



From:  
**OECD Journal on Budgeting**

Access the journal at:  
<http://dx.doi.org/10.1787/16812336>

## The Fiscal Stimulus Programme and Public Governance Issues in China

Christine Wong

**Please cite this article as:**

Wong, Christine (2011), "The Fiscal Stimulus Programme and Public Governance Issues in China", *OECD Journal on Budgeting*, Vol. 11/3. <http://dx.doi.org/10.1787/budget-11-5kg3nhljqrjl>

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

# The Fiscal Stimulus Programme and Public Governance Issues in China

by  
Christine Wong\*

*China introduced the largest stimulus package in the world in late 2008, in the wake of the global financial crisis. China was also the first major economy in the world to emerge from the crisis. After a brief though sharp downturn in 2008, the Chinese economy recovered and grew by 8.7% in 2009 and by 10.4% in 2010.*

*This article discusses the fiscal stimulus measures adopted in China in terms of their substantive composition, as well as the decision-making processes and implementation mechanisms. It also discusses some of the challenges encountered.*

*JEL classification: H540, H760*

*Keywords: fiscal stimulus measures, crisis response, financial sector, government expenditures, local government debt, local government investment corporations, state-owned enterprises, intergovernmental fiscal relations, macroeconomic management, China*

\* Christine Wong is Professor of Chinese Public Finance and Director of Chinese Studies in the School of Interdisciplinary Area Studies at the University of Oxford, United Kingdom. The financial support of the OECD/Korea Policy Center is gratefully acknowledged.

## 1. Introduction

China was the first major economy to emerge from the global financial crisis, and it did so in spectacular fashion. After a brief – though sharp – downturn in 2008, the Chinese economy grew by 8.7% in 2009 and by 10.4% in 2010, and the robust growth in China helped a host of resource-rich countries avoid the economic downturn. A big factor behind this enviable success was the massive stimulus programme introduced in the fourth quarter of 2008 and implemented through 2009 and 2010. The initial programme that was announced totalled 4 trillion yuan renminbi (CNY) (USD 586.68 billion), comprising CNY 1.18 trillion in central government funding plus local government inputs and bank credit. The package amounted to 12.5% of China's GDP in 2008, to be spent over 27 months. In relative terms, this was the biggest stimulus package in the world, equal to three times the size of the United States effort.<sup>1</sup>

Following Premier Wen Jiabao's call to make the stimulus "big, fast and effective", the programme was implemented with great force and in record time. Along with the huge fiscal injection, state-owned banks opened their spigots, and total credit grew by more than one-third in 2009. Local government inputs also far surpassed expectations. Altogether the total stimulus grew to an estimated 27% of GDP, with an injection of 19% in 2009 alone.

One obvious inference to draw from this bold stimulus programme and the economy's quick recovery is that China has a strong, rich and effective public sector. This was indeed the one described by George Soros, who said admiringly at a network meeting of his Soros Foundation-supported Open Society Institute in mid-2010 that "the Chinese government works better than ours (in the United States)".

This assessment is incontrovertible if the metric used is solely that of economic growth and of how quickly China returned to its high growth path; but the performance through the crisis looks weaker when a broader metric is used. First of all, once unleashed, the stimulus appeared to spin quickly out of control. Investment in fixed assets jumped to 66% of GDP in 2009, and infrastructure investment leaped to more than 18% of GDP, raising immediate concerns about the economy's absorptive capacity and the care with which projects were selected and implemented.

Indeed, by mid-2009 many policy makers and observers in China had begun to worry about the nature of the growth brought by the stimulus programme and its by-products. The big ramp-up in easy credit, for example, helped to fuel an asset bubble that sent prices of land and housing steeply upward, more than doubling in some big cities during 2009. The heavy pace of local investment was causing worries about rising local government debt. By early 2010, the government was sufficiently alarmed to call for an immediate freeze and audit of local government investment corporations, and by year-end the urgent problem for macro management had shifted decisively to slowing growth and tamping down inflationary pressures. At this writing in mid-2011, controlling inflation is now the top priority task for the government this year.

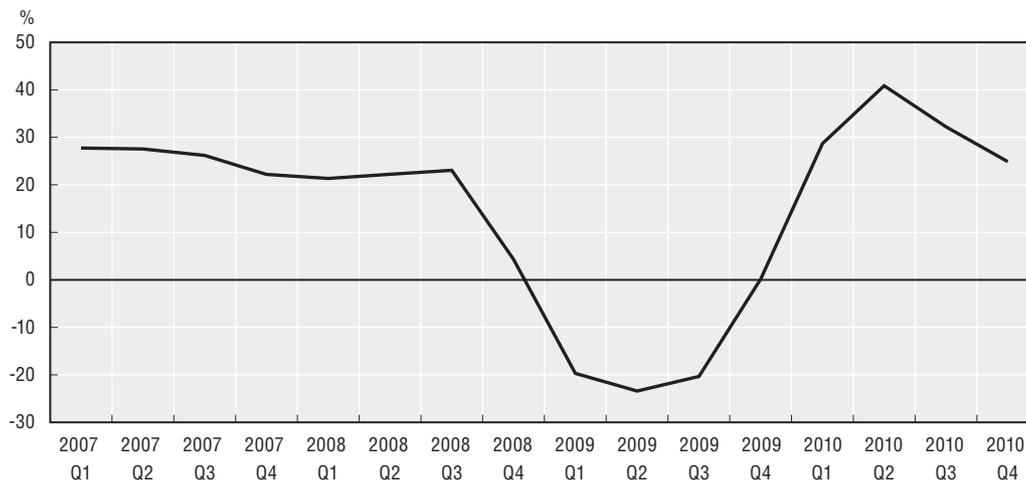
This article analyses the fiscal stimulus and related measures applied in the People's Republic of China in the wake of the global economic and financial crisis, and links them to issues of governance to draw some insight on China's reform needs going forward. Section 2 starts with a "scene setter" discussion of the fiscal and economic situation in China prior to the onset of the economic and financial crisis and of how the government shaped the crisis response. Section 3 provides a comprehensive overview of the fiscal stimulus measures applied. Section 4 reviews the implementation of the fiscal stimulus measures through 2010, and examines the responses of local governments on the demand side, and the financial sector on the supply side, to explain the overheated outcome. Section 5 concludes with observations on China's exit strategy and on the reform challenges ahead for strengthening macro management in China.

## 2. Backdrop to the stimulus: the economic and fiscal situation

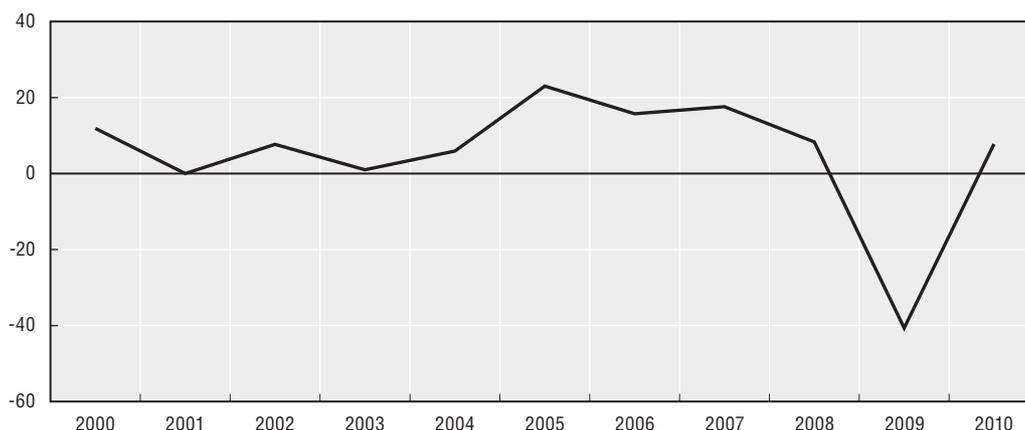
Through its transition to a market economy, China has achieved a remarkably long and sustained growth, and has emerged over the past few years as a global economic power. In 2009, it surpassed Germany to become the largest exporting nation, and in 2010 it passed Japan to become the second-largest economy in the world. These achievements came perhaps earlier than expected, partly as a result of the global economic slowdown that began in 2007 and ensnared virtually all countries, but from which China's remarkably quick recovery helped propel it past the others.

But China did not escape being hit hard by the economic crisis. The effect was first felt in the export sector, when world markets collapsed and exports fell precipitously. This downturn can be seen in the quarterly statistics on export growth (Figure 1): China's export growth plummeted from the fourth quarter of 2008 through 2009. Factories closed seemingly overnight, and workers were laid off. In the coastal export enclave of Dongguan in Guangdong province, so many workers had been sent home by mid-2009 that huge industrial parks resembled ghost towns. Given that exports had comprised one-third of GDP in value, the sharp downturn in exports exerted a drag on GDP growth that was a stunning -41% in 2009 (Figure 2).

