Study on the Coordinated Development of China’s Regional Economy in the New Era

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Abstract—At the 19th CPC National Congress, Xi Jinping pointed out that the new principal social contradiction in China have been evolved into the contradiction between the people’s ever-growing need for a better life and the unbalanced and inadequate development. At present, the regional economic development in China is still imbalanced. If we do not establish an effective mechanism for regional coordinated development, it will seriously hinder the realization of the goal of overall well-off and common prosperity in the new era. From the perspective of space, China’s current economy presents problems such as uncoordinated development among regions and large gap between urban and rural areas. From the perspective of time, each region is at different developing stages and needs to be treated differently. This paper analyses the current situation of China’s regional economy in the new era, the causes of the problems, and puts forward relevant suggestions to achieve regional coordinated development.

Keywords—regional economy; coordinated development; gap between urban and rural area

I. INTRODUCTION

At the 19th CPC National Congress, Xi Jinping pointed out that “China is in the midst of profound and complex changes...the prospects are bright but the challenges are severe”, and we are “securing a decisive victory in building a moderately prosperous society in all respects, strive for the great success of socialism with Chinese characteristics for a new era”. At present, the main contradiction in our society has been transformed into the contradiction between the people's ever-growing need for a better life and the unbalanced and inadequate development. Throughout China’s national conditions, regional economic imbalance and regional development differences have always been one of the basic status quo of China’s economic development. The path of reform and opening up has created a situation of severe imbalance in which the eastern coastal areas give priority to development and the central and western regions are relatively backward. The persistent imbalance of regional economy will widen the gap between rich and poor, cause regional disharmony, and create difficulties and obstacles for achieving the ultimate goal of overall well-off and common prosperity. At the 19th National Congress, the central government clearly put forward a strategy for regional coordinated development, emphasizing that urban agglomeration should be the key to construct a coordinated urban structure of large, medium and small cities and towns. It also pointed out that the old revolutionary areas, ethnic minority areas, border areas and poverty-stricken areas should be supported; the development of the western regions should be speed up; the old industrial bases such as the Northeast Regional should be revitalized; the development of the eastern region should be led by innovation; and an effective new mechanism for regional coordinated development should be built, so as to enhance the synergy and integrity of regional development and to narrow the regional development gap. In the Guiding Opinion on Implementing Regional Development Strategies and Promoting Regional Coordination (No. 1771, 2016), the National Development and Reform Commission (NDRC) pointed out that the connotation of regional coordinated development includes free flow of elements, effective constraints of main functions, equal basic public services and sustainable environment. At the end of 2017, Xi Jinping pointed out at the Central Economic Work Conference that the coordinated development of the region should achieve three major goals: equalization of basic public services, relatively balanced access to infrastructure, and roughly equal living standards of the people. In the new era, in order to achieve the ultimate overall well-off and common prosperity and eliminate the contradiction of insufficient social development imbalance, we should proceed from "time" and "space" to promote balanced economic development among regions. This paper will discuss the current situation of China's regional economy in the new era, analyze the causes of the problems, and put forward relevant suggestions to achieve regional coordinated development.

II. THEORETICAL BASIS AND RESEARCH STATUS

A. Theoretical Basis

Regional economic theory has a history of more than one hundred years from the earliest Tunen's agricultural location theory to Krugman's new economic geography theory. Among them, the theory of regional coordinated development mainly includes the theory of balanced regional economy growth, the theory of unbalanced regional economy growth, the theory of regional division and cooperation, the theory of regional spatial structure, the theory of sustainable development of resources and environment and the theory of equalization of public services. Among them, the typical ones are Nelson's "low-level equilibrium trap", Hechmann's theory of unbalanced growth, regional economic gradient theory, absolute cost advantage theory, comparative cost advantage theory, factor endowment
theory, growth pole model theory, regional economic spatial integration theory (Fan Hengshan, Sun Jiwen, etc., 2012), sustainable development theory, Rawls’ Equity Theory, and Marx and Engels’ Theory of Social Equity.

