Rethinking the Institutional Foundations of China's Hyper Growth:

Official Incentives, Institutional Constraints, and Local Developmentalism

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Introduction

Since the end of the Mao era, China has embarked on the road to reform and opening up in pursuit of economic development and has so far enjoyed extraordinary growth. This remarkable period of growth has helped elevate China's nominal per capita GDP, though still moderate, to the ranks of lower-middle income countries (as defined by the World Bank). In aggregate terms, the Chinese economy is already the second largest in the world and also the world's largest trader by volume. Whereas China throughout the 1980s and much of the 1990s struggled to earn precious foreign exchange, it now controls the world's largest foreign exchange reserves of more than three trillion US dollars. Few at the time of Mao's death could have imagined that China, still dominated by the Chinese Communist Party (CCP), would become a major engine for global growth thirty years later.

The meteoric rise of the Chinese economy under the CCP has attracted enormous attention from and raises profound questions for social science researchers. Economists have naturally focused their attention on economic factors, such as an abundance of cheap labor, high savings rate, managed foreign exchange as well as institutional reforms in agriculture, state-owned enterprises, and trade and investment regimes(Brandt and Rawski 2008). Liberalization and privatization have helped correct many of the inefficiencies in resource allocation that afflicted China's planned economy and unlocked the productive potential of individuals and firms (Lin, 1992; Qian, 2000; Naughton, 1996). While the numerous economic analyses have shed light on the sources and dynamics of China's economic growth and on economic transitions more broadly, they have generally tended to under-theorize the role of politicians and the politics behind the adoption of reforms for capturing efficiency gains.

Yet politics does matter for the economy, even though China has left behind the Mao era of "politics in command". In democracies, politicians seeking reelection are known to deliberately orchestrate periodic booms (Alesina, Roubini, and Cohen, 1997; MacRae, 1977) and alternatively to drive their most entrepreneurial residents out of their districts and thus sabotage growth (Glaeser and Shleifer, 2005). Though not facing open and competitive elections, leaders of autocratic states also operate under a survival imperative; they may choose from a variety of policy packages, from pro-growth policies (Shirk, 1993; Yang, 2006) to the blocking of efficiency-enhancing technologies (Levi, 1989; Perkins, 1967). Thus, a better understanding of a country's economic performance requires insights into politicians' incentives and choices. In this context, it is especially worth noting the increasing fascination with the role of local officials (and by extension local governments) in China's development and in a variety of ways this fascination has set an important and expanding research agenda.

At the risk of oversimplification we divide studies that privilege the role of local officials roughly into two approaches. The first approach largely follows the standard assumption of *homo economicus* and views local officials as revenue maximizers (Lin and Liu, 2000; Oi, 1992, 1999; Montinola, Qian, and Weingast, 1995; Qian and Weingast, 1997; Jin et al., 2005). On this account, which we call the fiscal incentives approach, China's fiscal decentralization in earlier reform periods provided local authorities with a strong revenue incentive to benefit from the growth they could foster, thereby generating pro-growth policies and practices that have propelled China's remarkable economic expansion. Some scholars go further to claim that the Chinese economy came under the thrall of some sort of fiscal federalism known as "market-preserving federalism with Chinese characteristics". The other approach, which we call the career incentives approach (we recognize there is overlap between the two approaches), assumes that local officials are *homo politicus* and seek to maximize their chances of political advancement (Blanchard and Shleifer, 2000; Li and Zhou, 2005; Chen, Li, and Zhou, 2005). Like a supersized bureaucracy, the Chinese state, somewhat referred to as "China Inc.", is organized much like a gigantic modern hierarchical organization with Communist Party leaders retaining control over an elaborate nomenklatura system of appointments and promotions. Because higher authorities have the power to promote or demote lower-ranked officials based on evaluations of the latter's performance, including especially economic performance, Chinese local officials have oriented their careers accordingly. Unlike local politicians in democracies, they do not have to contest in popular elections but compete in producing results that win the endorsements of their superiors.

We begin with a review of these two elegant and stimulating arguments. Each offers useful insights into China's political economy of development but we note that both of these arguments suffer from serious weaknesses that beg for an alternative formulation. Underlying the fiscal incentive argument are two key assumptions, i.e. central government's credible commitment to non-predation and factor mobility across regional boundaries. Neither fits well with China's political and economic realities of the 1980s. The central government frequently reneged on its pledges on fiscal contracts and grabbed additional revenues from more affluent localities. Due to the dual-track reforms and the incidence of local protectionism, factors did not gain high mobility until the second half of the 1990s. Empirical support for the career incentives argument, particularly the idea of a tournament among local officials (the tournament thesis), is equally weak. As an official policy, systematic cadre evaluations did not come into being until the early 1990s and were implemented unevenly across the country. It is especially a stretch to claim top provincial officials with their broad portfolios of responsibilities were evaluated primarily on economic growth rates. And our analysis of the career trajectories of provincial leaders leads us to results that contradict the findings claimed in the earlier papers.

We are not the first to critique the above arguments. Some scholars have gone as far as to dismiss the active agency in local officials and suggest a need to return attention to politics at the center. On this account, local choices are negligible or their growth-enhancing policies and practices reflect central policies, which are the product of political competition between pro-market and conservative factions in Beijing (Cai and Treisman, 2006).

Our alternative analytical approach does not deny the importance of incentives for local officials in explaining China's economic transition and growth. Abundant research and our own fieldwork all point to the fact that the actions of China's local officials matter and their actions have independently shaped the contours of Chinese development. We start with the assumption of revenue-maximizing local government officials. However, we also add more institutional details to better account for the patterns of local government behavior. Three institutions, i.e. central-local fiscal arrangement, regional competition, and industrial linkages have constrained local officials' choice sets and led to a particular form of local developmentalism in China. A wide range of phenomena in China's economic development and transition, such as the rise of TVEs (township and village enterprises), local protectionism, SOE (state-owned enterprise) privatization, and massive industrialization and urbanization, can find logical and parsimonious explanations in our framework. Beginning with the incentives for local officials enables us to build a micro-foundation for analyzing China's political economy. From a policy perspective, while the two existing approaches assume that local governments make efficiency-enhancing policies, our approach points to how the revenue imperative has often driven local officials toward a more destructive path. Thus economic boom extending over several decades has gone hand in hand with certain negative consequences, the costs of which have become more and more obvious. Our approach thus allows us to both explain China's rapid growth and offer a diagnosis of the current paralysis in reform and possible solutions.

The rest of this chapter is organized as follows. We first assess the fiscal incentives and fiscal federalism argument and especially the validity of its two key assumptions in view of actual developments in the Chinese economy. Next we discuss the tournament thesis in view of Chinese policy as well as empirical data. Using a large data set about Chinese provincial leaders we retest the relationship between economic performance and official promotion. In the third section, we present a three-pronged framework and explain why revenue maximizing local officials have pursued a particular form of developmentalism in China since the early 1990s.

Local Officials as Agents for Economic Growth: Two Existing Explanations

Homo economicus: officials as revenue maximizers and the fiscal game

By linking federalism and economic development, the literature on fiscal federalism, particularly market-preserving federalism, has generated much insight into the political foundations for secure property rights and economic development (Oats, 2005; Weingast, 2009). Scholars taking the fiscal incentives approach adopt the standard assumption in public economics that local officials seek to maximize their budgets. Chinese officials channel their energy into the promotion of economic growth, they argue, because of the existence of a sort of fiscal federalism regime, or "federalism, Chinese style", that provide them with strong incentives to develop the economy in spite of the predominance of the Chinese Communist Party (CCP) in Chinese politics and economy (Oi, 1992; Montinola, Qian, and Weingast, 1995). Secure private property rights are generally recognized as a key to growth but hard to obtain with CCP dominance. By introducing two mechanisms, the fiscal incentives approach offers a stimulating perspective on how growth might have taken hold in China prior to the early 1990s.

