CHINA'S FUTURE ECONOMIC GROWTH STRATEGY: EXPORTS and/or DOMESTIC DEMAND?

by

Bo Hu

Master of Development Economics

at

Dalhousie University Halifax, Nova Scotia June 2011

© Copyright by Bo Hu, 2011

DALHOUSIE UNIVERSITY

DEPARTMENT OF ECONOMICS

The undersigned hereby certify that they have read and recommend to the Faculty of Graduate Studies for acceptance a thesis entitled "CHINA's FUTURE ECONOMIC GROWTH STRATEGY: EXPORTS and/or DOMESTIC DEMAND?" by Bo Hu in partial fulfilment of the requirements for the degree of Master of Development Economics.

	Dated:	June 20, 2011
Supervisor:		
Readers:		
Departmental Representative:		

DALHOUSIE UNIVERSITY

		DATE:	June 20, 201	1	
AUTHOR:	Bo Hu				
TITLE:	CHINA's FUTURE and/or DOMESTIC	E ECONOMIC GROV C DEMAND?	WTH STRATE	EGY: EXP	ORTS
DEPARTME	ENT OR SCHOOL:	Department of Ec	onomics		
DEGREE:	MDE	CONVOCATION:	October	YEAR:	2011
non-commer	cial purposes, at its	to Dalhousie University discretion, the above thesis will be electron	title upon the	request of	individuals or
	-	ation rights, and neither			
appearing in	the thesis (other tha	n has been obtained n the brief excerpts r such use is clearly ac	equiring only p		•
		Signatur	e of Author		

Table of Contents

List of Tables	
List of Figures	V
Abstract	Vi
List of Abbreviations and Symbols Used	vii
Acknowledgements	i
Chapter 1: Introduction	1
Chapter 2: Empirical Study of China's Export Structure	6
2.1 Structural Change in China's Three Categories of Exports	5
2.1.1 Theoretic Discussion of the Three Categories of Commodities	5
2.1.2 Empirical Analysis on the Trend of China's Export Structure	6
2.1.3 The Determinants of Chinese Export Structure Change	8
2.2 The Relationship between the Exports of Labour-intensive Products and China's Economic	
Growth	10
Chapter 3: Analysis of the Sustainability of China's Export Model	12
3.1 How Long Can Low Wages Last?	12
3.1.1 Labor Supply, Labor Demand and Wages	12
3.2 Inflation, Wage Fluctuation and Sustainable Development of Exports of Labor-intensive	
Products	18
3.3 Exchange Rate Influences	20
3.3.1 The Effects of the Appreciation of RMB on China's External Trade	23
3.3.1.1 The Positive Effects of the Appreciation of RMB on China's External Trade	21
3.3.1.2 The Negative Effect of the Appreciation of RMB on China's External Trade	24
Chapter 4: Future Options	26
4.1 Option No.1: To Modulate the Export Structure, Encouraging Exports of Technology-	
intensive Products	26
4.1.1 The Current Situation and Problems of China's Import and Export of Technology-	
intensive Products	26
4.1.2 Analysis of the Conditions for Improving the Export of Technology-intensiveProducts	30
4.2 The Second Strategic Choice: Expand the Domestic Demand for Sustained Economic	
Development	
4.2.1 The Manifestations of Insufficient Domestic Need	31
4.2.2 Promoting Economic Growth by Expanding Domestic Demand	32
4.3 The Relationship between Promoting the Export of High-tech Industries and Expanding	
Domestic Demand	34
Chapter 5: Conclusion	36
5.1 Conclusion	36
5.2 Recommendations	36
5.2.1 The Strategy for China to Enhance the International Competitiveness of Technology-	
intensive Products	37
5.2.2 Main Way to Implement Strategy of Expanding Domestic Demand	36
References	45

LIST OF TABLES

Table 1-1: China's Investment, Consumption and Net Exports
Table 2-1: Labor, Capital and High Technology-intensive Products
Table 3-1: Statistics on Rural to Urban Population Migration
Table 3-2: Rural Worker Population
Table 3-4: Geographic Distribution of Rural Workers' Average Monthly Wages
Table 4-2: High-tech Products Imports and Exports

LIST OF FIGURES

Figure 2-1: The Trend of Labor, Capital and High-tech Intensive Exports	8
Figure 3-1: Geographic Distributions of Rural Workers	16
Figure 4-1: Exports and Imports during 2000-2006	29

ABSTRACT

This thesis examines China's future growth strategy. During the last 20 years, an export-oriented strategy has led to significant economic growth. However, with increases in labor costs and appreciation of the RMB, China has to adjust its strategy to reflect these changing conditions. The analysis here suggests that China has to change its export structure from labor-intensive exports to high-tech exports, while simultaneously putting greater emphasis on development of domestic demand in order to reduce dependence on exports overall. Several recommendations on policies the government can adopt to help facilitate these changes are offered.

.

LIST of ABBREVIATIONS and SYMBOLS USED

CPI: Consumer Price Index

EU: European Union

GDP: Gross Domestic Product

PBOC: The People's Bank of China

RMB: Chinese Currency

SITC: Standard International Trade Classification

UNCTAD: United Nations Conference on Trade and Development

US: United States

WTO: World Trade Organization

ACKNOWLEDGEMENTS

I am deeply indebted to my thesis committee members: Dr. Barry Lesser, Dr. Kuan Xu, and Dr. Alasdair Sinclair for their enlightening advice, enormous support, and generous help. Many thanks to Tao Zhu for his insightful comments.

I would like to thank my dearest friends Kewei Chen and Lihui Zhang for their generous help. I would like to thank my husband Feng Wan for sharing his wisdom and helping me face my feelings inside. My deepest gratitude goes to my parents, for their unflagging love in my life.

Bo Hu June 20, 2011

Chapter 1: Introduction

Since the economic reform and opening-up in the late 1970s, China's annual economic growth rate has exceeded 10% and China's status in the world has ascended quickly. About 10 years ago, China was the seventh largest economy in the world. Today, China is the world's second largest economy, has the second largest trade volumes and possesses the most foreign exchange reserves. (Zhang, 2010) Exports, investment and consumption have been the three most important forces for China's high economic growth rate; among those, exports have played an extremely critical role.

From Table 1-1, one can see that from 1998 to 2008, China's Net Exports of Goods and Services rose from \(\frac{4}{3}62.92\) billion to \(\frac{4}{2}.4134\) trillion, Total Capital from \(\frac{4}{3}.13142\) trillion to \(\frac{4}{1}2.36123\) trillion and Final Consumption Expenditure from \(\frac{4}{5}.15882\) trillion to \(\frac{4}{1}4.91126\) trillion.

We can divide exports into labor-intensive products, capital-intensive products and skill-intensive products. The Standard International Trade Classification (SITC) divides labor-intensive products into four classes: leather, textiles, costume, shoes; toys, sports apparatus; wood and paper products; nonmetal minerals.

From Table 2-1 in Chapter 2, we can see that the export of labor-intensive products is always larger than the export of capital-intensive products and skill-intensive products. "In the economic globalization of China, the labor source endowment has been the most important feature of the increasing rise of China's economy, and it is the most important comparative advantage of China." (Yuan, 2006). After 2006, exports of skill-intensive products exceed exports of capital-intensive products. This indicates that both the proportion

and amount of skill-intensive products in China are increasing.

Table 1-1 China's Investment, Consumption and Net Exports (100 million Yuan)

GDP	Final	Total Capital	Net Export of Goods
(in 100 million	Consumption		and Services
Yuan)	Expenditure		
86531.6	51588.2	31314.2	3629.2
91125.0	55636.9	32951.5	2536.6
98749.0	61516.0	34842.8	2390.2
108972.4	66878.3	39769.4	2324.7
120350.3	71691.2	45565.0	3094.1
136398.8	77449.5	55963.0	2986.3
160280.4	87032.9	69168.4	4079.1
188692.1	97822.7	80646.3	10223.1
221651.3	110595.3	94402.0	16654.0
263093.8	128793.8	110919.4	23380.6
306859.8	149112.6	133612.3	24134.9
	(in 100 million Yuan) 86531.6 91125.0 98749.0 108972.4 120350.3 136398.8 160280.4 188692.1 221651.3 263093.8	(in 100 million Consumption Yuan) Expenditure 86531.6 51588.2 91125.0 55636.9 98749.0 61516.0 108972.4 66878.3 120350.3 71691.2 136398.8 77449.5 160280.4 87032.9 188692.1 97822.7 221651.3 110595.3 263093.8 128793.8	(in 100 million Consumption Yuan) Expenditure 86531.6 51588.2 31314.2 91125.0 55636.9 32951.5 98749.0 61516.0 34842.8 108972.4 66878.3 39769.4 120350.3 71691.2 45565.0 136398.8 77449.5 55963.0 160280.4 87032.9 69168.4 188692.1 97822.7 80646.3 221651.3 110595.3 94402.0 263093.8 128793.8 110919.4

