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Institutional Foundations of China's Structural Problems*

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Understanding China's growth from a comparative historical perspective

Rapid economic growth in the past thirty years has transformed China into the second-largest economy in the world. This achievement is spectacular from the perspective of post-war history. The influence of China's thirty-year economic growth and its contribution to long-term global economic growth, owing to China's huge population, seem comparable with that of the USA in the late 19th century. However, this comparison could be misleading without considering the fact that at this time the USA had better institutions than most other countries and was a leading country during the second industrial revolution. Thus, not only did the USA surpass Great Britain to become the largest economy in the world, but it also became the richest in terms of per capita GDP. In comparison, the current GDP per capita of China only accounts for one-eleventh (by the market exchange rate) or one-sixth (by purchasing power) of the USA, ranking it 94th in the world after Thailand (IMF 2011). As China is a relatively poor country that has just entered the low- to medium-income category, with severe institutional problems and overall relatively backward technologies compared with advanced countries, the questions of how far China can reach and whether its growth is sustainable are most challenging to address.

One of the major reasons why China's total GDP surpassing that of Japan is considered a great achievement, despite Japan having only one-tenth of China's

* Xinyu Fan served as an excellent research assistant. Financial support from the WCU program through the Korea Science and Engineering Foundation funded by the Ministry of Education, Science and Technology (grant R32-2008-000-20055-0) and HKU are sincerely acknowledged.

population (i.e., Chinese GDP per capita reached one-tenth that of Japan), is that the Chinese economy has fallen miserably for a long time. In fact, in comparing historical data (e.g., Maddison 2006), even in terms of total GDP, what China has achieved in the last thirty years is clearly only a moderate recovery of its historical status in the world. Only in 2010 did China return to the relative international status it had enjoyed in 1913. This meant that China's total GDP ranked second in the world, which is about two-fifths that of the USA. This situation is similar to that in 1913 when the USA and China were the largest and the second-largest economies in the world, respectively, with China's total GDP also accounting for about two-fifths that of the USA (see Table 12.1). However, the similarity ends there, as 1913 was the year that China fell. In that year, Song Jiao-ren, the would-be prime minister of the Republic of China, was assassinated. Sun Yat-sen called for the Second Revolution to fight Yuan Shikai; several wars followed until the early 1950s.

As regards China's becoming the second-largest economy in the world, many predict not only that China will soon replace the USA as the largest economy but that it will even become the dominant global superpower (e.g., Fogel 2010). According to some optimistic forecasts, China's total GDP will become the largest in the world by 2025 or even earlier (e.g., IMF 2011). Based on comparative history, when following this forecast, China will return to its relative global status in 1880. However, at that time, the Chinese empire, specifically, the Qing empire, had just barely resumed social order after the Taiping rebellion (*taiping tianguo*), and it was unable to recover until its collapse.

Even judged in terms of total GDP, China is unlikely to reattain its relative global status in the 19th century; for example, in 1850, when the total GDP of China, as the world's largest economy, was larger than the sum of the total GDP of the next three largest world economies (Britain, Germany and the USA). However, China's status among the world powers at that time was driven by the great disparity of the population sizes in these countries. Only by comparing the GDP per capita of China, rather than the total GDP, with that of other

Table 12.1 Total GDP, 1850–2010 (PPP, billion 1990 Geary–Khamis dollar)

Year	**1850**	**1870**	**1890**	**1913**	**1950**	**1980**	**2010***
China	247	190	205	241	240	1,047	5,745
USA	43	98	215	517	1,456	4,231	14,624
UK	63	100	150	225	348	728	2,259
Germany	48	72	116	237	265	1,105	3,306
Japan		25	41	72	161	1,568	5,391

Note: *From IMF (2011). For the 2010 data, GDP is nominal.

Source: Maddison (2006).

economies can we have a clear understanding of the economic development in China.

Before the industrial revolution, the per capita GDP figures of agricultural economies in all countries around the world were approximately similar, and they remained almost constant over their written histories. The difference in total GDP among countries was a result merely of their population sizes. The industrial revolution changed this for the first time in human history. Since the 18th century, Britain and the USA, as the pioneers of the revolution, and later Western Europe experienced stable 1–2 per cent growth in their per capita GDP. In 1850, the per capita GDP level in these economies more than tripled, whereas the per capita GDP of China was unchanged. Nevertheless, because of its population size, which was five times larger than the sum of the population size of the USA, Great Britain and Germany, China remained the largest economy in the world in terms of total GDP. However, China's per capita GDP fell to only one-third that of Britain or the USA. The per capita GDP gap has kept increasing since, even rapidly during some periods. The two industrial revolutions in the market economy allowed the economies of Britain and the USA to enjoy a long-sustained growth with substantially increased per capita GDP levels. For instance, the per capita GDP of the USA grew from $1,800 in 1850 to $9,560 in 1950. In contrast, institutional problems and warfare resulted in China's economy to go backward, opposite the global trends of development, such that the per capita GDP of China fell from $600 in 1850 to $439 in 1950. This meant that China had become one of the poorest countries in the world, poorer than India or even Nepal. Its per capita GDP became less than one-twentieth that of the USA.

The brief comparative history illustrates the origins of the huge gap between China and the advanced economies and how it has evolved. It demonstrates that China still has a long way to go to narrow the gap even after several decades of successful catching up. Moreover, history also shows that sustainable economic growth relies on institutional reforms and technological progresses.

