

Quarterly Economic Brief

Chinese Economy and Reform after the 18th CCP National Congress: A Macroeconomic Analysis

Zhang Shuguang (Unirule Institute of Economics)
and
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of Political Science and Law)

Beijing, 22 January 2013

Quarterly Economic Brief is a regular update on major macroeconomic developments in China. Its aim is to provide academics, business leaders and policy makers with a comprehensive and concise analysis of the most important economic developments and policy changes. The principal author is Professor Zhang Shuguang of the Unirule Institute of Economics, Beijing, a leading expert on the Chinese economy and economic policy. *Quarterly Economic Brief* is published in cooperation between the Unirule Institute of Economics and the Asia Research Centre at Copenhagen Business School.



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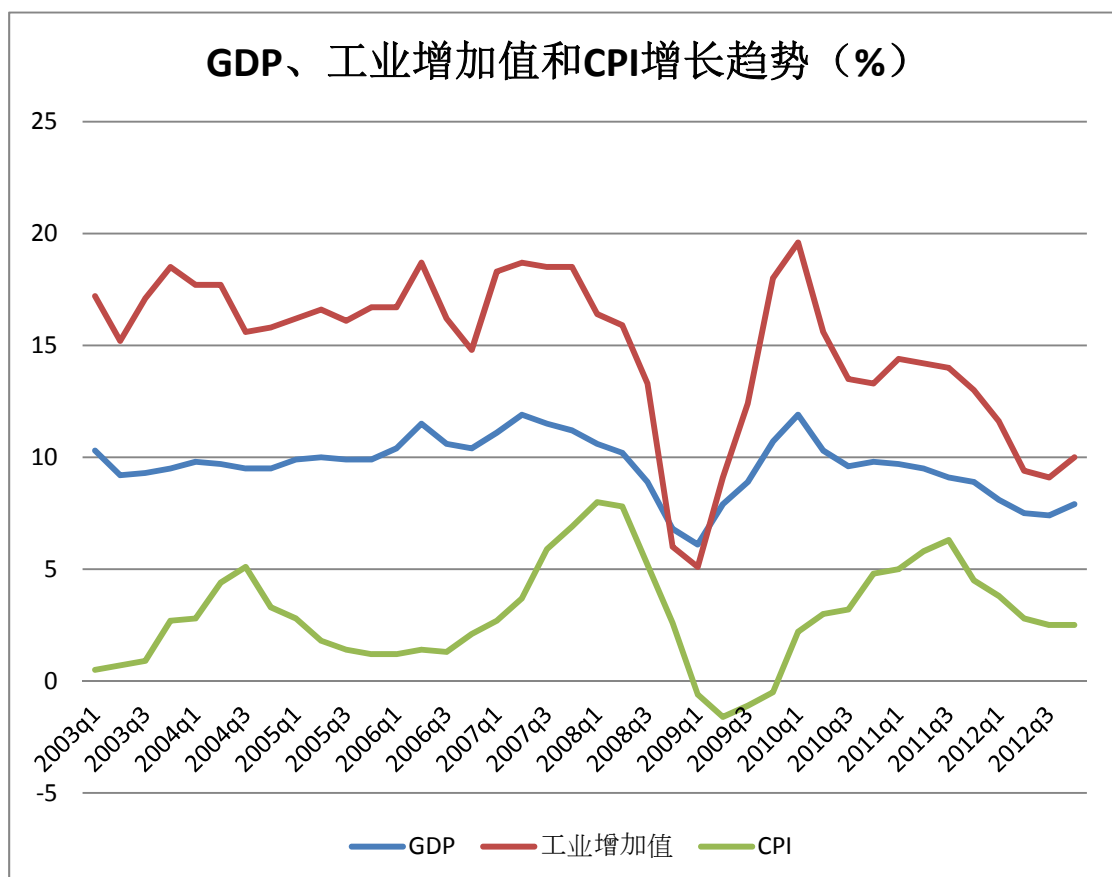
Abstract

In 2012, China's gross domestic product rose 7.8%, industrial value added advanced 10% and the consumer price index climbed 2.6%. The Chinese economy first declined and then bounced back up in the year. As a result, most experts and institutes are optimistic and even unduly upbeat about economic growth in 2013, expecting an 8.5% or even a 9.3% growth rate. However, such a high rate of growth is not supported by the demands of economic transformation and restructuring, growth potential, policy operating room or the international environment. Therefore, a 7.0 to 8.0% growth rate will be more reasonable. To achieve the goals of advancing new urbanization, doubling people's incomes, moving forward with the 'Build a Beautiful China' campaign and proceeding with political reforms that were adopted at the 18th Chinese Communist Party National Congress, economic restructuring and re-balancing efforts must be intensified to allow for sustainability.

1. Overall Assessment of the Economy

In 2012, China's gross domestic product (GDP) totalled RMB 51.9 trillion, up 7.8% from the previous year, which was slightly higher than the 7.5% target set by the government at the beginning of the year. The consumer price index (CPI) rose 2.6%, within the control target set by the government, which was something of a triumph. However, given the declining growth potential and economic deceleration, jubilation may not be justifiable.

