong, but economically we share the benefits created by cooperation. Hong Kong has made three key contributions to the development of the Chinese mainland: institutional contribution, it provides reference and enlightenment for the establishment and improvement of the socialist market economy on the Chinese mainland; factor contribution, the northward movement of a large amount of capital from Hong Kong can reduce capital constraints in the Chinese mainland's process development; and contribution in communication, a bridge is built for exchanges between

the Chinese mainland and the world. These three contributions are the fundamental reasons for the common prosperity of the two regions after the reunification, and also an important basis for Hong Kong to maintain stability after the handover.

3 Institutional Integration Determining the Future of Economic Cooperation Between Hong Kong and the Chinese Mainland

Institutional integration is a process of coordinating the systems and mechanisms among various parties involved in the regional economic cooperation. Through this process, a coherent cooperation agreement within the region was reached, thereby overcoming the systematic and institutional barriers to the economic division of labor and cooperation within the region and boosting the deepening of the regional industrial division of labor. According to Tinbergen, regional economic integration can be divided into two categories: negative integration and positive integration. Negative integration refers to removal of discriminatory and restrictive institutions and the introduction of freedom for economic transactions in the process of regional trade liberalization, and positive integration refers to the adjustment of the existing and the establishment of new policies and institutions endowed with coercive powers to ensure the effective operation of the market and the integration of macro-policy objectives within the group. To truly advance regional economic integration, it is necessary to achieve an upgrade from negative integration to positive integration and complete the process of positive integration. Only in this way can there be convergence of economic policies and economic development, thereby fully discovering the two types of efficiencies in the process of economic integration: scale efficiency generated by market expansion and efficiency of institutional synergy from institutional integration, so as to promote the continued prosperity of the regional economy.

The process of integration between Hong Kong and the mainland has achieved negative integration as defined by Tinbergen, that is, the functional integration phase. After nearly 40 years, the cooperation mode is still functional integration. In reality, there is a limited amount of room for functional integration between the two regions. The differences in systems and mechanisms have become constraints on the continued advancement of the process of integration, which are embodied as follows: a highly free and mature economic system of Hong Kong corresponds to the imperfect market system (framework) of the Chinese mainland, and results in the different understandings on the entities driving the cooperation; different specifications and standards in the process of industrial development partially damage the scope and depth of industrial development between them; owing to historical reasons and reasons of coordination, there are few border areas worthy of development; institutional reasons lead to the asymmetric flow of population—the free movement of residents in Hong Kong and the controlled movement of residents in the mainland;

the lack of coordination of management leads to the long-term existence of differentiated customs inspections and a significant increase in the costs of transactions, and there are many other conflicts.

Based on the existing cooperation framework and coordination mechanism, the institutional integration between Hong Kong and the mainland can start from three key contents: the integration organizations and management institutions must be established to make up for the insufficiency of the conventional management and strengthen the existing coordination mechanism (such as the Pan-Pearl River Delta Cooperation Framework, the Guangdong-Hong Kong Joint Conference, etc.); the rules, regulations and policies that are not conducive to cooperation should be amended; the split and separate forms of civil exchanges should be transformed towards the organizational forms, and the effective inter-industrial integration mechanism should be established for the standardization of industrial development and the convergence of product standards. In this regard, the most important measure should be accelerating the construction and improvement of the market economy on the mainland. Only when the differences in the market system are reduced greatly and the movement of goods, people, services and capital between the two regions is free and sufficient, will the industrial division of labor be highly deepened, and the economic community of Shenzhen and Hong Kong based on the comparative advantages of the mainland and Hong Kong can emerge, and Hong Kong and South China under the policy of "one country, two systems" can become the most competitive region in the world.

The institutional integration of the economy should be supplemented with exchanges and cooperation in infrastructure, environmental protection, airports, ports and border areas, as well as culture and education, scientific and technological talents, etc.:

Port docking—In accordance with Hong Kong's long-term developmental strategy, it is necessary to jointly formulate plans for the development of port and border cooperation. More urgently, further facilitation measures should be taken for personnel exchanges to simplify vehicle clearance procedures between the mainland and Hong Kong.

Traffic docking—Emphasis should be laid on the construction of transportation and logistics hubs at multiple ports so as to provide new channels for the people and the goods of Hong Kong to go northward and eastward.

Industrial combination—We need to implement the Closer Economic Partnership Arrangement (CEPA) better, boost the joint development of tourism and commerce in the two regions, give play to the role of manufacturing on the mainland to the development of service sectors in Hong Kong, undertake the driving and radiating role of Hong Kong's modern service sectors, and achieve the mutual benefit and win-win results of the industrial development in both regions. For such purposes, it is necessary to expand the degree of opening-up of the service sectors on the mainland and create an excellent environment for the extension of finance, accounting and auditing, legal services, management consulting, marketing, education and medical services from Hong Kong to the mainland.

Integration of human resources—The deepening of economic relations between the mainland and Hong Kong requires international talents who understand both the West and the East. The mainland and Hong Kong have different talent bases due to different social developments and economic structures. Their talent exchange and cooperation can gain a complementary advantage. The cooperation channels for the development of human resources between the mainland and Hong Kong should be expanded. The academic, technical and talent exchanges should be advanced and the talent exchange and training rules and channels should be established to facilitate the exchanges of personnel between the two regions.

Twenty years after the handover of Hong Kong, profound changes have taken place in the situation of its own development, and the relations of cooperation with the mainland and the world. Looking forward from today, the continued prosperity of Hong Kong is still faced with challenges. To cope with these challenges, Hong Kong must attach importance to three aspects: upgrading economic cooperation with the mainland to the integration of economic institutions; better adapting to the global trends of development; and boosting the transformation of the local economic structure and the continuous development of politics. What is of great significance is to promote the deepening of economic relations with the mainland. The key point lies in the upgrading of the cooperation mode to the form of integration of economic institutions, so as to provide a fundamental condition for common prosperity, strengthen the mainland advantage of Hong Kong in the global competition on economic development and allow both the mainland and Hong Kong to have a more beautiful tomorrow.

Chapter 12

How Can the Guangdong-Hong Kong-Macao Greater Bay Area Expedite a New System of Opening-Up?



Jie Chen and Jun Wang

Abstract The opening and rise of the Guangdong-Hong Kong-Macao Greater Bay Area has become strategically important due to the changes in the global economic landscape. The emerging free economic zones are growing to be the primary driving force for globalization. The Greater Bay Area can learn from the international experience and provide a reference for a wider opening-up of China. The free ports of Hong Kong and Macao, the China (Guangdong) Pilot Free Trade Zone, the integrated bonded area, the Zhuhai-Macao Cross-Border Industrial Zone, supervised export warehouses and bonded warehouses make up the infrastructure for free trade in the Greater Bay Area, which requires further institutional innovation. Innovation to the immigration policy driving the free movement of people is an important content for the further opening-up of the Greater Bay Area. The core of financial opening-up lies in the creation of high-quality investment-grade assets and reduction of barriers to transactions. The core partnership with ASEAN is favorable to broadening the scope of influence of the free economic zone. The mainland cities represented by Guangzhou and Shenzhen must compete with strengths, drive Hong Kong and Macao to be more open, and jointly build a competitive platform for the international market.

Keywords Guangdong-Hong Kong-Macao greater bay area · Immigration · Finance · Free economic zone

1 Introduction

In the new era, the Guangdong-Hong Kong-Macao Greater Bay Area (“Greater Bay Area”) rises to the heights of a national strategy. Cities in the Greater Bay Area should not only implement the strategic deployment of the central government, but also think about how to take this opportunity to increase its regional value and bring

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real benefits to enterprises and to the people. This paper aims at exploring the path for further raising the regional value of the Greater Bay Area from the perspective of free economic zones.

The opening-up of and the rise of the Greater Bay Area have become strategically important as a result of the changes in the global economic landscape. The purpose of the establishment of international trade rules is to reduce institutional factors that hinder the free flow of trade by coordinating the tariff policies of different countries. The existing international trade rules of the WTO are based on traditional trading patterns. The rules are set to promote the free flow of goods across countries. The Doha Round of negotiations only focused on issues regarding traditional trading, such as tariff reductions and agricultural subsidies. The traditional model of trading is that the commodities are exchanged among countries as consumer goods, while the new model of trading is embodied in the internationalization of the production process, with the cross-border flows of goods, investments, services, knowledge and personnel in the global production network. Changes in the global value chain require the consistency of market rules and the integration of standards across countries.

The 2008 international financial crisis and the subsequent European debt crisis triggered the adjustment of the global economic landscape, and the rise of emerging economies strengthened their position in global economic governance. The economic downturn in the United States and Europe led to a decline in external demand, while the strong market demand of emerging economies, represented by China, was sustaining the global economic recovery and South-South trade was also rapidly increasing. In 2016, emerging markets and developing countries contributed 80% of the world's economic growth and accounted for 38.8% of the world economy, which increased by 10.5% in comparison with 2007. The United States, the European Union and China are currently the three core parts of global trading, but the existing rule-making power is still dominated by the United States and the European Union. Meanwhile, although emerging economies can be comparable with developed countries regarding scale of trade, they still lag behind on the market economy and regarding the legal system. Due to such a contrast, developed countries hope to instill their values to developing countries by means of international trade rules. New challenges are being posed to the existing structure of global trade governance because of the changes in the dominant forces of global trade triggered by the rise of emerging economies, the adjustment of the structure of governance in the WTO, and the differences and conflicts of values between emerging economies and developed countries in economic operations. Various types of free economic zones with higher levels of opening-up and greater flexibility are emerging rapidly and have become new engines that drive economic globalization forward.

