

The industrialization progress of the Haixi Economic Zone and its enlightenment

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Abstract: Chinese has been developing rapidly over this past 20 years. The construction and development for the Haixi Economic Zone has been point out in a strategic level for China development recently. To honestly criticize current development and provide proper suggestion according to its development would have both theoretic and realistic meaning for the Haixi Economic Zone. By referring to industrialization standard analysis, this paper tries to make judgment for industrialization progress of each city of the Haixi Economic Zone. Furthermore, the enlightenment for the industrialization progress would be offered.

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1, Introduction

Chinese has been developing rapidly over this past 60 years. Especially during the last 20 years, China transforming its economy from a under developing nation into a world economic powerful country. Following China economic development strategy reform, accelerating the west bank of Taiwan Strait Economic Zone (as knowing Haixi Economic Zone) development has been put under spot light. On May, 2009, the state council release "the opinion about accelerating the Haixi Economic Zone construction" the Haixi Economic Zone construction is in a new stage. According to "the Haixi Economic Zone development plan" from the National Development and Reform Commission, its territory start form three cities in Zhejiang (Wenzhou, Lishui, Quzhou), to Fujian Province, till south Guangdong Province (Shantou, Meizhou, Chaozhou, Jieyang) and another four in Jiangxi Province (Shangrao, Yingtan, Fuzhou、Ganzhou), with which totally 270 thousand Sq. Km. Its population was nearly 89. million on 2011 which shared around 6.7% of whole country. It is one of the most important economic zone along the south-east coast of China, which connect with the Pearl River Delta, the Yangtze River Delta and along with Taiwan Straits. According to "Statistical Communiqué on the 2011 National Economic and Social Development.", this area shared 6.43% of China GDP. As located at both side of Taiwan Strait, they share the same culture. 80% Taiwanese were from Fujian, they have same belief、culture and custom. They share same value. Their culture influence both and they have close relationship as the have same Chinese history.

2. The lecture review about Industrialization Progress

There are different theories for identify a notion's

industrialization progress. In general, it could be classified into three stage as prime (P), middle(M) and later(L) stage. Besides, we have before and after industrialization stage knowing as pre-industrialization and post-industrialization. John Code (1990) indicated the rate for manufacture industry added value against all products added value as industrialization level. These are shown as non-industrialization (below 20%), industrializing (20%~40%), half industrialization (40%~60%) and well industrialization (more than 60%). W.G. Hoffmann (1931) use industry net product value for consumer against production. There are four industrialization stages, its rate are showing as 4~6、1.5~3.5、0.5~1.5 and below 0.5, the lower the higher. S-kuznets assumed the industry structure rate of primary industry、secondary industry and tertiary industry for his industrialization level. Once the primary industry below 20% and secondary industry rate is higher than tertiary industry, it is on middle stage of industrialization. As the primary industry reaches 10% and secondary industry rate is on the highest, knowing as well industrialization. Moreover, Syrquin and Chenery adopted real GDP per capita in US\$ as their industrialization level. The higher the real GDP per capita in US\$ of a city is, the higher its level would be. The following table 1 shown as: Chenery also adopted urbanization rate to divide its industrialization level. As the urbanization rate is between 10%~30%, it is on prime stage of industrialization, As between 30%~70%, it is on middle stage of industrialization. While between 70%~80%, it is on highest stage of industrialization and once over 80% called post-industrialization stage.

3. The industrialization measurement for each city at the Haixi economic zone.

Three methods are used in order to measure its

industrialization level, namely: three industries structure rate, real GDP per capita in US\$ and urbanization rate.

industry. On the other hand, Nanping and Meizhou still on prime stage of its industrialization as their primary industry still over 20%.

Table 1 Criteria Standard for Industrialization Level (unit: real GDP per capita in US\$)

Industrialization Stage	Pre-industrialization level	Industrialization level			Post industrialization level	
		Prime	Middle	Late	primary	advanced
1964	100-200	200-400	400-800	800-1500	1500-2400	2400-3600
1970	140-280	280-560	560-1120	1120-2100	2100-3360	3360-5040
1982*	364-728	728-1456	1456-2912	2912-5460	5460-8736	8736-13104
1995	610-1220	1220-2430	2430-4870	4870-9120	9120-14600	14600-21600
2004	720-1440	1440-2880	2880-5760	5760-10810	10810-17290	17290-25040
2009	763-1526	1526-3025	3025-6104	6104-11445	11445-18312	18312-27468

Source: The industry and information Dept. of Hunan Province. The industry and information work report, Vol. No. 113-473, 2011-14, industrialization level * The real GDP per capita in US\$ in 1982 was calculated through China's formula rate.

3.1 The industrialization level according to urbanization rate

Urbanization rate is also used as a measurement for a city's industrialization. In this study, the 6th population inspection for whole country are applied in order to scale its urbanization. As table 4, there are large difference of its urbanization rate for each city at Haixi economic zone. Shantou is the highest city which reach to 90%, following by Xiamen. On the other hand, Fuzhou (Jiangxi), Ganzhou are the lowest cities as its urbanization rate only 37.20% and 37.53% correspondently.

