

Study on the Income Gap between the Residents of Eastern, Central, and Western China

—based on the Perspective of the Export-oriented Economic Development

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Abstract—Foreign capital utilization and exportation have always been China's two core pillars of China's development of export-oriented economy since 1978, which have together facilitated China's great economic achievement. In the meantime, however, China is now among those countries with most unequal distribution in the world. The purpose of this thesis is to analyze the income gap among Eastern, Central, and Western China, as well as the influence that export-oriented economy has over regional income gap, thus making some suggestions on this issue.

Keywords- school of business, shandong university, eastern, central, and western China; income gap; export-oriented economy; foreign capital exportation

I. INTRODUCTION

The rapid development of China's export-oriented economy is accompanied by the increasingly expansion of Chinese residents' income gap. The World Bank's development research group reported that China's Gini coefficient has been greater than 0.4 (i.e. the international warning level) in the recent decades and China has become one of the countries with the world's most unequal income allocation. The problem in income allocation is not only a research topic in the field of economics, but also an important content in the construction of a harmonious society and the enhancement of the social stability. The effect of the export-oriented economy development on the regional residents' income gap is the most direct, and therefore this problem is mainly discussed in this paper.

II. THE DEFINITION TO RELATED CONCEPTS

Residents' income gap can be divided into urban and rural income gap, regional income gap, industrial income gap, and stratum income gap, etc. In this paper, the influence of the export-oriented economy development on the income gap between the Residents of Eastern, Central and Western China is studied, so as to analyze the income gap between regional residents.

The standard to the export-oriented economy is as follows: it refers to the economy in which exports are greatly encouraged and the overseas markets are expanded in demand, so it is also known as an export-oriented economy.

Foreign direct investment (FDI) refers to the investment by foreign enterprises and economic organizations or individuals in establishing exclusively foreign-owned enterprises, and commonly setting up Chinese-foreign equity joint ventures and cooperative enterprises or cooperating in the development of resources with the enterprises or economic organizations within the territory of China using cash, physical materials, and technology in accordance with China's relevant policies and regulations.

The crowding-in-effect of FDI refers to the effect from the increase of FDI inflow volume on the domestic investment in host countries.

Spillover effect refers to the desired effect from the activities of an organization, but also the effect on the people out of the organization or on the whole society.

At present, Chinese regions are divided based on several methods. In this paper, eastern, central, and western China divided according to the "seventh five-year" plan is applied. Western China includes Sichuan, Chongqing, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia, and Xinjiang; Central China includes Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, and Hunan; Eastern China includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan, and Guangxi.

III. THE CURRENT SITUATION OF CHINESE RESIDENTS' INCOME GAP

A. *The Overall Situation of Chinese Residents' Income Gap*

Since China's reform and opening-up to the outside world, China's rapid economic development had been accomplished, and the national income had increased from 364.5 billion yuan in 1978 to 51.9332 trillion yuan in 2012, with an average annual growth rate of 15.70%; Chinese residents' consumption level had increased from 184 yuan in 1978 to 24,565 yuan in 2012, with an average annual growth rate of 15.48%.

Also, the widening income gap between Chinese residents had been increasingly focused by people. It can be known from table 1.

Table 1: China's Gini coefficients in the several past years

Year	1978	1980	1985	1990	1995	1996	1998
Gini coefficient	0.31	0.32	0.314	0.346	0.389	0.375	0.386
Year	1999	2000	2001	2002	2003	2004	2005
Gini coefficient	0.397	0.417	0.447	0.454	0.479	0.473	0.485
Year	2006	2007	2008	2009	2010	2011	2012
Gini coefficient	0.487	0.484	0.491	0.490	0.481	0.477	0.474

Data source: The data in 1985-2012 sourced from the National Bureau of Statistics and the rest was from the World Bank.

Note: The data in 2003-2012 was measured in accordance with new range and standard and first released by the national bureau of statistics on January 18, 2013.

B. The Current Situation of Chinese Residents' Income Gap

Chinese residents' income gap is most significantly reflected from the income gap in eastern and central China. In addition, the income gap between regions can be subdivided into the income gap between urban residents and the income gap between rural residents. In the following, the income gap between the urban residents in three major regions is analyzed.