The theory of balanced regional economic growth mainly focuses on the problems of developing countries, such as the “big push theory” aiming at the bottleneck of development, pointing out that developing countries should promote high-speed economic growth through large-scale investment; Nelson’s “low-level trap theory” holds that developing countries have the equilibrium of low per capita income recycling; Nax’s vicious circle of poverty theory and the theory of balanced growth hold that balanced growth can expand market capacity, form investment driving force and get rid of the vicious circle of poverty. With industrial agglomeration and regional imbalance, the theory of unbalanced development of regional economy has gradually come into being, which mainly explains the problems of industrial agglomeration, the choice of investment, and the transfer of industry and technology. The theory of unbalanced growth holds that in relatively underdeveloped regions, production and consumption are in a low-level equilibrium state. Only by breaking this equilibrium state and concentrating limited capital in a few sectors or locations can we finally promote the coordinated development of the whole region. The new economic growth theory holds that in the late stage of industrialization, the economic growth mainly depends on technological progress and human capital investment. At this stage, capital flows to high-tech and service industries, and the proportion of R&D costs continues to rise. Under this situation, innovation is the key to growth and will promote the city to a higher stage of development. With the factor flow and trade development, comparative advantages have emerged in different regions and countries. The theory of regional division and cooperation is to explain this factor endowment and comparative advantages between regions. According to Petty-Clark theorem, the regional industrial structure will go through three stages in turn: the first industry, the second industry and the third industry. The higher the level of regional economic development is, the larger the proportion of non-agricultural industries will be. The relationship between urbanization and industrial structure transformation is very close, and with the level of urbanization increases, the industrial structure upgrades. According to Perot’s growth pole theory, the growth rate of different industries is different. Leading industries and emerging industries will develop and gather first in a region, then spread to the surrounding areas, forming a strong radiation force through polarization effect, dominance effect, diffusion effect and multiplier effect. The growth pole theory mainly applies to the primary stage of regional or national development. Friedman’s “core-periphery” theory holds that different economic rules exist in different regions. Economy scale, population size and spatial distance together determine the core, radiation and marginal areas of regional development. The “polarization effect” and “trickling effect” of the growth poles lead to the evolution of the core, radiation and marginal regions over time, thus achieving balanced development from non-equilibrium. When the economy developed to a certain extent, the coordinated development of environment and natural resources, the development of equity between different regions have become the focus of regional coordinated development study. At this time, the theories of sustainable development and the equity theory emerge.

B. Research Status

With regard to the coordinated development of regional economy in China, many studies and discussions have been carried out in recent years. Based on system theory, regional division of labor theory and regional interdependence theory, combined with the characteristics of China’s economic development, Peng Rongsheng (2009) defined the coordinated development of regional economy as a condition of increasingly close economic exchanges between regions, mutual openness, better division of labor, efficient growth of regional economy as a whole, moderate control of regional economic disparities and gradual progress. As a result, the economic development among regions has shown positive promotion and positive interaction. Tan Chenglin et al. (2011) believe that the coordinated development of regional economy refers to the process of deepening economic interdependence between regions, increasing economic ties, interaction and symptoms of economic development, sustained development of regional economies and gradual narrowing of regional economic disparities under the conditions of regional opening. Wei Houkai (2011) pointed out that regional coordinated development has three meanings from the perspective of scientific development concept. They are comprehensive coordinated development, sustainable coordinated development and new coordination mechanism. Fan Hengshan and Sun Jiwen (2011), in accordance with the requirements of Scientific Development Concept, believe that the connotation of regional coordinated development includes four points: keeping the gap of per capita gross domestic product within a moderate range; enjoying equal basic public services among the people of different regions; the comparative advantages of different regions can promote complementary advantages and mutual benefit among regions; and harmonious relations between people and nature in different regions. Many scholars have defined the concept of regional coordinated development, but there is still a lack of systematic investigation and analysis of the reasons that hinder regional coordinated development. By studying the current unbalanced situation and the causes of

1 Sun Jiwen and Ye Yumen, Regional Economics Course, Beijing: China Renmin University Press, April 2010.
6 Wei Houkai, Modern Regional Economics (revised), Beijing: Economic Management Press, 2011.
the unbalance, we can find ways to realize the coordinated
development of regional economy from different perspectives.

