Chapter 5

China: Searching for a New Development Model

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CHAPTER 5

China: Searching for a New Development Model

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The high growth in over the past three decades has lifted China into the ranks of the high middle income countries. However, China's path to becoming high income country is still rife with many new challenges in economic, social and environment fronts. Many factors that supported past high growth, such as exports, and abundant labor and capital supply will begin to exert an opposite effect, slowing growth. And China's growth is increasingly constrained by rising social and environmental tensions. Faced with new challenges, China needs to search for new approaches to development. The key components of the new approach may include: coordinated social and economic development strategies, an innovation-centered industrial restructuring strategy, a consumption-centered domestic demand-boosting strategy, a migrant worker-centered urbanization strategy, a resource-aware and environmentally sustainable strategy, and a balance- centered external economic strategy. To turn to begin this new approach to development, China needs to push further reform in key areas.

Keywords: middle income trap, sustainable growth, growth model

JEL classification: O10, O15, O53

1. Introduction

China has achieved very rapid economic growth since the introduction of reform and beginning the process of opening up its economy in the 1980s. Its extraordinary economic performance has lifted China into the ranks of the high middle income countries, from a position as one of poorest countries in the world. At the aggregate level, China's achievement is even more outstanding. The size of China's economy is now second only to the US, while 30 years ago it was smaller than Spain. The reform process has also transformed China from a closed economy to being the largest exporter in the world. China's growth improved its people's living standards greatly, bringing down the population in poverty from 250 million to 14 million, and the prevalence of poverty down from 30% to 1%.

China's next goal is to project itself into the ranks of the high income countries, or in China's terms, to develop into an all-round Xiaokang (well being) society. At first glance, this goal seems within easy reach. China just needs to extend its success story a little longer, say to continue current high growth levels for the next 10 years, and it will be very close to the threshold of the high income countries. However, historic experience suggests that a late developing country might easily reach middle income status, but few of them reach the high income level. In recent, post World War II history, among the big economies, only Japan and Korea succeeded. The World Bank have labeled this phenomenon "the middle income trap" and point out that the institutions and experience that have led to past success do not guarantee future success (World Bank, 2012). Social turmoil and loss of competitiveness are the most common causes of a middle income country failing in its path to becoming a high income country. China is not immune to this challenge. In recent years, especially after the global financial crisis, China is finding it increasingly difficult to hold on to its high growth rate. The government has had to stimulate growth repeatedly, rather than having to reign in runaway growth, as in times past. The global financial crisis and ensuing deleverage in developed countries, together with changing domestic conditions, may potentially derail China from the track to becoming a high income country. Or in other words, the current growth pattern of China, which premier Wen Jiabao continually characterized as uncoordinated, unbalanced and unsustainable, may no longer live up to its task. China needs to search for a new approach to development to tackle new emergent challenges and to have its potential fully tapped. In the face of the new challenges, only a new approach to development can secure China a seat at the table of the high income countries.

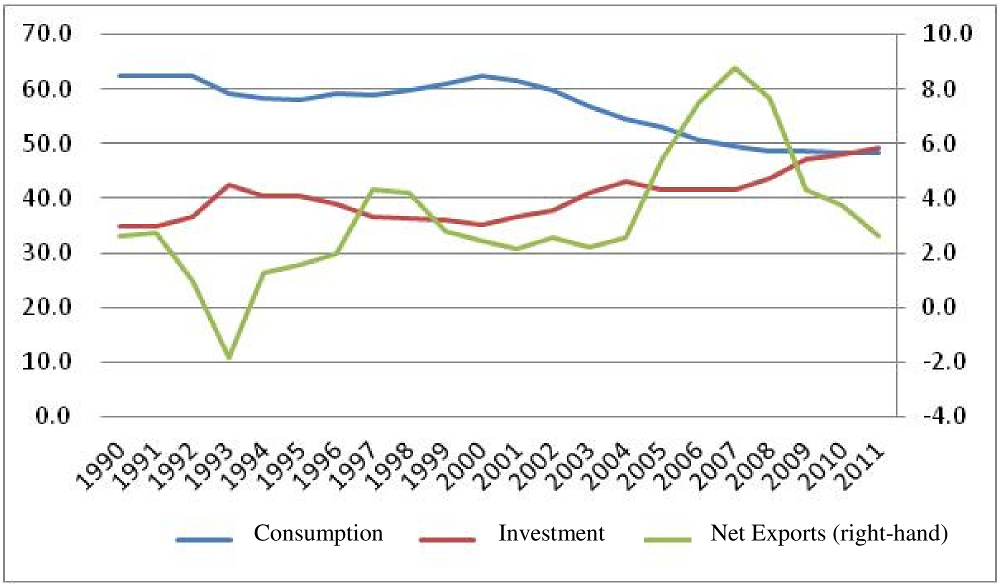
2. The Characteristics of China's Current Growth Model

China has experienced rapid economic growth since the introduction of the reform and opening up process in the 1980s. The average annual growth rate of China in period from 1980 to 2011 was 10%, a faster rate than any other major economy in the world. The growth pattern of China's economy also evolved in this period.

