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**POLITICAL AND ECONOMIC
INSTITUTIONS OF CHINA AND THEIR
INFLUENCES**

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POLITICAL AND ECONOMIC INSTITUTIONS OF CHINA AND THEIR INFLUENCES[†]

Abstract

China was the largest economy in the world before the end of the 19th century; then became one of the poorest countries in the world in a few decades. Now China is returning to its historical past. To understand China's development, and to understand where and how far China will move forward, this paper examines how its institution functioning.

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Political and Economic Institutions of China and Their Influences

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I. INTRODUCTION

After more than three decades of economic reform, China has transformed from one of the poorest economies in the world to the second largest economy measured by nominal exchange rates; or the number one largest economy in the world measured by purchasing power, which has drawn lots of attention in the media. China has greatly influenced global economy; as such, determinants of China's future should be elucidated to comprehend global economy (Pritchett and Summers, 2014). However, literature presents two contradicting views, particularly optimistic and pessimistic perceptions regarding China's future. With an optimistic perception, Fogel (2010) predicts that the Chinese economy will account for 40% of the global GDP in 2040¹; at the same time, the share of the US to the global economy will decrease to 14%. I would like to emphasize that Fogel's prediction is consistent with predictions based on a standard growth model in which institutions are disregarded, that is, institutions in China are similar to those in the US or in Japan. With a pessimistic perception, authors claim that China may collapse any time soon because of financial/fiscal crisis or political reasons (see Lardy (1998) and Chang (2001) for earlier discussions; and Chang (2011) and Zhang (2014) for recent discussions).

Considering these contradicting perceptions, I present a different view in this paper. Although some of my conclusions might be somewhat close to Pritchett and Summers (2014), my focus is on China's institutions, i.e. the mechanisms, whereas they focus on

¹ With an estimated 6.4% growth rate, the US intelligence community predicts China's share in global economy will be 23% in 2030 (Pritchett and Summers, 2014).

cross-country comparison in statistics. In this paper, I argue that although the size of Chinese economy is extremely important in terms of its impacts to the gravity of the global economy, yet overly focusing on the size of the Chinese economy could be misleading and forecasting based on extrapolating recent past trend could be erroneous (Pritchett and Summers, 2014). Indeed, China was the largest economy in the world before the end of the 19th century. To understand China's development or growth, including determining the size of future Chinese economy, one has to examine how its institution functioning. Moreover, where and how far China will move forward depend on institutions and corresponding reforms. In Section 2, I use cross-country comparisons of development levels measured by the distance from the world frontier². It demonstrates the effects of institutions on long-term growth.

In addition to its size, China is also highly heterogeneous. In the following, I briefly describe two new sets of evidence obtained from recent studies to elaborate my claim that institutions determine the development of China. Xu (2011) provides more detailed and more systematic evidence. The first set is that Chinese counties where many privately owned firms are concentrated (the aggregate output of these counties accounts for one-third of the total output of the country) not only experience significantly higher growth rates than other counties but also present lower inequalities than in other counties. This is in a sharp contrast to the national trend of increasing inequalities (Guo, Jiang, Xu, and Yang, 2014)³. The second evidence is that Chinese state-owned firms are significantly less efficient than their counterparts in 27 other transition economies. By contrast, private firms in China are significantly more productive than those in 27 other transition economies (Kim, Wang and Xu, 2014)⁴. This discovery reflects one of the major institutional problems in China is the difficulties for the private firms to enter and to grow in many economic sectors due to institutional barriers and discriminations against the private sector. Because of this institutional problem, state-owned firms obtain most of the

² A country's distance from the world frontier is usually measured by the ratio between this country's per capita GDP and that of the most advanced country, such as the US. A ratio of 1 implies no distance, whereas a low ratio indicates a large distance from the frontier. This measurement corresponds to the concept of the advantage of backwardness by Gerschenkron (1962).

³ The discovery is based on nationwide firm- and county-level panel data.

⁴ The discovery is based on nationwide firm-level data from all transition economies.

resources from the government, which reduces their capital productivity and TFP⁵.

The rest of this paper is organized as follows. Section 3 provides an analysis of China's institutions and their origin. Section 4 illustrates the effects of these institutions on China's economic performance. The concluding section argues that institutional reform is essential for China's sustainability and stability.

II. EFFECTS OF INSTITUTIONS ON LONG-TERM GROWTH: UNDERSTANDING CHINA BASED ON HISTORY

In the past 30 years, China has been on the path of returning to its historical status relative to other countries. This development has gained positive reactions and hope.⁶ Will China be able to return to its previous international status? Will China be able to achieve more than merely returning to its historical status? To understand how far China can continue, we should first comprehend the reason why China drastically declined since the late 19th century for nearly one hundred years; and how China managed to catch up in the past three decades. Such understanding will help us appreciate whether the particular catch up mechanism of China is sustainable. I will argue that all of these depend on the underlying Chinese institutions.

2.1 China Is Returning to Its Historical Past

China has the second largest economy in the world by nominal GDP level, but its status remains distant from its global status 120 years ago, when China was far the largest economy in the world. Even more strikingly, 200 years ago, China's GDP accounted for one-third of the global GDP (calculation based on Maddison, 2003). Table 1 shows that now China has returned to its historical status in 1890, ranking second among the largest economies in the world in terms of economy size based on

⁵ In recent one and half decades, the state sector has strengthened, whereas the private sector has weakened. In China's policy circle and media, this observation is summarized as "guojin mintui," indicating that the state sector is enlarged and strengthened, but the private sector is weakened.

⁶ Several authors regard this process of China returning to its historical status as a renaissance of the Chinese nation. This view now becomes the government's official view. "The renaissance of the Chinese nation is the greatest vision of the Chinese nation in modern history" (Xi, Jinping, SCMP 06/02/2013, <http://www.scmp.com/news/china/article/1143954/just-what-xi-jinpings-chinese-dream-and-chinese-renaissance>).

total nominal GDP.

Table 1. GDP Ranking of China: Returning to History
Total GDP 1850 to 2013 (PPP, Billion 1990 Geary–Khamis dollar)

Year	1850	1870	1890	1913	1950	1980	2000	2013*
China	247	190	205	241	240	1,047	4,330	13,395
US	43	98	215	517	1,456	4,231	7,942	16,800
UK	63	100	150	225	348	728	1,180	2,391
Germany	48	72	116	237	265	1,105	1,528	3,233
Japan		25	41	72	161	1,568	2,625	4,699

Data sources: Maddison, 2003; 2013*: IMF, World Economic Outlook Database, 2014, on the IMF website.

