

Research on regional development of China under the new normal-- based on the regional coordinated development of the Yangtze River delta

*Jie Chen, Junwen Feng**

School of Economics and Management, Nanjing University of Science and Technology,
China

*Corresponding author: Junwen Feng, Professor, 313472714@qq.com

Abstract

The 13th “Five-Year plan” emphasizes the regional coordinated development, for it is the key to coordinated development. Considering that China is in the economic new normal, this paper mainly studies the regional coordinated development under the new normal. We select the Yangtze River Delta region as the object, and analyze the data of the provinces (cities) in Yangtze River Delta. It reveals the regional coordinated development of the Yangtze River Delta has improved greatly under the new normal, but there are still some uncoordinated aspects, such as, GDP, the industrial structure, foreign trade and people's livelihood, etc. Finally we make relevant suggestions on this basis.

Key words: *the new normal; regional coordinated development; Yangtze River delta*

1 The new normal and regional coordinated development

With the structural adjustment and strategic transformation of our country's economy, China is in an important period of strategic opportunities, that is the economic new norm. The term was proposed by President Xi in 2014, but in fact, the economic new normal has started in 2012. Its main features are as follows: first, economic growth is shifting from high speed to medium-high speed; second, the economic structure continuously optimizes and upgrades, the third industry gradually becomes the main consumer demand, the urban-rural division is narrowing, residents' incomes are increasing, the achievements of development benefit wider population; third, the driving force of economic growth (the factor-driven, investment-driven) transforms to innovation-driven. The household consumption, innovation, private sector and the Midwest regions will make more contribution to economic growth¹.The new normal is

also reflected in regional development, especially the regional coordinated development. Promoting regional coordinated development is meaningful, it is conducive to make the development subject a whole and play together. We hope to formulate a new pattern of regional coordinated development: factors can flow freely, the main functional constraint is valid, the basic public services are equal, the capacity of resources and environment is proper. Regional coordinated development originates from development economics and regional economics, it can be measured by whether the economic interest are same directive growth and whether economic differences tend to shrink. With development of the society, its connotation is expanding, including ecological environment, resources, public services, people's lives levels. Given the large content of regional coordinated development, this paper mainly studies the economic aspects.

Before we study the Yangtze River Delta region, let us generally understand overall situation of the regional coordinated development in China. China's regional coordinated development has achieved some success under the new normal. For example, from the national economic performance in 2014, GDP grew by 7.6% in the eastern region, that is below the national growth rate of 7.88%, the central region was in line with the national level, the western region was even 0.9 percent higher. It is not difficult to find that China's regional economic growth has slowed down, the development of midwest region is faster than eastern region, regional development tends to be balanced. For the industrial structure, the proportion of the first two industries declined in all regions, the third industry rose significantly. At the same time, regional demand structure is changing, consumption and innovation are more powerful; regional cooperation is expanding; all-round opening-up pattern is forming; etc. These are new phenomenon of regional coordinated development. Considering China is vast in territory, we only choose the Yangtze River Delta region to study !

2 Coordinated development analysis of the Yangtze River Delta region

2.1 General situation of the Yangtze River Delta region

Yangtze River Delta generally refers to the city group of Yangtze River delta. It is the first Chinese economic zone and the first to join world-class city group in China; it is an important international gateway to the Asia Pacific region and it is an advanced manufacturing base in the world. Yangtze River Delta is also the intersection between "The Belt and Road" and the "Yangtze River Economic Belt", which plays a strategic role in the national modernization and all-round opening-up pattern. The Yangtze River Delta includes Shanghai, Jiangsu,

Zhejiang and Anhui, it originally only had 16 core cities (Shanghai, Nanjing, Hangzhou, etc), then in 2010, Anhui province joined. In May 2016, the State Council approved *The planning development of city group in the Yangtze River Delta*, it determines the Yangtze River Delta city group, including Shanghai; Jiangsu province (Nanjing, Wuxi, Changzhou, Suzhou, Nantong, Yancheng, Yangzhou, Zhengjiang, Taizhou); Zhejiang province (Hangzhou, Ningbo, Jiaxing, Huzhou, Shaoxing, Jinhua, Zhoushan, Taizhou); Anhui province (Hefei, Wuhu, Ma anshan, Tongling, Anqing, Chuzhou, Chizhou, Xuancheng). The leading industries in the Yangtze River Delta include cable industry, automobile industry, medicine industry, textile industry, machinery manufacturing industry, tourism industry, etc. Especially in recent years, these industries grow fast, and they gradually become main force in regional economic development. Other industries such as real estate, commodity trade, logistics industry, service industry have also been developing steadily.