Table 12.2 Per capita GDP, 1850–2010 (PPP, 1990 Geary–Khamis dollar)

Year	**1850**	**1870**	**1890**	**1913**	**1950**	**1980**	**2010***
China	600	530	540	552	439	1,067	7,519
US	1,806	2,445	3,392	5,301	9,561	18,577	47,284
UK	2,330	3,190	4,009	4,921	6,939	12,931	34,920
Germany	1,428	1,839	2,428	3,648	3,881	14,114	36,033
Japan		737	1,012	1,387	1,921	13,428	33,805

Note: *From IMF (2011). For the 2010 data, GDP is measured in 2010 $.

Source: Maddison (2006).

Table 12.3 Population, 1850–2010 (1,000 people)

Year	1850	1870	1890	1913	1950	1980	2010*
China	412,000	358,000	380,000	437,140	546,815	981,235	1,330,141
US	23,580	40,241	63,302	97,606	152,271	227,726	308,282
UK	27,181	31,400	37,485	45,649	50,127	56,314	62,348
Germany	33,746	39,231	47,607	65,058	68,375	78,298	81,644
Japan	32,000	34,437	40,077	51,672	83,805	116,807	127,579

Note: *From US Census Bureau.

Source: Maddison (2006).

Furthermore, this comparison shows that comparing Japan's problems in the late 1980s with China's current problems is improper. Doing so would be misleading, because in the late 1980s, the nominal per capita GDP of Japan surpassed that of the USA. Thus, the problems faced by Japan in the last two decades were characteristic of the world's richest economies. In sharp contrast, the per capita GDP of China today is only one-eleventh of that of the USA and one-tenth that of Japan. Although China has currently narrowed the economic gap with rich countries compared with its economic status in the 1950s, China is still fairly poor, and the problems faced by China are those of a developing country at the taking-off stage.

Structural problems of the Chinese economy

Numerous discussions are ongoing on China's current economic structural problems, and a consensus of these problems has been formed. However, discussions on the institutional root of these problems are still inadequate or lacking. In this paper, I argue that almost all major structural problems are created by the same institutional problem. Thus, these structural problems cannot be solved if the institution behind these problems remains unchanged. The history of China indicates that institutional problems are the origin of underdevelopment, and poverty can never guarantee progress or sustainable growth. Therefore, the sustainability of China's economic development ultimately relies on institutional reforms.

Recent research by Hsieh and Klenow (2009) summarizes the consequences of economic structural problems in China from a macroeconomic perspective. According to their estimation, because of the misallocation of capital and other resources, China loses about half its productivity advantage in relation to the USA. This finding implies that solving institutional problems and allocating resources properly can result in higher Chinese economic growth without additional investment. Conversely, it demonstrates the great losses China suffered

because of structural problems, even without looking into the social costs of environmental damages related to over-investments.

The structural problems in China have become so severe that sustainable growth is impossible without resolving these problems. The major structural problems that have been widely recognized are briefly summarized as follows.

The first major structural problem is the unsustainable mode of export-oriented growth. The proportion of export in Chinese GDP is extremely high, especially in recent years, and the ratio is still rising rapidly (Figure 12.1). China is the second-largest economy in the world and is soon to become the largest, although even when that occurs China will still be far from rich. Export-oriented growth is unsustainable in China, the largest economy in the world, because a country with one-fifth of the world's population cannot prosper mainly by selling goods to the rest of the world.

The second major structural problem is the low level of domestic demand. The low levelof domestic consumption is the first cause of low demand. Consumption accounts for only a small proportion of Chinese GDP, and the share has continued to decline in recent years. Figure 12.2 shows a diverging trend of consumption ratios of GDP in China and the USA. China's low consumption–GDP ratio is unprecedented in the history of modern economies. The biggest driving force for this low domestic consumption level is the low level of labor income. The proportion of labor income in GDP has continued to decline in recent years, a phenomenon that is also unprecedented in the history of development of all major countries in the world (see Figure 12.3). The second driving force for low consumption is high saving rates. China has the highest saving rate in the world, and it continues to increase. The vigorous growth of government savings and enterprise savings is the major reason for such high saving rates, crowding out household savings. Consequently, the proportion of household saving in national saving declines steadily, which further leads to a low domestic demand (Figures 12.4 and 12.5).

The third major structural problem is the increasing economic inequality and worsening injustice in Chinese society, as exemplified by land problems and so on. Inequality in China worsened in the last two decades, and has seen particularly large increases in the past decade. Associated with inequality is the exacerbating corruption and rent-seeking activities by bureaucrats. The level of inequality in China has become among the worst in the world, much worse than that in India. Inequality, corruption and injustice are great threats to social stability and to the sustainability of economic growth. Moreover, inequality itself is also one of the reasons for low domestic demand, given that the poor accounts for more than half of the population.