After Shenzhen, the container throughput of Guangzhou Port is expected to soon surpass that of Hong Kong, and Hong Kong's offshore trading accounted for 55% of its annual trade volume in 2015. This indicates that the structure of the internal cargo trading of the Greater Bay Area is also undergoing profound changes. The stimulation of the free trade policy must not only aim at trade in goods, but also integrate the trade and investment rules to facilitate the cross-border flows of goods, investments, services, knowledge and personnel. As a free port, Hong Kong has

signed a series of free trade agreements and related investment agreements with ASEAN to allow other cities within the Greater Bay Area to share the preferential trade policies such as trade in goods, trade in services, investment, economic and technological cooperation and mechanisms for the settlement of disputes, thus greatly enhancing the level of opening-up and the competitiveness of the region and further laying a good foundation for the increase in regional value.

2 International Experience of Free Economic Zones

In Chap. 2 “Free Zones” of the *International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention)*, the Customs Cooperation Council defines the free economic zone as follows: “It refers to a part of the territory of a contracting party, and any goods entering this part are generally considered to be outside the customs territory in terms of import duties and fees”. In short, a free economic zone refers to an area that is outside the customs territory and allows foreign goods to be exempted from customs duties. The world’s first officially named free economic zone was the free port of Leghohy built in Genoa in 1547. After the seventeenth century, with the expansion of foreign trade, free ports began to flourish in Western Europe. After the 1960s, there was a boom in free economic zones around the world. By the early 1990s, more than 900 free economic zones had been established throughout the world, and two-thirds of them were distributed in developed countries, especially North America and Western Europe. The free economic zones greatly promoted foreign trade and the economic development of the host country.

(I) Benchmark comparison

1. Dubai

After more than 30 years of construction and development, Dubai has become the largest free trade port in the Middle East. In 1979, PORT JEBEL ALI, the world’s largest man-made harbor was put into use. In May 1991, Dubai established the Dubai Ports Authority (DPA) for the unified management of the Port of Rashid and the Port of Jebelari, both of which have the repair facilities that are adapted to a large number of containers. The Port of Jebelari also has a large chilled warehouse of 43,000 cubic meters. The experience of free ports in Dubai is to build a port terminal first and then establish a free trade zone after growth and development so that they can be complementary to each other. The Dubai International Airport is also located near the ports, thereby shaping a logistics operational mode of airport + seaports + free trade zone.

2. London

The annual cargo throughput of the Port of London is not large and does not exceed 100 million tons. The experience of the free port in London is mainly reflected in its tertiary industry, which can create high added value. Since the 1940s, London

has been adopting the port separation mode to move port hardware facilities to the sea area about 40 km to the east of the city center, and it has vigorously developed related industries such as ship financing, maritime insurance and maritime arbitration. Today, the Port of London already has the world's largest shipping market, with more than 1750 shipping companies or agencies with offices in London, 79% of which are registered and the rest have trading offices. The market accounts for 18% of global ship financing, 50% of tanker leasing, 40% of bulk leasing and 23% of hull insurance. Moreover, the port area provides world-class marine insurance institutions and shipping legal services with an international reputation. It is home to a number of international shipping organizations such as the International Maritime Organization (IMO), the International Shipping Federation (ISF), the International Cargo Handling Coordination Association (ICHCA) and the Baltic and International Maritime Conference (BIMCO).

3. **Incheon International Airport Bonded Area**

Incheon International Airport is an airline hub in South Korea and also the largest airport in Asia. The bonded area is located near the airport. In view of the sufficient capacity for air transportation of the free economic zone, in addition to well-known Korean companies, many world-class logistics and high-tech enterprises have chosen to invest in the park, such as NOKIA, IBM, AT&T, DELL, FEDEX and TNT.

4. **Singapore Changi Airport Free Trade Zone**

More than 60 airlines at Singapore Changi Airport provide the domestic and international air transportation services of passengers and cargo. In order to develop the airport logistics industry, Singapore has established a system of a bonded logistics park based on the excellent transportation capacity and geographical location of Changi Airport with the free trade zone being the core concept. Changi Airport has a 24-h free trade zone, the Changi Airfreight Center, which can provide one-stop service for the logistics and transportation of air cargo. In order to realize the efficient transfer of logistics between the airport and the free trade zone, two large passenger and cargo agencies in Changi Airport have their cargo terminal or agent directly in the free trade zone and connected with the apron. The airplane can directly deliver the air cargo to the cargo terminal. The transit cargo is stored in the free trade zone without immediate customs declaration or customs inspection. The rational division of labor between the airport freight area and the logistics park enables Changi Airport to have a convenient freight transportation and customs clearance capacity, thus being more conducive to attracting enterprises to gather within the coverage of the free trade zone.

(II) **Preferential policies**

The tax incentive-based preferential policy is a key measure for the free economic zone to attract investment and expand trading activities. In order to attract domestic and foreign investors and users and achieve economic prosperity and development,

governments, especially those in developing countries, have formulated relevant preferential policies, including:

Duty exemption policy: It generally stipulates that, except for those banned by law, all kinds of commodities can enter the free economic zone.

Reduction and exemption policy for income tax and other taxes: For example, in the Colon Free Trade Zone in Panama, the corporate income tax is levied at only 2.5–8.5%; local taxes are exempted except the vehicle license tax. The law of the Chilean Free Trade Zone stipulates that companies in the zone are exempt from the corporate income tax and value-added tax during the operating period, and the cargo is exempt from all local taxes.

The preferential policy of loose restrictions on loans and subsidies: For example, in the free economic zones, the government of the Netherlands grants 10% of the investment of enterprises settling in the zones as subsidies, so that they can be put into operation and get economic benefits as soon as possible.

The policy of accelerated depreciation of capital investment: For example, the Spanish government stipulates that exporting companies in the free economic zone can have an accelerated depreciation rate of 4%.

The policy on free remittance of capital and profits: The currency circulation and exchange rate of developed countries are basically free, so the financial environment of their free economic zones is also quite loose. In developing countries, in order to boost the development of free economic zones, there are relatively loose regulations on financial resources in the region.

The preferential policy for the supplies of land, water, electricity and energy: For example, the Malaysian government stipulates that the land lease period in the free economic zones can be as long as 60–99 years, and the prices are preferential.

The policy of opening the domestic market: For example, enterprises in the free economic zones of Turkey can enjoy tax rebates for exportation. Foreign goods can enter the domestic market through the free economic zone and enjoy the preferential tax cuts for imports.

The investment security policy: Many countries have clearly specified in relevant policies and regulations that foreign enterprises investing in the free economic zones are not subject to the policy of nationalization and confiscation of assets to ensure that investors are protected from the effects and losses caused by war and turmoil.

From the perspective of the development of the free economic zone, at the early stage, the preferential policies of non-free economic zones are quite different; with the economic development of the country where the free economic zone is located and the increased competitiveness of the free economic zone itself, the gap has gradually narrowed. Therefore, the Guangdong-Hong Kong-Macao Greater Bay Area is selected by China as a pilot for the cross-border free economic zone so that it can explore the experience for a wider opening-up in the future.

3 Further Functions of the Existing Free Trade Infrastructure

In addition to the free trade ports of Hong Kong and Macao and the Guangdong Free Trade Zone, the Greater Bay Area currently has 5 bonded areas, 4 export processing zones, 2 bonded logistics parks, 2 bonded port areas, and the Zhuhai-Macao Cross-Border Industrial Zone. Besides, there are 4 bonded logistics centers (Type B) and a number of supervised export warehouses and bonded warehouses.

(I) Primary free trade infrastructure in the Greater Bay Area

At present, the Greater Bay Area already possesses the diversified and multi-dimensional free trade infrastructure with “the free port of Hong Kong as the head, the Guangdong Free Trade Zone as a breakthrough point, the linkage of bonded areas and ports as the fulcrum, the bonded logistics centers as the hub, the export processing zones and the Zhuhai-Macao Cross-Border Industrial Zone as the bases and the public and private bonded warehouses and supervised export warehouses as the network nodes”.

1. The free trade ports of Hong Kong and Macao

Since 1842, Hong Kong has become a free port and has implemented the policy of free trade in the entire Hong Kong region. After over 100 years, Hong Kong has developed into an important international trade and commercial center from the entrepôt trading port at the beginning. As an export-oriented economy, Hong Kong has long adopted the economic policy of free trading. It does not set any trade barriers and the import and export procedures are simple. In general, except the initial registration, the importation and local production of four types of dutiable goods—alcohol, tobacco, hydrocarbon oil and methanol, the import and export of goods in Hong Kong is tax-free. The taxation advantage of Hong Kong is that it is simple and small in amount. There are only three types of direct taxes, including profits tax, salaries tax and property tax, but with a tax allowance. Hong Kong also actively participates in multilateral, regional, plurilateral and bilateral trade agreements, implements minimum licensing controls on the importation and exportation of goods, and adopts a number of measures to reduce the burden of trade control on the industry and to speed up customs clearance.

Likewise, Macao is also an international free port that mainly provides free trade services by infrastructures such as the exterior port and interior port terminals and the Macao Airport.