Table 2. GDP International Comparison, 1871

Nations	GDP (PPP) Million USD	Count for the World GDP (%)
World	1,101,369	100
British Empire	265,000	24.1 (including its colonies)
Chinese Empire	189,740	17.2
UK alone	100,179	9.1
US	98,374	8.9
Russian Empire	83,646	7.6
France	72,100	6.5
Germany	71,429	6.5
Japan (Meiji Era)	25,393	2.3

Data Sources: Maddison, 2003.

However, in 1890, China rapidly declined in terms of GDP ranking (Table 1). A few decades before this, China was far the largest economy in the world in 1850 that it was even larger than the combination of several other large economies. However, stagnation of the Chinese economy even at an aggregate level was in contrast to that of other powerful countries, which were undergoing industrialization during that period. Several years after 1890, the constitutional reform in Chinese history, the *Wuxu* Restoration, was launched but failed. This reform was advocated by enlightened Chinese intellectuals

and politicians. They believed that Chinese imperial institutions were major obstacles in the development of China and were responsible for its rapid decline relative to the rising world powers, including Japan. Table 1 also shows the stagnation of the Chinese economy from 1890 to 1950, particularly after decades of wars and the collapse of the Chinese empire subsequent to the failures of the two constitutional reforms.

Table 2 lists the share of global GDP in 1871 and further elaborates my point. In 1871, one of the most devastating civil wars in Chinese history ended; because of this war, the Chinese empire rapidly declined and eventually collapsed. If we only look at the statistics of 1871 without knowing the institutional background, then China's GDP accounted for 17% of the global GDP looks even more impressive than today's China. Table 2 also shows the Russian empire, another world power that shares several important features with the Chinese empire. I will elaborate this factor in the next subsection.

2.2 Development Level of China

Although China is the second largest economy in the world, China's development level is still significantly below that of the world frontier⁷. Based on per capita GDP or the common measurement of economic development, the development level of China is approximately similar to that of Peru⁸ and is only approximately 19% of that of the US (Table 4). The most important message of Tables 3 and 4 is that China has not made any progress since the industrial revolution (or since 1850), in terms of development level, per capita GDP ranking, and distance from the frontier, regardless of its high share in the global GDP in certain periods. In 1850, the Chinese economy, which was the largest in the world, was significantly larger than the combined economies of the three nations following China in ranking. However, the development level of China during that

⁷ This relative measurement of economic development indicates how backward or advanced an economy is relative to the world frontier. This value suggests the potential of an economy in its further catching up. According to Gerschenkron (1962), everything else being equal, a more backward economy has a higher potential to grow rate than more advanced economies.

⁸ Measured by PPP, the 2013 per capita GDP of Peru ranks 86th (IMF, 2014), 87th (World Bank, 2014), and 88th (CIA, 2014), whereas China ranks 93rd (IMF, 2014), 84th (World Bank, 2014), and 97th (CIA, 2014).

period ranked last among the 24 nations with available data for comparison. Moreover, the development distance of China from the world frontier increased steadily and rapidly from 0.25 in 1850 and decreased to 0.05 in 1950. If backwardness always has advantages for catching up, then China's economy would have rapidly advanced since the end of the wars, i.e. the 1950s. However, the gap was only marginally narrowed from 0.05 in 1950 to 0.06 in 1980 because institutions hampered the catching up efforts during that period.

Table 3. Per capita GDP Ranking, 1850–2013

Ranking is based on per capita GDP (PPP, 1990 Geary–Khamis dollar)

# of Nations Ranked	24	48	51	132	132	187
Year	1850	1870	1913	1950	1980	2013*
France	8	10	12	16	8	23
Germany	10	12	11	20	13	15
Italy	11	16	18	24	18	31
The Netherlands	1	4	8	13	10	12
UK	2	2	4	11	20	21
United States	5	6	1	4	4	6
USSR (geo-defined)		25	29	28	37	58*
China	22	45	50	123	102	93
India		44	48	110	112	133
Japan		31	30	51	15	22
Hong Kong		34	31	40	24	7
Singapore		35	31	39	27	3

Sources: The calculation of the author was based on Maddison, 2003; 2013*: IMF, World Economic Outlook Database, 2014, on the IMF website. The data for USSR in 2013 is Russia.

Tables 3 and 4 also show cross-country historical data to illustrate the impediment caused by certain institutions to economic growth. A substantial part of the contemporary institutions in China is rooted from the Soviet Union (which is elaborated in subsequent sections). Another substantial part of China's contemporary institutions is inherited from the Chinese empire, which may arguably be even worse than Soviet-influenced institutions in terms of facilitating growth. The USSR (for the years

before the USSR era, the area is defined by the USSR geography) is included in Tables 3 and 4 to illustrate the extent of Soviet achievement in terms of economic development. The USSR was a super power at an aggregate level. However, determined by Soviet institutions, its distance from the world frontier has not been significantly improved compared with the Tsar Russian Empire, the predecessor of USSR. To illustrate this point, an important fact is that research and development expenditure over GDP ratio was the highest globally at the peak of the power of the Soviet Union. That is, the R&D expenditure was significantly higher than that of the US and Japan. However, Soviet Union failed to narrow down technological and economic gaps from the frontier economies. After its more than seven decades of efforts, only two among the 200 most important inventions and innovations in the world originated from the USSR (Kornai, 2014).

An extensive literature explains the adverse effects of Soviet institutions and Chinese imperial institutions on economic growth. Yet, Tables 3 and 4 show that the current development level of China is significantly lower than that of USSR and far lower than that of the Chinese Empire in 1850 in terms of distance from the world frontier.