The fourth major structural problem that is the subject of heated debate is the structure and technology of the manufacturing sector in China. The major concerns are upgrading the manufacturing technology, and moving up the

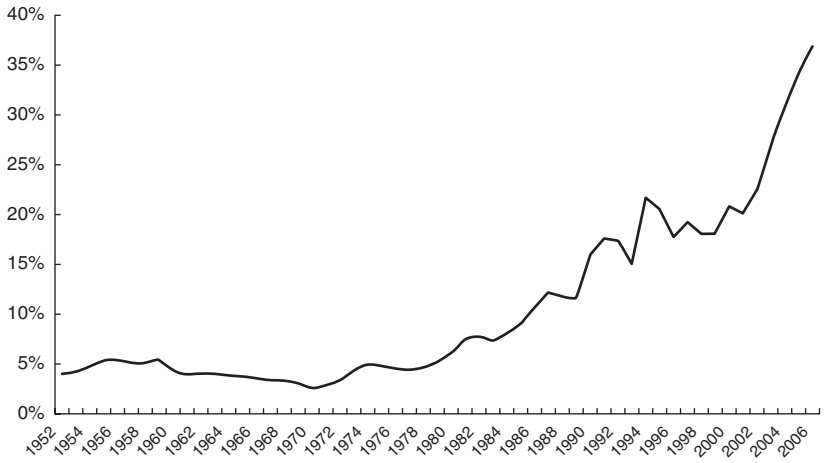

Figure 12.1 Unsustainable export level
Source: Export over GDP ratio, 1952–2006 (He & Zhang, 2010).

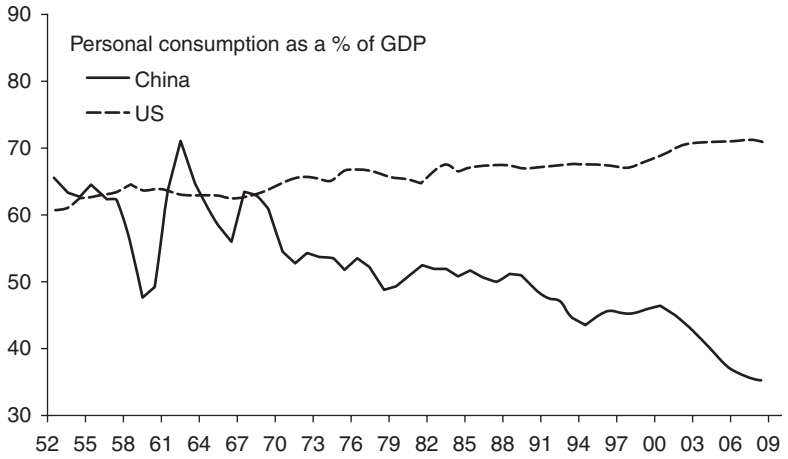

Figure 12.2 Household consumption over GDP ratio: US vs China 1952–2009
Source: Roach, 2009.

value chain of products in the sector, and the underdevelopment of small and medium-sized enterprises in China. However, some essential problems behind this matter are not the subject of sufficient discussion. The fundamental reason that China has lagged in every industrial revolution is the incompatibility of its authoritarian institution with innovative activities, which require freedom and equal competition. This problem becomes more obvious when monopolistic power grows, and opportunities for small firms are denied by high entry barriers and a lack of financial support.

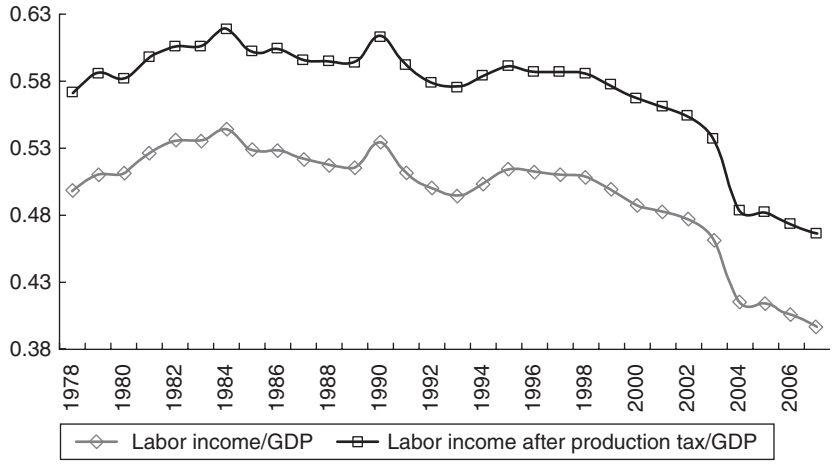

Figure 12.3 Declining labour income over GDP ratio, 1978–2008
Source: Bai, 2009.

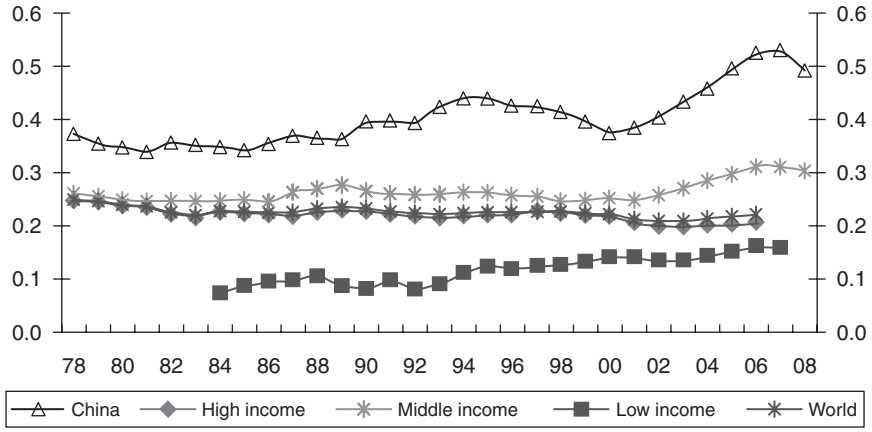

Figure 12.4 Saving rate: China vs the rest of the world, 1978–2008
Source: Yang, Zhang and Zhou, 2011.