First, the central government is believed to be committed to non-predation of local government revenues. Under the fiscal contracting system that existed until 1993, provincial governments (and certain major cities) signed separate contracts with the central government and thus enjoyed a relatively stable and marginally increasing share of budgetary revenues (Wong, 1992). Initially made popular by the success of household contracting in rural China (Yang 1996), the contracting arrangements were also adopted between provincial and sub-provincial authorities as well as between governments and their SOEs. The commitment that such contracting arrangements implied provided strong fiscal incentives for local authorities to promote economic growth.

Even with the fiscal contracts, it is still possible for some local officials to act arbitrarily against businesses (Byrd and Lin 1990). The possibility of local government predation on business is mitigated, however, by a second mechanism: factor mobility. In their drive for fiscal revenues, local officials need to offer a hospitable environment for investors and refrain from harming their interests. When they threaten and infringe on the interests of business, other locations in China as well as other countries may offer more attractive conditions and persuade capital to move. Jurisdictional competition thus serves to tie the hands of predatory local officials. All in all, the Chinese state, at central and local government levels, has incentives to protect property rights, thereby fostering a business environment that is conducive to investment, economic growth, and the generation of government revenue. Thus Montinola, Qian, and

Weingast (1995) boldly claimed that the logic of market-preserving federalism (MPF) applied to China, albeit with certain Chinese characteristics.

It was sheer theoretical elegance to make the move from fiscal incentives to the sublime realm of market-preserving federalism with Chinese characteristics. Yet did the two mechanisms noted above describe Chinese realities of the 1980s and early 1990s accurately?

Is the Central Government commitment credible?

It is true that the "fiscal contracting system" granted local governments higher marginal retention rates with regard to budgetary revenues but in the absence of a constitutionalist framework or third-party enforcer, this central government commitment was honored more in the breach. China is still a unitary state and the central leadership has the power to change the "rules of the game" unilaterally and in fact did readjust the fiscal contracting arrangements in the central government's favor on multiple occasions. In 1978, the center adopted a system of "linking expenditure to revenue and dividing extra revenue with fixed share"(*yishou dingzhi, ding'e fencheng*). Shortly afterward, the central government found itself running a deficit and decided to introduce a system of "dividing revenues and expenditures and each level of government responsible for balancing its own budget" (*Huafen shouzhi, zifu pingheng*). The 1980 central-provincial fiscal contracts were to last five years. However, the center revised the terms of the contracts extensively in 1982. In 1985, the center further reconfigured central-provincial fiscal relations as part of the tax-for-profit reforms (*ligaishui*) and yet another overhaul in 1988. Each of the fiscal revisions and reconfigurations was extensive and entailed considerable realignment of existing interests. The 1985 reform of "changing profit remittance into taxes", for example, required provinces with surpluses in prior years to remit more revenues to Beijing while those provinces in deficit were allowed to retain more, thereby redistributing funds from the "haves" to the "have nots" (Tsui and Wang, 2004; Wong, 1992). The central government also "borrowed" large sums from provinces to alleviate its fiscal problems in 1981, 1982, and 1987 and never repaid these loans (Tsui and Wang, 2004).

All throughout the post-Mao era, the central government has vigilantly guarded its sources of revenue and especially kept a tight grip on those provinces and municipalities--Shanghai, Beijing, Tianjin, Liaoning, Jiangsu, and Zhejiang--that were the key revenue contributors to the national coffers (Agarwala, 1992). Indeed, Guangdong got the go-ahead to move one step ahead in reform in the 1980s partly because it was not yet a significant revenue generator for the central government whereas Shanghai was kept on a tight leash until 1990 (Vogel, 1990). But the center's focus was on budgetary revenue whereas increasingly funds were going into extra-budget and off-budget items that local authorities had greater control over. Under such circumstances, official incentives for local authorities to collect formal taxes from local SOEs and TVEs were understandably not very high since these revenues would have to be shared by the center.

The challenge for the center was that the budgetary revenue was becoming a smaller portion of the overall pie (GDP). The more the central authorities focused on tightly controlling the budgetary revenue, the more local authorities sought to evade it. Instead of giving much energy to collecting revenues that would be shared with the center, local officials concentrated their energy on raising "extra-budget" or "off-budget" revenues and other forms of "small treasuries" that were not part of China's consolidated government budget (Wedeman 2000). Two institutional variables facilitated this revenue diversion. First, as the owners of local SOEs and TVEs, local government officials could control the cash flow of local enterprises to hide taxable incomes and profits from the central government and shifted some of the revenue to local extra-budget or off-budget accounts. Second, before the establishment of a separate central tax agency in 1994, local governments were the sole tax collection agents in their jurisdictions. This gave local officials the discretion to manipulate the effective tax rates and tax bases despite the fact that they did not have the authority to alter the statutory rates and bases (Ma, 1997; Ma and Norregaard, 1998). Local governments also frequently colluded with local SOEs and TVEs to understate profits to avoid possible central predation.

Our review of China's central-provincial fiscal relations in the 1980s thus lends little support to the fiscal federalism thesis. The fiscal contracting system was never designed to tie the hands of the central government nor signal the central intention of non-predation. Just as one would imagine from an authoritarian state, the center resorted to various ad hoc instruments (e.g, ad hoc revisions to fiscal contracts, raising the share of a certain tax category that goes to the central government, moving off-budget revenue items into the budget, shifting expenditure responsibilities to local governments) to boost its share of the gross revenue. When these ad hoc measures were deemed to have been inadequate, the central leadership pushed through a major overhaul of the tax and fiscal system in 1994 (discussed later in this chapter).

We believe that fiscal incentives have played an important role in local developmentalism, but it was not the central credible commitment to non-predation but rather the inability of the central government to eliminate para-legal or illegal local government accounts that really preserved local officials' drive for economic growth. The struggle between center and localities was not only about the formal budget revenue but also over the extra-budget funds.

How mobile was capital prior to the early 1990s?

We now consider whether (private) capital mobility was a major factor in constraining local government predation in China in the 1980s.[1] The evidence suggests that local governments did protect local enterprises but not for the reason of factor mobility.

One noticeable phenomenon about the 1980s was local governments' strong preference for investing in their own SOEs and TVEs. The reason was simple: easy profit. Because of the pent-up demand for consumer products after the reform, China for most of the 1980s had a sellers' market and owning and managing SOEs and TVEs turned out to be very lucrative. In this situation, local authorities had strong incentives to develop and protect their own enterprises rather than vigorously promote and protect private businesses (Yang 2004, ch. 2). As the Chinese banking system was highly decentralized at the time, local officials could generally exert influence on the branches of state-owned banks to extend credit to their own enterprises (Lardy 1998). As the owners of public firms, local governments were entitled to enterprise profits in addition to the right to make key appointments. In fact, during the transition away from the old planning system, remittances from enterprise profits still constituted the bulk of local operational budgets and local government were not considered first and foremost as tax collectors. Hence the aforementioned 1985 reform to convert enterprise profit remittances into taxes.