Table 4. Distance from the World Frontier, 1850–2013

Year/Country	1850	1870	1913	1950	1980	2013*
France	0.67	0.59	0.66	0.55	0.81	0.67
Germany	0.60	0.58	0.69	0.41	0.76	0.75
Italy	0.57	0.47	0.48	0.37	0.71	0.57
Netherlands	1.00	0.86	0.76	0.63	0.79	0.79
United Kingdom	0.98	1.00	0.93	0.73	0.70	0.70
United States	0.76	0.77	1.00	1.00	1.00	1.00
USSR (geo-defined)		0.30	0.28	0.30	0.35	0.34*
China	0.25	0.17	0.10	0.05	0.06	0.19
India			0.13	0.06	0.05	0.08
Japan			0.26	0.20	0.72	0.69
Hong Kong			0.24	0.23	0.57	0.99
Singapore			0.24	0.23	0.49	1.22

Note: The distance is the ratio between the per capita GDP of a nation (PPP, 1990 Geary–Khamis dollar)

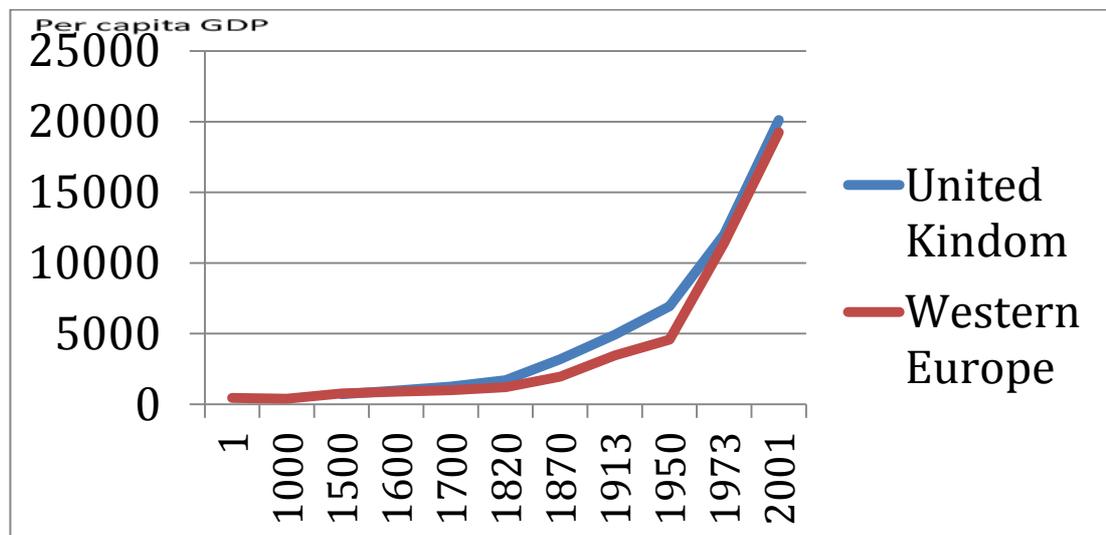
and that of the world frontier level, which is the highest national per capita GDP achieved in each year (for 2013, I used the USA level as the frontier because all nations with higher per capita GDP than that of the USA are small city states, which may result in problems regarding comparison).

Sources: The calculation of the author was based on Maddison, 2003; 2013*: IMF, World Economic Outlook Database, 2014, on the IMF website. The data for USSR in 2013 is Russia.

2.3 Effects of Constitutionalism on Long-term Growth

Empirical evidence found in literature indicates that constitutionalism is a determining factor of long-term growth (such as, North et al., 2009; Acemoglu and Johnson, 2005; Acemoglu and Robinson, 2012; Acemoglu et al., 2014). I use constitutionalism to refer to institutionalized constitutional rules that confine the power of the government, particularly its power on property rights and political rights. The key element of constitutionalism is the separation of powers and political pluralism. In literature, this rule is sometimes also regarded as the rule of law.⁹

Fig. 1. UK versus Western Europe: Constitutionalism and Industrial Revolution

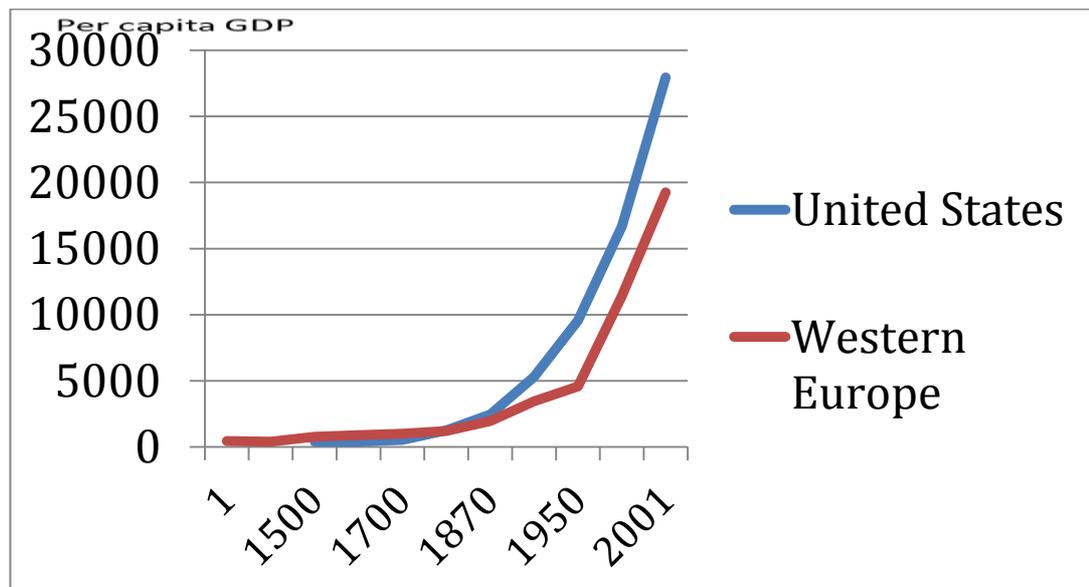


On the basis of a 60-year post-war dataset and a strict definition or measurement of democracy, Acemoglu et al. (2014) provides cross-country evidence that democracy

⁹ I am purposely not using the term democracy because democracy is often used with different meanings by different authors; as such, different institutions may be grouped together under the same label “democracy”.

determines long-term economic growth. This evidence is consistent with that observed in all currently developed economies in the world, that is, all member-countries of the Organization for Economic Cooperation and Development (OECD) are countries that follow constitutional rules or are subject to the rule of law.