The last major structural problem is the environmental issue.

Almost all the aforementioned structural problems have been discussed in China's Twelfth Five-year Plan (TFYP). However, the TFYP did not pay attention to the necessary institutional reforms to solve the structural problems. Institutional reform is necessary because all the structural problems originate from one single source: China's Regionally Decentralized Authoritarianism (RDA) regime. Instead, the TFYP cited fast growth as the main cause of the structural problems and prescribed some wrong policies, such as slowing down economic growth. Considering the origin of the structural problems, most of

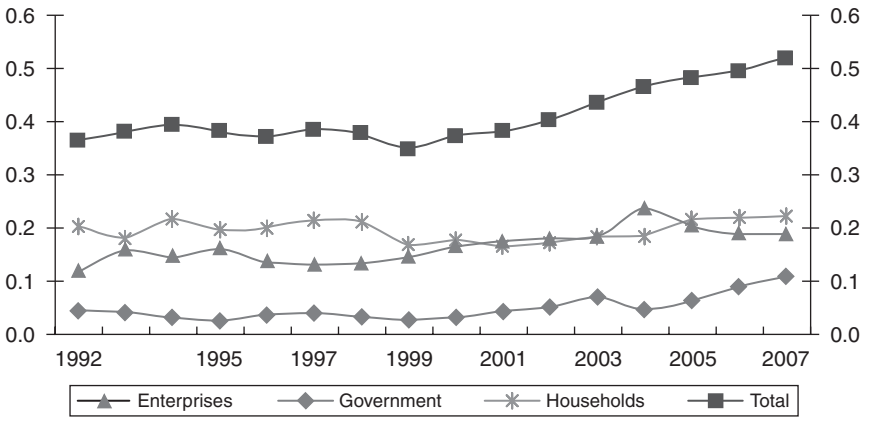

Figure 12.5 Enterprise and government savings, 1992–2007
Source: Yang, Zhang and Zhou, 2011.

these problems will not be resolved solely by slowing down growth. On the contrary, without institutional reforms, structural problems may worsen under those wrong policies. Furthermore, most of the structural problems discussed in the TFYP have already been raised in the Eleventh FYP. However, not only are the problems unresolved after five years, but many of them are also worse off. To conclude, without reforming China's fundamental institution, the structural problems listed in the TFYP are irresolvable. The development of the Chinese economy ultimately depends on reforms in institutions, which has been the basic task of China's economic reforms since the early 1980s.

The RDA institution is the major source of economic structural problems

Understanding the nature of China's fundamental institution is one of the most challenging tasks in economics and political science because China's institution is drastically different from that of other countries. In summarizing the distinctive characteristics of China's institution, I refer to it as the Regionally Decentralized Authoritarianism (RDA) (Xu 2011). The RDA system is characterized by a highly centralized political and personnel control at the national level and a decentralized administrative and economic system at the regional level. The combination of political centralization and economic decentralization makes this institution unique and is also not well studied. The RDA system determines the reform and development trajectories of China, causing serious structural problems in the country.

The RDA regime provides institutional foundations for regional competition and regional experimentation in China (Maskin et al. 2000; Qian et al.

2006). Through regional competition, the incentive and information problems of sub-national governments are substantially mitigated (Maskin et al. 2000). Therefore, regional competition and reform experimentation have served as driving forces for the thirty-year rapid growth in the transition of the Chinese economy, including jump-starting the market economy at the early stages of the reform (Xu 2011).

As a stylized depiction of China's institution, my RDA definition has deliberately abstracted away some secondary factors. In reality, there are institutions that do not completely fit with the basic features of the RDA regime, such as the Ministry of Railways (MoR). The MoR controls the national railway system in a top-down manner. Sub-national governments play almost no role in this sector. However, the MoR is an exceptional case and its role in China's reform and growth is of the second order of importance. Indeed, if the Chinese economy was controlled by dozens of specialized ministries at the national level such as the MoR, the governance of China would be more like that of the Soviet Union, and we would not see China's reform and successive growth as we have in the past three decades. Definitely, despite the massive development of Chinese railways in the past decade, the monopoly of MoR is against the trend of China's reform. The problems created by such a monopolistic bureaucracy are much worse than are those created by a typical RDA regime.

The major argument I present here is that most of the current major problems in China, from the economic structure to the social problems, are created by the RDA regime. To elaborate this point, let us discuss regional competition. As previously stated, regional competition, which is created by the RDA regime, has been the driving force for reform and rapid economic growth over the past three decades. Under the RDA regime, the central government sets the ultimate objective of the government, which guides the direction of the regional competition. When China is poor, economic growth is an important objective, which can be easily agreed upon by elites and citizens alike. Therefore, the GDP growth rate has been a natural goal of regional competition over the last three decades. However, when China enters the low-to medium-income level and when China becomes increasingly more unequal, social and economic issues beyond the GDP become more vital. At best regional competition for GDP will not meet the demands of the citizens; even worse, it actually causes serious socio-economic problems. Severe economic structural problems discussed in the Eleventh and Twelfth Five-year Plans reflect some of the concerns. However, without understanding the source of these problems, no proper policies can be formulated to address these matters.