Data source: China Statistical Yearbook 2009

"Every dog has his day". This proverb has profound meaning and can demonstrate the comparative advantage of labor input in China. For China, its comparative advantage today may be a comparative disadvantage in the future. Currently, China is using the comparative advantage in labor input together with the state's preferential policies towards foreign investment. A troika of the foreign economy, the private economy and the state-owned economy has been formed. They keep pace with one another, ensure that China's annual

GDP growth rate stays above 10% and accelerate China's industrialization. The "made in China" label is nearly everywhere in the world and China has become the world's factory. This to a large extent has relieved China's unemployment and underemployment problems. In the mid-1980s, every percentage of the GDP growth rate created 2.4 million jobs. Meanwhile, the Chinese people's income has increased. In 1983, the net income of one peasant family was RMB310, which adjusting for inflation was about twice as much as their income in 1978 (only RMB134). In 1993, this had increased to RMB921.62. (Yuan, 2007)

Cheap labor has always been the main driver for China's continuous and high economic growth. One report (Zhong, 2003) shows that during more than 20-years of continuous and high economic growth in China, the contribution of capital has been 28%, that of technical progress and efficient promotion has been 3% and the remainder is all attributed to labor.

Currently, there are two popular opinions: one is represented by the analysis of the Nuremberg Survey Center of Germany, which argues that the price advantage of China's labor can last at least 3-5 years; the other is a view expressed by Professor Hua Ruxing from the Economic Management School of Tsinghua University, which says that the price advantage of China's labor will disappear within 5-8 years. (Hua, 2006)

Trade experts and authorities in China have always emphasized China's comparative advantage in labor. The continuous surge of rural surplus labor into cities, providing cheap and abundant labor for enterprises and factories, has accelerated urbanization and industrialization. According to the Heckscher-Ohlin endowment theory and Ricardian comparative advantage theory, as applied in China, China's competitive industry relies on labor-intensive industries, and its comparative advantage is its low labor cost. (Ricardo, 1983)

But in recent years, there has been some debate.

"It is impossible for China's labor cost to greatly increase in the short term, and the advantage of cheap labor will last at least 20-30 years", said Long Yongtu, the former deputy minister of the Ministry of Foreign Trade and Economic Cooperation. Ma Yuanzhu, the chief of the Asia-Pacific Economic Research Institute of Fujian Provincial Academy of Social Science, says that "China's cheap labor will last about 10 years and China's labor structure will still feature large quantities of labor. China's labor quality is in a pyramid structure, and labor price between different regions differ a lot." (Zhong, 2003)

Li Jiange, the associate director of the Development Research Center of the State Council in Boao Forum for Asia, has said that cheap labor is an advantage for China in participating in global competition, but such advantage would disappear within 10 years according to the transfer rule of comparative advantage. (Zhong, 2003)

Most scholars agree that the price of labor in China will continue to increase, and that the enterprises and industries that are too dependent on the advantage of cheap labor cost will be trapped.

Since the start of economic reform and opening-up, what contribution has been made by the export of labor-intensive products to China's economic development? How long will it last? What are the factors that influence its continued function? What will be China's main future economic growth strategy? What policies should be the government adopt to help facilitate these changes? This thesis will provide an analysis of the above questions based on evidence and theory.

Chapter 2: Empirical Study of China's Export Structure

2.1 Structural Change in China's Three Categories of Exports

2.1.1 Theoretic Discussion of the Three Categories of Commodities

"Labor-intensive products refer to the products with a relatively higher labour input comparing with capital-intensive and technology-intensive products in the production process." (Su, 2007) There is no universal classification for determining which specific products are labour intensive. In international trade, tangible commodities are divided into primary products and industrial manufactured products, and labour intensive products typically fall in the latter category. The United Nations Conference on Trade and Development (UNCTAD) classifies some industrial manufactured products in Chapters 61, 65, 82-85 and 894 in the Standard International Trade Classification (SITC) as labour intensive. They include light industrial products such as textiles, garments, footwear, leather products, furniture, toys, bags and luggage, etc. (UNCTAD, 2002). The labour intensive products mentioned in this paper also refer to these products, which are among the major export products of China.

"The capital-intensive industry refers to the industries and departments demanding relatively larger capital input, including such heavy industries as the metallurgical industry, the petroleum industry and the machine-building industry and so on. The main characteristics of capital-intensive products are technical equipment, large investment amount, relatively little labour force use, slow capital turnover and low profit efficiency. Compared with technology-intensive industry, capital-intensive industry mainly

includes such industries as steel, electric generation, transport and machinery." (Su, 2007) Since most of the production costs in these industries are fixed, these kinds of industry are expected to benefit more from price increases of their products. Moreover, for the high-capital-intensive industries such as the financial industry and the real estate industry, they are expected not only to receive the most benefits in the continued appreciation of RMB but also gain by their price rising during the process of the internal appreciation (inflation) of RMB.

"In the international standard concerning industry classification, the high-technology-intensive products are divided into office facilities, computers, electrical appliances, electronic components, astronavigation, scientific instruments and drugs, etc. According to the development trend of high technology and the adjustment of custom codes, the high-technology-intensive products in China are divided into 11 categories by technical fields: electronic information, software, aeronautics and astronautics, optical-mechanical-electronic integration, bio-pharmaceuticals and medical apparatus, new materials, new energy resources and energy saving, environment protection, earth space and ocean, nuclear application technology and modern agriculture." (Su, 2007) The characteristics of such products include high knowledge intensity, high input and high risk.

2.1.2 Empirical Analysis of the Trend of China's Export Structure

Table 2-1 shows the data of labor-intensive products and capital and high-technology intensive products.

Table 2-1 Labor, Capital and High Technology-intensive Products (1990-2009)

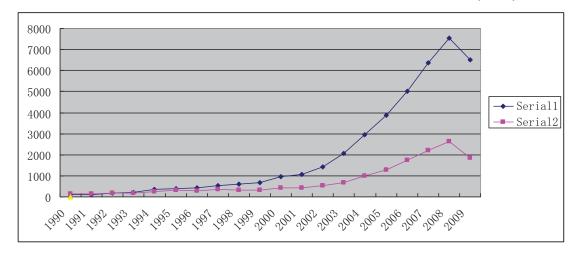
Unit: (USD) 100 Million

Year	GDP Y	Capital and high-technology intensive products X1	Labor-intensive products X2
1990	18667.8	93.18	125.76
1991	21781.5	109.67	144.56
1992	26923.5	175.67	161.35
1993	35333.9	199.05	163.92
1994	48197.5	344.31	232.18
1995	60793.7	405.01	322.40
1996	71176.6	441.89	284.98
1997	78973.0	539.36	344.32
1998	84402.3	605.38	324.77
1999	89677.1	692.09	332.62
2000	99214.6	946.98	425.46
2001	109655.2	1082.53	438.13
2002	120332.7	1423.01	529.55
2003	135822.8	2073.54	690.18
2004	159878.3	2946.2	1006.46
2005	187937.4	3880.06	1291.21
2006	216314.4	5008.73	1748.16
2007	265810.3	6373.69	2198.77
2008	314045.4	7526.75	2623.91
2009	340506.9	6522.91	1848.16

Data source: China Statistical Year Book 2010

Figure 2-1: The Trend of Labor, Capital and High-tech Intensive Exports

Unit: (USD) 100 Million



Serial 1: Capital and high-tech intensive products

Serial 2: Labor-intensive products

As shown in Table 2-1 and figure 2-1, overall, the export of the three types of factor-intensive products symbolizes an ascending trend. The export of labour intensive products is lower than the technology intensive and capital intensive products in absolute quantity after 1992. Clearly, exports have made an important contribution to China's economic growth. It is also notable that after 2008, Chinese exports presented a declining trend mainly due to the global financial crisis.

2.1.3 The Determinants of Chinese Export Structure Change

1. The influx of multinational companies into China

Since joining WTO in 2001, China's investment field has broadened and the investment environment has improved. Coupled with the long-term stable development of China's economy, these improvements have made China more attractive to foreign investors. In addition, the world price level of manufactured goods has dropped in recent years. Therefore, the profit margins have been squeezed. This has led international companies to shift their investment to low-cost regions. For example, more and more American, Japanese and European companies have moved their factories to China. As economic globalization has become more and more important, the growth of international trade in China has far exceeded that in many other countries in the same period. From 1998 to 2006, export-oriented production became more and more important for most countries. Although the progression of globalization is sometimes set back due to trade protection, overall the international market has become more and more open.