2.1. The Evolution of China's Growth Pattern

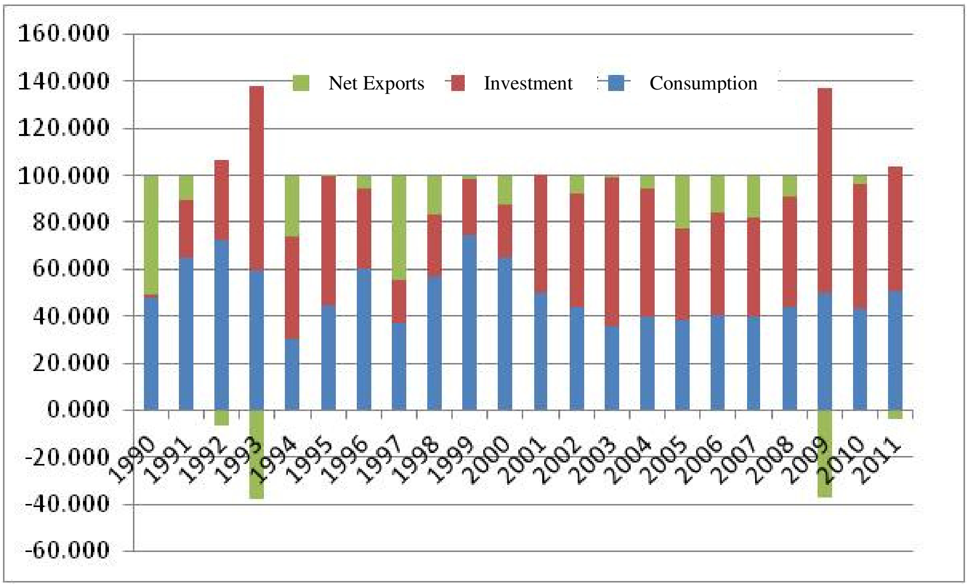
From the perspective of demand, the growth pattern of China went through three stages. The first stage was from 1980 to 2000 in which the share of consumption, and investment in GDP barely changed and the current account was roughly balanced. The consumption rate was 65.5% in 1980, 62.3% in 2000; the investment rate was 34.8% in 1980, 35.3% in 2000 (Figure 1). The share of net exports was volatile but within ±4% of GDP. The economy in this period was mainly driven by consumption growth. The consumption contributed 60% of growth, and investment contributed 32%. The second stage was from 2000 to 2009 in which a pronounced decline of the consumption rate took place, with a corresponding rise in investment and net exports. During this period, the consumption rate declined by 13.7 percentage points, and the investment rate rose by 8.5 percentage points. And China continued to accumulate a trade surplus. The surplus's share of GDP rose by 5.3%. Some believed that China's economy was both internally and externally unbalanced in this period, evidenced by excessively high rates of investment and trade surplus. Not surprisingly, the growth in this period was mainly driven by investment and net exports. The contribution of investment and net exports to the growth were 45.5% and 10.3% respectively, reducing the contribution of consumption (Figure 2). The global financial crisis marked another shift in China's growth pattern. China's exports collapsed during the crisis. In 2009, exports declined by 16%. After the crisis, China's exports recovered strongly but did not return to the level seen in the run-up to the crisis. As a result, China's trade surplus shrank significantly after the crisis and its share of GDP was down to 2.6% in 2011, much smaller than at its peak of 8.8% in 2007. Although the external imbalance has been corrected somewhat after the crisis, the internal imbalance remains largely intact or to some extent exacerbated. The investment rate rose further after the crisis, from 43.8% to 49.2% from 2008 to 2011. The consumption rate moved in the opposite direction, declining from 48.6% to 48.2%. As a result, the contribution of investment to growth expanded to 60%, while net exports were no longer the driver of growth. The average contribution of net exports in this period was -7%.

Figure 1: The Composition of GDP 1990-2011 (%)



Source: CEIC database.

Figure 2: The Contribution of Consumption, Investment and Net Exports to Growth (%)



Source: CEIC database.

In conclusion, China's growth has been increasingly driven by investment and exports in the past decade. After the global financial crisis, with withering exports, the driving force of the growth tilted towards investment. However, whether the rebalancing of is external sector is temporary or sustained is still under debate. Some institutions, like the IMF, believe the decline in China's trade surplus was temporary and expect that its share in GDP would rebound to 4-4.5% by 2017 (Ahuja, *et al*. 2012).

2.2. China's Growth Pattern in the Context of International Experience

China is not an exception in experiencing a rising investment rate in its drive to industrialization. A multi-country study has concluded that most countries have followed a reverse U shaped movement of the investment rate as income level rose (Gou Chunli, 2010). China's East Asian neighbors, for example, such as Japan in the 1970s, and Korea in the 1990s experienced dramatic structural change. But, what makes China outstanding is that China's investment rate is excessively high by international comparison. An investment rate close to 50% has not been seen in recent history. China's investment rate is not only much higher than the average level of counties at the same development stage, but also higher than the maximum level that China's Asian neighbors ever reached. In its peak, the investment rate of Japan and Korea were only 36.4% and 38% respectively (Table 1). China has also experienced a consistent trade surplus and accumulated huge foreign exchange reserves, which are also unmatched internationally (Fukumoto and Muto, 2011).

Table 1: China's Investment and Consumption Rate Compared to Selected Economies

year	China	Japan	US	Korea	Taiwan, POC	Thailand	Indonesia	India
Investment/GDP								
2010	48.1	20.5	15.5	28.6	21.7	24.7	32.2	31.8
Historic Max	49.2	36.4	23.2	38.0	30.9	41.6	32.2	35.8
(year)	(2011)	(1973)	(1943)	(1991)	(1975)	(1991)	(2010)	(2007)
Private Consumption/GDP								
2010	34.9	58.6	70.6	52.5	58.0	53.7	56.7	61.9
Historic Min	34.9	52.3	49.5	49.1	47.2	53.2	56.7	61.7
(year)	(2011)	(1970)	(1944)	(1988)	(1986)	(1995)	(2010)	(2009)

Source: Fukumoto and Muto, 2011.

2.3. The Factors Behind China's Growth Pattern

Why are China's investment and current account surplus so high? These are still controversial issues. Some attribute more causality to the economic fundamentals, others to policy distortions. Because it is still difficult to quantitatively discern the effect of each factor, and economic theory has not been able to provide an optimum investment-consumption ratio as benchmark, the debate will continue.

For those who believe the economic fundamentals play a leading role, China's investment and current account surplus are high, but are no more than a result of the working of the market economy. China's unprecedentedly low consumption rate is therefore produced by unprecedented economic fundamentals.

China is the most populous country in the world, with the biggest surplus labor reservoir. Surplus labor shapes China's growth pattern in many ways. High investment is clearly driven by high return on investment. More often than not, China's enterprise profitability is not built on innovation and high value added, but on low cost. The surplus labor is essential to high investment. And the distributional effect of surplus labor is huge. As surplus labor has suppressed wage growth, the corporate sector has enjoyed profit growth of around 30% per annum since 2000, significantly outperforming wage growth which averaged 15% per annum (Dew, *et al*. 2011). As a result, income of the household sector, as a per cent of GDP, declined noticeably, contributing to the shrinking share of private consumption. Correspondingly, the rising proportion of corporate saving to GDP explained much of the rise of the general saving rate.