Table 2: The per capita disposable income of the urban residents in central and western China in several past years (Unit: yuan)

Year	1990	1995	1999	2004	2006	2011
Eastern China	1818.84	5217.67	7145.55	11045.42	14967.38	24032.54
Central China	1320.12	3546.47	4837.11	7850.97	9902.28	16232.87
Western China	1438.57	3668.47	5302.06	8030.55	9728.45	16091.96
The ratio between eastern, central, and western China	1.38:1.09	1.47:1.03	1.48:1.10	1.41:1.02	1.51:1.098	1.48:1.099

Data source: The data was obtained by sorting the relevant data in the Statistical Yearbook of China.

Table 3: The per capita disposable income of the rural residents in central and western China in several past years (Unit: yuan)

Year	1990	1995	1999	2003	2006	2011
Eastern China	956.35	2306.38	3311.11	3988.18	5188.23	11302.84
Central China	650.13	1376.22	1977.08	2392.46	3283.17	6987.44
Western China	500.48	962.89	1355.86	1856.78	2588.37	5489.34
The ratio between eastern, central, and western China	1.47:1.077	1.68:1.070	1.67:1.069	1.72:1.078	1.59:1.079	1.60:1.079

IV. THE CURRENT DEVELOPMENT OF CHINA'S EXPORT-ORIENTED ECONOMY

A. The Current Situation of China's Foreign Direct Investment

1) The Development of Foreign Direct Investment

At present, China has become a country to take advantage of the largest foreign capital, and the actual use of foreign capital has increased from three billions of U.S. dollars in the early 1990s to one thousand U.S. dollars in recent years. Thus, the actual use of foreign investment has increased by 19.04% in the recent 20 years.

2) The Distribution of FDI in Regions

Table 4: The actual use of FDI in different regions (unit: \$ 100 million)

Year	Eastern China	Proportion (%)	Central China	Proportion (%)	Western China	Proportion (%)
1999	354.3	87.9	37.5	9.3	11.4	2.8
2000	357.9	87.9	37	9.1	12.3	3
2001	408.6	87.2	41	8.8	19.2	4.1
2002	457.3	86.7	50.1	9.5	20.1	3.8
2003	459.6	85.9	58.3	10.9	17.2	3.2
2004	522.1	86.1	66.8	11	17.4	2.9
2005	535.6	73.97	48.3	6.67	19.4	2.68
2006	569.22	81.94	39.22	5.65	21.27	3.13
2007	656.37	78.59	54.5	6.53	36.81	4.41
2008	783.4	72.33	74.36	6.87	66.19	6.11
2009	886.98	77.93	80.87	7.13	72.76	6.69
2010	967.44	79.04	89.49	6.91	80.77	6.81
2011	1011.82	81.04	103.98	7.08	97.56	7.01

Data source: The Statistical Yearbook of China over the years

B. The Current Situation of China's Export Trade

1) The Export Scale

Since China's reform and opening-up to the outside world, China's export scale has been expanded rapidly. The trade export trade of China amounted to \$1.8986 trillion totally in 2011, making the annual amount of export trade refreshed.

2) The Export Situations of Eastern, Central, and Western China

The gross exports of Eastern, Central, and Western China are in a growing trend, but the exports of Eastern China are significantly greater than that of Central and Western China in terms of the growing amount and amplitude.

Table 5: The gross exports of Eastern, Central, and Western China in 1999-2011 (Unit: \$10000)

Year	Eastern China	Central China	Western China
1999	15678489	1145687	698658
2000	19973556	1336848	746752
2001	23257169	1374078	718576
2002	30038719	1765432	1014385
2003	40427720	2083329	1311726
2004	54910024	2737920	1684614
2005	70611885	4629034	2110565
2006	70793821	6316224	2238254
2007	79233254	5969499	3270098
2008	84712962	6318206	4368531
2009	88389911	7480009	5797856
2010	91150152	8160605	6912125
2011	94020741	10268499	7633463

Data source: The Ministry of Commerce

V. THE EXPORT-ORIENTED ECONOMY AND THE INCOME GAP IN CHINA

Based on the perspective of the export-oriented economic development, the causes and affecting factors for the income gap in China are studied from the most two important contents (FDI and export trade) of the export-oriented economy, and then a preliminary conclusion is drawn up after analysis and accordingly the relevant strategies and suggestions are proposed.

