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When globalization meets urbanization: Labor market reform, income inequality, and economic growth in the People's Republic of China

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ADB Working Paper Series

**When Globalization Meets Urbanization:
Labor Market Reform, Income Inequality,
and Economic Growth in the People's
Republic of China**

Ming Lu and Hong Gao

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Abstract

The development path that the People's Republic of China (PRC) has been following during the past thirty years has led to both internal and external economic imbalances, and is now greatly challenged by the global crisis. This unbalanced growth path was primarily a result of the PRC's labor market reform which took the years of the mid-1990s as its turning point. Before the mid-1990s, the scale of rural-to-urban migration was limited, but it has grown dramatically since then. 1996 also saw drastic employment restructuring in urban areas of the PRC. Labor market reform, accompanied by the foreign exchange system reform in 1994, confirmed the PRC's comparative advantage of low labor cost, and therefore further increased the PRC's reliance on exports. However, the increased income disparity that resulted from the labor market reform may jeopardize sustainable growth if no adjustment is made. To sustain the high economic growth, especially in face of the current crisis, the PRC needs to adjust its reform and development strategies to promote income equality.

JEL Classification: J21, O15, O53

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1. INTRODUCTION

Open economies, including the People's Republic of China (PRC), are suffering from the ongoing subprime crisis, which began in August 2007. This paper will discuss the role of the PRC in the economic crisis by providing statistical evidences in this paper about the consumption and savings behavior in PRC, its trade imbalances, and how this may be related to the current crisis. Rises in domestic consumption in the PRC have been modest during the past thirty years, and there has been a secular decline in the consumption-gross domestic product (GDP) ratio, partly because of the rising income inequality. Low domestic consumption, along with production overcapacity has led to overdependence on increases in exports for growth, and the low labor costs and the resulting comparative advantage of PRC products reinforces the reliance on export growth. Since the mid-1990s, the PRC has maintained its low labor costs through large-scale rural-to-urban migration and urban labor market reform, both of which furthered trends that saw the global reallocation of labor-intensive manufacturing industries to PRC. The trade dependency ratio in the PRC is substantially higher compared than other economies of similar scale. Meanwhile, consumption in the United States (US) has been high. Through international trade, a balance is thus formed between the PRC's high savings ratio and excess consumption in the US. What is responsible for the comparatively low labor costs in PRC? Why is the current economic crisis an opportunity for the PRC to alter its unbalanced development path? Answers to these questions are critical for both a further understanding of the linkages between labor market reform, PRC growth patterns, and the ongoing economic crisis, as well as a means to figure out better ways to sustain the PRC's long-run growth.

This paper will relate the current economic crisis partly to the labor market reform in PRC, started in the mid-1990s. Why and how the PRC should adjust its development strategy is also discussed. In Section 2, we explain the internal and external imbalances in the PRC and the impacts of the subprime crisis on the PRC economy. In Section 3, we briefly review what happened in the mid-1990s concerning labor market reform, while in Section 4, we discuss how the labor market reform has weakened labor's market strength that allows labor market to function well, but also widened income disparity. Section IV will also summarize the potential threats posed by income inequality to economic growth. In the final section, the paper will explain why the PRC must adjust its labor market reform strategies in order to both narrow its income disparity and to sustain economic growth, especially in face of the current economic crisis.

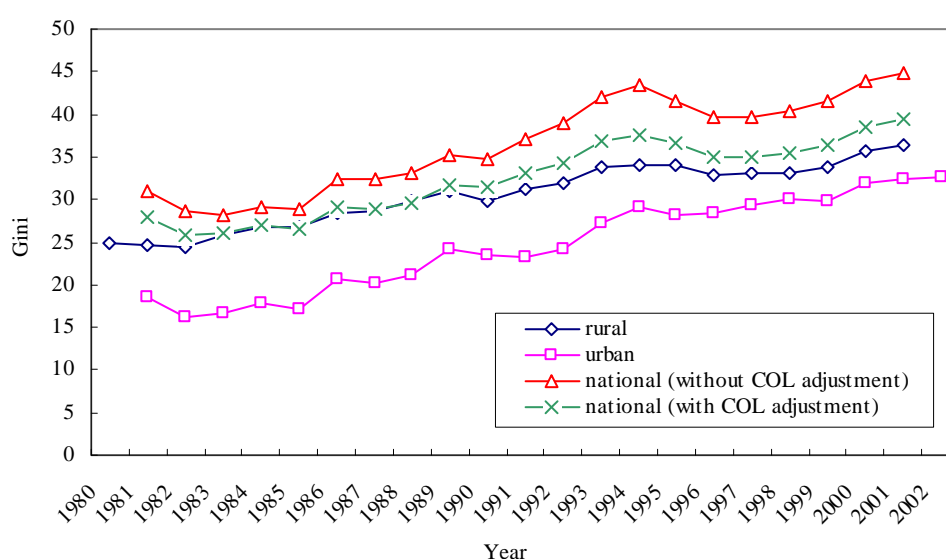
2. THE PRC'S DEVELOPMENT PATH AND THE CURRENT ECONOMIC CRISIS

The current economic crisis is not only a short-run shock to the PRC economy, but also a challenge to the PRC's development path. The PRC has been growing rapidly since its initiation of the open-door policy in 1978, and the significant growth in PRC has greatly benefited from its low labor costs which contributes the relatively low prices of its products. Low labor cost is primarily guaranteed by the labor market reform and mostly responsible for the export-oriented development strategy in PRC. However, several potential problems are derived from the unbalanced growth path PRC has been following during the past three decades. These problems were hidden by the fast export-driven growth of GDP, especially during the high-growth years of 2001–2007, but they are seen explicitly in face of the current crisis. The unbalanced growth path has been accompanied by the process of marketization

reform, and led to “dual imbalances,” both internal and external,¹ which, if unadjusted, would undermine sustainable economic growth.²

The internal imbalance, depicted as a decreasing share of consumption in GDP and investment and export driven growth, is fundamentally related to the growing income inequality. As illustrated in Figure 1, the national Gini coefficient has been increasing from 1980 to 2002, and reached around 0.45 in 2002. Though the Gini coefficient with cost-of-living adjustment is lower, a trend of increase is still revealed. And according to Li’s recent estimation, the national Gini coefficient is approximately 0.48 in 2007.³ The disparity between rural and urban income in the PRC, measured by Gini coefficients, has also steadily increased (Figure 1). It is worth noting that whereas income disparity within cities has tended to increase, for the nation as a whole, income disparity has fluctuated, some caused by the decrease in the urban–rural income gap, especially the decrease of such disparity around the mid-1990s (Figure 2).

Figure 1: PRC’s Gini Coefficient (1980-2002)



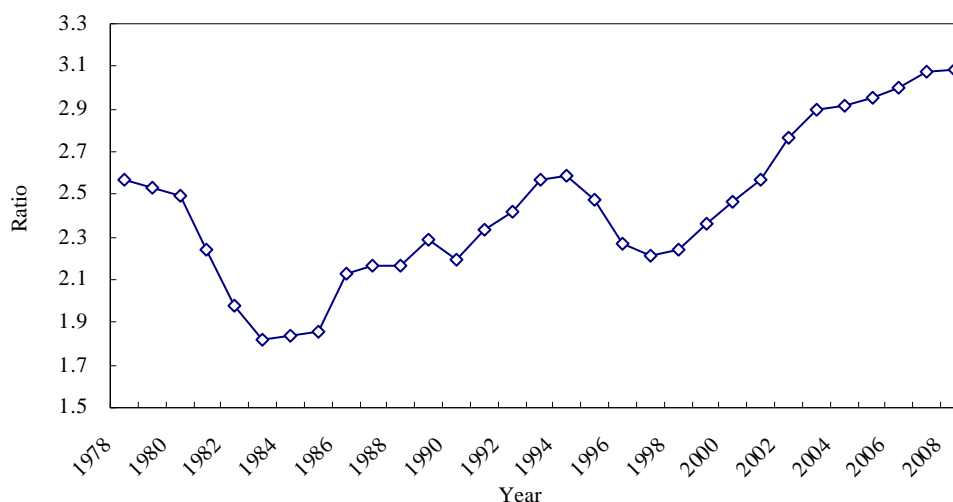
COL= cost of living.

Source: Ravallion and Chen (2007).

¹ In Mundell (1962), the terms of internal imbalance and external imbalance are used to refer to the disequilibrium condition in the domestic market and the savings-investment gap respectively. Here, we use internal imbalance to indicate the relatively slow growth in consumption that is partly because of the widening income inequality. Meanwhile, external imbalance is used in our article to refer to the expansion of international trade, especially net exports, which has resulted in remarkable growth in foreign exchange reserves, and constitutes a reason for the international imbalance between the PRC and the US.

² From the logic of our article, to be analyzed below, sustainable economic growth could be jeopardized by rising income inequality in two ways. First, on the demand side, rising income inequality could harm growth because of low domestic consumption demand under the law of diminishing marginal propensity of consumption. Secondly, from the perspective of supply side factors, Wan, Chen, and Lu (2006) find that inequality has a strong, and negative, impact on physical investment, while its influence on human capital is positive but weak. Therefore, the cumulative effect of income inequality on economic growth is negative, irrespective of whether the horizon is short-run or long-run.