Figure 1. **Growth in exports (quarter on quarter)**

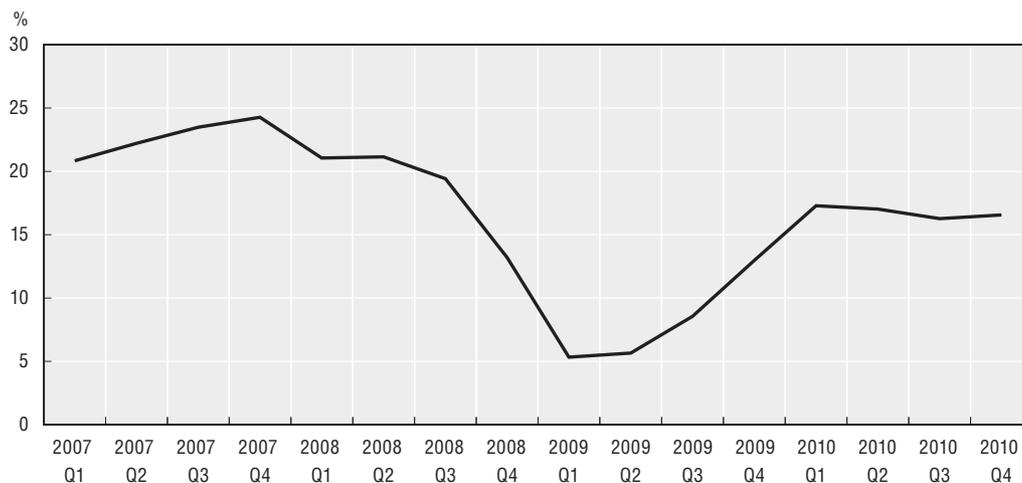


Source: General Administration of Customs of China.

Figure 2. **Contribution of net exports to growth (per cent)**

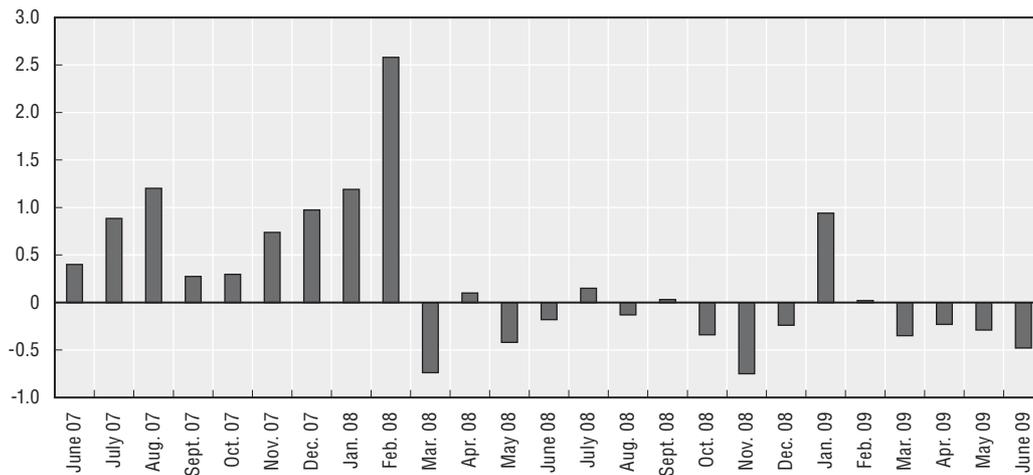
Source: China Statistical Yearbook.

Ironically, in China the government had actually begun to implement contractionary policies in November 2007 to tamp down the heavy pace of growth and accompanying inflationary pressures that had been building since 2003. As late as June 2008, the central bank raised the commercial bank reserve requirement twice (by a half percentage point on 15 June and another half point on 25 June) to further restrain monetary growth. The quick reversal of economic fortunes during the year is reflected in quarterly GDP growth rates (Figure 3), and shocked policy makers watched as the spreading global crisis turned the growth moderation into what looked like a free fall. Even more threatening was the deflation that was appearing to take hold, as month-on-month changes in the consumer price index dipped into negative territory in mid-2008 and stayed there through the rest of the year (Figure 4).

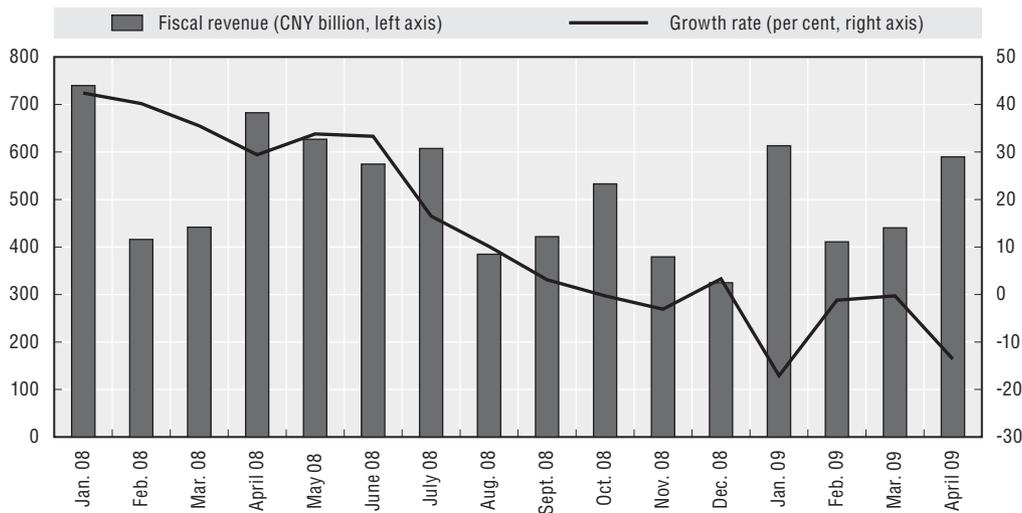
Figure 3. **GDP growth (quarter on quarter), nominal GDP**

Source: National Bureau of Statistics of China.

Monthly growth in government revenues had already been declining throughout 2008, but turned steeply downward during the second half of the year, ending in negative growth at year-end (Figure 5). By January 2009, the Minister of Finance was warning of “a very

Figure 4. **Change in consumer price index (month on month), per cent**

Source: China Economic Monthly Indicator.

Figure 5. **Monthly fiscal revenue (year-on-year growth)**

Sources: China Data Online; Ministry of Finance website.

tough year” ahead, as government revenues plunged 17.1% that month from a year earlier (Xinhua, 2009). Given the importance for government legitimacy of maintaining high rates of growth, policy makers became alarmed and determined to do everything necessary to reverse the trend.

### 2.1. The fiscal cushion

Against this backdrop, the government’s determination to move decisively to counteract the effects of global economic slowdown was emboldened by two considerations. First, in 1998 it had intervened with a fiscal stimulus programme that was widely credited with success in helping China stave off contagion in the Asian financial crisis (World Bank, 1999). Second, unlike the first time – when the fiscal stimulus was rolled out while government finances were still fragile – China’s fiscal status was far stronger in 2008.<sup>2</sup> Since the 1994 fiscal reform, China has rebuilt its revenue mechanism, and the

new tax system has proven quite buoyant. With rapid economic growth bringing in robust revenues, government coffers were overflowing, with the budget controlling a bigger share of a much larger GDP. Moreover, throughout the transition period, the government has managed its fiscal stance prudently, keeping budget deficits to less than 1% of GDP in most years. On the eve of the global financial crisis, the national debt was small (about 19% of GDP), leaving the government plenty of scope for decisive action.

### 3. The stimulus package

Although most of the public attention has been focused on the “CNY 4 trillion stimulus programme”, the total package of stimulus measures actually comprised four main components: an investment programme, accommodative monetary policies, tax cuts, and measures to ease the burden on state-owned enterprises.

#### 3.1. The investment programme

The CNY 4 trillion “programme” refers to the investment component, which was officially announced by Premier Wen Jiabao on 5 November 2008 as a set of investments totaling CNY 4 trillion, to be spent over 27 months from the fourth quarter of 2008 through 2010. The programme would be focused on seven priority areas:

1. Transport and power infrastructure (railroads, roads, airports, electricity grids).
2. Earthquake reconstruction.
3. Rural village infrastructure.
4. Environment, energy efficiency and carbon emission reduction.
5. Affordable housing.
6. Technological innovation and restructuring.
7. Health and education.

The weighting of these components went through some adjustments during the first months of implementation. Their final distribution is presented in Table 1. These investments represent new budgetary spending, although some were already planned – such as the CNY 1 trillion on post-earthquake reconstruction, whose implementation would be accelerated under the stimulus programme.