Fig. 2. US versus Western Europe: Constitutionalism and Industrialization



In the following paragraphs, I provide four figures to illustrate an observation that industrialization occurred after the establishment of rule of law, not the other way around. The same observation is true for the early sustainable catching up and modernization in other countries¹⁰. This sequence of historical events indicates the causality between institutional change and long-term growth. Fig. 1 shows that the divergence of per capita GDP level between UK and the rest of Western Europe started from the Glorious Revolution, that is, constitutional rule led the industrial revolution¹¹. The convergence between the UK and Western Europe occurred after World War II,

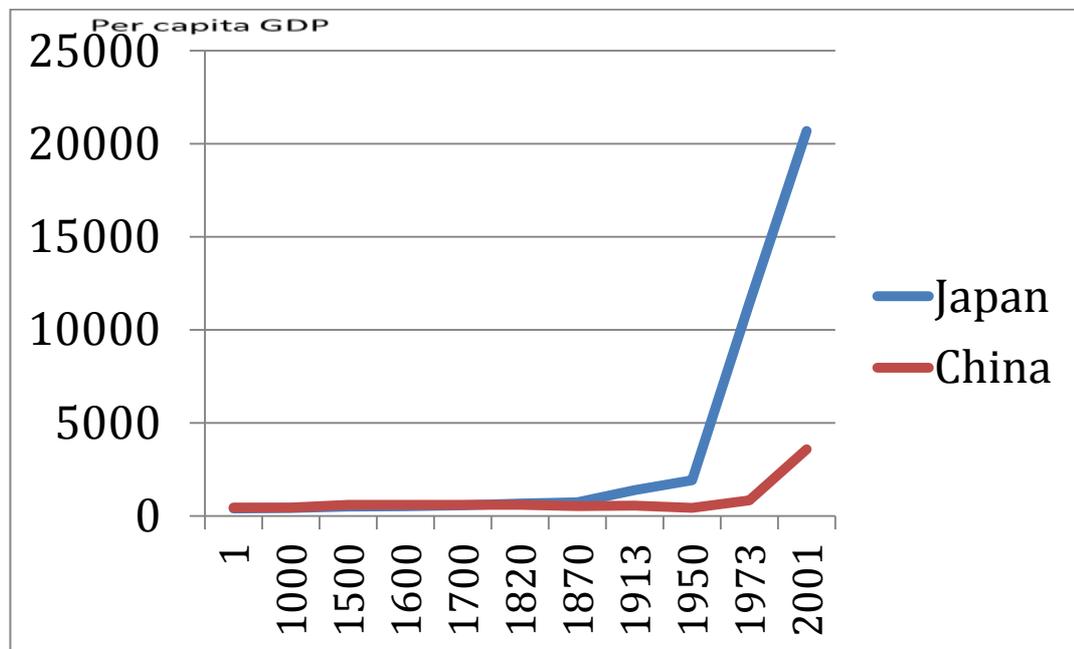
¹⁰ These figures are brief illustrations of a basic historical trend. A full explanation of the trend requires a book.

¹¹ A long-standing struggle of establishing constitutional rules has been observed in Great Britain. The most famous “starting point,” or the Magna Carta in 1215, is important, but constitutional rules were not established until 1688. The purpose in this paper is restricted to show the economic consequence of establishing a constitutional rule. As commonly agreed in literature, constitutional rule (without written codes in the UK) was only established in the Glorious Revolution (North, 1990).

following the establishment of the rule of law in all Western European nations. The data used in Figs. 1 to 3 are all from Maddison (2003).

The next Fig. 2 shows a similar historical trend to that of US versus Western Europe. Under British colonial rules, American settlers did not have full constitutional rights enjoyed by UK citizens; American settlers did not have a representative in the UK Parliament; as such, these settlers did not have the right to determine tax etc. Particularly, King George III denied American settlers' ownership rights over land obtained after the seven-year British–French war, among others (Linklater, 2002). The figure indicates that the establishment of the constitutional rule, that is, the independence of US, leads to divergence from Western Europe or to industrial revolution in US.

Fig. 3. Japan versus China: Meiji Restoration and Growth



The last case in this group of historical illustration compares China with Japan. The focal point in the comparison is Meiji Restoration. The importance of Meiji Restoration in explaining the divergence between China and Japan has been agreed by enlightened Chinese scholars since the late 19th century. Based on the data from contemporary economic historian Maddison (2003), Fig. 3 re-confirms this intellectual agreement among Chinese scholars for the past 120 years. Fig. 3 indicates that the development levels of China and Japan were similar before Meiji Restoration occurred. Although Japan has rapidly developed since Meiji Restoration because of industrialization, China

remained stagnant. The gap between the two economies has rapidly widened for 100 years, particularly after 1950. This gap reflects not only the rapid catching up of Japan to the world frontier but also the backwardness and stagnation of the Chinese economy relative to the rest of the world until 1980¹². These figures illustrate the fundamental importance of constitutionalism in determining long-term growth.¹³ Enlightened Chinese intellectuals and politicians realized this concept in the late 19th century and launched two constitutional reforms imitating those of the Japanese (and those of the British) but all failed. Similar reforms were also launched in Russia in 1905 but failed; Bolshevik Revolution then ensued.

III. REGIONALLY DECENTRALIZED AUTHORITARIAN (RDA) INSTITUTION OF CHINA

Understanding how Chinese institutions operate poses a great challenge to economics and political science. To address this challenge, I characterize the governing institution of China as regionally decentralized authoritarianism (RDA) (Xu, 2011). As an institution, RDA is highly centralized in terms of political and personal control powers, in which the Chinese Communist Party is at the core of power. Yet, RDA is highly decentralized in terms of administrative implementation and economic resource allocation. This combination of a high degree of centralization and a high degree of decentralization is accounted for the uniqueness of the RDA regime in the world. This institution has evolved over the long imperial history of China and a transplantation of Soviet institutions in the early period of the People's Republic of China (PRC). The RDA institution has derived two powerful mechanisms, regional competition and regional experimentation, that are responsible for the success of earlier reforms (that is, reforms since 1978) and the serious social-economic-political problems in China, including those related to gradual growth, sustainability, and stability.

¹² Given the major negative impacts of the “Great Leap Forward movement” and “cultural revolution,” China’s average GDP growth rate from 1952 to 1978 was 4.4% (Perkins and Rawski, 2008), which was considerably lower than the growth rate of Japan in the same period of time.

¹³ For cross country systematic empirical evidence on this issue, see Acemoglu et al. (2014) and Persson and Tabellini (2008).

3.1 Governance Structure of China's RDA Institution

Fig. 4 illustrates the governance structure of RDA, which I call “an institutional trinity” because this structure comprises three basic institutional building blocks. The building block in the center is the party-state bureaucracy. Party-state bureaucracy is responsible for centralized political and personal control by the party and the central government; at the same time, party-state bureaucracy is also involved in decentralized administrative implementation and resource allocation to local governments. The judicial system is fully integrated in the same top-down bureaucracy in this building block. The building block on the lower left corner is the complete state land ownership and state control over financial resources. State land ownership is not only an economic foundation of the regime but also a part of the legal foundation of the RDA regime. The building block on the lower right corner is the personnel and ideology control by the party. The power of centralized control on these matters provides a high degree of decentralization under an authoritarian regime.

