Local government debt

Big rock-candy mountain

by Victor Shih

Since late 2008, local governments have unveiled an astonishing Rmb20 trn of investment proposals

In late 2008, China's central government announced an Rmb4 trn fiscal stimulus package to combat the global financial crisis and offset a severe recession in China's export sector. The program stood at 13% of China's 2008 GDP, similar to the previous Keynesian push, the Go West campaign, which pumped around one-eighth of 2000 GDP into infrastructure investments in western China (although in both cases the spending was spread out over several years). But central government stimulus was just the beginning: local governments then jumped in with an additional Rmb20 trn in "supplementary" investment proposals.

These local investment goals seemed fantastical because local revenue in most of China fell short of covering the normal operational expenses of local governments, let alone financing grand investment schemes. Even in 2007, a year of record economic growth, local governments collectively ran a deficit of Rmb1.5 trn; in 2008, the provincial fiscal shortfall was over Rmb2 trn. So how could central and local governments collectively finance stimulus programs totaling over Rmb24 trn (US$3.5 trn) in the midst of a global recession and still maintain the consolidated government budget deficit at a reasonable level?

Local borrowing, back from the dead

The answer lies in more than 8,000 local-government investment companies (LICs), which finance well over three-quarters of the central and local stimulus projects, mainly by raising loans from state-owned banks. These companies are the reincarnation of the trust and investment companies of the 1990s, which helped local governments raise funds from both domestic and overseas investors. Most trust and investment companies were closed in the late 1990s because of Beijing's concerns over their irresponsible borrowing behavior. But local revenue shortages, and the incentives for local officials to promote investment, saw the rebirth of these firms as LICs, sometimes called *difang rongzi pingtai* or "local financial platforms." Panic in late 2008 over the severity of the export contraction led Beijing formally to endorse a surge in LIC creation and borrowing, notably in a March 2009 notice from the People's Bank of China (PBC), which encouraged local governments "to establish LICs to absorb loans from banks to provide credit support for central investment projects."

Local governments could borrow up to Rmb24 trn by 2012 – much of which they will never be able to repay

The surge of borrowing by LICs since late 2008 has enormous implications for China's economic future. I estimate that LICs had borrowed roughly Rmb11.4 trn, mainly from state banks, by the end of 2009. If banks honor all lines of credit now open to local authorities, LICs may take on an additional Rmb12.7 trn in debt by the end of 2012. Since local authorities' abil-

Victor Shih is associate professor of political science at Northwestern University and the author of *Factions and Finance in China* (Cambridge, 2008).

Mother of all stimuli

Estimate of China's fiscal/monetary stimulus (2008-10)
Figures in Rmb bn except where indicated

	2008	2009	2010
Fiscal deficit			
Business as usual (BAU)	111	100	100
Actual/projected	111	950	789
Net new bank loans			
BAU	4,200	4,250	4,850
Actual/projected	4,930	9,630	7,500
Bond finance			
BAU	708	850	1,000
Actual/projected	882	1,600	1,500
Stimulus			
Fiscal deficit	0	850	689
Net new bank loans	730	5,380	2,650
Bond finance	174	750	500
Total	**904**	**6,980**	**3,839**
Stimulus, % of GDP			
Fiscal deficit	0.0%	2.5%	1.8%
Net new bank loans	2.3%	16.0%	7.1%
Bond finance	0.6%	2.2%	1.3%
Total	**2.9%**	**20.7%**	**10.2%**
		Rmb bn	**% of GDP**
Total stimulus, Nov 2008-Dec 2010		**11,723**	**15.4%**

Source: GaveKal Dragonomics estimates

ity to repay this massive debt largely depends on their ability to sell land, the interests of local governments and real estate developers are increasingly fused. In any case, it is likely that local governments will be unable to pay back much of this debt, leading to a big pile-up of non-performing loans and necessitating another bailout of the banking system down the road.

How big a problem?

Getting a firm handle on the size of LIC debt is difficult, in part because of the sheer proliferation of entities. The oldest local finance corporations are *chengtou gongsi* or urban development and investment companies (UDICs), which have traditionally financed much urban infrastructure and have handled many stimulus projects. But cities, rural counties and even development zones have incorporated a host of other LICs to finance public goods such as highways, railroads, power plants, harbor facilities, rural roads and irrigation systems.

The main purpose of LICs is to circumvent regulations which forbid local governments to borrow. Local governments incorporate LICs by injecting some capital – usually land – and these corporations can then raise bank loans using the land as collateral. More frighteningly, in many cases LICs were shell entities without even land assets; these LICs borrowed on the basis of implicit or explicit local government guarantees. Massive borrowing through LICs thus exposes local governments – and ultimately the central government – to a huge off-balance-sheet debt.