**Table 1. Sectoral composition of stimulus investment**

March 2009 plan, as a per cent of total

Transport and power infrastructure (railroads, roads, airports, electricity grids)	37.5
Post-earthquake reconstruction	25.0
Rural village infrastructure	9.3
Environmental investment	5.3
Affordable housing	10.0
Technological innovation and structural adjustment	9.3
Health and education	3.8

Source: Website of the NDRC (National Development and Reform Commission), China.

For these investments, the central government committed at the outset to funding CNY 1.18 trillion from the budget, with the remaining CNY 2.8 trillion to be financed by local governments, enterprises and banks.

### **3.2. Accommodative monetary policies**

In 2008, China was in the second year of a contractionary monetary policy regime aimed at slowing the 11-12% rate of growth over the previous years and reining in inflationary pressures. Faced with the sudden global economic meltdown and the threat of contagion to China, policy makers made an abrupt shift during the second half of 2008, to ease into an increasingly accommodative policy regime. In September, the central bank reduced the one-year lending rate from 7.47% to 5.58% (*China Daily*, 2008). In the period from September through December, interest rates were cut five times, with a cut of 108 basis points on 26 November 2008 (Aredy, 2008). To give an added boost to the financial sector, in December the State Council released a nine-step plan for financial reform. The package included new credit mechanisms for small to medium-sized enterprises (SMEs), a broader scope for issuing corporate bonds, and new regulations for the creation of real estate investment trust funds (REITs) and private equity (PE) funds (Li *et al.*, 2008). Also in December 2008, the State Council issued a document authorising a loan allocation of an additional CNY 100 billion to the policy banks. Commercial banks were urged to increase lending. The credit quota was abolished, and a call was issued to strive for increasing total lending by CNY 4 trillion in 2008 (State Council Office, 2008). As will be seen below, these liberalising steps together created the conditions for an overwhelming response to the call to stimulate the economy.

### **3.3. Tax cuts**

In addition, the government cut taxes, sometimes through accelerating the rollout of some planned reforms. These included: increasing VAT rebates on exports; reducing taxes on small firms by cutting the tax rate from 6% to 3%; and raising the threshold for the tax levy on monthly income from CNY 5 000 to CNY 10 000. The conversion of the value-added tax from an investment-type VAT to a consumption-type VAT, which had been “forthcoming” for much of a decade,<sup>3</sup> was finally rolled out on 1 January 2009. With this reform, firms can now deduct purchases for investment as well as for current operations. Given the high proportion of investment in GDP, this change represented a significant cut in VAT revenues, by perhaps CNY 150 billion.<sup>4</sup>

### **3.4. Bailing out and easing up on state-owned enterprises**

To help state-owned enterprises (SOEs) weather the crisis, the government began to provide subsidies to the weaker firms through the State-owned Assets Supervision and Administration Commission (SASAC) which has management responsibility over SOEs and collects dividends from them. In November, the SASAC at the central level injected funds into two airlines (China Southern and China Eastern) using its own funds.<sup>5</sup> In addition, SASACs at all levels were encouraged to reduce remittance requirements from their subordinate SOEs, and bailouts were undoubtedly provided to other SOEs. No figures have been reported for the overall size of these changes, but Premier Wen Jiabao has said that the combination of reduced claims on profit of state-owned enterprises and reductions in taxes and fees would put CNY 500 billion into the hands of enterprises (Wen, 2008).

## **4. Implementation**

Implementation began in the fourth quarter of 2008 under a sense of great urgency that pervaded the top policy circles and emanated from the top leaders on down.<sup>6</sup> The CNY 4 trillion stimulus programme was announced with great fanfare and was quickly

followed by a Communist Party document that outlined policies to “further expand domestic demand and assure stable rapid growth”. The document called for an immediate injection of CNY 120 billion in investment funds during the final quarter of 2008, by accelerating approval of investments of CNY 100 billion in priority areas and moving forward CNY 20 billion of the planned earthquake reconstruction spending. With the instructions to abolish lending quotas and for commercial banks to support investment, the document expressed the hope that the CNY 120 billion of fiscal spending would be leveraged to achieve an increase in investment totaling CNY 400 billion before year-end (Chinese Communist Party, 2008).

The release of four tranches of the central government funding was announced: CNY 108 billion in 2008Q4, and CNY 130 billion, 70 billion and 80 billion, respectively, in 2009Q1-Q3 (figures from the website of the National Development and Reform Commission). The actual disbursements are presented in Table 2. From the start, the emphasis was on the timely and full disbursement of funds, and for all projects to start by the third quarter of 2009. With three-quarters of all investment projects assigned to local governments (see, for example, Xiao, 2009, and Huo *et al.*, 2009), the worry was whether local governments would be able to raise the co-financing needed to meet their counterpart funding requirements in a timely fashion. In 2010, the central government made an additional appropriation of CNY 572.2 billion – perhaps to offset the lagging local government inputs – to bring the disbursement to CNY 992.7 billion for the year (Li, 2010). Altogether, the central government input to the stimulus totaled CNY 1.6 trillion (36% larger than the CNY 1.18 trillion envisioned at the start).

Table 2. **Disbursement of central government stimulus spending, 2008-09**

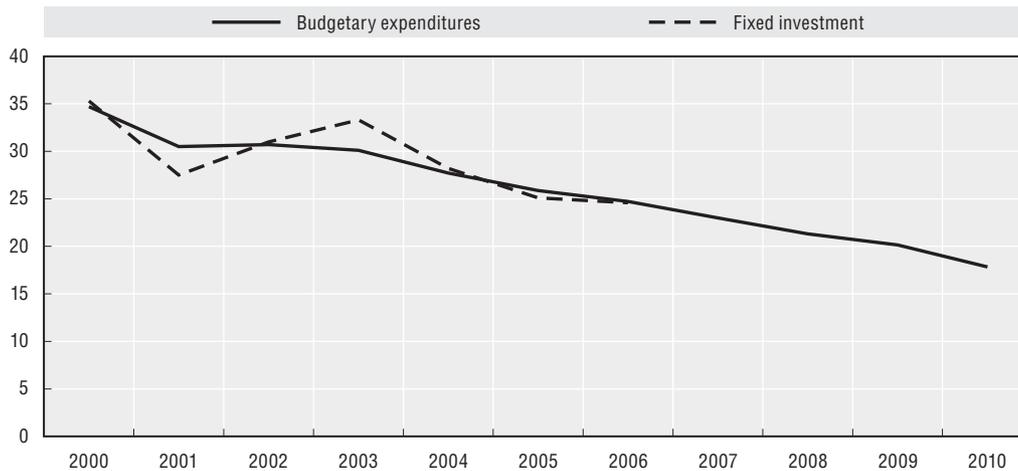
Disbursements	Period	Amount (CNY billion)
First tranche	2008Q4	108
Second tranche	2009Q1	130
Third tranche	2009Q2	70
Fourth tranche	2009Q3	80
Fifth tranche	2009Q4	223.8
Final year	2010	992.7
<b>Total injection</b>		<b>1 604.5</b>

Sources: Website of the NDRC (National Development and Reform Commission), China; Pumin Li (2010), “China will continue to implement the 2010 RMB 4 trillion investment plans”, *China News*, 7 March, [www.chinanews.com.cn/cj/cj-gncj/news/2010/03-07/2155764.shtml](http://www.chinanews.com.cn/cj/cj-gncj/news/2010/03-07/2155764.shtml), accessed 9 April 2011.

#### 4.1. Response from local governments<sup>7</sup>

China’s fiscal system is highly decentralised (see, for example, World Bank, 2002, and Wong, 2007). The vast majority of responsibilities for providing public services are assigned to sub-national governments, and the central government accounts for less than one-fifth of national budgetary expenditures – a share that has fallen steeply over the past decade (Figure 6).<sup>8</sup> The provision of infrastructure also mainly falls to local governments, and they have accounted for 70-75% of budgetary expenditures on fixed investment in recent years for which data are available.<sup>9</sup>

The fiscal stimulus programme was likewise to be largely implemented by local governments, and they embraced it with frenzied enthusiasm. Although the central government did not spell out in detail the division of responsibilities for undertaking and

Figure 6. **Central government share of expenditures (per cent of total)**

Source: China Statistical Yearbook.

financing the stimulus investments, anecdotal evidence indicates that the usual rules were applied both for the assignment of projects and for cost sharing between central and local governments (see, for example, Xiao, 2009, and Huo *et al.*, 2009).

Under the “normal process”, the National Development and Reform Commission (NDRC) is responsible for formulating the national investment plan and approving the list of projects to be included. With guidance from the NDRC on priority areas in which funding is available, local governments (and central ministries) prepare project lists to be submitted each year for inclusion in the national investment plan. Once chosen, a project becomes eligible for budgetary funding as well as bank credit, which is available only for approved projects.