Figure 1: GDP, Industrial Value Added and CPI Growth Trends



Among the three economic drivers, investment in fixed assets (excluding rural households) reached RMB 36.4835 trillion in 2012, which represented a nominal growth of 20.6% over the previous year (up 19.3% on an inflation-adjusted basis) and a year-on-year decline of 3.4 percentage points in the growth rate. Total retail sales of consumer goods reached RMB 20.7167 trillion, a nominal growth of 14.3% (up 12.1% on an inflation-adjusted basis) and a drop of 2.8 percentage points in the growth rate over 2011. Imports and exports totalled US\$ 3.86676 trillion, which represented a 6.2% rise and a decline of 16.3 percentage points in the growth rate on a year-on-year basis. Aggregated exports were US\$ 2.04893 trillion, up 7.9%; imports reached US\$ 1.81783 trillion, up 4.3%. The trade surplus amounted to US\$ 231.1 billion in the year.

In the respective four quarters, the economy grew at 8.1%, 7.6%, 7.4% and 7.9%, descending first and then climbing up over the year as a result of many stabilizing policies. Whether these figures indicate that the whole economy has recovered and embarked on a new trajectory of growth remains to be seen, because the economic environment and growth foundation are not fundamentally improved or solidified. But optimistic predictions of economic operation in 2013 are very common. Some predictions for the operation of the economy for 2013 are summarized in Table 1.

The analysis of Renmin University of China only takes into account some short-term positive factors, but ignores the fundamental restraining factors and forces. Therefore, it is unduly optimistic. The analysis of the National Academy of Economic Strategy of the Chinese Academy of Social Sciences CASS considers the positive and negative factors. But it is contradictory in some aspects. On the one hand, it foresees an economic acceleration and declining inflation. On the other hand, it predicts a slowdown in global economic recovery and a rapid growth in exports. So it is also quite optimistic. So are the predictions of most other institutions. Some think that the predictions of the project team of the Development Research Center of the State Council are too conservative. But in fact, a concrete and high-quality 7.5% growth rate may be something we would jump at.

Such analyses and predictions will pose a certain impact on China's choice of economic policies and real economic operation. Therefore, they need to be further discussed.

From the perspective of demand, major problems hampering China's economic operation and growth include structural imbalance, institutional distortion, improper growth patterns and declining efficiency, which threaten long-term sustainability rather than short-term growth. To address these problems, we should avoid push too hard only for a high growth rate. Therefore, we need to compromise some time and speed for more room and opportunities to adjust and re-balance the economy. These are inevitable requirements in economic operation and growth, and also valuable experiences that come at a huge cost. If the growth rate is up to 8.5% or even 9.0%, there won't be much room for economic restructuring and re-balancing. Some scholars have more zeal for a high growth rate than government officials and industry insiders.

Table 1: Some Predictions for the 2013 Economy

Institution	Major Points	Predictions for 2013
Renmin University of China	The economy bounced back from the bottom in September of 2012. In 2013, it will return to the path of recovery, cross the ‘new normal’ state and enter an era of sub-high-speed growth.	The GDP will grow 9.3%, retail sales of consumer goods 16.1%, investment 24.3%, exports 14.2% and CPI 4.2%.
National Academy of Economic Strategy of Chinese Academy of Social Sciences (CASS)	Chinese economy won’t pick up within a short period. It is just building up the force for recovery and will slowly go up amid fluctuations.	The GDP will grow 8.5%, retail sales of consumer goods 15.5%, investment 22.5%, exports 14% and CPI 2.4%.
IMF, World Bank, Asian Development Bank, CASS, Yellow Book and Blue Book		The GDP will grow 8.0-8.5%.
Development Research Center of the State Council	The earlier competitive advantages and growth dynamics of the Chinese economy have gradually declined. New advantages have yet to take shape. Market confidence and predictions are not stable. In view of the economic growth stage and uncertainties, we should create conditions for maintaining economic stability while looking for new balance, and carrying out economic system reform and restructuring.	The GDP will gain 7.5% and the CPI 4%.