Throughout the 1980s the idea of market remained suspicious and private ownership of major firms was still taboo; it was not until 1992 that the CCP leadership formally adopted the term "socialist market economy" (Yang 2004: 7). Because local authorities directly owned or controlled enterprises that constituted their revenue base, it was natural that local officials would seek to protect local SOEs and TVEs under their administration against competition from private

[1] Investments by the state and collectives were theoretically movable but they were in the 1980s generally bound to the authorities that provided the investments. Hence we give special attention to the mobility of private capital.

and non-local enterprises (Bai et al, 2003; Tsui and Wang, 2004). In order to exist, some private businesses masquerade as collective enterprises by wearing "red hats" (Huang 2008).

When competition began to emerge and intensify, ample evidence suggests that many regional governments during that time period resorted to "local protectionism," sometimes restricting entry into local markets of products from other areas and at other times preventing lower-priced local raw materials from being sold to the outside, leading to the eruption of "commodity wars" (Watson, Findlay, and Du 1989; Yang 1991). Studies of China's regionalism in the 1980s and early 1990s show that there were duplication of industrial structure and growing dispersion of commodity prices, telltale signs of serious interregional trade barriers (Naughton, 1999; Poncet, 2003; Wedeman 2003; Yang 1997; Young; 2000).

One could conceivably suggest foreign capital was more mobile and thus could have played one local government against another in extracting preferential treatment for making the investment. In practice, the fierce competition for mobile manufacturing capital, especially foreign direct investment (FDI), did not become a major theme until the 1990s (Yang 1997). For the 1980s, the idea of having foreign capital was politically controversial and the amount of FDI going into China was very modest and largely confined to a limited number of special economic zones and pilot-reform provinces (Crane 1990; Howell 1993; Litwack and Qian, 1998; Yang 1990). Over 1983-1992, more than 70 percent of the FDI into China went to the provinces of Guangdong and Fujian plus three large cities directly under the central control, Beijing, Shanghai, and Tianjin. Even more importantly, foreign investors in China then were generally not permitted to sell into the domestic Chinese markets and could only use China as a manufacturing base to make products for the international markets.

In conclusion and in contradistinction to the claims of the Chinese-style federalism argument, Chinese local officials had little urge to preserve a competitive market system in the first phase of transition. Even with the introduction of the dual price reforms, China was far from being a functioning market and regulatory barriers were also in place to keep foreign investors confined and at bay. When competition did emerge, the first instinct for local authorities as SOE owners was to erect market barriers to protect local enterprises. There was thus very limited mobility of capital, labor, and products at that time. The presence of non-state firms and foreign investors was also quite limited and altogether firms did not have the clout to credibly fend off abusive local governments. It would take the emergence of a buyers' market and massive losses for the state sector for local authorities to reorient their behavior (Yang 2004).

Homo politicus: officials as promotion maximizers and the tournament game

There has been growing interest in examining how career incentives for promotions of local officials have fostered economic growth in China. The career incentives argument, particularly as exhibited in the tournament competition (for political promotions) model, has gained popularity in recent years and inspired researchers to ask new questions and conduct empirical tests with increasingly rich data sets. Simply put, advocates of the model posit that China's central leaders base their decisions on promotions on an evaluation of the economic performance of top provincial officials (Chen, Li and Zhou 2005; Li and Zhou 2005).

Drawing on insights from the literature on western corporate performance, the tournament competition model has found broad appeal in China. It sports a simple but powerful logic that most Chinese found intuitively sensible. In fact, the model's logic can be readily found in discussions appearing in the Chinese official news media, especially when officials are criticized for displaying the so-called "GDP worship", namely promoting local economic growth at the expense of the environment and other values.

Despite the growing appeal of the tournament competition model as applied to China, we and others find the model suffers from a number of logical and empirical weaknesses that undercut its explanatory power for China's development. We first discuss some of these weaknesses but will nonetheless give the hypothesis the benefit of the doubt and re-run the statistical analyses using a more carefully constructed dataset.

Firstly, in light of the extreme diversity in regional endowments and the fact that some places are naturally better positioned for growth than other places, one might suggest that central leaders would need to take such diversity into consideration in assessing local performance. We recognize, however, that researchers can to some extent deal with such heterogeneity in their statistical analyses by introducing various control variables. Related to the issue of heterogeneity is the problem of assessing causality between political mobility and economic performance. The posting of an appointee to a provincial ripe for economic takeoff or sustained growth may not be based on meritocratic grounds but are politicized. Students of Chinese politics have long noted the importance of patron-client relations in the study of state-building in China (Huang 2000; Nathan 1973; Shih 2006). Patrons might send their favored clients to regions with high growth potential so that the clients would gain credentials for higher positions. Therefore, "meritocracy" is no more than a façade for an essentially clientalist state. Under this scenario, even if GDP growth and promotion are correlated, that correlation would still be spurious as far as the tournament model is concerned. Thus statistical tests of the tournament model will need to take into consideration factional ties.

Second, advocates of the tournament model have assumed the existence of a universal promotion policy across the country from the very start of the reform era. The reality, however, is more complicated. The Communist Party's Organization Department did issue a document in 1979 entitled "Opinions on Implementing a Cadre Evaluation System" but it emphasized assessments of four qualities (virtue, capability, diligence, and performance) and performance was placed the last among the four. It was not until 1988 that performance became a key criterion (Zhuang 2007: 44). Even then our fieldwork reveals tremendous variations in local implementation. We have not come across any evidence indicating the criteria for evaluating the economic performance of provincial leaders. While it was fairly common to find cadre evaluations tied to economic and financial performance between townships and villages, until a few years ago it was still far from universal practice for top county leaders to be assessed on their ability to meet certain targets (综合目标责任制) and even rarer for top provincial leaders to be thus assessed (Tao et al: 14-16). These temporal, regional, and rank variations need to be incorporated into any analysis of performance-linked promotions.

More important, when these evaluations are examined closely, it is never explicitly stated that economic performance is the sole criterion for official promotion. In various central directives on cadre evaluations issued since 1988, the CCP has always emphasized the need to evaluate cadres on multiple dimensions, including virtue (de), capability (neng), diligence (qin), performance (ji), and integrity (lian). In the 2000s, local authorities have made more serious and systematic efforts to design and implement cadre performance evaluation systems (Zhuang 2007). These systems are exceedingly elaborate and cadres are typically assessed on a long list of qualities rather than simply economic performance. In recent years, social stability, population planning, arable land preservation, and environmental protection have all entered the list of key performance targets.

It may be argued that what really matters is not Party/government documents but what rules (both explicit and implicit) are being followed in practice. In fact, there is a saying in China "数字出官，官出数字", which means that good (GDP) numbers make the officials and officials in turn make (up) the numbers.[2]The most influential studies supporting the thesis that better economic performance increases the likelihood of promotions are Li and Zhou (2005) and Chen, Li, and Zhou (2005). Contrary to an earlier study (Bo 2002), the two articles reported that provincial leaders whose jurisdictions experienced faster GDP growth rates had a higher chance of promotion (Li and Zhou 2005). They further argued that China's central leadership compared provincial leaders' relative performance with their immediate predecessors, not with peers in other provinces (Chen, Li, and Zhou 2005).