To comprehend the behavior and predict the future of the RDA regime, it is important to understand the origin of this regime. For this purpose, Fig. 5 illustrates a stylized governance structure of the Chinese Empire (AD 581 to AD 1911).¹⁴

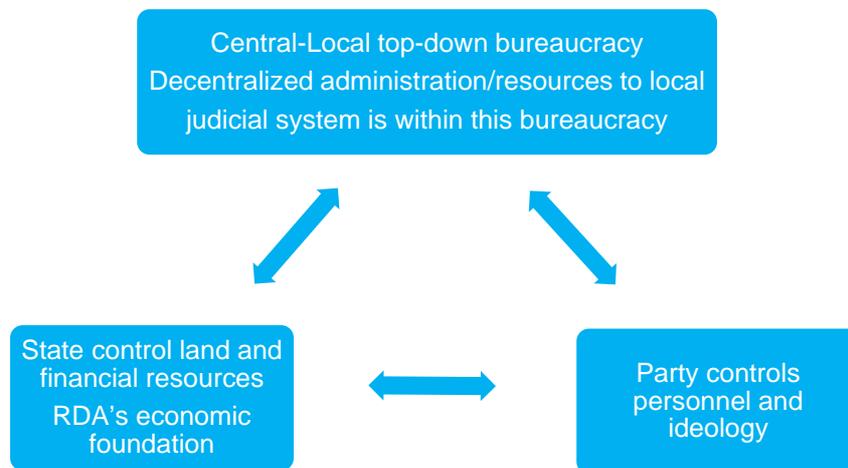


Fig. 4. Governance Structure of China: An Institutional Trinity of the RDA Regime

The governance structure of the Chinese Empire is similar to the current RDA

¹⁴ This depicts the governance structure since the Sui Dynasty (AD 581), which has established such a complete governance structure at the first time in Chinese imperial history.

regime. The resemblance of the unique features of currently governing Chinese institutions and those that prevailed in history is even more notable compared with institutions in other countries (I have to omit such comparisons because of space limitation of the paper). The building block in the middle of the diagram is the Imperial Junxian System, which is a top-down bureaucracy from the imperial court that governs all local governments. In this system, an emperor exerts political control; the judicial system is an integrated part of such control. No judicial system in Chinese imperial history that is separated from imperial bureaucracy existed. The building block on the lower left corner denotes the Imperial Land System, in which the emperor controls all land, particularly for political purposes. The building block on the lower right corner is the Imperial Examination System, which performs dual function. The first important function is personal control, which is concretely allocated for the selection of candidates of bureaucratic and ideological control. The Chinese Empire is the first in human history to establish a systematic ideological control institution by the state. The critical institutional difference between the current RDA regime and the imperial system is the communist party. This party has replaced the imperial court and has penetrated the entire society. Thus, the RDA regime is more centralized than the empire by strictly regulating ideological and personal matters.

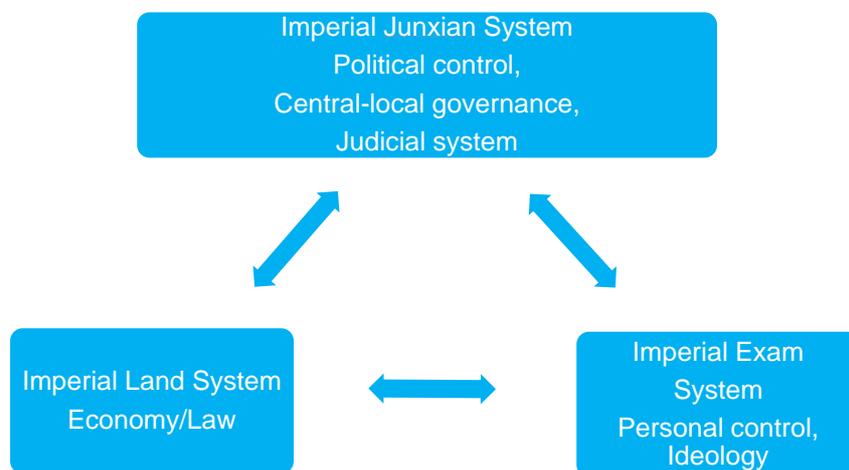


Fig. 5. Governance Structure of Imperial China: An Institutional Trinity

3.2 Incentive Problems in the RDA Regime

The adverse effects of Chinese imperial and Soviet institutions to economic growth, entrepreneurship, and innovation are well recognized. Among the major issues in these

regimes is the incentive problems of subnational government bureaucrats. For instance, the Soviet Union failed in its reform attempts because of unresolved incentive problems. The challenging question is as follows. If the RDA institution is inherited from the Chinese empire and the Soviet regime, then how do we explain the remarkable reforms and growth of China in the past three decades under the RDA institution? The following section presents a brief summary of the basic points (Xu, 2011).

One of the features of the RDA institution that differentiates China from Soviet institutions and from other authoritarian regimes is the manner by which this regime is decentralized. In the RDA regime, each subnational government, including provincial levels and municipal levels, is self-contained in terms of government functions. The functioning sections of each subnational government report to a local leader instead of upper level functioning sections or central ministries. The governance structure of the RDA institution is duplicated from the central government to the county-level government. Therefore, all subnational government bureaucrats in the RDA regime are appointed; subnational government bureaucrat performances are assessed regularly by upper level bureaucrats to determine job tenure. Moreover, all subnational governments, including the bottom level county governments, exhibit self-contained powers to perform tasks without directly referring and reporting to central ministries, as long as these subnational governments fulfil the assessment criteria.¹⁵ The self-contained powers allocated to each subnational government create conditions for regional tournament competitions and regional experimentations. These mechanisms are the key factors to understand China's past and future, including the reforms in the past three decades.

In contrast to reforms in Soviet Union, first-stage economic reforms in China include resolved incentive problems by implementing regional tournament competitions. These competitions include the assessment of subnational bureaucrats. Bureaucrats are evaluated in tournament competitions by their performance rankings, predominantly by the rankings of GDP growth rate of the economy in their jurisdiction compared with the performance at the same level of other subnational governments, instead of the absolute performance of concrete detailed job descriptions. Regional tournament competitions

¹⁵ The Chinese imperial institution rules the empire with a similar governance structure.

are powerful and effective mechanisms that aid in resolving incentive problems when the objective of the competition is well defined and measured, which is a strong condition that can rarely be satisfied. Moreover, local governments are encouraged to conduct reform experiments under such high-powered incentives.