³ Li Shi (2008). It should be noted that the PRC experienced booming capital markets in 2007, so the estimated Gini coefficient could be abnormally high.

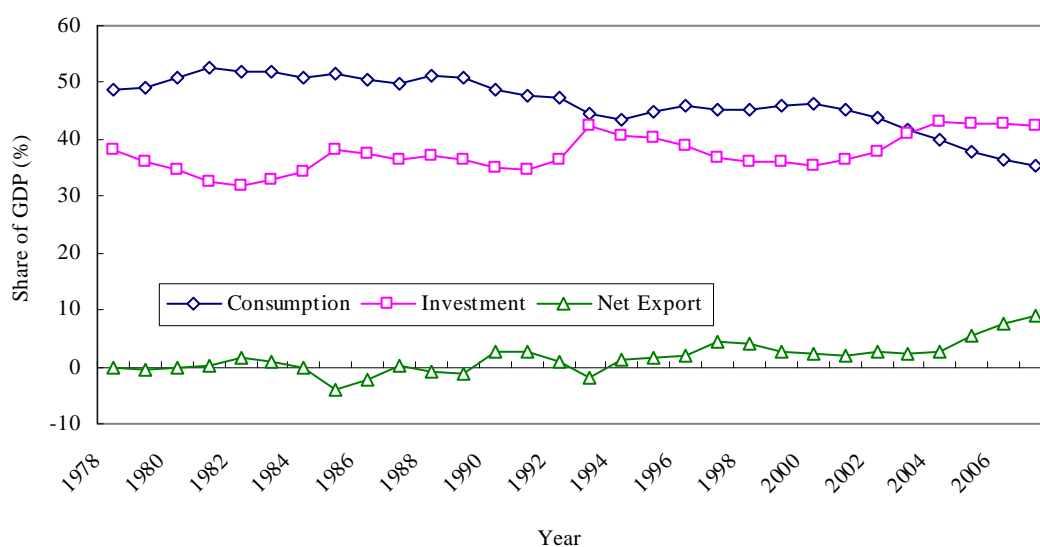
Figure 2: Urban-Rural Income Gap (1978–2008)

Note: The ratio is per capita annual disposable income of urban households to per capita annual net income of rural households. Urban and rural incomes have been deflated by the urban and rural consumer price index (CPI), respectively, except for the years of 1978 to 1984, and 1986 to 1989, because of the lack of CPI data in these years.

Sources: NBS (2008), *China Statistical Yearbook 2008*, National Bureau of Statistics, and the authors' calculations.

Widening income disparity is detrimental to economic growth and would bring about several consequences. First of all, as inequality rises, domestic consumption demand may grow more slowly. Under the law of diminishing marginal propensity of consumption, the rich, at the upper end of income distribution, income inequality reduces demand in a way that the rich tend to save more and consume less. For the poor, precautionary saving increases with the rise in income risks during the process of marketization. Chamon and Prasad (2008) attribute the rise in the PRC's saving ratio since 1995 to precautionary motives and underdevelopment of financial markets. As both the rich and the poor save, the saving ratio of households is higher in the PRC compared with other countries.

Figure 3 depicts the share of household consumption in GDP from 1978 to 2007, which has dramatically declined. In 1978, the share of household consumption in GDP was 48.8%. However, this share has been declining continuously since then and fell to about 35.5% in 2007. Despite the comparatively high public investment in PRC, this continuous decline in household consumption is still not enough to be compensated, and therefore, it leads to slow growth in aggregate domestic demand. It is noteworthy that high investment growth, including government investment, increases domestic demand in short run, but in medium and long run it results in over-capacity of production that needs being absorbed by external demand. As can be inferred from the gross domestic production identity, given low domestic demand and overcapacity of production, net exports are the only way to achieve high GDP growth. The upward trend in the investment-GDP ratio is shown in Figure 3. Low domestic demand, accompanied by the high production capabilities of PRC enterprises, leads to a secular increase in exports. Statistics also suggests that compared to other economies of the similar scale, the trade dependency ratio, i.e. the sum of export and import divided by GDP, is particularly high in PRC which contradicts the general rule that trade dependency ratio is generally lower in larger economies. The trade dependency ratio in the PRC was as high as 66% in 2006, compared with 20–30% in other economies of similar scale.

Figure 3: Household Consumption, Investment, and Net Export (1978-2007)

Notes:

1. GDP is calculated by the expenditure approach.
2. Inventory is included in investment.

Sources: NBS (2008), *China Statistical Yearbook 2008*, National Bureau of Statistics, and the authors' calculations.

Given the current system of foreign exchange in PRC, nearly all trade surpluses, foreign direct investment inflows, and remittances from abroad should be exchanged into yuan (CNY) at the banks. Therefore, the central bank needs to issue a corresponding amount of CNY to absorb foreign currency inflows that are thereby transformed into foreign exchange reserves. This increased liquidity, especially the liquidity resulting from international trade surpluses, was one of the reasons for both the high inflation and capital markets bubble, before the PRC economy was shocked by the crisis in the fall of 2008.

In addition, large income inequality also mirrors the development pattern of the PRC economy which is highly reliant on low labor costs. The low labor costs in the PRC labor market can be accounted by three reasons. The first is the large-scale influx of rural labor into cities since the mid-1990s. This urbanization process met the needs of globalization and the reallocation of labor-intensive industries from developed economies to PRC. Though rural-urban migration restrictions were loosened in the mid-1980s, actual large-scale rural-to-urban migration emerged only in mid-1990s. Throughout 1994 to 2004, the rise in wages of migrant workers was quite limited.⁴ Secondly, massive numbers of redundant workers were laid off from state-owned-enterprises (SOE) as a result of labor market reform during 1996 and 2000. This has led to more severe competition in the labor market, and thus imposed downward pressure on wages. Finally, low labor costs are also a result of inadequate protection of labor, especially for migrant workers and laid-off workers from SOEs. Many workers did not have contracts with employers in the private sector, so they did not receive social security, and so the labor costs of production were lowered. Fiscal decentralization and yardstick competition between local governments are primarily responsible for the poor labor protection, because local governments concentrate on economic growth, through attracting both domestic and foreign investment, while the interests of labor are overlooked. Therefore, when the forces of urbanization meets globalization in the PRC, labor's market power is weakened, because capital can move easily across countries and regions, while the supply of labor is sufficient and labor mobility is less free than capital. This is the basic

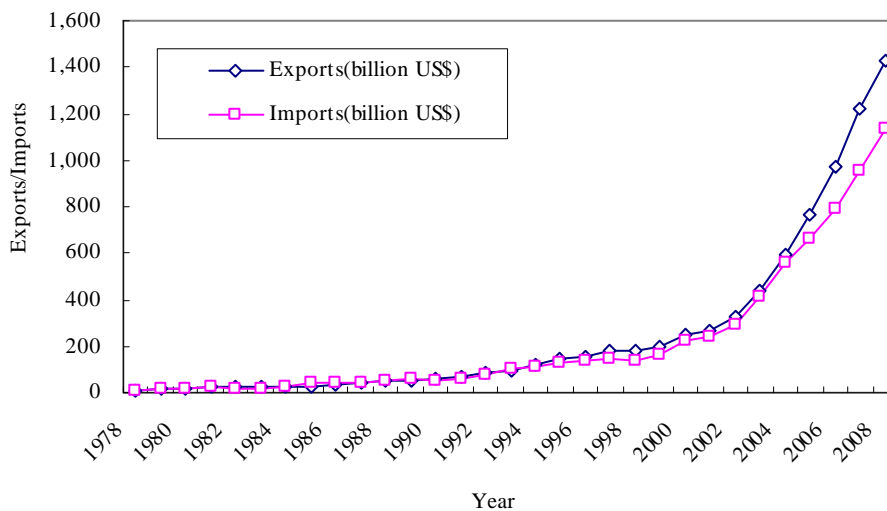
⁴ This is consistent with the theory of dual economy (Lewis 1954), which predicts that a developing economy experiencing urbanization and industrialization has a phase of "unlimited labor supply" with limited wage growth.

reason why labor's share in national income has declined since 1996, which will be shown later on.

With low labor costs, enterprises do not have adequate incentive to innovate, as we have observed in the PRC. Although the country has claimed to follow an innovation-based development path, enterprises are reluctant to put their revenues into research and development, because innovation is almost always costly and risky. With inexpensive labor, enterprises maintain an emphasis on low costs, along with a low technology level, and consequently inadequate innovation. This development pattern limits firms' demand for high-skilled workers. Accordingly, the employment pressure of university graduates can partly be explained by the low wages of migrant workers in the PRC.