2. China's comparative advantage

China is characterized prominently by labor-intensive rather than capital-intensive

elements. Labor-intensive exports are an important competitive advantage for China, for example, textiles, garments, shoes, caps, and furniture. The average capital in China's fast-growing export industries such as instruments, machinery and electrical equipment manufacturing is still far less than the average level in the world. It indicates that China's exports are relatively labor-intensive, and that in the global commodities market, China mainly engages in the labor-intensive division.

3. The impact of exchange rates

Exchange rate changes have a major impact on exports. Among many factors that influence international trade, the exchange rate is undoubtedly a most important one, especially for China. In an open economy, exchange rates can affect not only trade flows and trade balance but also trade structure in the long term. Exchange rate policy is an important component of the import substitution strategy and the export orientation strategy that have been adopted by many developing countries. However, exchange rates hardly have any impact on the adjustment of export structures in the short run. Since the reform and opening-up, China has been focusing on the impact of exchange rates, and it has experienced five big exchange rate adjustments. The structural adjustments of trade are generally related to the changes of the exchange rate. The appreciation or depreciation of the exchange rate influences exports by changing the relative prices of commodities in the international market.

4. Technology and economies of scale

High productivity, mature technology and industries, and economies of scale all have positive effects on exports. For China, many products which make up a large share of its exports, such as telecommunications equipment, electrical machinery, apparatus and clothing,

are all produced by mature, large-scale domestic industries.

5. Foreign demand for Chinese goods

The demand in international markets is a main factor in determining China's export structure. Due to their relatively high quality and low price, Chinese goods are in high demand. In addition, economic prosperity in other countries will increase demand for Chinese exports.

2.2 The Relationship between the Exports of Labour-intensive Products and China's Economic Growth

China's comparative advantage in labour intensive goods and its preferential policy towards foreign capital have successfully attracted a lot of foreign investment. Foreign capital, private capital and state-owned capital altogether have kept China's average annual GDP growth rate above 9% and accelerated the process of industrialization in China. "Made in China" labels can be found almost everywhere all over the world and China is becoming the "workshop of the world". Surplus labor attached to land due to China's household registration system has been freed and China's hidden unemployment problem has been relieved. "In the middle of 1980s, the increase of every percentage point in GDP created 2.4 million new jobs." (Zhu, 2004) In the mean time, the income of Chinese urban and rural residents, especially peasants, has increased. In 1983, the net income per peasant family was RMB 310 yuan, which was nearly 100 percent more than that of 1978 after taking into consideration inflation (the net income per peasant family in 1978 was only RMB 134 yuan). By 1993, net income per peasant family had grown to RMB 921.62 yuan. (Zhu, 2004) China's comparative advantage in labour has played an important role in its economic growth.

Labour endowment is a major international competitive advantage for China's export

industries. Since China is a large country, the capacity of its domestic market is also important in China's growth since 1980, although it is less important than export growth. The domestic manufacturers and consumers have preference for domestic products due to language, laws, regulations, cultural affinity and low trading cost. The advantage of low labour cost is even more obvious in the Chinese domestic market. Chinese products are more competitive than foreign commodities.

Chapter 3 Analysis of the Sustainability of China's Export Model

The sustainability of China's economic growth model stimulated by exporting laborintensive products depends on many factors. The following sections will analyze it from the perspective of changes in the supply and demand of labor, labor cost and the exchange rate.

3.1 How Long Can Low Wages Last?

3.1.1 Labor Supply, Labor Demand and Wages

China's high competitiveness relies on its low cost of labor-intensive products. The question is whether China can sustain this low cost of labor considering labor demand/supply, inflation and salary expectations.

First, let us consider labor demand and labor supply:

The total labor supply was increasing steadily from 1978 to 2003. Table 3-1 shows that rural to urban migration was 4,842,800 in 1998, and it increased to 18,215,500 in 2003.

The National Bureau of Statistics recently did a survey of 68,000 rural residents and rural workers from 7,100 villages. The results show that the total rural worker population was 229,780,000 in 2009. Among them, the total migrant worker population was 145,330,000. Comparing to 2008, this figure increased 4,360,000 (1.9%). It also shows that there were 148,890,000 migrant workers at the end of 2009, which was 3,090,000 less than the third quarter number but 1,700,000 higher than the first quarter. (Agriculture Branch, National Statistics Bureau of China, 2010) Some of the main conclusions and data from this report are as follows:

Table 3-1: Statistics on Rural to Urban Population Migration

Year	Rural	Gross Rural	Total Population	Rural Population Change	Rural Population	Rural Population	Wage Diff.
1978	Population 17245	Population	Change 12.00	8.44	Migration	Unemployment 530.0	1.57
1979	18495	1250	11.61	11.31	1101.69	567.6	1.53
1980	19140	645	11.87	8.69	484.28	541.5	1.50
1981	20171	1031	14.55	11.31	814, 53	439.5	1.24
1982	21480	1309	15.68	12.41	1055.05	379.4	0.98
1983	22274	794	13.29	13.65	571.68	271.4	0.82
1984	24017	1743	13.08	14.61	1513.80	235.7	0.84
1985	25094	1077	14.26	12. 19	797.92	238.5	0.86
1986	26366	1272	15.57	13.42	943.77	264.4	1.13
1987	27674	1308	16.61	14. 39	931.76	276.6	1.17
1988	28661	987	15.73	13.43	612.29	296.2	1.17
1989	29540	879	15.04	10.95	565, 16	377.9	1.28
1990	30195	655	14.39	10.43	346.9	383.2	1.20
1991	31203	1008	12.98	9.99	706.35	352. 2	1.40
1992	32175	972	11.60	9.70	669.33	363.9	1.58
1993	33173	998	11.45	9.38	696.2	420.1	1.80
1994	34169	996	11.21	9.60	677.54	476.4	1.86
1995	35174	1005	10.55	9.23	689, 62	519.6	1.71
1996	37304	2130	10.42	8.82	1819.77	552.8	1.51
1997	39449	2145	10.06	8.94	1811.5	576.8	1.47
1998	41608	2159	9.14	8.36	1829. 21	571.0	1.51
1999	43748	2140	8.18	7.67	1820. 87	575.0	1.65
2000	45906	2158	7.58	7.40*	1834. 26	595.0	1.79
2001	48064	2158	6.95	7.10*	1832.07	681.0	1.90
2002	50212	2148	6.45	6.93	1814. 92	770.0	2.11
2003	52376	2164	6.01	6.82	1821.55	800.0	2.23

Data source: China Labor Statistical Yearbook 2004

Note: 1) Unit of measurement is 10 thousand.

- 2) * indicates estimated values. Assume total population changes accordingly with rural population, using the Taylor's Expansion: Estimated Value = Change of rural population from last year + (Change of total population form current year The average of change of total population) * First derivative of rural population from last year.
- 3) Source: rural population, change of total population and wage difference are from The National Bureau of Statistics of China, "Development of China, 2004" Statistics Press of China, Page 200 and page 314. The Unemployment data is from "The Yearbook of Chinese Labor Statistic, 2004" Statistic Press of China, page 160.

Table 3-2: Rural Worker Population (Unit: Thousand)

	2000	2008	Change	Change
	2009	2008	(#)	(%)
Rural Worker Population	229,780	225,420	4,360	1.9%
1. Rural Workers in cities	145,330	140,410	4,920	3.5%
(1) lone migrant workers	115,670	111,820	3,850	3.4%
(2) migrant workers with families	29,660	28,590	1,070	3.7%
2. Rural Workers in villages	84,450	85,010	-560	-0.7%

Data source: Agriculture Branch, National Statistics Bureau, 2010

1) The number of rural workers in cities is increasing, and the number of rural workers in villages is decreasing.

From table 3-2, the number of rural workers in cities was 145,330,000 in 2009, which is 3.5% higher than the 2008 number of 4,920,000. The number of lone migrant workers was 115,670,000, which is 3.4% higher than 2008. The number of migrant workers with their whole family in cities was 29,660,000, which is 3.7% higher than 2008. The number of rural workers in villages was 84,450,000, which is 0.7% lower than 2008.

2) Most rural workers work in eastern cities, but the number of rural workers in central and western cities is increasing.