In recent years, cities in the Yangtze River Delta began to focus on coordinated development. Cities had cooperation in transportation, resource flow, environmental governance. They also set up relevant institutions such as the “Yangtze River Delta city regional economic coordination association”, so regional economic coordination has improved. But due to the large regional span, there are differences among cities in geography, resources, population. The cities tend to focus on their own interests, so there still are differences in economic scale, industrial structure and development level. The state has also formulated a series of regional coordinated development strategy under the new normal, the “Yangtze River economic belt” and “The Belt and Road” are closely associated with the Yangtze River Delta, so it is of great benefit to achieve coordinated development. In 2015, the GDP of Yangtze River Delta (Shanghai, Zhejiang, Jiangsu and Anhui) is 16013.195 billion ¥, it accounts for 52.5% of the GDP of the “Yangtze River economic belt”. The Yangtze River Delta should be the leading area in the “Yangtze River economic belt” and the demonstration zone of coordinated development in China city group. The Yangtze River Delta should play a radioactive role in China's regional co-ordination, so it needs to further accelerate the innovation of coordinated development system.

2.2 Data analysis of coordinated development of the Yangtze River Delta region

For better and more comprehensive analysis, we concerned about the regional coordinated development after Anhui province joined the Yangtze River Delta in 2011. Data is from the Hefei Statistics Bureau website, National Bureau of Statistics website of China. Data is also

from the Statistical Communique on national economic and social development of cities in the Yangtze River Delta from 2011 to 2015.

2.2.1 GDP size and growth

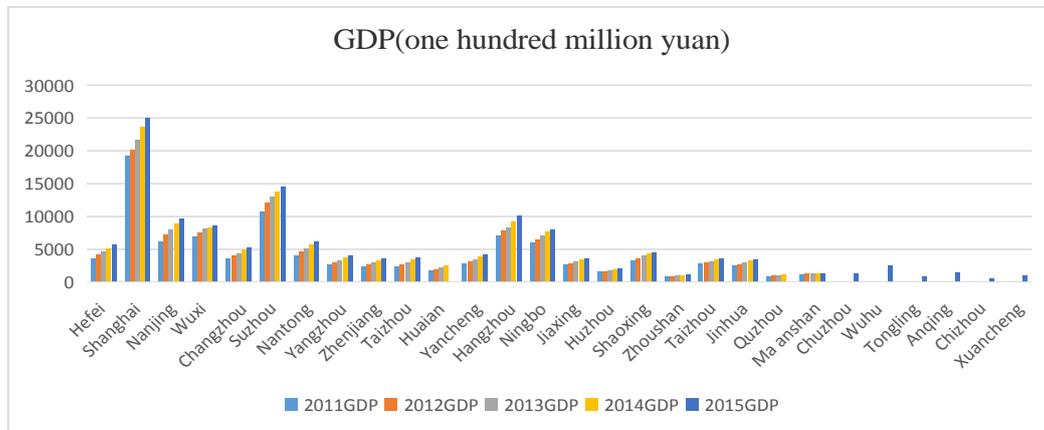


Fig 1-The total GDP of cities in the Yangtze River Delta from 2011 to 2015

In 2015, the total GDP of the provinces accounted for the proportion of the total GDP of Yangtze River Delta region were: Shanghai (18.5%), Jiangsu (44%), Zhejiang (26.7%), Anhui (10.8%). Jiangsu accounts for the largest proportion of the total economic output, while the Anhui is the smallest. As can be seen from the figure above, the GDP of cities in the Yangtze River Delta region grows year by year. The GDP of Shanghai is way ahead, Suzhou (Jiangsu) and Hangzhou (Zhejiang) were the second and third. Look at the growth rate, we use the GDP production index. By querying the statistical yearbook, we find that the overall GDP growth has declined, Anhui's GDP growth rate is relatively high, Shanghai is lowest. According to the latest data for the fourth quarter of 2016, compared to the same period last year, the GDP growth rates are: Shanghai (6.8%), Jiangsu (7.8%), Zhejiang (7.5%), Anhui (8.7%). This reflects the regional development tends to be balanced.

