

POLITICAL ECONOMIC ANALYSIS OF CHINA'S ECONOMIC TRENDS

Reasons and Solutions for Successive Declined Growth for 5 Years

Jiang Yu and Xinhua Jian



Jiang Yu, PhD in Economics, is associate professor of industrial economics at the Economics and Management School, Wuhan University, director of Hubei Institute of Industrial Economics. He focuses on industrial organization theory and natural resource economics. He published *Resource Constraints, Structural Change and Economic Growth* (People's Publishing House, 2008). Email: yujiang@whu.edu.cn

Xinhua Jian is professor of industrial economics at Economics and Management School, Wuhan University. His interests are China's economic reform and development. He published *Off-Farm Workers During China's Industrialization and Urbanization* (People's Publishing House, 2008). Email: xhjian@whu.edu.cn



Abstract: Among the methods for analyzing China's economic trends, both demand analysis and supply analysis have advantages and disadvantages. The correct method is mainly using theories and methods of Marxist political economics analysis while drawing lessons from the reasonable theories and effective methods in Western economics. Although it has declined for five consecutive years, China's economy will not collapse, as the overall economic trend is going well and the economic growth has huge potential. The proximate causes of the economic downturn are oversupply and lack of effective supply, insufficient demand, weakness of investment, export and consumption, especially insufficient consumption demand resulted from huge income gap and low labor income. The deep-seated causes are imperfection of ownership system, distribution system, market system, economic management system, and so on. In addition to a series of important strategic policies implemented by the nation, such as the comprehensive deepening reform, expanding domestic demand, improving supply, and optimizing structures, China should also actively, steadily, and reasonably deepen the reform of the systems relevant with distribution to stabilize growth.

Key words: China's economic downturn; supply side; structural reform; supply and demand analysis; political economy analysis

1. Introduction

During “the 13th Five-Year Plan” period in China, to double the size of the 2010 GDP and per capita income by 2020, the average annual economic growth must remain above 6.5% between 2016 and 2020. However, China’s economy is showing a downward trend. As the statistics data released from the National Bureau show, China’s GDP growth rate declined year by year from 10.6% in 2010 to 9.5% in 2011. In the following years of 2012, 2013, 2014 and 2015, it declined to 7.7%, 7.7%, 7.3% and 6.9%, respectively, a 3.7% decline in total 5 years, and 0.74% average annual decline, and further decreased to 6.7% in the first half of 2016.¹ The present situation and prospect of China’s economic growth are not only directly related to domestic investment, employment and income, but also increasingly affects the economic growth of the world. It is now for China a big realistic long-term issue and also a focus of attention at home and abroad how to correctly understand and evaluate China’s economic growth downward trend, and its advantages, disadvantages, reasons, the prospect and the solutions, and also how to maintain over 6.5% annual economic growth during “the 13th Five-Year Plan.”

This article argues that all the views and claims from the analysis based on demand theory and method of Keynesian Economics and supply school of Reaganomics are fragmentary, superficial and inaccurate. There are debatable points of view. To obtain the correct understanding, this article first compares the advantages and disadvantages of the three different methods of analyzing current economic trends and then specifically analyzes the current situation and trend of China’s economic development by mainly using the supply and demand analysis and system analysis methods of Marxist political economy through drawing lessons from the relevant theories of Western economics and methods. It also positively answers the questions about how to analyze China’s continuous economic decline for 5 years, and about what we should do to maintain the average annual economic growth of 6.5% from 2016 to 2020.

2. Comparisons of Three Different Analysis Methods for China’s Economic Trends

In the process of economic system reform, people often analyze China’s economic situation and trends based on demand theory and analysis of Keynesian Economics and put forward corresponding countermeasures for demand management. Keynesian methods can play a certain role in a certain period of time and scope, but there are serious defects with them, mainly as the following: It only pays attention to the balance of the total amount, but ignores reasonable structure

optimization. It only analyzes economic phenomena and does not analyze the essence of relations of production and the root of systems in depth. It only emphasizes the demand management, and ignores supply management. It only puts forward temporary solutions which cannot fundamentally solve problems and even possibly leads to “stagflation complication” (economic stagnation and inflation coexist). Keynes had brought the Western developed countries into a “golden era” of economic growth for 20 years after the Second World War and was known as “the father of postwar prosperity.” However, in the 1970s, the Western developed countries stuck in the quagmire of stagflation and got the “modern disease” which had never happened before. Keynesian Economics was on the verge of “bankruptcy.”

At present, China’s economy has entered into a new normal. Some scholars put forward that, to achieve high growth and to improve the quality and efficiency of China’s economy, it is necessary to learn from the supply school theory of Reaganomics, use the supply analysis method and put forward measures of supply management. This is because demand analysis is aggregate, short term and limited, but supply analysis is structural and long term which is more important and better fits the actual Chinese status (see Ding 2015; Jia and Su 2015; Li 2015). It should say that such views and propositions are valuable and have helped to overcome one-sided views in the past, but it needs to avoid a complete copy or a copy of Reaganomics. Similarly, there are also serious defects in the supply analysis and supply management of Reaganomics. It only pays attention to the analysis of supply and structure, but ignores the macro-analysis and demand analysis and demand management, and denies the necessity and effectiveness of demand analysis and demand management. It only analyzes economic phenomena, but does not reveal the essence of the relations of production and the root system. Policies proposed are only a temporary solution and cannot fundamentally solve the problems in the long run. These are proved by the practical results of Reaganomics itself. Reaganomics laid the foundation for “three low and one high” (low inflation, low unemployment, low deficit rate and high growth rate), the so-called “new economy” in the United States in 1990s, but serious financial crisis and the economic crisis broke out in 2008 eventually.

The relationship between supply and demand is essential in economy. Marxist political economy also needs to analyze supply and demand. The analysis of Marxist political economy in this article includes analysis of Marxist political economy in contemporary China and the political economy of socialism with Chinese characteristics. It has nothing in common with demand analysis of Keynesian Economics or supply analysis of Reaganomics. Absolute understandings are impractical and unscientific, because the research object of Western economics is the capitalist market economy, which also is Marxist political economy’s

main research object.² Besides, the research object of Marxist political economy in contemporary China also includes socialist market economy and needs to study universal phenomenon and the general law of market economy because China now needs to develop a socialist market economy. Therefore, classical and modern Marxist political economies necessarily have something in common with Western economics in theories and methods. However, they essentially differ because of the differences of basic standpoints, viewpoints and methods between them. From the perspective of the history of economic theories, Marxist political economy is by no means without foundation. Western classical political economics represented by Adam Smith is the source of Marxist political economy. Contemporary Marxist political economy is not entirely different from contemporary Western economics. It is also necessary to move with the times and draw lessons from the theories and methods of modern Western economics. The differences of analysis of Marxist political economy from that of Keynesianism and Reaganomics mainly lie in the following "Four More." First, it more needs to focus on and comprehensively analyze the relationship between demand and supply, rather than one-sided analysis or emphasis on demand or supply. Second, it more needs to reveal the essence of problems, rather than analyze economic phenomena only. Third, it is more necessary to analyze in depth the deep-seated reasons of the situation of the relationship between supply and demand, especially the system root from the perspective of productive forces and production relations and the basic economic system, rather than analysis of situation and direct causes of supply and demand only. Fourth, it should pay more attention to the related system reform and innovation, rather than one-sided emphasis on the importance of demand management and supply management only (Jian and Yu 2016).

This article argues that both Keynesianism and Reaganomics have great limitations, which can only provide reference and cannot be used to guide the current reform and development of China. Only by mainly using the theories and methods of Marxist political economy analysis can the analysis for China's economic trend be more comprehensive, profound, accurate and scientific, the conclusion be more practical and more accurate and countermeasures be more reasonable and effective. Indeed, compared with the market economy in the Marx era, there have been many new situations, new phenomena, new features and new problems in the modern market economy. Marx could not study and put forward the related theories, but modern Western economics has studied and put forward some new theories. It is worthy of our serious reference to modern Western economics while innovating and developing Marxist political economy, just like Marx used bourgeois economics for reference when he created Marxist political economy. However, we should never confuse cause and effect, and abandon, or even completely deny, Marxist political economy. We could not only in word insist on,

develop and use Marxist political economy, but should analyze and explain the phenomena and problems in China's economic development and reform by using the theories and methods of Marxist political economy in contemporary China. Actually, we could not analyze and explain China's problems just with tools and methods from Western economics when confronting economic problems. The correct approach is drawing lessons from the theories and methods of demand analysis and supply analysis from Western economics, policy claims from Keynesian demand management and supply management of Reaganomics as far as possible. Meanwhile, we should comprehensively analyze the status of productivity and production relations, supply and demand, especially relationships between them, and their institutional roots with the progressive theories and methods of contemporary Marxist political economy in China.