Regional competition is an enormously powerful mechanism that can be vitally constructive as well as destructive. More importantly, the central government cannot always control fully the consequences of the competition. Dealing with multiple tasks, regional competition in the RDA regime creates 'multiple

equilibria', which generate polarizing outcomes. For example, regional competition may lead to 'race-to-the-top' equilibrium, in which regional governments compete intensively for GDP growth. It may also lead to the 'race-to-the-bottom' equilibrium, in which regional governments compete ferociously in seeking more rents, grabbing more land by suppressing citizens' rights, and so on.

One policy suggestion, which does not require an institutional reform, is to expand the scope of the sub-national officer assessment criteria by including multiple targets, such as income distribution, social stability, environment, economic development, and hundreds of others. To retain regional competition, this policy implies that sub-national governments should compete in multiple tasks. Unfortunately, economic theory tells us that this policy is not feasible because there is no such mechanism that can efficiently resolve the incentive problems when agents have multiple tasks (e.g., Holmstrom and Milgrom 1991). If sub-national governments are instructed to compete in multiple tasks, they may be induced to race to the bottom for many tasks. Sub-national governments may compete in or may experiment on policies that may benefit regional officials but harm most citizens, or may benefit the region but harm other regions. For instance, if promoting income distribution equality conflicts with increasing fiscal revenues, regional governments will compete to discover ways to enlarge their fiscal revenues at the cost of distribution equality.

Another policy suggestion, which also does not involve institutional reform, is to design a comprehensive assessment index, such as 'Green GDP', to replace GDP as the major performance indicator. This assessment indicator summarizes an official's achievements in all tasks or sub-indices. However, designing such an indicator is not feasible because of the following reasons. First, objectives of different tasks are conflicting with each other by nature. Equipped with informational advantage, sub-national officials can easily manipulate some of the sub-indices. Second, some of the sub-indices are well defined quantitatively, such as GDP, whereas others are not, such as social stability, which make qualifying essential information and evaluating performances in this manner difficult for governments. As Hayek (1945) noted, 'The sort of knowledge with which I have been concerned is knowledge of the kind which by nature cannot enter into statistics and therefore cannot be conveyed to any central authority in statistical form.' Third, some sub-indices are easier to implement than others. Moreover, how each sub-index is implemented may have different implications to the vested interests of local officials. With local information advantages, self-interested local governments can easily manipulate the outcome. Fourth, there is no effective data collection institution independent from the local government. Sub-national governments are responsible for most of the data collection work, making data manipulation a serious institutional problem.

Unable to meet the challenges in the recent decade, particularly since the 11th Five-year Plan, the Chinese government has taken some steps backwards,

that is, going back to the non-market, sometimes anti-market, administrative measures prevalent in the pre-reform era. Not surprisingly, this approach cannot work. Theoretically, the above-mentioned concerns cannot be addressed by substituting GDP with some social/economic indicators in regional competition. To understand fully why, we need to explain first why regional competition for the GDP growth rate can effectively resolve the information and incentive problems of sub-national governments. In fact, this is a fundamental concern that has been addressed by China's economic reform. If regional competition alone were able to resolve social and economic problems without involving markets, China would not need to reform its economic system.

China's RDA regime is inherited from history; that is, it was not just introduced in the reform, as was regional competition. Conversely, the market is a new institution introduced into China during the reform after several decades of anti-market campaigns and policies. Therefore, GDP, as a summary statistics of market activities, is a new instrument and is a most useful indicator. Regional competition for the GDP growth rate, that is, on overall local market activities, differentiates China's economic reform not only from a planned economy but also from reforms in the former Soviet Union or Eastern Europe. When sub-national governments compete for the GDP growth rate, they are qualitatively different from jurisdiction competition in a centrally planned regime, as they do not compete for the quantity planning indicators assigned by the central government. When bureaucratic rules are in conflict with market activities, sub-national governments, driven by regional competition for GDP and by other self-interests associated with local GDP, may find ways to enhance markets, thus pushing forward the market-oriented reform. Additionally, as the market is open to the public, any independent agent can collect information in the market to verify GDP figures. This move makes the manipulation of GDP data difficult, which further helps resolve the information problem when evaluating the performance of sub-national governments.

To summarize, any attempt to alter regional competition (or regional government assessment) target from the GDP-related indicator by some quantity indicators is, in a way, going back to the deeply flawed central planning system and is a retrogression from the achievement of three decades of market reform. In a centrally planned system, when sub-national governments compete for quantity targets other than GDP, they suffer unsolvable information and incentive problems. Furthermore, local governments may manipulate information or sacrifice citizens' welfare to win the tournament.