Although the conditions of tournament competitions are satisfied, the functions of this powerful machine depend on the objective of the party. Regional tournament competitions and regional experimentations have played decisive roles that led to catastrophic consequences in the Great Leap Forward campaign at the end of the 1950s and the Cultural Revolution from 1966 to 1976. Thus, another factor beyond the RDA governance structure may explain why China's fast catching up only happens after the late 1970s. The critical factor that determines the timing of the turning point is the political change at the end of the Cultural Revolution in 1976. A substantial proportion of the party-state leaders and bureaucrats were disillusioned by the devastation of the Cultural Revolution. They collectively kept pushing for the change of the objectives of the Party from revolution or class struggles to economic development, which they succeeded officially in 1978. It is worth to mention that for the past 30 years, all breakthroughs in property right related reformation were initiated from regional experimentations by highly motivated local governments.

Nevertheless, how far China can develop without constitutionalism, that is, without thoroughly reforming the RDA regime, is a grave challenge. Tournament regional competitions and regional experimentations work well in early stages of Chinese reforms because subnational governments were assigned to fulfil a single objective, which is economic growth. However, the role of any government involves multiple dimensions. Imposing a single objective to governments leads to socio-economic problems. Rapid worsening in inequality, in environmental problems, and corruption, among others, are examples experienced by the Chinese government as a consequence of overly focusing on economic growth.

Realizing these problems, the Chinese government attempted to replace the GDP with numerous assessment indicators as targets of subnational governments in the recent decade. However, tournament regional competition mechanism would not function any more after the well-defined single objective was replaced by multiple objectives. Tournament competitions with multiple targets often result in race-to-the-bottom instead of race-to-the-top. Furthermore, local governments can easily manipulate information

among targets, which are not market based, i.e. difficult to be verified independently. The worsened social-economic problem is a consequence. Faced with reality, often pragmatic subnational governments quietly enforced single objective, which is GDP growth rate.

Ten years ago, the Chinese government attempted to replace GDP growth with a green GDP indicator, which is a composite of socio-political indices, including GDP, environmental indices, and inequality index, as the target of subnational government. However, this effort failed because GDP represents information collected from the market, which is relatively immune to manipulate. By contrast, all of the other indices are not market based and have to be collected by local governments; thus, these indices are vulnerable to manipulation.

IV. EFFECTS OF THE RDA INSTITUTION OF CHINA TO ECONOMIC PERFORMANCE

In the standard growth model, the national income (GDP) or output is determined by several inputs, including capital input (K), land input (L), human capital input (H), and efficiency (A). Thus, $Y = F(A, K, L, H)$. This standard neo-classical economic growth model has a basic implicit assumption stating that no institution is substantially different from the market. This assumption may arguably represent the reality in Western Europe, North America, Japan, South Korea, and Taiwan, or in OECD nations in general. However, this model is inappropriate for developing and under-developed economies because this model fails to explain the persistence of underdevelopment.

Therefore, is the aforementioned model applicable for China? Does this model consider actual situations in China? If the answers were yes, considering that the distance between the development level of China and the world frontier technology/efficiency level is approximately the same distance as Japan in the 1950s, then China should have at least 30 more years of rapid growth, similar to that of Japan, South Korea, and Taiwan. We should also have similar predictions to those of Fogel. However, the Chinese institution is substantially different from that of Japan, South Korea, and Taiwan, among others. For example, the state owns all lands and most banks in China; private firms experience difficulty in raising funds from the formal financial sector, migration is controlled by the government, and universities are regulated by the government. Thus, a substantial amount of capital, land, and human capital inputs in

China are allocated either directly or indirectly by the government. Therefore, a proper growth model to capture the economy of China has to be revised as $Y = F[A(G), K(G), L(G), H(G)]$, where G is the government, which includes institutions and policies.

4.1 Effects of the RDA Regime on Financial Development¹⁶

If most resources were in private hands and traded in markets, and if a rule of law exists, then the incentive problems of subnational government bureaucrats may not significantly affect the economy. However, these are not the case in the RDA regime. The financial market is an example to illustrate my point. One of the major channels through which institutions affect long-term economic growth and development is finance. Figure 7 (borrowed from Allen et al., 2005) illustrates that investor protection institution is positively correlated to financial development worldwide.¹⁷

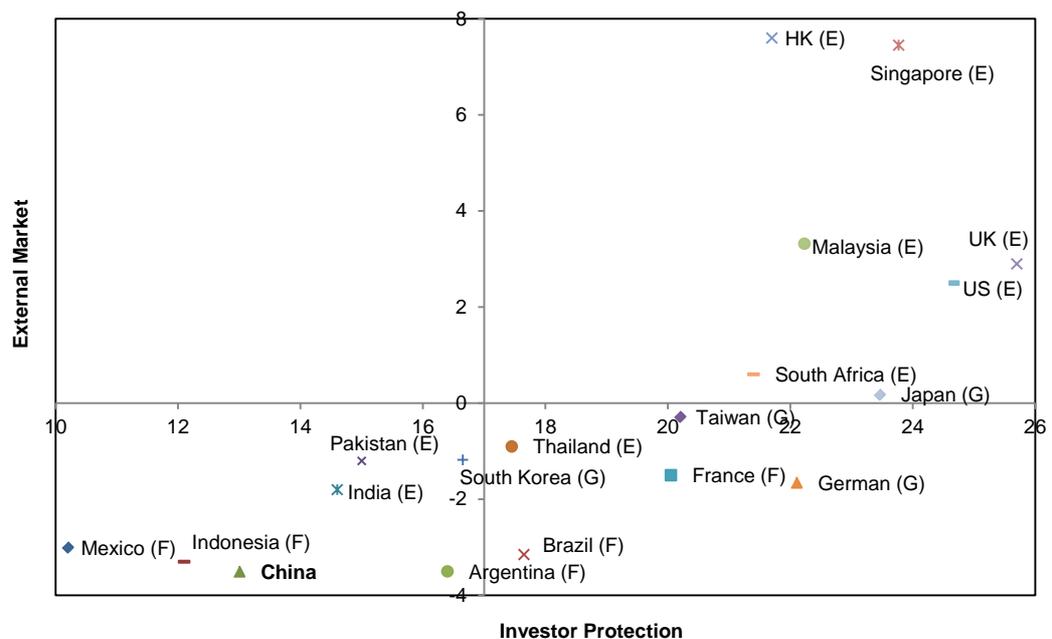


Fig. 6. Poor Investor Protection and Poor Financial Development in China

One of the major understandings from the literature on financial development is the

¹⁶ See Xu (2011) for explanations regarding the RDA regime being responsible for the growth of China in the past three decades. This subsection focuses on problems caused by the RDA regime.