III. ANALYSIS OF THE CHARACTERISTICS OF CHINA’S
CURRENT REGIONAL ECONOMIC DEVELOPMENT

In 2014, Xi Jinping said that China’s economy is entering a
"new normal", and systematically elaborated the term, pointing out that the characteristics of the new normal include slowing
down economic growth, continuous optimization and
upgrading of economic structure, and transformation from
factor-driven and investment-driven to innovation-driven
development. From the point of view of space, the new normal
caracteristics are applicable to most regions of the country,
but not all regions. China has a vast territory, and the resource
conditions vary greatly in different regions. There are also
great differences in the level of development. Therefore, from
the perspective of regional economy, we should have a more
comprehensive and specific understanding of the new era.

A. Unbalanced Regional Development in the Eastern, Central,
Western and Northeastern Regions

Most countries have unbalanced economic development in
different regions, and China’s regional economic development
gap is also significant, for many years has been showing a high
level of development in the eastern part of the trapezoidal
decline to other regions. Since the reform and opening up,
China’s economic development mainly depends on the eastern
region, but the eastern region has not entirely driven the
development of other regions by its own development capacity.
The agglomeration effect of the development of large cities has
attracted talents and resources from other regions, and to a
certain extent, it has widened the regional development gap.
Taking 2016 as an example, China’s GDP per capita was 53980
Yuan, Beijing’s GDP per capita reached 118198 Yuan, and
Gansu’s lowest was only 27643 Yuan, with a difference rate of
4.28 times (see “Table I”).

<table>
<thead>
<tr>
<th>Year</th>
<th>Maximum Difference Rate</th>
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<th>Maximum Difference Rate</th>
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<tbody>
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<td>2007</td>
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<tr>
<td>2008</td>
<td>6.79</td>
<td>2013</td>
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<td>2010</td>
<td>5.80</td>
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<tr>
<td>2011</td>
<td>5.19</td>
<td>2016</td>
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B. Great Income Gap Between Urban and Rural Areas

In the early stage of reform and opening up, China’s rural
areas first ushered for a short period of growth through
economic reform, but after the reform of urban economic
system in 1984, the development of agriculture and the whole
rural economy slowed down. On the contrary, during this
period, the urban economy began to grow at a high speed,
which led to the widening of the income gap between urban
and rural residents and the prominent contradiction between
urban and rural become acute. In 2016, the disposable income
of every Chinese resident was 23821, and that of urban
residents was 33616, while that of rural residents was only
12363, with a difference of 2.72 times. The income gap of
urban residents in the western region is the largest, while that
in the northeast region is smaller, but the difference is still 2.37
times. From a national perspective, the income gap between
urban residents in the eastern region and rural residents in
the western region is as high as four times, which fully
provides the economic imbalance between regions and
between urban and rural areas in China. (as can be seen in
(“Table III”)}

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<td>2011</td>
<td>5.19</td>
<td>2016</td>
<td>4.28</td>
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</tbody>
</table>

^ Source from: China Statistical Abstract 2017
C. Regions’ Economic Developments Are at Different Stage

