The Yangtze River Delta (YRD):
from current industrial structure to improved regional cooperation

- The metropolitan area of the Yangtze River Delta remains one of the most dynamic economic regions and investment destinations in China.
- Shanghai presents now an industrial structure pattern of “tertiary, secondary and primary” (by order of size), while Jiangsu and Zhejiang, the two neighboring provinces of Shanghai, retain a pattern of “secondary, tertiary and primary”.
- At present, owing to historical, geographical, and political reasons, industrial isomorphism\(^1\) to some extent is present in this region and should be paid attention to.
- Despite competition, local governments have the intention to work hand in hand to realize a better industrial cooperation, leading to more economic integration.

Since China’s Opening-Up Policy, the Yangtze River Delta region has been an ideal investment destination due to its great economic achievements. Owing to similar natural endowment and the existing industrial situation, Chinese central and local governments should make joint efforts to avoid vicious competition and achieve better cooperation and economic integration.

I. General Situation

Since the 1900s, scholars in the United States have studied about the City Grouping phenomenon. Over the past 100 years, more and more mature metropolitan areas, such as New York-Boston in America, London-Manchester in Great Britain and Tokyo-Kobe in Japan, are playing an increasingly important role in their respective countries, and even the whole world. China is now home to three of the world’s most dynamic and potential filled city-regions, the Yangtze River Delta region, the Greater Pearl River Delta, and the Bohai Bay.

The metropolitan area of the Yangtze River Delta is located on the eastern coast of China, which is geographically considered as the golden region, with a pleasant climate and convenient transportation links. This area has long been an industrial heartland and a prime economic mover in China, consisting of Shanghai and 15 surrounding cities: Suzhou, Wuxi, Changzhou, Zhenjiang, Nanjing, Nantong, Yangzhou, Taizhou in Jiangsu Province, Hangzhou, Jiaxing, Huzhou, Shaoying, Zhoushan, Ningbo and Taizhou in Zhejiang Province. It covers approximately 109 square kilometres and is home to about 85 million residents\(^2\).

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\(^1\) Industrial isomorphism: tendency of similarity in the composition of industrial structure, relationship between industries, allocation of factors of production in a certain region.
\(^2\) Data from: Shanghai Statistical Yearbook 2007
According to a research launched by UNIDO\textsuperscript{3}, the coefficient, demonstrating the degree of isomorphism, reaches 0.82 between Shanghai and Jiangsu, 0.76 between Shanghai and Zhejiang, and 0.97\textsuperscript{4} between Jiangsu and Zhejiang. Referring to the international practice, the warning level of the coefficient among states is 0.85, and 0.90 among cities in a country. The date shows there is a sign of industrial isomorphism in YRD area, especially in manufacturing industry. According to a report released by local governments, Shanghai, Zhejiang and Jiangsu would like to give priority to industries such as electronic information, automobile, new materials, and biomedicine, which from overall perspective is unreasonable.

The fundamental reason for industrial isomorphism is that Shanghai, Jiangsu and Zhejiang boost relatively similar resource endowment, such as natural environment, cultural and historical background. Despite of administrative division in YRD area, economic cooperation remains tight among 16 cities, which leads to some extent similarity in demand and supply structure.

Excessive industry isomorphism can cause negative impacts, such as redundant construction, vicious competition, decline in the quality of economic development among local governments in attracting foreign investment, as well as substantial waste of resources and market disorder. Further discussion based on data analysis about industrial structure will be conducted in the following chapter.

II. Current industrial structure in YRD

The Yangtze River Delta region’s GDP reached up to over 4 trillion yuan in 2007, while China’s total GDP was about 25 trillion yuan. In terms of industrial structure in YRD area, there is a decline in the primary industry, but a rise in the secondary and tertiary industry, which is a good sign of industrial adjustment.

In 2007, Shanghai’s GDP was more than 1 trillion yuan, maintaining a consecutive double-digit growth rate for the past 16 years. The primary industry realized an added value of 1 billion yuan and the secondary industry increased 11% and the tertiary by 15%. In Shanghai’s 11\textsuperscript{th} Five Year Program, the overall goals are to develop a services-oriented industrial structure, and to further develop pillar industries in the modern service sectors and advanced manufacturing sectors. The ratio of Shanghai’s three industries is roughly 1 : 47 : 52. The improvement of the industrial structure confirms the success of the Five Year Program and Shanghai’s target to be a modern international city.