2. The Guangdong Free Trade Zone

In December 2014, the State Council decided to establish the China (Guangdong) Pilot Free Trade Zone. It covers three areas: the Guangzhou Nansha New Area (the Guangzhou Nansha Free Trade Zone), the Shenzhen Qianhai Shekou Area (the Shenzhen Shekou Free Trade Zone) and the Zhuhai Hengqin New Area (the Zhuhai

Hengqin Free Trade Zone), with a total land area of 116.2 km². On December 28, 2014, the 12th Meeting of the Standing Committee of the 12th National People's Congress passed a decision on authorizing the State Council to temporarily adjust relevant laws and regulations on administrative examination and approval in the China (Guangdong) Pilot Free Trade Zone. This pilot FTZ will establish a system of financial cooperation and innovation, promote the liberalization of trade, and explore the convergence of trade rules through institutional innovation in Guangdong, Hong Kong and Macao.

3. **Integrated bonded areas**

Shenzhen, Zhuhai and other integrated bonded areas are the special areas that integrate the existing functions of export processing zones, bonded logistics centers and ports, and that belong to special supervised areas with the functions of bonded processing, bonded logistics, import and export trade, procurement and distribution, financial services, inspection and maintenance, as well as exhibitions. Their taxation and foreign exchange policies refer to the Yangshan Bonded Port Area, and their customs supervision refers to the regulation measures of bonded port areas.

4. **Bonded logistics centers (Type A)**

Bonded logistics centers (Type A) refer to the supervised customs areas that are approved by Customs, operated by a corporate legal person in China and specialized in the bonded warehouses and logistics business. According to the scope of services, they are divided into public logistics centers and private logistics centers.

5. **Bonded logistics centers (Type B)**

Bonded logistics centers (Type B) refer to the centralized supervised customs areas that are approved by Customs, operated by a corporate legal person in China with many enterprises settling in and specialized in the bonded warehouses and logistics business. They have the functions of international trade, bonded warehouses, commodity display, international transit, logistics and bonded simple processing, and they adopt the policies of "license-free, tax exemption, bonded tax, and tax refund for settling in the zone". The transportation of goods from outside into the park is regarded as exportation. There is no import license for goods moved between the parks and overseas. The Dongguan, Zhongshan, Guangzhou Airport and the Shenzhen Airport Bonded Logistics Centers (Type B) approved by the four national ministries and commissions are all located in the Greater Bay Area.

6. **Export processing zones**

The export processing zones have the function of bonded processing, and implement policies such as "license-free, tax exemption, bonded tax, and tax refund for settling in the zone": license-free (no quota or license is required between overseas and bonded areas except passive quota), tax exemption (the taxes are exempt for machinery, equipment and materials needed by production projects in the bonded area, and the production and management equipment, spare parts and office supplies used

by enterprises in the bonded area) and bonded tax (the goods entering the bonded area are bonded). Enterprises that can enter the export processing zones include: first, export processing enterprises; second, warehousing enterprises that provide services for export processing enterprises; third, transportation enterprises that are approved by Customs to specialize in the import and export of goods in the processing zones. There are currently four export processing zones in the Guangdong-Hong Kong-Macao Greater Bay Area.

7. The Zhuhai-Macao Cross-Border Industrial Zone

The Zhuhai-Macao Cross-border Industrial Zone is the only cross-border industrial zone in China. Established with the approval of the State Council, it is located between Gongbei Maoshengwei of Zhuhai and Ilha Verde of Macao. Its functional positioning is an experimental area for profound economic cooperation between Guangdong and Macao, a demonstration area of new industrialization, a modern logistics exhibition area and a pilot free trade area. The first phase covers an area of 400,000 m², including 290,000 m² in Zhuhai Park and 110,000 m² in Macao. A special port channel was established to connect the two areas. It mainly develops industries, with consideration to the functions such as logistics, transit trade and product exhibition sales.

8. Bonded warehouses

Bonded warehouses refer to warehouses approved by Customs for the storage of bonded goods and other goods without completing customs formalities. This kind of warehouse is confined to the storage of imported materials for processing and then re-exportation, as well as re-exported goods after temporary storage and goods approved by Customs for entry after handling tax payment formalities. Goods in bonded warehouses may be subject to simple processing such as packaging, classification, separation and assembly, without substantial processing.

9. Supervised export warehouses

Supervised export warehouses refer to the customs-specific supervised warehouses for storage, bonded logistics and distribution and provision of circulating value-added services for goods that have handled the customs formalities for exportation. They include: export distribution warehouses (for the storage of export goods for the purpose of actual departure) and domestic transition warehouses (for the storage of export goods transited domestically). Goods stored in supervised export warehouses shall not be processed substantially, but the value-added services such as quality inspection, classification, sorting and packaging, brushing and marking, filming and package change may be carried out in the warehouses.

(II) Further opening-up through institutional innovation

Compared with developed countries, there is still a problem of imbalance in the opening sectors of the Guangdong-Hong Kong-Macao Greater Bay Area. The manufacturing sector has opened up early with a wider scope and a higher degree of opening-up, thus becoming an important global base for cargo trading. In comparison,

the opening-up of the service sector is backward and the trade in services lags behind trade in goods both in terms of scale and competitiveness. In the future, the Greater Bay Area as a whole must accelerate the exploration of effective ways to enhance the competitiveness of trade in services in the fields of finance, insurance, education, consulting and medicine pursuant to a certain road map.

1. Internationally competitive taxation arrangements

The implementation of a tax system in line with international practice is a key advantage of the free economic zone. It can attract enterprises and promote the development of related businesses, lay a foundation for the development of these business patterns in the Greater Bay Area and break institutional barriers on relevant industries. Since Hong Kong and Macao are already free trade ports, the policy optimization of the Greater Bay Area should focus on how to solve the problems of high import taxes and a high corporate income tax burden in the free zone.

2. The quick procedure for the “local adjustment” of laws in the Greater Bay Area

The developed economies, such as the United States and South Korea, have special legislations regarding the development of foreign trade zones and free economic zones. The Guangdong Pilot Free Trade Zone currently adopts the form of “single authorization, one discussion over one issue” along the path by which “the national legislature authorizes the State Council and the State Council devolves the state power”. “Important reforms should be well-founded in law.” In addition to the state laws and regulations, there are many requirements implicitly contained in rules and regulations promulgated by various national ministries and commissions. Because the current legal systems in Hong Kong and Macao are different from the one on the mainland, the free economic zone of the Greater Bay Area can be based on the existing laws of the three regions. A special team of the national legislature should be established to formulate convenient procedures for suspending and implementing relevant laws and regulations, and to achieve the implementation of reform measures as soon as possible.

3. Innovation to the concept of integrated border management with “soft boundary” as the core

Guided by the convenient flow of factors, the system of trade supervision is innovated under the principle of “first-tier opening and second-tier under effective control” within and outside of the territory of the Guangdong-Hong Kong-Macao Free Economic Zone. Based on big data, the customs clearance procedures are simplified to the maximum extent. Cooperation is enabled in operating the “single window” of international trade to achieve the information exchange and the mutual recognition of the supervision of the movements of people and goods by “one inspection of three regions”. In order to promote trade and investment activities, special convenience

can be given, for example, in visa applications, to traders and investors who invest in projects, as well as those who provide consulting or core technical services for those investment projects. These can be made clear by specific agreements under the framework of the Greater Bay Area Cooperation.

4 Advancing the Regional Opening by Innovation to the Policy on Immigration

In the latest round of negotiations on free trade agreements among developed economies, immigration has become an increasingly prominent issue, especially in the US-Europe negotiations. As shown in Table 1, the working-age populations of Japan, Russia, Greater China (Hong Kong, Taiwan and Mainland of China), Germany and South Korea are expected to have the greatest decline. The population situation in the Greater Bay Area is not optimistic, so new breakthroughs and innovation are needed in the policy on immigration.

Scrambling for international immigrants is a general trend. In the coming years, on a global scale, immigrants will play a more important role in the short-term growth of many countries and in the liberalization of global trading. As the world proceeds to an unprecedented period of uneven population transition in the next two decades, more and more countries' policies on immigration will be forced to make big changes to alleviate the impact of accelerated population aging. Since tariffs on trade in traditional goods in developed economies are already low, these countries may focus more on promoting negotiations over service sectors and the opening up to investments. The Ministry of Public Security of China also announced recently that since February 1, 2018, the administrative agencies for entry and exit under the public security organs may issue five-year visas for multiple entries to overseas Chinese who are visiting relatives, negotiating business, conducting scientific and educational exchanges, and handling private affairs in China; the residence permit valid for five years may be issued to overseas Chinese who work, study, visit relatives and engage in private affairs and hence need long-term residence.

There is limited potential for stimulation by changing only the birth policy. Taiwan, Hong Kong and Singapore encourage childbirth by all means, but their total birth rates in 2015 were only 1.18, 1.20 and 1.24, respectively. The year 2017 was a peak period for compensatory birth after the universal two-child policy became effective all over mainland of China, but according to the National Bureau of Statistics, in 2017, there were 630,000 fewer children born than in 2016. Further, from the developmental experience of international mature bay areas such as New York and San Francisco, or looking back on the process of development of the Pearl River Delta after the reform and opening-up, it can be found that immigrants play an important role in promoting regional economic development. Then, how can innovations be made to the policy of immigration in order to increase regional value and enhance internal motivation?