Given the theoretical and empirical concerns noted above, we are somewhat skeptical about the findings in these articles and decide to replicate them. Most variables used in these two articles are uncontroversial. The basic socioeconomic information about top provincial officials, such as age, education, working experience, can be easily found in online biographies and certain handbooks. Economic performance data including GDP growth rate and GDP per capita for each province are readily available from the National Bureau of Statistics. Having collected the relevant data independently, we discover a number of serious measurement and coding errors that might have biased the findings. For the key independent variable "relative economic performance", the researchers simply subtract the immediate predecessor's moving average from the provincial leader's moving average without adjusting for the overall national economic performance. For example, a 5% growth rate would be a good number in 1989-90 when Chinese

[2] Since the mid-1990s, there has been growing concern that provincial competition for better looking numbers has led to a significant divergence between provincial economic growth rates and the national economic growth rates, with the former averaging several percentage points higher than the latter in any particular year. To reduce provincial distortions of economic statistics, the National Bureau of Statistics has made strenuous efforts to reconfigure its data collection services so that they can be more independent of local influences.

economy slowed down but really quite bad in the early 2000s when the Chinese economy grew by more than 10%. Making direct comparison between these two time periods is clearly misleading. There are also issues with the promotion variable, including missing information for 2002, a year of a National Party Congress that typically sees many personnel changes, and inconsistent application of coding rules (the same official move was coded as a promotion for some individuals but a demotion in others).

Using the corrected dataset, we re-run the same regression models as in the two original articles. As shown in Table 1 (1980-1995), contrary to the original findings (Li and Zhou 2005), the annual GDP growth (columns 1 and 2) has no statistically significant impact on promotion. The moving average of GDP growth rate is statistically significant in simple correlations (Column 3) but this impact disappears when the control variables are introduced (Column 4). As expected, age and central working experience are all highly significant. In the larger data set (1979-2002) (Table 2), neither average GDP growth rate nor the relative performance compared to the immediate predecessor has a statistically significant effect on provincial officials' turnover. In Tao et al (2010), an effort was made to bring greater clarity and consistency to the promotion variable but the results remained insignificant (Tao et al 2010). Our failure to replicate the results of the two influential studies have thus confirmed our initial skepticism about the proposition that China's central leaders promoted provincial officials on the basis of economic performance as measured in GDP growth rate.

Explaining Local Developmentalism and Its Consequences

As we shift our attention away from the 1980s and early 1990s, the flaws of the approaches described above become more obvious. In 1994, the central government introduced a tax sharing system and recentralized government budgets to allow the central government significantly greater control over the revenue stream. Following the fiscal federalism thesis, the fiscal recentralization should reduce local governments' drive for growth. The incentive structure for officials has also been revamped. With the installation of Hu Jintao (Party General Secretary and PRC President) and Wen Jiabao (Premier) in 2002-2003 came new guidelines for cadre evaluations under the rubric of Hu's "scientific outlook on development". Local officials have been required to fulfill a growing list of additional targets on school enrollment, poverty reduction, environmental protection, "civilization", social stability, and so on. If promotion of provincial officials was indeed linked to the rate of economic growth, the introduction of some of these new targets presumably should have weakened local officials' motivation for higher economic growth rates.

Contrary to these predictions, China has sustained its extraordinary economic growth through the 1990s and 2000s even as faced major turbulences including the Asian Financial Crisis of 1998-1999 and the Global Recession of 2008-2009 (Yang 2012). Local developmentalism has in fact gained greater momentum since the mid-1990s and local governments' energetic promotion of industrialization and urbanization have buoyed national economic growth. Local officials have eagerly courted foreign as well as domestic investors to invest in the thousands of industrial parks that have mushroomed across the country. To finance investments in infrastructure and support investments in industry, local governments became diligent agents in the land market, taking land cheaply from farmers and leasing it to industrial land users at low or zero prices while charging high prices for residential land developers. This mode of local developmentalism has helped produce an extremely pro-business environment, resulting in over-investment in manufacturing capacities and lax environmental and labor regulations.

How do we account for this vigorous local developmentalism that the two existing approaches have difficulty foreseeing? Is it possible to integrate local development policies into one coherent analytical framework? In the rest of this chapter, we sketch out an alternative framework that combines the local governments' pursuit of revenue (the revenue imperative) with certain institutional details. This new framework thus takes as its starting point the assumption, shared by the fiscal incentives approach, that local officials are chiefly economic agents. In their pursuit of revenue, however, local officials must operate within constraints imposed by three institutional dimensions: the central-local fiscal arrangement, regional competition, and industrial linkage. We submit that this framework offers a unified account for the dynamic patterns of local developmentalism that has driven China's remarkable growth as well as some of its adverse consequences.

Fiscal reforms and the revenue imperative

Taxes are the lifeblood of a state. In the early 1990s, the Chinese central government found itself in a gradual and dangerous process of losing control over the revenue stream. As Figure 1 indicates, government budgetary revenue as a share of GDP declined from 31% in 1978 to about 12% in 1992. The challenge was compounded for the central government because its share of government budgetary revenue declined from more than 40% in 1984 to only 22% in 1993.

The weakening of the central government's fiscal capability was actually an unintended consequence of the central government's own reform policies introduced in the 1980s (World

Bank, 2002). The fiscal contracting system adopted in the 1980s permitted local governments to keep the surpluses after fixed submissions to the central government and was designed to incentivize local officials to promote economic (Montinola, Qian, and Weingast, 1995; Oi, 1992). Since local governments were entitled to a larger share of the extra revenues beyond the quotas, the central government's share of the total government revenue would decline as the economy expanded quickly. In reality, even this sharing formula was not enough for revenue maximizing local governments. They found clever ways to collude with state-owned enterprises and divert profits and revenues to extra-budgetary and off-budget accounts. Over time government budgetary revenue as a share of GDP steadily declined.

Figure 1. The Two Ratios in Government Revenues

Concerned about the declining central state capacity, the central government revamped the tax and fiscal system in 1994 by replacing the particularistic fiscal contracting system with a system of tax sharing between center and provinces. The most important tax category, the value added tax (VAT) was between the central government (75%) and the provinces. The business tax and income tax were assigned as local revenues. This tax reform essentially recentralized budgetary revenues and allowed the central government to gain control over the revenue stream. The impact was immediate, with the central government's share of the budgetary revenue jumping to 56% in 1994 and has stayed above 50 percent since then. Moreover, the central government set up a dedicated national tax administration rather than relying on local authorities to collect the taxes on its behalf (Wong and Bird, 2005).

The 1994 tax and fiscal reforms initially appeared to be a major step in the direction of de facto federalism. While bolstering the central government's control over the revenue stream, these reforms helped delineate central-provincial fiscal relations and resulted in the formal separation of national and local tax-collection administrations. Yet since the 1994 reforms, the central government has again and again revised the terms in its favor and at the expense of the provinces. It has clawed back the bulk of the securities stamp tax, the personal and enterprise income taxes, and has required the localities to share in the cost of VAT rebates on exports (Tsui and Wang 2004; Tsai 2004; Yang 2004, 2006). Not surprisingly, the central government has over time also sought, with some success, to put key extra-budget and off-budget revenue items into the budget (Wedeman 2000; Tao and Yang 2008). What the center has termed tax and fiscal reforms have turned into squeezes for local authorities.

Even while they control a smaller share of total government revenue, local authorities are under pressure to meet with the growing burdens arising from decentralization of spending or, in Washington terms, central government's policy mandates. As a unitary state, the Chinese central government faces little constitutional limit on its power over regional authorities and has routinely imposed new mandates, such as on school enrollment, immunization, rural road construction, clean water, and so on, generally expecting local governments to foot the bill; if the central government offers funding for some of these measures, that funding tends to be channeled to underdeveloped areas in the interior (Tsui and Wang, 2004; Tao et al, 2010). Moreover, as will be discussed next, the bankruptcy of numerous small and medium-sized state-owned enterprises in the 1990s caused much stress on the banking system as well as on the local governments, which had to help support retirees and laid-off workers (Lee 2007). Simply put, China's local officials have been under massive financial pressure.