Facilitated by progress in ITC technology, improved infrastructure, and trade liberalization, the human race has, since the 1990s, experienced a wider and deeper globalization than ever in its history. China is at the very center of this globalization. The relocation of manufacturing to China has made it the World Workshop. Globalization has improved efficiency, expanded market access and prolonged product life, raising the return of investment. High investment is thus the natural result of high investment return. Globalization is also the factor behind China's high trade surplus. In China, foreign funded enterprises have higher propensities to export. As more and more export-oriented manufacturing has relocated to China to take advantage of cheap labor, the trade balance tipped into surplus. The accession of China into the World Trade Organization (WTO) in 2001, which led to a reduction in trade barriers, facilitated this process. The flow of Foreign Direct Investment (FDI) into China has speeded-up and, not surprisingly, the trade surplus grew at a much faster pace in this period. FDI inflows to China reached $148 billion in 2008, up from $3.4 billion in 1989. Most of the FDI has gone into the manufacturing sector, as flows into the service sector have faced more restrictions (Long, 2005). Clusters of production have formed, allowing firms to take advantage of industry-wide increasing returns to scale. China has also become a hub for the production of manufactured exports, with foreign firms taking advantage of low labor costs and China's proximity to other Asian countries.

While household savings have not been the key driver behind the rise in aggregate savings, the household savings rate —standing at nearly 30% of disposable income in 2009 for urban households — is high by international comparison (Dew, *et al*. 2011). Cultural and demographic factors appear to be behind much of this. The tradition of frugality is common in East Asia. Japan, Korea and other East Asian economies are frequently the world's top savers. In China, a particularly high saving rate may also be associated with the very rapid economic growth. Within a generation, China has turned itself from one of the poorest countries into a middle income country. However, consumers' saving behaviors do not change as quickly as economic growth, since the majority of consumers grew up in hard times. Demographic factors also play an important role in the high saving rate, as the proportion of working age population, who save more and consume less in during their working lives, has risen along as fertility has declined.

On the other hand, some commentators blame policy distortions as the main factor behind the economic imbalance. Some believe local government competition is the real driver of China's investment, and therefore of economic growth (Cheung, 2008). To attract investors and undercut other regions' efforts, many local governments offer competitive preferential treatments, such as tax reductions, low priced and even free land and subsidies to investors. Local government itself has also sponsored large-scale investment projects to boost economic growth. All these practices of local government help fuel the high investment growth.

A depressed factor price could be seen as a subsidy to investment. Among other things, the costs of land, energy, capital and pollution prices have been noticeably depressed. Low land and pollution prices are usually the result of local government competition. The energy price, inherited from the planned economy, has been still tightly controlled by the government. A mechanism that links the energy price to input prices or international prices has been established to factor in the change of cost. However, the mechanism has not been strictly implemented if it clashes with other policy goals, such as the stability of the general price level. In general, it is believed that energy prices in China are still lower than the equilibrium level and do not fully reflect the environmental damage caused by energy production and use. The cost of capital has also been held down by the financial depression. The interest paid to savers is regulated by government, and is below the equilibrium level. Low capital cost also motivates investment.

The high savings rate partly reflects concerns over the so-called 'three mountains' — education, pensions and healthcare — following declines in the provision of public services (Blanchard and Giavazzi, 2006). The old social benefit system, always sponsored by State Owned Enterprises (SOEs) and rural collectives, was dismantled in SOE and rural reform programs, and until very recently, new systems had not been established.

Like many other developing countries, China has been following an export promotion growth strategy, which helped channel its resources into the export sector. However, some have argued that China is failing to readjust its policy as productivity rises very rapidly, leading to a consistent accumulation of trade surplus. For example, despite the Renminbi's nominal appreciation between 2005 and 2009, it remains around its 2001 level in real trade-weighted terms. By increasing the domestic price of foreign goods and reducing the foreign price of domestic goods, the weak currency exchange rate has tended to increase China's trade surplus and change the composition of internal demand (Dew, *et al*. 2011).

2.4. The Sustainability of the Current Growth Pattern

No matter what the real reasons behind China's growth pattern are, concerns are widely shared about the impact of excessively high investment and a consistent trade surplus on the prospects for China's economy. First, high investment may lead to overcapacity and inefficient investment, putting the sustainability of China's growth into question. If demand cannot catch up with the rapid expansion of production capacity, the result of high investment, growth will be stalled. Not surprisingly, the sectors with severe overcapacity, such as steel, aluminum, cement and chemicals, are experiencing a noticeable slow-down. And some are particularly concerned about investment in the real estate sector, one of the areas that have received heavy investment in recent years. In other cases, the high investment may also result in inefficient investment, especially when the investment is made by the government, as has been the case after the financial crisis. Overinvestment is not only less productive, but also may increase the risk of financial crisis. The IMF study warned China that "worryingly, it (overinvestment) is much larger and persistent than the implied overinvestment in other Asian economies leading up to the Asian crisis, or in Japan in 1980 before the onset of its 'lost decade'. Both these episodes were followed by protracted growth and investment declines". Second, China's external imbalance mirrors the global imbalance that, some believe, may have played a role leading up to the financial crisis. Astley, *et al.* (2009) argued that, before the crisis, capital flows from surplus to deficit countries contributed to a misallocation of funds and the under-pricing of risk, generating substantial vulnerabilities in the global economy.

Reducing global imbalances — together with financial sector reform — could help to prevent such vulnerabilities building up again in the future. Third, China's high investment and unusually large current account surplus is mirrored in a correspondingly low proportion of spending on consumption, suggesting that China's household sector has not benefited as much as the growth figure indicated. Together with the uneven income and wealth distribution, the justice of China's growth has been questioned. China's household consumption as a percent of GDP is lower than that of other Asian countries at similar stages of development. The changes in China's external environment and domestic conditions will also make the current growth pattern unsustainable.