Table 1 Expected change in the working-age population (15–64) (partial countries or regions)

Country or region	2013–2023 (%)	Country or region	2013–2023 (%)
Japan	−9	Hong Kong, China	−22
Hong Kong, China	−8	Germany	−17
Russia	−8	Japan	−16
Germany	−7	The Republic of Korea	−15
Taiwan, China	−4	Taiwan, China	−14
The Republic of Korea	−4	Russia	−11
China	−3	China	−7
France	−1	Italy	−6
Italy	0	Thailand	−3
Canada	0	France	−2
South Africa	0	Canada	0
Thailand	0	South Africa	1
Britain	2	Britain	2
Switzerland	3	Switzerland	3
The U.S.A	4	Spain	6
Spain	6	The U.S.A	9
Australia	6	Brazil	11
Brazil	9	Australia	12
Indonesia	11	Vietnam	14
Vietnam	12	Indonesia	17
Mexico	12	Mexico	18
Turkey	12	Turkey	19
Singapore	14	Singapore	23
India	15	India	27
Malaysia	16	Malaysia	27
Egypt	21	Egypt	41
The Philippines	22	The Philippines	43
BRIC countries	5	BRIC countries	7
G7	0	G7	−1

Data resource U.S. Census International Population Database

1. Less strict restrictions on household registration to attract mainland talents

In recent years, cities in the Pearl River Delta have begun to cancel the merit-based system of household registration and lowered the threshold for registration; it has already become a consensus of the society to reduce restrictions on such registration and attract mainland talents. Guangzhou and Shenzhen have less strict conditions for settlement among the first-tier cities. In the future, they should continue to reduce restrictions and scramble for young people on the mainland. Hong Kong and Macao need to innovate policies such as the dispatch of the labor force to overcome the shortage of manpower in some industries. For example, according to the Hong Kong Construction Industry Council, as of April 2017, the construction workers under the age of 29 accounted for only 5.84%, but those over the age of 60 accounted for 55.12%. The issue of elderly workers has become increasingly serious in the construction industry, so it is urgent to attract young people from the mainland.

2. Gradually attracting international immigrants from Southeast Asia and South Asia

Since the outbreak of the global economic crisis in 2008, the scale of immigration in developed economies has remained at a very high level. Immigrants entering the OECD countries have shifted to work-based immigration, and immigrants played an increasingly important role in expanding the scale of the labor force in developed economies. Meanwhile, the governments of the countries concerned also attach great importance to earning foreign exchange to drive their economy by exporting some of the labor force and short-term immigration. Taking the housekeeping service industry as an example, with the economic take-off of Hong Kong, by March 31, 2010, the number of foreign housekeepers increased to 273,609, of which 49% came from Indonesia and 48% from the Philippines. In the future, the rate of growth of the population of laborers in the Philippines, Malaysia, Indonesia, Vietnam, India and other Southeast Asian and South Asian countries is expected to be higher than the global average, and they have a very strong complementary effect with the Guangdong-Hong Kong-Macao Greater Bay Area. Although having the geographical advantage, the Greater Bay Area is also confronted with the challenges identical to those in developed economies, which need to be seriously considered. The innovation to the international policy of immigration must be steadily advanced.

3. The vigorous development of higher education

Educational services are an important part of the trade in services, and trade in services is becoming the new engine for the development of an open economy in the Greater Bay Area. The educational markets of developed economies such as the USA and Europe are perfect and occupy the commanding heights of trade in services. The Greater Bay Area has a weaker foundation of higher education. However, through the construction of campus cities in Guangzhou and Zhuhai and new campuses of famous universities in Shenzhen, plus the emergence of some high-quality universities in Hong Kong and Macao, it has already achieved a certain degree of international competitiveness. Therefore, for one thing, it is necessary to integrate the resources

of universities in Guangdong, Hong Kong and Macao to solve the contradiction between the shortage of students in Hong Kong and Macao and the low proportion of enrolment of students from the mainland; for another, with reference to the successful experience of the USA in which most of the prestigious universities are private ones, social capital should be attracted to invest in higher education, especially in the new campuses of well-known universities established by cooperation of the Chinese and foreign sides, so that overseas students may possibly be attracted to study and work in the Guangdong-Hong Kong-Macao Greater Bay Area.

4. Accelerating the construction of medical and elderly care facilities

According to forecasts, the proportion of the elderly population in Hong Kong will double in the next 20 years. The population aged 85 and above will increase to 4.2 times after 30 years. It is difficult for Hong Kong to solve the shortage of hospital beds and elderly care workers on its own. Therefore, implementing the international standard qualification certifications and training for nurses and opening up the medical and elderly care market in the Greater Bay Area has become the focal point. As for the Greater Bay Area, both local residents and foreign immigrants prefer to enjoy good medical and pension conditions, which are the important factors in attracting investment and consumption in specific regions.

5 Expediting the Financial Opening

Financial opening is crucial to the development of the Guangdong-Hong Kong-Macao Greater Bay Area. According to an estimate of the World Bank, there are currently about 8.55 trillion US dollars invested in bonds with negative interest rates, 24.5 trillion US dollars in government bonds with yields of 1% or less, and 8 trillion US dollars without being invested. The total of these three types of money exceeds 40 trillion US dollars. How can such low-cost international funds be attracted to invest in the Greater Bay Area?

1. Negative lists

At present, more than 100 countries around the world implement the pre-established national treatment and negative lists, and only China and Saudi Arabia in the G20 countries have not adopted this model. China is already conducting negotiations on the China-US Bilateral Investment Treaty (BIT) and the China-EU BIT in accordance with the model of the negative list. The Guangdong-Hong Kong-Macao Greater Bay Area should seize the opportunity of early and pilot implementation, gradually shorten the negative list, replace the unreasonable access and qualification restrictions on foreign financial institutions with prudent requirements, and stimulate the enthusiasm of foreign financial institutions to participate in the financial market of the Greater Bay Area. By the principle of equal treatment of domestic and foreign capital, the restrictions on proportion of shares, form of incorporation, qualifications

of shareholders, scope of business, and number of licenses for foreign-funded financial institutions should be relaxed, thus providing a fair and just environment for foreign capital to enter the Chinese market.

2. Capital account convertibility

Capital account convertibility may be piloted in the Greater Bay Areas. First, the quota for foreign exchange of residents in the Greater Bay Area may be greatly increased. Second, on the basis of Shenzhen-Hong Kong Stock Connect, the population with household registration in mainland cities in the Greater Bay Area may be allowed to invest in Hong Kong stocks and the residents of Hong Kong and Macao may be allowed to invest in A shares listed on the Shenzhen Stock Exchange. Furthermore, with reference to the internationally lower tax rate, tax incentives for foreign institutions to invest in the domestic bond market can be implemented within the Greater Bay Area to attract more foreign institutions to invest in China's financial market.

3. Opening intermediary markets such as credit rating and accounting

Currently, the relevant legal system on the opening of China's capital market is still being perfected. Signing cooperation agreements on audit supervision with countries or regions where overseas accounting firms are located is conducive to improving the effectiveness of supervision and providing the guarantee for cross-border recovery in case of bond defaults, but until now only Hong Kong has signed a cooperation agreement on audit supervision with China. Therefore, the pilot of the opening of intermediary services within the Greater Bay Area has inherent advantages. Foreign institutions can be allowed to independently select accounting standards to prepare financial reports within the Greater Bay Area, and overseas accounting firms can be allowed to provide audit services for domestic and foreign companies registered in the Greater Bay Area.

4. The liberalization of investments

Investment behavior is often accompanied by capital flows, especially cross-border investments, which involves state capital supervision and foreign exchange management systems, so investment and finance are closely related. The liberalization of investments is an important feature of the business environment in free economic zones. The reform and profound opening of the liberalization of investments within the financial market in the Greater Bay Area can be considered a deep-level reform for Guangdong. However, Hong Kong's experience in financing two-way investments, cross-border settlements and profit transfers has set a good example in the world. Therefore, the inherent advantages are obvious for advancing the liberalization of investments in the Greater Bay Area.

6 Building a Core Partnership Between the Greater Bay Area and ASEAN

ASEAN has 10 countries: Singapore, Indonesia, Cambodia, Laos, Thailand, Vietnam, Myanmar, the Philippines, Malaysia and Brunei. These 10 countries, rich in natural resources such as rubber, oil, tin, natural gas and palm oil, are also important densely-populated places for overseas Chinese with a long history of cooperation with cities in the Greater Bay Area. Furthermore, the labor force of these 10 countries is abundant, but the internal development of each of them is quite different. There are both emerging economies such as Singapore and Malaysia, and Myanmar, Laos and other backward countries that are transitioning to the market economy. Although ASEAN has abundant resources, a large market, low labor cost and large investment space, it lacks a complete industrial system, the industrial structure of each country is similar, most of these countries' processing and manufacturing industries are relatively backward, and they have increasing demands for real estate, manufacturing and other industrial sectors. The financial, education and logistics service providers in the Greater Bay Area have become the preferred partners of many ASEAN countries. From the perspective of industrial structure, the Greater Bay Area and ASEAN have significant gradients of industrial transfer and acceptance. The differences between resource endowments and the structure of tradeable products can effectively promote import and export trade between the two sides, especially in the fields of agricultural products, energy, rubber and other products, a trade relationship that is dependent on the imports and exports among them has been formed. Also, ASEAN, being a densely-populated region of overseas Chinese, the cultural and emotional links facilitate exchanges between the Greater Bay Area and ASEAN.