While local governments and ministries compete for national investment funds, the competition is constrained by the availability of funding at localities, since virtually all projects implemented by local governments require counterpart funding, the proportions of which vary by sector and by region. For example, school construction requires a one-third contribution from local governments, and for low-cost housing the central input is a flat rate of CNY 300 per square metre for the central provinces and CNY 400 for the western provinces.<sup>10</sup> Eligibility for application usually requires proof of funding availability from the local government. To be eligible for bank credit, the banks also require proof of requisite own funding in the form of equity or paid-in capital (usually 25-35%).

With the fiscal stimulus programme, the available pool of central funding was vastly expanded, but the goal for quick implementation of the ambitious investment programme required the NDRC to be especially vigilant in ensuring that projects would be allocated only to local governments that have sufficient funds to meet co-financing needs. From the outset, the worry was that with three-quarters of the projects assigned to localities, local governments would struggle to meet this burden of counterpart funding.

Under the climate of urgency that characterised the period from late 2008 through 2009, every effort was made to facilitate local government applications for projects. First, the government introduced several new measures to make it easier for local governments to meet the co-financing requirements. On 17 March 2009, the State Council approved a special CNY 200 billion treasury bond issue by the Ministry of Finance on behalf

of local governments, and stipulated an accelerated disbursement of the funds to the provinces (Han and Luo, 2009a). The ostensible purpose of this bond issue was to be a first step toward allowing local governments to raise debt for funding capital investments. Until an institutional framework is installed to monitor and control local debt issue, the government has chosen to issue the debt centrally, through the Ministry of Finance, but under the names of recipient provinces. Ministry spokespersons explained that these funds “should mainly be used in public infrastructural projects for the provision of public goods ... and not for enhancing recurrent expenditures” (Han and Luo, 2009b).

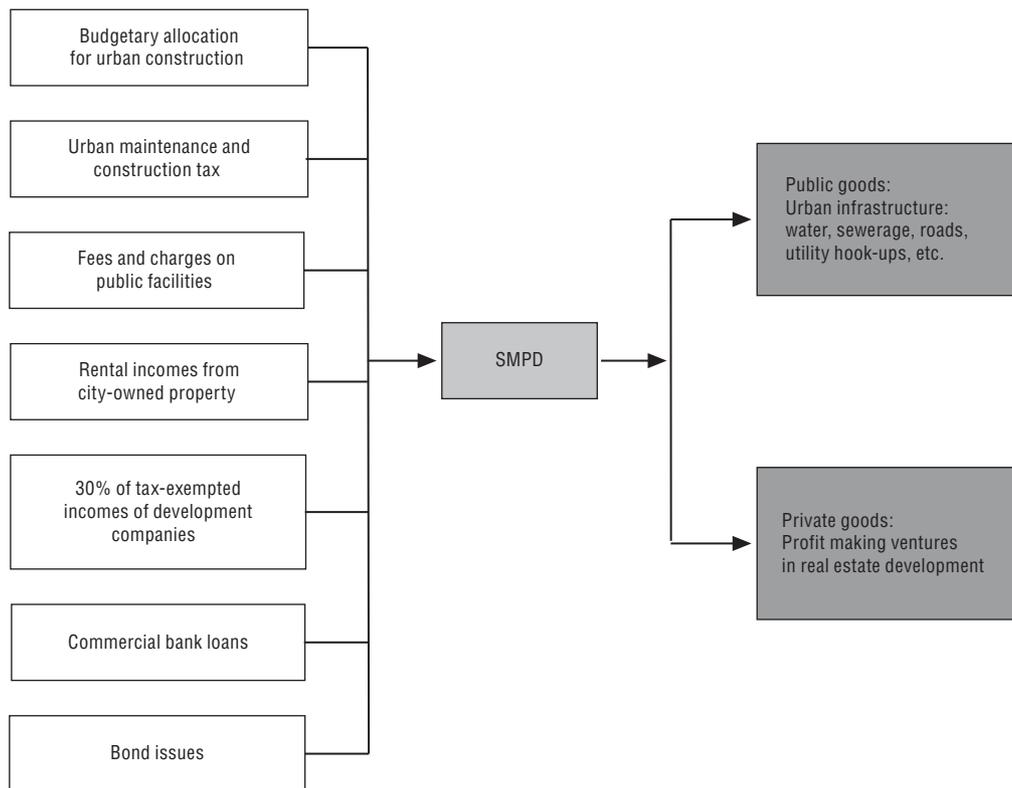
Second, in a more radical move, the government officially endorsed the use of local government financial platforms (see Box 1) and other means of raising debt. On 24 March 2009, a document was jointly issued by the People’s Bank of China and the China Banking Regulatory Commission, calling for “supporting localities with appropriate

### Box 1. Local government investment corporations (LICs)

The local government financial platforms (*difang zhengfu rongzi pingtai*) referred to in the 2009 document jointly issued by the People’s Bank of China and the China Banking Regulatory Commission are commonly called local investment corporations (LICs). Since the late 1980s, local governments – mostly at the municipal and provincial levels – have been creating corporate entities to undertake the task of raising funds to finance public investment, and they are variously called urban development investment corporations (UDICs), highway or transport corporations, and the like. These corporations were an innovation to allow local governments to work around a central contradiction in the intergovernmental fiscal system in China, under which local governments are assigned the primary responsibility for the provision of public services including infrastructure but are not given the right to borrow, nor are they assigned enough revenues to take on this responsibility. LICs were initially created as financially independent, single-purpose entities often for the purpose of taking on loans from international financial institutions. Being financially independent restricted their undertakings to those with the capacity for debt servicing and repayment, and LICs were prevalent in the construction and operation of toll roads, power companies, water companies and utilities.

A breakthrough came in 1988, when Shanghai created the first broad-based investment corporation to undertake investment in urban infrastructure, the General Corporation of Shanghai Municipal Property (SMPD), and gave it the mission to co-ordinate and provide for the construction of facilities such as water supply, sewerage, roads, utility hook-ups, etc. To finance these tasks, the corporation was assigned earmarked revenues from the municipal budget and authorised to borrow from banks and to issue corporate bonds (see Figure 7 for a depiction of the corporation’s sources and use of funds). Its creation made possible a quantum leap in the financing available for investments in infrastructure to support urban renewal and expansion in Shanghai.

Over time, the model gradually spread to other municipalities, and LICs have come to play a key role in financing urbanisation in many localities. As they became more accepted, they have also evolved to be less strictly financially separated from government, and broadened in scope. Typically, the LICs raise and bundle together bank loans and other financing, using a variety of municipal assets including budgetary and off-budget revenues as equity and collateral. Increasingly, with urbanisation causing an increase in land values, land has become the principal asset backing LICs, and municipal governments have also increasingly relied on off-budget receipts from land lease sales to finance debt service in these LICs.

Figure 7. **General Corporation of Shanghai Municipal Property (SMPD)**

conditions to organise and build financial platforms, issue corporate debt and medium-term notes and other financial products, to broaden the channels of funding for providing counterpart funds for central government investment projects”.<sup>11</sup>

Third, the Ministry of Finance relaxed the standards on what is eligible as counterpart funds to qualify for stimulus projects, specifying that local governments can use the following sources: budgetary resources, land revenues, proceeds from local bonds issued by the Ministry of Finance, funds raised by local financial platforms, and all other resources at the discretion of local governments (Ministry of Finance, 2009).

In fact, all of these changes had been outlined by Zhang Ping, Director of the NDRC, at a press conference during the National People’s Congress meetings in March 2009, signaling a consensus approval by policy makers at the highest level of government (Zhang, 2009). Altogether, these changes greatly expanded the space for local governments, and a dynamic was set up whereby local governments competed fiercely for stimulus investment projects, which represented an unprecedented windfall of funding opportunities for all manner of pet local projects. As a legacy of the planned economy, all local governments and line ministries have medium and long-term plans with project pipelines. Ready or not, many of these projects were quickly rolled out and brought forward, and new projects were hastily put together to meet the calls for new spending in environmental and green technology areas. Within less than a month of the announcement of the stimulus package, local governments, in aggregate, had proposed a staggering total of CNY 18 trillion in investment projects. Soon after, the figure rose further to CNY 25 trillion for the first 18 provinces reporting their plans (Huo *et al.*, 2009).