Generally speaking, China’s regions are divided into eastern, central, western and northeastern regions. However, different regions within and among regions are affected by the economic development cycle, which cannot be generalized. From the perspective of the life cycle of regional economic development, we can better seek solutions to achieve regional coordinated development. According to Rostow’s regional life cycle theory, any region will experience the evolution process of starting, taking off, maturing and upgrading in the process of economic development. The main problems faced by regions at different stages are different, the flow of factors is different, and the competitive position in the overall development pattern is also different. In some frontier areas or geographically marginal areas of our country, natural resources are underdeveloped. These areas normally are still at the first stage of development. Their economic characteristics are mainly manifested at the low level of overall regional economic development, backward economic structure, mainly traditional agriculture and animal husbandry, low employment opportunities, low living standards of the people, a large number of poor people, local financial constraints, and bad living environments, and so on. For example, the far areas in the west, western Hunan in the middle, western Henan and the Great Hinggan Mountains in the northeast are at the first stage. At the second stage of development, regional economic development is characterized by rapid accumulation of regional capital, continuous inflow of investment and other factors, the beginning of development of new industrial sectors with a certain scale, market expansion, and gradually forming a competitive advantage. At this stage, the economic take-off often comes from the development of local resource advantages, or the support from the central policy, or technological breakthroughs to promote economic growth. Shenzhen at the beginning of reform and opening up, Chengdu-Chongqing Economic Zone in the West ten years ago, and Xiong’an New Zone all belong to the second stage of economic development. The third stage, that is, the mature stage, is those regions where the level of economic development is relatively high and the growth rate tends to be stable. The economic development of these regions is characterized by the concentration of population and economic activities, the rapid development of tertiary industry, the rising cost of production and living, and the stable but possibly aging economic structure. From the point of view of resource elements, this part of the region has more capital, talents, technology and other resources concentrated together, but due to the increasing cost of living within the region, there is a tendency to export capital, technology and talents. In the eastern part of China, especially in big cities such as Beijing, Shanghai, Guangzhou and Shenzhen, they have entered the mature stage. After maturity, the economy has moved to the stage of upgrading, during which the structure of economic development may be upgraded by technological innovation, or it may begin to enter a recession. The characteristics of regional economic development in recession are the lagging of pillar industries, aging economic structure, weak economic transformation, high unemployment rate, declining people’s living standards, and the outflow of a large number of enterprises and talents. In China, the old industrial zones in Northeast are obviously in such a stage, and some cities have entered a state of economic depression. In order to avoid the economic development going into recession, it is necessary to create an innovative environment through technological and institutional innovation, making good use of its own advantages, so that the economic development can be promoted.

IV. ANALYSIS OF THE REASONS FOR THE IMBALANCED REGIONAL ECONOMIC DEVELOPMENT IN CHINA

A. Differences in Natural Conditions and Natural Resources

Natural conditions and resources are the material basis of regional economic growth. Therefore, the difference of natural conditions and resources among regions is one of the main reasons for the different regional developments. The combination and distribution of natural resources directly determine the development and distribution of agriculture and mining industry, and indirectly affect the development and distribution of raw material industry and other processing industries. For example, in the early period of Northeast China, iron and steel industry and heavy machinery industry were developed by abundant iron ore and coal resources. Shanxi’s coal resources also supported the

### TABLE III. DIFFERENCE RATE OF DISPOSABLE INCOME PER CAPITA BETWEEN URBAN AND RURAL AREAS AMONG EASTERN, CENTRAL, WESTERN, AND NORTHEASTERN IN RECENT 4 YEARS

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td>31152.4</td>
<td>33905.4</td>
<td>36691.3</td>
<td>39651.0</td>
</tr>
<tr>
<td>Central</td>
<td>22664.7</td>
<td>24733.3</td>
<td>26809.6</td>
<td>28879.3</td>
</tr>
<tr>
<td>Western</td>
<td>22362.8</td>
<td>24390.6</td>
<td>26473.1</td>
<td>28609.7</td>
</tr>
<tr>
<td>Northeastern</td>
<td>23507.2</td>
<td>25578.9</td>
<td>27399.6</td>
<td>29045.1</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td>11856.8</td>
<td>13144.6</td>
<td>14297.4</td>
<td>15498.3</td>
</tr>
<tr>
<td>Central</td>
<td>8983.2</td>
<td>10011.1</td>
<td>10919.0</td>
<td>11794.3</td>
</tr>
<tr>
<td>Western</td>
<td>7436.6</td>
<td>8295.0</td>
<td>9093.4</td>
<td>9918.4</td>
</tr>
<tr>
<td>Northeastern</td>
<td>9761.5</td>
<td>10802.1</td>
<td>11490.1</td>
<td>12274.6</td>
</tr>
</tbody>
</table>

*Source from: China Statistical Abstract 2017*
rapid economic development by the coal industry. The eastern coastal areas take the lead in promoting the rapid development of the region as a whole by developing export-oriented economy with their geographical advantages. On the contrary, the development of the western mountainous areas is obviously slower than other areas due to their remote geographical location.