A. Theoretical Analysis on the Effect of the Export-oriented Economic Development on the Regional Income Gap

1) The Mechanism of FDI to Act on the Income Gap between Regional Residents

a) The Crowding-in and Crowding-out effect of FDI

First, the interest rates in the host country will be raised if the multinational companies invest using the loans from the host country, so that domestic enterprises will be difficult in financing and even unable to finance. If the host country makes a policy of financial repression and also the funds of the multinational companies are from the foreign countries, the capital scale of the host country will be expanded and the expanded part is equivalent to that domestic capital limited by high interest rates. Second, the great influx of FDI may result in an increase to the exchange rate of the host country. Third, it is likely for the enterprises within the host country to lose the investment opportunities if the foreign investment is put in the host country's competitive industries.

b) The Compensation Spillover Effect of FDI

There are mainly two ways for FDI to affect the compensation of the local workers: (1) technological spillover; (2) competition effect.

c) The Technological Spillover Effect of FDI

In general, technological spillover can be divided into three types in terms of the externality of the technology transfer: (1) a multinational company marches into the host country's monopoly industries; (2) the competition and demonstration effect; (3) the study and imitation effect.

2) The Mechanism of Export Trade to Act On the Income Gap between Regional Residents

The basic conclusion is that 70% of a country's per capita income difference is closely related to the country's spatial location, economic conditions, and openness, and accordingly it is inferred that the difference in the regional development and the difference in income allocation will be inevitably caused in a large country if the trade openness is with differences.

B. An Empirical Analysis on the Effect of the Export-oriented Economic Development on the Regional Income Gap

1) FDI and the regional income gap in China

Under the condition of the domestic shortage of funds, the crowding-out effect of FDI on the domestic capital is limited. On the contrary, new products and new services brought by the developed countries via multinational companies will make the domestic investment crowding in. In terms of the spillover effect, the compensation spillover effect and technological spillover effect of FDI on the domestic market are very significant, because there is a great technical difference between China and developed countries, and also China's abundant supply of cheap labor and investment environment attract a large amount of FDI.

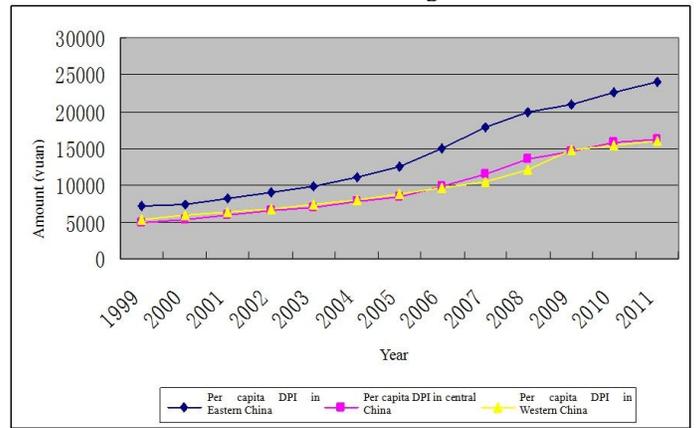


Fig.1.The per capita DPI of the urban residents in Eastern, Central, and Western China over the years

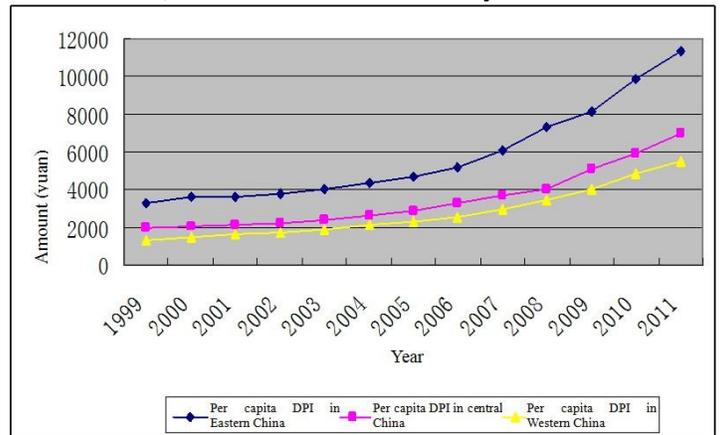


Fig.2.The per capita DPI of the rural residents in Eastern, Central, and Western China over the years