Unleashing regional competition for a couple of quantity indicators in the RDA regime can worsen the information problem gravely, which may lead to disastrous outcomes. The tragedy of *The Great Leap Forward* (*GLF*) campaign illustrates this point. Started in 1958, both the *GLF* campaign and *The People's Commune* campaign were conducted through regional competition and regional

experimentations. The central government decentralized the control rights of most of the state-owned enterprises to sub-national governments. Given this resource reallocation, the central government agitated regional governments to achieve high-quantity targets, for example, food and steel, through competition. This reallocation and competition were the essence of the *GLF* campaign. Conversely, the central government incited local governments to reorganize the local economies by making them self-contained through trying out new organizational forms. This reorganization was the crux of the *People's Commune* campaign. Indeed, not only the organizational form but also the name of the *People's Commune* was invented by local governments through regional competition and regional experiments. The Suiping county of Henan province invented the *People's Commune* called *Chaya Satellite People's Communes*. The name 'satellite commune' indicates that they were the first who 'launched the satellite' in institutional reform (launching a satellite at that time was a popular jargon, which referred to record-breaking achievements) in 1958. Three months after this event, Mao Zedong endorsed the commune system while inspecting Qiliying People's Commune nearby.[1] This endorsement incited local governments to compete fiercely in developing different communes by promising higher production output targets, such as grain output or steel output. This fanatic regional competition eventually caused an unparalleled disaster in human history: a famine with more than 40 million deaths in the following years.

In a sharp contrast, regional competition for the GDP growth rate is qualitatively different from competing for quantity output targets because GDP is an aggregated index that summarizes market activities. Although serious problems persist, disasters such as those caused by the *GLF* will not occur as long as the regional tournament target is associated with the GDP growth rate. However, the RDA regime is implied to be intrinsically unable to resolve problems unrelated to the GDP growth rate, such as inequality, injustice and pollution. Resolving these problems may involve tasks that may be in conflict with GDP growth or in conflict with local governments' vested interests.

A key characteristic of the RDA regime is that the government intervenes in the economy and the society at both micro and macro levels. On the one hand, the central government controls the personnel of sub-national governments to ensure the execution of macro policies, including fiscal policies. On the other hand, the central government grants autonomies to sub-national governments, which not only provide incentives but also ensure that local affairs are treated properly given the disparity of local environments across the nation. However, most macro policies adopted by the central government are associated with the strong self-interest of individual ministries. Indeed, every central ministry has its own interests. Whatever the intentions of the central government, sub-national governments are also always driven by their own interests. The

market-oriented economic reform did not change this. Governed by the RDA regime, the power of governments expands massively as the market economy develops. In what follows, I will illustrate this point by focusing on fiscal and land problems and showing how the RDA regime functions and causes problems.

The land problem profoundly affects many important aspects of the Chinese economy, such as urbanization and structural problems. It is also a root of many of China's major social problems, which aggravate social conflicts. Given that the ultimate land ownership belongs to the state according to the Chinese constitution, the land problem, which is rapidly emerging as one of the most serious matters in China, is strongly associated with local fiscal problems.

Sub-national governments make most of the investments in infrastructures in China. Figure 12.6 depicts the direct contribution of sub-national governments and the central government in nationwide infrastructure investments. In the last decade, most infrastructure investments were made by sub-national governments, with their share increasing over time. In 2009, the share of the central government accounted for less than 10 per cent of the nationwide infrastructure investments. From a simple incentive point of view, the one who invests and manages a project should also be the one who claims the benefits. A major concern of local governments is the tax revenue collected from their infrastructure investments. However, since 1994, particularly after 2002, the central government has been aggressively pressing the sub-national governments for larger shares of the total tax revenues, whereas sub-national governments have to provide 90 per cent of the public goods/services. Therefore, most of the sub-national governments are running in deficits, as shown in Figure 12.7. Nevertheless, sub-national governments still have the burden to do most of the administrative work. There is a sharp disparity between the huge amount of fiscal surplus and the foreign exchange reserves possessed by the central government and the small proportion of public services they provide. An argument justifying such a distortional fiscal policy is that the central government can do better by redistributing most of the fiscal revenues among sub-national governments. Because by doing so, not only adequate fiscal income at the sub-national levels is guaranteed but regional fiscal disparities can also be narrowed.[2]

Although this argument sounds benevolent, a large-scale fiscal transfer managed by the central government creates serious incentive and information problems. First, the mechanism of the fiscal transfer payment distorts the incentives of sub-national governments. This scheme diverts substantial efforts of the sub-national governments from increasing tax revenue (by pushing forward local economic growth) to lobbying with the central government to obtain more fiscal transfers. This distortion creates huge deadweight losses and rent-seeking opportunities, which sometimes lead local officials to law-breaking activities. Second, through the top-down fiscal transfer, a large amount of resources is

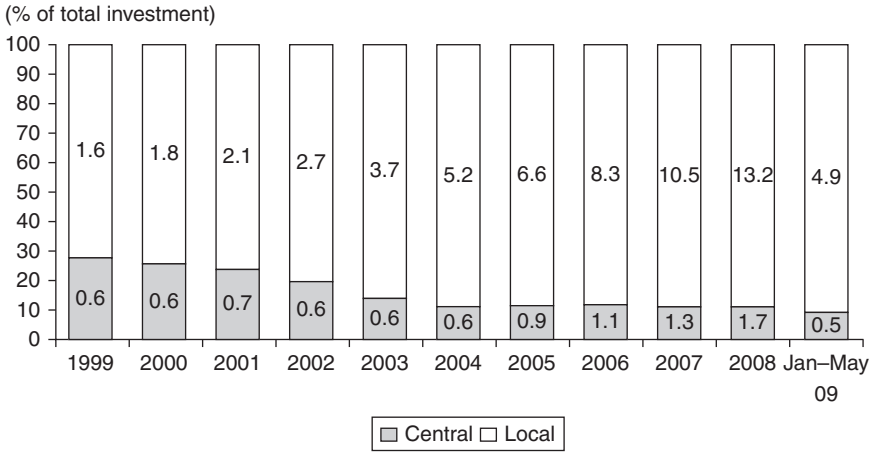

Figure 12.6 Shares of central government vs local government
Source: CEIC, Credit Suisse estimates.