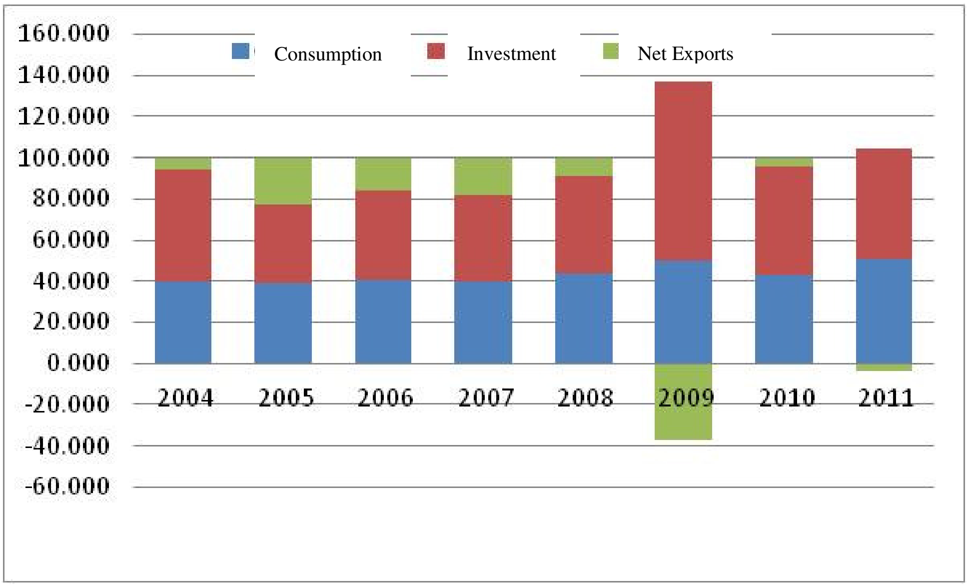
3. The Changes of China's External Environment and Domestic Condition

Looking ahead, many factors that supported China's high growth over the past three decades are tending to change. The global financial crisis and EU sovereign debt crisis harbingered huge changes in China's external demand environment and inevitably led to a slowdown of China's exports, once a powerful engine behind China's high growth. Domestically, the conditions for development will also experience a fundamental change. New features of factor supply, dramatically different from the past three decades will emerge, shaking the foundation of the existing growth model by weakening the comparative advantage China enjoys today. And China will also increasingly face challenges and constraints on the social and environmental fronts.

3.1. Deteriorating Trends in the External Environment

It is widely believed that the ongoing global crisis will exert long term impact on developed countries. The developed countries are going to experience a painful deleverage process to change from their living-beyond- means model that helped foster the crisis. The process will also be accompanied a structural change toward reindustrialization. The deleveraging and reindustrialization will fundamentally change the external demand environment within which China's exports prospered over the past 30 years. To make things worse, protectionism is rising in the developed countries, as unemployment stays high. Impacts from a changing external environment have already been felt. The exports that have been an important engine behind China's growth are growing at a much slower pace than before the crisis. Gone is the double digit export growth, and China has to struggle to achieve a one-digit growth this year. As a result, exports will no longer be the important driver of growth that they once were. In their peak, net exports contributed 8% of China's GDP, and more than 20% of its growth (Figure 3). The trade surplus now only contributes about 3% of GDP and it is now a drag rather than a driver of growth. Looking forward, deteriorating external demand will slow export growth further, and in turn will depress economic growth.

Figure 3: The Contribution of Net Exports to China's Growth (%)

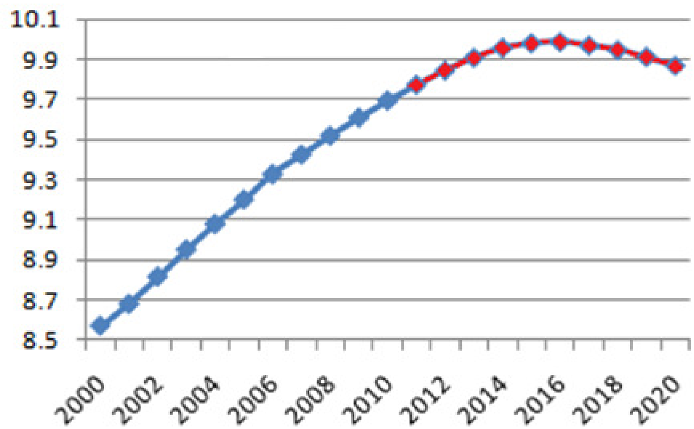


Source: CEIC data base.

3.2. The Supply of Production Factors Will Tend to Slow in the Next 10 years

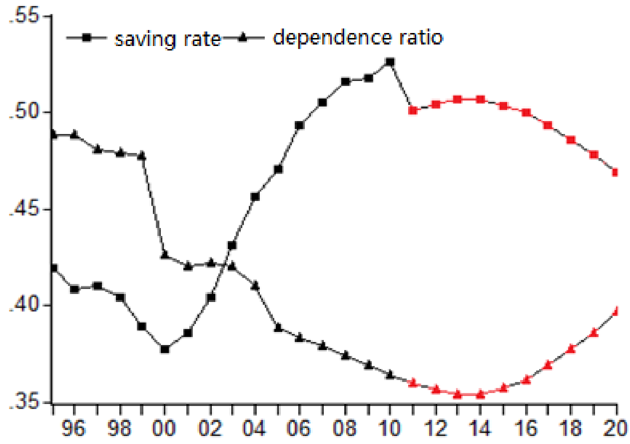
China's high growth in the past three decades was driven by abundant production factor supply. An unlimited supply of labor and a high saving rate were the hallmarks of China's economy. However, with demographic change and for other reasons, the supply fundamentals are going to change and this will exert a great impact on China's future growth. First, the labor force will stop growing around 2016 and will tend to diminish after this as the working age population will peak at 999 million in 2016, and decline to 987 in 2020 (Figure 4). (IPLRCASS, 2010) This demographic change marks a fundamental shift in one of the basic factors driving economic growth. Second, the savings rate in China will be down by about 5 percentage points in 10 years as result of changes in the age structure of the population, redistribution efforts and progress in the social security system (Figure 5). Third, the reallocation of labor will come to an end as the reservoir of rural surplus labor is rapidly exhausted, leading to the loss of an important source of total factor productivity (TFP) growth. All the above three factors will be at work to slow China's growth.

