Can Structural Reform Boost Economic Growth?

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How to rebalance Chinese economy has become a topic of heated discussion. After years of fast economic expansion, now China faces a difficult crossroad. The global financial crisis provided clear evidence that China's traditional export-driven strategy is vulnerable to slumps of the external demand. China's heavy reliance on investment, which concerntrated in heavy-industry and infrastructure, is also unsustainable because of the diminishing return. Even worse, the investment-led growth model has already incured serious polution, corruption, insufficient provision of public servece, and many other problems.

China needs to undertake a broad range of reforms to reconstruct its growth model. Beyond the traditional short-term macroeconomic management policies, ie, the fiscal and monetary policies, many other policies are often labeled as"structural reform". In China's context, structual reform includes urbanization, labour market reform, SOE reform, financial market reform, social welfare system reform - a long list. But if structural reform means a major structural transformation of the economic activities and in the sources of economic growth, then the change of industrial structure, and in China's case, to be more specific, the relative importance of manufacturing and service sector, will be vital in the rebalancing of the Chinese economy.

The good news is, after the global financial crisis, there is clear evidence that the development of service sector in China actually outpaced that of the manufacturing sector. There are indeed some "green shoots"of rebalancing. However, does it mean that China has found a new engine to replace the outworn ones? And if China further increase the proportion of service sector, can it finally return to the highway of fast economic growth?

Probably not. We will argue that with the success of structural reform, and an expansion of the share of service sector to GDP, China's growth potential will fall even faster. However, it does not mean that structual reform is a bad idea. On the contrary, structural reform is more relevant than anytime, because it helps China to achieve a slower but more stable long-term economic growth and solve the potential social problems down the track. And the policy implication is, China has to get used to a "New normal", tolerate a lower growth rate, and shift its policy priority from growth to

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job creation.

"Green Shoots" of Rebalancing

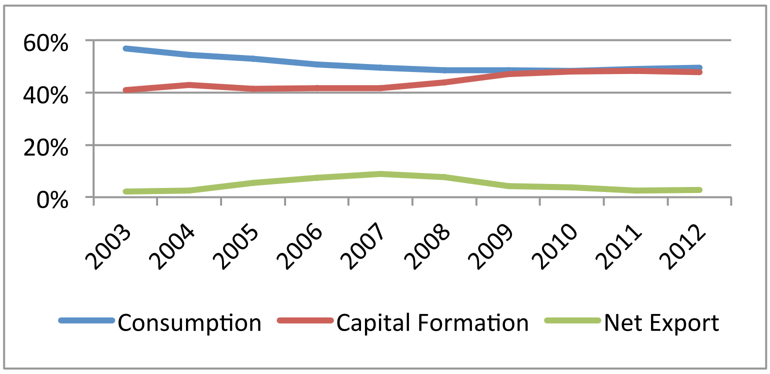
The year 2008 was a great divide for the economic performance in China. Before 2008, China grew at an astonishing rate. The average quarterly GDP growth rate in this period reached 10.5%. After 2008, however, engines of econmic growth slowed down. Even with the unprecedent four trillion stimulas package, which was announced in late 2008 to bolster economic growth, Chinese economy can not avoid a soft landing. Annual growth rate droped to 7.5% in 2013.

Figure 1 China's GDP growth rate

Source: Wind database

Changes of the compostition of GDP looks even more alarming at first glance. The share of capital formation to GDP was constantly at a high level before the crisis, and it further climbed up from 41.6% in 2008 to 48.3% in 2012 after the crisis. The share of consumption to GDP, however, dropped from 56.9% in 2008 to 49.6% in 2012. Net export increased quickly before the crisis, a jump from 2.2% in 2003 to 8.8% in 2008, then plummeted from 8.8% in 2008 to 2.6% in 2012. As a result, the contribution of investment, consumption and net export to growth also changed substantially. The average contribution from consumption to annual growth rate increased from 39.7% in 2008 to 48.9% in 2012, a slight but encouraging improvement, while at the same time, the contribution from investment surged from 48.5% in 2008 to 57.3% in 2012. The contribution from next export fell off the cliff, dropped from 11.8% in 2008 to -6.2% in 2012. In other words, rather than shifting from investment-led to consumer-led growth, China appears to be continuing along its investment-led growth track after the crisis.