The central ministries, too, joined in the competition. Among the most aggressive was the Ministry of Railways, which grabbed an estimated CNY 1.5 trillion of the CNY 4 trillion investment approved by the NDRC. The Medium-Long Term Plan for the National Railway Network, set in 2004, had called for the network to reach 100 000 km of rails by 2020, including 12 000 km of high-speed lines. The Plan's centrepiece was the adoption of Chinese-made high-speed trains operating at or above 200 km/h. This was amended in 2008 to set targets of 120 000 km of total length (including 16 000 km of high-speed lines) and with train speeds raised to as much as 350 km/h (Liu et al., 2011).

#### 4.2. Response from the financial sector

On the supply side, in answer to the calls from all quarters to support the stimulus effort, China's state-owned banks responded, also with frenzied enthusiasm. The State Council document issued in December 2008 (cited earlier) had called on the financial sector to support the government's industrial policy by increasing lending for investment in a long list of sectors, projects and conditions including public infrastructure, earthquake reconstruction, energy saving, technical renovation and technology upgrading, regional development, small and medium-sized enterprises, and rural projects. The document also encouraged banks to provide credit to support "financially sound enterprises that faced temporary difficulties". The document called, as well, for rolling out policies to expand consumer credit, to support mortgages for first-time buyers and for car purchases. It even specified quantitative targets for the expansion of bank credit, to strive to increase new lending by CNY 4 trillion in 2008, and for broad money supply to grow by 17%. The document also called for reducing restrictions on corporate bond issuance and expanding the range of financial products available for financing investment. In sum, the government was calling on the banks to pull out all the stops.

Bank officials were only too happy to oblige. After all, the directives from the government and political leaders effectively eliminated all personal responsibility for the lending decisions, and credit growth exploded. Especially favoured were projects backed by local governments. Net new credit grew by CNY 4.2 trillion in 2008 (Table 3) in a year when demand was sharply reduced by the economic slowdown. Net new credit had surpassed the average annual growth of CNY 3-4 trillion in the boom years of 2005-07, and even exceeded the government's target of CNY 4 trillion. In 2009, new lending more than doubled from the 2008 level, to CNY 9.6 trillion. In the first quarter alone, it expanded by CNY 4.6 trillion.

Table 3. **Fiscal and credit expansion (CNY billion)**

	2008	2009	2010
Fiscal deficit	111	950	650 <sup>1</sup>
New bank loans	4 178	9 622	7 932
New bond finance	502	935	-465
<b>Total</b>	<b>4 791</b>	<b>11 506</b>	<b>8 117</b>

1. This figure is equal to the reported deficit of CNY 1 trillion minus set-asides for the Budget Stabilisation Fund and rolled-over commitments.

Sources: China Statistical Yearbook; China Data Online; author's estimates.

### 4.3. The perfect storm

But now the stimulus was spinning out of control. Table 3 assembles available data on fiscal deficits, on growth in bank credit and on corporate bond issuance for 2008, 2009 and 2010. The huge fiscal injection was joined, and indeed dwarfed, by what some commentators have called “a tsunami of credit expansion”. Together, these sources brought new funds totaling CNY 4.8 trillion into the economy in 2008, and more than double that in 2009.

Table 4 estimates the size of the stimulus effort during the past three years. To derive the net effect of the stimulus programme, a distinction is made between the “normal” growth in credit that accompanies economic expansion and the extraordinary growth created by stimulus. Normal credit growth is estimated at CNY 3.93 trillion, 4.55 trillion and 6 trillion for 2008, 2009 and 2010, respectively, based on the average credit growth of 15% per annum during the period 2003-07. The normal credit growth for 2008, 2009 and 2010 are subtracted from total credit expansion for the three years, respectively, to derive the effect of the stimulus. For new bond finance, half of the new addition each year is taken, since it is not possible to define “normal” for such a nascent sector.<sup>12</sup> These figures show that, altogether, a conservative estimate would place the stimulus at CNY 9.5 trillion, or 27% of GDP, over the 27 months. This was 2.4 times the size of the announced stimulus package. In 2009 alone, it was CNY 6.5 trillion, or 19.3% of the current year GDP.

Table 4. **Estimated size and composition of stimulus**

	2008	2009	2010
<b>Stimulus (CNY billion)</b>			
Fiscal deficit	111	950	650
Net new bank loans	252	5 070	1 936
Net new bond finance	251	467	-232
<b>Total</b>	<b>614</b>	<b>6 487</b>	<b>2 354</b>
<b>Stimulus (% GDP)</b>			
Fiscal deficit	0.4%	2.8%	1.6%
Net new bank loans	0.8%	15.1%	4.9%
Net new bond finance	0.8%	1.4%	-0.6%
<b>Total</b>	<b>2.0%</b>	<b>19.3%</b>	<b>5.9%</b>

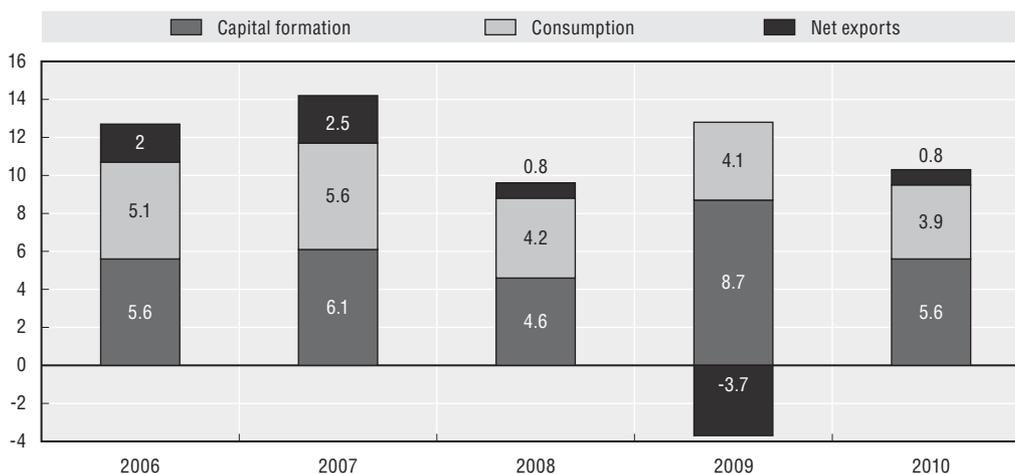
Sources: China Data Online; author's estimates.

This outcome was hardly surprising given the combination of the large fiscal injection, the relaxation of fiscal rules on local government debt, the substantial liberalisation of the financial sector and, especially, the politicisation of the whole stimulus effort. Altogether, these factors created an extraordinarily enabling environment, and it was welcomed by local governments (and ministries) whose incentives were all in favour of expansion.<sup>13</sup> And they were aided by banks – especially state-owned banks that had been told by the government to open their spigots. Loan officers, too, were eager to expand their balance sheets, especially for investments that appear to be essentially risk-free since they are implicitly or explicitly guaranteed by the government.

## 5. The exit and post-mortem

The stimulus programme worked. It produced growth and jobs, the two ingredients for stability that the top leaders most urgently sought. Growth began to pick up in 2009, accelerating through the year. Quarterly growth rose from 5.3% in Q1 to 5.7% in Q2, 8.6% in Q3 and 13% in Q4 (Figure 3 above). For the whole year, it reached 8.7% – comfortably above the 8% that has long been considered the minimum required to keep economic problems from spilling over into social problems. This was an impressive achievement in the face of collapsing exports, which had contributed a shocking –3.7% to overall growth in 2009 (equal to –41% of total growth), after falling to 0.8% in 2008 from 2.5% in 2007 (Figure 8).

Figure 8. Sources of growth (per cent of GDP)



Sources: China Statistical Yearbook 2010; DragonWeek (March 2011).

Employment, too, grew robustly. The fear of massive unemployment among migrant workers never materialised, and indeed government officials estimated that aggregate employment grew by 8.5 million in the first three quarters of 2009 and could reach 12 million by year-end (Yang, 2009).

But the costs were high. First, all of the growth came from investment which jumped to 66% of GDP, and investment in infrastructure leaped to 18% of GDP. As seen in Figure 8, gross capital formation contributed 8.7% of GDP to growth, equal to total net growth in 2009. This was nearly double the 4.6% in 2008. More importantly, the 96% share of growth from capital formation was double the already high level of 48% during 2003-07, raising alarms about the efficiency of investment and project selection. It also set back the policy goal, pronounced annually since 2003/04 and enshrined in both the 11th and 12th five-year plans (2006-10 and 2011-15), to rebalance the economy toward more consumption and move away from the investment-driven growth model of the past.