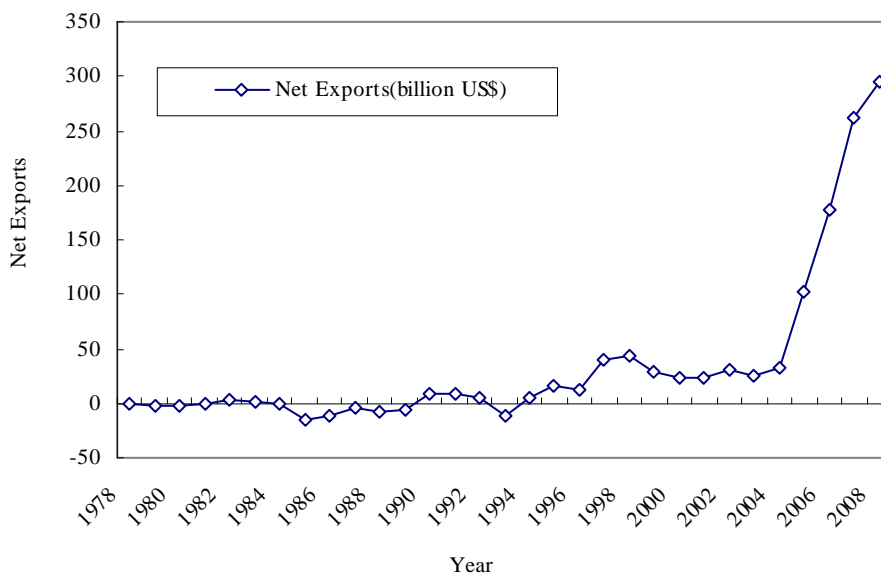
Apart from the internal imbalance, the PRC economy also has an external imbalance due to the unbalanced growth path. The external imbalance is associated with low labor costs, which were not completely established until the mid-1990s. Low labor costs, together with an undervalued CNY since 1994, constitutes the comparative advantages of Chinese products in overseas markets, and has led to rising exports as well as the huge amount of foreign currency reserves in the PRC. According to a Morgan Stanley estimate cited in *The Economist* (2007), although wages of PRC workers rose from 2000 to 2006, increases in labor productivity were much larger. Therefore, the actual labor cost per unit of products declined significantly. In addition, empirical studies have also come to a consensus about the PRC's comparative advantage in exports, especially in labor-intensive products which illustrate the Heckscher-Ohlin approach. For example, using international trade data of the PRC and the world, Yue and Hua (2002) calculate the revealed comparative advantage (RCA) index of Chinese products. Their calculations confirm that from 1980 to 2000, the comparative advantage of the PRC has largely shifted from resource-intensive products to labor-intensive ones, and international trade has accentuated this trend. Having benefited from this comparative advantage, increases in PRC exports have been enormous, which is shown in Figure 4. Imports have also grown in the same period, but not as rapidly as exports. It could be seen from Figure 5 that net exports fluctuated around zero before 1994, but since then, exports have persistently exceeded imports. As a result, foreign exchange reserves have also risen steadily since 1994, especially in recent years, (see Figure 6.) Foreign exchange reserves in March 2009 reached 1,953.74 billion US dollars (US\$), which is equivalent to almost one half of the country's total GDP. Although PRC entrepreneurs claim that their exports to other countries are inexpensive mainly because of low labor costs and high productivity, rising international trade conflicts have also been seen between PRC and other countries. According to Stevenson (2007), the number of anti-dumping investigations the PRC has been the focus of ranked first of all the countries in the world. During the first half of year 2007, there were as many as 18 anti-dumping investigations against the PRC, which accounted for 30% of all anti-dumping investigations in the world (Stevenson, 2007). Furthermore, the rapid increase in foreign exchange reserves is also responsible for the PRC's holding of US assets. At the end of December 2008, the State Administration of Foreign Exchange (SAFE), part of the People's Bank of China (PBoC), managed close to US\$2.1 trillion: US\$1.95 trillion in formal reserves and between US\$108 and US\$158 billion in "other foreign assets." The PRC's state banks and the China Investment Corporation (CIC), PRC's sovereign wealth fund, together manage another US\$250 billion or so. This puts the PRC's total holdings of foreign assets at over US\$2.3 trillion. That is over 50% of the PRC's gross domestic product (GDP), or roughly US\$2,000 per Chinese inhabitant (Setser and Pandey 2009).

Figure 4: Exports and Imports (1978-2008)

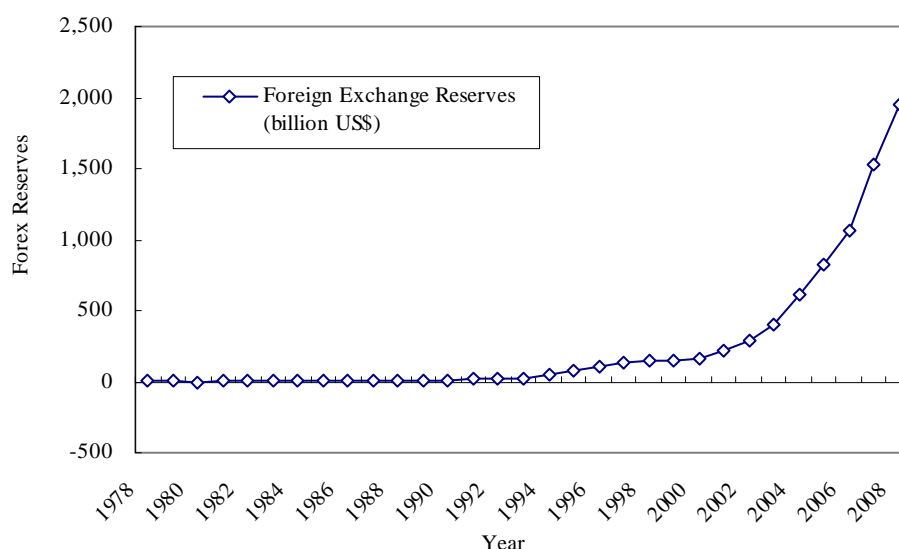


Sources: NBS (2008), *China Statistical Abstract 2008* and National Bureau of Statistics.

Figure 5: Net Export (1978-2008)

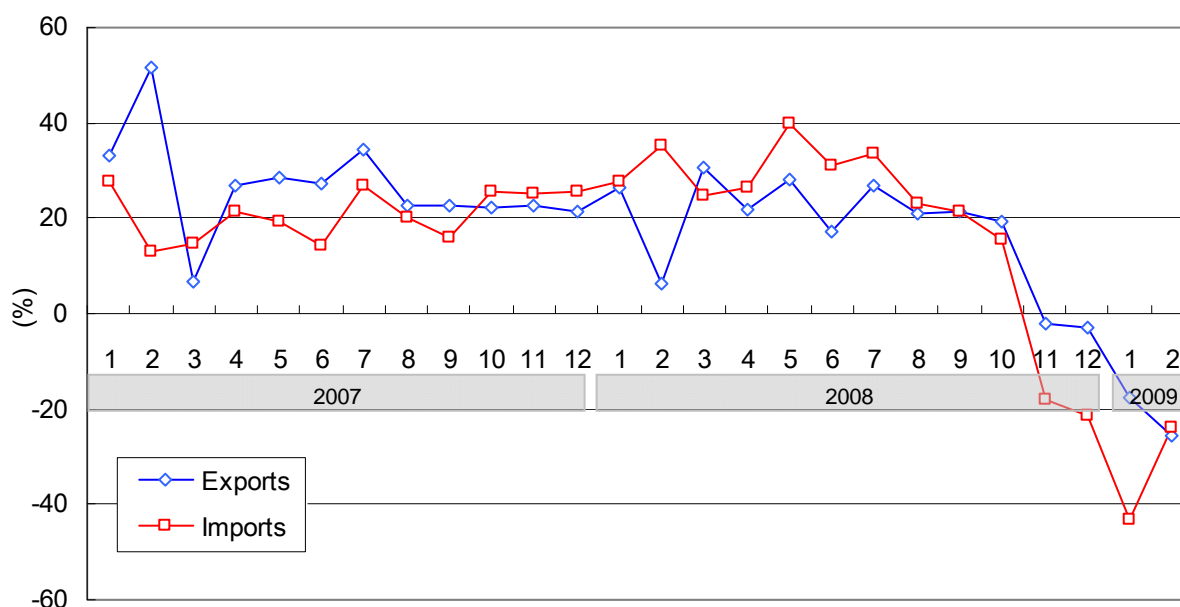


Sources: NBS (2008), *China Statistical Abstract 2008* and National Bureau of Statistics.

Figure 6: Foreign Exchange Reserve (1978-2008)

Sources: NBS (2008), *China Statistical Yearbook 2008* and National Bureau of Statistics.