Figure 4: The Dynamics of the Working Age Population of China (in Hundred Million People)



Note: the data after 2012 is projected
Source: IPLRCASS, 2010

Figure 5: The Dynamics of Saving Rate and Dependence Ratio of China



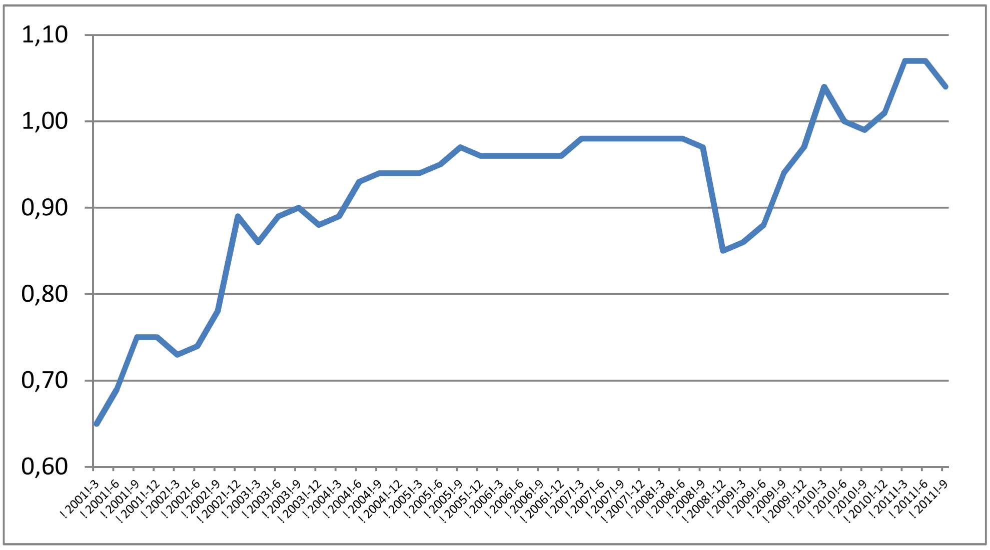
Note: the data after 2012 are projected

Source: Xuegong, *et al*. 2011(a).

3.3. Weakened Comparative Advantage to be Weakened

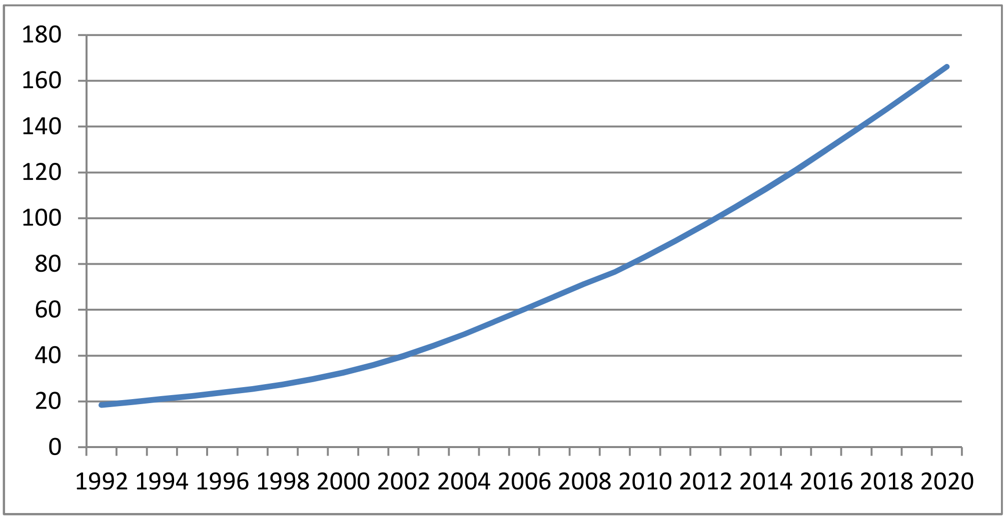
Cheap labor and the comparative advantage based on it were very much the foundation for China's high growth over the past 30 years. However, the slowing growth of the labor force, together with the accumulation of capital stock, will eventually change China's comparative advantage (Figure 6 and Figure 7). Labor will no longer be in surplus relative to capital. Since 2001, the ratio of supply and demand in China's labor market rose steadily, from 0.65 to 1.04 in 2010, suggesting there are more jobs than job-seekers. This change is inevitably leading to the end of cheap labor. This is increasingly evident as the wage increases for unskilled labor have accelerated in recent years. This trend should be welcomed, as it will help correct the structural problems of the Chinese economy as well as helping transition to more inclusive growth. However, the end of cheap labor, together with currency appreciation, will also deal a blow to the industrial competitiveness of China.

Figure 6: Ratio of Demand and Supply in China's Labor Market



Source: CEIC data base.

Figure 7: The Change of Capital Stock Per Head of Labor in China unit:1000 Yuan RMB



Source: Xuegong *et al*., 2011.

3.4. The Social Problems and Risks Accumulate to an Uncomfortable Level

China's high economic growth has been accompanied by the accumulation of social problems and risks that it is imperative to deal with. First, the distribution of national income is biased in favor of government and the corporate sector. In the primary distribution, the share of labor compensation in GNI declined from 51.4% in

1995 to 39.7% in 2007 while the shares of government and the corporate sector increased by 2 and 10 percentage points respectively. Redistribution efforts are inadequate and do not help very much to correct the bias. This situation suggests that China's household sector did not benefit from economic growth as much as government and the corporate sector. Second, inequality of income and wealth has been rising significantly in recent years. The Gini coefficient rose from 0.2 at the beginning of the reform and opening up process to above 0.4 now, one of the highest in the world. The income disparities between urban and rural areas and between different industries and regions are also widening. The disposable income of China's urban resident was 3.2 times of that of a rural resident in 2010. In 1985, the gap was 1.86 times. The income disparities among different sectors rose to an alarmingly high level. In 2009, the ratio of highest income to lowest was 13.2, in contrast to 1.8 at the beginning of the reforms. (Zhang Yutai, 2010). And the widening is not merit-based. One prominent example is that some state-owned monopolistic sectors have abused their position to reward their management excessively. With property prices shooting up, the inequality of wealth of households also rose dramatically, as housing wealth accounts for some 60 percent of total household wealth. Third, the provision of public services is inadequate and unequal. Social development is lagging behind economic development. The public services that the general public can access are limited and not of high quality. Moreover, great disparity can be found between urban and rural communities and between eastern China and the rest of the country in access to education, health care, social security, culture and other key public services. The inequality in income and access to public services demonstrates that the growth pattern of China is not inclusive, and risks disruption by high social tension, as the experiences of some South American countries suggests. China has witnessed a rising number of social incidents in recent years, signaling an increasing dissatisfaction toward social injustice.