Figure 2 Share of Consumption, capital formation and net export in China's GDP

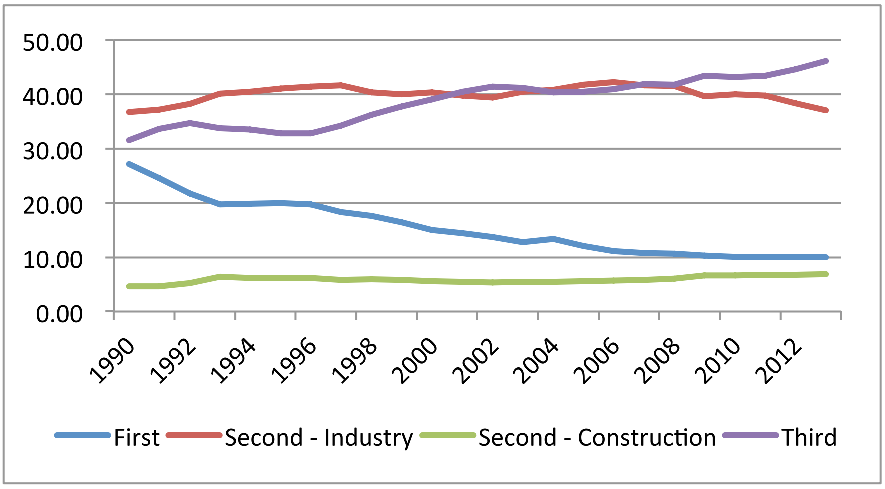


Source: Wind database.

But compostion of GDP is only a partial indicator to assess China's progess on economic rebalancing. First, it is still too early to expect significant shifts in the major sources of aggregate demand. Second, there are ongoing debates on the quality of China's statistics, and some researchers argued that the share of investment is overestimated, while the share of consumption is underestimated (Zhang and Zhu, 2013; Xu, 2013)

Consumption versus investment is only one part of the rebalancing debate, the other part is promoting service over industry. Here we can have more reasons for optimism. In the 1990s, the share of service output (the tertiary sector) to total output continually expanded, from 31.6% in 1990 to 39.0% in 2000, then increase steadily to 46.1% in 2013, not much interupted by the global financial crisis. The share of industry sector increased in the 1990s, and reached the peak in 2006 (42.2%), then declined to 37% in 2013. The share of construction dropped from 6.4% in 1993, but rebounced after 2004, till it reached 6.9% in 2013, a historical record high. Agriculture and mining (the first industry) gradually dropped from 27.12% in 1990 to 10.7% in 2008, and further slide from 10.7% in 2008 to 10.0% in 2013.

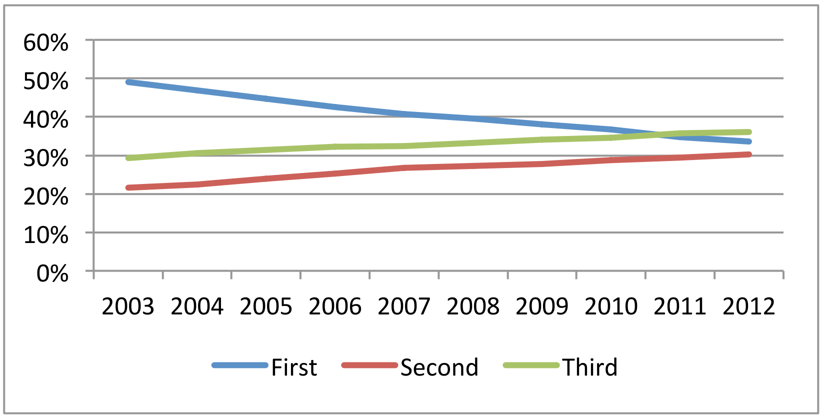
Figure 3 Share of the first, second and tertiary sector in Chinese economy



Source: National Bureau of Statistics.