Such internal and external imbalances in the PRC, and the international imbalance between the PRC and the US, however, are reasonable to some extent, as long as labor productivity in the US can be continuously enhanced. The savings ratio in the US began to decline in the mid-1980s when the US began its rapid growth of information technology and labor productivity. Labor productivity increased more rapidly after 1995, and high productivity was an essential stimulus for economic growth in the US. With the increase in productivity, workers' wages would tend to rise. When the expectation of an increase in future income is formed, to smooth consumption and maximize life-time utility, individuals would borrow to consume at present. Moreover, the highly developed capital market in the US has further encouraged this trend. Industrializing countries, like the PRC, have accumulated huge trade surpluses since the middle of the 1990s. Their purchases of US bonds and other US assets have contributed to the appreciation of these assets. In this way, these countries, including the PRC, have in essence shared the rapid growth of the US economy. However, one vital threat to the continuance of this imbalance is the question of to what extent the appreciation of US assets is related to the real rise in US productivity. If productivity growth can be sustained, high returns could be attained from the holding of US assets, and there would not be a significant departure of the "paper" economy from the real economy. Otherwise, risks may accrue to the point that adjustments would have to be made. The ongoing crisis is an opportunity for the PRC to make overdue internal policy changes, leading to a structural adjustment, so that domestic demand would increase and reduce the dependence on exports. As shown in Figure 7, since the third quarter of 2008, the growth rates of both exports and imports on a yearly basis have declined tremendously, and even fell to below zero after November 2008.

Figure 7: The Growth rates of Import and Export on Yearly Basis (%)

Sources: The data for January and February 2009 are from National Bureau of Statistics (NBS), the rest are from the *Fast Report of China Economic Statistics* (NBS 2008b).

The economic shock has also resulted in unemployment. As Yin, the Human Resources and Social Security Minister, has announced, the current employment situation is disconcerting.⁵ The first point is that the number of new urban jobs has declined dramatically. The urban unemployment rate has risen and reached the highest level of the past three years. Second, finding a new job is becoming more difficult for migrant workers, and many among them have lost their jobs. Since September 2008, employment, especially in the export-led manufacturing sector in the Pearl River Delta and the Yangtze River Delta, has fallen dramatically. Many factories were shut down during the crisis. Surviving enterprises also cut their employment, or asked their workers to take a “long vacation”. Most of the factory employees are migrant workers (*Mingong*) from inland rural areas. Many lost their jobs and went back to their hometown in the second half of 2008, especially after September. According to the survey results released by the Ministry of Human Resources and Social Security, there were over 130 million migrant workers at the end of 2008. 60% of them returned home for the 2009 Spring Festival, 10 percentage points higher than the previous year. 20 million migrant workers are seeking new jobs in 2009. Compared to the year before, the number of enterprises that plan to hire in the month after the Spring Festival dropped by 12%. The overall number of vacancies was 10% lower.⁶ During the annual meeting of the People’s Congress in March, the Ministry of Human Resources and Social Security announced that about half of the migrant workers returned home during the Spring Festival, among whom 80% returned to cities after the festival. 45 million of those migrant workers have found jobs, while 11 million are still unemployed.

The economic crisis has also greatly increased employment pressure on college graduates. According to the estimate of the Ministry of Education, the number of college graduates was 4.95 million in 2007, of which 1 million are unemployed. In 2008, the number of graduates rose to 5.6 million, of which 1.5 million are unemployed. In 2009, 6.1 million have graduated, which is 8.9% more than 2008. To alleviate the employment pressure, PRC has enlarged the

⁵ Yin said this and the following concerning the current employment situation at the press conference of the second session of the eleventh National People’s Congress, March 10th, 2009.

⁶ See China Daily, 11 Feb. 2009.

enrollment of graduate students by 5% in 2009. The number of new job opportunities in central government-owned-enterprises for college graduates has also doubled. The central government will continue to call for graduate students to work as rural village officials. More positions would also be provided to graduates who would like to participate in education, agriculture, medical service, and poverty reduction.

Based on the average employment elasticity to GDP ratio during 2001 to 2007, as is shown in Table 1, if GDP in the secondary and tertiary industries grows by 6%, then employment would increase by 8.57 million. Assuming that agriculture does not create more employment, and that the total urban labor force grows by 11 million, as in 2008,⁷ 2.4 million more people will be unemployed. This is almost the number of unemployed receiving unemployment insurance from the government at the end of 2008.⁸ In other words, if the rate of GDP growth is 6%, the unemployment rate may double. However, if a GDP growth rate of 8% could be maintained in the PRC, 11.4 million new jobs would be created in the secondary and tertiary industries. Thus, the current unemployment rate may remain almost unchanged. This explains why PRC has set 8% as its goal of economic growth for 2009.

⁷ According to the NBS data, the urban labor force increased by 11.13 million in 2008. This data could be found in the Statistical Communiqué of the People's Republic of China on the 2008 National Economic and Social Development, available at http://www.stats.gov.cn/english/newsandcomingevents/t20090226_402540784.htm.

⁸ According to the NBS data, 2.61 million unemployed people received unemployment insurance from the government at the end of 2008.

Table 1: Employment Elasticity and Employment Growth

| | Employment (million) | | Real GDP growth (%) | | Employment growth (%) | | Employment elasticity | |
|------------------------------------|-------------------------|----------|------------------------|----------|--------------------------|----------|-----------------------|----------|
| | Secondary | Tertiary | Secondary | Tertiary | Secondary | Tertiary | Secondary | Tertiary |
| 2001 | 162.84 | 202.28 | 8.44 | 10.26 | 0.40 | 2.04 | 0.05 | 0.20 |
| 2002 | 157.80 | 210.90 | 9.83 | 10.44 | -3.10 | 4.26 | -0.31 | 0.41 |
| 2003 | 160.77 | 218.09 | 12.67 | 9.50 | 1.88 | 3.41 | 0.15 | 0.36 |
| 2004 | 169.20 | 230.11 | 11.11 | 10.06 | 5.24 | 5.51 | 0.47 | 0.55 |
| 2005 | 180.84 | 237.71 | 11.70 | 10.50 | 6.88 | 3.30 | 0.59 | 0.31 |
| 2006 | 192.25 | 246.14 | 12.97 | 10.76 | 6.31 | 3.55 | 0.49 | 0.33 |
| 2007 | 206.29 | 249.17 | 13.40 | 11.40 | 7.30 | 1.23 | 0.54 | 0.11 |
| Percentage Average (2001 07) | | | 11.45 | 10.42 | 3.56 | 3.33 | 0.28 | 0.32 |
| 2008 | 211.70 | 256.83 | 9.30 | 9.50 | 2.62 | 3.08 | 0.28 | 0.32 |
| 2009(growth=6 | 215.28 | 261.82 | 6.00 | 6.00 | 1.69 | 1.94 | 0.28 | 0.32 |
| 2009(growth=8 | 216.47 | 263.48 | 8.00 | 8.00 | 2.25 | 2.59 | 0.28 | 0.32 |

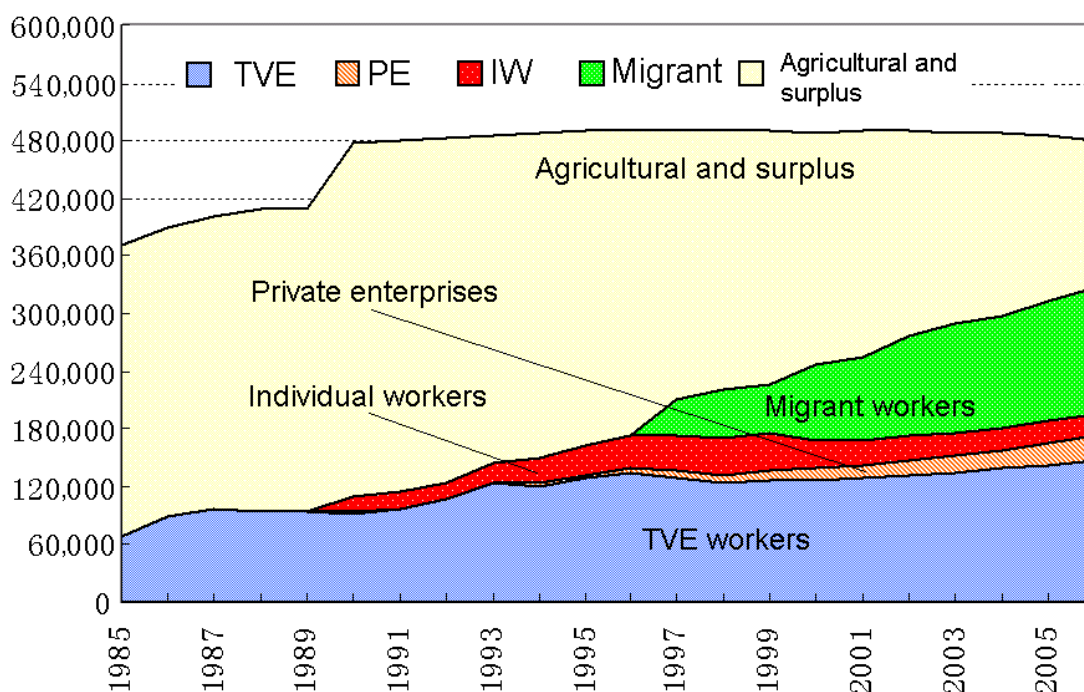
Sources: National Bureau of Statistics and the authors' calculations.