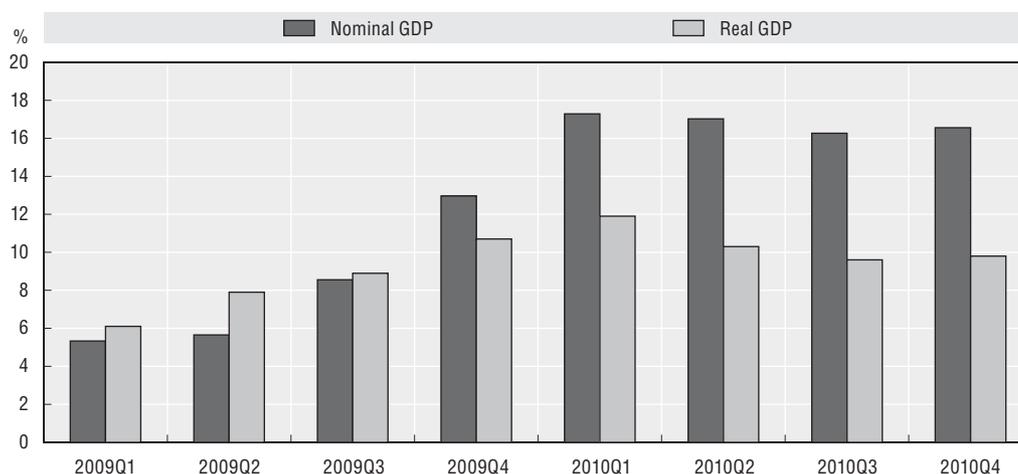
Second, in the rush to ensure quick implementation of the stimulus programme, the government went beyond pumping in new fiscal spending and easing monetary policy to changing fiscal rules and liberalising financial regulations. While these changes were on the whole consistent with market reforms, they were sometimes pushed too far and too fast amidst the campaign-style rhetoric coming from both the government and the party urging “support” for the stimulus programme. In the process, much painstaking progress on governance reform was reversed – building professionalism in the banking sector and

cleaning up balance sheets, improving budgeting and public investment management, refocusing local governments on public service provision rather than investment, etc. When combined with the huge spike in easy credit that allowed state-owned enterprises and government agencies (especially at the local levels) to extend their reach, the process has also seen the private sector being squeezed out in some industries and services, reversing the decades-long retreat of the state from economic activities.<sup>14</sup>

### 5.1. Exiting from fiscal and monetary expansion

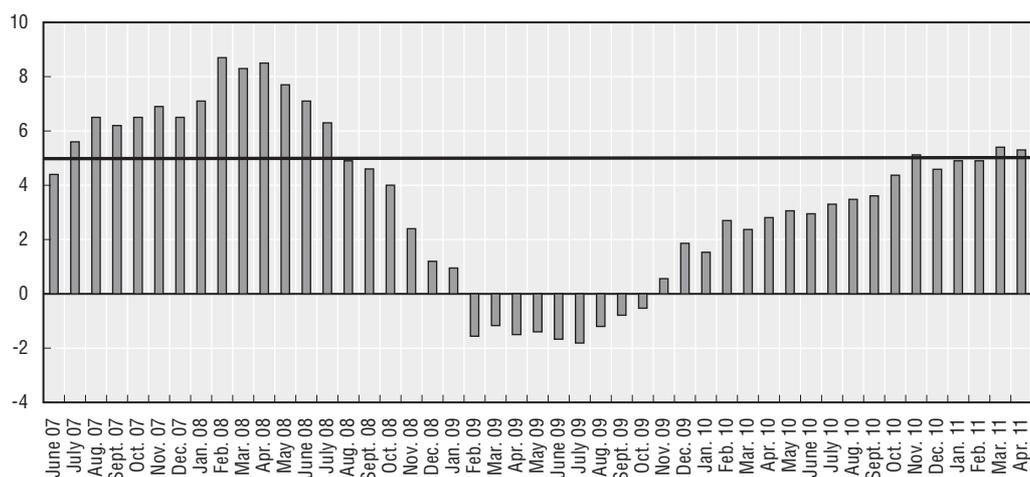
By the end of 2009, the economy showed firm signs of a rebound. Growth was accelerating quarter by quarter (Figure 9). After nearly a year of deflation, prices were trending gradually upward again (Figure 10). With worry about the stimulus programme growing through 2009, and with the popular economics press filled with talk of impending inflation, the government began to take measures in early 2010 to tamp down the growth momentum and slow credit creation.

Figure 9. **Growth recovery (quarter on quarter)**



Source: National Bureau of Statistics of China.

Figure 10. **Change in consumer price index (year on year), per cent**



Source: China Economic Monthly Indicator.

The fiscal stimulus had been scheduled to be completed by the end of 2010. In fact, even with the unexplained additional injection of CNY 572 billion during 2010, the deficit had fallen to CNY 650 billion (below 2% of GDP) due to strong revenue growth. The 2011 draft budget projects a deficit of CNY 900 billion, but it will be less if, once again, revenues exceed the budgeted amount.

The exit from financial stimulus was more protracted. On 7 January 2010, the central bank raised the discount rate by four basis points. A few days later, it raised the reserve ratio and began open market operations to repurchase CNY 30 billion of bonds over 91 days (*Jingji Guanchabao*, 2010). These signals, though, failed to reduce the pace of bank lending. In the first two weeks in January, new loans totaled CNY 1.1 trillion, equal to the frenetic pace of the blowout first quarter of 2009. An emergency meeting of the monetary policy committee was convened on 18 January, and administrative measures were reportedly adopted at a 22 January meeting of the leadership to enforce credit tightening (*Sun et al.*, 2010). Although the government denied it, credit quotas were once again rumoured to be enforced. Even so, as seen in Table 3 above, credit expansion remained very high for the year, nearly CNY 8 trillion. Moreover, as banks tightened lending, there was a surge in the growth of off-balance-sheet financial products, including bankers' acceptances, designated loans, and loans issued by trust companies. The central bank estimated these to have more than doubled from CNY 1.6 trillion in 2009 to CNY 3.8 trillion (*GaveKal-Dragonomics*, 2011a, p. 2/3). In total, then, despite the government's efforts, credit expansion in 2010 stayed at roughly the same level as 2009.

Monetary tightening appears finally to be taking effect in 2011. New loans totaled CNY 2.2 trillion, compared to 2.6 trillion in the first quarter of 2010. At this pace, the policy is staying on track to meet the government's target of CNY 7.2 trillion. The government has cracked down on lending by trust companies, and this is finally slowing the growth of off-balance-sheet financing. However, designated loans reportedly more than doubled in the first quarter year on year, with large SOEs and listed companies profiting from high interest rate lending to property developers whose access to bank loans is being sharply curbed in the current tightening (*GaveKal-Dragonomics*, 2011b). Even so, monetary policy has moved toward normalisation, and the growth rate in investment and GDP have moderated somewhat since 2010, with recent reports indicating some easing of inflationary pressures (*GaveKal-Dragonomics*, 2011b; World Bank, 2011).

## **5.2. Managing local government debt**

With the central government actively encouraging their creation, local government investment corporations (LICs) spread like wildfire under the stimulus programme and were on the front line in competing for investment funding and bank credit. With three-quarters of the stimulus investments made by local governments, the LICs played a leading role in investing in infrastructure and were, as a group, the biggest players. In the sea of liquidity and permissiveness, they proliferated and greatly expanded their scale of operation. According to the China Banking Regulatory Commission (CBRC), LICs grabbed nearly one-third of all new loans issued in 2009 and increased their total debt by CNY 3 trillion to CNY 7.38 trillion at year-end (*Investors Bulletin*, 2010). In the first quarter of 2010, LICs accounted for 40% of all new bank loans (*Investors Bulletin*, 2010; Wei, 2010). More recent estimates, based on findings by the National Audit Office and the central bank,

are that the total debt of LICs is likely to have reached CNY 10-14 trillion by year-end 2010 (Yang, 2011). It is the investment hunger of LICs/local governments that has helped inflate the stimulus programme and push the economy into overheating.

The super-sized stimulus programme has left in its wake a huge run-up in local government debt whose dimensions and potential effects are still not yet known. This is because China has no reliable national figures on local government debt despite a decade-long effort at building a debt-reporting system in the Ministry of Finance. A main reason is that, aside from the bonds issued by the Ministry of Finance on behalf of local governments, local government debt is primarily accumulated through LICs: investigators at the CBRC estimated that local government debt totalled CNY 11 trillion at the end of 2009, of which LIC debt accounted for CNY 7.38 trillion.

In aggregate terms, the implied level of local government debt (of CNY 15-20 trillion in total<sup>15</sup>), equal to around 40% of GDP in 2010, is not especially alarming. Servicing the debt, though, may pose problems for local governments, given how highly constrained their budgets are under the present intergovernmental fiscal system where they have no taxing powers and are already straining to meet growing expenditure needs. As a result, the UDIC/LIC model is heavily reliant on rising land valuations to supply investment funding and debt servicing, but such a revenue source is highly cyclical and volatile. In addition, some localities have taken on far larger debts, and they will be especially vulnerable. The central bank's Tianjin branch, for example, reported that the municipality's LICs doubled their debt in 2009 (Bateson, 2010).