Based on the reasonable theories and effective methods of Western economics, this article tries to analyze the current situation and trend of Chinese economy by using the theories and methods of Marxist political economy. It should be pointed out that it isn't practical and scientific as mentioned above that some scholars think that the analyses of real new Marxist political economy on these issues should be totally different from the existing supply analysis or demand analysis. This article explores a more comprehensive and in-depth analysis of Marxist political economy, points out defects of existing analysis, corrects the shortcomings of the existing research and draws much more realistic conclusions. After all, it is just the first step we take. If there is something inappropriate, we welcome economic colleagues and readers to criticize this article as our ability is limited.

3. Judgments on China's Economic Development Situation

The trend of China's economic development since 2000 can be seen in the figure below (see Figure 1). It shows that China's economic growth since the twenty-first century can be divided into two stages. The first period is from 2000 to 2007 with rapid increase. During this period, China's economic growth increased rapidly from 8.4% in 2000 to 14.2% in 2007, and the average annual growth is more than 10%.³ The second period is from 2008 until the present day, when economic growth rapid has declined in performance. Since the 2008 financial crisis, the international market demand has declined sharply. China's huge export trade has also suffered great impact. In 2008 and 2009, China's economic growth declined by nearly 5%. In 2010, followed by the stimulative investment plans of 4 trillion RMB, the economy slightly improved with nearly a 10% increase. However, this short-term stimulus only shifted the outbreak of problems backward and did not solve the fundamental problems. Furthermore, the policy might lead to new economic distortions. It turned out as expected; the economic growth began to decline

continually from 2011. The annual economic growth rate began to be lower than 8% from 2012 and lower than 7% in 2015, even only 6.8% in the fourth quarter of that year. This is approaching the lower limit of average annual growth rate of 6.5% required in “The 13th Five-Year Plan,” which is a problem that did not occur in the first 10 years of twenty-first century.⁴

On how to evaluate the trend of China's economy in the past 20 years, especially the present situation of continuous decline for nearly 5 years, there are different views from both at home and abroad. These views can divide into two groups and five kinds, namely, pessimists including collapse theory and dim-prospect theory and optimists including hopeful theory, reasonable range theory and great potential theory.

3.1. Pessimists

The so-called pessimists are not optimistic about China's economic trends and consider that China's development has clouded prospect, and could even collapse.

3.1.1. Collapse Theory (Hard Landing)

This view holds that the 5-year consecutive decline of China's economy indicates that the economic situation is getting worse and will be a “hard landing,” plunging

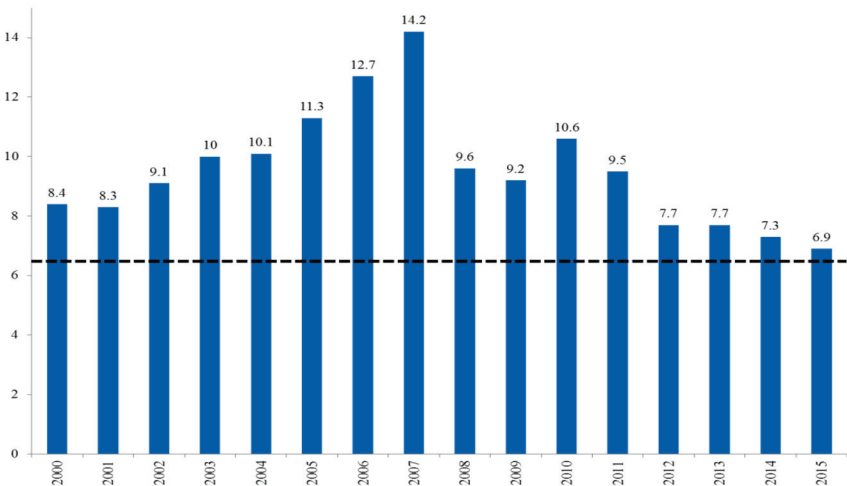


Figure 1 Economic Growth of China Since the Twenty-First Century (2000–2015)

Source: GDP index on the website of China National Bureau of Statistics (last year = 100) (<http://data.stats.gov.cn/easyquery.htm?cn=C01>).

Note: The dotted line indicates a growth rate of 6.5%.

into a severe recession or collapse. This kind of assessment only concerns the side of disadvantage and downstream, ignoring the favorable side, which is not suitable for China's reality as it is the same as the theory of China's economic collapse which has appeared several times since the reform and opening up. These views have been popular in Western countries, especially in the United States since then. We can see Chinese economic collapse theory from *The Coming Collapse of China* by the Chinese American lawyer Jiadun Zhang published in 2001 and "The Coming Chinese Crackup" by professor David Shambaugh of the University of Washington published in the *Wall Street Journal* on March 6, 2015. Facts prove again and again that China's economy is becoming stronger instead of collapsing.

3.1.2. *Dim-Prospect Theory*

This kind of view considers that economic downturn means that the favorable factors of China's economy are reducing and unfavorable factors increasing with difficulties and problems. The previous development mode has failed and new modes have not been found. Although unlikely to collapse, China may find it difficult to escape the middle-income trap due to the clouded development prospects. This assessment is lighter in judging the degree of deterioration of China's economic trends, but also overestimates the difficulties and problems of China's economy, underestimates the favorable conditions and factors and denies the possibility of China's economy getting better, which is in line with the collapse theory. In fact, both the general law of development and international experience show that any country's economic growth is unlikely to maintain a high growth for long. Since the reform and opening up, China's economy has sustained rapid growth for more than 30 years. It is not surprising that the growth rate declines to some extent. This decline does not mean that China's economic situation is not good, the problem cannot be resolved or the prospects are bleak. It is also necessary to consider other indicators of economic growth.

3.2. Optimists

In contrast with pessimists, optimists believe that the prospects of China's economy remain bright, despite the 5-year consecutive decline in economic growth.

3.2.1. *Hopeful Theory (Soft Landing)*

This theory deems that although China's economy is now showing a downward trend, it will be a soft landing with a stable moderate slowdown. Meanwhile, the evolution of economic structure is optimized and the quality of economic growth is better. Specifically, since 2012, the growth rate of the service industry in recent years has outnumbered that of secondary industry and has been the fastest in development. The proportion of added value of the service industry in the national GDP

has increased to 46.1% and has exceeded that of secondary industry in 2013, achieving a historic breakthrough as it becomes the largest industry. In 2015, the proportion of the service sector increased to 50.5%, which is 10% higher than that of the secondary industry.⁵ The proportion of high-tech industry is also rising. In 2015, the proportion of the added value at current price of equipment manufacturing industry and high-tech industry to large industrial enterprises reached 30.4% and 10.6%, respectively, 2.2% and 2.9% higher than that in 2010.⁶ Food production has been increasing for 12 continuous years. These are optimistic trends in adjusting and optimizing the industrial structure. The contribution of science, technology and consumption has increased and the contribution rate of them to economic growth has improved. The contribution rate of scientific and technological progress in 2014 has increased to 53.1%.⁷ The contribution rate of consumption demand to the economic growth has improved to 48.8%.⁸ The consumption of resources has declined relatively, energy consumption structure has been better and pollution emission has decreased. The energy consumption per unit of GDP during 2011 and 2014 has cumulatively declined 13.4%, 5.6% year-on-year decline in 2015. Clean energy consumption accounted for 17.9% of the total energy consumption in 2014, 4.9% higher than that in 2011. The emissions of chemical oxygen demand nationwide had cumulatively declined 8.2%, and the sulfur dioxide emissions had cumulatively declined 11.0% in 2012–2014.⁹ National revenue has kept growing. Public revenue in 2011 exceeded 10 trillion and was more than 14 trillion in 2014, an increase of 68.9% over 2010, with an average annual increase of 14%. Prices remain stable. CPI (Consumer Price Index) in 2014 increased 2% all the year and rose 1.4% year-on-year in 2015. Employment has not only not decreased with the downward economic growth, but has increased more or less. At the end of 2014, the national employment reached 772.53 million, an increase of 11.48 million over the end of 2010. The growth rate of national per capita disposable income exceeded that of the economy. In 2014, the national per capita disposable income reached 20,167 yuan, a year-on-year increase of 8% and 0.7% higher than GDP growth rate. The total import and export trade in goods has been ranking first in the world since 2013. The structure of import and export trade tends to be optimized. In 2014, the actual use of foreign direct investment was US\$ 119.6 billion, and has leaped to first in the world for the first time. Foreign investment is also growing rapidly and has been the third in the world steadily since 2012. Moreover, China is now the largest in contribution to global economic growth, which is close to 30%, becoming the first impetus of the world's economic growth.¹⁰

3.2.2. Reasonable Range Theory

This theory deems that China's economy growth is still rapid in the world in spite of a downturn from over 10% to 6.9%. According to the data from the China

Statistical Yearbook, the average annual growth rate of China's economy is about 8.8% from 2008 to 2014, while only 1.1%, 0.1%, and 0.7%, respectively, in the United States, Japan, and Germany which are developed countries, also only 3.6%, 3%, 1.3%, and 6.9%, respectively, in emerging economies such as Russia, South Africa, Brazil, and India.¹¹ What's more, only 6.5% average annual growth rate can allow China to achieve the first 100-year grand goal of GDP and per capita income of urban and rural residents in 2020 doubling than that in 2010. There is no employment decline due to the economic downturn. Therefore, China's economy growth is still in a reasonable range and will not have a hard landing for a serious economic downturn. However, we can never let down our guard or allow the economy to continue to decline further, but must find ways to sustain reasonable growth. If below 6.5%, many economic and social problems may prove difficult to solve.