To come up with the funds to meet their growing needs, it is natural for local authorities to encourage investment in the local economy. They can collect business taxes and enterprise income taxes (those assigned to them). Even though they only share 25% of VAT generated by manufacturing firms, efforts to develop manufacturing still paid off because local authorities not only got their share of VAT but also profited from the spillovers generated by manufacturing investment. Last but certainly not least, local governments are eager to tap into new sources of extra-budgetary incomes, such as land lease fees and various administrative fees, especially because some older extra-budget revenue items got folded into the regular budget.

Factor mobility and regional competition

While the central government's (vertical) competition for revenue sharpened local officials' focus on revenue production, regional (horizontal) competition intensified the revenue pressure even further. Montinola, Qian and Weingast (1995) argued that factor mobility induced local governments to protect property rights and applied this reasoning to explain economic growth in the 1980s. Factor mobility evolved out of a highly rigid planning system and did not become significant until the mid-1990s (Tao et al2010). In the aftermath of Tiananmen crackdown in 1989, conservatism dominated the political scene and market reforms were put on hold and, in several cases, some reforms were even rolled back (Yang 1997). Deng's southern tour in 1992 finally reversed the trend and unleashed the Chinese people from the shackles of government planning and helped precipitate numerous individuals to "jump into the sea" of the market. China bourgeoned with foreign investors and private entrepreneurship. With the growth of a more integrated national market, capital, labor, raw materials, and products could move relatively freely across the country (Holz 2009).

While Deng's top-down push for liberalization played a crucial role in reigniting the train of reform, local governments had compelling financial reasons to privatize and liberalize. In the sellers' market of the 1980s, enterprises were almost guaranteed to make profits (Naughton, 1996). Under the fiscal arrangements of the 1980s, local governments developed a strong preference for locally owned state enterprises that under fiscal contracting system constituted the base for local government's incomes. The SOEs paid taxes, remitted some of the profits and, because their ties to local governments, also made it easier for local governments and local SOEs to collude in hiding some of the money from the formal budgetary system and into local extra-budget funds (Chen and Qian, 1998). In addition to being cash cows, local enterprises were also convenient vehicles for local officials to make patronage appointments and to generally increase employment. Not surprisingly, local governments rushed to build their own SOEs and, for townships and villages, TVEs.

The massive entry into industry, particularly manufacturing ranging from bicycles and household appliances to consumer products such as beer, eventually did create competition and a glut of products in most sectors. By the mid-1990s, only a small percentage of prices continued to be subject to government control and most consumer product prices were set by supply and demand (Cao, Fan and Woo 1997, 21). Producers in most industrial sectors, ranging from textiles to household appliances, were confronted with a buyer's market, the first most Chinese had ever experienced in their lifetime. Growing competition steadily turned ownership of state firms into a liability, particularly for local governments that owned the smaller and less competitive firms. The 1995 industrial census shows that the 83,167 state firms owned by the various local governments earned a paper profit of only 3 billion yuan and these firms were more than twice as heavily indebted as the central government firms (Yang 2004: 31-32). Faced with growing competition, some local governments reacted with protectionism and restricted the import of products from other jurisdictions but it was at best a stopgap measure (Bai et al, 2004; Poncet, 2003; Naughton, 1999; Wedeman 2003; Yang 1997; Young, 2000). Two additional institutional changes in the early 1990s further cooled down local governments' interest in directly owning firms. First, the 1994 tax and fiscal reforms, with the introduction of the VAT and the establishment of a separate national tax administration, made it more difficulty for local governments to collude with local firms (World Bank, 2002). Second, state-owned banks were undergoing their own reforms and were becoming more reluctant to lend to indebted SOEs, curbing the flow of credit that local authorities had leaned on to support local SOEs. The convergence of these factors prompted local authorities to restructure and privatize the local SOEs. Even before the central government endorsed privatization in 1998, more than 70% of small SOEs had already been privatized or closed down in some provinces (Yang, 1997; Cao et al, 1999). By the turn of the millennium, the majority of local SOEs and TVEs in the country had finished the transformation (Qian, 2000).

The privatization-cum-divestiture turned local governments from asset owners to tax collectors. This redefinition of the local state's role has had a powerful impact on local government behavior. As asset owners, local officials had strong incentive to support their own "children", sometimes at the expense of non-local and non-state firms. Being tax collectors, however, they could be more even-handled and cater to all potential tax contributors, including private and foreign-invested businesses, which started to enter China en mass in the second half of the 1990s. Unlike SOEs and TVEs, the foreign-invested firms are not tied to the local governments and thus more mobile and more responsive to local policy incentives in choosing their location. They could relocate to another jurisdiction if the latter offered more favorable tax treatment and better infrastructure. Local governments must compete to attract such businesses and grow their tax base.

Industrial linkages and spillovers

Investments in manufacturing generate two kinds of tax revenue: the VAT and enterprise income tax. Local governments receive 25% of VAT, all of the local enterprise income tax, as well as the personal income tax paid by employees.[3] While these tax categories constitute a sizable portion of local government revenue, it is nonetheless costly to attract foot-loose businesses. In addition to the cost of having the basic infrastructure ready (land, road, water, gas, power, electricity, and telecommunications), local authorities have often had to offer preferential tax treatment. When, following the 1994 tax and fiscal reforms, the central government forbade local governments from offering foreign investors tax exemptions, local authorities have tended to collect the enterprise tax first and then rebate the enterprise income taxes to up to the first three years and half in the next two years (Yang, 1997).

In spite of the high costs of attracting manufacturing firms, Chinese local governments have competed aggressively for manufacturing firms and, by the early 2000s, they have collectively turned China into the world's workshop. What have motivated Chinese local officials to do so? How can local governments secure financing to subsidize manufacturing in the short or even medium term? We believe the answer to both questions lies in industrial linkage, particularly after the central government lowered the percentage of enterprise and personal income taxes that local governments could retain in 2002-2003. In fact, local governments in

[3] The local retention rates for the enterprise and personal income taxes were adjusted in 2002-2003. Since 2003, local governments are allowed to retain the 2001 base amount plus 40% above the base amount while the central government receives 60% percent of the income taxes above the 2001 base amount.

China have developed a clever strategy to exploit this linkage and thus maintain the momentum for China's development.

To simplify the analysis a bit, all localities essentially deal with two kinds of businesses: manufacturing and services. As discussed above, manufacturing enterprises generate relative stable VAT and income taxes. What appeals to local governments even more is the fact that the agglomeration of manufacturers will spill over and foster service industries. Once factories start to operate, workers and managers living in the cities and towns will spend their earnings, enabling businesses such as shopping malls, restaurants, entertainment, financial banks, and real estate companies to meet these growing consumer demands. In recent years, we have conducted a series of interviews on local development practices and we learnt that local officials, almost without exception, emphasized the importance in their decision-making process of taking into account the spillovers from manufacturing to services. Therefore, from a revenue perspective, manufacturing not only generates VAT and income taxes, but also contribute to a growing stream of business taxes (营业税）, a tax assigned solely to local governments[4].