\textsuperscript{3} UNIDO: Industrial Research Centre of United Nations Industrial Development Organization  
\textsuperscript{4} Data from: [http://finance.sina.com.cn/g/20071222/15064325286.shtml](http://finance.sina.com.cn/g/20071222/15064325286.shtml)
In 2007, eight cities along the Yangtze River in Jiangsu achieved 2 trillion yuan in GDP, with the ratio of the three industries to about 4:58:38. Seven cities in Zhejiang Province achieved a GDP of over 1 trillion yuan, with the ratio of 5:55:40. In the first quarter of 2008, despite a decrease in economic development of the YRD due to tightening domestic policies and slowdown of overseas demand, the proportion of tertiary industry remains positive. Jiangsu and Zhejiang are taking advantage of the world’s transfer of the manufacturing centre and intend to expand the proportion of manufacturing industry.

### Comparison between industrial structure of YRD and China

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>Growth in %</th>
<th>Primary industry (Billion RMB)</th>
<th>Growth in %</th>
<th>Secondary industry (Billion RMB)</th>
<th>Growth in %</th>
<th>Tertiary industry (Billion RMB)</th>
<th>Growth in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>YRD</td>
<td>3952.6</td>
<td>4667.2</td>
<td>146.8</td>
<td>159.1</td>
<td>2175.7</td>
<td>2536.9</td>
<td>1630</td>
<td>1971.3</td>
</tr>
<tr>
<td>China</td>
<td>22138.2</td>
<td>24661.9</td>
<td>2787.8</td>
<td>2891</td>
<td>10703.8</td>
<td>12138.1</td>
<td>8647</td>
<td>9632.8</td>
</tr>
</tbody>
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The proportion of agricultural activity in this region shows a downward trend. Agriculture in the YRD is transferring from the production function to the direction of “ecology, exhibition and tourism”. Shanghai has put forward the idea of “Agriculture being the fundamental guarantee of cities” and is working on the protection of agricultural land in Chongming Island and North of Hangzhou Bay. Furthermore, specialties of each city of the YRD are shared within the region via an existing regional exhibition network. “Nong Jia Le” (meaning “fun in the countryside”) has become a new brand of YRD tourism. Natural sceneries and ancient agricultural facilities are now attracting urban citizens. Besides, a series of relevant services, such as catering, accommodation and recreation, are bringing huge opportunities to local economic development.

In terms of the proportion of secondary industry in 2007, Shanghai focuses mainly on modern service industry, therefore, it is gradually transferring parts of its manufacturing industry to other two provinces. Jiangsu and Zhejiang are taking advantages to take over manufacturing industries from Shanghai and competing with each other to be the following manufacturing centre in this region. In addition, improving their industrial level and upgrading industrial structure would also be a great concern. On 1st Jan. 2008 central government has issued an unified Enterprise Income Tax Law to provide a 15% reduced enterprise income tax rate for High-New Technology Status enterprises, which is good news for the manufacturing industry.

As for the tertiary industry, it’s growth rate in 8 cities in Jiangsu is faster than that of the secondary industry, with Suzhou’s 2% of growth leading at the first place. With obvious industrial advantages, Shanghai ranks first in the YRD region with its proportion of tertiary industry being 52%, the only one over 50%. However, compared with 80% in other major cities in developed countries, the proportion is a small part and still need to be raised. The following are Nanjing, then Hangzhou, Zhourshan, and Taizhou (Jiangsu) with only 33% is the lowest of all 16 cities. The proportion of the tertiary industry to GDP in five cities in Zhejiang (except Zhourshan and Taizhou) also increased to varying percentages.
The cities of the YRD vary in economic size and growth rate with their own specializations. **Hangzhou**, the capital of Zhejiang Province, focuses on **lady-clothes manufacturing and software industry**, as well as **modern tourism and catering service**. **Ningbo**’s emphasis is on **traditional industries and logistics**, taking advantage of its geographical location and great port. **Shaoxing** has a range of **traditional light manufactured goods and automotive parts**. **Jiaxing** is a center of the **textile and apparel industries**, as well as a range of heavier and process industries, and so on. **Nanjing** in Jiangsu Province is developing its **heavy industry, biological medicine and transport equipment**. **Changzhou** is focused on **electronics and machinery industries**, as well as **new materials**. **Suzhou** has a mixture of **garment** related industries and **electronics industries**. Furthermore in recent years, Suzhou’s **high-tech industrial parks** have attracted many foreign investment, which leads high-tech industry well developing. **Wuxi** shows a somewhat similar mix, however also including **transportation equipment**. **Nantong** has centers of **textile and materials industries**. **Yangzhou** focuses more on **traditional and basic industries**.