3.2.3. *Great Potential Theory*

This theory considers that, in the short term, China's economy has indeed fallen, but the market economy is driven by demand. As long as there are market demands, the economy will sooner or later return to growth. In the long term, China's economy has enormous potential for growth due to huge demand potential. Urbanization rates will increase by 10%–20%; hundreds of millions of farmers will move into cities and towns, with more and better and even larger cities built. Renovation of shanty towns in which hundreds of millions of people live and construction of infrastructure including transportation, telecommunications, water conservancy, land management, environmental protection and other aspects are far from completion.¹² Billions of people's lives still need to increase from well-off level to comprehensive well-off and affluence level. In addition, the task of national defense modernization is also very arduous. All of the above will produce huge investment demand and consumption demand. Therefore, China's economy can maintain rapid growth for at least 10–20 years.

In this article, the authors agree with the reasonable range theory and great potential theory that belong to cautious optimists. The reason for being optimistic towards China's economy is that China is already at the development stage where China's economy is on the transition from mid-industrialization to late industrialization, and the economy can achieve rapid growth in the mid-term. There are many favorable conditions and factors and a great potential for economic development. The reason for being cautious is that China is facing a lot of difficulties and problems. If it cannot overcome and solve these effectively, the prospects of economic development will be bleak. Otherwise, the economic development prospects will be bright.

4. The Main Reason for Economic Downturn

The decline of China's economic growth for five consecutive years is the result of a variety of factors. Particularly, simplistic and single-sided analysis and understandings are unwarrantable. To make the analysis more accurate, comprehensive and in-depth, this article attempts to comprehensively and specifically analyze the various reasons for China's economic downturn by mainly using basic principles and scientific methods of Marxist political economy analysis and draw lessons from the theories and methods from the demand analysis of Keynesianism and supply analysis of Reaganomics. Meanwhile, the article analyzes the reasons respectively from the perspectives of productivity and production relations, supply and demand, and their mutual relationships and institutional roots, especially focusing on "Four More," which is different from the analyses above from some Marxist and Western economics. The basic logic framework of this article is as following: direct reasons for the economic downturn (lack of demand, overcapacity, insufficient effective supply), main reasons (insufficient consumption demand with purchasing power, oversupplying), and indirect deep reasons (system deficiency).

4.1. Direct Reasons

First, this article uses the method of comprehensive analysis of the situation of supply and demand, especially the relationship between each other, to analyze the

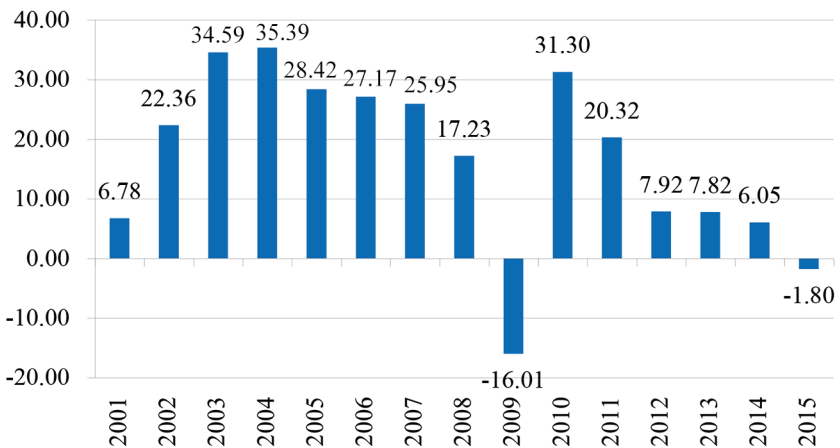


Figure 2 China's Export Growth (2001–2015)

Sources: The data of China's export growth (2001–2014) are calculated by the total exports (million dollars) in annual data on the website of China National Bureau of Statistics (<http://data.stats.gov.cn/easyquery.htm?cn=C01>). The data in 2015 are from *National Economic and Social Development Statistical Bulletin 2015* released by China National Bureau of Statistics (http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html).

direct causes of the two aspects of supply and demand of China's economic downward trend.

4.1.1. Insufficient Demand, Weakness of Investment, Export and Consumption: The Troika for Economic Growth

The demand includes two main parts: the product (the means of subsistence and the means of production), the demand for labor and the demand of the elements. In general, the demand for consumption goods and services is the final demand that determines where production factors (such as labor, capital, and production materials containing natural resources and technology) go at last. For example, it is the demand for TV consumption that generates the demand of labor, capital, resources and technology for television production. The China's economic downturn results from the insufficient demand of three aspects: exports, investment, and consumption.

In terms of exports, due to the sluggish world economy, the intensification of international competition and the rising cost of resources and labor force, the original competitive advantage relying on labor in China has been greatly weakening. Low-cost and quantity expansion have been unsustainable, and export growth fell sharply. Import and export growth have not reached the planned target for three consecutive years. The role of exports to promote economic growth has greatly weakened. It can be seen from Figure 2 that before the financial crisis in 2008, China's export growth began to decline after a peak in 2003 and 2004 and fell from 35.39% (2004) to 17.23% (2008); the decline has been more than 18 percentage points. The decline of exports in 2009 is a significant decline of 16%. Although the economic stimulus led to a brief pick-up in exports, the effect has gradually weakened after 2011 with the stimulus effect. China's export growth was lower than 8% from 2012 to 2014; the export situation got even worse in 2015 (a decline of 1.8%). It can be seen that as an important engine of China's economic growth, the traditional export trade has been unsustainable.¹³

In terms of investment, due to relying on investment, the economic growth is restricted by resources, unsustainability and inefficiency. Especially in today's China, the fund is adequate, investment can be increased, efficient supply also requires to increase investment. But there is too much ineffective supply which is more than the effective supply, resulting in a serious excess capacity. As we all know, increase in investment will inevitably increase the supply, which may exacerbate excess capacity. In addition, undifferentiated investments will cause the economy structure, especially industrial structure to be irrational. So the way that mainly relies on investment to promote economic growth must be changed, and the investment growth should not be too fast. Compared with the past, the total investment demand is insufficient, and the role of investment to promote

economic growth is weakening. It can be seen from Figure 3 that the growth trends of China's fixed asset investment are basically the same with exports, which started to decline after the peak in 2002, and a small rebound after 2005. Unlike export, the impact of economic stimulus on investment is more pronounced, with investment increasing to a peak of 29.95% in 2009, but the impact of economic stimulus is also shorter. In 2010, China's investment growth significantly reduced from almost 30% (2009) to 12.6%, and investment in fixed assets fell by nearly 18 percentage points within a year. The effects of following various economic stimulus policies are very short; China's investment growth continued to decline after 2011, and the average annual decline became nearly 5% after 2012. Year-on-year fixed asset investment (excluding farmers) increased by 10.2% in 2015, which is not only for the lowest level since the twenty-first century, but also nearly a single-digit level.¹⁴ It means, as an important driving force for China's economic growth, investment in epitaxial growth has been difficult to sustain.

In terms of consumption, because of unreasonable income distribution, large income gap and the low proportion of labor income to national income, the demand with purchasing power is insufficient, which weakens the promoting role of consumption to economic growth. Figure 4 shows that since the 1990s, China's per capita real GDP growth has increased rapidly from 1,664 yuan in 1990 to 46,600 yuan in 2014. At the same time, China's income gap has continued to expand, especially since the beginning of the twenty-first century, and China's Gini

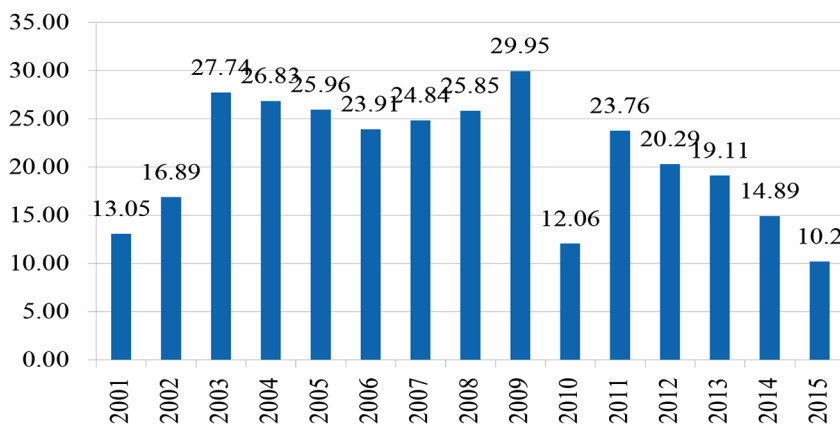


Figure 3 China's Fixed Asset Investment Growth in the Whole Society (2001–2015)

Sources: Data of China's investment growth (2001–2014) are calculated by "The Total Social Fixed Asset Investment (100 million yuan) in annual data on the website of National Bureau of Statistics (<http://data.stats.gov.cn/easyquery.htm?cn=C01>). The data in 2015 are from *National Economic and Social Development Statistical Bulletin 2015* released by China National Bureau of Statistics (http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html).