The number of rural workers in eastern cities was 90,760,000 in 2009, which is 8.9% less than 2008. This figure was about 62.5% of the total migrant worker population, which is 8.5% less than 2008. The number of rural workers in central cities was 24,770,000 in 2009, which is more than 2008 by 6,180,000 (33.2%). This figure is approximately 17% of the total

rural worker population, which is 3.8% more than 2008. The number of rural workers in western cities was 29,400,000 in 2009, which is 35.8% more than 2008. This figure is about 20.2% of the total migrant worker population, which is 4.8% more than 2008. In summary, the survey shows that the number of rural workers in eastern cities is decreasing, and more workers are migrating to central and western cities.

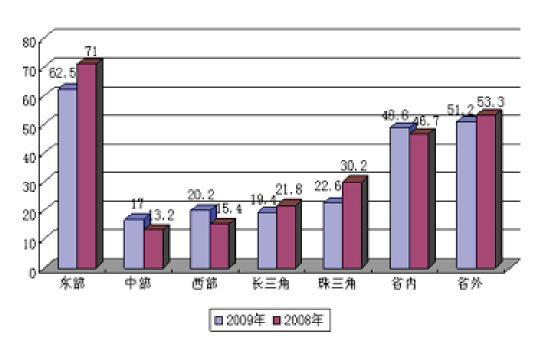


Figure 3-1: Geographic Distributions of Rural Workers

Note: Columns 1) Eastern, 2) Central, 3) Western, 4) Yangtze River Delta, 5) Chu Chiang Delta, 6) In-Province, 7) Out-Of-Province

3) The number of rural workers in Yangtze River Delta and Chu Chiang Delta is decreasing.

The number of rural workers in Yangtze River Delta was 28,160,000 in 2009, which was 7.8% less than 2008. The number of rural workers in Chu Chiang Delta was 32,820,000 in 2009, which is 22.5% less than 2008. The number of rural workers in Yangtze River Delta and Chu Chiang Delta was about 19.4% and 22.6% of the total rural

worker population, which is 2.4% and 7.6% less than 2008 respectfully. The number of rural workers in Yangtze River Delta and Chu Chiang Delta is decreasing. In the second half of 2009, the huge decrease in rural worker population in Chu Chiang Delta caused a serious labor shortage problem in the east coast. (Agriculture Branch, National Statistics Bureau of China, 2010)

According to Lewis's Economic Development with Unlimited Supplies of Labor, (Gandulfer, 2005) most developing countries have a dual economic structure. As the industrial sector gets stronger, labor in the agricultural sector will migrate to the industrial sector. Because of "Unlimited Supplies of Labor", the industrial sector can expand without the need to raise wages. This situation will remain till it reaches the Lewisian Turning Point, which means that wages will begin to rise quickly. Then, the dual economic structure becomes a one-dimensional economic structure.

From the analysis above, the migration of labor from rural to urban has been increasing. As soon as this migration process is completed, China will reach the Lewisian Turning Point. In the second half of 2006, The Development and Research Center of State Council of China has confirmed this trend. Its analysis shows: 1) Almost half of rural labor has migrated into industrial sectors. Among them, 21.6% stayed in their villages and 26.1% migrated to cities. 2) About three quarters of villages have no remaining surplus workers. 54.12% of prime-age agricultural workers have shifted to the non-agricultural sectors, which is slightly higher than the overall all-age rate (47.9%). Most village administrators do not think that there is any remaining prime-age surplus labor.

On the one hand, labor supply in eastern areas has decreased dramatically. On the other

hand, the rapid recovery of China's coastal area's export-driven and labor-intensive firms, will no doubt lead to labor shortage and wage increases. According to The National Bureau of Statistics of China's "Research on Rural Worker of 2009", a rural worker's monthly wage below ¥600 is about 2.1%; ¥600-¥800 is about 5.2%; ¥800-¥1,200 is about 31.5%; $\frac{1}{200}$ - $\frac{1}{600}$ is about 33.9%; $\frac{1}{600}$ - $\frac{2}{400}$ is about 19.7%; above $\frac{2}{400}$ is about 7.6%. Employees and entrepreneurs have a big wage difference. Employees' average monthly wage is \(\frac{\pmathbf{1}}{1},389\), while entrepreneurs' average monthly wage is \(\frac{\pmathbf{1}}{1},837\). From geographic aspect, a rural worker in the eastern area has an average monthly wage of ¥1,422; a rural worker in the middle area has an average monthly wage of ¥1,350; a rural worker in the western area has an average monthly wage of \(\frac{1}{378}\). From market size aspect, a rural worker in a directly governed city region has an average monthly wage of ¥1,569; a rural worker in the capital city of a province has an average monthly wage of ¥1,425; a rural worker in a prefecture-level city, county-level city and organic town has an average monthly wage of \(\frac{\pma}{1}\),402, \(\frac{\pma}{2}\),359 and \(\frac{\pma}{1}\),348 respectively. It is obvious that wage increases in the western area are faster than in the eastern and central areas.

To sum up, even through labor supply is increasing, the geographic distribution of labor has changed. Labor supply is shifting to the midwestern area, and there appears to be an obvious labor shortage in the eastern area. Labor demand has significantly increased due to the fast-pace of development in China. The change in the geographic distribution of labor has caused not only an area-wide labor shortage but also a country-wide labor insufficiency. The average wage of labor is increasing which will bring negative impact to

China's exports of labor-intensive products. The wage rise will help China's economy reform to a domestic demand-led economy from an export-led economy.

Table 3-4: Geographic Distribution of Rural Workers' Average Monthly Wages

	2009	2009	Changes	Changes
	2009	2008	(¥)	(%)
Total	¥1,417	¥1,340	¥77	5.7%
Eastern	¥1,422	¥1,352	¥70	5.2%
Middle	¥1,350	¥1,275	¥75	5.9%
Western	¥1,378	¥1,273	¥105	8.3%

Data source: Agriculture Branch, National Statistics Bureau of China, 2010

3.2 Inflation, Wage Fluctuation and Sustainable Development of Exports of Labor-intensive Products

According to The National Bureau of Statistics of China, the consumer price index (CPI) has increased 5.1% in November 2009, and the chain index has increased 1.1%. It can be shown from the chain index ratio that November's commodity prices are higher than October's. The price changes are mainly on food, living products and clothes. The price changes of these three products are 2%, 1.8% and 1.6%, and the chain index of these three products are 0.7%, 0.3% and 0.1%. The chain index ratio of these three products adds up to 1.1% that equals the total chain index ratio. As a result, these three groups of products caused the price rise in December. (China Statistical Report, 2010)

Inflation in 2009 and 2010 has caused a constant wage rise. There are a lot of causes for inflation, some of which are:

1. Many natural disasters cause food supply shortage and price rise, which eventually

leads to inflation.

- 2. Inflation can be caused by the overheated economy in China before 2007, huge liquidity, Wall Street's economic incentive program, and a huge money supply. When the money supply grows faster than real GDP, inflation will occur.
- 3. China introduced a price adjustment in 2010 for regulated prices. The adjustment is on the prices of electricity, water, and natural gas, which contributed to inflation.
- 4. China's market economy is not very formal. After the central government adjusted the price of real estate, more and more capital shifted to agricultural products from the real estate industry. The high demand for real estate has been a major cause of inflation.
- 5. The price rises of domestic raw materials, processed materials, fuel, and power contributed to inflation. The increasing price of raw materials led to the price increase in manufactures so that the price of commodities rose quickly.
- 6. Some countries have suffered from flood and drought leading to low grain yields. The price rise of grain in the international market has caused price fluctuations in China's domestic market.
- 7. After U.S.'s quantitative easing (QE1) at the beginning of December 2010, huge liquidity has caused a price rise of China's agricultural products, bulk commodities, and raw materials.
- 8. In all of the above described causes of inflation, a rising price of labor is also a reason of inflation.

As prices rise, this causes a feedback on wage rates, as workers seek to maintain their real standard of living. So price increases lead to wage increases, causing further price

increases

An undervalued exchange rate is also another reason that has contributed to inflation. The exchange rate is discussed in detail below. In all, inflation has caused a rapid rise of labor costs and brought negative impacts to China's labor-intensive and export-driven products.