Equally worrisome for the national government is the extent to which the banking sector is dependent on the LIC loans and their quality. Nation-wide, the People's Bank of China estimates that LICs account for "less than 30%" of all outstanding bank loans, but the degree of exposure varies greatly across banks and regions (Caixin net, 2011). This share is highest for the China Development Bank, which has had the longest history of lending to LICs and where LICs accounted for more than half of total loans in 2009. In Tianjin, LICs took 62.5% of all new loans issued in the city in 2009, and they were 17 of the 20 largest recipients of new loans during the year (Bateson, 2010).

LICs are not new. As noted in Box 1 above, they have been a fixture of municipal finance since the 1990s and have made substantial contributions to financing urbanisation in China. However, LICs operate in the interstices of China's mixed economic system, and no national agency has oversight over them – not the Ministry of Finance (MoF), nor the National Development and Reform Commission (NDRC), the Ministry of Construction (MoC) nor the China Banking Regulatory Commission. There are no reliable national statistics on LICs because there is no system in place that requires LICs to report on their activities or financial status. LICs are not under the purview of either the fiscal or the administrative planning systems. At present, the management of public investments is fragmented under the MoF, the NDRC, the State Science and Technology Commission and the MoC, and there is little co-ordination among them. Although the planning system still requires administrative approval for large projects that are above specified thresholds, it applies only to projects that are funded by public funds. Because LICs rely mainly on bank finance, there is no requirement for them to report on either their sources or their uses of funding.

Since mid-2009, the government has been engaged in a massive catching-up exercise, with several regulatory agencies undertaking investigations and surveys of LICs to collect information, including the CBRC, the Audit Office, the Ministry of Finance and the NDRC.

These agencies found numerous and serious problems with LIC loans. The most common were that fiscal guarantees were widely used as backing for the loans in lieu of collateral, and that when land was held as collateral, excessively optimistic valuations were placed on it. In Tianjin, the central bank found that loans backed by traditional collateral accounted for only 22% of the 2009 lending to LICs, while 71% were backed only by guarantees (Bateson, 2010). Nation-wide, the CBRC reported that 47% of all LIC debt was guaranteed by fiscal revenues, and it classified 26% of LIC debt as “high risk” at mid-year 2010 (GaveKal-Dragonomics, 2010).

### **5.3. Reform challenges for macroeconomic management in China**

After more than three decades of market-oriented reform, the Chinese economy is highly decentralised, and the central government’s ability to direct national policy implementation is attenuated. The stimulus programme was intended to leverage fiscal inputs to produce a much larger effect through mobilising other “social” resources. However, a decentralised system of investment finance requires a financial sector that has the capacity for appraising the viability of projects and the credit-worthiness of the borrowers. These conditions were clearly absent when the majority of the borrowers were LICs whose financial relationships with local governments are often ambiguous, and when the LICs were allowed to borrow for “bundles” of projects. Moreover, local government finances are themselves extremely complex and non-transparent. Fiscal resources are scattered across several budgetary and extrabudgetary accounts, reporting is incomplete, and there is little co-ordination among them.

The stimulus programme has once again exposed the “Achilles’ heel” of China’s macroeconomic management: the tendency toward overinvestment that is rooted in the growth orientation and soft budget constraint of state sector agents, including local governments. Hardening the budget constraints requires a system with clearly defined responsibilities and accountability, which are lacking in the current intergovernmental fiscal system.

The stimulus programme, its implementation and exit have shown the extent to which the government continues to rely on administrative instruments, alongside indirect/market instruments, to manage the macro economy. The experience has shown both the advantages – quick results – and the disadvantages – inefficiencies and distortions. The use of administrative controls is both a cause and a symptom of the immaturity of markets. To rein in the build-up of local government debt, for example, the government will, in the short term, resort to instituting freezes and caps on LICs, to buy time for building up an appropriate institutional and legal framework for improving their governance.

The bigger challenge, though, is to strengthen governance for the whole public sector to improve the efficiency and effectiveness of public expenditures and public investment. Reforming the intergovernmental fiscal system will be a prerequisite to strengthening accountability for the whole sector.

#### **Notes**

1. The United States stimulus including temporary tax cuts and increased government spending was worth just over USD 700 billion, or about 5% of GDP, spread over two years.
2. In 1998, government revenues were less than 12% of GDP. In 2008, the level was 19.5%.

3. This consumption-type VAT was put under “pilot implementation” in the northeastern provinces of Liaoning, Jilin and Heilongjiang in 2004, and a nation-wide rollout was then expected to follow within 2-3 years.
4. The cost of this change in VAT was projected at CNY 120 billion but, as investment grew by 30% in 2009, the tax cut also grew in size.
5. For example, the central SASAC collected CNY 55 billion in dividends from firms under its supervision in 2009. These funds are normally kept by the SASACs.
6. Naughton (2009) has written vividly of the sense of urgency that permeated all levels of government in China during this period, from the central government to the provinces and downward.
7. Unless otherwise noted, “local government” in this article refers to all units of sub-national government, including provinces, municipalities, counties and townships.
8. In 2010, the central government’s share was only 17.8% of total expenditures (budget report presented at the National People’s Congress, March 2011).
9. Data on fixed investment end in 2006 because, with a change in budget classifications in 2007, capital spending is no longer reported in budget statistics.
10. These are lower income provinces that are the main recipients of intergovernmental transfers.
11. People’s Bank of China and China Banking Regulatory Commission (2009), “Some guiding opinions on further strengthening the adjustment of credit structures to promote the stable and relatively rapid growth of the national economy”, 24 March, Beijing.
12. Bond issuance increased from CNY 9 billion in 2003 to CNY 396 billion in 2005, to CNY 648 billion in 2007, and to CNY 2 085 billion in 2009.
13. In the words of one commentator: “Who wants to be the mayor who reports that he did not get 8% GDP growth this year? Nobody wants to come forward with that... And if that’s the easiest way to achieve growth, then you build.”
14. Through 2010, the press was filled with a rising chorus of complaints about *guojin mintui* (“the state advances and the people retreat”) with SOEs “consolidating” at the expense of private enterprises, especially in the coal and steel industries.
15. This is based on the assumption that LIC debt constitutes two-thirds of all local government debt, a proportion derived from CBRC estimates for 2009 (see *Investors Bulletin*, 2010).

## References

- Areddy, James (2008), “China Cuts Interest Rates for Fifth Time Since September”, *Wall Street Journal*, 23 December, accessed 8 April 2011, [http://online.wsj.com/article/SB122994387266426043.html?mod=todays\\_us\\_page\\_one](http://online.wsj.com/article/SB122994387266426043.html?mod=todays_us_page_one).
- Bateson, Andrew (2010), “A window onto local government debt in Tianjin”, *Wall Street Journal*, 9 June, <http://blogs.wsj.com>, accessed 11 June 2010.
- Caixin net (2011), “Central Bank: (we should) pay attention to hidden liabilities of government”, 15 June, <http://economy.caing.com/2011-06-15/100269691.html>, accessed 27 June 2011.
- Cartledge, Simon (2008), “Missing links: poor transport networks are hampering China’s evolution into an efficient place to do business”, *Financial Times Special Insert: Doing Business in China*, 20 October.
- China Daily (2008), “Central Bank’s Zhou: Further interest rate cuts likely”, [www.china.org.cn/business/news/2008-12/17/content\\_16962514.htm](http://www.china.org.cn/business/news/2008-12/17/content_16962514.htm), 17 December, accessed 8 April 2011.
- Chinese Communist Party (2008), “Central Document No. 18 of 2008” (*Zhongfa* [2008] 18), Beijing.
- Cullinane, Kevin and Teng-Fei Wang (2007), “Devolution, Port Governance and Port Performance”, *Research in Transportation Economics*, Vol. 17, pp. 331-356.
- Fock, Achim and Christine Wong (2008), “Financing Rural Development for a Harmonious Society in China: Recent Reforms in Public Finance and Their Prospects”, *World Bank Policy Research Working Paper No. 4693*, August, The World Bank, Washington DC, <http://econ.worldbank.org/docsearch>.
- GaveKal-Dragonomics (2010), *DragonWeek*, 8 November.
- GaveKal-Dragonomics (2011a), *DragonWeek*, 28 February.