The above is analyzed by intuitive charts, and then we use statistical methods to analyze. We choose the coefficient of variation(c.v) to observe the degree of difference of the cities in the Yangtze River Delta. When we need to compare the magnitude of the deviation between the two groups of data, but the difference is too huge, at this point, we have to eliminate the effect of scale and quantity on the array, so the coefficient of variation is required. Its essence is the ratio of the standard deviation of the original array to the average of the original array: $c.v=(sd/mean)*100\%$. Standard deviations are usually expressed in σ , which reflects the degree of deviation of a group of data,

$$\text{its equation: } \sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2} \tag{1}$$

We can see that the coefficient of variation was decreasing from 2011 to 2014. It showed that the degree of difference among cities in the Yangtze River Delta has reduced, so regional coordinated development has yielded certain results. But in 2015, because of city adjustment, the degree of variation increased. The added cities are basically in Anhui province, so it side reflected the gap of GDP between cities in Anhui and other cities in the Yangtze River Delta.

Table 1- Statistical data

	2011	2012	2013	2014	2015
mean	4300.137727	4730.505455	5153.315	5597.587727	5205.518462
sd	4111.646716	4375.435576	4700.41683	5075.837081	5270.19059
c.v	0.956166285	0.924940393	0.912115178	0.90679009	1.012423763

2.2.2 Industrial structure

Table 2-Three industries proportion of provincial cities in the Yangtze River Delta

	2011	2012	2013	2014	2015
Hefei	5.7:55.1:39.2	5.5:55.3:39.2	5.3:55.3:39.4	5.0:55.7:39.3	4.7:52.6:42.7
Shanghai	0.7:41.3:58.0	0.6:39:60.4	0.6:37.2:62.2	0.5:34.7:64.8	0.4:31.8:67.8
Nanjing	2.7:44.9:52.4	2.6:44:53.4	2.6:43.1:54.4	2.4:41.1:56.5	2.4:40.3:57.3
Hangzhou	3.4:47.4:49.3	3.3:45.8:50.9	3.2:43.9:52.9	3.0:41.8:55.2	2.9:38.9:58.2

Considering the amount of data, we selected the provincial capital as our representative. Overall, the Yangtze River Delta is dominated by the second, third industries, the proportion of the third industry has increased year by year, and the proportion of the second industry has decreased. In terms of the driving force of national economic growth, the industrial economy which mainly takes manufacturing as its core part has been main driving force. But under the new normal, the third industry is powerful booster of economic growth. The third industry accelerates economic development and improves the quality of economic operation. In 2015, the proportion of Shanghai's third industry was up to 67.8%, which contributed much to the growth of GDP. It reflected the gradual transformation of industrial structure, but we must realize the industrial structure still may be uncoordinated among cities. From the table 2, the ratio of Hefei's third industry is obviously low. Then we refer to the statistical yearbook of remaining 7 cities in Anhui, we find the ratios of the third industry are generally lower than 40%. The service industry is important support for future economic development, thus, we know the development system of Anhui's service industry is relatively immature.

2.2.3 The total exports reflects openness to the outside world

The Yangtze River Delta region has many foreign trade ports for it is near the coast. Unique geographical position makes its foreign trade business more developed. The total exports of

the Yangtze River Delta accounts for a high proportion of the country, it reached 35.15% in 2015. From the figure, it is not difficult to find the annual growth trend of the total exports is stable. The total exports of Jiangsu is the largest, and the export growth rate of Anhui is high. Specific to cities, Shanghai's total exports is large, Suzhou is also great, so there are differences in foreign trade business among the cities. Of course, the geographical factor still matters, such as Jiangsu and Zhejiang, Jiangsu's Lianyungang port and Zhejiang's Zhoushan port, Wenzhou port are well-known. The Yangtze River Delta is very crucial in the "Yangtze River economic belt", so further realize the coordinated development of the foreign trade business is significant. Port cities should exert their own characteristics to drive the development of foreign trade of surrounding cities and strengthen urban cooperation.