In terms of growth, China's economic growth potential has dramatically declined and the period of low-cost growth has come to an end. The 9.3% predicted actual growth rate indicates that China's potential growth rate should be over 9.5%. Otherwise, the economy would be overheated. The 8.5% actual growth rate is based on a potential growth rate of around 9.0%. But where does the growth potential come from? Over the past two decades, more than 500 million labourers have been transferred from rural areas and more will be transferred in the future. Most have been young. In 2012, the working age population was reduced by 3.45 million, pointing to demographic issues for the future. Currently, China still registers a high rate of savings, which stands at 51%. But the structure is quite imbalanced. Businesses and government account for 60% of the savings, and individuals only 40%. Five per cent of the richest families contribute 61.6% of the personal savings. Also, the hard-earned savings are not well utilized. The large foreign exchange reserve indicates that a large proportion of the savings are used for foreign trade. Moreover, many large investments in China demonstrate low utilization efficiency. Although China has entered a 'high-speed railway' era, many high-speed railways suffer huge losses. Recovering the huge investments and repaying the capital and interest pose daunting challenges. To make things worse, costs are climbing at a significant rate. Labour costs, land prices and environmental costs are on the rise. To maintain an 8.5% or even a 9.0% growth rate, we must sacrifice the environment and even people's health. Take the construction of railways as an example. Last year, nine railway projects failed to pass the environmental impact assessment. However, to maintain the growth rate, no project was completely shut down due to failure to pass the assessment. The reality is that 'the Ministry of Environmental Protection can do nothing even if some key projects are not in compliance with environmental protection regulations'. Also, the environmental impact assessment needs to make way for some projects under the authority of local government officials. Most railway projects are national key projects.

Nor is such a high economic growth rate supported by the international environment. According to the International Monetary Fund (IMF), 2013 will remain a gloomy economic year around the world. The IMF has also adjusted its global economic growth rate predictions down to 3.5%, as well as the growth rates of the US (to 2%), Europe (0.2%) and Japan (1.2%). The world economy is still in the post-crisis adjustment period; the restructuring is not yet completed. Deflation leads to sluggish demand growth and the crisis tends to be extended. Moreover, as a result of renminbi appreciation, rising export costs and exacerbating trade frictions, China's exports grew only 6.7% last year. How can the growth rate be doubled to over 14% this year? It would be a great achievement if the rate could be raised to 10%.

On a macro level, there is not much operating room for monetary policies. This has been proven by the long-term mass counter purchase. Also, rising inflation makes new adjustments necessary. Although there is much room for fiscal policies, tax reduction won't be too vigorous despite deficit expansion. How will such a high growth rate be achieved?

In view of this, a prediction of a 7.0 to 8.0% growth rate would be more appropriate. It is

more reasonable to set the growth target around 7.5% this year. On this basis, the following predictions are made (Table 2):

Table 2: Actual and Projected Growth, 2012-2013

Quarter Economic Indicators	2012 (Actual)	Q4 of 2012 (Actual)	Q1 of 2013 (Predicted)	2013 (Predicted)
	Growth (%)	Growth (%)	Growth (%)	Growth (%)
GDP	7.8	7.9	7.4	7.6
Industrial value added	10.0	10.0	10.0	10.5
Investment in fixed assets	20.6	20.7	20.0	20.4
Retail sales of consumer goods	14.3	14.4	14.5	14.6
Exports	7.9	14.1*	7.5	8.0
Imports	4.3	6.0*	5.5	7
CPI	2.6	2.5*	2.5	3.2

Notes: 1. The growth rates of GDP and industrial value added are calculated at comparable prices. Other indexes are calculated at current prices; 2. The investment in fixed assets refers to total investment in fixed assets; 3. Industrial value added refers to the value added of state-owned enterprises (SOEs) and non-SOEs whose annual sales revenues are over RMB 5 million; 4. Data marked with * is December data.

2. Advancing New Urbanization

The report to the 18th CCP National Congress contained some necessary old ideas, and also some new concepts, such as advancing new urbanization,¹ doubling people's incomes and 'Build a Beautiful China',² which will be discussed in the following sections.

Urbanization constitutes an innate driver for China's economic sustainability, because it is a process in which resources are redistributed from low-efficiency sectors to

¹ 'New urbanization' is a term coined by Premier Li Keqiang, addressing necessary reforms of the household registration system and as strategy to increase income and transition to growth driven by consumption.

² 'Build a Beautiful China' is a campaign launched at the 18th CCP Congress in November 2012, and encompasses economic, political and environmental reforms to create a more sustainable development of China.

high-efficiency ones, the economic structure is optimized and people's incomes are increased. It can bring about large-scale infrastructure development and investment in fixed assets, absorb the surplus capacity resulting from industrialization, release consumption potential and boost economic growth. That is why the 18th CCP National Congress proposed to advance 'new urbanization'.

In 2011, China's urbanization rate reached 51.27%. However, calculated by the number of registered households, the rate only stood at around 35%, far below the 70-80% urbanization rates of developed countries. China's urbanization drive remains incomplete. Although coastal areas and major cities are well modernized, the vast inland and urban areas are lagging far behind, and are even sluggish. Taking a look at the rural areas outside Beijing, we may gain a new perspective on China's actual conditions, as what we see there is totally different from what we see from our offices.