The accelerated growth of the service sector can also be found from the employment of different sectors. In 1994, the employment in service sector has passed up that in the second sector. Since then, the share of employment in the service sector has increased steadily, and in 2011 it has overtaken the first sector as China's biggest employer.

Figure 4 Share of employment in the first, second and tertiary sector to the total employment



Source: National Bureau of Statistics.

It's worth mentioning that this profound structural change is more of the result of market response to the global financial crisis than government support. After the global financial crisis, export demand fell sharply, domestic demand for industrial products was also affected by the global slowdown. Manufacturing sectors reacted quickly. Most enterprises in the manufacturing sector are private owned, and they faced fierce competition on both international and domestic market. Swim or sink. The sudden collapse of world market was accompanied by the continuous rise of labor cost, and the profit margin of many export companies became razor-thin. Some of the most competitive companies managed to climb up the ladder of value chains, while many less competitive companies soon disappeared. Service sector, however, has weathered the global financial crisis much better than the factory sector. And with the recovery of the Chinese economy, some services saw more rooms for expansion, because they catered to the new labor-income generation, which is the main source of consumer demand. The booming of construction sector, on the other hand, was helped by the stimulus policy. After the crisis, Chinese government injected a huge amount of money on infrastructure projects, and local government added more fuels to the fire by encouraging the real estate sector, in the hope of pumping up housing price, so that they can get more revenues from the sale of land.

It's fair to say that China's rebalancing is progressing slowly so far, but the shift from manufacturing toward services is a "vital sign" and is "a far more meaningful indicator at this stage in the transformation" (Roach, 2013).

A New Keynesian Story

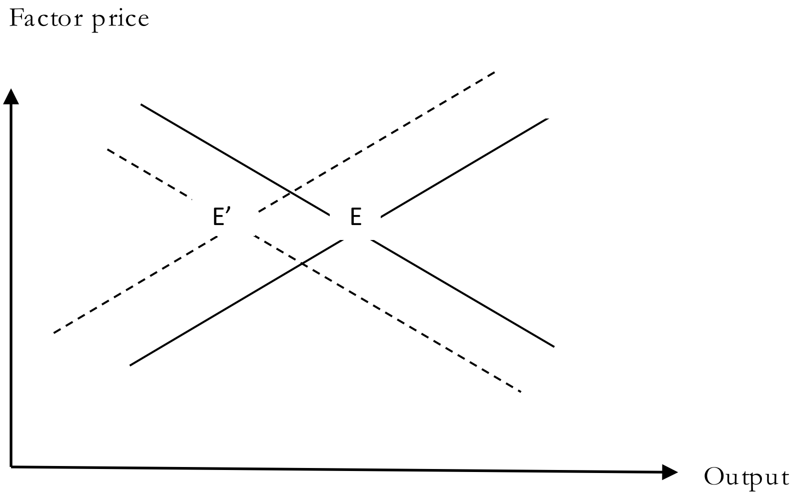
A further explanation on why the story of manufacturing and services is relevant. A profound difference of these two sectors is that they are of different types of market structures. Manufacturing sector is more like a perfect competitive market, while service sector looks more like a monopolistic competitive market.

Both industry and construction were included in the second sector. And mining, manufacturing, energy and utilities (electricity, gas and water production and supply) are all included in the industry sector. Manufacturing sector takes the lion's share of the second industry. It accounts for more than 80% in the output of the second sector. China's manufacturing sector is very competitive, even by international standard. Many manufactures are in a near perfect competition market. There are almost no barriers to entry. There are unlimited producers and consumers. Pricing is flexible enough for firms to response to the changing market situation.