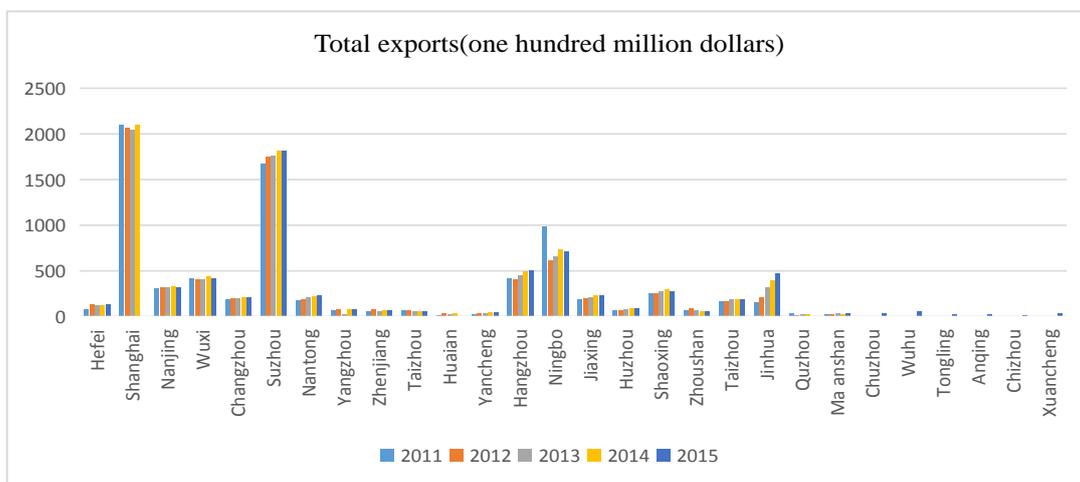


Fig 2-The total exports of cities in the Yangtze River Delta from 2011 to 2015

3 Problems&suggestions for coordinated development of the Yangtze River Delta region

Through the above data analysis, we can find the development of regional integration in the Yangtze River Delta has improved under the new normal. The pace of economic development in various cities has shifted towards coordination. Under the new normal, Yangtze River Delta has taken the lead in the stage of growth shift, structural adjustment and reform¹. The growth of service industry has accelerated, the relationship among investment, consumption and export becomes coordinated. In addition, there are also some new changes in social fixed investment and fiscal revenue. It is a long-term issue to promote the coordinated development of Yangtze River Delta region, we must know there are still some uncoordinated problems.

3.1 Problems existing in the coordinated development of the Yangtze River Delta region

First of all, in terms of total GDP, the gap of GDP in the Yangtze River Delta region is still

clear. Especially the newly added cities, here is the case of Anhui. Its GDP per capita accounted for 35.2%, 42.5% and 46.3% of Shanghai's, Jiangsu's and Zhejiang's, its urban per capita disposable income accounted for 52.7%, 71.0% and 61.1%. The gradient gap of regional development may lead to the siphon effect of the production factors from the backward regions to the developed areas. The size of the central city in Anhui is also smaller than surrounding equivalent cities, Hefei's GDP accounts for 56% of Nanjing's GDP, 58.3% of Hangzhou's GDP, the gap is obvious.

The development level of the third industry is uneven among cities in the Yangtze River Delta, the phenomenon of disharmony is evident. At the same time, the regional industrial structure is convergent and the distribution is unreasonable. For example, many local governments are scrambling to develop high-tech industries, regardless of their objective conditions. All along, the Yangtze River Delta region's industry is developed, for instance, Nanjing and Hangzhou are similar in status to advanced manufacturing and modern services. Industry developed rapidly in early stage and indeed promoted the regional development, but it also caused the problem: industrial isomorphism, especially in the fields of food, beverage, textile, printing, plastics, etc². This will hinder industrial development and cause vicious competition. Although the transformation and upgrading of industrial structure has been put forward for several years, it has not yet achieved remarkable results in the Yangtze River Delta. The proportion of the third industry showed a general upward trend, but the development level is different among cities. Some cities still rely on the second industry, and the process of industrial restructuring and upgrading is not unified. Industry differences stem from factor differences, the regions with rich resources will form its own characteristic and advantageous industries, while the regions without advantageous industries is relatively backward and passive. In the long run, it will lead to incoordination in the economic development and people's income. Income is related to consumption ability, it also affects consumer demand and then affect the local real economy and people's living standard.

From the angle of opening to the outside world, under the new normal, the driving force of economic growth (investment, export, consumption) transformed to innovation. It does not mean that the export is unimportant. The Yangtze River Delta is located on the "Yangtze River economic belt", the provinces and cities show great differences in their foreign trade business. Cities with ports have large exports; however, these cities are less radiated to the surrounding cities. So the development of foreign trade is not coordinated enough, the foreign trade business is too dependent on several cities, and the opening-up is not comprehensive

now, this also hinders the regional coordinated development.