There are two major obstacles to urbanization: the household registration system (*Hukou*) and the land system. After more than 30 years of reform and opening up, the household registration system still cannot be abolished. It is embarrassing to talk about a market economy, democracy and freedom when we have a household registration system that divides urban and rural areas, giving rise to a mass population flow in China. The 500 million urban dwellers that choose to work in urban areas still retain their old mindsets, ways of living and consumption habits, making them farmers living in urban areas. They are working-age labourers who don't feel an attachment to urban areas or have long-term plans. In the rural areas the old and weak and women and children remain, symbolizing the decline of the rural areas. It is because of this that the division between urban and rural areas has moved into cities, where rich urban residents lead a life of luxury, while migrant workers live in dark, wet basements, in dirty and shabby villages within cities. The children of urban residents can go to well-equipped and well-staffed public schools while children of migrant workers have only inadequate schools that may be shut down at any time. On the one hand, resource distribution is optimized. On the other hand, the waste of resources is increased. Consequently, the positive energy of urbanization is not brought into full play.

While it seems that the household registration system is just a piece of paper, hidden behind it are many social benefits, including education, healthcare, housing, employment and care for the elderly. So the household registration system indicates a society of status characterized by privileges and discrimination. This has 'eaten into people's bones', such that that dozens of Beijing residents signed a petition against the reform to allow children of migrant workers to take college entrance examinations in cities where they live. People are discriminated against by their household registration status, which leaves people with rural registration with fewer rights compared to urban residents. On the one hand, people are against the privileges of others. On the other hand, they want to retain their own privileges, and want even more. They are discontent with discrimination against themselves, but at the same time, they discriminate against others.

Therefore, to properly advance urbanization, we should first abolish the household registration system and the social benefits associated with it. This is totally attainable given human, material and financial resources. For instance, we can provide compulsory education for both the children of migrant workers and those of urban residents, allow students to take national college entrance examinations in cities where they live, and provide unified medical care in both urban and rural areas. However, we would rather spend a huge amount of money building high-class office buildings and hotels and helping many African countries build large theatres and stadiums, than spend money on our own children. The progress that has been made in recent years should be acknowledged. But it is not enough. This is the government's responsibility, so there is nothing to boast about.

In terms of land ownership, the system is characterized by a dual system that is the primary obstacle to sound urban development. Therefore, addressing the land issue is key to urbanization. There are differences in land rights in urban and rural areas, in state-owned and collectively-owned land, and in land for construction and farming purposes. The combination of government control over land use and government monopoly of the primary land market renders urbanization a process in which the government forcibly converts farmland and urban areas consume rural areas. If this problem is not fundamentally solved, further distortion will be unavoidable in new urbanization. However, to date, the government has not come up with such a plan.

According to some media reports, the Ministry of Land and Resources is preparing new regulations on available land to increase the supply of land for urbanization and to stabilize land prices. According to the plan under deliberation, all the land lots except those designated for commercial buildings and other business-oriented property should be taken back or purchased back for bidding, according to the law. The original land users should be allowed to develop the land by themselves, development entities should be allowed to purchase land for centralized development, and collective economic entities in rural areas should be allowed to organize the development of land. The significance of the new regulation is to tap unused land and ease the imbalance between supply and demand in the land market and the pressure of 'land kings'. But this does not mean that we have come to an era in which transfer by agreement is abolished in the land transfer system, or the regulation that all land should be auctioned is loosened. Therefore, pressed by financial stresses, many local governments and land developers regard future urbanization as salvation, and are flooding the market with a large quantity of land, sparking a craze in the land market. As a result of intensive land utilization, 133 million m² of land was sold in October, up 8% year on the year. This was followed by a huge rise in land supply and transactions in 20 Chinese cities, including Beijing, Shanghai, Guangzhou and Shenzhen.

On 28 November, the executive meeting of the State Council adopted the *Land Administration Law of the People's Republic of China (Amendment)*, which revises the compensation system for collectively owned land that is appropriated. This amendment only

raises the compensation for appropriated land, and does not cover any other reform. Unification of land prices and land rights is still unattainable. How much the compensation will be raised still remains a secret. Houses of limited property rights are still strictly forbidden.³ Such a practice will only further distort the land system and land market. Take houses of limited property rights for example. During the 11th Five-Year Plan (2006-2010), relevant authorities issued 14 regulations on houses of limited property rights, clearly stipulating that these houses are illegal, banning their sale, calling for the punishment of the people responsible and even the demolition of houses of limited property rights that are unsold. They also emphasized that urban residents should not buy them, because they are not protected by law. But according to a survey by All-China Federation of Industry and Commerce, during the 11th Five-Year-Plan period, 283 million m² of houses of limited property rights were constructed across China, from the eastern to western areas, from suburbs to rural areas. There is also a wide variety of houses of limited property rights, ranging from roughcast houses to well-decorated small apartments, from sea-view villas to pastoral properties. Buyers are farmers deprived of farmland and urban residents who cannot afford to buy commercial residential houses, urban residents who want to enjoy a pastoral life in the countryside after retirement, and those that buy villas for investment purposes. As a matter of fact, such houses cannot be simply prohibited. Instead, we should increase the comparative returns of farming in line with the principle of unifying land prices and rights so that farmers will voluntarily protect farmland. Also, we should, according to the principle of unifying authority over administrative affairs and financial affairs, reform the existing financial system and solve the problem of limited revenue sources of local governments. On top of that, we should gradually deregulate houses of limited property rights by separating old houses from new ones.