There are two main segments of the service sector. One is dominated by private companies, as in retail and wholesale, tourism, real estate, lease, restaurant and other sectors. The other part is dominated by state-owned enterprises (SOEs), as in transportation, telecommunication, finance, health care, education and other sectors. Compared with the manufacturing sector, companies in the service sector are familiar with a more closed market, and are more easily to be haunted by government intervention. There are less competitors in the service market because firms can relatively easily differentiated their products from one another. The market structure for China's service sector looks more like a monopolistic competition in the textbook.

The macroeconomic implication of the structural changes in Chinese economy can be illustrated by a New Keynesian economics model. Blanchard and Kiyotaki (1987) in a seminal paper, characterized the equilibrium of a monopolistic competition market, and compared it with the equilibrium under a perfect competition market. The basic conclusion is that both the output and employment level in a monopolistically competitive equilibrium are lower than the optimal level.

Figure 5 Monopolistically competitive equilibrium and competitive equilibrium



The comparison of monopolistically competitive and competitive equilibrium can be summarized in Figure 5. The upward sloping lines are aggregate wage rule and the downward sloping lines are aggregate price rules. At the equilibrium, output and real wage are determined. Point *E* gives the competitive equilibrium and Point *E'* gives the monopolistically competitive equilibrium. Employment and output at the monopolistically competitive equilibrium are lower, and what happens to real wage is ambiguous.

Denoting by *R* the ratio of output in the monopolistically competitive equilibrium to output in the competitive equilibrium, *R* is given by

$$R = \left(\frac{\sigma - 1}{\sigma}\frac{\theta - 1}{\theta}\right)^{1/(\alpha-1)} < 1$$

Where θ represents the elasticity of substitute between goods in utility (θ >1) -1 is the elasticity of marginal cost with regard to output. The lower the elasticity) and different types of labor (σ) , the more monopoly power in the goods market and labor market, and hence the lower *R*, which means the monopolistically competitive equilibrium and competitive equilibrium will further diverge. R is also an increasing . The lower degree of decreasing return of scale, the more monopoly power in the goods market and labor market, and in turn the lower *R*.

Blanchard and Kiyotaki's model demonstrated that when where are imperfect competition, for example, if there are "menu costs", and prices cannot be adjusted instantaneously to changes in economic conditions, then output will remain at a sup-optimal level. Government can step in to tackle with the "market failure". In Blanchard and Kiyotaki's model, an increase in nominal money can increase both the output and welfare.

Blanchard and Kiyotaki's model can provide a convenient conceptual framework for the analysis of China's structural change. If we agree that manufacturing sector is more like the perfect competitive market, service sector is more like the monopolistic competitive market, and with the expansion of service sector and the decline of manufacturing sector, it means that the growth potential in China will further decline[1].

[1] A related point is, technology progress can happen more quickly in manufacturing sectors than in the

Trilemma of the Chinese economy

In the post-crisis period, Chinese leaders have to face up with three daunting challenges in the management of Chinese economy: First, they need to maintain a stable economic growth to avoid an economic crisis; Second, they need to create more decent jobs to avoid a social crisis; Third, they need to pursue financial soundness to avoid a financial crisis. These three goals are all very important, but what happens if thy clash?

If China wants to boost economic growth, then the most effective way is using expansionary fiscal and monetary policy, as what happened in 2008 and 2009. As external demand fell, domestic demand expanded through government-led fiscal stimulus and credit expansion. In 2010 and 2011, the stimulus policy came to a halt, when inflationary pressures emerged. But in 2012, the monetary authority took a quite benevolent attitude toward the bulging shadow banking system, and the result is a marked expansion of credit, which supported infrastructure building. This approach would result in higher GDP in the short-run, but a much larger chance of a painful correction later on. Heavy industrialization and infrastructure building cannot provide enough job opportunities, and uncontrolled increasing of credit supply helps to fuel housing bubble and eventually inflationary pressure, and a more rapid accumulation of potential financial risks. What's more, stimulus policy can also make income distribution more tilted, favoring capital against labor, monopoly sectors against competitive sectors. Domestic consumption will then be further depressed.