3. WHAT HAPPENED AROUND 1996? THE TURNING POINT IN LABOR MARKET REFORM

As argued in the previous section, it was in the mid-1990s that the PRC established its growth pattern of low labor costs and high exports. That was the starting point of the large-scale rural-to-urban migration, the radical labor market reform, and the era of an undervalued yuan.

Though restrictions on rural-to-urban migration have been gradually loosened since the mid-1980s, the scale of rural-to-urban migration was modest until the mid-1990s. The significant increase in the number of migrants is shown in Figure 8. With the process of urbanization and industrialization, migrant workers have been making up an increasingly larger proportion of rural labor. The inflow of rural migrants into cities intensified labor market competition, and therefore, weakened labor's market power and lowered the growth of urban worker wages, compared with the growth of labor productivity.

Figure 8: Rural Labor (1985-2006) (in 1,000s)



TVE = township and village enterprises.

Source: Fang Cai's estimation and presentation at Fudan University.

Another event that deserves our attention is related to the labor market reform which accelerated in 1996. Before the initiation of reform and the open door policy in 1978, the PRC adopted a planned employment system to satisfy the need for a "catch-up" development strategy. To generate revenues for the investment in the SOEs, which were focused on heavy industry, the government interfered in the labor market, and rendered two characteristics of the labor market in the planned economy: distortion of the labor price and segmentation of the labor market. On the one hand, the state compressed wages and assigned employment through the Ministry of Labor. Even if wage disparity existed among different industries and enterprises, such disparity could not be narrowed through labor market competition and labor force reallocation. On the other hand, because of the "catch-up" development strategy, which favored capital-intensive heavy industry, demand for labor was relatively low, but the government attempted to eliminate unemployment by administrative policies. Therefore, enterprises in the PRC ended up with redundant employees. From the initiation of the labor contract system in 1986, up until 1996, the newly-

grown labor force was marginally allocated through the market mechanism, but the employment mechanism of the labor stock, i.e. those were already employed, was not marketized. As a result, in this stage, the effect of labor market reform was mainly a gradual adjustment of income structure. More and more laborers earned income from non-state enterprises, and from non-wage sources.

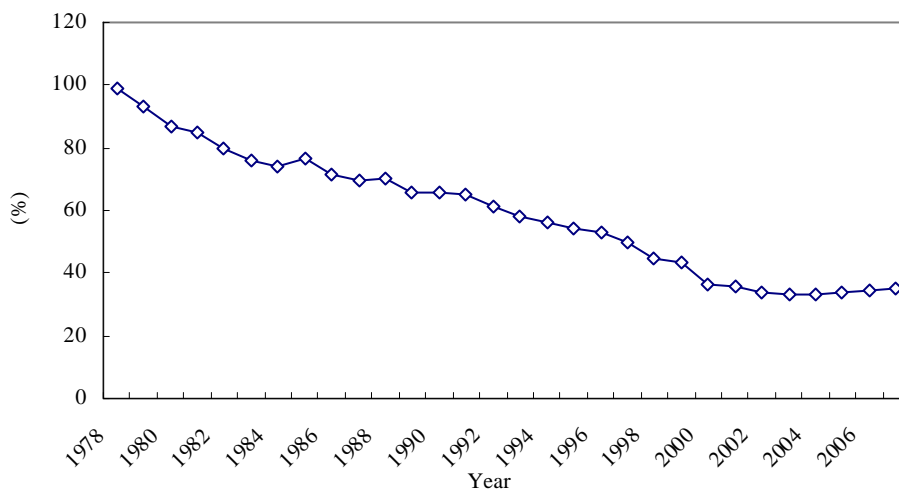
Starting from Shanghai in July 1996, the labor market system reform was officially initiated, and was marked by the establishment of the re-employment service centers for separating surplus SOE employees. From 1997 to 1998, this reform initiative was quickly introduced all over the nation. Laid-off SOE workers were required to leave their original role, and enter the reemployment centers to be reassigned.⁹ Those laid-off workers were not included in the registered urban unemployment rate. As the new century descended, enterprises came to have more autonomy in labor employment. As now, in order to lay off employees, enterprises are only required to pay sufficient compensation. SOEs often carried out the so-called “buy-outs,” with calculations based on the number of years employees had worked. Among those who were laid off, some found new jobs, some became unemployed, whereas others quit the labor market. Many found new jobs in the informal sector. Structural adjustment was actualized mainly as differentiation in terms of various employment statuses.

Figure 9 plots the changes in income structure. We can see that the ratio of total employee wages to total income of urban residents has been steadily decreasing since 1978, as income from sources other than employee wages is accounting for an increasingly larger proportion of total income. Multiple factors could have led to this trend, such as the informalization of employment and the diversification of income sources. Figure 10 depicts the ratio of the number of urban paid employees¹⁰ to total urban employment, which displays a downward trend, especially after 1996. This implies that with the deepening of labor market reform, employment is more informalized. Figure 11 shows the structure of urban workers’ employment in organizations with different types of ownerships. As we can see, the share of employment in SOEs and collective-owned-enterprises has declined, while employment in other forms of ownerships has been increasing significantly, especially after the mid-1990s, which indicates a diversification of employment.

⁹ Such workers received layoff wages, which were below working wages yet higher than unemployment insurance. At the same time, laid-off workers still kept their social security relationship with their original workplace and, therefore, could obtain relatively better medical insurance compared to the unemployed.

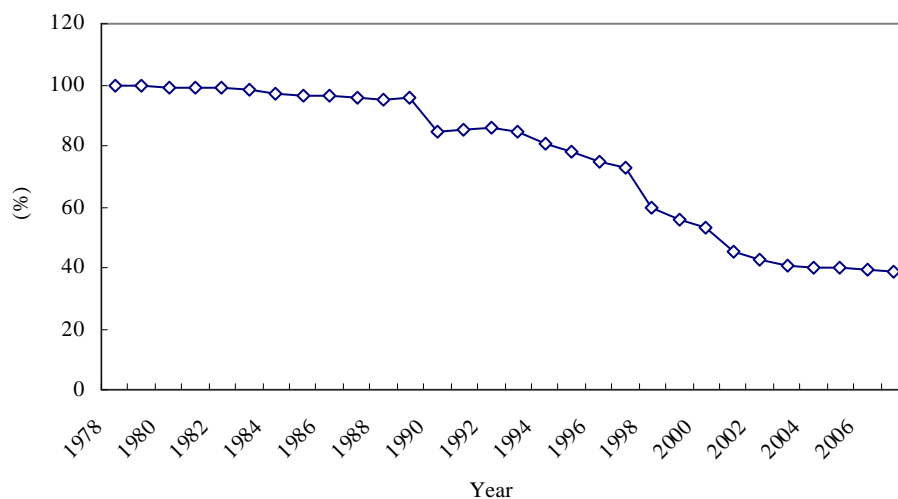
¹⁰ Urban paid employees refers to the number of staff and workers in the China Statistical Yearbook. It represents employment in the formal sector. However, there are also self-employed workers and employment in the informal sector in urban PRC. We use this ratio to indicate the share of formal employment in all employment, and a downward trend is revealed which could be seen as a trend of employment informalization.

Figure 9: Ratio of Total Wages of Workers to Total Income of Urban Residents (1978–2007) (%)



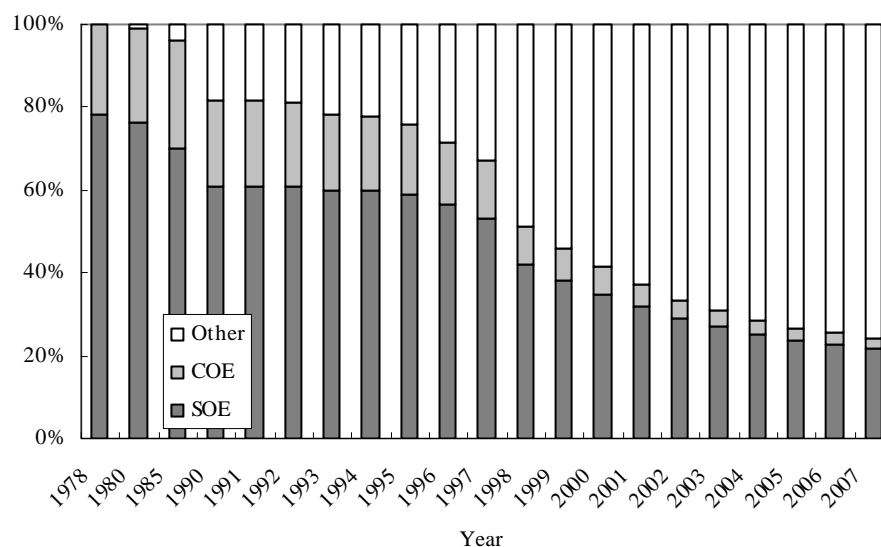
Sources: NBS (2008), *China Statistical Yearbook 2008*.

Figure 10: The Ratio of Urban Paid Employees to Total Urban Employment (1978–2007) (%)



Sources: NBS (2008), *China Statistical Yearbook 2008*.