Table 2 The industrialization level according to urbanization rate

Region	Urbanization rate	Industrialization level	Region	Urbanization rate	Industrialization level
Fuzhou (Fujian)	61.95%	M ₁	Lishui	48.40%	M ₀
Xiamen	88.33%	Post-industrialization	Quzhou	44.13%	M ₀
Putian	50.78%	M ₁	Shantou ^a	90.00%	Post-industrialization
Sanming	51.12%	M ₁	Meizhou ^b	46.20%	L ₁
Quanzhou	58.43%	M ₁	Chaozhou	62.90%	L ₁
Zhangzhou	46.73%	M ₁	Jiayang ^c	44.60%	M ₀
Nanping	50.74%	M ₁	Shangrao	41.89%	M ₀
Longyan	45.02%	M ₁	Yingtan	47.40%	L ₁
Ningde	47.92%	M ₁	Fuzhou (Jiangxi)	37.20%	M ₀
Wenzhou	66.02%	M ₁	Ganzhou	37.53%	M ₀
China (GDP)	49.68%				M ₁

Source: 1 Urbanization rate is calculated according to the 6th population inspection for whole country. a According to "China urbanization rate status inspection report" on 2006. Shantou urbanization rate was over 90%. b Meizhou urbanization rate comes from LIU De-Liang. (2012). c Jiayang urbanization rate came from --CHEN Yi-Wei, 2009-06-26. 2 Industrialization level: prime (P), middle(M), late(L), the same as follow.

3.2 The industrialization level according to three industries structure

According to S-kuznets industrialization standard, the industrialization level for each city at Haixi in 2011 is shown on table 2. Fuzhou(Fujian), Xiamen, Putian, Quanzhou, Wenzhou, Lishui, Quzhou and Yingtan and so on, are all located itself on later industrialization level. Xiamen, especially, shared only 1.0% in primary

Table 3 The industrial structures comparison for each city at Haixi in 2011

Region	Industrial structures added value (hundred million RMB)			Industrial structure comparison in %	S-kuznets industrialization level
	Primary	Secondary	Tertiary		
Fuzhou(Fujian)	323.09	1737.50	1672.19	9.7, 48.5, 41.8	L ₁
Xiamen	24.68	1304.10	1207.02	1.9, 51.4, 46.7	L ₁
Putian	98.78	628.43	327.82	9.4, 59.5, 31.1	L ₁
Sanming	195.63	637.07	398.47	12.9, 51.7, 32.4	M ₁
Quanzhou	151.86	2668.02	1451.01	3.5, 62.5, 34.0	L ₁
Zhangzhou	294.57	858.46	615.17	16.7, 48.5, 34.8	M ₁
Nanping	213.74	883.32	300.13	22.9, 42.7, 23.5	P ₁
Longyan	152.59	731.18	376.11	12.1, 58.0, 29.9	M ₁
Ningde	167.84	439.54	326.33	18.0, 47.1, 24.9	M ₁
Wenzhou	107.01	1750.65	1493.21	3.2, 52.2, 44.6	L ₁
Lishui	72.57	391.45	320.35	9.3, 49.9, 40.8	L ₁
Quzhou	75.96	499.62	324.71	8.5, 55.2, 26.3	L ₁
Shantou	71.15	792.22	540.06	5.1, 56.4, 38.5	L ₁
Meizhou	147.97	307.58	277.65	20.2, 41.9, 37.9	P ₁
Chaozhou	47.4	344.1	235.6	7.3, 54.3, 38.4	L ₁
Jiayang	129.92	736.06	362.20	10.6, 59.0, 29.5	M ₁
Shangrao	176.5	599.0	335.1	15.9, 53.9, 30.2	M ₁
Yingtan	38.14	276.17	112.39	8.9, 64.7, 26.4	L ₁
Fuzhou(Jiangxi)	136.89	395.81	210.01	14.4, 53.3, 28.3	M ₁
Ganzhou	232.70	631.16	472.13	17.4, 47.2, 35.4	M ₁
China	47712	220592	203260	10.1, 46.8, 43.1	M ₁

Source: Re-arrangement from " Statistical Communique on the 2011 National Economic and Social Development "

3.3 The industrialization level according to real GDP per capita in US\$

According to Statistical Communiqué on the 2011 National Economic and Social Development for each city, we calculated the real GDP per capita in US\$ shown on table 3. As table 3, each city has its own industrialization progress which is much difference from others. Xiamen has enjoyed the highest real GDP per capita in US\$, following by Quanzhou, Fuzhou (Fujian), Longyan and Sanming. They all located themselves in later stage of their industrialization. However, Lishui, Shangrao, Fuzhou (Jiangxi) and Ganzhou are still in prime stage of industrialization. The rest are in middle stage and transfer into later stage. The industrialization for each city at Haixi economic zone are still not good enough.