3.5. Environment and Resource Supply Constraints

Due to the stage of its development and drawbacks in institutional arrangements, the resource intensity of China's growth is much higher than that of many other countries. For example, the energy consumed per unit of GDP in China is 2.5 times the world average, 2.5 times that of the US, 7.6 times that of the EU, 2.6 times that of Brazil, and is even higher than that of India and some other developing countries (Zhu Zhixing, 2010). The same situation can be found in other key resource areas. China accounted for 8.5% of world total output in 2009, but its consumption of steel, coal, cement and oil and gas accounted for 46%, 45%, 48% and 10% of world totals respectively. And to make things worse, its resource endowment is poor, China's dependence on imports for resource supply is increasing very rapidly. China's resource reserve per capita is much lower than the world average. Coal, oil, gas, iron ore and copper reserves per capita are only 67%, 6%, 7.1%, 50% and 25% of the world average respectively (Xu Shaoshi, 2010). As a result, more than half China's consumption of oil, iron ore, aluminum, copper and other imported resources now relies on foreign supplies. Looking ahead, with rising scarcity of resources and intensifying competition for those that remain, China, as a late-comer in the market, will find it increasingly difficult to secure the resource supplies it needs. Without greatly reducing its industries' resource intensity, China would not be able to sustain its growth momentum, simply because of insufficient and unstable supplies of resources.

Environmental problems are also increasingly constraining China's growth. China has suffered serious environmental pollution in the drive for industrialization. 17% of China's land suffers from heavy metal pollution, 1/4 of surface water is polluted, and many cities are among the world's leaders in air pollution (Zhu Zhixing, 2010). The ecology of China is also deteriorating, evidenced by growing soil erosion, deforestation and grassland degradation. The environmental problems that gradually emerged over 200 years of industrialization in the developed countries have emerged in China at the same time. Environment pollution has reached the point where immediate remedies are needed. Environmental clean-up is costly, however, and demands industrial restructuring. Global warming is another factor that may limit China's growth. China has committed in its 12th five-year plan to reducing the intensity of CO_2 emissions by 17% during the period 2010-2015. Changing the coal-centered energy mix and resultant high carbon emissions is a great challenge, and will nudge up already rising energy prices.

4. The Major Challenges China Faces in the Coming Decade

The changing external environment and internal conditions of the Chinese economy are at odds with the goal that China is pursuing, which poses severe challenges to its sustained growth.

4.1. Weakening Growth Momentum Clashes with the Need for Continued High Growth

According to Maddison world data (Angus Maddison, 2010), China has been a middle income country since 2008; in that year China's GDP per capita reached 6725 international dollars, or 21.6% of that of the US. To project China into the high income countries group, rapid growth is still needed, as evidence from Japan and South Korea suggests. Contrary to the experience of other middle income countries which failed to reach the high income level, Japan and South Korea did not slow their growth down until their incomes had reached 10,000 international dollars. From 1966 to 1971, Japan lifted its GDP per capita from 6500 to 10000 international dollars, and its annual growth rate in this period was 9.8%. South Korea presented a similar story from 1987 to 1993. In this period, the GDP per capita of South Korea rose from 6900 to 10000 international dollar and the annual growth rate was 8.3% (Sun Xuegong, *et al*. 2011). China is now very close to where Japan was in 1966 and Korea in 1987 in terms of GDP per capita. However, whether China can sustain its high growth rate as Japan and Korea did is in question, without change in its current growth pattern. Compared to other countries, China's growth is more factor input driven. From 1993 to 2009, factor input contributed 3.7% growth annually, 0.3 percentage points higher than other countries during their high growth periods. And the reallocation of labor contributed 40% of TFP growth. With the prospect of slower labor supply growth, a lower savings rate and a lower reallocation of labor, China's growth will slow by 3.4% if there is no new source of growth (Sun Xuegong and Liu Xueyan, 2011). If the constraints of environmental issues and resource scarcity are considered, the slowdown of growth will be even more severe. A new approach to development, which can tap the potential of efficiency improvement and domestic demand, is desperately needed to generate new sources of growth and ensure that China's road to high income will not be disrupted.

4.2. Weak Innovation Capacity Clashes with the Need for Industrial Restructuring

The shift in its stage of industrialization and its changing comparative advantage entails the industrial restructuring of China. In the next 10 years, if China can follow the path of other industrialized countries, it will shift from the middle stage of industrialization to the late stage, characterized by high value-added and a high degree of processing. On the other hand, China's changing comparative advantage calls for a move from labor intensive industry to capital and technology intensive industry. The industrial restructuring will mainly be achieved by upgrading technology and products. The challenge is that China's imports of technology, which was its main source of technology in the past, will be more constrained than ever as China approaches the frontier of technology and is increasingly seen by developed countries as a competitor, or even as a rival. Home-grown technology therefore has to play a larger role in industrial restructuring. However, the innovation capacity of China has not yet been up to the task, because an innovation culture and supporting institutions have yet to be built.

4.3. Tightening Environmental and Resource Constraints Clash with Urbanization

China is still urbanizing. Its urbanization rate is about 50%. Even this figure may still overstate the level of urbanization because migrant workers, who are not fully entitled to the public services available to urban residents, are nevertheless counted as part of the urban population. This situation demonstrates that there is still a long way to go before China's urbanization reaches the level seen in most developed countries. The process of significant urbanization involves the construction of housing, roads and public infrastructure and in turn the expansion of resource and material industries, such as steel, cement and the non-ferrous metal industry. However, with tightening resource supply constraints, China cannot stay on its current track to achieve the expected urbanization. A new model of urbanization, which is adapted to the new reality of resource supply, should be explored.