3.3 Exchange Rate Influences

From August 8, 1997 to July 21, 2005, the nominal exchange rate of RMB against the U.S. dollar was stable at 8.277 yuan / dollar. From July 21, 2005, the nominal exchange rate of RMB against the U.S. dollar was adjusted to 8.1100 yuan / dollar, and a managed floating exchange rate system based on the market supply and demand, referring to a basket of currencies, was introduced. On August 10, 2005, PBOC announced the selection criteria of the RMB currency with reference to this basket of currencies. Since July 21, 2005 the formation mechanism of RMB exchange rate has reformed, China began to implement a wellmanaged floating exchange rate system based on the market supply and demand and regulate it with reference to a basket of currencies. One of the most important elements of the exchange rate reform is retreat from the previous fixed exchange rate system which pegged to the dollar to a "well-managed floating exchange rate system based on the market supply and demand and regulate with reference to a basket of currencies." From 2005 to 2008, the cumulative appreciation of the RMB against US\$ was about 20%. However, the RMB was again pegged to the US dollar after July 2007. The nominal exchange rate of the RMB against the U.S. Dollar was controlled between 6.81 and 6.50. Currently, the US and the EU are

pressuring the Chinese government to further appreciate the yuan. Such an appreciation could have a big impact on import and export. (Zhu & Zhao, 2009)

The influence of RMB exchange rate fluctuations on exports and China's economy is always a subject of debate. Various ministries and commissions have conducted an RMB exchange rate pressure test among labor-intensive industries.

The results show that in the short term RMB appreciation will have great influence on export earnings: if appreciation is too fast, the industry profit rate will fall sharply in the short term. Moreover, because China's export enterprises generally lack core competitiveness and have weak bargaining power in international trade, a large RMB appreciation inevitably will put huge pressure on export enterprises.

On the import side, the effects of exchange rate appreciation are uncertain. Commodity prices of imported goods should fall but China's demand for many commodities as it develops has, in fact, caused price increases in world commodity markets, so the impact of an RMB appreciation is difficult to predict. Appreciation will presumably soften price increases that may happen but prices will not necessarily fall.

3.3.1 The Effects of the Appreciation of RMB on China's External Trade

3.3.1.1 The Positive Effects of the Appreciation of RMB on China's External Trade

1) The appreciation of RMB reduces the cost of imports.

The costs of foreign energy, raw materials and productive materials will decrease thanks to the appreciation of RMB, because the purchasing power of RMB will increase. In China, the main industries that rely on imports are oil, natural gas, aviation, and electronic devices.

The cost of imports for those industries will be significantly reduced due to the appreciation of RMB depending, of course, on how large the appreciation is. Thus, those industries' profit margin will increase and the competitive advantage of those industries will be enhanced.

China has been implementing a "large import-large export" and an export-oriented economic strategy for a long time. The amount of processing trade has exceeded the amount of general trade, and processing trade is the main reason for China's foreign trade surplus. Re-export has a very high portion in total volume of processing trade, and the cost of imports is extremely significant in the re-export sector. As a result, the cost of imports in the re-export sector is very sensitive to the exchange rate. If RMB is appreciated, the cost of imports is reduced which will substantially reduce costs in the processing trade industry. Obviously, the international competency of China's re-export products will increase. Therefore, RMB appreciation has a positive impact on imports, will further improve the performance of exports, and enhance the balance of imports and exports.

2) The appreciation of RMB improves trade structure optimization and upgrade.

China's external trade has been relying on a "more exports-less imports" strategy for a very long time. This strategy has contributed a lot to China's economic development, but also has caused China's economy to overly rely on exports which has a huge potential risk. Industries overly rely on low labor cost and price competency in the international market, and the huge trade surplus has caused a lot of anti-dumping lawsuits against China. The low cost of exports of labor-intensive products has caused vicious competition. The labor-intensive industry only competes on price. China's external trade structure that mostly relies on exports is not optimal. The appreciation of RMB will balance the seesaw between exports and

imports, leading to a more optimal structure of China's external trade.

In China, development of external trade relies on labor-intensive products. However, high-tech equipment and products are still mostly relying on imports. The appreciation of RMB will encourage enterprises to research and develop more high-tech and value-added products. As a result, low-tech, high-pollution enterprises will gradually be phased out of the market. The appreciation of RMB is advantageous to China's economic reform. Meanwhile, the appreciation of RMB will cause fierce competition in the industry and encourage enterprises to do more research and development to enhance international competency. Obviously, the appreciation of RMB has positive effects on industry improvements, and could be significant to China's sustainable development.

3) The appreciation of RMB can ease trade conflict.

The appreciation of RMB will increase the volume of imports and reduce the amount of the trade surplus. By increasing the price of export products, the number of anti-dumping lawsuits against China will decrease. The appreciation of RMB is also helpful to China's relationship with other trade partners in the international market. It can form a more stable trade environment for both the global and domestic economy.

4) The appreciation of RMB can make Chinese enterprises more competitive in international market.

The appreciation of RMB will reduce the cost of investment overseas. Most likely, China's domestic enterprises will be more attracted by foreign investment opportunities, in this case. They can utilize global resources and lower cost and trade expenses, and achieve economies of scale. The global production and trading network will be established more efficiently due to the appreciation of RMB. In a word, the appreciation of RMB can be

helpful to Chinese enterprises' global development strategy and make them more competitive in the global market, in the long run, even though the short run effect will be a drop in exports.

3.3.1.2 The Negative Effect of the Appreciation of RMB on China's External Trade

1) The appreciation of RMB will decrease the international competitiveness of China's exports, which will negatively affect China's external trade.

The appreciation of RMB will increase the price of China's export products in foreign currencies, which will decrease the price advantage of China's export products. After the appreciation of RMB, the enterprises have to raise the price of their export products to maintain their profit margin. This will decrease the international competitiveness of China's exports and decrease its market share in the international market. Nowadays, most of China's exports are labor intensive, and the technology content and added value of China's exports is very low. Therefore, if the prices of China's export products are increased, some of its market share will be taken by other developing countries, and this will negatively affect China's export industry. If the prices of China's export products remain unchanged, the profit margin of China's export products will be narrowed.

2) The appreciation of RMB will mostly impact the export industries that are low tech and low priced.

During the appreciation of RMB, whose export industries, the price elasticity of demand is inelastic and whose technical content is inadequate, will be impacted mostly. In China, these industries include textiles, clothing, electrical industry, chemical industry and the manufacturing industry of electronic machinery. These export products may be phased out from the international market. Especially for the textile and clothing industries, since they highly depend on exports, these industries are in greater danger during the appreciation of RMB.

3) The appreciation of RMB will increase China's imports and accordingly enhance the competition in the domestic market.

After the appreciation of RMB, the price of import products in RMB will be lowered, and there will be more import products come into China's domestic market. This will seriously impact the development of local enterprises, especially for those enterprises whose quality and technical content of the products are lower than other international competitors. Therefore, in the short run, the appreciation of RMB can negatively affect the production and market share of local enterprises.

4) The appreciation of RMB will increase the unemployment rate in China.

According to part 1, as the profit margin is narrowed followed by the appreciation of RMB, the enterprises will focus their investment on the technology or capital-intensive products. Therefore, a large number of unskilled workers will lose their jobs. On the other hand, since the export-oriented enterprises create a lot of jobs, the shrinkage of exports caused by the appreciation of RMB will also increase the unemployment rate. Therefore, how to improve the skill of the labor force and accordingly change the economic structure from labor intensive to capital and technology intensive will be a challenge for China in the future.

Chapter 4: Future Options

4.1 Option No.1: To Modulate the Export Structure, Encouraging Exports of Technology-intensive Products

After studying 33 categories of exports by 45 developing countries from 1981 to 1997, Jesus Crespo Cuaresma and Julia Worz (2005) concluded that the export of technology-intensive products is often in line with high efficiency of productivity and significant growth potential of the countries. Based on his research on developed countries, Laursen (2000) also pointed out the importance of high-tech exports for a nation. Similarly, Peneder, (2003) believed different industry structures can lead to different levels of growth efficiency. So, in order to achieve fast economic growth, China should not only promote exports, but focus more on modulating the structure of exports to increase the ratio of high-tech exports.

Further, even if there is an expansion of China's domestic demand, economic growth should not totally depend on domestic demand any more than it should continue to depend entirely on exports. Along with the global financial crisis that started in 2008, China started to adjust its growth strategy. The new strategy includes expanding domestic demand and increasing government financial investment. The new strategy seems to have worked for the last two years. However, because the income of Chinese people is still low, economic growth has not been stable and China's economic growth cannot totally depend on its domestic demand. Therefore, China has to also try to improve the export of technology intensive products.

4.1.1 The Current Situation and Problems of China's Import and Export of Technology-intensive Products

Since the 1990s, the focus of the world economy has shifted from trade of

commodities to trade of high technology products, with the latter surpassing the former as the major engine for economic growth. China also benefits from the development of high tech products. Under this backdrop, China has put forward the national strategy of Rejuvenating China through Science and Technology and has strived to optimize its export structure by developing more high-tech products. Meantime, China has improved some of its backward industries, such as the auto industry, through importing cutting edge technology and high-tech products. (Ministry of Science and Technology, 2006) Those technology imports contribute greatly to balancing China's industry structure.