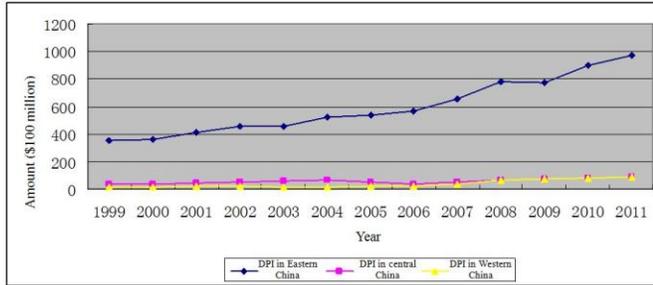


Fig.3.The FDI in Eastern, Central, and Western China over the years

Data source: The data in Fig.1 were from the Ministry of Commerce; the data in Fig.2 and Fig.3 were from the Statistical Yearbook of China over the years

2) The Export Trade and the Regional Income Gap in China

Consumption, investment, and export are known as the three big carriages to fuel the economic growth. In China, top priority is always given to the export-oriented economy centered at the market demand and dominated by export over the years, and this economic development model decides that the export plays an important influence on the national income.

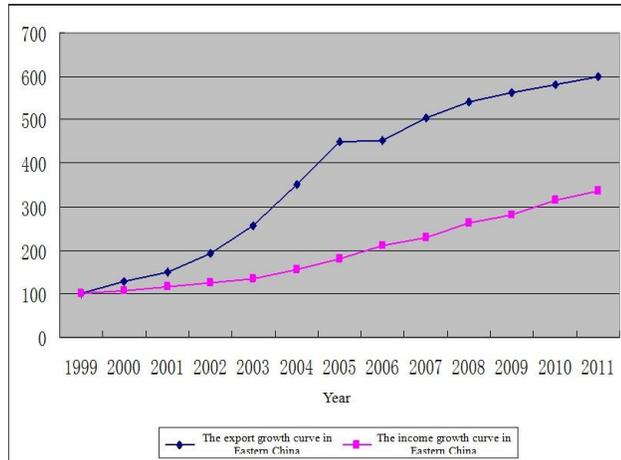


Fig.4.The exports and residents' income curves in eastern China in 1999-2011

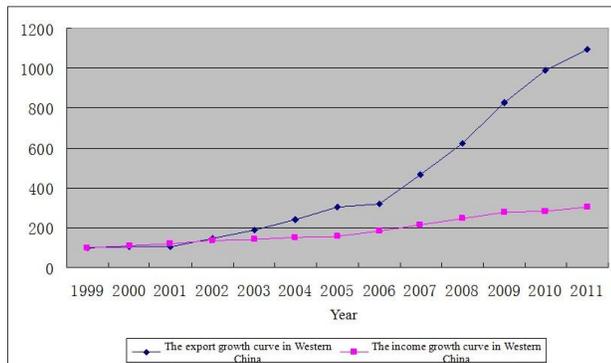


Fig.5.The exports and residents' income curves in western China in 1999-2011

In Fig.4 and Fig.5, the export and resident income growths in eastern and western China are shown, and the data shows that residents' disposable income and the trend of export growth changed to the same direction, and those in eastern China was more significant.

VI. RELEVANT SUGGESTIONS ON REGIONAL INCOME GAP

In this paper, relevant suggestions on how to improve the level of resident income in central and western China, ease the currently too large regional income gap, and promoting the coordinated development of the national economy based on the above study on the effect of foreign direct investment and export trade on the regional resident income and the perspective of the export-oriented economy.

A. Intensifying the Openness of Central and Western China to the Outside World and Implementing an All-around Opening-up Strategy

China's economic development and opening-up to the outside world are focusing on Eastern China and the southern coastal areas, so that the economic development of Eastern China is greatly promoted, and also the income level of the residents in Eastern China is greatly raised.

B. Strengthening the Construction of Infrastructure in Central and Western China and Improving the Investment Environment

It is urgent to strengthen the infrastructure construction in central and western China and focus on the improvement in the construction level of transportation, post and telecommunications, water and power supply, business services, scientific research, technical service, and public service facilities, so as to improve the investment environment, better attract foreign businesses and investment, promote the economic and social development, and improve the residents' income levels in central and western China.

C. Improving the Awareness in the Market Competition and the Competitiveness of Industries

A planned economy system was always implemented in China before the reform and opening-up to the outside world, and it was proved to go against the economic development in practice. Therefore, reform and opening-up policy were implemented in China in order to implement the market economic system. However, a non-balanced development model was implemented in China. Specifically, the eastern coastal areas of China were opened up first to get a development first, so that the steps of Eastern, Central, and Western China were in a serious imbalance when the planning system was converted to the market system.

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