From a realistic point of view, the inter-city industrial echelon in the Guangdong-Hong Kong-Macao Greater Bay Area is obvious. Every city has its own distinctive advantages. For example, the level of urbanization and the proportion of service sectors in Hong Kong, Shenzhen and Guangzhou are relatively high, thus they are the core cities with strong radiation effects in the Greater Bay Area. Guangzhou has a good business logistics base and a large number of universities. Shenzhen has very innovative SMEs and an entrepreneurial atmosphere, with great advantages in technological innovation and emerging industries. Other mainland cities in the Pearl River Delta also have a strong manufacturing base. If the advantages of Hong Kong can be exerted, such as powerful industrial design strength, a perfect system of the management of logistics, and a global sales market, it can enable the Greater Bay Area as a whole to provide one-stop services and improve its competitiveness on the international market. The Greater Bay Area not only has an inner ring type land recessed from the coast, but also a shared bay water body. This "inner ring + shared water body" symbiotic natural ecosystem of sea and land provides the most suitable environment for human habitation. Therefore, the Greater Bay Area should have an inclusive culture of immigration, not only for the inland, but also for Southeast Asia, attracting high-end innovative talents and high-tech innovation

investment enterprises, and striving to become a global innovation center that sets the pace for the world's industrial development.

Against the background that the construction of the Greater Bay Area has become a national strategy, it should take advantage of the Belt and Road Initiative to significantly improve the connectivity of the Greater Bay Area and ASEAN countries in land, sea, air and other transportation facilities, strengthen the capacity for the allocation of resources on the markets of ASEAN countries and further enhance the international visibility and global influence of the Greater Bay Area. Meanwhile, seizing the opportunities of zero tariffs of the ASEAN–China Free Trade Area and the construction of the urban agglomeration, the Greater Bay Area should boost the trade in goods, investment cooperation, service trade and cultural exchanges, and actively advance the multi-level cooperation with government authorities, industry associations and enterprises of ASEAN countries. The Greater Bay Area should aim to become the financial center, trading center and shipping center in the China-ASEAN region, and further consolidate and enhance its advantages in the fields of finance, manufacturing and service sectors in the “10 + 1” cooperation between China and ASEAN, and expand its international influence.

7 Conclusions

Looking back on the process of reform and opening-up in China, the idea of “integrating point and surface” always played a dominant role. Against the background of the fact that the United States and Europe generally take the initiative in making an adjustment and developing their local economies, a rare historical opportunity arose for the further opening-up of the Guangdong-Hong Kong-Macao Greater Bay Area. Based on the complementary advantages, competition and cooperation with Hong Kong and Macao in the fields of trade in goods and science and technology, the mainland cities in the Greater Bay Area could learn from the institutional mechanisms of Hong Kong and Macao and achieve breakthroughs in immigration, finance and overseas investment. They could drive the reform by their opening-up and realize an overall increment in regional value while speeding up the process of integration of the Greater Bay Area.

Chapter 13

Research on Doctor-Patient Conflicts in the Development of the Special Economic Zones—A Case Study of Shenzhen



Jinhong Xu

Abstract Medical conflicts are prevalent to a varying degree in special economic zones. With a case study of the Shenzhen Special Economic Zone, this paper conducts a field survey of the situations of doctor-patient conflicts in 13 public hospitals directly under the Public Hospital Administration of Shenzhen Municipality. Results show that the possible reasons for the tensions between doctors and patients in public hospitals of the Shenzhen SEZ possibly lie in mutual distrust between doctors and patients, the unbalanced distribution of medical resources, “expensive medical bills and difficult access to quality medical services” and improper supervision over the doctor-patient relationships. In order to alleviate medical conflicts, the Shenzhen SEZ lays stress on the effective communication between doctors and patients, on strengthening the professional ethics of doctors and quality management of medical services, increasing publicity and regulating media behavior, and exploring the medical liability insurance system. To further build a harmonious doctor-patient relationship, based on relevant theories, a summary is made for typical models at home and abroad to deal with medical conflicts, such as the three-level complaints and general practitioners in the UK, the system of “patients’ rights protector” in the USA, the mechanism for the prevention and resolution of medical disputes in Japan, and “Ningbo Solution” and “Guangdong Model” of medical disputes. Finally, for building a harmonious doctor-patient relationship in the public hospitals of the Shenzhen SEZ, three suggestions are put forward, including a mechanism for the smooth and effective handling of medical disputes, a stable mechanism for the prevention of medical disputes and further deepening of the all-around reform of public hospitals.

Keywords Special economic zone · Shenzhen · Doctor-patient relationship

The tension between doctors and patients is a common concern of people all over the world. It reflects not only the relationship among patients, doctors and hospitals, but also the relationship between patients and the entire medical and health system.

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In the development of the special economic zone, medical conflicts occur in public hospitals to a varying degree. How can we alleviate the medical conflicts in public hospitals, build a harmonious doctor-patient relationship and promote the healthy development of the medical and health system in the Shenzhen SEZ?

By a case study of the Shenzhen SEZ, this paper analyses the specific embodiments and reasons for medical conflicts in the special economic zone. Then, a summary is made for the typical models at home and abroad for dealing with the doctor-patient relationship, to have a clear understanding of the basic ideas and frontiers on how to deal with the doctor-patient relationship and summarize their successful experience and typical practices. In the summary and comparison of related models, according to the situation of Shenzhen, suggestions are proposed for building a harmonious doctor-patient relationship in public hospitals, thus providing a reference for the decision-making of public medical institutions and competent authorities.

1 Analysis of the Status of and Reasons for the Medical Conflicts in Public Hospitals of the Shenzhen SEZ

In recent years, the disharmony between doctors and patients is in the teeth of the storm. The vicious violence of killing and injuring doctors is frequently reported in newspapers, and the Shenzhen Special Economic Zone is no exception. Medical disputes are common occurrences, and doctors and patients are in constant conflict, which has posed serious safety hazards to the public security.

(I) Status of the medical conflicts in public hospitals of the Shenzhen SEZ

1. Public complaints and proposals

The system of the Public Hospital Administration of Shenzhen Municipality received 182 written complaints and proposals in the first half of 2017, about 8.9% fewer than in the first half of 2016. It includes 80 complaints, which account for 44% of the total number of complaints and proposals and a reduction of 12% over the same period in the previous year. They are mainly concentrated on such issues as hospital management, quality of medical services and professional ethics of doctors.

The complaints concerning hospital management involve difficulty in registration, no timely provision of medical services after registration, terrible hospital environment, short duration of diagnosis and defects in the management of hospitals. In particular, it is very difficult to register at the department of obstetrics of the University of Hong Kong-Shenzhen Hospital and the problem of ticket mongers is serious. The complaints about the quality of medical services include misdiagnosis and missed diagnosis, delay of treatment and dissatisfaction with the effects of treatment. The complaints about the service attitudes mainly refer to the poor communication between medical staff and patients, indifference, bad attitude and the lack of a sense of responsibility.

2. Cases of injuring doctors and other cases

Since 2017, 14 cases of injuring doctors and 124 other types of cases were investigated with five people in criminal detention and nine people in administrative detention, including three cases of “medical liars” and “ticket mongers” with six “ticket mongers” arrested.

3. Claims for medical disputes

A large number of medical disputes occurred in public hospitals in Shenzhen from 2014 to 2016, including 89 cases occurring in the Second People’s Hospital of Shenzhen, 44 cases in Shenzhen Maternity & Child Healthcare Hospital, 41 cases in Peking University Shenzhen Hospital, 28 cases in Shenzhen Traditional Chinese Medicine Hospital, 24 cases in the University of Hong Kong-Shenzhen Hospital, 22 cases in Shenzhen Children’s Hospital and 22 cases in Shenzhen People’s Hospital.

The claims for medical disputes in public hospitals of Shenzhen from 2014 to 2016 are detailed in Table 1 as follows.

The reasons for medical disputes in the Shenzhen Special Economic Zone are mainly reflected in the following aspects. First, any mistake in the treatment procedure worsens the patient’s condition or even leads to death; second, a surgical error may cause accidental injuries to the patient’s organs and accelerate the deterioration of the disease, or a surgical device is left in the patient’s body and causes secondary injury; third, overdose or a mistake leads to a delay in the treatment or a misdiagnosis results in an aggravation of the condition of the patient; fourth, failure to notify the

Table 1 List of the claims for medical disputes in public hospitals of Shenzhen from 2014 to 2016

Unit	2014	2015	2016	Total	Number of cases	Amount per case
City Hospital A	221.08	140.84	90.82	452.73	22	20.58
City Hospital B	451.43	1016.46	564.07	2031.96	89	22.83
Hospital C	–	–	–	508.59	41	12.41
Hospital D	186.44	300.88	158.00	645.32	24	26.89
Hospital E	–	–	–	4.85	1	4.85
Hospital F	136.67	7.83	80.92	225.43	28	8.05
City Hospital G	–	–	–	604.28	44	13.73
City Hospital H	–	–	–	35.90	5	7.18
City Hospital I	–	–	–	281.00	9	31.22
City Hospital J	221.08	140.84	90.82	452.73	22	20.58
City Hospital K	451.43	1016.46	564.07	2031.96	89	22.83
City Hospital L	–	–	–	508.59	41	12.41
City Hospital M	186.44	300.88	158.00	645.32	24	26.89
Total	–	–	–	4.85	1	4.85

Source Survey data of 13 public hospitals under the Public Hospital Administration of Shenzhen Municipality. (Unit 10 K yuan for the claim amount and number of cases for the medical disputes)

patient and his or her family promptly leads to missing the best treatment opportunity and causing serious losses; fifth, poor communication between doctors and patients leads to the mistakes in diagnosis or delay of the treatment.