According to China's High-tech Products Catalog, high-tech products mainly refer to the products of computer and communication technology, life science and technology, electronic technology, computer integrated manufacturing technology, aerospace technology, optical technology, biotechnology, materials technology. According to the analysis of the Ministry of Science and Technology, (2006) the overall situation of China's high-tech products is as follows:

1. The export rate of high-tech products is much higher than the import rate, and the trade surplus in high-tech products continues to increase.

In 2006, accounting for exports and imports of all goods, the proportion of the exports and imports of high-tech products reached 29.0% and 31.2% respectively.

In 2004, a trade surplus first appeared in the trade of high-tech products. Since then, the export of high-tech products has increased at an annual average rate of 30.5%. In 2006, the trade surplus reached 34.15 billion U.S. dollars, an increase of 66.3% over the previous year, and 8.5 times that of 2004. The details are as follows (figure 4-1):

Unit: 100 million

Change Exports Imports

3000
2500
1500
1000
500
2000 2001 2002 2003 2004 2005 2006

Figure 4-1: Exports and Imports during 2000-2006

Data source: Analysis of China's high-tech exports and imports, Ministry of Science and Technology, 2007.

2. Computer and communications technology is the leading field of trade surplus, but the electronic technology products are still in deficit.

As table 4-2 shows, in 2006, the exports of computer and communications technology products reached 224.9 billion U.S. dollars, which is about 4/5ths of the whole export volume of high-tech products. In the same year, products of electronic technology have occupied more than half of China's high-tech products, with the volume of exports reaching to 130.19 billion U.S. dollars. Among all the nine technological fields, the amount of the net exports of computer-and-communications products is the largest and that of electronic products is the smallest. At the same time, imports of computer-and-communications products and exports of electronic products are also the second largest among all these technological fields. This indicates that the trade of high technology products in China depends on the large amount of both imports and exports. In other words, China's exports are supported by its imports, and the increase of exports also expands the demand for imports. This trading feature is highly related to the distribution of the global production process of IT products. In the distribution,

developed countries control the technology and consumption, and developing countries can only participate in the manufacturing process by using their cheap land and cheap labour. Along with the increasing demand of IT products, the manufacturing process controlled by China is also increasing in the whole production process of IT products. Therefore, the trade of IT products should maintain a rapid growth in China.

3. Processing trade remains as major part of high-tech product exports, general trade taking up a higher percentage.

China's exports of high-tech products still focus on processing. The volume has reached \$245.82 billion, which represents 87.3% of high-tech product exports in 2006. Processing imported materials is China's main emphasis, and the export volume of processing business takes up to 85.2% of total exports. (Ministry of Science and Technology, 2007) China is processing high-tech products for other countries in the world because the processing business is the main mode of China's high-tech product sector. Due to the high-tech industrial shift in developed counties, China's exports have greatly increased in recent years.

By contrast with the processing trade, high-tech products exported in general trade can be considered to be capable of independent research and development. Yet the high-tech products exported in general trade are only 27.44 billion dollars, 1/9 of the processing trade and less than 10% of the whole high-tech products export value. Since the Ninth Five-Year Plan, the share of high-tech products in the export of general trade has been a downward trend, from 14.3% in 1996 to 7.2% in 2003, although in the later period of the Eleventh Five-

Table 4-2: High-tech Products Imports and Exports(2006)

	Value of Export		Value of Import		Balance
Technosphere	(Million US	(%)	(Million US	(%)	(Million US
	Dollar)	Percentage	Dollar)	Percentage	Dollar)
Total	281451	100.0	247299	100.0	34152
Computer and Communications	224898	79.9	70693	28.6	154205
Life Science and Technolog	6342	2.3	5138	2.1	1204
Electronic Technique	36004	12.8	130187	52.6	-94183
Computer Integrated Manufacturing Technology	2862	1.0	19629	7.9	-16766
Aerospace Technology	2436	0.9	13158	5.3	-10722
Photonics	7070	2.5	4094	1.7	2976
Biotechnology	256	0.1	154	0.1	103
Material Technology	1272	0.5	4025	1.6	-2753
Other Technology	310	0.1	223	0.1	87

Data source: Analysis of China's high-tech exports and imports, Ministry of Science and Technology, 2007.

Year Plan this proportion rebounded. In the early period of the Eleventh Five-Year Plan, although this proportion was still less than 10%, it rose to the mid-level of that in the Ninth Five-Year Plan. (Ministry of Science and Technology, 2007) This shows that, although the processing trade remained the main exports of high-tech products in China, as China has started to build its own brand of high-tech products in recent years and the awareness of independent innovation has been growing, high-tech exports in general trade's position also have constantly increased.

4.1.2 Analysis of the Conditions for Improving the Export of Technology-intensive Products

Among all of the conditions of improving the export of technology intensive products, the most important one is consistently investing in research and development.

Consistently investing in research and development can help China to maintain and improve the competitive power of its high-technology products. For the last 10 years, China

has improved a lot in its ability to carry out research and development, and the progress of technology is becoming key to economic growth. In 2009, the ratio of China's investment on research and development over GDP was 1.7%, which was much higher than ever. (Zhu & Lu, 2010)

Though the progress has been quite notable, it is still not sufficient for China's economic growth. The insufficiencies include three parts. First, compared with R&D expenditure of most developed countries, China's ratio is still low. The ratios of most developed countries are around 3%. Second, the investment in fundamental research and application research is still not enough. In most developed countries, the investment in fundamental research and application research is more than 10% and 20% of total investment, respectively. These two parts tell us that China's development of technology is not yet stable, and its innovation ability is not yet sufficient. Third, development capabilities of enterprises are not yet strong enough. In 2009, only 1893 enterprises received a patent, which is only 4.7% of all medium and big industrial enterprises in China. In most developed countries 1/3 of all firms might receive a patent in a given year. (Zhu &Lu, 2010)

4.2 The Second Strategic Choice: Expand the Domestic Demand for Sustained Economic Development

China should try to optimize its export structure, and, at the same time, promote the transformation of economic growth from the past one driven by exports to one driven more by domestic demand.

4.2.1 The Manifestations of Insufficient Domestic Need

In recent years, the contribution of consumption to GDP growth slumped successively from 73% in 2000 to 48% in 2001, to 40% in 2002 and finally to 37% in 2003. So did the total consumption. The average consumption rate during the Ninth Five-Year Plan period was 59.4%, but it continued falling during the Tenth Five-Year Plan period, from 58.2% in 2002 to 55.4% in 2003 and finally to 53.2% in 2004. (Institute of China Development,2010) Due to the insufficient domestic demand, enterprises heavily relied on exports, and then a vicious circle of "insufficient domestic demand---reliance on the export---low-priced competition----low profits----slow rise in wages----insufficient domestic demand" came into being.

4.2.2 Promoting Economic Growth by Expanding Domestic Demand

First, the expansion of domestic demand will help to improve China's economic growth. For a long time, China's economic growth has relied on the three major driving forces: excessive investment growth, slow consumption growth, and an over-reliance on investment demand.

Second, the expansion of domestic demand is conducive to a fundamental easing of the international economic and trade frictions. With the continuous expansion of international exchange, China's foreign trade hit record highs. At the same time, more and more international trade attracted a lot of trade friction, leading to dissatisfaction with trading nations. Currently, every seven anti-dumping cases involving China show an excessive dependence on foreign trade.(Zhang & Zheng, 2010) Over the last 10 years China has been involved in more anti-dumping investigations than any other country. If this situation is to improve, there must be greater reliance on the domestic market, and a long-term policy of

expanding domestic demand, better coordinating domestic development, and promoting domestic demand and a balanced development of external demand.

4.2.3 Analysis of Constraints on Expanding Domestic Demand

For a long time, the Chinese economy had an over-dependence on exports and investment-led domestic demand. There are several reasons:

1. Low wages

China's overall wage level is low, especially in the eastern region for labor-intensive enterprises. The low wages mean that many workers do not have enough money to allow an increase in consumption.

2. Pension

As China's health care, pension and other social security systems are not sound, even if the residents have money, they still have a strong propensity to save, i.e. a low propensity to consume.

3. An excessively wide income gap

According to statistical figures put out by the United Nations Development Programme (UNDP), at present China's Gini coefficient is 0.45. The consumption quantities are limited because of the highly unequal distribution of income. The poor cannot afford high consumption even though they want to buy things.