3.2 Suggestions about the coordinated development of the Yangtze River Delta region

Under the new normal, the coordinated development of the Yangtze River Delta region has achieved some success, but it still needs further coordination. In terms of industrial structure, we should change thinking and establish a win-win economic mechanism. Speed up industrial upgrading and reduce industrial homogeneity; monitor and cooperate with each other; avoid vicious competition; actively innovate and form a complementary industrial chain. The coordinated development is the combination of the government pushing and market economy mechanism, therefore, the government should complete the allocation of public goods as well as supporting infrastructure networks³. Perfect the construction of laws and regulations so as to make it more coordinated in factor flow and information sharing. Non-governmental organizations are encouraged to serve as bridges to promote the coordinated development of cities in Yangtze River Delta. Specific measures to the provinces and cities are as follows:

Anhui started late in the Yangtze River Delta, its economic strength needs to improve. Anhui has an important strategic position in the Yangtze River Delta, for it is close to Shanghai, Jiangsu and Zhejiang, the factor liquidity is strong. Therefore, Anhui is extremely important for the coordinated development of the Yangtze River Delta. Anhui should speed up the construction of the “Wanjiang urban belt” and the “International cultural tourism demonstration area in southern Anhui”. Especially the “Wanjiang City belt” is the key development area to promote the strategy of the rise of the central region, and it is essential to undertake the industrial transfer of Midwest region. Anhui should improve the construction of transportation infrastructure and increase factor input⁴; introduce funds and high-quality talents and perfect the planning mechanism for attracting investment. And it should enhance industrial level by accelerating the cooperation with others and implementing industry undertaking and transfer. Efforts also should be made to ensure and improve people's livelihood and promote equalization of basic public services.

Shanghai is not only the core of Yangtze River Delta, but also the city of China and the world. To promote regional coordinated development, it should make full use of the radiation effect, hub function and demonstration effect of Shanghai's opening-up. Shanghai Free Trade Zone should steadily open to the outside world and guide enterprises to go out. Shanghai should use the demonstration effect and the urban brand effect to benefit other cities in the Yangtze River Delta. Giving full play to the leading role of Shanghai to accelerate the construction of

centers for international finance, shipping and trade, and enhance the internationalization level of Nanjing, Hangzhou and Hefei⁵. By upgrading the industrial level of the regional core city and vigorously developing high-end producer services, they could provide high-end services for regional economic development and lead the region into global economic network.

The status of Jiangsu and Zhejiang need not be repeated. Jiangsu has the largest contribution to GDP in the Yangtze River Delta, so it is necessary to extend its feature, highlight its position. Advanced manufacturing, strategic emerging industries and producer services are the characteristics and directions of the Jiangsu's industrial development. It should strengthen the coastal development of Jiangsu, accelerate the construction of the modern demonstration zone in Southern Jiangsu and national independent innovation demonstration zones. Zhejiang has good ports and trade conditions, it should give play to the economic vitality of the Zhejiang marine economic development demonstration zone and the Zhoushan new islands⁶. Zhejiang should utilize its geographical advantages to undertake the transfer of world industry and actively develop foreign trade, new industries. To promote regional coordinated development, the two provinces should actively play their own advantages to reform industrial structure and strengthen cooperation with each other. They should form a tight industrial chain to encourage the benefit sharing and the free flow of factor.

The Yangtze River Delta region should actively participate in the national regional coordinated development strategy, especially the “Yangtze River economic belt” and “The Belt and Road”. Expand the interconnectivity ability of the Yangtze River Delta and the “Yangtze River economic belt” with the countries and regions which along “The Belt and Road”, promote common progress⁶. We believe that, under the new normal, the Yangtze River Delta regional development will be more harmonious, and it will set an example for the national regional coordinated development.

References

1. *P.Wang* , The sample of China’s economic new normal, Yangtze River Delta: pain and happiness [N] *The 21st century economic report* 2014-08-25 (005).
2. *J.He*, Analysis of the main problems of regional economic integration in Yangtze River Delta [J] *Quotient* **30** (2015) 258.
3. *D.Tan*, Construction of the Yangtze River Delta integration and regional coordination mechanism of [J]. *Trade in the north* **07** (2016) 65-66.

4. *P.Wang* ,Study on the Countermeasures of Anhui's economic integration into the Yangtze River Delta [J]. *Journal of Heihe University* **03** (2017) 29-31.
5. *T.Deng*, Build new urbanization and realize coordinated development of urban agglomeration in Yangtze River Delta [N]. *Ma'anshan daily*, 2015-03-28 (004)
6. *Y.Sun*, Under the new normal, Yangtze River Delta integration opportunities and challenges of [J]. In *contemporary economic management* **10** (2015) 65-68.