While the spillover from manufacturing to service is common worldwide, the linkage between the two does not flow in one direction only and actually goes from service to manufacturing as well in China. Both manufacturing and service create jobs and generate revenues, but they differ in one crucial attribute: location specificity (Tao et al, 2010). Manufacturing enterprises mostly produce tradable goods for the national or international market and thus can have a tenuous attachment to specific locations except for considerations of supply

[4] On January 1, 2012, the Ministry of Finance and the State Administration of Taxation launched a new tax reform to convert the business tax to VAT. It was tested out in some cities first, then expanded to several industries nationwide. Local governments are entitled to receive the business tax revenue and with the conversion they would continue to keep this revenue. This reformwould in general lower tax burden for service industries so local governments are forced to shoulder the costs of this reform. This is yet another case of central discretion as documented in this chapter.

chain management. The attenuated location specificity has enhanced the mobility of manufacturing businesses and their sensitivity to production costs in different locations. They are well known for relocating their production facilities in response to shifts in production costs and policy environments. Service businesses, in contrast, must establish contacts with local residents to deliver their services. Compared to manufacturing firms, they are more firmly anchored to specific locations. This location rigidity gives local governments significant leverage in bargaining with them and creates a potential for backward linkage.

China's unique regulatory regime makes land a perfect vehicle for this linkage. Under Chinese law, land belongs to the state in urban areas and belongs to the collectives in rural areas. Only local governments have the authority to requisition land from farmers and lease it to land users in industry and commerce (World Bank, 2005b; Wang et al, 2009; Lin and Ho, 2005). This de facto monopoly of land supply has given local officials much leeway in spatial planning and allows them to leverage land for development as well as to discriminate against certain land users. Beginning in the late 1990s, cities such as Hangzhou introduced competitive bidding for land earmarked for commercial development and have been found to strategically limited the amount of land for commercial and real estate businesses in their jurisdictions so prices would continue to rise (Lin and Yi, 2011; Tao et al, 2010; Wu, 2010; Yang 2004). Service businesses had no choice but to pay local governments land lease fees that have risen exponentially following the introduction of competitive bidding. Real estate developers and service providers have in turn passed the rising land costs onto their buyers and customers, i.e. local residents. Meanwhile, local governments have reaped a bonanza from rising land prices for commercial development. As Figure 2. shows, land lease fees (土地出让金), as a part of local extra-budgetary income, amounted to as much as 50% of the formal budget at the provincial level for much of the

2000s. In some areas, the ratio was as high as 170%! Behind these ratios are efforts by local governments to build more, larger, and better for manufacturers and commerce and to provide incentive packages, including cheap land and tax benefits, to lure footloose manufacturing capital into industrial parks. By 2006, there were 6,015 industrial parks in China or about two for each county (Yang 1997; Yang and Wang 2008; Zhai and Xiang 2007).

Figure 2. Land Lease Fees Measured as a Ratio of Local Budgetary Revenues

In sum, fiscal recentralization, factor mobility and industrial linkage worked together to generate a powerful push for local developmentalism in China. With developed markets eager for cheap imported products and China itself on the fast track for massive urbanization and the huge demand such urbanization generates (raw materials such as steel and cement as well as consumer products such as furniture), the Chinese local developmentalism became the foundation of China's hyper growth since the 1990s and provided the foundation for China's manufacturing competitiveness (Duhigg and Bradsher 2012). This growth has enriched the lives of more than one billion people, lifted hundreds of millions of people out of poverty, and gained China greater clout internationally.

A Race to the Bottom: Economic, Social, and Political Consequences

Yet the furious drive for growth has also pushed the Chinese developmental model to the limits and caused serious imbalances (Lardy 2012). Capital formation as a ratio of GDP rose from 24.9 percent in 1990 to 47.5 percent in 2009, fueling a massive buildup in manufacturing capacity (National Bureau of Statistics 2011: 19). Just to give a sense of the rise in industrial output: The per capita output of cement and of steel in 2010 in China was 7.5 times and 8 times respectively of the 1990 figures (National Bureau of Statistics 2011: 18). Because the Chinese system of political economy favored investment and exports rather than domestic consumption, China's growing manufacturing capacity, aided by a controlled exchange rate regime, has been turned into an export machine (including process trade). As a result of its trade prowess, China has accumulated vast foreign exchange reserves of more than 3 trillion US dollars as of early 2012. Because these reserves are recycled back into developed economies, they have helped boost global liquidity and, by extension (through more investments into China), credit growth in China, thereby helping to fuel China's booming property market and other investments. In recognition of the economic imbalances and the need to address them, the twelfth five-year (2011-2015) plan for national economic and social development, approved by the Chinese National People's Congress in 2011, gave emphasis to "higher quality growth" but set a lower target for GDP growth per annum of 7 percent.

Economic imbalances aside, this developmentalism has also left a heavy toll on nature and society. Leveraging land for development has caused serious social dislocations in both rural and urban communities and the loss of cultural heritage. The requisitioning of land at unreasonably low prices has resulted in millions of disgruntled farmers in the countryside and, as highlighted by the Wukan rebellion in December 2011, is the leading cause of protests in rural areas and has undermined political trust in local authorities (Cui et al, 2012). To attract investors, some local governments have raced to the bottom in offering pro-business conditions. While most multinational companies appear to generally behave well environmentally, local governments have been quite tolerant toward some heavily polluting firms in mining, coking, smelting, dyeing, and other sectors. In some cases, local enforcement agencies openly colluded with factories to evade central inspections (Economy, 2004; Tilt, 2006; cf. Wheeler 2001). Then there is the negative scale effect, major industrial parks now boast of hundreds and even thousands of firms close to each other and this situation is repeated many times across the country; even when every one of these firms produces relatively little pollution the total environmental impact of China's massive industrialization has still been large (Chai 2002). At the same time, the environmental impact of the gigantic push toward urbanization, with a proliferation of high rise buildings and already the world's largest automotive market, has become painfully obvious on days when smog smothers entire cities across the country. Increasing pollution not only ruins the air, the water, and the natural habitat for wildlife but also causes harm to human health in terms of increased cancer rates and higher health care expenses (Ebenstein 2012).

China's vast labor force has been another key element of Chinese developmentalism. Until recently, however, investors and local officials tended to treat workers as easily replaceable and expendable human machines. Migrant workers who move from the interior to the coastal cities do not enjoy residency rights and have had to work long hours for meager wages, sometimes under dangerous conditions. When accidents and work-related injuries occurred, which happened quite frequently, their rights were not adequately protected by local governments and courts (Ngai, 2005; Chan, 2001; Gallager, 2007). In recent years, following the revision of the Labor Contract Law which went into effect on January 1, 2008 and, at least equally important, the emergence of labor shortages for manual labor that have helped labor gain greater bargaining power, work conditions and salaries have begun to improve for workers (Yang 2005).

Conclusion

Politicians' incentives matter in economic development. In the past thirty years, local officials have played an indispensable role in the rapid rise of TVEs, the gradual decline of SOEs, and the dramatic improvement in infrastructure, the rise of massive new cities, and the emergence of China as the world's leading manufacturing center.

What separates Chinese officials from hand-grabbing governments in most developing and transitional countries? Supporters of the fiscal federalism thesis argue that fiscal contracting and factor mobility forced the central and local governments to respect property rights and promote business development. Some other researchers endorse the tournament competition thesis and believe that Chinese local officials are mainly motivated by the career prospect of promotion to develop their economies. Even though both approaches are faulted for a variety reasons and especially on empirical grounds, they have nonetheless charted a stimulating path for research by explicitly linking politicians' micro-incentives with macroeconomic outcomes.

Building on some of the insights from the existing approaches, we have sketched out an alternative analytical framework that can better account for the Chinese local governments' continual drive for growth as well as the key growth policies adopted. Moreover, we show that the introduction of three institutional factors, i.e. central-local fiscal arrangement, regional competition, and industrial linkage, allows us to explain the evolution of revenue-seeking local government officials over time: their drive to launch SOEs and TVEs in the 1980s, their efforts at protectionist developmentalism as competition began to heat up, and, since the 1990s, their divestiture of local SOEs and focus on land taking, urbanization, and industrial buildup.