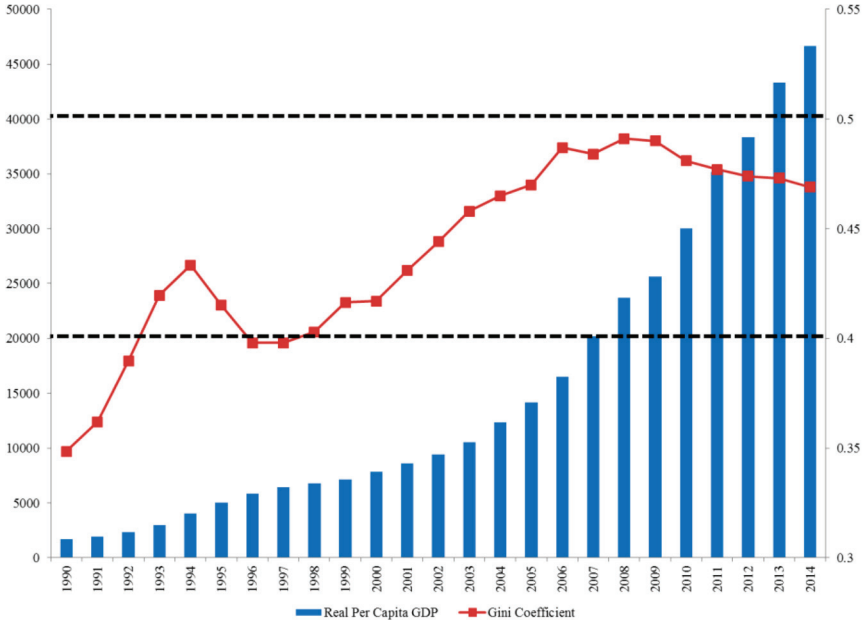


Figure 4 Growth of China's Real Per Capita GDP and Gini Coefficient's Change (1990–2014)

Sources: The data of China's per capita GDP are from "The per capita Gross Domestic Product (yuan)" in annual data on the website of National Bureau of Statistics (<http://data.stats.gov.cn/easyquery.htm?cn=C01>). The Gene coefficient is "Gene coefficient—China" on the website of World Bank (<http://data.worldbank.org.cn/indicator/SL.POV.GINI?locations=CN>).

Notes: The left vertical axis is real per capita GDP (RMB yuan). The right vertical axis is Gene coefficient. Two dotted lines are, respectively, income gap warning line (0.4) and income gap disparity line (0.5).

coefficient most of the time continued to rise. Since 2000, China's official Gini coefficient has been higher than 0.4 (international recognized cordon), and in 2008 and 2009, China's Gini coefficient was 0.49, approaching income gap disparity line (0.5). Although it has been a slight decline since 2010, the Gini coefficient is still at a high level of 0.469 in 2014.¹⁵

At the same time, the gap of residents' income between urban and rural and between different industries is still great. Taking the urban-rural gap as an example, as shown in Figure 5, the income gap between urban and rural households in China continued to expand before 2009 since the twenty-first century. In 2000, the per capita disposable income of urban households was 6,280 yuan, the per capita net income of rural households was 2,253 yuan, and the proportion of urban and rural income was 2.79:1. In 2009, the per capita disposable income of urban residents was 17,175 yuan, the per capita net income of rural households was 5,153 yuan, and the proportion of urban and rural incomes expanded to 3.33:1. Since then, the government adopted a variety of income distribution policies, but the ratio of urban

to rural income still remains 2.75:1 by 2014. The income gap between urban and rural is very obvious. This gap can also be seen by changes in the Engel coefficient of urban and rural residents. Figure 6 shows the changes in the Engel coefficient of urban and rural households during the period from 2000 to 2012. We can tell that since 2000, although the Engel coefficient of Chinese urban and rural households has a downward trend, the Engel coefficient gap of urban and rural households remains pretty large. The Engel coefficient of urban households in 2012 has reduced to 36.2, while the value of rural households is still around 40%.¹⁶

In addition, the proportion of China's labor income to national income has continued to decline to a low level. Table 1 shows the share of labor income in China, Japan, Korea and the United States during the period from 2000 to 2011. It can be seen that the proportion of China's labor remuneration to GDP has continued to decline, from 51% in 2000 to 42% in 2011, while the proportion in Japan, South Korea and the United States is quite stable during the same period. From an absolute level, Japan and South Korea share more than 50% of the labor remuneration; the United States is more than 60%. The world average of that during the same period is 54%. The ratios in European countries are generally more than 60%. China is at a low level. There are very underdeveloped countries that are much lower than China.¹⁷

In addition, if we comprehensively analyze the stimulating effects of the final consumption expenditure and the total capital formation to China's GDP from the three categories of demands, we can find from Table 2 that China's final consumption expenditure contributes 78.2% to GDP growth rate in 2000, but it declines to 50.2% in 2014. The total contribution of capital to GDP contribution rate is a rapid

Table 1 International Comparison of Labor Compensation Share of GDP

<i>Year</i>	<i>China</i>	<i>Japan</i>	<i>South Korea</i>	<i>United States</i>
2000	0.51	0.55	0.53	0.66
2001	0.50	0.55	0.53	0.66
2002	0.49	0.54	0.53	0.66
2003	0.47	0.53	0.54	0.65
2004	0.47	0.52	0.54	0.65
2005	0.45	0.52	0.54	0.64
2006	0.44	0.52	0.55	0.64
2007	0.42	0.52	0.54	0.63
2008	0.42	0.52	0.54	0.64
2009	0.42	0.52	0.55	0.63
2010	0.42	0.52	0.55	0.62
2011	0.42	0.52	0.55	0.62

Sources: *Penn World Table* (version 8.0) (<http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>).

growth trend, still contributing nearly 50% of the share in 2014. It can be seen that the consumption of GDP is gradually declining. Although the contribution rate of consumption to economic growth has increased significantly in the first half of 2015, it is mainly due to the negative growth of exports and the decline in investment growth instead of consumption demand itself.¹⁸

Because China is a big country and demand is mainly from domestic market demand (especially domestic consumption demand), the decline in exports is greatly affected by international factors. China itself is difficult to completely control. Overcapacity of most industries leads to insufficiency of investment demand. Lacking effective supply needs to increase investment that will meet the insufficient investment demand, but its increase is limited and cannot essentially change the insufficient investment demand. Therefore, lack of demand is mainly the shortage of domestic consumption demand, which is the important reason for China's economic downturn.

Table 2 The Pull and Contribution Rate of China's GDP by the Three Demands (%)

Year	GDP growth rate	Stimulation of three demands to GDP growth			Contribution rate of three demands to GDP growth		
		Final consumption expenditure	Total investment	Net exports of goods and services	Final consumption expenditure	Total investment	Net exports of goods and services
2000	8.4	6.6	1.8	0	78.2	21.4	0.4
2001	8.3	4.1	5.4	-1.2	49.3	65.3	-14.6
2002	9.1	5.2	3.5	0.4	57.6	38.1	4.3
2003	10	3.6	6.9	-0.5	35.8	69.6	-5.4
2004	10.1	4.4	6.2	-0.5	43.5	61.9	-5.4
2005	11.3	6.4	3.6	1.3	56	33	11
2006	12.7	5.4	5.4	1.9	42.7	42.6	14.7
2007	14.2	6.5	6.2	1.5	46.1	43.6	10.3
2008	9.6	4.3	5	0.3	44.7	51.8	3.5
2009	9.2	5.3	8	-4.1	57.7	87.1	-44.8
2010	10.6	5	7	-1.4	46.9	66	-12.9
2011	9.5	6	4.3	-0.8	62.7	45.2	-7.9
2012	7.7	4.4	3.2	0.1	56.7	42	1.3
2013	7.7	3.7	4.2	-0.2	48.2	54.2	-2.4
2014	7.3	3.7	3.6	0.1	50.2	48.5	1.3
Average	9.71	4.97	4.95	-0.21	51.75	51.35	-3.11

Sources: Data of contribution rate and pulling effects of the three demands on China's GDP (2000–2014) are from contribution rate and pulling effects of the three demands on China's GDP in annual data on the website of China National Bureau of Statistics (<http://data.stats.gov.cn/easyquery.htm?cn=C01>).