(II) Analysis of the reasons for the medical conflicts in public hospitals in the Shenzhen SEZ

1. Mutual distrust between doctors and patients

Currently, Shenzhen has not yet formed a humanistic atmosphere in which doctors and patients trust each other. The lack of mutual trust is the most important reason for the tensions between doctors and patients. A small number of medical staff, with low professional ethics and lack of self-cultivation, cannot serve the patients properly and considerately, but instead, they take an “indifferent, rigid, evasive and irresponsible” attitude. Furthermore, violations of rules and disciplines still exist in the working style of some hospitals, such as receiving red envelopes and drug rebates. Medical and health institutions charge more fees by over-examination, over-medication, setup of new items or breakdown of items. The unhealthy practices are prevalent, such as earning more revenue by billing with a commission, receiving red envelopes or rebates, thus lowering the patients’ trust in doctors. The distrust between doctors and patients is the “number one cause” of the disharmonious doctor-patient relationship.

2. Unbalanced distribution of medical resources

Shenzhen has a permanent population of more than 13 million people, and a total population of 20 million if the floating population is counted in. However, the distribution of medical resources is very unbalanced because 70% of them are within the original special economic zone and only 30% are outside the zone. Once a patient is seriously ill, he or she will usually be transferred to large hospitals within the original special economic zone or those in Guangzhou for help. Most patients go to large hospitals for treatment. As a result, they may encounter problems such as difficulty in registration and long-time queuing during medical treatment, taking medicine and hospitalization. In addition, patients are mostly concentrated in large hospitals so that medical staff in large hospitals, due to a heavy workload and increased pressure, are easily subjected to emotional fluctuations. Once the communication is not smooth and they do not understand each other, there may be conflicts between doctors and patients.

3. “Expensive medical bills and difficult access to quality medical services”

The Shenzhen Special Economic Zone has a short history of establishment and development. For hospitals, the supply side that requires a certain period to accumulate and develop, is certainly inadequate in quantity and quality. A hierarchical system of diagnosis and treatment has not been formed due to insufficient quantity and unbalanced distribution. Large hospitals are burdened with heavy workloads. It is very difficult to register and get access to beds in some hospitals because the popularity of

“finding acquaintances” among the Chinese people and the long-term existence of ticket mongers. The time for waiting and treatment is much longer than what patients expect that time to be, thus leading to tensions between doctors and patients, or even conflicts.

Since 2012, in order to remedy the shortcomings of “covering hospital expenses with the sale of drugs”, Shenzhen has adopted the policy of “zero mark-up for drug sales”, increased the government’s financial expenditures on hospitals, reformed the pricing system of medical services and adjusted the income structure of public hospitals. However, it is still a big headache for the presidents of some hospitals in Shenzhen that the various expenditures on drug procurement and management still exist in large amounts. In their opinion, the increasing amount of government expenditures has limited effects and the adjustment of the prices of medical services has not been effective because the zero mark-up for drug sales adds a high degree of stress on the financial balance of hospitals, which is likely to be passively passed on to patients and result in “expensive medical bills”.

4. **Improper supervision over the doctor-patient relationship**

At present, China does not have an accurate definition of the legal attributes of the doctor-patient relationship and medical behaviors, and this might mislead public opinion and medical policies. The *Tort Liability Law* treats medical torts as general civil torts, and ascribes medical claims of a special nature to the general concept of “damage liability”, which has expanded the scope of medical claims. The quality of medical services and medical expenses of hospitals are solely self-supervised. Health administrations cannot provide proper supervision. It is unable for patients to supervise the internal situations of hospitals, so they have little knowledge of medical expenses. This easily leads to conflicts between doctors and patients.

2 **The Practice of the Shenzhen SEZ in Alleviating the Medical Conflicts**

(I) **Lay stress on the effective communication between doctors and patients**

In 2013, the Public Hospital Administration of Shenzhen Municipality (“the Administration”) released the *Guiding Opinions of the Public Hospital Administration of Shenzhen Municipality on Integrating Handling the Work Regarding Complaints and Medical Disputes in Directly Affiliated Hospitals*. Through integrating the work resources of complaints and medical disputes, it aims to further regulate the handling of complaints and medical disputes by hospitals, improve the efficiency of hospital management and the patients’ satisfaction, separate medical departments from the daily affairs of dealing with medical disputes and enhance the management of quality of medical services and the prevention of medical risks. A “patient relations department” may be set up in these hospitals (currently, there is a Patient Relations

Department in the University of Hong Kong-Shenzhen Hospital and in the Shenzhen Hospital of Southern Medical University, and in the Social Work Department in Peking University Shenzhen Hospital and the Shenzhen Children's Hospital) to take charge of the handling of complaints and medical disputes. According to the requirements of complaint work, hospitals establish the system of responsibility for the first complaint for doctor-patient communication and formulate the procedure for the handling of medical disputes. Patients are rationally informed about the characteristics of each phase, namely before, at the beginning of, during and after hospitalization, so that the patients and their families have a basic understanding of the disease, the possible risks, the possible syndromes, the limitations of modern medicine and the possible outcome. Once the desired outcome cannot be achieved, patients and their families should accept the situation and avoid opening a dispute between doctors and patients.

(II) Strengthen the professional ethics of doctors and the management of the quality of medical services

First, to advance the construction of clean and honest hospitals. The system of prevention and control for clean practices has been set up. After the establishment, the Administration carries out a special survey on the clean risk prevention and control mechanisms of hospitals together with the People's Procuratorate and the Shenzhen's Anti-Commercial Bribery Leading Group Office. It organizes the leadership teams and discipline inspection cadres of hospitals for rap sessions, supervises them to find weaknesses in the institutional construction, improves the procurement rules of medicines, medical consumables and medical equipment and materials, and perfects the mechanism for internal control in order to curb "big examination lists" and "big prescriptions"; it also makes the "ten-forbidden" rules for clean medical practices, vigorously promotes the pilot experience of the Shenzhen Traditional Chinese Medicine Hospital and the Kangning Hospital, and builds up a comprehensive risk prevention and control system of "risk check—prevention—control—early warning—liability investigation". It also carries out special activities to ensure clean medical practices. Pursuant to the unified arrangements of the Anti-Bribery Office, attention is paid to commercial bribery and unhealthy practices of hospital staff in the procurement of medical equipment and medical services. The city hospitals publicize their commitments to clean and honest services and sign clean supply agreements with material suppliers; they install the software preventing "statistics of medicines" and sign agreements with information system operation and maintenance companies for preventing "statistics of medicines".

Second, to improve the construction of the system of quality control. By the end of 2016, the Administration had launched 27 clinical quality control centers; the operation index monitoring and inpatient medical quality assessment system were implemented; and the quality control circles were promoted, the management of the clinical pathway was adopted and the policy of bedside examination, prescription comments and inspection of medicines was undertaken. In 2016, the success rate of hospitalized critically ill patients in city hospitals was 95.7%, the cure rate of aseptic surgery was 97.9%, and the conformity rate of clinical diagnosis and pathological

examination was 98.3%. These indicators were comparable to those of the regional medical centers in cities such as Beijing, Shanghai and Guangzhou.

(III) Increase publicity and regulate media behavior

The “Open Hospital Experience Day” and the activities for the “Open Days for Three-Famous Projects” were carried out; in cooperation with the Shenzhen Evening News, people from all walks of life were invited to feel the “sweet and bitterness” of medical staff at close quarters; and the health education lecturer teams were established through cooperation with the Shenzhen Special Zone Daily and the Health Education and Promotion Center of Shenzhen Municipality to carry out the activities of the “Citizen Health Grand Lecture Hall”. Moreover, in order to increase the positive publicity on media, the Administration and directly-affiliated hospitals actively publicized the new initiatives of public hospital reform and the new achievements of hospital discipline construction by media, WeChat official accounts and portal websites. They actively handled negative news reports, organized a forum on doctor-patient relationships with the Shenzhen Love Action Organizing Committee Office, appealed to the society to condemn violence and incidents of injuring doctors and coordinated competent authorities to make investigations.

(IV) Explore the medical liability insurance system

Since 2003 when the Municipal Health Bureau signed the agreement on the cooperation framework regarding the “medical practice liability insurance” with the Shenzhen Branch of PICC, today there are 40 public hospitals above class two taking out the medical liability insurance. In August 2009, Shenzhen Children’s Hospital was the first public hospital to purchase that insurance, and by the end of 2016, six hospitals had become insured.

There are possibly two reasons why the medical liability insurance is not well developed. First, the current content and division of rights and responsibilities by the medical liability insurance cannot help the hospitals solve all of the common problems of medical disputes. For example, the claims procedures of the insurance company are very complicated. The hospital should pay the claims to patients first, and then claim from the insurance company by a court judgment, but the insurance company has too many requirements and restrictions in this process. Second, the “law of large numbers” is not effective because the premium paid for medical liability insurance is much higher than the annual average claims for medical disputes paid by hospitals.