Whereas the existing approaches tend to depict the Chinese transition and development experience in a rosy light, e.g. "China miracle", "successful transition", "amazing growth", our alternative framework allows us to both explain the dynamic aspects of China's growth and transition as well as recognize the costs and limitations of China's developmentalism. In fundamental ways, China's remarkable growth over the last thirty years has relied on a certain disregard for, if not outright violation of, the rights of labor, land, intellectual property, and environment plus growing access to developed country markets. Indeed, on numerous occasions the taking of land was a violent process, with local authorities being a key player in land-grabbing. Even today, in spite of revisions to the regulations on land requisitions, demolitions or land takings can still turn bloody when local officials rush to obtain the land and ride roughshod over residents who refuse to give up.

Yet it is also clear the essential ingredients of China's developmental dynamism can also be its limitations. The most striking corollary of local developmentalism in China is a sustained rise in land prices for commercial development and in property prices, which, together with loose credit, fuelled much speculation and a major property bubble. By 2011 property prices had risen so much that "the dream of owning an apartment is now out of reach for almost anyone who does not already have one" (Anderlini 2011). Concerned about the bubble getting even more out of control, the Chinese central government has sought to cool the sector and, following repeated efforts, the measures for adjusting the property sector appeared to have brought property prices closer in line with household incomes by 2012 (Orlik and Fung 2013). But there are concerns that a bursting of the property bubble could put substantial pressure on China's fragile financial system (Walter and Howie 2011). So far the effect of property crashes has been confined to a small number of cities such as Erdos (Inner Mongolia) and Wenzhou that are relatively far from metropolitan areas. In general it appears domestic construction from railways to power plants is also moving toward a slower mode of expansion than in the past.

While exports have grown in tandem with the massive buildup of manufacturing capacity in China, it is simply unacceptable for China to keep having massive surpluses in trade and it is also a growing burden to manage its multi-trillion dollar foreign exchange reserves. In any case, the great recession of 2008-09 has curbed demand from developed economies and thus Chinese export growth. Meanwhile, with rising land and labor costs in China, China has begun to see some low-end manufacturers move away from China (Bussey 2011; Marsh 2011). In 2012, foreign direct investment (FDI) fell 3.7 percent, paced by a 6.2 percent decline in manufacturing. In contrast, FDI into parts of Southeast Asia (Indonesia and Thailand) surged (WSJ 2013).

The Chinese central government has been at pains to encourage domestic consumption and to promote investment in education, health care, and innovation, with some success (Breznitz and Murphree 2011). Besides gaining competitiveness in manufacturing, China has steadily improved its ranking in the number of scientific papers published and, led by companies such as Huawei, Lenovo, and ZTE, in the number of patents filed as well as in areas such as distribution and logistics (Wright 2012). With rapid ageing of the Chinese population already in progress, whether China can avoid the so-called "middle-income trap" will depend fundamentally on its ability to reform (including deregulation of the land system and anti-monopoly), which would not only contribute to growth but also help foster an environment for sustained productivity gains through innovation. One only needs to remember the many rosy projections about Japan's economic prowess at the height of the Japanese growth to know that the stakes are extraordinarily high for China, especially because Chinese per capita GDP is still much lower than Japan's in 1990 (Subramanian 2011).

Because local developmentalism has been a major dynamic in China's hyper growth, the transformation of China's development patterns into one based on innovation and domestic consumption also calls for transforming the dynamics of Chinese local developmentalism. Yet this will not be easy as a constellation of interests has coalesced round this developmentalism and profited from it. Local governments across the country are addicted to the land-based industrialization and urbanization. Through land requisitions and leasing, local governments have built up ties to businesses and developers and secured loans from banks and other financial interests. Through these webs of interests and the investment projects that connect them, local officials and other elites have profited handsomely. An indication of the power of this coalition of interests can be seen in the desultory attempt to revise Land Management Law (LML) and raising the costs of requisitioning land from farmers. While the National People's Congress put amending the LML on its legislative agenda in both 2009 and 2010, it was not until November 2012, toward the very end of Wen Jiabao's term as premier, that the State Council executive meeting finally approved a bare-bones amendment to the LML calling for fair compensation to be given for land requisitioned from rural communities for industrial and commercial use. Even then the NPC has dragged its feet in approving the amendment (Wang Xiaoqiao and Chenzhong Xiaolu 2013). In contrast, when during the global financial crisis the Chinese central government decided to stimulate the economy, both central and local authorities eagerly embraced the move and borrowed heavily to invest what they what they had been doing all along, namely railroads, highways, subways, and industrial parks.

Incoming leaders Xi Jinping and Li Keqiang have pledged to steer the Chinese economy toward a new model, foster domestic consumption, and build a "beautiful China". Yet in their pursuit of the China Dream they face the daunting task of altering the incentives that have propelled local authorities to engage in local developmentalism. Oftentimes in the past it was real or perceived crisis that served to catalyze China's major reforms (Yang 2004). Perhaps the transition to the next phase will be no different.

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Table 1. Ordered Probit Regressions: Economic Growth and Political Turnover of Provincial Leaders, 1979-1995

	Turnover(1=promotion; 0=same level; -1=termination)			
	(1)	(2)	(3)	(4)
Annual GDP growth rate	0.004	0.005		
	(0.33)	(0.33)		
Average GDP growth rate			0.026	0.016
			(1.90)*	(1.06)
Age		-0.041		-0.040
		(3.08)***		(3.02)***
Age65		-0.862		-0.857
		(4.47)***		(4.44)***
Education		0.121		0.131
		(0.92)		(1.00)
Central connection		0.290		0.289
		(2.12)**		(2.11)**
Tenure		-0.036		-0.038
		(1.30)		(1.35)
Lagged per capita GDP (million yuan)		0.605		0.431
		(0.36)		(0.26)
Cutoff point 1 (α_1)	-1.455	-4.599	-1.108	-3.679
	(4.79)***	(4.47) ***	(3.46) ***	(3.23) ***
Cutoff point (α_2)	1.460	-1.367	1.817	-0.442
	(4.88)***	(1.34)	(5.69) ***	(0.39)
Observations	883	883	883	883
Log-likelihood ratio	-482	-429	-481	-429