4.4. Higher Expectations of China's International Responsibility Clash with its Low Level of Development

China has barely crossed the threshold of the high middle income countries, ranking about 100th in the world in terms of GDP per capita. However, at the aggregate level, China has become the second largest economy in the world. China has performed much better after the global financial crisis than the developed countries who still dominate the world economy. The rise of China has prompted high expectations that China will take on larger international responsibilities in the areas of CO2 emissions, global rebalancing, security and development aid. More often than not, the expectations are beyond China's capability, and are not consistent with China's status as a developing country. Taking on international responsibilities incommensurate with China's development level will limit the space for China to grow. This is illustrated in the case of CO2 emissions. China is now the biggest emitter of CO2, but at the per capita level it is still far below the developed countries. To set too high a target for emissions cuts would stop the growth of many of China's industries. To take on proper international responsibilities without harming its growth will remain a challenge for China in future.

4.5. The Strong Government Model Clashes with the Need for Efficiency Improvement

China's economic system emerged from reform which basically met its needs and stage of development, as evidenced by the fact that it generated rapid economic growth. Among other things, strong government is an outstanding feature of China's system, and has worked very effectively in mobilizing resources to launch industrialization and to build large scale infrastructure that are usually beyond the capacity of private sectors. However, when future growth is more generated by efficiency improvement and innovation rather than resource mobilization, the drawbacks of the strong government model will come to the surface and will increasingly become an obstacle to sustained growth. For example, the efficiency of land, credit and energy use is crippled by the current system that government still commands or intervenes heavily in decisions on how the resource is to be allocated. However, further reform to give a larger role to markets in resource allocation will meet strong resistance from vested interest groups who are beneficiaries of government intervention. As efficiency improvement will be a much more important source of growth for China in the future, the stakes are high, and breaking the deadlock of reform is definitely a challenge.

5. Searching for a New Approach to Development

With changing external environment and domestic conditions, China needs to adopt a new approach to development so as to address the new challenges and sustain a decent growth rate so as to ensure its ambitious goal of building an 'all-around wellbeing' society.

5.1. A Coordinated Social and Economic Development Strategy

An economic-centered development strategy has served China very well over the past three decades, lifting it from low income status to being a middle income country. However, in the drive towards high income status, social development should not take a back seat in government thinking. If this were to happen, the high social tensions would threaten social stability, the foundation for development. A new strategy that attaches equal importance to social and economic development needs to address the imperative social problems China faces today. China needs to adopt an inclusive development strategy. The government needs to expand and improve the key public services, such as education, health care, social housing, social security and employment, so as to enable every member of society to share the fruits of economic development. It is important to equalize public services provisions between different regions and between urban and rural communities so as to provide equal opportunity of development to all citizens. Moreover, China also needs to encourage civil society development. Government should refrain from some social affairs and allow NGOs to play larger roles in the field of consumer protection, environment, charity, etc.

5.2. Innovation-led Industrial Restructuring Strategy

Fostering innovation capacity is essential to the new development approach in China. China needs to better adapt and assimilate imported technology, so as to move quickly to the technology frontier. It is important to define appropriate roles for government and the market in motivating innovation. Market competition should be a fundamental driving force of innovation. Government needs to address market failures by sharing the risks of innovation and providing strong protection to Intellectual Property Rights (IPRs). So as not to distort the market, Government should limit its activities mainly to basic research and pre-commercial stage development. It is vital that a better allocation of R&D resources should be achieved. These R&D resources need to cluster in industry sectors to facilitate the commercialization of R&D results.

5.3. A Consumption-led Domestic Demand Boosting Strategy

China needs to tap the potential of domestic demand, especially domestic consumption, to provide a stable support to growth and help its people better benefit from economic growth. To boost consumption, the biased distribution of income needs to be corrected in favor of the low income groups. And a wider coverage and higher standard of social security would help boost consumption by strengthening consumer confidence. China also needs to improve its supply of services, which are still crippled by high entry barriers and excessive regulation.

5.4. A Migrant Worker-led Deeper Urbanization Strategy

Urbanization is a key element in China's domestic demand driven strategy. 1% growth in the urban population would induce 1.2% growth in consumption. Urbanization will also help address the problems of labor shortages and improve the quality of the labor force. The effective working hours of labor in cities will be 5 times as long as in the countryside. The speed of human capital accumulation in cities is 5-10% faster than in rural areas. China's urbanization fallen behind its industrialization by 10-15 percentage points, very much due to its system separating the urban and rural populations, and making movement between them very difficult. The current tide of urbanization is fast but shallow. More than 100 million migrant workers who live in the cities are not entitled to the benefits enjoyed by officially registered urban residents. As a result, the potential benefits of urbanization on growth have not been fully tapped. A deeper urbanization strategy should be implemented to grant the migrant workers full entitlement as urban residents thus not only improving the social structure of China but also providing the domestic demand that can offset the effect on China's growth of a slowdown of external demand.

5.5. Resources and Environmentally Sustainable Strategy

The tightening constraints of resource supply and environmental problems are a result of the extensive growth model and drawbacks in institutional arrangements. To address the challenges of resource supply and the problems of the environment, China needs to develop a array of new technologies, from renewable energy to resource efficiency. To make this happen, China should push for a broad reform in resource and environmental management systems. First, the roles of government and the business sector in resource prospecting and development should be properly defined. It would be beneficial to use market mechanisms to motivate the efficiency improvement and environmental protection. Property right reform in energy, mining, land, water and pollution emissions should be speeded up, and the property rights should be tradable for a better and higher efficient uses of resources. The pricing of resources, energy and use of the environment should be market-based, providing correct signals to guide consumer behavior. To correct the short time-horizon of markets where long term development is concerned, a resource and environmental tax system should be put into place to factor-in the long term scarcity of resources and the impact on the environment. The implementation and decision making mechanisms of environmental standards needs to be improved, and more public participation should be encouraged to make sure that the standards meets the public interest, and that the standards are strictly followed.