3. Doubling People's Incomes

The excess disparity between the rich and the poor and severe unfairness in income distribution is the major problem in China at present, which directly jeopardizes economic development and social stability. In theory and practice, the Gini coefficient is the benchmark for measuring income disparity. Zhao Renwei and Li Shi of the Institute of Economics of CASS were the first Chinese researchers to study the issue of income distribution. Based on three large household surveys, they calculated China's Gini coefficient in 1988, 1995 and 2002 to be 0.382, 0.452 and 0.46 respectively, indicating that the income disparity is widening. In 2000, the National Bureau of Statistics reported that China's Gini coefficient

³ Houses with limited property rights are those built on collectively owned rural land but sold to buyers who are not part of the collective land ownership and therefore don't have legal protection for property rights.

was 0.412, much lower than the figure released in 1995. After that, the National Bureau of Statistics never again released the coefficient.

On 9 December 2012, the Survey and Research Center for China Household Finance of Southwestern University of Finance and Economics (SWUFE) unveiled the first 'non-governmental' Gini coefficient for 2010, which stood at 0.61. To break it down, the coefficient was 0.56 for urban areas and 0.60 for rural areas. It was because of the wide disparity in income shown by the non-governmental Gini coefficient that the National Bureau of Statistics was forced to release the coefficient for the years 2003–2012. The coefficient was 0.491 in 2008, 0.477 in 2011 and 0.474 in 2012, which presented a trend of falling from the peak. However, the trend displayed by the figures differs from what people feel. Therefore, it was questioned by many Chinese and foreign experts. According to Zhao Renwei, 'Urban and rural areas are combined to calculate the Gini coefficient in more than 200 countries around the world. Only in China are they separated. This itself is something strange. Even if this basic problem can't be solved, how can the disparity between the rich and the poor be narrowed?' Li Jian thinks that this figure is extremely odd. Xu Xiaonian, of the China Europe International Business School, frankly said that 'even children's fairy tales can't be written in this way'. Ding Anhua (vice president of China Merchants Securities (HK) Co., Ltd.), Li Wei (economic analyst of the Standard Chartered Bank), and Qu Hongbin (chief economist of HSBC Bank) think that there is no way to assess or compare this figure. Given the opinions of these experts, it is understandable that people are suspicious of the numbers.

To solve the acute problem of income distribution, the 18th CCP National Congress adopted the income doubling program and target, specifically stipulating that not only total GDP and per capita GDP, but also per capita income should be doubled. To do this, people's incomes should be doubled on an inflation-adjusted basis, and disposable income doubled on a tax-adjusted basis. This is an encouraging target. But the key is how to achieve this target. The State Council once promised to unveil the income distribution reform plan by the end of 2012. But to date, there is no information on it. This shows how difficult it is.

In the Q3 macroeconomic analysis, this issue was discussed from the perspectives of primary distribution and redistribution. There are two problems with the primary distribution. First, the income of businesses grows rapidly while that of employees rises very slowly. As a result, the proportion of income of businesses in disposable income grew from 15% in the 1990s to the current 20%. The income of businesses grew too rapidly for two reasons. First, in the relationship between labour and management, labourers are usually weaker. Also, labour resources in China are abundant and the development-oriented government is in more favour of capital. Therefore, wages are relatively lower and the working conditions in factories are far from satisfactory. The second reason that the income of businesses grew too rapidly is that monopolistic departments take advantage of their monopoly to price their products much higher than the equilibrium price to gain excess profits. Also, they leverage

the administrative monopoly empowered by the government to lower their cost far below the normal cost to get monopoly rents. As to the second problem with primary distribution, the disparity in the wages of executives and ordinary employees is too wide. According to the information provided by the Ministry of Human Resources and Social Security, the disparity in 2011 was up to 4,553 times. This is mainly because of the lack of market restrictions and property rights constraints in SOEs. The remuneration of SOE executives has risen rapidly. In addition, the stock option system is quite distorted. Consequently, the huge disparity in the wages of executives and employees is not surprising. Government revenue is excessive and is growing too rapidly. In addition, income from moonlighting, rent seeking and corruption among government officials is a severe problem and difficult to deal with. To address the income distribution problem, we should find apt and specific ways, and take effective measures.

Based on the spirit of the 18th CCP National Congress, we would like to discuss this issue from another perspective. Although income distribution is an important reason for the disparity between the rich and the poor, wealth distribution rather than income distribution is decisive in reality. The two issues are connected but quite different. Income distribution refers to flow distribution or increment distribution. Wealth distribution refers to stock distribution. With stock wealth, income flow can be generated at any time. If the flow is used for investment, it will be transformed into stock. The flow or increment is relatively smaller, while the stock is larger. This is general knowledge.