4. High unemployment rate leading to insufficient effective demand.

In the 1990s, Chinese enterprises adopted the measure of laying off workers to increase efficiency, which led to many laid-off workers. In addition, "the trend to take part in the entrance exams for postgraduate schools" and "the trend to take part in the Phd exam" are

arising among the undergraduates owing to the low employment rate. There are other kinds of unemployment besides these, and a large amount of unemployment leads to insufficient effective demand.

4.3 The Relationship between Promoting the Export of High-tech Industries and Expanding Domestic Demand

How are we to understand the relationship between promotion of the export of high and new technology industries and expansion of domestic demand? The author argues that adjustment of the export structure to promote the export of high-tech industries and expansion of domestic demand are complementary.

It is easy to see that exports have been a stimulus to economic development since China implemented its reform and opening up policies. Nevertheless, the economy remains dependent on exports. As a result, the soft foreign market represents a negative influence on China's economic development. For example, the global financial crisis since 2008 has caused the continuous decline of economic development in the major economies of the western countries; thus China's economic growth was hit due to the decline in export demand.

Expanding domestic demand is another important means to stimulate economic growth. Especially in China, both the size of its population and the market's potential demand are very large. It will be a positive influence for China's economy to develop continuously if the effective demand is increased. Now China has published a series of policies, such as "home appliances going to countryside" through financial subsidies, which is helping to expand domestic demand. This policy is aimed at all rural areas. The government stated price and model on some particular home appliances. The reducing price help rural residences to buy these products. However, the development speed will be impeded if it depends only on

domestic demand. The best strategy for China is to promote growth of domestic demand in concert with the growth of high-tech exports.

Chapter 5: Conclusion

5.1 Conclusion

Based on the research in this thesis, the following are the main conclusions:

- 1. Based on the competitive advantage of labor resources, the export of labor intensive products has contributed a lot to the development of China's economy.
- 2. Followed by the expansion of the scale of China's economy, labor will become relatively less abundant and the average wage will rise. Therefore, the competitive advantage of labor resources will be weakened
- 3. The revaluation of RMB will impact China's exports negatively. And without exchange rate appreciation, domestic inflation will occur that ultimately, will produce the same result. Thus, China has to change its strategy to maintain economic growth.
- 4. For adjusting China's development strategy, this thesis has made two recommendations. Firstly, China should adjust its export structure by increasing the export of capital and technology intensive products. Secondly, China needs to expand domestic demand to maintain the sustainable development of the economy.

5.2 Recommendations

5.2.1 The Strategy for China to Enhance the International Competitiveness of Technology-intensive Products

In the report of the Twelfth Five-year Plan, it indicates that "China must play the driving role of technological innovation in optimizing and upgrading industrial structure, speed up national innovation system, strengthen the dominant position of enterprises in technological innovation, guide capital, talent, technology and other innovative resources to

the business, promote strategic alliance of production, research and study so as to enhance the core competitiveness of industries, and promote the coordinated development of tertiary industries at a higher level in order to develop domestic and international market". (The State Council, 2011)

To achieve the upgrading of industrial structure and enhance the international competitiveness of China's products, it is suggested that:

First and most important, the Government should speed up the construction of a national innovation system, which is an institutional basis for the improvement of the competitiveness of national industry.

Led by the government, a national innovation system is a social system that gives full play to the fundamental role of the market in resource allocation and in which various scientific and technological innovation subjects closely contact and effectively interact with each other. At present, China's national innovation system still needs to be more complete. The government is expected to take measures in the next 5 years to improve the system. The specific recommendations are as following:

Firstly, there is need to construct the technological innovation system with enterprises as the mainstay. The state should actively play a guiding role in science and technology policy, so as to inspire and guide enterprises to become the real main body of research and development investment, technological innovation, and the application of innovative results. The mechanism of carrying out national science and technology program should be adjusted to increase National Science and the support of national science and technology plans to enterprises' technological innovation should be increased. Meanwhile, the state should

encourage and participate in a better environment for science and technology, and give beneficial policies in order to encourage enterprises to invest more funds in research and development. These policies should be carried out as soon as possible.

Secondly, there is also need to build and improve the knowledge innovation system in which scientific research and higher education are combined. There is need to deepen the reform of the scientific research system and make clear the responsibilities of different types of research institutions. There is also need to promote cooperation among scientific research institutes, colleges and universities and enterprises in technological innovation and personnel training, and to increase resource sharing and increase the ability for original innovation and transformation of technological achievements. Establish an assessment system, and use the assessment results as the basis for adjusting the degree of financial support. This process will take a longer time to implement, maybe 5 years or even more.

Thirdly, the government should build a science and technology intermediary service system. This should follow the rule of combining government promotion with market regulation and focus on promoting the transformation of scientific and technological achievements and reinforcing innovative service. Tax policy should support the development of this science and technology intermediary agency, and create an operation mechanism and an environment of regulations and laws that are favorable to all kinds of science and technology intermediary institutions. This recommendation will reduce government's revenue, so the government has to allocate expenditure reasonably and gradually implement the policy on a country-wide basis. This could take 5-7 years.

Not only should the government build a favourable external environment, but also it

should increase financial and tax support for strategic emerging industries. Even though the government has already started to adopt beneficial policies to simulate the new emerging industries, the new industries have not developed very fast. This is mainly due to profit-squeezing. This recommendation could take 5-10 years to implement and take effect.

China should vigorously develop strategic new industries that are energy-saving, environmental-friendly, such as manufacturing industry using new generation information technology, biotechnology, high-end equipment manufacturing, industry using new energy, new materials, new energy automobile making etc.. The Chinese government should set up policies to support technological upgrading of enterprises, accelerate the application of new technology, new materials, new techniques, transformation of new equipment, upgrade traditional industries and improve market competitiveness. To achieve these objectives, the Government should take the following measures in the next 5 years:

Firstly, the state should actively set up special funds for the strategic development of new industries and industrial investment, enlarge government investment in the establishment of new industries, play the financing functions of multi-level capital market and lead social capital investment to innovative enterprises at the early and middle stages of business

Second, the government should adopt policies regarding risk compensation and other financial incentives to encourage financial institutions to increase credit appropriate measures. Government should also try to improve tax support policy to encourage innovation and to guide investment and consumption.

In all of this, what matters most is that business enterprises themselves commit more

of their own resources to research and development and to innovation more generally. The government can help in this in the ways already noted. But the private sector needs to assume a share of the cost and more importantly, must be prepared to cooperate with the government in trying to achieve these goals.

5.2.2 Main Way to Implement Strategy of Expanding Domestic Demand

It is argued in this paper that, with increasing labor costs and the appreciation of the RMB and for other reasons, China should speed up the transformation of economic growth and accelerate changes from the economic development model driven mainly by exports and investment to the economic development model driven by exports, investment and consumption in coordination. As an important measure to address the financial crisis, policy of expanding domestic demand has shown a positive effect and under this policy the overall situation of China's national economy has been relatively stable. As a development strategy to be followed for a long time, we must accelerate the transformation of the economic development model, adjust the direction of macro economic policy and persist in the principle of expanding domestic demand, especially the consumer demand. This produces the following recommendations:

Firstly, we should increase employment. Employment is the prerequisite for greater consumption. The guiding goal of the twelfth five-year plan is during 2011-2015, "creating 4,500 million new jobs for urban residents and the registered urban unemployment rate in cities and towns controlled within 5%". (The State Council, 2011) I think the government's target is a little low. If high-tech industries can be better developed, it will be a great help to

improve the employment rate. This paper argues that the government should try to cut the unemployment rate down to 3% in the next 5 years, and only by this can consumption be further expanded.

Secondly, we should adjust the income distribution and strive to increase the income of the people in low and middle brackets, especially farmers. Government should adjust the relationship between accumulation and consumption in the next 5 years, increase the proportion of consumption in national income, gradually increase the share of labor income in national income and increase the proportion of wage income in residents' total income. The goal of the twelfth five-year plan is "the disposable average per capita income of urban residents and per capita net income of rural residents will respectively increase more than 7% annually." (The State Council, 2011) This goal is consistent with the speed of economic growth in China, so it is basically feasible.

Third, personal exemption amount should be increased. On April 25, the Standing Committee of the National People's Congress put forward a draft amendment to the Personal Income Tax Act, which proposes raising the personal exemption amount from the current RMB2000/month to RMB3000/month. With this proposed increase, the percentage of taxowing wage earners will drop to 12% from the present 28%. (Li Su, 2011) But, according to the National Bureau of Statistics, by the first quarter in 2010 the average monthly wage income of urban workers was already RMB2754, which suggests that RMB3000 should not be considered high-income. Should personal exemption amount rise to RMB3000, annual tax revenue is expected to decrease by around RMB120 billions. Because personal income tax is a relatively small component in government revenue sources, this change will not impact

government revenue significantly, whereas it is very important for boosting the disposable income of those in the bottom and middle part of the income distribution. Therefore, the author suggests that a reasonable move is to increase the personal exemption amount to RMB4000/month, which will better help wage earners in China's mid-sized and large cities in coping with the pressure of growing cost-of-living and in turn stimulate domestic consumption.