B. Regional Differences Exist in National Financial Investment and Policy Support

Government financial investment and policy encouragement can greatly affect the flow of social resources and talents among regions, and also affect the development ranking of regional economy. In the early stage of the establishment of socialist market economy, in order to attract foreign investment and make some areas rich first, the state set up special economic zones in the east, and the fiscal input was obviously inclined to the east. Therefore, at that time, talents and resources at home and abroad flooded to the east, coupled with the geographical advantages of the coast, the eastern region developed rapidly. In 2003, China began to carry out the development of the western region, and the economy of the western region began to take off with the support of many policies. However, in this process, the central region's economic growth rate declined under the double pressure of geographical position and policy. Since then, in order to balance the economic development of the central region and the Northeast region, China has launched the plan of the rise of the central and the revitalization of the northeast, and the economic development of these regions has been obviously stimulated.

C. Preferences of Foreign Investment

Foreign investment also plays an important role in promoting regional economy. At the beginning of the reform and opening up, China has just finished its planned economy, and its economic development level is relatively backward. Foreign investment has helped us solve the employment problems in many regions, and has properly solved a large number of idle labor problems. In addition, besides capital, foreign investment also includes technology, which can greatly improve the quality of regional labor force, accelerate the upgrading of industrial structure and help regional economic development. Since the reform and opening up, the eastern region has been developing export-oriented economy with the support of policies. With its coastal advantages and convenient transportation, it has attracted a lot of foreign investment. Therefore, the export-oriented economy helps the eastern region take off quickly in the short term, widening the gap with other regions.

D. Market Economy Promotes the Division of Regional Economy

In 1978, China ended many years of planned economy and established the development of socialist market economy. The government gradually reduces its intervention in economic development, emphasizing the decisive role of the market in the allocation of resources. In the planned economy period, because the government plays a decisive role in the allocation of resources, the flow of resources and elements lacks vitality and freedom, and the economic development differences between regions are small. After the establishment of market system, resources and talents have enough freedom and vitality to flow. Therefore, the agglomeration effect of big cities and developed regions can attract more talents and funds, and constantly attract capital. As a result, the gaps among regions are gradually increasing.

V. CONCLUSION

A. Adopting Differentiated Support for Regions at Different Economic Stages

Policy support has greatly promoted regional economic development. For the faraway western areas and frontier areas, which are still dominated by traditional agriculture and animal husbandry and whose economic development is at the initial stage, we should increase investment in basic transportation facilities to facilitate the flow of resources such as information, capital and technology to these areas. In addition, precise poverty alleviation should be implemented in these regions, and financial support for poor areas should be increased; Counterpart assistance between regions should be emphasized; and coordination between poverty alleviation development and county economic development and new urbanization should be emphasized. In regions where the economy is at the take-off stage, we should grasp the industrial development structure, deal with the relationship between cities and countryside in the process of rapid labor flow, and attract capital and talents through resources and policy advantages. For regions where economic development has entered a mature stage, it is necessary to coordinate and integrate urban-rural relations through industry "feeding back" agriculture, so as to reduce the pressure of urban population concentration. When the industrial development is saturated, we should vigorously develop the tertiary industry, attract surplus labor and improve people's living standards. At the same time, we should attach importance to the development of environmental protection industry, remedy the damage to the environment caused by economic development in the early stage, and achieve sustainable economic development in the long run. When the economy enters the mature stage, there are hidden factors that may lead to recession, such as the exhaustion of key resources in the region and the peak period of traditional leading industries in the region. In areas where economic development may or has entered recession, innovation should be strengthened as the core of regional economy. Under the “new normal” situation, only by insisting on technological innovation to promote industrial upgrading, can we promote the coordinated development of regional economy.