LICs exist to get round rules banning local governments from borrowing

The Chinese media, citing various government sources, have published several estimates of the size of LIC debt. In early 2009, a Ministry of

Definitely, a borrower be

Estimated local-government debt

	Actual (Dec 2009)	Projected (2010-12)	Projected total (Dec 2012)
LIC debt, Rmb trn (end-2009)	11.4	12.8	24.2
GDP, Rmb trn	33.5		47.1
Bank loans outstanding, Rmb trn	40.0		61.7
Consolidated government revenue, Rmb trn	6.8		10.4
Local government revenue, Rmb trn	3.3		5.0
LIC debt as % of:			
GDP	34		51
Bank loans outstanding	29		39
Consolidated government revenue	167		232
Local government revenue	351		488

Assumptions: Nominal GDP growth: 12% p.a. in 2010-12; Bank loan growth: 19% in 2010, 14% p.a. in 2011-12; Government revenue growth: 15% p.a. in 2010-12.
Source: Author calculations

Finance researcher warned that LIC debt totaled over Rmb4 trn. In mid-2009, *Financial News* reported that LICs borrowed some Rmb5 trn in the first half of 2009 alone. Later in the year, a government scholar told the *Economic Daily News* that urban investment companies owed banks some Rmb6 trn. That figure has since become the official line. But in April 2010 an official source told the *21st Century Business Herald* that LIC debt was well over Rmb7.5 trn at the end of 2009.

Most estimates of LIC debt probably underestimate the scale of the problem

Private analysts have also tried to estimate LIC debt. The usual way was to assume LIC debt was a significant share of medium- to long-term bank loans outstanding, which totaled Rmb22 trn at end-2009. Assuming that a quarter of it went to LICs, their debt would total around Rmb5.5 trn. But this is probably a low estimate: medium- and long- term loans grew by an astonishing Rmb6.7 trn in 2009 alone, making up two-thirds of net new loans. Given the heavy reliance on infrastructure construction for growth, it would not be surprising if a disproportionate share of this Rmb6.7 trn went to LICs. Moreover, LICs finance a range of businesses, such as hotels, which absorb a significant number of short-term working capital loans.

Too much debt, not enough revenue

In my own research, I have used a more systematic approach, and this method suggests the true scale of the problem is bigger than most official and private estimates. (For details on the calculation see "How to count to 11 trillion.") Outstanding LIC debt at the end of 2009 was Rmb11.4 trn, or 34% of GDP. Funds committed, but not yet disbursed, under existing credit lines come to another Rmb12.8 trn, or 38% of GDP. If all of those funds are actually drawn down over the next three years, total LIC debt outstanding will rise to more than Rmb24 trn, or around 50% of GDP, in 2012 (assuming nominal GDP growth of 12% a year).

The risk of this occurring is real: thousands of public infrastructure projects were initiated last year, and banks promised to finance these

How to count to 11 trillion

My effort to calculate gross LIC debt began with the compilation of hundreds of bond rating reports and regulatory filings made in 2009. But since less than 5% of the more than 8,000 LICs have issued stocks or bonds that would require such filings, I then used internet search algorithms to uncover more than 700 public announcements of "government-bank cooperative agreements" (*zhengyin hezuo xieyi* or GBCAs).

GBCA notices provide a more comprehensive view of local debt than bond rating reports. First, GBCA announcements offer a sense of how much bank credit is flowing to local government entities – and bank credit is by far the biggest source of LIC finance. And since GBCAs are promises of future provision of credit, they also provide a sense of potential future local debt over a three-year horizon.

A typical GBCA specifies a credit line that a bank grants to a local government via that government's local investment companies (LICs). The LICs can draw on this credit line over a two to four year period. In the first half of 2009, for instance, banks granted the Chongqing municipal government credit lines totaling Rmb600 bn. In some cases, the GBCA announcement contains specific information about which projects or LICs will receive the loans. If the credit line is granted to a specific LICs or to construction of a "basic facility," specific infrastructure project or a "key construction project," the entire amount counts as LIC debt.

About half of GBCA announcements do not specify loan recipients, so additional assumptions are required. I assume that one-third of a credit line granted to a province or a municipality ends up in LICs providing public goods. This is a conservative estimate: in reality, it appears that about half of recent local-government credit lines are used for public infrastructure. But some jurisdictions, such as Zhejiang and Shenzhen, divert a large share of their credit lines to privately owned small and medium enterprises or to industrial firms. Counting only one-third of announced credit lines also takes into account the fact that some credit lines may be reduced, cancelled or not fully drawn down.

Beware the debt triangle

Most credit lines are open for two to four years. I therefore assume that most of the credit lines issued before January 2008 had been tapped by January 2010. This is reasonable, given the spectacular increase in infrastructure investment (and hence demand for credit) in 2009. I further assume that the small number of GBCAs announced before January 2004 were all repaid by the end of 2009. Some of the loans issued to LICs between January 2004 and end-2009 may have been repaid; but most analysts agree that the vast majority of LIC loans are medium- to long-term loans with maturity of at least five years. The potential over-counting of LIC debt issued and repaid in the past five years is balanced by my decision simply to ignore all LIC debt issued earlier than 2004.