To create more job opportunities, China needs to unlock the huge potentials of services. Services are far more labor-intensive than heavy industry or construction. Relying on the development of service sector, China can achieve the goal of job creating with a much slower GDP growth than in the past. It's fair to say that so far unemployment is not a burning issue for China, and that's exactly the reason why the government can tolerate a lower growth rate. Demand for migrant workers is larger than the supply, and there is still a serious problem of "shortage of labors". Wage level of migrant workers keeps increasing at a rate of 15-20% annually. The job market for newly graduated university and college students is not too bad. It's true that students are lamenting about their gloomy futures, but what they are not satisfied is the lack of good jobs. The overall situation of job market shows no sign of alarm. Yet all these seem too good to be true. Take Spain as an example, when the economy was booming, unemployment was unthinkably low, but once the music stopped and the economy was hit by the financial crisis, unemployment rate soared suddenly, especially for those young people. China needs to be prepared before the situation of labor market turns other way around. However, the shift from factory sector to services cannot support a high growth rate, and with a slower growth, financial sector will feel more downside risks. It can be predicted that there will be a painful and prolonged deleveraging and a bearish financial market.

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services. Technologies in manufacturing are more generalized, standard, easily to be transferred via foreign trade and investment, thus more leapfrogging. Technologies in services, however, are often tacit knowledge and local knowledge, which are more difficult to be transferred.

To reform the financial sector, China has to restrain excessive credit growth and deal with the thorny problems of shadow banking and local debt. After the global financial crisis, with the extremely expansionary monetary policy and almost no restrains from the regulators, debt level ballooned in China, first through traditional bank lending, then through the opaque shadow banking. Over the last five years, debt level in China has increased by 71%. Most of the debt was used to finance infrastructure, real estate and heavy industries, now there are growing fears that revenues from these projects won't be adequate to repay the loans, resulting in defaults that undermine confidence and trigger financial melt-down. What goes up must eventually come down, and China has to restrain credit growth and curb moral hazard. But Cracking down too quickly on shadow banking may cause panic, starve private enterprises of the working capital, and cause real harm to growth and employment.

That's the "trilimma for the Chinese economy", it looks familiar with the trilemma in open economy, or the "eternal triangle", in Paul Krugman's words (Krugman, 1998). It states that among the three goals in an open economy: monetary autonomy, exchange rate stability and free capital flow, policy makers can at their best choose two, and give up the third. Now in China's situation, policy makers can only choose one, and give up the other two.

What's the policy implication?

We believe that policy has to be prioritized.

In the short run, maintaining an acceptable growth rate is still the most important goal for China. Rebalancing takes time. Imbalances that have accrued over the past decade cannot be removed overnight. Attempts at a radical rebalancing may create a major slowdown in GDP growth, which will also postpone the rebalancing or even cause a backlash to market-oriented reform.

But we do not suggest another massive round of spending initiatives to counter a slowdown, either. In the long run, China's growth potential is going to decline, with or without the rebalancing. Other fundamental factors, for example, the dramatic change of demographic profile, will also affect the long term growth potential. Policy makers are better to accept it and give more emphasis on employment and other social goals. In this sense, greater reliance on services allows China to settle into a lower and more sustainable growth trajectory.

Financial stability is important, but given the fact that China's financial system is relatively primitive and closed, and China still has a large current account surplus, the government has more leverages than its western counterparts. China's experience is that, it's always better to "grow out" the problems. All the most difficult problems are not solved, they are forgotten.

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