Generally speaking, the private sector is better developed in the cities in Zhejiang than that in Jiangsu, while the majority of Shanghai’s industrial output comes from foreign invested enterprises.

### III. Plans to achieve reasonable industrial division and cooperation

**Moderate industrial isomorphism** will bring some advantages to the region as a whole, like **enhancing the overall competitiveness and industrial clustering**. Joint efforts and cooperation made by local governments should avoid excessive isomorphism and forge better industrial division and corporation. **Rather than competition, focus should be put on the cooperation** among YRD cities. There are several areas of potential direct cooperation among the different jurisdictions in the region.

1) **Infrastructure**: In recent years, there has been great progress in creating the infrastructure to connect the region. The **Hangzhou Bay Bridge**, the **Su-Tong Bridge** and the **development of an extensive intercity rail system** will facilitate interaction in the future. **Shanghai Hongqiao Transportation Hub**, already upon approval, is a large-scale modern and comprehensive transport hub, which assembles several traffic modes, such as **airport, inter-city railway, highway and regional transport** that will reaches an annual turnover of 52.7 million people by 2020. The hub will be the terminal station for a new high-speed rail line **joining Shanghai and Beijing**, which will cut travel time between the two cities from 12 to 5 hours. The **expansion project of Hongqiao Airport, part of plans for the Hongqiao Hub, is under construction** and will be put into service before the World Expo. Joint efforts are also put through to **enhance communication integration**, for example, **wireless internet network** is being built and **roaming charges for mobile phones** are gradually being reduced and even cancelled. A regional coordinative program by central and local governments could ensure that major infrastructure projects are able to deliver maximum benefit to the region as a whole and to limit potentially destructive competition.

2) **Foreign Investment**: In order to attract more foreign investment, top quality people, and top quality companies, all kinds of **preferential policies** have been put forward. Even **local governments** could treat the companies discriminatively and pose tangible and intangible barriers in investing. Even if they are competing, the different jurisdictions in the region should **take strategies, strengths, and weaknesses of other jurisdictions into account** so as to properly **assess their own positions** and use their resources wisely. Despite competing with each other, local governments are aware of the importance of cooperation and begin to
forge kinds of communication and coordinative mechanism like regional conferences for economic cooperation.

3) Financial integration: Promoting financial cooperative development is key for economic integration. Keeping to the principle of “led by the market and driven by the government”, measures have been or will be taken to promote the process. This includes building a consolidation mechanism for finance and credit, holding financial forums and meetings regularly, as well as enhancing communication and cooperation of financial talents. This hopefully will lead to the allocation of financial resources being optimized in a liberated financial environment.

4) Education and Human Resource: At present, Chinese universities are mainly theory-focused. Neither national nor provincial level universities are well-integrated into the economies of where they are located. It will be necessary to create an easier way for university and institute researchers to commercialize innovations through the provision of technology transfer, technology licensing, consulting, and other services that can accelerate the commercialization process. As for human resource, agreements have been signed by governments in recent years, aiming to create a regional labour market, in order to facilitate the migration for employment purposes of people from one part of the region to another. Joint job recruitment fairs would better match the cross-regional supply of talents and is beneficial for the regional cooperation and communication.

With the further understanding of Chinese market, foreign companies not only focus on the preferential policies when investing, but also take all-round factors into account as local investment environment, infrastructure conditions, the quality of personnel. Reasonable industrial planning and division in the Yangtze River Delta region can strengthen the region’s competitiveness to attract more foreign investment.

Shanghai, as the core of this region, will play a more active leading role and spread its economic achievement along the Yangtze River and the rest of China. Meanwhile, Jiangsu and Zhejiang are gradually taking over manufacturing industries from Shanghai and developing advanced ones. Each city in YRD area should have a clear functional positioning and cooperate well with each other.

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