(V) Perfect the legislation on medical conflicts in concert with the Shenzhen Health and Family Planning Commission

On August 25, 2016, the *Medical Regulations of the Shenzhen Special Economic Zone* was passed at the 10th meeting of the Standing Committee of the 6th Shenzhen Municipal People’s Congress, and became officially effective as from January 2017. The *Regulations* are the first local medical regulations promulgated in China. Article 55 of the *Regulations* stipulates that: In the event of a medical dispute, the parties

concerned may choose to solve it by the following means: (1) self-consultation; (2) applying for mediation to the people's mediation organization; (3) applying for arbitration to the arbitration commission for medical disputes; and (4) filing a lawsuit with a people's court. If the medical dispute is not accepted by the people's mediation organization, arbitration commission or people's court, the parties concerned may apply to the health and family planning administration for administrative mediation. If the claim of a medical dispute exceeds 10,000 yuan, the public medical institution shall take the measures prescribed in (2), (3) and (4) of the first paragraph of this Article. If a medical dispute is settled through mediation by the people's mediation organization, the parties concerned may go to the people's court at the grassroots level where the people's mediation organization is located to conduct judicial confirmation. A party may entrust the people's mediation organization or the other party in writing to handle the judicial confirmation on his behalf. The *Regulations* clarify the rights and obligations of doctors and patients and regulate their behavior so that "laws are put in place and anyone who violates the law is held to account" and good medical order can thus be maintained.

3 Typical Approaches or Models for Dealing with Medical Conflicts at Home and Abroad

(I) The theoretical basis for dealing with medical conflicts at home and abroad

The approaches or models for dealing with medical conflicts at home and abroad are mainly shaped on the basis of the following theories and concepts.

1. Parsons' concept of "sick role"

This concept regards sickness as a social role, not just a biological existence or physiological experience. The connotation of the "sick role" describes two rights and two obligations. The former refers to the sick person being exempt from normal social roles and not responsible for his condition, and the latter means that the sick person should try to get well and seek technically competent help and cooperate with the medical professional. The role of the medical professional is helpful for correcting the dysfunction of the "sick role".

2. The theory of symbolic interactionism

The symbolic interactionist approach focuses on the microscopic perspective of the interaction between doctors and patients. The patient should be viewed as an actor with a strong intention, and play an active role in medical care that does not follow the doctor's advice. The interaction takes place in a large social context and is influenced by cultural values and norms at different levels.

3. Foucault's "medical gaze"

The human body is conceptualized and viewed as a separation from the identity, independent and external to the soul. To have a clear idea of the human body and its functioning, the "medicine" conducts a physical examination of the body to distinguish between normal and abnormal functions. The mainstream definition of "health" is "not sick", and medicine is closely linked to the treatment of dysfunction, rather than health improvement.

4. Functional theory

From the perspective of functionalism, the roles of social culture, organizations and medical professionals in solving medical conflicts are analyzed. It points out that the social and cultural functions must be exerted to build a harmonious relationship between doctors and patients, and the people should be educated, encouraged, inspired, guided and cultivated by the advanced social culture.

5. "Power-knowledge" theory

"Doctors" as professionals not only have the advantage of technical power that the general public cannot have, but also the altruistic norms existing in the role model. Because the patient lacks relevant medical knowledge, there is a differential relationship between doctors and patients in terms of medical technology. The main reason for conflicts between doctors and patients is that the alienated powers of doctors violate the rights of patients.

6. Game theory

In essence, the doctor-patient game is the line of thought on the redistribution of interests. Medical conflicts of interests affect the professional judgment and medical decisions of doctors in the clinical decision they make. There is asymmetry in the distribution and mastery of medical information between doctors and patients, which directly affects the establishment of a relationship of trust between doctors and patients and the evaluation of medical effects by patients. Some scholars point out that the different economic and social backgrounds of doctors and patients will also affect the doctor-patient relationship.

(II) Typical foreign systems for dealing with medical conflicts

1. Three-level complaints and general practitioners in the UK

If no claims are involved, the general complaints are handled directly by the hospital; if the patient is unsatisfied with the outcome, it will be handled by the hospital together with independent non-professionals; if dissatisfaction continues, it is submitted to the third level, that is, final ruling by the officers of the medical circuit who are trusted more by patients due to their independence of medical institutions and the government. With regard to the claims against medical incidents, patients should resort to litigation at court. The *National Health Service Act*, the *Handling of Opinions*

by *Hospitals* and the *Data Protection Act* promulgated by the United Kingdom specify the patients' rights, and the *Charter of the Hospital Patient* enacted in 1991 clarifies those rights.

2. The system called "Patients' rights protector" in the USA

In 1993, the United States of America wrote the *Report of the Medical Accident Commission* into the *Charter of Patients' Rights* in a language comprehensible to all, emphasizing that it must be distributed to every patient. Sixteen states in the USA have enacted and implemented the *Charter of Patients' Rights* in the form of law, and have also invented a system of the "patients' rights protector". In 2002, the American Board of Internal Medicine Foundation, the American College of Physicians, the American Society of Internal Medicine Foundation, and the European Federation of Physicians jointly issued *Medical Professionalism in the New Millennium: A Physician's Charter*, which defines the three fundamental principles of professionalism and a series of professional responsibilities of physicians. The three fundamental principles include: the principle of primacy of patient welfare, the principle of patient autonomy and the principle of social justice. In the event of a medical accident, the patient and his family should not directly negotiate with the doctor, but should file a lawsuit with the court. The doctor should not appear in court directly, and the insurance company should come forward to negotiate with the prosecution. If this fails, the insurance company compensates the patient or family.

3. The mechanism for the prevention and resolution of medical disputes in Japan

Japan's prevention and handling of medical disputes has achieved remarkable outcomes. The main methods adopted are as follows. First, through the participation of multiple parties, medical evaluation organizations are established to supervise the quality of the services of hospitals and a relationship of trust between doctors and patients is built up through high-quality medical services. Second, the medical accident database is constructed, and case analysis is used to alert medical staff to learn lessons and reduce the rate of accidents. Third, there are clear procedures, punitive and compensatory measures to deal with medical accidents. It is precisely because there are rules for handling medical accidents that few patients and their families protect their rights by committing violent actions.

(III) Typical domestic models for dealing with medical conflicts

1. The Ningbo Model in Zhejiang—The "Ningbo Solution"

On March 1, 2008, the People's Government of Ningbo Municipality released the *Interim Measures for the Prevention and Handling of Medical Disputes in Ningbo*. On March 1, 2012, with the approval of the Standing Committee of the Zhejiang Provincial People's Congress, the *Regulations on the Prevention and Handling of Medical Disputes in Ningbo* was promulgated and officially implemented, thus becoming the first local regulations on the handling of medical disputes in China. It can not only help

patients to protect their rights, but also effectively curb the trend of “violence against doctors”. Fairness and justice are recognized by both doctors and patients, and hence they are known as the “Ningbo Solution” to medical disputes. The “Ningbo Solution” can be summarized as “one principle, two mechanisms, three breakthroughs, and four-party cooperation”. It is an effective practice “starting from scratch, from merit to excellence” that is accepted and promoted by the National Health and Family Planning Commission and the Ministry of Justice of China.

Main practices include:

- (1) To adhere to one principle: Following the principles of prevention first, handling according to law, fairness and justice, timeliness and convenience, the free, lawful, fair and convenient public service products are provided for both doctors and patients. Moreover, the responsibility of medical institutions for prevention has been clarified. The *Regulations on the Prevention and Handling of Medical Disputes in Ningbo* specifies the regulated practices of medical institutions and their medical staff, pre-planning for the prevention and handling of medical disputes, clarifying the channels and means for making complaints and the breakdown of the procedures for the resolution of medical disputes as important parts for the prevention and handling of medical disputes.
- (2) To establish two mechanisms: First, the people’s mediation mechanism for medical disputes is implemented. An industry mediation committee is innovatively set up under the judicial authority for handling medical disputes and funded by local finance. The people’s mediation is identified as the fourth channel, thus broadening the channels for handling medical disputes. Second, the claims negotiation mechanism of medical liability insurance is established. Under the support and coordination of the Insurance Regulatory Bureau, Ningbo determines five insurance companies as the co-insurers for the policy-based medical liability (PICC, CPIC, Ping An Insurance, China Life Insurance and Chang An Insurance) with a claims settlement center for medical disputes. Currently, Ningbo has one claims settlement center, which includes four sub-centers (in Xiangshan, Ninghai, Yuyao and Cixi), and the service network covers all districts and county-level cities in Ningbo. Meanwhile, it stipulates that all types of public medical institutions at all levels (voluntary reference by private medical institutions) must participate in the medical liability insurance, and that if the amount of the patient’s claim is more than 10,000 yuan, the medical institution has no right to negotiate on its own, but must entrust the claims settlement center to intervene in it.
- (3) To achieve three breakthroughs: First, unify the compensation standard; second, set the negotiation payment line; third, enhance the control of violence against doctors.
- (4) To ensure close cooperation of the four parties: The *Regulations on the Prevention and Handling of Medical Disputes in Ningbo* clearly specifies the duties of government functional departments such as public security, justice, health, and insurance regulation in the handling of medical disputes. The health and family planning administration is responsible for supervising and monitoring medical

institutions in the prevention and handling of medical disputes; the judicial administration should be responsible for supervising the people's mediation of medical disputes; the insurance regulation department should be responsible for supervising and managing the medical liability insurance; and the public security organs should be responsible for maintaining public order, and supervising and monitoring the internal security work of medical institutions.