4.1.2. Excess Supply Coexists with Undersupply

The existing supply analysis often only analyzes the elements of supply. In fact, according to the comprehensive analysis of Marxist economy, supply includes two parts, namely, supply of elements and supply of goods and services. Therefore, this article analyzes how overcapacity, lack of effective supply and supply defects influence the formation of China's economic downturn trends from the two parts above.

In terms of factor supply, the main feature of China's element supply nowadays is, first of all, the total labor force is excessively large but the quality is not high, still the structure is not good (the population is old and the senior technicians are short);¹⁹ second, the capital is relatively abundant which means the supply is relatively surplus; third, China's technology is not advanced, and sophisticated technology is lacking. The key technologies and core components and equipment depend on imports. Moreover, Western developed countries strictly restrict the export of high and new technology to China, weakening China's later-mover advantage. In addition, China's economic growth still faces a series of difficulties such as the insufficient supply of natural resources and the increasing cost of labor and raw materials. Natural resources such as petroleum, iron ore etc. are insufficient in China. Take oil and natural gas as an example, China's oil imports have increased significantly since 2000 and reached 290 million tons in 2012, which induces China's oil dependence to reach 60%; China began to import natural gas in 2006 and became a net natural gas importer in 2007 so that in 2012 China's natural gas external dependence reached 28.9%. And the increasing labor cost is also a difficulty that China faces. The average wage of Chinese urban units increased from 9,333 yuan in 2000 to 56,339 yuan in 2014 by an average annual growth of 13.73%.²⁰ The price of natural resources is following an upward trend although the trend has been interrupted in recent years by the worldwide economic downturns. In terms of environmental management costs, China's total investment in environmental pollution control in 2013 reached 961.5 billion yuan, of which the investment in industrial pollution control reached 86.8 billion yuan. Since 2000, the proportion of China's investment for pollution control to total national income has continued to rise, by 2013 to more than 1.6%.²¹

Regarding the change of total factor productivity (TFP), China's total factor productivity has risen from 0.27 in 2010 to 0.37 in 2011, with United States' standard of 1 during the same period. The technical contribution in production has increased in China. However, China's production efficiency in 2011 is still only 37% of the United States. In the same period, it is found that China's production efficiency gap is still very large, while Japan and South Korea's TFP had a slight relative decline, but still stayed around 0.7, which means that Japan and South Korea's production efficiency is about 75% of the United States, more than twice

as high as China. The world average value stays at 0.7 or so, the European countries such as Germany are between 0.8 and 0.9, and most countries that are much lower than China concentrate in the Africa region.²²

All of these elements above affect China's economic growth in two ways. First of all, two basic factors of production, labor and capital, have relatively excess supply which is an important condition leading to overproduction (overcapacity) and hence economic downturn, and the other two factors of production, natural resources and technology, have inadequate supply, while these two elements, especially the supply of technology (meaning technological innovation), are important for China's current growth and achieving the future sustained efficient growth. If we do not improve these two conditions, the trend of economic downturn will always be difficult to change.

In terms of products and labor supply, it is hard to develop high-tech and technology-intensive industries such as high-end manufacturing and equipment manufacturing for the lack of high-quality labor and technology (low-quality labor is one of the important reasons for the lack of technology), which also holds back optimization of industrial structure, making China remain at the low-end in the world's industrial value chain and find difficulty expanding to the high-end. This causes excessive ineffective supply (overcapacity), lack of effective supply (key components, the core technology and equipment, high-end consumer goods and other dependence on imports), and low economic efficiency, not high income, resulting in a lack of consumer demand.

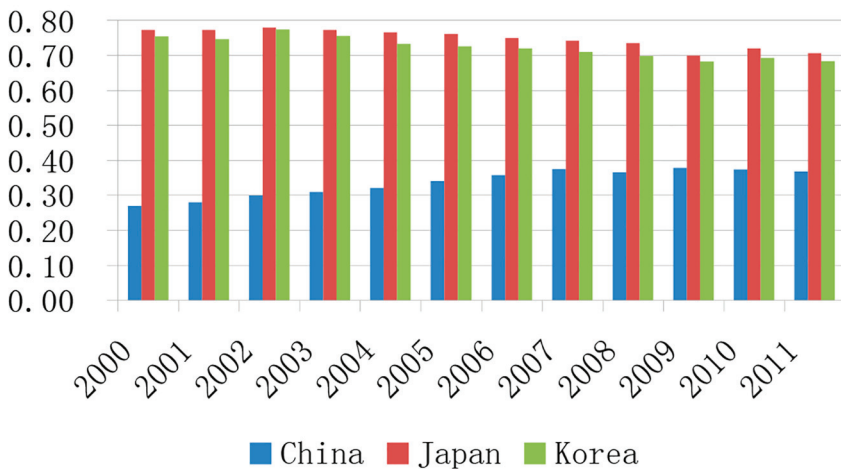


Figure 5 Variation Tendency of China's TFP and International Comparisons

Source: *Penn World Table* (version 8.0) (<http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>).

It can be seen from Figure 6 that China's human capital has increased since 2000, but its index is around 2.5, while Japan and South Korea's human capital index are around 3.2 or so, and the United States reached around 3.6; China's human capital level is about 78% of Japan and South Korea and 70% of the United States.²³ Figure 7 shows that China still needs a large number of imported high-tech products, which costs China US\$559.9 billion in 2013, and the average annual growth gets 15%, while the high-tech products accounted for an average of about 30% at the same time.²⁴

China's economic downturn at supply side is mainly because of oversupply (that results in overcapacity of majority of the industries), too much inefficient supply, huge amount of labor, and relatively surplus of capital.

4.1.3. Major Direct Causes

According to the analysis of Marxist political economy, we comprehensively analyze and compare the direct causes from two aspects of supply and demand. This article argues that the main reasons for five consecutive years of decline of China's economy are overproduction from the supply side and lack of demand, especially consumer demand from the demand side. Just as the palm and the back of the hand are inseparable for the hand, supply and demand are two inseparable aspects of whole national economy and constitute the operation situation of whole national economy. On one hand, supply is excess; on the other hand, there is lack of

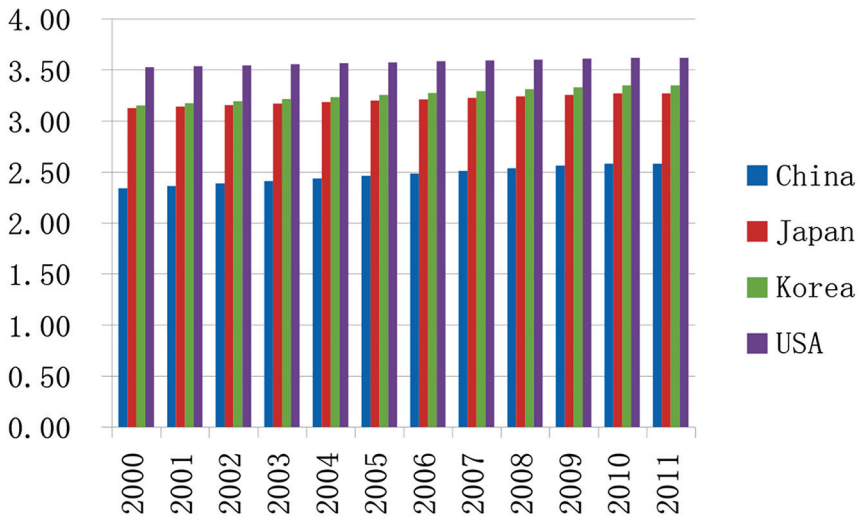


Figure 6 International Comparison of Human Capital Index
 Source: Penn World Table (version 8.0) (<http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>).

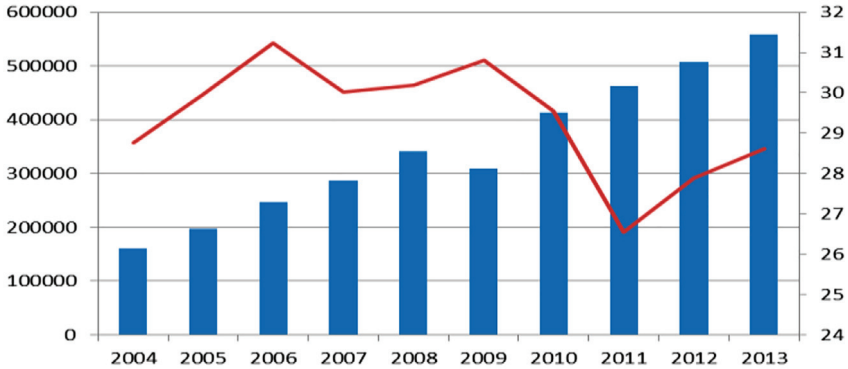


Figure 7 China's Total Imports of High-Tech Products (2000–2013)

Sources: Data of China's import of high-tech products (2000–2013) are calculated respectively by "Annual Data (billion) and Commodity Import Trade Volume (billion)" according to the high technology products import trade on the website of China National Bureau of Statistics (<http://data.stats.gov.cn/easyquery.htm?cn=C01>).