¹⁷ The vertical line in the diagram is a measurement of financial development (external finance normalized by GDP); the horizontal line corresponds to the protection of property rights measured by the protection of investors (shareholders) in stock markets.

need for legal protection of private property rights and independent judicial system in law enforcement when securities markets are established. However, the Chinese jumpstarted the securities markets in the early 1990s without these conditions. To avoid the worst problems under the RDA institution, China implemented specific policies to mobilize the incentives of subnational governments and resolve serious information problems in the initial stages of initiating these markets. These policies and incentives are linked to regional competitions and regional experimentations (Pistor and Xu, 2005; Du and Xu, 2009). The markets grew rapidly in the early years, but the general regularity between institutions and financial development still applies. Consistent with the cross-country trend and associated with the poor investor protection of China compared with the rest of the world, the financial development in this country ranks among the poorest in the world (Fig. 6).

Table 5. Financial Development in China, 2001–2011

Year	Domestic credit to private sector (% of GDP)	Stock market capitalization to GDP (%)
2001	111.26	42.27
2002	118.85	34.42
2003	127.15	35.01
2004	120.09	34.88
2005	113.28	32.15
2006	110.73	59.74
2007	107.49	125.23
2008	103.69	110.05
2009	127.19	79.23
2010	129.50	83.71
2011	127.09	58.74

Source: World Bank, Global Financial Development Database (GFDD), 2013 Nov.

The problem is that although started from an extremely low level and the real economy is growing very rapidly, the improvement in financial development of China is extremely limited over the past decade. Table 5 shows that the improvement in financial

development from 2001 to 2011, which is measured by credit to private sector as GDP ratio and by stock market capitalization to GDP ratio, is marginal at best. This lack of progress in financial development is associated with the absence of major reform in institutions, including legal institutions and other institutions that control resources. This observation is also consistent with that in other studies pertaining to the overall distortions and wastage in capital allocation in China (Hsieh and Klenow, 2009).

4.2 Effects of the RDA Regime to Fiscal and Social Stability

This example illustrates the several consequences of complete state ownership of land, intertwined with the other part of the RDA institution, to the economy. Complete state ownership of land¹⁸ implies the deprivation of citizen opportunities for investment, wealth, and income, as well as obstruction of development and growth of small and medium enterprises and the service industry. However, our focus in this paper is the political and economic consequences of complete land ownership on the relationships between central government and local governments and between the government and the citizens, as well as how this relationship destabilizes the economy.

Since the 1994 fiscal reform, the share of local government revenue has decreased dramatically and steadily. However, the overall responsibilities of local governments in public service and their expenditures remain unchanged. Table 6 shows that most of the public services in China are provided by city and county governments.¹⁹ Local governments have assumed most of the responsibilities in infrastructure investments.

¹⁸ The Chinese constitution does not recognize any private ownership of land. The Constitution says, “Land in the cities is owned by the state. Land in the rural and suburban areas is owned by collectives.” (Article 10, PRC Constitution 2004). In addition, “Land collectively owned_by peasants shall be contracted out_to members of the collective economic organizations for use in [agriculture]” (Article 14, The Law of Land Administration of the PRC 2004 (LLA)). these articles imply that the ultimate control rights of collectively owned lands are in the hands of the state. In fact, collective or individual peasants possess no legal rights to rent or to sell land or houses to urban citizens. Moreover, “Land in the rural areas and suburban areas, ..., shall be collectively owned by peasants, including land for building houses, land, and hills allowed to be retained by peasants. ” (Article 8, LLA).

¹⁹ Table 6 shows only the budgetary expenditures, which counts for less than half of the total expenditures of local governments. If the non-budgetary expenditures of local governments are included, its share in providing public services would be significantly further larger.

The share of local governments' investments to infrastructure has steadily increased from 72% in 1999 to >90% in 2009 (Fig. 7). As a consequence, almost all of the Chinese local governments are in deficit. By contrast, a local government likely fails in regional competitions if financial problems remain unresolved. One of the major purposes of opening up, that is, legitimizing the housing and land markets since 1998, is to solve the fiscal revenue problem of local governments. The central government requires local governments to solve fiscal problems by using the land within their respective jurisdiction, including selling and renting such lands. Thus, local governments become aggressive in confiscating lands from peasants and urban citizens. Table 7 shows that the largest source of fiscal revenue for municipalities is land, which accounts for more than one-third of the total revenue, based on the national average. By comparison, gross transfers, that is, the revenue from the central government, account for only less than one-eighth of their total revenue.

Table 6. Distribution of Budgetary Expenditures by Government Level, 2007
(Percentage of Total)

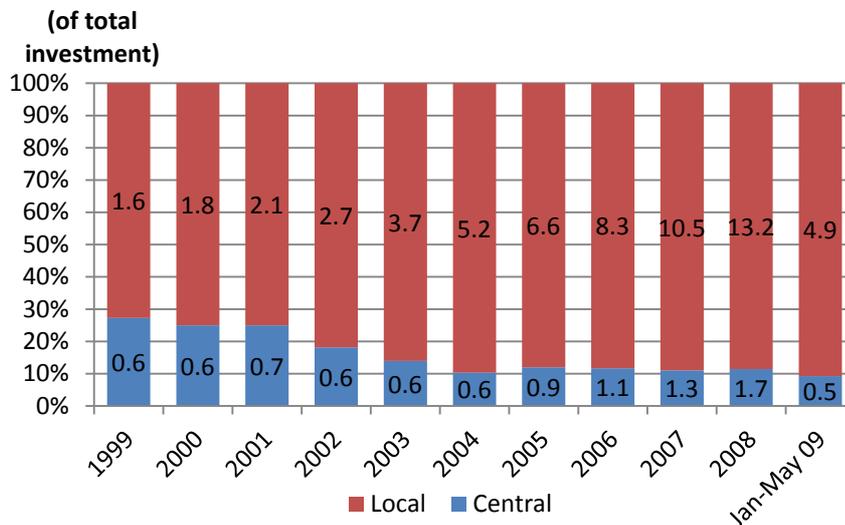
Government level	All budgetary expenditures	Education	Health
Central	23.0	5.5	1.7
Provinces	17.7	15.0	17.2
Municipalities	22.2	18.8	26.2
Counties-towns	37.1	60.7	54.9

Source: Wong (2013)

Under the RDA regime, Chinese local governments are neither allowed to issue debts in the market nor to borrow from banks. However, companies, particularly those backed up by governments, are allowed to borrow from banks and find borrowing easier than others. Under regional competitions and regional experimentations, some local governments invented the Urban Development Investment Corporation (UDIC) to use lands in their jurisdiction as collateral to borrow from banks. UDICs are established by local governments and act on behalf of local governments to invest in infrastructure. This “financial innovation” is similarly implemented by many local governments since

2004, and has become a substantial part of China's urbanization since 2009.