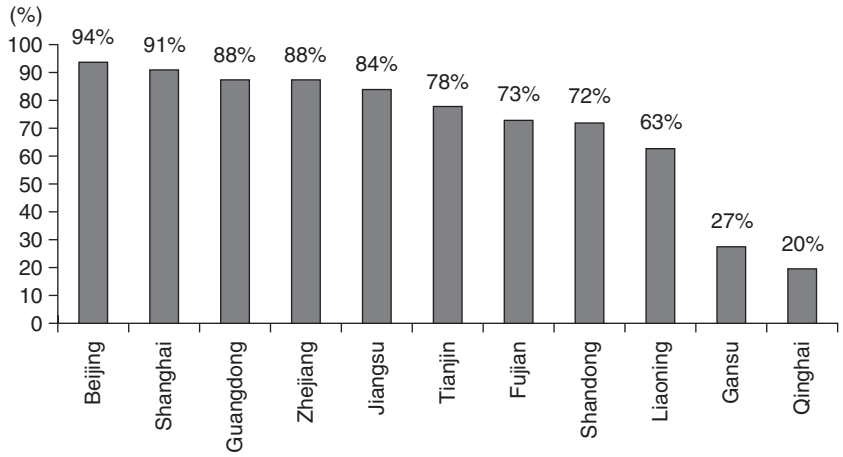

Figure 12.7 Local governments revenue over expenditure ratios, 2008

handed over to provincial governments. However, public services are mainly provided by governments at the municipal and county levels, not at the provincial level. Thus, this fiscal arrangement severely distorts the incentive structure in the government at the provincial, municipal and county levels. Third, the extraction of local tax revenues by the central government drives or even forces local governments to solve their fiscal problems by appropriating land from peasants and selling to developers. In the last decade, revenue from land

has become the major fiscal source for most sub-national governments in relatively developed areas.

Indeed, since the late 1990s, when the central government took away most tax revenues, as compensation for their losses in tax revenue, sub-national governments have been authorized and encouraged to resolve their fiscal problem by appropriating or selling land as compensation. Through regional experimentation, sub-national governments invent, imitate and compete for new approaches of collecting fiscal revenues, mostly by appropriating land. GDP growth rates of most relatively developed areas are closely correlated with the land appropriations of local governments. Sub-national governments appropriate land from peasants with very low compensation (according to the law) then sells or rents it at a much higher (market) price. This process gives local governments huge windfall revenues at the expense of the peasants or citizens losing their land. This practice has become a major source of social conflict between the government and peasants, citizens, and small and medium-sized enterprise owners since 2002. Centered on government land appropriation, social unrest is mounting, many of which tend to be violent.

A society can become either more harmonized, or more divided, depending on how economic growth is achieved. Growth-enhancing reforms during the earlier stages, such as the land reform (the household responsibility system) and the development of Township-Village Enterprise (TVE) sector, not only led to a high economic growth rate but also allowed most citizens to share the prosperity. The reason is that the essence of the land reform and TVE development is allocating private property rights, resources, and opportunities to citizens. Evidence shows that when the sub-national governments pushed forward the land reform in the 1980s and encouraged the development of TVEs in the 1990s, local GDP growth was associated with prosperity for the majority; moreover, many rural localities became more equal (Ravallion and Chen 2007). In contrast, land appropriation is predatory by nature. Not surprisingly, growth supported by a predatory regime creates heightened social conflicts.

As previously discussed, all the social problems created by land appropriation are ultimately consequences of the policies adopted by the RDA regime. Thus, is it possible to solve these problems by reforming the way the RDA regime operates? I assert that as long as the RDA regime as an institution is intact, finding a policy that can resolve these problems is impossible. The first mitigation being tried is abandoning or downplaying the GDP growth rate as the assessment indicator of sub-national governments, as structural problems, including land problems, originated from an extensive mode of growth. However, this move is a wrong diagnosis of the origin of the problem. As previously discussed, there is no more effective method than the regional competition for GDP growth rate can be found to solve incentive problem under the RDA regime. Without reforming the RDA institution, abandoning regional competition will make

matters worse because it will destroy the incentives of sub-national governments at different levels.

The second mitigation is to evaluate the other performance indicators of sub-national governments, for example, those on land use and social stability, or even to monitor their activities directly. Again, as previously above, facing multiple tasks, an effective incentive scheme cannot be designed within the RDA regime. The reason is that, facing multiple tasks and the manipulability of information by sub-national governments, the optimal way to solve information and incentive problems in a top-down bureaucracy is to eliminate any connection between performance and rewards or punishment; that is, no incentive should be given to sub-national governments (Holmstrom and Milgrom 1991). Thus, the only way to solve the problems is to reform the RDA institution such that the sub-national officials will be accountable to their constituents. The tragic lessons from the *GLF* can support this theoretical conclusion. During the *GLF*, when high-powered incentives (regional competition) were linked to output quantities of grain and steel, local governments competed fiercely at utterly high social costs, even human life.