Notes: The left vertical axis is for the total imports of high-tech products (millions of dollars). The right vertical axis is for the import of high-tech products accounted for the total proportion of imports (%).

demand. Moreover, analysis of supply and demand reasons above shows that the overall lack of demand and overall supply surplus mean that total demand is larger than total supply. This is mainly reflected by the lack of demand with purchasing power (such as declining exports, limited investment, especially insufficient domestic consumption), overproduction of means of vast majority of livelihood and production, and relative surplus of labor force and capital supply.

Generally, capacity utilization rate is used for measuring excess capacity. The general capacity utilization rate internationally recognized is about 80%. In China, there is no very systematic data of capacity utilization rate, but it can be seen from public information scattered in various departments. From the perspective of various industries, the most prominent is that capacity utilization rate in traditional industries is very low and excess capacity is serious. In 2013, rate of capacity utilization in China's cement industry, crude steel industry, flat glass industry, electrolytic aluminum industry and other industries is around 74%; the shipbuilding industry is 65%; most of other parts of the heavy chemical industries such as calcium carbide industry and coke industry is lower than 75%; and methanol, PVC and other industries is less than 60%. Overcapacity not only exists in the traditional industries, but also in some emerging industries. Capacity utilization rate of photovoltaic and wind power equipment is also very low, at just under 70%, in which photovoltaic utilization rate is less than 60% (Ji 2015). In particular, commercial housing areas for sale in China show an increase, with serious excess of

commercial housing in second-tier and third-tier cities. Some buildings overstock for many years, and many houses are uninhabited even after having been sold.

Why are the main direct reasons for the economic downturn not just resulted from inadequate supply and defects? This is because that the number of industries that are excess in supply (excess capacity) is more than that of the industries with undersupply, namely, ineffective supply exceeds effective supply. Effective supply shortage and supply deficiency are the important factors of insufficient demand but are not the main factors as they are resulted from low income and income disparities. The most important factor is defects of the systems including distribution system and ownership related to distribution. Although the labor income in recent years has been increasing and income gap has been narrowing, the overall distribution pattern with large income gap has not changed. Domestic consumer demand has also been increasing and the contribution rate of consumption demand to economic growth has also been increasing, but the overall situation of insufficient consumption demand has not fundamentally changed.

Now, most scholars believe that the main reason for China's economic downturn is from supply instead of demand. However, the conclusions of this article do not exactly agree with them, due to using the theories and methods of Marxist political economy. The main direct reason for the current economic downturn is overcapacity, namely, overproduction and insufficient purchasing power accordingly.

Although there has been the problem of insufficient effective supply, the main problem is overcapacity. Furthermore, most of the surplus is not absolute surplus with no potential demand, but relative surplus with potential actual demand. Take the household appliance industry as an example, many farmers have no household appliance or do not have all kinds of household appliances while there exists a surplus of them. Even more, some high-tech industrial products have an excess of supply, mainly because of lack of purchasing power. The main reason of insufficient purchasing power demand is defects of related systems.

4.2. Indirect Deep Reasons

We analyzed above the direct cause of the economic downturn in a comprehensive way from the two aspects of supply and demand. However, what is more important is to analyze systems (especially the basic economic system in terms of production relation) and to search for deep-seated causes in accordance with the requirements of Marx's political economics analysis.

The so-called indirect reasons are reasons of direct reasons, mainly including reasons of lack of consumer demand and economic downturn caused by big income gap and low labor income, and reasons of economic downturn caused by both excess supply and supply deficiency, especially deep roots. We try to explore

how these deep-seated factors specially affect the supply and demand that eventually leads to the lack of demand, overcapacity, ineffective excessive supply and insufficient effective supply. This is deficient in existing demand analysis or supply analysis in works of Western economics.

4.2.1. The Main Indirect Causes of Insufficient Demand

There are some defects in the system, such as the distribution system and the system of ownership related to distribution, specifically as the following.

First, ownership, mainly the ownership structure, is defective. According to Marx's political economics, public ownership is the economic foundation for the common prosperity of all the people. Complete private ownership will inevitably lead to polarization between the rich and the poor. Since the reform and opening up, China's ownership structure has undergone tremendous changes. Private ownership has become the subject and its proportion in the national economy is far higher than that of public ownership. This is an important reason for today's big income gap and low labor income in the developing country China, with tens of millions of billionaires ranking in the forefront of the world rankings, and the growth rate ranking first in the world.²⁵

Second, the distribution system is defective. In the first 20 years since the reform and opening up, more emphasis had been placed on efficiency incentives by income distribution. The income distribution policy enables some people and some areas to get rich first, widening the income gap and certainly overcoming equalitarianism significantly at the same time. Because of shortage of capital, rarity of entrepreneur talents and surplus of labor, the income distribution is more inclined to benefit capital and enterprise executives whenever in state-owned enterprises, in private enterprises or in foreign enterprises. Though arousing the enthusiasm of enterprises, capital, and entrepreneurs, this kind of institutional arrangement also produced common problems, such as insufficient attention to fairness, low income of workers, inadequate protection of legitimate rights and interests, and lowering, defaulting and skimping wages of workers, especially the wages of migrant workers. This is the important institutional cause of widened income gap and low income of working-class.

Third, the market system is defective. Markets, especially the financial market, the real estate market and the labor market, are in poor health. The operation of markets is not standardized and the market mechanism is not perfect. Unfair and inadequate competition and monopoly (including administrative monopoly in state-owned enterprises) are widespread in markets. Illegal business operations cause market failure, reaping massive earnings. Real estate and stock speculation, smuggling and traffic in smuggled goods, illegal trade and sudden wealth cause income disparity and polarization.

Fourth, the socialist market economic system is not perfect. Despite the defects of the market system, the economic management function and macro-control of the government are also not perfect. The governments own and control too much power and resources. But the governments do manage what should not be managed, and don't well manage what needs to be managed. Lack of effective democratic supervision leads to serious corruption and considerable occupying of national wealth and income by corrupt officials, which is also an important reason for low efficiency and waste of national investments, and widens income gap with low labor income at the same time.

4.2.2. Indirect Causes of Excess Supply and Insufficient Supply

Defects of related systems are the indirect causes of excess supply and insufficient supply, which is specifically as the following.

First, educational structures and systems are not perfect. The unreasonable educational structures emphasize higher education, especially graduate education and undergraduate education, but ignore occupation education and skills training. The educational systems and teaching methods are defective, making educational resources, especially high-quality educational resources, flood into big cities. Paying more attention to the quantity than the quality, focusing on theories instead of practices, teaching and scientific research in universities are too administration-oriented and commercialization-oriented. Those are not conducive to improving the quality and employment ability of all labor forces and optimizing the supply structure of labors.

Second, the systems of encouraging protection of technological innovation, promoting R&D and scientific and technological progress are not perfect. Technology markets and scientific management systems are not perfect, with scientific research disconnected from application. Innovation mechanism is unsound, with a lack of innovation incentive. Intellectual property protection is not effective; exorbitant profits can easily be made by producing fakes, market domination, monopoly management, collusion of government and business, speculation in real estate and stocks, capital operation, low cost of human resources and the environment, and so forth. Therefore, people are not willing to undertake innovation and research that is difficult, toilsome and high-risk. What's more, there are strict limits on high-tech exports to China from Western countries, making China's technology import difficult and supply of technology insufficient.

Third, the capital market and systems of investment and financing management are not perfect. For example, the amount of indirect financing is adequate but direct financing is rare, and investment channels of private capital are far fewer. Moreover, the stock market is ill-formed and the phenomenon of illegal operation is serious. Government investment management is flawed, investment efficiency is not high and necessary supervision over the financial sector is relaxed, with

unnecessary administrative intervention. This makes over-investment coexist with under-investment and a serious excess of ineffective supply (capacity) coexists with effective supply shortage.

Fourth, systems of rational development of resources and efficient use of resources are defective. Due to problems with resources protection and development systems, especially slack law enforcement and under-implementation of relevant requirements and measures, wasting resources including serious improper mining and inefficient use of resources is difficult to be prohibited, with the shortage of resource supply exacerbated.

Fifth, the systems of punishing and preventing environmental pollution and protecting the environment are deficient. Relevant laws and regulations are imperfect. Pollution control management is not strict and relevant requirements are difficult to put in place. Despite the great progress that has been made in recent years, it seems to be unsatisfactory in the whole.

Sixth, the socialist market economic system is not perfect, which is also the basic cause of both excess supply and insufficient supply. The imperfection of market economic system mainly includes imperfection of market mechanism and governmental economic management system. The functions of government are not completely rational, especially the governments at all levels pay more attention to the performance aiming at GDP, speed, revenue and investment. The system of state-owned enterprises is imperfect and their corporate governance structure is unsound. All of the above are harmful to the transformation of economic development mode and the effective optimization of economic structure. In addition to the spontaneous and blindness of market regulation and private investment, a considerable part of excess capacity results from the blind investment of government and state-owned enterprises in the pursuit of short-term fiscal income and performance, some of which is also caused by some local government and corrupt officials who encourage private investment and even hold shares in enterprises.