Fig. 7. Central and Local Government Investments in Infrastructure, 1999 to 2009



Source: CEIC, Credit Suisse estimates

The UDIC has been noticed by the public since the global financial crisis because the largest fiscal source of the Chinese government's large stimulus package during the global financial crisis involves local government borrowings from banks via the UDICs and has grown extremely rapidly since then. The recent estimated outstanding debts of local governments ranged from 15 trillion RMB to 30 trillion RMB (\$2.46 trillion to \$4.92 trillion) or 30% to 60% of GDP (WSJ, 23/10/2013). By comparison, state and local government debt (\$3 trillion) of the US is 18% of its GDP. Moreover, these debts are growing rapidly with an annual increase of 20% in the past years. Furthermore, these debts are closely related to the shadow-banking sector until recently. For example, the total 2013 borrowings of local governments from shadow banking was more than twice those in 2012 (WIND Info, WSJ 23/10/13).

Many local governments fail to pay their debts because of investments in unproductive projects, such as sophisticated office buildings. Based on an investigation of the state auditor, 151 out of the audited 223 UDICs run by 36 local governments resorted to new loans to pay for their previous debts (WSJ 23/10/13). Given that much of these debts are backed by land, the value of the collateral is likely wiped out when the land prices come down. The central government currently allows local governments to issue short-term debts to repay their matured debts. However, without institutional reforms to address the fundamental problems, with rapidly accumulating debts, and

given the size and increasing rate of local government debts, the aforementioned method could create conditions that would lead to nationwide fiscal and financial crises and other economic crises.

Table 7. Land is the largest source of revenue at prefecture-level municipalities 2010 (billion RMB)

Revenue source		All prefectural cities	Percentage of total
Ordinary revenues	budget	1296.38	29.9
Gross including tax rebates	transfers	504.65	11.6
Land revenues		1513.72	34.9
Government (excluding land)	funds	174.82	4.0
Social security fund		847.04	19.5
Comprehensive budget		4336.61	100.0

Source: Wong (2013).

Instability related to the state ownership of land is beyond financial and economic matters. The strong incentives of local governments to increase fiscal revenues by land conversion have created conflicts of basic interests with farmers. A large number of peasants substantially lose when their land is confiscated. The prevailing compensation principle codified by the central government is based on the value of crop production of the land. This situation is attributed to the constitution, which confines the collective rights in land of peasants to “agrarian” usage. Peasants have no collective rights when land use is changed, which is decided by the government. When peasants refuse to give up their land, often “forced demolition” (强制拆迁) is the result. “Forced demolition” is responsible for a significantly large proportion of social conflicts in China in the recent decades. National legislators have discussed rules to reduce such “forced demolitions.” However, local governments possess legal power to impose forced demolitions under constitution of state ownership of the land. Under RDA regime, the central government possesses the power to allocate revenues of local governments for

use in other dimensions.

V. CONCLUDING REMARKS: INSTITUTIONAL REFORM IS THE KEY

The land problem and the local debt problem discussed in this paper illustrate serious incentive problems faced by China. The operation of the whole government bureaucracy faces fundamental challenges when the objective of the government is changed from growth to “China Dream,” which implies a large number of dimensions.

Facing multiple objectives, regional competition suffers from serious race-to-the-bottom problem. Instead of race-to-the-top, required by regional competition, local governments compete in rent-seeking and attempts to develop new financing approaches, which may undermine stability.

The rapid deceleration of the Chinese economy is also partly caused by failed incentives of local governments. One of the direct reasons for this decline involves the structural problems of the Chinese economy accumulated for more than a decade. These problems include the low and declining domestic demand over GDP ratio, low and declining household income over GDP ratio, low and declining household savings over total saving ratio, strengthening trend of monopolistic powers of the state sector, and so on. In addition to these structural problems, the other institutional problems of China, such as entry barriers imposed on private firms, are also major contributing factors.

It is important to point out, under certain conditions, regional competition and experimentation historically led to catastrophic disasters in the Great Leap Forward Movement. Provinces, cities, and counties compete against one another, resulting in the distortion of information and chaos. Driven by regional competition, the People’s commune system was established (experimented) by local governments; this system was endorsed and then promoted nationwide by the central government. In this context, the race-to-the-bottom problem created by regional competition and experimentation resulted in devastating disasters, including one of the greatest famines in human history.

There is a claim that the importance of the market-oriented reform plan passed during the 3rd plenum of the 18th Congress of the Chinese Communist Party is comparable to the reform launched in 1978. However, market-oriented reforms always face serious obstacles and resistance vested in the existing institution. Thus, initiatives and efforts from subnational bureaucrats are necessary to implement such reforms. These reforms can only occur when many local bureaucrats are highly motivated, as in

the past. However, we do not find an agenda that addresses the aforementioned incentive problem in the current reform plan.

If the incentive problem of government bureaucrats remains unresolved, these bureaucrats unlikely exert efforts in the reform; consequently, reform programs may not be meaningful since they may not be implemented. Resolving the incentive problem should be the most important reform target. However, we have to realize that many bureaucrats are only accountable for their superiors but not for their subordinates or citizens in the RDA institution. In turn, their superiors have to rely on the information obtained from these bureaucrats to conduct assessments. These all indicate that the RDA regime is the source of problem and should be the major target of reform. Therefore, the mechanism by which regional tournament competitions should be replaced with other mechanisms, such as local elections, to resolve inherent incentive problems of the Chinese RDA regime is one of the toughest challenges encountered by China.

Despite the country's rank as the largest economy in the world, China's development level in terms of distance to the world frontier is only approximately about the level of Japan in the 1950s. That is, China is returning to its world status in the late 19th century but is far from becoming a developed economy. World history since the industrial revolution indicates that no country will become a developed economy without the rule of law. In this regard, China is not and cannot be an exception. Serious socio-economic problems in China further correspond to consequences of the RDA institution, in which the government controls land and other resources; however, no checks and balances, as well as separation of powers, are in effect to limit the power of the government. For this reason, the reform should aim to establish the rule of law or constitutionalism, to replace the RDA institution with an institution that possesses separation of powers and political pluralism, and to implement constitutional rules to confine the power of the government, particularly its power on property and political rights. Chinese citizens should have the right to land ownership. These reforms are the key to maintaining social stability and sustainable growth.

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