2. **The Guangdong Model—Medical liability insurance and the third-party mediation mechanism by Guangdong MDMC**

In 2001, Guangdong Province set up the Guangdong Medical Dispute People's Mediation Committee ("Guangdong MDMC"), which is the first professional social third-party mediation organization for medical conflicts. Within the framework of "three mediations and one insurance", the organization uses the market mechanism to combine the medical liability insurance with the third-party mediation mechanism for claims of medical disputes, the risk-sharing mechanism of medical liability insurance with the people's mediation mechanism for medical disputes, the professionalism of the medical dispute mediation organization with the prevention of medical disputes, as well as the social nature of the people's mediation organization with the participation in social governance and social monitoring. The medical liability insurance is operated as follows:

(1) Building the structure for the operation of claims mediation

Jiang Tai Insurance Brokers Co., Ltd. is clarified as the insurance broker of the province's unified medical liability insurance. Guangdong MDMC serves as the professional third-party mediation organization for medical disputes, which is responsible for the free mediation of medical disputes throughout the province. After a medical dispute has occurred in any medical institution, both doctors and patients can submit a mediation application to Guangdong MDMC and its local branches, and the mediation agreement reached by the mediation of the committee can be used as the basis for medical liability insurance claims. If the agreement cannot be reached even after that mediation, the mediator shall supervise doctors and patients in applying to the medical association for medical malpractice identification or to resolve the dispute by legal means such as litigation, arbitration and administrative mediation.

(2) Establishing co-insurers for medical liability insurance

On February 18, 2016, the Guangdong Hospital Association publicly held the meeting on the unified bidding of medical liability insurance in Guangdong with the on-site evaluation by the bid evaluation committee and notarization by the Guangzhou Notary Public Office. A total of eight effective bidders become the suppliers of the medical liability insurance, which are coordinated and operated by Jiang Tai Insurance Brokers Co., Ltd. to establish the co-insurers for medical liability insurance in Guangdong Province.

(3) The operational mode of medical liability insurance

The method for the calculation of the premium of basic insurance is clarified: for medical institutions that were insured before March 1, 2016 (excluded) and those who took the insurance for the first time after March 1, 2016 (inclusive), the calculation method of the initial and renewal premiums is clarified. The fast-track procedures are determined: The fast-track channels and procedures are clarified for the claims with the compensation of less than 10,000 yuan (inclusive), less than 20,000 yuan (inclusive) and less than 100,000 yuan (inclusive). The mechanism for the adjustment of the insurance premium is formulated: the mechanism integrating pre-determination and dynamic adjustment is adopted. The dynamic adjustment refers to the comprehensive evaluation of the unified insurance premiums by experts organized by Party A in the fourth quarter of the insurance year, and then the unified insurance premiums are adjusted and optimized according to the market situation and implemented upon renewal in the following year.

4 Suggestions on Building Harmonious Doctor-Patient Relationships in the Public Hospitals of the Shenzhen SEZ

To resolve the tensions between doctors and patients and gradually build a harmonious doctor-patient relationship in the Shenzhen SEZ, priority should be given to prevention, and it should be handled according to law; the government should play a dominant role with participation of multiple parties; while adhering to the basic principles of justice, reasonableness, efficiency and convenience, the Shenzhen SEZ must build a smooth and effective mechanism for handling medical disputes and a sound mechanism for the prevention of medical disputes, and deepen the comprehensive reform of public hospitals.

(I) The construction of a smooth and effective mechanism for the handling of medical disputes in the Shenzhen SEZ

1. The third-party people's mediation mechanism for medical disputes

The special economic zone may learn from the practice of Guangdong MDMC to set up a people's committee for the mediation of medical disputes, and absorb medical experts, judges, prosecutors and police officers with sound professional knowledge, great mediation skills and enthusiasm for mediation, and lawyers, notaries, legal workers and people's mediators, especially retired experts, as mediators of the mediation committee. The mediation agreement confirmed by the people's court can be enforced.

2. The system of unified medical liability insurance

The special economic zone may learn from the medical liability insurance practices of Tianjin, Ningbo and Guangdong to actively explore the establishment of a system of medical liability insurance, reduce risks through commercial insurances such as physician liability insurance and health insurance, and socialize the medical risk liability by the risk-sharing mechanism of insurance. A mechanism for government intervention and a medical risk-sharing mechanism should be established to purchase the medical liability insurance for doctors and strictly implement medical safety rules and regulations. It may learn from the practices of high-risk industries, such as aviation, transportation and traffic, to build up a compulsory social insurance mechanism, and purchase the occupational risk insurance for medical staff. Patients must bear a small amount of insurance expenses in the diagnosis and treatment activities to form a mechanism of risk-sharing by the society, hospitals and doctors.

It is suggested that the health and family planning administration of the special economic zone should take the lead, the public hospital administration or the relevant organization should organize the unified medical liability insurance, several insurance companies led by one of them should constitute the co-insurers, the liability and status of medical liability insurance organizations should be confirmed, and a limit should be determined for the claims of medical institutions participating in the medical liability insurance after the occurrence of medical disputes.

(II) Establishment of a sound mechanism for the prevention of medical disputes in the Shenzhen SEZ

1. Establish a mechanism of coordination for the prevention of medical disputes

The people's government of the special economic zone should supervise and urge the relevant departments to prevent medical disputes according to law and coordinate and solve key issues in the prevention of medical disputes. The health and family planning administration is responsible for supervising and monitoring medical institutions in the prevention and handling of medical disputes; the judicial administration should be responsible for supervising the people's mediation of medical disputes; the public security organs should be responsible for maintaining the public order, and supervising and monitoring the internal security work of medical institutions; and the insurance regulation department should be responsible for supervising and managing the medical liability insurance in accordance with relevant state regulations.

2. Further improve medical services

The health and family planning administration of the special economic zone should supervise medical institutions to further optimize their service procedures, improve medical services, strengthen communication between doctors and patients, and build a joint-participating relationship of doctors and patients. City hospitals should comprehensively carry out the pre-registration of medical services, strictly implement the real-name registration system by on-site registration, registration for further

diagnosis as well as registration online or by telephone, strengthen the management of medical resources such as tickets and beds, and maintain order for fair medical treatment.

3. Enhance the quality and safety management of medical services

The health and family planning administration of the special economic zone should improve the system of medical quality control and continuous improvement, perfect the rules for reporting incidents involving medical quality and safety, continuously improve medical services, and improve the level of the management of patient safety. Diagnosis and treatment services should be regulated, quality control evaluation indicators should be improved, and medical institutions should be supervised to examine the hazards in medical quality and safety.

4. Strengthen the internal management of hospitals for preventing medical disputes

Medical institutions in the special economic zone should improve the diagnosis and treatment plan for critically ill patients, strengthen the training of medical staff, and lay stress on enhancing the ability of treating acute and critical diseases. The risk control of key departments such as obstetrics and neonatology should be enhanced. Medical institutions should publicly disclose the detailed items of medical charges, and medical institutions and medical staff should treat diseases according to the illness and reasonably prescribe drugs and should not carry out unnecessary examinations on patients in violation of medical treatment norms. Medical staff should abide by the norms of diagnosis and treatment in medical activities, follow the professional ethics, and care for, respect and treat patients equally. Medical institutions should improve the communication between doctors and patients, set up special reception places, accept consultation and complaints from patients, and answer and solve their problems in a timely manner.

(III) Continued deepening of the comprehensive reform of public hospitals in the Shenzhen SEZ

1. Gradually build a salary and welfare system for medical staff that meets industry characteristics

The mechanism for the distribution of the income of medical staff should be reformed so as to reduce the dependence of income on excess medical care and guide public hospitals to return to public welfare. A salary system that meets the characteristics of the medical profession must be designed and established to improve the salary and welfare of medical staff, so that the salary and welfare can fully reflect the value of the human capital and the industrial characteristics of high risk and high intensity. The special economic zone should strengthen the link of medical staff income and patient satisfaction, reduce the link between doctors' income and economic indicators of the department, suppress their impulse towards profiteering during the provision of medical services, guide doctors to focus on patients and medical services, and actively improve the relationship between doctors and patients.

2. Improve the social security system covering the entire population

A social security system that matches the economic level of the special economic zone should be established to cover all members of society with a better guarantee, play the role of “safety net” for citizens and effectively relieve the burden of medical expenses of individual patients. In addition, the direct economic relationship between doctors and patients should be diluted and converted to the economic relationship between insurance companies and hospitals, and a relationship of mutual trust and cooperation should be encouraged.

3. Promote the construction of a hierarchical system of diagnosis and treatment

The special economic zone should achieve a reasonable distribution of medical resources, establish and improve the division of work and the mechanism of cooperation between public hospitals and grassroots medical and health institutions, guide patients to move in a reasonable and orderly manner, and increase the overall efficiency of the system of medical services by initial diagnosis at the grassroots level, hierarchical diagnosis and treatment, bidirectional referral, separate treatment of acute and chronic diseases and upper and lower linkage. Medical staff should be encouraged to move reasonably among the community, the grassroots level and public hospitals, thus greatly improving the medical technology and service capabilities of the primary medical institutions.

4. Strengthen the legislative guarantee for building a harmonious relationship between doctors and patients

The special economic zone should formulate special laws and regulations for handling medical disputes, separately stipulate the substantive handling and procedural rules of medical disputes, get rid of the confusion of the application of the current law, and achieve the goal of organically integrating substantive law and procedural law for the inversion of the burden of proof in medical disputes. Special medical courts should be gradually established so that courts or judges with medical knowledge or trial experience can hear medical disputes, ensuring fairness and professionalism in the trial process. Moreover, relevant laws and regulations should be further improved, such as establishing the system of entrusted mediation and appraisal in other regions.