5.6. Balanced External Economic Strategy

As a rising economic power, China needs to readjust its economic relations with the outside world. China needs to develop a two-way interaction with the outside world, with more imports and FDI outflow to gradually reduce the dual surplus in current and capital accounts. China should make its development more beneficial to other members of the international community, especially the developing members, by putting more attention on social and environmental consequences of growth on those countries. China should also actively participate in the reform of international economic governance play a larger role in rule-making, and take the responsibility commensurate with its development level.

To turn to the new development approach, China needs a profound reform in several key areas.

First, reform in the role of the government is required. It is undeniable that the government has played an important role in driving China's economic growth over the past 30 years. However, in the new phase of the country's development, government needs to reposition itself in the economy to facilitate transformation of the growth pattern. The government should strengthen its role in public service provision. In this regard, reform of the fiscal system is essential. China also needs to reform inter-government fiscal relations. The upper level of government should take more responsibility for the provision of basic public services, such as compulsory education, health care, and pension provision. The changed fiscal relationship will help weaken the impetus of local government to seek economic growth. The transfer payment system needs to be improved to achieve an equalization of public service among different regions. The government also needs to change its way of running economy, refraining from direct interference and moving to a rule-based regulatory system. China needs to reorganize the regulatory institutions to correct fragmentation and the lack of coordination. The regulators should act independently and in accordance with law.

Secondly, a new round of liberalization in factor markets is required. In the past three decades, China's reform has focused on commodity markets. The market in factors such as land and financial products, remain intact and are still heavily regulated by the government. In many ways, the regulated factor markets are the source of structural problems and even social tension. They also stand in the way of the efficiency improvement that will increasingly be the source of economic growth in the coming years. Factor market liberalization is therefore imperative. Land market liberalization needs to start with clearer property rights arrangements. A farmer's ownership of land and the benefits from such ownership should be fully guaranteed. Land market reform should also end the government monopoly of urban land supply and allow the owners of land, including famers and rural collectives, to trade more freely in the land market. The quantitative control of land supply by the government should be scrapped. The supply of land should be more market-based so as to better match supply and demand. Financial market liberalization is also of significance in China's transformation to a new growth pattern. A more liberalized financial market would eliminate the bias against consumption and better allocate financial resources so as to improve the efficiency of the economy. Interest and foreign exchange liberalization are fundamental to financial market liberalization. China needs to gradually allow the interest and exchange rates to be decided by markets, so as to direct the money to its most efficient use. The liberalization of market entry to new financial institutions is also important. With expanded entry, the financial structure would better match the economic structure. Today a small business receives very little financial service from the big-bank-dominated financial system. Expanded entry will also intensify competition, motivating financial innovation and the provision of better service. Both are weak links in China's financial system. More emphasis should also be put on the development of direct financing to encourage risk taking, which is essential to foster an innovation-friendly environment. The excessive administrative control on access to the capital market should be scrapped and replaced with a more market-based system. A multi-layer capital market needs to be established to meet the different needs of the real sector. .

Thirdly, reform of the State Owned Enterprises (SOEs) is needed. China's state-owned sector has experienced a dramatic change over the past three decades. However, further reform is still needed to get the right level of SOE, and to ensure that SOEs are good corporate citizens. China needs to have a clear demarcation for state economic activity. The unlimited expansion of SOEs in some sectors has tended to suffocate the development of private sector companies. Based on their comparative advantages, SOEs should be active in certain sectors, but not in all. The SOEs operating in competitive sectors should gradually withdraw. On the other hand, the public nature of SOEs should be strengthened. Even after past SOE reform, SOEs are entitled to retain most of their profits, and few SOEs pay dividends to their shareholder -the government. Such practices not only encourage reckless investment by SOEs, they also exacerbate income distribution problems, since SOE insiders derive disproportionate benefits from their management of state assets. In the short term, the practice that SOEs pay dividends to the government should be established, and in the long term SOEs should be limited to not-for-profit operation. The regulation of SOEs operating in natural monopolistic sectors should also be improved, avoiding excessively high cost or high margin operations, so that the interests of consumers and suppliers may be better protected.

Fourthly, reform of the income distribution system is needed. China has to correct its biased income distribution configuration in which the household sector is disadvantaged. Measures such as collective wage bargaining systems, forced dividend distributions, liberalization of deposit interest and market based compensation to the land and resource owner should be introduced to help the income of households keep pace with economic growth. A family-based tax system should be explored. And the system that taxes different sources of income differently should be replaced by one that taxes aggregate income. The total tax burden of the household sector should be reduced and more fairly shared. A tax on wealth, such as a property tax, needs to be introduced while the tax burdens of wage-earners should be lessened.

6. Conclusion

China is at critical stage of development in projecting itself from the middle income to the high income group of countries. Historic experiences suggest that the climb could be very hard, however and only a few countries have managed it in recent history. The change in development stage also calls for a change in growth pattern. China's current growth pattern is characterized by high investment and low consumption. Because of the global financial crisis, China's trade surplus is shrinking dramatically. There is still debate on what has caused China's economic imbalance. Some believe that economic fundamentals, such as surplus labor and globalization and a tradition of high savings have played leading roles. Others blame policy distortions, such as local government competition, exchange and interest rate depression and regulated energy prices for the investment-consumption imbalance. No matter what is the cause of the imbalance, however, the sustainability of the current growth pattern is widely questioned due to the changing external environment and domestic conditions which will be less supportive of the growth and hence clash with the goal China is pursuing. Many factors that supported past high growth, such as exports and abundant labor and capital supply will begin to exert an opposite effect, slowing growth. And China's growth is increasingly constrained by rising social and environmental tensions. Faced with new challenges, China needs to search for new approaches to development. The key components of the new approach may include: coordinated social and economic development strategies, an innovation-centered industrial restructuring strategy, a consumption-centered domestic demand-boosting strategy, a deeper, migrant worker centered urbanization strategy, a resource-aware and environmentally sustainable strategy, and a balance-centered external economic strategy. To begin this new approach to development, China needs to push further reform in key areas. Among other things, the role of government and the way government runs the economy should be reformed; the new round of liberalization of land and financial markets should be pursued; further SOE reform is also needed to strengthen the public nature of SOEs and to check unlimited expansion of SOEs; last but not least, reform of the income distribution system would help correct the bias against the household sector, and improve the fairness of the tax system.

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