In addition, the circulation cost is extremely high because of high land prices, high housing prices, high taxes, high logistic costs and multiple material circulations. For example, China's logistics cost in 2013 is 10.2 trillion, equivalent to 18% of GDP in the year, 9% higher than that in developed countries (Lv 2015), which greatly reduces the income of producers and the actual purchasing power of consumers. This is not conducive to improving and increasing the effective supply and to increasing effective demand, even leading the domestic demand abroad.

5. The Main Countermeasures for Steady Growth

The slowdown in economic growth has many reasons, including in demand side, in supply side, and for the related multiple deficiencies of the systems besides the basic

economic system. Direct reasons and deep indirect reasons, short-term factors and long-term factors, gross factors and more structural factors are mixed together. Therefore, keeping steady growth (to maintain an average annual growth rate of not less than 6.5%) cannot be achieved in a short time and is difficult to bear fruit immediately. In contrast, it needs to find problem-oriented solutions, abide by the principle of combining short term and long term, to promote comprehensive management, and to deepen the all-round reform constantly with multi-pronged approach.

Specifically, this includes the comprehensive deepening reform which is underway, and a series of important strategic guidelines and measures, especially including structural reform, expanding domestic demand, improving supply and optimizing the structure of economy. Furthermore, it also includes a series of measures such as actively and steadily pushing forward new-type urbanization, increasing investment reasonably, continuing infrastructure construction, moderately expanding aggregate demand, reforming supply-side structure, implementing the program of *Made in China 2025*, developing education, improving the quality of labor force, encouraging innovation and entrepreneurship and "Internet Plus," advancing technological progress, adjusting and optimizing the economic structure, accelerating power construction of modernization of agriculture and manufacturing industry, adapting the supply structure to the change of demand structure, vigorously developing the service industry and high-tech industry, improving the quality and efficiency of supply system, implementing the *Belt and Road Initiative*, increasing exports as much as possible, enhancing driving force of investments and exports, perfecting the market and the market mechanism, transforming government functions, playing a decisive role in the market and important role of government, carrying out strategies of cutting production capacity, destocking, de-leveraging, reducing cost and overcoming weaknesses, and so on.

The main reason for economic slowdown is lack of consumption demand, especially the lack of purchasing power of workers, and the main reason for lacking consumption demand is a large income gap and low labor income. The unreasonable income distribution results from unreasonable distribution systems and other systems including ownership that is closely related to income distribution. So the most important measure for steady growth at present is to accelerate and deepen the reform of the income distribution system and other related systems, to narrow the income gap and increase the proportion of labor income to national income, to improve the demand with purchasing power of the majority of workers and expand consumption demand. This is the key point that does not currently receive much attention, and is hardly mentioned in the literature of demand or supply analysis based on Western economics, and also explains insignificant effects to promote steady growth by other measures. It will be quite difficult to maintain an average annual growth of more than 6.5% in the next 5 years if we do not solve the income distribution problem.

Because the widening income gap and low labor income result from a huge difference of economy development from different ownerships and its great influence on income distribution, unsoundness of property and income distribution system, imperfection of enterprise system, market failure, monopoly, too much and low-quality labor forces, serious shortage of prior capital, deviation of economic policies, unreasonableness of economic structure, stagnation of agriculture modernization, low-end industry value chain in the world, unscientific development mode, great government power with monopoly on resources and serious corruptions and other causes,²⁶ it requires multi-pronged and problem-oriented strategic measures to narrow the income gap and increase labor income.²⁷

Particularly, what needs to be explained here is that the adjustment of property and income distribution and the reform of related systems will inevitably encounter opposition, prevention or disruption from vested interests as they concerns immediate economic interests of all sectors of society. Thus, income distribution reform is the most difficult, and it is even more difficult to improve the income share of workers in weak positions and reduce the income share of capital and governments in strong positions. As Deng Xiaoping pointed out in the South Talk in 1992, to take the road to socialism is to realize common prosperity step by step. The idea of common prosperity considers that some regions and some people may prosper before others do, and then they can help other regions and people to gradually become richer and ultimately all achieve common prosperity. If the rich get richer and richer and the poor get poorer and poorer, polarization will be an issue. Socialist systems should and can be able to avoid polarization. One of the solutions is that rich areas pay more taxes as to support the development of poor areas. Of course, this should not be done too early because the vitality of the developed areas cannot be weakened now and eating from the same big pot cannot be encouraged either. It needs to study when to put forward and solve this problem, on what basis to propose and solve the problem. We can imagine putting forward and solving this problem at the end of this century when China will have realized the goal of a well-off society (Deng 1993, 373–74). China proposed to carry out the reform of income distribution at the beginning of the twenty-first century, but only a principle scheme came out after an 8-year debate, which was not a practical and feasible scheme. So the distribution reform can neither be enacted with undue haste nor be ignored and negatively coped, but should be carried forward actively and orderly.

Further, what is important to point out is that, according to the annual report released by Oxfam, which is an international well-known charitable organization, on January 18, 2016, the wealth belonging to 1% (the rich) in the world is equal to that of the rest of 99% (the poor), while the wealth of 62 richest people worth the whole wealth of 3.6 billion poor people. This indicates that the inequality of the

world distribution of wealth is aggravated, and the proportion of the income distribution between the rich and the poor has deteriorated. Wealth is more concentrated in capital, labor income is relatively lower, and capital gains become higher and higher (Qing et al. 2016). A recent survey by Pew Research Centre of the United States also shows that the proportion of middle-income families in the United States has decreased from 61% in 1971 to about 49.4% in 2016. At the same time, the low-income families have increased from 25% to 29% and the high-income families have increased from 14% to 21% (Ding 2016). Therefore, the decline in the demand side may be an important cause of the current world economic downturn, which is worthy of our deep thought for China's economic trends.

All in all, due to the fundamental reason of scant demand, excessive ineffective supply (overcapacity) and insufficient effective supply are imperfection of socialist market economic system, so China must deepen its all-round reform and improve the socialist market economic system, which is the fundamental way of steady growth. As the economic downturn resulted from both supply and demand, the reform should be carried out simultaneously at both ends of the supply side and demand side. As the causes of the economic downturn include the structures of both supply and demand, so the structural reform must be carried out simultaneously on both sides of supply and demand. The most important direct reason of China's economic downturn is insufficient consumption demand of people who have strong purchasing power, which is attributed to great income differentials and low labor income, so the demand-side structural reform is no less important than the supply-side structural reform. The main measures to ensure growth should be deepening reforms of the distribution system and other systems related to distribution system, including system of ownership.

Funding

This study is supported by the National Social Science Fund Project "Input-Output Analysis and Non-linear Prediction Research of China's Important Energy Resources Demand" (no. 13CJY043).

Notes

1. GDP growth rate data from 2010 to 2014 are from "GDP Index (last year = 100)" in the annual data on the website of China National Bureau of Statistics: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; GDP growth rate data of 2015 are from "National Economic and Social Development Statistical Bulletin 2015" released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html; GDP growth rate data of first half of 2016 are from "China's GDP Preliminary Accounting Results of the 2nd Quarter and the First Half of 2016" released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201607/t20160716_1378184.html.

2. Although the concept of “market economy” had not been put forward in Marx’s time, and no concepts of “commodity economy” and “market economy” in Marx’s *Das Kapital* as commodity production and circulation are analyzed, the main content of so-called “commodity economy” or “market economy” is commodity production and circulation. Substantially, analyzing commodity production and circulation is equal to “commodity economy” or “market economy.”
3. Data are from “GDP Index (last year = 100)” in the annual data on the website of China National Bureau of Statistics: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
4. The GDP growth rate data from 2010 to 2014 are from “GDP Index (last year = 100)” in the annual data on the website of China National Bureau of Statistics: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; GDP growth rate data of 2015 are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html; GDP growth rate data of fourth quarter of 2015 are from “GDP Index—Seasonal Value in Quarterly data (last year = 100)” on the website of China National Bureau of Statistics: <http://data.stats.gov.cn/easyquery.htm?cn=B01>.
5. Data of the proportion of added value of China’s services in GDP (2012–2014) are from “Tertiary Industries Composition of GDP” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; data of the proportion of added value of China’s services in GDP (2015) are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html.
6. Data of the proportion of added value at current price of China’s equipment manufacturing industry and high-tech industry in value-added of large industrial enterprises in 2010 and 2015, respectively, from “National Economic and Social Development Statistical Bulletin 2010” and “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201502/t20150226_685799.html and http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html.
7. Data of contribution rate of scientific and technological progress in China 2014 are from “National Innovation Index Report 2014” released by China Academy of Science and Technology Development Strategy, available at: http://www.most.gov.cn/kjbgz/201507/t20150708_120616.htm.
8. Data of contribution rate of consumption demand to economic growth in China 2014 are from “Contribution of Final Consumption Expenditure to GDP Growth (%)” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
9. Data of energy and environment in China (2011–2015) are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html; data of energy and environment in China (2011–2014) are calculated by “Discharge of Major Pollutants in Wastewater” in the annual data on the website of China National Bureau of Statistics; raw data available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
10. Data of China’s fiscal revenue, price index, employment, per capita disposable income, import and export trade, foreign direct investment and investment abroad, respectively, are from “Revenue Growth Rate (%)”, “Consumer Price Index (last year = 100)”, “Employment Number (Ten Thousand)”, “Per capita Disposable Income (yuan)”, “Total Imports and Exports (Rmb100 million)”, “Actual Utilization of Foreign Capital (US\$ 10 Thousand)”, “China’s Net Direct Investment in the World (US\$ 10 Thousand)” in the annual data on the website of China National

- Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>. Data in 2015 are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html.
11. GDP growth data of America and other countries are from “National Accounts (Annual Growth Rate) in International Data” on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=G0104>.
 12. Take subway construction as an example; a subway system is the best option for the development of public traffic and alleviating the city traffic congestion and improving the efficiency of city commuting, especially in China which has large population. In developed countries, even medium-sized cities have several subways. However, many big cities in China have no subway. Therefore, the construction task of city subways in China is very arduous.
 13. Data of China export growth (2001–2014) are calculated by “Total Exports (US \$ million)” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; data in 2015 are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html.
 14. Data of China investment growth (2001–2014) are calculated by “Total Investment in Fixed Assets (100 million)” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; data in 2015 are from “National Economic and Social Development Statistical Bulletin 2015” released by China National Bureau of Statistics, available at: http://www.stats.gov.cn/tjsj/zxfb/201602/t20160229_1323991.html.
 15. Data of China’s per capita GDP are from “Per capita GDP (yuan)” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>; Gini coefficient is from data in 2015 from “Gini Coefficient—China” on the website of World Bank, available at: <http://data.worldbank.org.cn/indicator/SI.POV.GINI?locations=CN>.
 16. Chinese urban and rural household income data and the Engel coefficient China, respectively, from the National Bureau of Statistics website “Annual Data” in the “Urban Residents per capita Disposable Income (yuan),” “Rural Residents per capita Disposable Income (yuan),” “Urban Households Engel Coefficient (%)” and “Rural Households Engel the Coefficient (%)” available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
 17. Data Source: *Penn World Table* (version 8.0), available at: <http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>.
 18. From consumption increase rate, the actual growth rate of total retail sales of social consumer goods in China after deducting the price factor is 10.6% both in 2015 and in the first half of 2016, a 0.4% decline compared with that in 2014, according to the latest data released by China National Bureau of Statistics (available at: http://www.stats.gov.cn/tjsj/zxfb/201607/t20160715_1377679.html). The actual growth rate of that from 2010 to 2014 is 15.7%, 13.6%, 12.5%, 11.8% and 11.0% respectively. From this point of view, China’s consumption growth rate is actually declining year by year. From the investment, the actual growth rate of national fixed asset investment (excluding peasant household) after deducting the price factor is 12% and 9% in 2015 and in the first half of 2016, and 8.5%, 17.2%, 19.2%, 18.8% and 14.2%, respectively, from 2010 to 2014. Investment growth rate declines more rapidly. The exports declined by 1.8% and 2.3%, respectively, in 2015 and in the first half of 2016. From 2010 to 2014, China’s export increased by 31.3%, 20.3%, 7.9% and 7.8%, respectively. Thus, it can be seen that export growth rate decreases most obviously (data of consumption, investment and export are calculated by

- “Total Retail Sales of Social Consumer Goods,” “Total Fixed Asset Investment,” and “Total Exports” in the annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>). Therefore, from the final consumption growth rate, the growth rate of consumption in fact also relatively declined in 2015 and in the first half of 2016. But just because the increase of export and investment in the same period decreased more obviously, the contribution rate of final demand to GDP relatively substantially increased in 2015 and in the first half of 2016.
19. It is a controversial issue for whether there is a surplus or shortage in labor supply in China, or whether supply exceeds demand or demand exceeds supply. This article argues that the absolute amount of China’s labor force is still huge, though the total labor force is now beginning to decline. Therefore, the main problem China’s economic growth facing is not lack of labor, but outdated technology and low labor productivity. The employment situation in China is still grim. To sustain economic growth is mainly to protect employment. At present, China has the shortage of migrant workers, but it cannot be concluded that China is now in short supply of labor. This is because that the shortage is structural (not aggregate shortage but structural shortage, namely, shortage in some special departments, positions, regions and time). Specifically speaking, the shortage is skilled workers shortage (shortage in skilled workers), regional shortage (developed regions including eastern China), seasonal shortage (around the Spring Festival).
 20. Why do labor costs (wages) rise in the case of a huge surplus of labor? This article argues that this is resulted from multiple factors, including weakness of serious oversupply of labor, great improvement of general social income level, strong demand for higher wages from workers as the proportion of labor income and the salary is too low, and regulation policies of income distribution from government (such as improving the minimum wage standard. Therefore, we cannot affirm that China is short in total labor forces just based on the rise of wages (labor prices).
 21. Data of oil, gas, labor wages and environmental pollution control in China (2000–2014) are calculated, respectively, by “Crude Oil Imports (10 thousand tons),” “Natural Gas Imports (100 million cubic meters),” “Urban Employment Gross Wage Index (last year = 100),” and “Total Investment in Environmental Pollution Treatment (100 million yuan)” and “Investment in Industrial Pollution Control (10 thousand yuan)” in annual data on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
 22. Data of China’s TFP are from *Penn World Table* (version 8.0), available at: <http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>.
 23. Human capital index data are from *Penn World Table* (version 8.0), available at: <http://www.rug.nl/research/ggdc/data/pwt/pwt-8.0>.
 24. Data of China’s imports of high-tech products (2000–2013) are calculated by “Import Volume of High-tech Products (US \$ Billion)” and “Total Merchandise Import Trade (US \$ Billion)” in the annual date on the website of China National Bureau of Statistics, available at: <http://data.stats.gov.cn/easyquery.htm?cn=C01>.
 25. It is necessary to note that this article gives a realistic analysis of real economic problems, as to find the real deep-level reasons for the big gap between the rich and the poor. Although most are private entrepreneurs in the list of world billionaires, it is not to say that China should not develop economy of private ownership since its reform and opening up, or should stop development of private ownership economy in the future. China also should not even be hostile to the rich or eliminate private ownership and the rich through another socialist transformation movement. In contrast, we propose to continue the development of private ownership economy in the premise of fair competition in the market. At the same time, it should also take reasonable and effective ways to solve the problems in public ownership economy, earnestly make state-owned

enterprises and rural collective economy bigger, stronger and better. Because public ownership economy is the indispensable economic foundation of ensuring common prosperity for all of the people, it cannot be less and less, or even completely disappear. In the process of adjusting ownership structure, it should neither use the administrative method to make public advanced and private retreats or state advanced and private retreats, nor use the administrative approach to make private advanced and public retreats or private advanced and state retreats.

26. Why do these factors lead to the widening income gap and low labor income, and how do they create a widening income gap and low income? This article does not discuss this due to space limitations. We will give comprehensive analysis and detailed description of them in another article in the future.
27. See Jian (2015).

References

- Deng, X. 1993. *Deng Xiaoping Anthology*. [In Chinese.] 3rd ed. Beijing: People's Publishing House.
- Ding, G. 2016. "Asian Effect of Decline of American Middle Class." [In Chinese.] *Global Times*, January 22.
- Ding, R. 2015. "Pay High Attention to the Supply-side Structural Reform." [In Chinese.] *Economic Daily*, November 19.
- Ji, Z. 2015. "Risks of China's Excess Production Capacity and Governance." [In Chinese.] *New Financial Review*, no. 1: 1–24.
- Jia, K., and J. Su. 2015. *New Supply Economics*. [In Chinese.] Taiyuan: Shanxi Economics Press.
- Jian, X. 2015. "Regulate Capital: Narrow the Gap between Rich and Poor." [In Chinese.] *Contemporary Economic Research*, no. 5: 27–33.
- Jian, X. and J. Yu. 2016. "To Understand the Supply-side Reform with Marxist Political Economy." [In Chinese.] *Economic Daily*, January 11.
- Li, Z. 2015. "Structural Reform: What to Change and How to Change." [In Chinese.] *Economic Daily*, November 23.
- Lv, Z. 2015. "Grasp the Focal Point of Optimizing the Allocation of Resources at the Present Stage." [In Chinese.] *People's Daily*, October 29.
- Qing, M., B. Xin, Y. Liu, and W. Zhang. 2016. "Amazing Wealth Differentiation Worrying the World." [In Chinese.] *Global Times*, January 20.