**Figure 11: Employment Structure by Ownerships
(1978–2007) (%)**



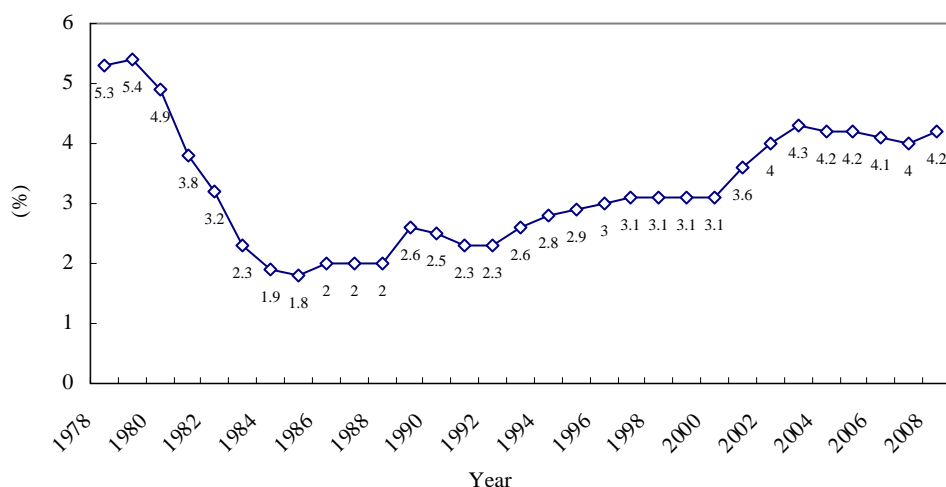
Sources: NBS (2008), China Statistical Yearbook 2008.

The registered urban unemployment rate has also risen after 1997, and the increase was especially rapid from 2001 to 2003 (Figure 12).¹¹ The trend of a decreasing labor force participation rate is revealed in Figure 13. The falling labor force participation rate indicates that during the adjustment of the employment structure in the labor market, an increasing number of people chose to quit the market.¹² Obviously, we can conclude from the analyses above that after 1997, the pace of employment restructuring caused by labor market reform accelerated, and led to intense changes in employment and income structures.

¹¹ In fact, the PRC's registered urban unemployment rate is criticized by researchers as an insufficient index. This index suffers from three problems. First, it is an index of the registered unemployment rate, which is different from the more internationally applied surveyed unemployment rate. Second, this index only takes into account officially registered urban residents, whereas the floating rural population who have migrated into the cities are ignored. Third, and most importantly, before the merging of the dual employment systems—state and private sectors—in 2000–2001, the unemployment rate index did not take into consideration “laid-offs”, who were actually unemployed, and whose number was at one time greater than the number of those unemployed. As a result, this index, without doubt, substantially underestimates the actual unemployment rate in urban PRC.

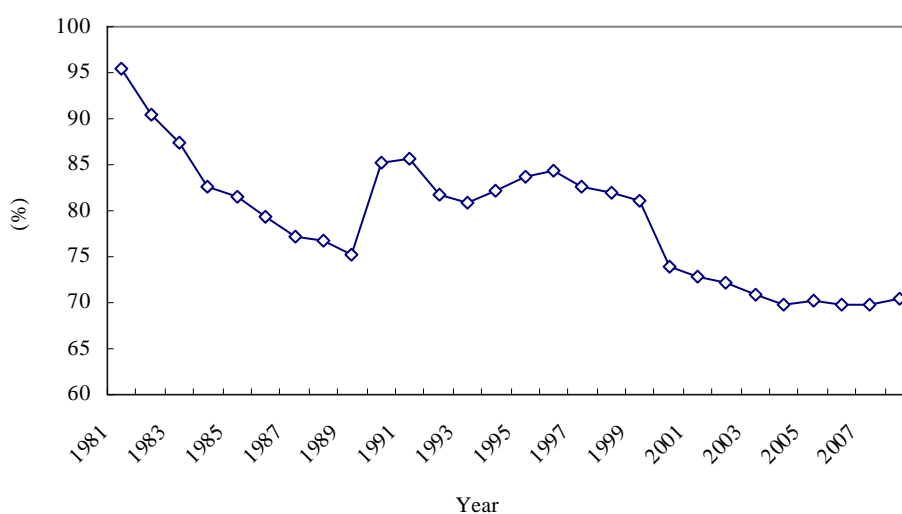
¹² Although there were other reasons leading to the declining labor force participation rate, Cai and Wang (2004) also pointed out that the decline was partly a result of the fact that some “frustrated workers” quit the labor market.

Figure 12: Urban Registered Unemployment Rate (1978–2008) (%)



Sources: NBS (2008), China Statistical Yearbook 2008.

Figure 13: Urban Labor Force Participation Rate (1978–2008) (%)



Note: The labor force participation rate = (employment + unemployment)/ working age population. The working age population is defined as the number of urban residents whose age is between 15 and 64. The sudden rise in 1990 was due to the change of statistical gauge; therefore, the number of employees rose sharply.

Sources: NBS (2008), China Statistical Yearbook 2008, and the authors' calculation.

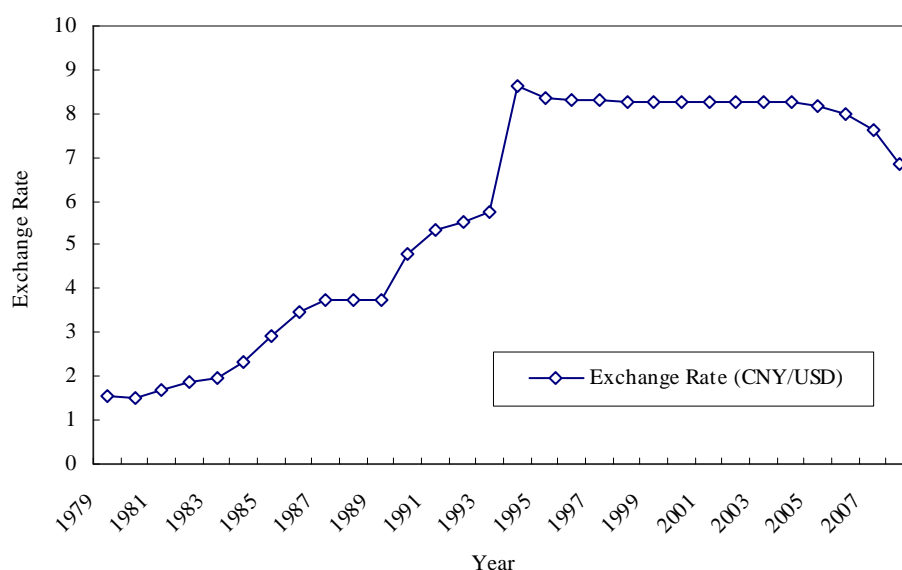
Labor protection is insufficient under the current system in the PRC. Although trade unions are nominally organizations through which workers can lawfully fight for their rights, in reality they are subordinate organizations established within enterprises by the Party and government in public sectors and SOEs. In the initial stages of SOE reform in the mid-1990s, chairmen of trade unions in some enterprises were even given incentives as members of enterprise management teams. Therefore, in SOEs, employees did not have an organization that could effectively represent them in wage negotiations. However, employees' disadvantageous market power gave rise to an unexpected favorable condition enabling the smooth progress of PRC labor market reform; namely, maintenance of slow wage growth in the first stage and employment restructuring in the second stage. At the same time, this disadvantage is also a hidden trigger to increasing income disparity within cities.

Nevertheless, in private enterprises, leaders of trade unions are primarily paid employees, who do not have powers to bargain with employers.

Regional competition in the PRC is also an important factor in the maintenance of relatively slow wage growth. Interregional competition is considered as an important factor in the success of the PRC's economic reform (Qian and Weingast 1997). When the central government evaluates the performance of local governments, it ranks them in terms of relative performance, and the promotion of local government officials is based on local GDP growth during their incumbency (Li and Zhou 2005). Such a mode of competition, where officials report to their superiors and not their local residents, induces local government officials to care more about local GDP growth by attracting investment, not employees' rights and income disparity.

Rural-to-urban migration and labor market competition are basic sources of low labor costs. Furthermore, the reform of the exchange rate system in 1994 contributed a lot to the export-led growth pattern. Since 1978 when reform and the open door policy was first initiated, and with the gradual marketization of the trade regime, the overvalued yuan faced increased depreciation pressure. Though several adjustments had been made in the same period, the yuan was still overvalued and there was a huge gap between the official and illegal black market exchange rates. This dual system was abolished in 1994, and the official exchange rate was lowered tremendously once and for all. From then on, the exchange rate of the yuan to the USD remained steady until 2005 (see Figure 14). The great depreciation of the yuan was a starting point of the PRC's export-oriented strategy, and has been responsible for the tremendous increase in exports since 1994.¹³

Figure 14: Exchange Rate (1979–2008)



Note: Exchange rates are calculated as a weighted average of daily exchange rates of a year from 1979 to 2007. For 2008, the year-end exchange rate is employed.