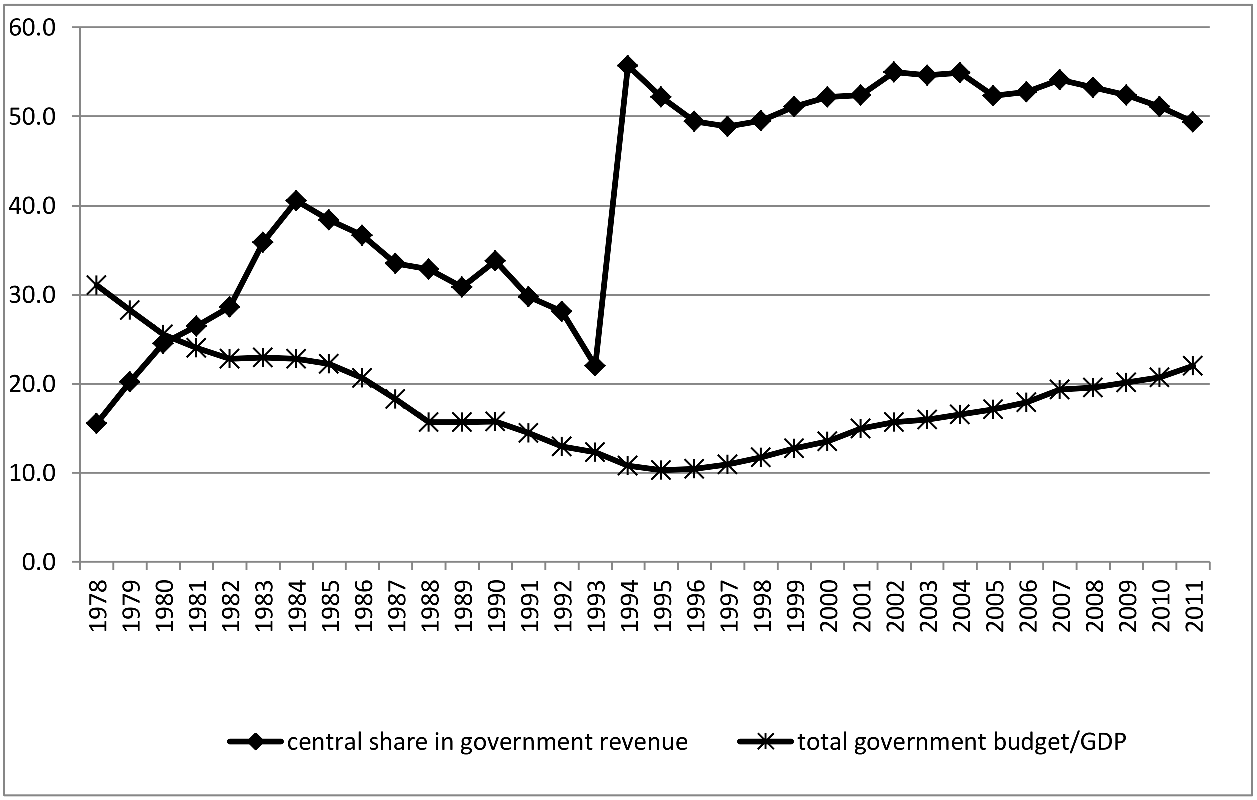
Note: T-ratios based on robust standard errors are in parentheses. Provincial and year dummies are included but not reported here. * 10%, ** 5% and *** 1%.

Table 2: Ordered Probit Regressions: Relative Performance Evaluation in Provincial Leader Turnovers in China, 1979-2002

	Turnover(1=promotion; 0=same level; -1=termination)				
	(1)	(2)	(3)	(4)	(5)
Provincial GDP growth rate (A)	0.019	0.010	0.018		
	(1.34)	(0.70)	(1.30)		
Provincial GDP growth of the immediate predecessor (B)	-0.023		-0.023		
	(1.53)		(1.54)		
GDP growth of neighboring provinces (C)		0.014	0.007		
		(0.61)	(0.29)		
A-Bnew				0.017	
				(1.41)	
A-C					0.004
					(0.33)
Age	-0.048	-0.049	-0.049	-0.049	-0.049
	(4.33)***	(4.63)***	(4.33)***	(4.39)***	(4.61)***
Age65	-0.934	-0.844	-0.935	-0.930	-0.846
	(5.32)***	(5.08)***	(5.32)***	(5.33)***	(5.10)***
Education	0.024	0.065	0.023	0.009	0.064
	(0.20)	(0.58)	(0.19)	(0.07)	(0.56)
Central connection	0.271	0.242	0.271	0.275	0.240
	(2.56)**	(2.34)**	(2.56)**	(2.62)***	(2.33)**
Tenure	-0.035	-0.038	-0.034	-0.036	-0.038
	(1.43)	(1.66)*	(1.41)	(1.46)	(1.66)*
Cutoff point 1	-5.149	-5.331	-5.095	-5.700	-4.402
	(6.40) ***	(7.20) ***	(6.21) ***	(7.27) ***	(5.99) ***
Cutoff point 2	-1.962	-2.171	-1.908	-2.518	-1.246
	(2.47) **	(2.97)***	(2.36) **	(3.26) **	(1.70) *
Observations	1241	1303	1241	1241	1303
Log-likelihood ratio	-613	-652	-613	-614	-652

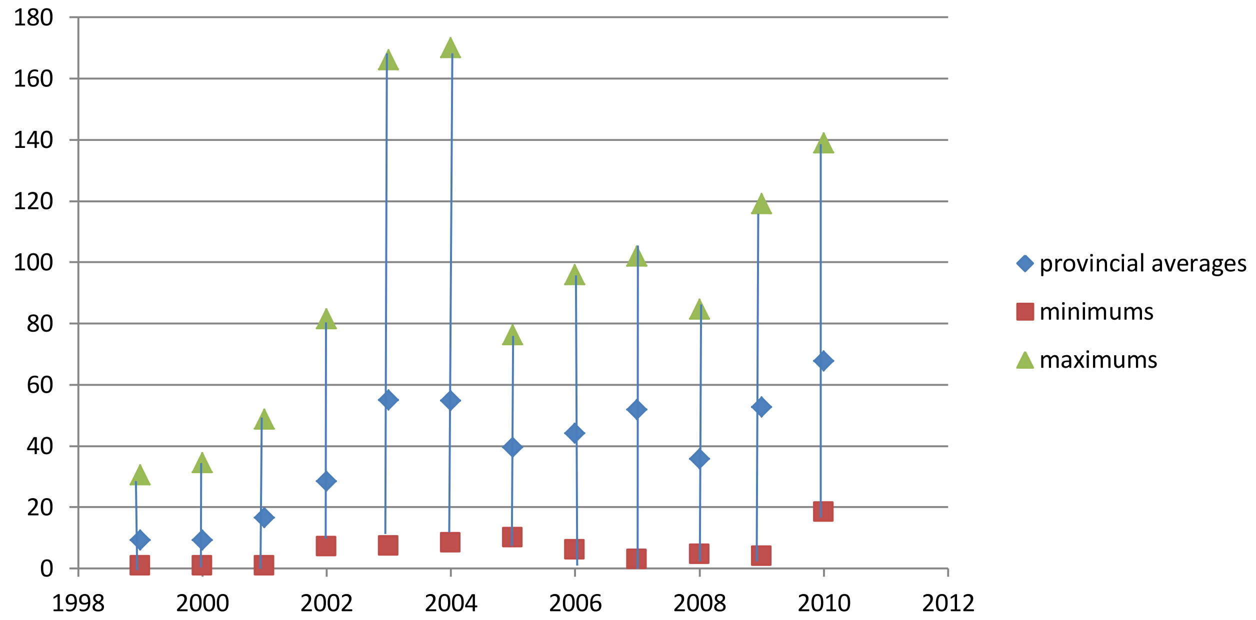
Note: T-ratios based on robust standard errors are in parentheses. Provincial and year dummies are included but not reported here. * 10%, ** 5% and *** 1%.

Figure 1. The Two Ratios: Government Budget Revenue as a Share of GDP and Central Share of Total Government Budget, 1978-2011 (unit: percent)



Source: Authors' calculation based on fiscal revenue and GDP data from the National Bureau of Statistics (http://www.stats.gov.cn/tjsj/ndsj/).

Figure 2. Land Lease Fees Measured as a Ratio of Local Budgetary Revenues, 1999-2011 (unit: percent)



Source: Provincial budget data are from *China Statistical Yearbook* (www.stats.gov.cn/tjsj/ndsj/) and provincial land lease data are found in *China Land and Resources Statistical Yearbook*, 1999-2011.