Table 4 The industrialization stage according to real GDP per capita in US\$

Region	Total output value (hundred million RMB)	Real GDP per capita (RMB)	Real GDP per capita in US\$	S-kuznets industrialization level
Fuzhou(Fujian)	3734.78	52144	8073	L ₁
Xiamen	2535.80	70734	10952	L ₁
Putian	1055.03	37896	5867	M ₁
Sanming	1231.17	49149	7610	L ₁
Quanzhou	4270.89	52245	8089	L ₁
Zhangzhou	1768.20	36538	5657	M ₁
Nanping	897.19	33921	5252	M ₁
Longyan	1259.88	49250	7625	L ₁
Ningde	933.71	33064	5119	M ₁
Wenzhou	3350.87	25958	4019	M ₁
Lishui	784.37	17226	2667	P ₁
Quzhou	890.29	24164	3741	M ₁
Shantou	1403.43	20800	3220	M ₁
Meizhou	733.18	42278	6346	L ₁
Chaozhou	647.10	35344	5472	M ₁
Jiayang	1228.18	36493	5650	M ₁
Shangrao	1110.60	16813	2603	P ₁
Yingtan	426.70	37754	5845	M ₁
Fuzhou (Jiangxi)	742.51	18854	2919	P ₁
Ganzhou	1335.99	15808	2443	P ₁
China (GDP)	471564	34999	5479	M ₁

Source: Statistical Communique on the 2011 National Economic and Social Development for each city.

* The total output value was calculated from Statistical Communique on the 2011 National Economic and Social Development for each city. Zhangzhou and Lishui population are calculated from regular residents' yearly growth of corresponding province. Fuzhou(Jiangxi), Quzhou is calculated through their residents average growth in last 10 years.

Note: According to the exchange rate calculation 2011, the Chinese real GDP per capita in US\$ was 5479, which is similar with The World Bank US\$10=RMB¥6.4388 (average exchange rate in 2011)

4. The analysis and enlightenment for the industrialization progress

I. Analysis

There is little doubt that there are much difference in terms of its industrialization progress for each city at the Haixi economic zone, while the measurement results are more or less the same. Xiamen and Fuzhou (Fujian) are in advanced positions. Those two cities are in later industrialization stage. Two of them are still in prime level, namely Fuzhou (Jiangxi) and Ganzhou. Most cities are all in the middle stage of industrialization. As a result, while industrializing, each city is looking for selecting more comparative advantage development policy in order to promote its economy.

1 For those in prime stage of industrialization

Those cities, likely Fuzhou (Jiangxi), Lishui and Meizhou where their industrialization still stay in prime stage, have the same limitation. They are not able to attract many industries invest in there. Their consumption markets are still not big enough, its real GDP per capita lower than average. Their primary industry share is high relatively. As this is the case, maybe they could try to focus on agriculture industry. If they could process agriculture product with excellent quality. They could rely on agriculture and build up its own first industry industrialization. Besides, these cities could try to play a part of those well development provinces. such as: Meizhou joints with Guangdong Province, Lishui joints with Wenzhou (Zhejiang Province). They could become their satellite cities and specialized in its own field.

2 For those in middle stage of industrialization

As mentioned above, most cities are located themselves in middle stage of industrialization. This conforms to Chinese national industrialization progress. These cities are recommended that continue in technology innovation, especially for generic technology innovation. They should specialized in what are professional with. Due to industrialization would also caused environment pollution problem, it is necessary to prevent in advance.

3 For those in later stage of industrialization

As above analysis, only Xiamen and Fuzhou (Fujian) have already got into the later stage of industrialization. Xiamen was point as city specifically designated in the state plan. Fuzhou is the capital city of Fujian. Both cities have deep foundation in industry or technology. For both cities, the most important is to improving their residents in living quality. They have to acting as the central of this region. They could develop their tertiary industry, such as: finance, logistic and traveling. Try to promote their tertiary industry

scale. The new technology development is required for their future growth.

II. Enlightenment

1. industrialization and urbanization

Following the industrialization, the urbanization would caused. There are a lot of people move in, in order to find a better job. Those people would work and live there. Once the administrative area may not change, this would become crowd. This would cause environment pollution \ traffic jam, lacking of water, food ...etc. We may call this as population explosion pollution.

2. infrastructure building could not catch up industrialized progress

While industrialization, the infrastructure (such as: road, power supply, building and bridge) must be built up. Unfortunately, infrastructure build may take time and money. The government need more budget for doing these. Thus, the infrastructure building always far away behind industrialized progress.

3. wealth imbalance

The gap between rich and poor would increase as the industrialization progress. Those who have the ability to make fortunate would create lots of wealth. On the other hand, those disadvantaged group would lost their fortunate as they do not have the condition to create their wealth. This is little doubt that wealth imbalance would cause more social problems. wealth imbalance.

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