Stock wealth consists of material property, financial property and intangible property. In reality, the disparity caused by direct acquisition of various property, property appreciation and depreciation is much larger than that caused by income distribution. For instance, in coal development in Shanxi and Shaanxi, the fight for exploration and mining rights turned out to be a hallmark event. Why could the coal tycoons from Zhejiang strike it rich overnight? Why did the Shanxi provincial government rip up the agreement with the excuse of industrial integration to snatch the mining rights from coal tycoons, which resulted in the advance of the state and the retreat of the private sector? The reason is that it can bring huge fortunes. Why do the relatives of government officials choose to work as executives of large SOEs? Because they can enjoy huge remuneration and get wealth through control of assets. Take financial assets, which include bank savings, stocks and bonds, as an example. At the end of last year, the balance of resident bank savings amounted to RMB 40 trillion. The value of these financial assets didn't rise along with economic growth. Instead, it decreased due to the high interest margin and negative real interest rate. It is the financial sector that benefits from this. Most of the hundreds of billions of profit of state-owned banks comes in this way. Both savings and loans are actually donations to the banking sector. This is a hidden wealth transfer.

The wealth disparity resulting from this transfer overlaps with and differs from the foregoing analysis to some extent. First, the wealth transfer is caused by the division between

urban and rural areas. Before the reform kicked off, farmers were exploited by the ‘price scissors’ for a total of RMB 600 billion in 30 years. In recent years, trillions in wealth has been plundered from farmers whose land is appropriated every year. In the 1980s and 1990s, the price scissors provided a breeding ground for rent-seeking and corruption. In this century, the dual division system of land provides fertile soil for rent-seeking and corruption. Many rural residents work in urban areas, providing an inexpensive labour force and creating enormous wealth. However, they can’t enjoy the same services and benefits as their urban counterparts because of the household registration system. This exploitation of farmers results in low-cost urbanization. Second, the wealth transfer is caused by the public ownership system. In China, natural resources and SOEs are owned by the state and the capital gains from them should be enjoyed by all the people. In reality, however, some of them are transferred to private enterprises at low prices, some are controlled by a few officials, and some are even transferred into individual wealth by various legal and illegal means, leaving only the environmental costs. Third, the wealth transfer is caused by monopoly. This is mentioned in the report of the previous quarter. On 4 January, the Bureau of Price Supervision and Anti-Monopoly of the National Development and Reform Commission (NDRC) imposed a penalty of RMB 353 million on Samsung, LG, Chimei, AUO, Chunghwa Picture Tubes and Hannstar Display Corp. for their monopoly in 2001-2006. This gives some satisfaction to the people. But when can anti-monopoly investigations be launched on domestic monopolistic enterprises? Although people look forward to it, they don’t place much hope in it.

Based on the above analysis, to narrow the gap between the rich and the poor and solve the problem of unfair income distribution, we may need to start with unfair wealth distribution and seek a temporary and permanent solution. Only in this way can we increase the size of the middle class and change the current nail-shaped income distribution structure into an olive-shaped one.

4. ‘Build a Beautiful China’ Campaign

The 18th CCP National Congress proposed to build a beautiful China. General Secretary Xi Jinping also mentioned that people wish to lead a better life, including living in a clean and comfortable environment. This indeed embraces the people’s common will. In fact, low-carbon economies, ecological protection and environmental beautification have already become a tide throughout the world.

To address the environmental problem we must solve the energy issue. As a new energy industry, the photovoltaic power industry is both a strategic highland for a new wave of international competition and an important means to build a beautiful China.

It is well known that energy is an important force that drives human development. Men were distinguished from animals the day they learned how to drill wood to make fire. To date, the production and utilization of fossil energy has significantly shaped the world. But what

will the future sources of energy be? We believe that photovoltaic power will become the major source of energy, because it has many advantages. Comparatively speaking, traditional fossil fuels will soon be used up, and they cause serious pollution. Nuclear power can provide a lot of power, but safety is a major concern. The Chernobyl nuclear power plant has changed a vast area of Ukraine into barren land. The earthquake in Japan demonstrated that the safety of nuclear power is hard to ensure, and it takes a long time for nuclear radiation and nuclear waste to decay. As long as water flows, it can generate hydraulic power. However, it poses a very negative ecological impact. The debate on the Three Gorges Dam and Power Plant is still going on today. Some people call it a sword hanging over the heads of the Chinese people. The cascade development on the upper reaches of the Yangtze River has caused a serious ecological impact. Wind power doesn't cause any pollution. However, it is restricted to windy areas and it is not easy to manufacture and maintain the tall wind power towers. Solar power is inexhaustible and doesn't cause any pollution. Moreover, it is easy to manufacture and install solar panels, which can be installed on roofs, walls, in empty space and deserts. Therefore, photovoltaic power is an important means to solve the future energy problem and build a beautiful China.