Sources: China Commerce Yearbook (2008) and the website of National Bureau of Statistics of China

Massive rural-to-urban migration, urban labor market reform, and the political governance structure have all created favorable conditions for slow wage growth in the presence of surplus labor, which, in addition to the undervalued yuan, have ensured that low labor costs, the main comparative advantage of the PRC, has been made use of.

¹³ Considering that the change of the exchange rate in 1994 was a unification of the dual-track exchange rates, the real size of the depreciation of the yuan was less than that shown in Figure 14.

4. LABOR MARKET REFORM, INCOME DISPARITY, AND CONSEQUENCES

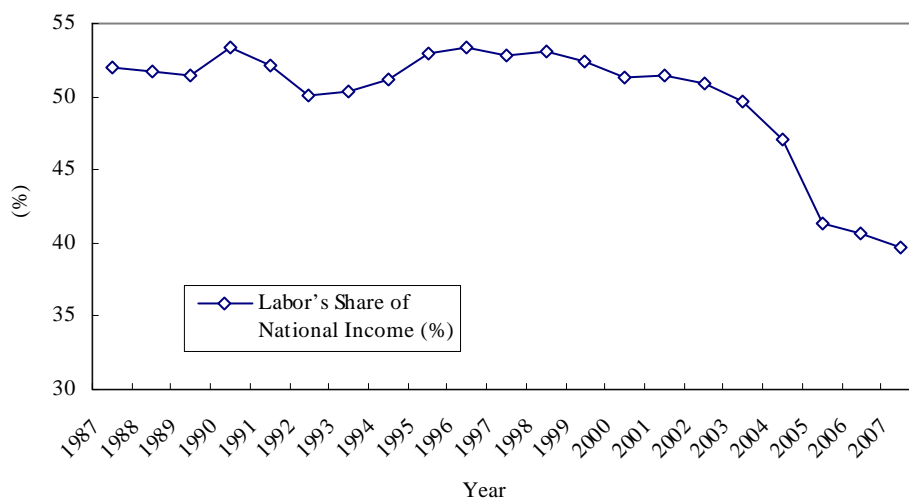
Labor market reform has been aimed at both achieving better allocation of labor resources and providing incentives for the work force. However, for individuals, the initial result of labor market reform was to cause changes in employment status and income level. Upon a closer look, the two stages of labor market reform have had different influences on income disparity.

The first stage of labor market reform mainly resulted in a gradual adjustment of employment and income structure. Before 1997, the growth of production per capita could roughly keep pace with the growth of wages per capita. Therefore, before the labor stock underwent a radical restructuring, the benefits of economic growth were shared by most workers. At the same time, marketization reform increased the rate of return to human capital, which had been distorted under the planned economy. Many empirical studies have found that in the process of the PRC's reform and opening up, the return to education has been continuously rising (Li and Ding 2003; Li and Heckman 2004; Zhang et al. 2005). Therefore, in the first stage of labor market reform, the increase in income disparity was related mainly to the fact that the once-distorted return to human capital was being adjusted to normal. To sum up, labor market reform in the first stage caused people to "get rich together," although some people got richer more quickly.

In the second stage, after 1996, employment restructuring became more radical. The employment status of workers was differentiated, the labor force participation rate decreased continuously, and the unemployment rate rose quickly. If we take a look at the PRC's urban unemployment rate, we can see that the registered unemployment rate of urban areas rose continuously after 1997 (Figure 12). Along with radical employment restructuring—and also because of the increase in income disparity between employed workers and laid-off workers—income disparity within cities also increased. Some of the laid-off workers fell into poverty in the cities (Meng et al. 2005). To sum up, the second stage of labor market reform brought people "structural differentiation," in the process of which income disparity further increased.

As argued in the previous section, although the radical change in the labor market in the mid-1990s has successfully helped establish the growth pattern, based on low labor costs and high exports, labor's market position has also been weakened because of the enhanced market competition. As income inequality enlarged, labor's share of national income has been declining since 1996 (Figure 15).

**Figure 15: Labor's Share of National Income
(1987–2007)(%)**



Notes:

1. Income included in GDP consists of employee compensation, net taxes on production, depreciation of fixed assets, and operating surplus. We define labor's share of total income as the employee compensation in the GDP calculations. The national labor's share is a weighted average of each province's labor's share.

2. In PRC statistics, income from self-employment is included in labor income, but in most other countries it's partly calculated as capital income. The PRC adjust this according to international standards in 2004. So PRC's labor share of national income is over-estimated compared with international standards before 2003.

Sources: NBS, China Statistical Yearbook (1988-2008), and the authors' calculations.

Being at the forefront of economic globalization, the labor market reform in the PRC has catered to the needs of globalization and led to the economy's constant utilization of the comparative advantage of low prices and the high quality of its labor force. At the same time, however, the increase in income disparity is a side effect of labor market reform. As the PRC's labor market reform takes place in an increasingly globalized and open environment, the pricing of capital and knowledge is carried out at the global level. In contrast, laborers, especially unskilled workers, cannot move freely across country borders, so they may only compete with each other within the domestic market. However, in the PRC, there is still a substantial supply of unskilled labor, and the pricing of such labor is carried out on the competitive labor market. To this day, given the institutional background of the competitiveness of the labor market, the weakness of trade unions, and competition among local governments, laborers lack protection of their rights. In the process of globalization, there is an unprecedented combination of capital and knowledge at the international level, whereas laborers are in a comparatively disadvantageous position. If the basic institutional system of the PRC's labor market does not change, it will be hard to relieve the increasing income disparity within a short period of time. Opening up the economy benefits urban areas more than their rural counterparts, and, therefore, income disparity between urban and rural areas is increased in the process of opening up (Lu and Chen 2004; 2006; Lu, Chen, and Wan 2005; Wan, Lu, and Chen 2006). Empirical studies on regional income disparity show that the opening-up process of the economy benefits coastal areas more than their inland counterparts. Globalization, with foreign direct investment and international trade as proxy variables, contributes nearly 20% of income inequality among regions, and this contribution has steadily increased (Wan, Chen, and Lu 2007).

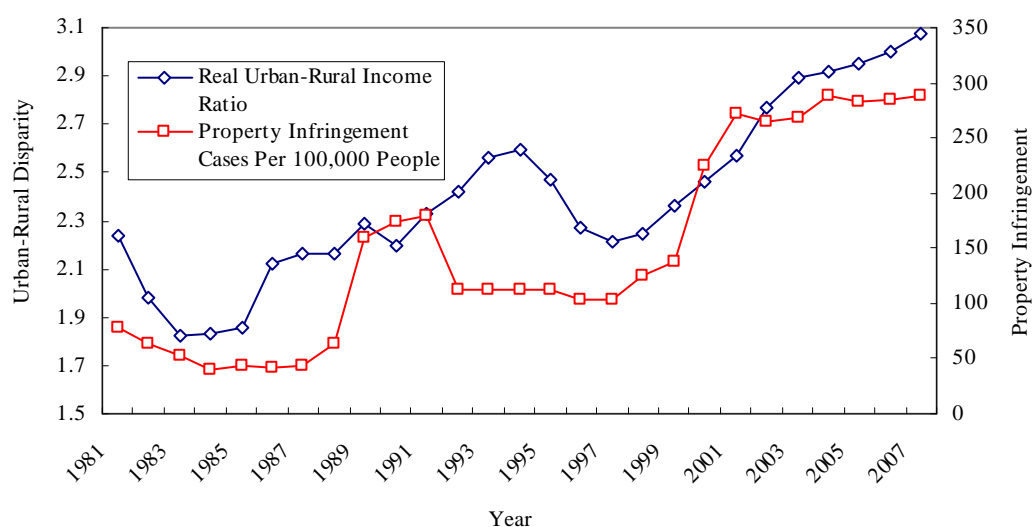
The negative consequences of rising income inequality have been seriously ignored before the current crisis, because the PRC seemed to be so successful in terms of high economic growth. During 2003 to 2007, the PRC had five successive years with annual growth over 10%. However, when developed countries lost their purchasing power in the crisis, without

other sources of demand to digest its production overcapacity, the PRC's high growth could no longer be sustained.

Furthermore, rising income disparity could harm an economy's growth potential in both short- and long-run, as an extensive literature has confirmed both theoretically and empirically. Generally speaking, there are four channels through which economic growth may be impeded by rising income disparity. First, because of imperfections in credit markets, a widening income inequality would increase the number of poor who face credit constraints, and therefore, lead to a decline in physical and human capital investment by them (see Galor and Zeira 1993; Fishman and Simhon 2002). Second, in a democratic society, a larger income disparity would create more proponents of redistributive policies which ask for higher taxes, while higher taxes provide negative incentives for economic growth. This branch of literature is represented by Alesina and Rodrik (1994), Persson and Tabellini (1994), and Benabou (1996). In addition, a larger income inequality would bring about social and political unrest, deteriorate the investment environment, and hence lead to an increased allocation of resources to property protection and a decline in the accumulation of productive physical capital (Benhabib and Rustichini 1996). Finally, low-income families generally have a higher fertility rate and lower investment in human capital. So, with the enlarging income disparity and hence an increase in the number and proportion of low-income families, the economy's total education level declines, and economic growth may be jeopardized (De la Croix and Doepke 2004).