B. Promoting Urban Agglomeration as the Main Part of Regional Coordinated Development

In order to achieve the regional coordinated development, from the point of view of urban planning, we should create a construction pattern with the central city as the main body, build a network and multi-node National Central City network, enhance the scale effect and agglomeration effect.
of the central city, and give full play to the allocation, cooperation and radiation role of the central city in regional economic development. The resource allocation function of the central city comes from the scale and agglomeration effect of the city. The central city can attract the flow of labor, knowledge, technology, management and capital, strengthen the matching degree of resources and regional industries, achieve the optimal allocation of regional resources, and promote supply-side reform. In addition, the competition between the central cities and the cooperation between the central cities and the surrounding small and medium-sized cities should be strengthened to promote the more coordinated regional economic development. Competition among regional central cities can enhance the initiative of regional reform, while cooperation with surrounding small and medium-sized cities can narrow the, promote the optimal allocation of resources, avoid vicious competition and promote the coordinated development of regional economy. Finally, we should give full play to the radiation role of central cities and improve the integrity and coordination of regional economic development. In the process of enlarging the scale of the central city, the scale effect leads to the decrease of marginal income of production factors, and the industry of the central city will transfer to the intra-region and inter-region, thus forming the industrial chain with the core of the central city and promoting the industrial upgrading within and between regions. Central cities should make good use of the technology, through vigorously developing independent innovation industries, improving the scientific and technological content of products, and training high-quality talents, so as to promote the surrounding small and medium-sized cities and towns to enhance their industrial competitive advantages.

C. Overall Planning of Urban and Rural Development

New urbanization construction and rural modernization construction complement each other. The level of urban-rural coordinated development directly affects the level and quality of new urbanization and rural modernization. On the one hand, rural modernization provides important production factors such as land and manpower for new urbanization, on the other hand, the technology spillover of new urbanization can also promote rural modernization. By coordinating urban and rural development, it can promote the optimal allocation of production factors and productivity in urban and rural regional space, help narrow the gap between urban and rural regional development, and promote the formation of a new pattern of regional coordinated development. The overall development of urban and rural areas should pay attention to the urbanization of human beings, encourage moderate scale operation, increase farmers' labor income, and pay attention to rural green ecology. For the peasants who work in cities, we should establish the discriminatory policies against the employment of migrant workers, promote the equal employment of urban and rural labor force, accelerate the reform of household registration system, and stabilize the employment and residence of migrant workers into citizens. Taking urban agglomeration as the main form, we should promote new urbanization, develop county economy with characteristics, speed up the cultivation of small and medium-sized towns and small towns with characteristics, and insist on taking urbanization as the core to coordinate urban-rural integration development.

D. Promoting Equalization of Public Services Among Regions

Public services include medical services, education, living environment, social security, transportation and other aspects. Equal social treatment can help backward areas retain talents, attract funds and technology, reduce regional discrimination and ease social contradictions. The fair development of public services should prevent the development level of some regions from being far higher than that of other regions. By increasing transfer payments, resources and elements will be allocated in a relatively coordinated manner, and the development of backward regions will be encouraged. Promoting regional equalization of public services is the key and basis for achieving regional coordinated development.

E. Improving Market Mechanism and Promoting Rational Distribution of Factors

In the market economy, the market plays a decisive role in the allocation of resources. All resource elements are allocated and flowed under market allocation. Therefore, it is easy to cause the flow of resources and talents to the economically developed big cities, resulting in the disparity between the rich and the poor, which is also very unfavorable to promote the coordinated development of the region. Thus, it is necessary to improve the market mechanism, adjust the resource elements rationally through certain policy interventions, ensure the correct orientation of the market, and reduce the negative impact from the market defects.

REFERENCES