China's photovoltaic power industry has undergone a leap forward in its growth. Take the Wuxi-based Suntech Power Company as an example. It was established in 2001 and put the first production line into operation in 2002, which could produce 10 megawatts (MW) of solar panels per year. Product capacity was expanded to 150 MW by 2005, 470 MW by 2007 and 1,000 MW by 2010. In 2011, the company put the fourth production line into operation, increasing the production capacity to 2,400 MW per year. Devoting 5% of annual revenues to research and development (R&D), the company now has two R&D centres and five global production bases staffed with over 20,000 employees. But now, like China's photovoltaic power industry, Suntech Power has also plunged into trouble.

The trouble has two root causes. One cause is the blind development dominated by the government. Spurred by policies issued by the central government, local governments vie with each other in setting up solar panel manufacturing facilities. Many enterprises in traditional industries, such as textile, clothing, home appliances and traditional power industries moved into the photovoltaic power industry, giving rise to production capacity surplus. In 2011, the global market capacity totalled 290 MW, but China's production capacity exceeded 300 MW. The second cause is dramatic changes in the market. Some people say jokingly that China's photovoltaic power industry is a baby born in China but raised by other countries, because 95% of the market is abroad and 70% of the demand comes from Europe and the US. However, both Europe and the US launched anti-dumping and anti-subsidy investigations into China's solar panel manufacturers. In November 2012, the US made a final verdict to impose a high customs duty on solar panels imported from China. Now 95% of the polysilicon and 50% of the solar panel production capacity is shut down. Take Suntech Power as example again. It was listed on the New York Stock Exchange

(NYSE) at US\$ 15 per share. The company raised US\$ 197 million and its market value amounted to US\$ 4.9 billion. The share price went up to US\$ 92. But now its share price has dropped below US\$ 1 and the market value of the company is only US\$ 140 million. If this situation is not reversed within a given time, it will be delisted from the NYSE. In general, the cash flow of most solar panel manufacturers has dried up, plunging them into liquidity difficulties and crisis.

However, the photovoltaic power industry still has a rosy future. In terms of market prospects, international energy experts predict that the installed capacity of solar power generation will amount to 600 gigawatts (GW) in Europe and 900 GW in the US by 2050, and 1 terawatt in China by 2030, growing by more than 30 times in less than 20 years and presenting a bright market prospect. In terms of technological and economic prospects, the price of electricity generated by solar power was RMB 4 per kWh three years ago. Now, the price is approaching RMB 1 per kWh. Experts predict that by 2017-2019, the price of electricity generated by solar power can compete with the on-grid price of electricity generated by traditional energy sources. The price of solar power generation devices has also dropped rapidly. An inverter is a device that turns direct current into alternating current before the electricity is integrated into the power grid. In 2008, the cost was RMB 6-8/W, but now it is only RMB 0.4/W.

Many people advocate nationalization of the photovoltaic power industry so it can address the liquidity crisis haunting the industry, thinking that the four major state-owned power companies are powerful and have abundant funds. Actually, nationalization is being adopted in many places. For instance, Jiangxi-based LDK Power sold 19.9% of its shares to a company in Xinyu that is owned by the local State-owned Assets Supervision Administration Committee. A photovoltaic power company in Dongying sold 50% of its shares to the Dongying Municipal State-owned Assets Supervision Administration Committee. Nationalization is also an option for Suntech Power to solve its current problems. However, we don't think that it is a good choice. First, the four major state-owned power companies are all engaged in solar power. But Suntech Power outperformed them all. This proves that they are less efficient. Second, the four major state-owned power companies are leaders in the area of traditional energy, where they are fairly well off. Therefore, they won't look for a new business while they already have a good one. Third, nationalization will squeeze the development room of private businesses and the whole market economy. A better way is to phase out those that should be eliminated through market integration so that good enterprises can grow larger and stronger.

As a solution to get out of this difficulty, the Ministry of Science and Technology issued the second list of 'China Gold-Sun Projects' of 2012 on 11 December, whose installed capacity totals 2.83 GW, making the annual aggregated installed capacity 4.54 GW, in a bid to expand the domestic photovoltaic application market. On 19 December, the executive meeting of the State Council adopted policy measures to promote the sound development of

the photovoltaic industry, covering five aspects: (1) accelerate industrial restructuring and technological advance; (2) regulate the industrial development order; (3) actively explore the domestic photovoltaic application market; (4) improve supportive policies; and (5) leverage the market system, reduce government intervention and prohibit local protectionism. The State Council also decided that the central treasury should earmark RMB 13 billion for the year to subsidize and support photovoltaic application demonstration projects. However, current policies make it difficult for the photovoltaic power industry to extricate itself from its plight. First, these policies are designed to subsidize photovoltaic application at home. But the domestic market accounts for a very small proportion of the world's total. Therefore, the deterioration of the industry can hardly be eased. Second, most subsidies end up in the pockets of power station operators, while power generator manufacturers don't benefit from them. Third, the renewable energy electricity price subsidy is distributed by the State Grid Corporation. Many photovoltaic power stations can only receive the desulfurization cost, and some of them don't receive any subsidy at all. According to the latest news, the subsidy was distributed only until April 2011. This subsidy method warrants further discussion.