Studies concerning the PRC have confirmed the negative influence of income inequality on growth. Using farm-household level panel data for four rural provinces in the PRC, Ravallion (1998) confirmed that initial wealth inequality had a significant negative effect on both the household consumption growth and the country's growth rate in mean consumption. Benjamin, Brandt, and Giles (2006) examine the relationship between inequality and economic growth using village-level panel data compiled from a large-scale, detailed household survey in the PRC. They also find initial inequality is negatively related to subsequent household income growth. Also, a study by Wan, Lu, and Chen (2006) finds that inequality in the PRC is quickly detrimental to investment, although inequality slightly promotes the accumulation of human capital. However, the negative effect of inequality on investment outweighs its positive effect on education. Therefore, the cumulative effect of inequality on growth is negative. It can be concluded from their empirical results that if the urban-rural per capita income ratio is lowered by one percentage point, then the growth rate would be 3.8 percentage points higher.

Apart from influences on economic growth, income disparity also has other negative effects on development. As Figure 16 implies, inequality may be accompanied by social unrest and crime. More concretely, the urban-rural per capita income ratio and property infringement cases have similar trends throughout the post-reform years.

Figure 16: Income Disparity and Property Infringement (1981–2007)

Note: Urban and rural incomes have been deflated by urban and rural CPIs, respectively, except for the years of 1981 to 1984, and 1986 to 1989, because of a lack of CPI data in these years.

Sources: NBS, China Statistical Yearbook (1988-2008) and the authors' calculations.

The existing literature has also confirmed the relationship between poverty reduction and income inequality. Using data from Sichuan and Shaanxi provinces in the PRC, Zhang, Huang, and Rozelle (2003) find that changes in the poverty rate can be mostly explained by economic growth, and that economic growth is vital for poverty reduction. However, poverty alleviation policies in the PRC have had almost no effect. Yao, Hanmer, and Zhang (2004) find that poverty can be significantly affected by inequality. According to their estimate, for PRC urban areas, poverty would rise by about 15% or 30%, depending on whether the high or low poverty line were used, if the Gini coefficient were to increase by 10%. The corresponding increases in rural poverty would be approximately 21% and 35%, respectively, which implies that poverty ratio is more sensitive to income distribution in rural areas than it is in urban areas.

Inequality may also influence a person's health. Using individual data from the China Health and Nutrition Survey (CHNS), Li and Zhu (2006) discovered an inverse-U correlation between self-reported health status and income inequality. Their results also show that rising inequality could increase the probability of one's engaging in health-compromising behavior, such as smoking and alcohol abuse. Similarly, Feng and Yu (2007) also find an inverse-U correlation between income inequality and health in rural areas of the PRC.

Some more interesting studies relate happiness and public trust to income inequality. Using 2002 Chinese Household Income Project Survey data, Jiang, Lu, and Sato (2008) examine the effect on individual's self-reported status of happiness posed by identity related inequality. Their empirical results reveal that compared to urban residents, migrants without urban household registration (*hukou*) suffer more from the average income gap between groups with and without local urban household registration (*hukou*). Lu and Zhang (2008) show some evidence that income inequality at the village level is detrimental to public trust in rural areas of the PRC, but their finding is not robust if using different measurements of inequality.

In addition to the fact that income inequality is harmful to economic growth, income mobility also falls when income disparity increases. Using China Health and Nutrition Survey data, Ding and Wang (2005) measure the income mobility of households in the PRC from 1989 to 2000. Their findings imply that income mobility in the PRC has been maintained at a relatively high level during these eleven years, compared with the measured income mobility in Belgium, Germany, and the US reported in Kerm (2004). These positive results may

explain why stability in PRC and the US is not undermined by serious social crises although income inequalities in both countries are statistically high. However, if nonmarket factors, such as social and political power, are embedded in the newly-grown market, income mobility in the PRC could decline. This unfavorable trend has already been revealed in Wang (2005) and deserves greater attention. Using data from the PRC in the period from 1989 to 1997, Wang shows that, though the overall income mobility helps to equalize the income distribution among households in all periods, this effect declined significantly in the 1990s, which implies a decrease in income mobility.

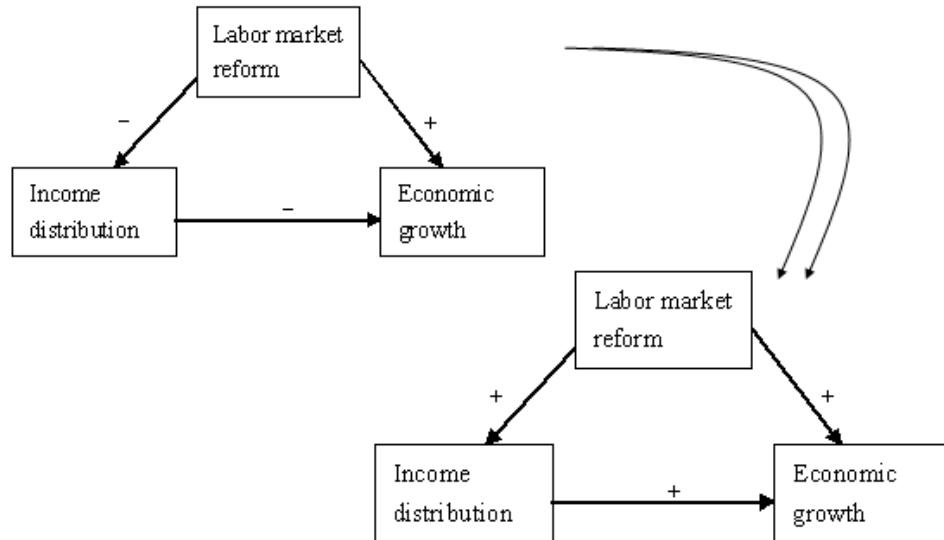
5. CONCLUDING REMARKS: RESTRUCTURING THE TRIANGLE FOR SUSTAINABLE GROWTH

The shocks that the current economic crisis have brought to the PRC economy can be largely explained by its export-oriented strategy and high savings ratio. The economy's dependence on exports is induced by low labor costs, whereas the high savings ratio is derived from the widening income inequality. Both of these phenomena resulted from the labor market reform began in the 1980s and accelerated in the mid-1990s. If we divide labor market reform into two stages, taking the mass lay-off and separation of surplus employees in SOEs in 1996 as the turning point, the PRC's economic growth pattern can also be roughly separated into two stages. In the first stage, although people's income sources were diversified, economic growth mainly benefited from market competition, while the labor market reform was slow and gradual to avoid social unrest. In the second stage, employment restructuring was much more radical, when massive numbers of redundant workers were separated from SOEs. The labor market reform further intensified competition, promoted efficiency, but also aggravated income disparity. At the same time, since the mid-1990s, rural-to-urban migration has increased significantly and provided sufficient low-cost laborers to labor-intensive industries. When globalization meets urbanization in the PRC, labor's market power has been weakened, with the result that the PRC, as in many countries globally, saw labor's share of national income decline. The PRC's growth path—with high levels of both growth and inequality—has been seriously challenged by the current economic crisis, compounding the prospect of increases in income disparity that would jeopardize investment growth and further thwart overall economic growth.

Drawing a triangle between labor market reform, income distribution and economic growth, as in Figure 17, we can see that PRC is currently at the first triangle; namely, where labor market reform directly enhances economic growth, yet at the same time exacerbates income inequality, and the enlarging income disparity hinders economic growth. If labor market reform strategy were wisely adjusted, income disparity could be effectively narrowed, and labor market reform would be beneficial to and promote the final objective of economic growth. Through this reform, the economic growth pattern would be transformed from depending on low labor costs to promoting productivity and social harmony. The present economic crisis is just a stimulus for such transformation. Although institutional forces that aggravate income distribution are still at work, restructuring this triangular relationship should, nevertheless, be a policy goal of the PRC Government in order to establish a harmonious society and to sustain economic growth. The New Labor Contract Law, which forced the employers to sign contracts with and provide social security to their employees, has been implemented in the beginning of 2008. Adopting a law that increased costs on the eve of the crisis aroused heated disputes in the PRC. The implementation of the New Labor Contract Law has led to increases in labor costs in production. This could force the growth of the PRC economy to depend less on exports and more on domestic consumption demand, and is beneficial for sustainable economic growth according to the logic in our article. However, the law has also been intensely criticized. In our view, it is only the timing of the law that is to be doubted, because it was carried out at the beginning of 2008, on the eve of the crisis hitting the PRC economy, and this has imposed great pressure on PRC

enterprises, especially those relying heavily on exports. However, if looking at the institutional change against the background of the PRC development path, the New Labor Contract Law might also be a symbol of the PRC's change in its growth pattern.

Figure 17: Triangle of Labor Market Reform, Income Distribution, and Economic Growth



Source: Authors.

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