As a last resort, a policy centralizing all revenues from land nationwide and determining land uses directly at the central level is suggested. In recent years, such opinions often emerge when facing difficult social and economic problems. Some ministries are considering or taking actions along this direction. However, this policy implies abandoning what has been achieved in the reform in the past three decades, that is, returning to a central planning system, regardless of the intention. In any bureaucracy, agents at the lower levels always have better access to local information than those on top. Thus, they also determine what information is passed on to their superiors. Central planners not being able to learn or share local information from local agents is the basic reason for the failure of the centralized planning system and for the worldwide transition two decades ago. This basic insight has been shared thoroughly by Chinese local governments even without any knowledge of Hayek, as the popular saying in China, 'whenever there is a rule by the central government, there is always a way to go around it locally'. Apparently, this centralization attempt will erect more institutional barriers to block the market reform.

Aside from the fiscal problems previously discussed, there are two closely related fundamental reasons why governments at different levels (from central to local) can appropriate citizens' rights and benefits without constraints – even at the expense of damaging social stability. First, the RDA regime has a strictly top-down hierarchy, such that government officials at any level are neither accountable to nor constrained by the citizens. Second, the constitution of China (2004) states that 'Land in the cities is owned by the state' and 'The state may, for the public interest, expropriate or take over land for public use, and pay compensation in accordance with the law' (Article 10). These laws lay

the legal foundation for fiscal policies based on land appropriation. Therefore, the land problem in China is rooted in the RDA regime and in the constitution's failure to protect citizens' property rights over land.

In addition to its direct effects on social stability, the land problem is also one of the most important determinants of other major economic structural problems in China. Low domestic demand[3] is a consequence of low labor income and worsened income inequality.[4] Furthermore, a direct reason for the growth rate of labor income being lower than the GDP growth rate is the high rate of taxation imposed by all levels of governments, including fiscal revenues collected from governments' land appropriation. In the past decade, the national GDP growth rate was about 10 per cent, the growth rate of tax revenue was about 30 per cent, and the labor income growth rate was about 8 per cent. After thirty years of rapid growth, Chinese household consumption had declined to less than 40 per cent of the GDP, the lowest ratio in the world. Moreover, China's per capita GDP is ranked 100th in the world. Most of the other structural problems are similar outcomes of 'races-to-the-bottom' in regional competition.

The structural problems created by the RDA regime have become overwhelming, and they threaten the sustainability of China's future. To solve the matter, the root of the problem has to be addressed; that is, the RDA institution must be reformed, and the authoritarian regime must be replaced by constitutionalism. Considering the land problem, the lack of constitutional protection of private property is a key factor in this reform. All the developed market economies in the world protect private property rights. China cannot be an exception.

One of the milestones in China's reform is the 2004 amendment of its Constitution. In the amendment, Article 13 is included, which stipulates, 'The state protects by law the right of citizens to own private property and the right to inherit private property.' However, this amendment still fails to address the private property rights of land, leaving an apparent drawback, which is a cause of disorder and violation of citizen's rights. Removing the constitutional protection of private property rights over land is an outcome of the Cultural Revolution. The first Constitution of the PRC (1954), although it was deeply influenced by the Soviet constitution and took many fundamental rights away from citizens, still recognizes peasants' private ownership of land (see Article 8). It was the Constitution of the Cultural Revolution (1975) that removed this basic right from citizens.

The quintessence of China's RDA regime originates from imperial China, which evolved for over 2,000 years. Thus, it is unique both in the way it works and in world history. When the disastrous outcome of the Cultural Revolution awakened the Chinese citizens to give up the communist ideology, and when China was desperately poor and undeveloped, the RDA regime could effectively motivate governments at different levels to push for market reform and consequently brought a massive GDP growth. However, the basic characteristics

of the RDA regime remain unchanged despite some progress towards a market economy. When China becomes a low- to medium-income country, when social/economic problems associated with the RDA regime become phenomenal, the RDA institution unavoidably becomes the major obstacle for China's social stability and sustainable development. Thus, the RDA regime has to be replaced by the rule of law. The necessary steps for doing so require substituting administrative mechanisms with legal mechanisms; a constitutional protection of private property rights, including those of land; the independence of judiciary from governments, including all levels of the judicial system and governments; and the obedience of all levels of governments to the law.

Notes

1. The Chengdu Meeting of the CPC Political Bureau approved the *Proposal of Amalgamating Small Agricultural Collectives into Large Scale Collectives* in March 1958. Afterwards, nationwide local governments focused on the amalgamation of rural collectives. On April 20, 1958, Chaya Satellite People's Communes was established in Sunping County, Henan Province, which became the first commune in the history of PRC. Following this event, more than 1,300 communes were established in Henan in a period of less than four months. On August 6, Mao Zedong endorsed the '*commune'* when inspecting Qiliying Commune in Xinxiang County, Henan Province. This endorsement pushed the People's Commune campaign to the peak. Sadly, Henan Province in general, Suiping County and the nearby Xinyang Region in particular, were among the areas that suffered the most in the Great Famine later. Reportedly, one-tenth of the population in Chaya Mountain Communes starved to death in the Great Famine.
2. According to some carefully conducted econometric analysis based on regional data nationwide in the last decades, the transfer payment mechanism since the 1994 fiscal reform has actually widened the gaps between different regions instead of narrowing them down.
3. Low domestic demand makes the economy rely on export-oriented policies/industries, which are a source of global imbalance.
4. The population of the poor is enlarging, and the gap is widening rapidly.

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