- GaveKal-Dragonomics (2011b), *China Economic Outlook*, April.
- Han, Jie and Sha Luo (2009a), "State Council agrees to issue 200 billion yuan bonds to enhance and expand local government matching funds in support of the implementation of proactive fiscal policies", *New China News*, [http://news.xinhuanet.com/newscenter/2009-03/17/content\\_11028110.htm](http://news.xinhuanet.com/newscenter/2009-03/17/content_11028110.htm), accessed 5 May 2011.
- Han, Jie and Sha Luo (2009b), "Ministry of Finance: whether to issue local bonds next year will depend on the macroeconomic changes", *New China News*, accessed 5 May 2011, [http://news.xinhuanet.com/newscenter/2009-03/17/content\\_11028131.htm](http://news.xinhuanet.com/newscenter/2009-03/17/content_11028131.htm).
- He, Jianwu and Louis Kuijs (2007), "Rebalancing China's Economy: Modeling a Policy Package", *World Bank China Research Paper No. 7*, September, The World Bank, Washington DC, [www.worldbank.org/research/2007/09/8948435/rebalancing-chinas-economy-modeling-policy-package](http://www.worldbank.org/research/2007/09/8948435/rebalancing-chinas-economy-modeling-policy-package).
- Honohan, Patrick (2007), "Finance for Urban Centers" in Shahid Yusuf and Anthony Saich (eds.), *China Urbanizes: Consequences, Strategies and Policies*, The World Bank, Washington DC.
- Huo, Kan, Changyong Wang and Jing Wang (2009), "Can Stimulus Light China's Consumer Fire?", *Caijing Magazine*, 6 March, <http://english.caijing.com.cn/2009-03-06/110114349.html>, accessed 9 April 2011.
- Investors Bulletin (2010), "A Tight Hoop Should be Put on Local Government Financing Platforms", 6 June, <http://finance.ifeng.com/news/special/dfzwwj/20100606/2282325.shtml>, accessed 20 May 2011.
- Jiang, Yonghua (2008), *China's Tax Sharing System Reform* (in Chinese), China Financial and Economic Press, Beijing.
- Jingji Guanchabao (2010), "The Central Bank Sends Signals of Tightening", 22 January, <http://finance.ifeng.com/news/special/jshbzc/index.shtml>, accessed 21 May 2011.
- Li, Pumin (2010), "China will continue to implement the 2010 RMB 4 trillion investment plans", *China News*, 7 March, [www.chinaneews.com.cn/cj/cj-gncj/news/2010/03-07/2155764.shtml](http://www.chinaneews.com.cn/cj/cj-gncj/news/2010/03-07/2155764.shtml), accessed 9 April 2011.
- Li, Qing, Xiu Wen and Yuzhe Zhang (2008), "A nine-measure package broadened the government's economic stimulus plan to embrace REITs, PEs and other vehicles", *Caijing Magazine*, <http://english.caijing.com.cn/2008-12-09/110036510.html>, accessed 7 April 2011.
- Liu, Weixun, Yong Chen and Xiangdong Zhang (2011), "Gaotie yinji" (Secret Ills of High-Speed Rail), *Economic Observer Online* (in Chinese), 22 February.
- Ministry of Finance (2009), "On speeding up implementation of central fiscal stimulus investment projects: notification on issues of local counterpart funds", *MOF Construction Department Document No. 631*, 12 October, Beijing.
- Ministry of Finance (annual), *Finance Yearbook of China (zhongguo caizheng nianjian)*, Beijing.
- National Bureau of Statistics (2009), *New China 55 Years Statistical Compendium*, Beijing.
- National Bureau of Statistics (annual), *China Statistical Yearbook (CSY)*, Beijing.
- Naughton, Barry (2009), "The Scramble to Maintain Growth", *China Leadership Monitor*, No. 27 (Winter).
- People's Bank of China and China Banking Regulatory Commission (2009), "Some guiding opinions on further strengthening the adjustment of credit structures to promote the stable and relatively rapid growth of the national economy", 24 March, Beijing.
- State Council Office (2008), "Several Opinions of the State Council Office on Finance Stimulating Economic Development under Current Conditions", 13 December, *Guobanfa* [2008] No. 126, [http://news.xinhuanet.com/newscenter/2008-12/13/content\\_10500530.htm](http://news.xinhuanet.com/newscenter/2008-12/13/content_10500530.htm), accessed 7 April 2011.
- Sun, Jianfang, Zhiyun Cheng and Rongping Hu (2010), "Clear signs of monetary tightening: the central bank returns to the use of administrative methods", *Jingji Guanchabao*, 22 January, <http://finance.ifeng.com/news/special/jshbzc/20100122/1747319.shtml>, accessed 21 May 2011.
- Walter, Carl and Fraser Howie (2010), *Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise*, John Wiley and Sons, Hoboken, New Jersey, United States.
- Wei, Jianing (2010), "The causes and fixes of risks from local government financial platforms", mimeograph (in Chinese).
- Wen, Jiabao (2008), "We will consider further measures to stimulate the economy more directly", *Xinkuaibao*, 15 December, <http://finance.sina.com.cn/roll/20081215/01472572419.shtml>, accessed 7 April 2011.

- Wong, Christine (ed.) (1997), *Financing Local Government in the People's Republic of China*, Oxford University Press, Hong Kong.
- Wong, Christine (2001), "Converting Fees into Taxes: Reform of Extrabudgetary Funds and Intergovernmental Fiscal Relations in China" in Richard Bird, Robert Ebel and Christine Wallich (eds.), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies*, The World Bank, Chinese edition: Central Translation Press, Beijing.
- Wong, Christine (2005), "Public Sector Budgeting Issues in China" in OECD, *Governance in China*, OECD Publishing, Paris.
- Wong, Christine (2007), "Can the Retreat from Equality Be Reversed? An Assessment of Redistributive Fiscal Policies from Deng Xiaoping to Wen Jiabao" in Vivienne Shue and Christine Wong (eds.), *Paying for Progress in China: Public Finance, Human Welfare and Changing Patterns of Inequality*, Routledge, London.
- Wong, Christine (2008), "Fiscal Management for a Harmonious Society: Assessing the Central Government's Capacity to Implement Policies" in Keun Lee, Joon-Han Kim and Wing T. Woo (eds.), *Power and Sustainability of the Chinese State*, Routledge, London.
- Wong, Christine (2009), "Rebuilding Government for the 21st Century: Can China Incrementally Reform the Public Sector?", *China Quarterly*, No. 200, December.
- Wong, Christine and Richard Bird (2008), "China's Fiscal System: A Work in Progress" in Loren Brandt and Thomas Rawski (eds.), *China's Great Transformation: Origins, Mechanism and Consequences of the Post-Reform Economic Boom*, Cambridge University Press, New York.
- World Bank (1999), *China: Weathering the Storm and Learning the Lessons*, Country Economic Memorandum, The World Bank, Washington DC.
- World Bank (2000), *China: Managing Public Expenditures for Better Results*, Report No. 20342-CHA, The World Bank, Washington DC.
- World Bank (2002), *China: National Development and Sub-national Finance, a Review of Provincial Expenditures*, Report No. 22951-CHA, April, The World Bank, Washington DC.
- World Bank (2007), *China: Public Services for Building the New Socialist Countryside*, Report No. 40221-CN, The World Bank, Washington DC, [www.worldbank.org/research/2007/12/8945530/china-public-services-building-new-socialist-countryside](http://www.worldbank.org/research/2007/12/8945530/china-public-services-building-new-socialist-countryside).
- World Bank (2011), *China Quarterly Update*, April, The World Bank, Washington DC.
- Xiao, Liang (2009), "130 billion central investment plan has begun to be allocated; 95 billion will be allocated to localities", *21 Shiji Jingji Baodao*, 3 February, <http://finance.sina.com.cn/roll/20090203/01305807294.shtml>, accessed 9 April 2011.
- Xinhua (2009), "China faces fiscal test as stimulus spending rises, tax revenues fall", 26 February, <http://english.eastday.com/e/0226/u1a4203833.html>, accessed 26 August 2011.
- Yang, Guchuan (2011), "Local government debt management reform proposals", *China Reform net*, 21 July, [www.chinareform.net/show.php?id=1150](http://www.chinareform.net/show.php?id=1150), accessed 25 July 2011.
- Yang, Yiyong (2009), "The employment target for 2010 should be adjusted upwards", *21st Century Business Herald*, 28 November, [www.21cbh.com/HTML/2009-11-30/155834.html](http://www.21cbh.com/HTML/2009-11-30/155834.html), accessed 18 May 2011.
- Zhang, Ping (2009), Press conference at the Second Session of the 11th National People's Congress, 6 March, [www.ndrc.gov.cn/xwfb/t20090306\\_264932.htm](http://www.ndrc.gov.cn/xwfb/t20090306_264932.htm), accessed 28 April 2011.
- Zhou, Yan (2006), "Comparing the Formal and Informal System of Provincial Government Investment in China", *Wuhan University Journal of Philosophy and Social Sciences*, Vol. 59, No. 6, pp. 811-818.