Fourthly, we should quicken the pace of improving the basic pension system. So far, the problem of how to provide for the aged in rural areas still relies on the efforts of their children, and the coverage by the social pension system is too limited. This paper suggests that we should give priority to the full coverage of the old age pension system for the next 5 years, include the majority of farmers and non-working urban residents in the scope of protection of the old age pension system as soon as possible and establish the old age insurance system consistent with the features of the old age pension system. At the same time, we should constantly improve the basic old-age insurance system for urban workers and bring all urban and rural area workers into this system. It is shown in the report on the work of government delivered by Premier Wen in March 2011 that China has improved the level of the basic old age pension for enterprise retirees 7 years on end at the average annual growth rate of 10%; the new rural social pension insurance covered 24% of the pilot counties; National Social Security Fund has accumulated 781 billion yuan,580 billion yuan more than that five years ago, with 11 million poor families living in new houses. China proposed that during the 12th Five-year plan that "new rural social pension insurance system should be fully covered and the number of cities participating in the basic old-age insurance should reach 357

million people." (Jiabao Wen, 2011) I believe that with the intensification of China's aging problem, China's old-age security issues must be resolved as soon as possible so as to stimulate the consumption of Chinese people. The sixth national census shows that China's aging problem has been gradually speeding up. The population aged at and over 60 in China takes up 13.26% in 2010, an increase of 2.93% compared with that in 2000. I think the Government should address the problem at an annual rate of 10%, that is, 10 million people per year to solve the pension problem. If calculated at 15,000 yuan per capita by country basis, the annual increase in social security expenditure should be 150 billion. (Jiabao Wen, 2011)

Fifthly, we should improve the basic medical insurance system covering both urban and rural residents. In China, it is a very prominent problem that medical treatment is very difficult and expensive. As a result, people save money for future medical treatment. Improving the basic medical insurance system will focus on the expansion of the coverage as well as the improvement of the level of protection, especially the improvement of the level of protection of rural residents to achieve the sustainable development of the system. By the end of 2010, 43.206 million people participated in urban basic health insurance, an increase of 30.59 million in 2009. It is shown in the report on the work of government delivered by Premier Wen in March 2011: for the past 5 years, China actively and steadily push forward medical and health system reform, the full establishment of the basic medical insurance system for urban resident and the new rural cooperative medical care system which has benefited 1.267 billion urban and rural residents, an increase rate of 3% in the next 5 years. (Government Report, 2011) I think that the government-designated target is practical. but I recommend that the Government should increase spending on health care in the next 5-10

years based on financial capability, improve the health insurance number, so that medical insurance and cooperative medical can benefit all the people.

In conclusion, China has adopted an exported-oriented strategy that has led to high speed economic growth during the last 20 years. This strategy has received success because it relied on the advantage of cheap labor. With increases in labor cost, China should change its export structure from labor-intensive exports to high-tech exports. In the meantime, China has begun to stimulate domestic demand, which is the second part of the new strategy recommended here to be adopted. The Chinese government should adopt effective policies to help export enterprises to accelerate the export structure transformation. They also need to develop and/or enhance the social security system in order to stimulate consumption, if the domestic demand strategy is to be successful.

References

An Guo, 2004, "Real Base of New Industrialization: Reform Traditional Industries by Information Technology". Economic and Management Research, 2004, 2:15-19.

Agriculture Branch, National Statistics Bureau,"The Report of Rural Worker Survey for 2009", April 19, 2010, available from: http://www.stats.gov.cn/.

China (Hainan) Institute of Development, Economic Growth to Social Development, "The Assessment Report of China's Reform", June 06, available from: http://www.china.com.cn/.

China Statistical Yearbook 2009, Beijing: China Statistics Bureau Press, January 2011.

China Labor Statistical Yearbook 2004, Beijing: China Statistics Bureau Press, 2004.

China Statistics Yearbook 2010, Beijing: China Statistics Bureau Press, January 2011.

Chen Xuebin, Liu Mingxue, Dong Yiying, 2007, "Influence of the RMB Actual Exchange Rate Variation to National Trade Income and Expense—Demonstration Study of Main Market Two-way Income and Expense," Fudan University Academic Journal: Social Science Version, 2007(6):1-9.

Chen Zhongchang, Liu Linpeng, 2007. "Demonstration Analysis to the Economic Growth from the Export Structural Variation of National Industry Products", Period 10, 2007

David Ricardo. "On the Principles of Political Economy and Taxation", Shanghai: Business Press,1983,100-112.

Development Department of China, "Reform assessment report of China", last modified June 6, 2006, available from: http://www.china.com.cn/.

"Exchange Rate of RMB to Major Currencies", last modified January 1, 2011, available from: http://www.pbc.gov.cn/.

Guo Shuqing, 2003, "Foreign Exchange Policy and Administrational Reform of China," Finance, 2003(4):66-69.

Giancarlo Gandulfer [Italian]. International Trade Theory and Policy [M]. Shanghai: Shanghai Finance University Press, 2005.

Hu Jun, Xiang Jiying, 2000, "Labor-intensive Industries in Transition: Industrialization, Structural Adjustment and Entry into WTO," China Industrial Economy, 2000(6):20-25.

Huang Lijun, 2005, "System Base for Benign Transfer of Rural Surplus Labor," Rural economy, 2005(1): 12-20.

Hua Ruxing, 2006. "The Advantage of China's cheap labor will Disappear after 5 Years", last modified Jan 14, 2006, available from: www. mba163.com,.

Han Jun, Cui Chuanyi and Fan Kai, 2007, "Micro Research of Rural Labor Surplus", last modified August 2, 2007, available from: http://www.china.com.cn/.

Jiang Wei, 2007, "Comparison of Comparative Advantage Theory and Comparative Advantage Theory", Modern Economy, 2007(5):17-19.

Jiang Xiaojuan, 2007, "Determinant Factors and Change Trends of China's Export Commodity Structure," Economic Research, 2007(5): 4-16, 19-31.

Jiang Wenran, 2006, "Social Cost of China's Prosperity", last modified January 26, 2006, available from: http://hdr.undp.org/en/.

Jesus Crespo Cuaresma and Julia Worz, 2005, "On Export Composition and Growth", Review of World Economics, 141(1): 33-48.

Li Su, 2011, "The Hot Issue: Increasing in Income Tax", Last modified April 27, 2011, available from: http://www.people.com.cn/.

Ministry of Science and Technology, "Analysis of China's high-tech exports and imports," June 18, 2007, available from: http://www.most.gov.cn/.

National Statistics Bureau of China, "National Statistical Report", last modified November 11, 2010, available from: http://www.stats.gov.cn/.

Peneder, M., 2003, "Industrial Structure and Aggregate Growth", Structural Change and Economic Dynamics 14(4):427-448.

Su Dongshui. "Study of Economic structure", Beijing: Advanced Education Press, 2007: 13-14.

The State Council, 2011, "National Economy and Social Development of Twelfth-Five Plan", last modified March 16, 2011, available from: http://www.gov.cn/.

Wen Jiabao, 2011, "Government Report for 2011", last modified March 16, 2011, available from: http://www.china.com.cn/.

Yuan Zhigang, 2006, "Labor Optimization and Its Special Significance in China", Economic Research, 2006 (1).

Yuan Fuhua, 2007, "Analysis on Export of China's Labor intensive industry and employment

environment", Economic theory and Economic management, 2007(4).

Zhu Zhixin, 2004. "Declination of Economic growth and Employment", Beijing Modern Business News, May 1, 2004.

Zhong xin, 2003." The Advantage of China's cheap labor will Continue to Available in the Near Future", last modified May14,2003, available from: http://www.people.com.cn,

Zou Jiayi, 2009, "Expansion of Domestic Demand is the adjustment of Policies", last modified July 16, 2009, available from: http://www.iwep.org.cn/.

Zhang Kun, Zheng Xing 2010, "China have a excessive dependence on foreign trade situation, the need to expand domestic demand," China's collective economy, 2010 (08): 21.

Zhang Xin, 2010, "2010 World Economic Review: China Helps Propel Global Economy," last modified December 15, 2010, available from: http://news.xinhuanet.com

Zhu Renmu, Zhao Pengyuan 2009, "Evidential analysis about RMB currency with reference to basket of currencies," Economic reserach, 2009 (8): 49.