First, it still subsidizes manufacturers rather than consumers. When manufacturers are subsidized, foreign countries can still launch anti-dumping and anti-subsidy investigations. Also, there is the problem of how to subsidize manufacturers. If all the manufacturers are subsidized, it will go against the adjustment principle, because those that should be phased out still exist and those that should be revitalized still remain sluggish. If the subsidy is given to selected manufacturers, the problem is how to select. Moreover, it will provide a good chance for the government to set and seek rent. This is demonstrated by the recent dispute between Himin and Sunrain Solar Energy over the subsidy for solar water heaters. Subsidizing consumers is a good method that complies with the requirements of the market economy. Consumers use the money to vote in the market (purchases). They will choose the better brand and vote for good manufacturers. In this way, better manufacturers will grow larger and stronger. Therefore, it is a good method for market selection.

Second, at present, the subsidy for solar power stations is called an application subsidy. But in fact, it subsidizes production. Even if the subsidy is received, only the manufacturers will benefit from it, while consumers can't get any direct benefit. As a result, this is still a traditional practice that pays overdue attention to production and belittles consumption. Since solar panels can be installed on roofs and walls, why can't we 'walk on two legs', i.e. build some large solar power stations while encouraging individuals and families to install solar panels through subsidies? Currently, the capacity of one m² of solar panel is 150 W, and the cost is RMB 10-15/W. If the government subsidizes 70% of the cost, people only need to pay RMB 3-5/W. As a result, they will be willing to install solar panels. This is both consumption and investment. Solar panels can generate power once they are installed. If the problem of integrating power into the grid can be solved, people can sell the excess power they generate to the grid and buy power from the grid when the power they generate is insufficient. This is

real investment and consumers will be willing to install solar panels. In Germany, power generated by solar panels in family homes can be integrated into the grid. This proves that technology poses no obstacle. The problem lies in policies. If this problem is solved, the domestic photovoltaic market will be much larger than if only the power generators are supported.

One issue is the power integration policy. When adopting the policy measure to regulate the industrial development order, the State Council emphasized that we should ‘better coordinate the planning of photovoltaic power industry and supportive grids, and particularly, establish a streamlined and efficient power integration service system’. On 26 October, the State Grid Corporation issued *the Opinions on Intensifying the Integration Service for Distributed Power Generation (Interim)*. According to this document, from 1 November, distributed photovoltaic power generation projects in China can enjoy free integration service, use the power they generate and integrate spare power into the grid. But the China Southern Power Grid didn’t follow up. As a result, the document issued by the State Grid Corporation is only a ‘rubber check’, and photovoltaic power generators in China still suffer difficulty in integrating power into the grid and opening the domestic market.

A related issue is the power tariff policy. The executive meeting of the State Council also specified that ‘we should fix regional on-grid benchmark tariffs for photovoltaic power stations in line with resource conditions, subsidize photovoltaic power generators according to the quantity of power they generate, adjust the on-grid power tariff and subsidy standard according to cost changes, improve the mechanism to support the photovoltaic power industry with funds from the central treasury, and apply the same preferential value-added tax policy to photovoltaic power projects as to wind power projects’. On 4 December, NDRC and the State Electricity Regulatory Commission jointly issued a notice on the *Proposal on Subsidy and Quota Trading for Power Tariffs of Renewable Energy (October 2010 – April 2011)*, providing nearly RMB 10 billion in subsidies to 800 wind, solar, biomass and geothermal power generation projects. But these enterprises can’t access the subsidy quickly. Therefore, their cash flows won’t be sustained. Many of them are in difficulty and theoretically facing bankruptcy.

In general, if these problems are properly addressed, China’s photovoltaic power industry will grow significantly, and consequently the wish of building a beautiful China will gradually come true.

5. Conclusion

The 18th National Congress of the Communist Party of China marked the beginning of the third period of 30 years of the Chinese Communist Party’s rule, and it is of great importance for China’s future development. In the first three decades of its rule, the CCP established a planned economy, winding up in a blind alley. In the next three decades, China carried out marketization reforms, transitioning from a planned economy toward a market economy and

achieving high-speed economic growth. However, distortions in the economic system left China far from being a real market economy. In the coming period of 30 years, the CCP should adjust and perfect the economic system in favour of a market economy.

In this brief, the main issues discussed are the following: First, China needs to mitigate pressures on the economic growth and strengthen structural adjustments. Second, China should break the urban-rural divide, solve land-related problems, and address conflicts of the household registration system (*Hukou*) and the related social welfare problems. This needs to be done in accordance with fair, constitutional principles, promoting a new type of urbanization. Third, China must attach more weight to solving the problems of unjust wealth distribution, reducing income disparities and doubling the income of the people. Fourth, China must develop new forms of energy, including photovoltaic solar energy, and improve the ecological environment in pursuit of the 'build a beautiful China' campaign. All of these tasks are going to be the important during this third period of 30 years of the CCP's rule of China, and necessary in order to correct market distortions, perfect the market system, and ensure that the Chinese economy develops persistently and in a stable fashion.