In other words, my estimate of *current* LIC debt outstanding at the end of 2009 is the sum of: a) gross LIC bond issuance and b) credit lines received by local governments before January 2008, discounted as described above. *Future debt* of LICs includes all lines of credit announced from January 2008 onward, again discounted as described above.

Even this estimate is not comprehensive. Internet searches may not capture all GBCA announcements, and only a subset of GBCAs is reported in the media. We have almost all recent GBCA announcements between the China Development Bank and provincial governments, and about half of the GBCAs between the major banks and the provinces have been reported. But for smaller joint stock banks, and GBCAs arranged by municipal, county or district governments, reporting is very sporadic. It is not clear how much borrowing we miss, because provincial GBCAs often include onward credit lines to sub-provincial units. Smaller banks often take part in syndicated loans or credit lines to provinces, which are reported.

In richer provinces cities and even municipal districts enter into their own GBCAs. For example, although there is no record of a GBCA between the China Construction Bank (CCB) and Zhejiang Province, internet searches reveal that the CCB granted six municipal governments in Zhejiang credit lines of over Rmb300 bn in 2009. It is possible that other CCB credit lines to Zhejiang municipal governments went unreported.

A final concern, revealed by the small handful of LICs for which we have comprehensive balance sheets, is that a significant chunk of LIC borrowings are IOUs to one another or to their parent governments – so-called "triangular debt." In this analysis I have ignored triangular debt. This can be justifiable because some local state-owned enterprises (SOEs) generate healthy cash flows which are used to subsidize LICs. Cross subsidies between local SOEs and LICs do not increase the net debt of a given locality. But analysts need to be aware of triangular debt because, to the extent that the cash flows of SOEs are already pledged to service old LIC debts, they are not available to service new debts. Thus the net cash flow position of many local governments, and their ability to sustain ever bigger debt loads, may be weaker than appears at first glance.

Paying the piper
Servicing cost of LIC debt

	2009	Scenario A 2012	Scenario B 2012
Annual interest cost, Rmb bn	617	1,307	1,307
Interest cost as % share of:			
Total government revenue	9.0	12.5	14.7
Local government revenue	18.9	26.4	31.0

Assumptions: All open credit lines are fully drawn down, interest rate of 5.4%; Annual government revenue growth of 15% (scenario A) or 9% (scenario B)
Source: Author calculations

projects to completion. Unless the central government implements a harsh macroeconomic retrenchment that stops bank financing for thousands of projects, LIC debt will grow well beyond the current level.

LIC debt is already three-and-a-half times larger than local revenue

The scale of this debt is formidable in comparison to fiscal resources. In 2009, total revenue of all levels of government was Rmb6.8 trn, only about 60% of the total LIC debt. If all future LIC credit lines are drawn down, LIC debt by the end of 2012 could be more than double, or even triple total fiscal revenue in that year, under reasonable assumptions. The comparison with *local* government revenue – the main cash flow for repayment of LIC debt – is even more alarming. Current LIC debt outstanding is at least 3.5 times current local revenue, and the debt-revenue ratio could rise to over six times by 2012. Moreover, only a small percentage of local revenue is actually available for debt service: all provincial governments have run deficits since the late 1990s, and local authorities devote most of their revenue to paying the wages of local civil servants and demobilized soldiers.

Even if localities defer paying back the principal, interest costs could soon become a crushing burden. Assuming banks charge LICs an interest rate of 5.4%, approximately the benchmark one-year loan rate, the current servicing cost of LIC loans is 19% of local revenue and 9% of total government revenue. If all credit lines are drawn, the servicing cost rises to Rmb1.3 trn by 2012, at which point it will consume between a quarter and a third of local government revenue. At that point, many provincial governments, especially in inland areas, will run into liquidity problems requiring intervention from Beijing.

If property markets crash and land prices fall, local authorities will not be able to service their loans

Until now, local governments have relied on revenues from land sales to finance interest payments, which worked fine as long as land prices kept going up. But because interest costs are rising fast, local governments will need to generate at least as much land revenue as they did in the record year of 2009 (Rmb1.5 trn) for the next decade to keep up. And if the real estate market tanks and land prices stagnate or fall, local authorities would be unable to service their loans.

Tighten policy, reform the fiscal system

If bank lending to LICs continues on its current trajectory, local debt will become an enormous problem by 2012. The most effective method for forestalling a local debt crisis is a determined macroeconomic tightening.

Prohibiting banks from funding projects that are less than 25% complete would drastically slow the accumulation of local debt and probably lead to a relatively modest and manageable build-up of non-performing loans (NPLs) on bank balance sheets.

Confining ourselves to the current LIC debt outstanding, if we assume that half of this debt is not problematic, one-quarter will generate NPLs at a 30% rate and the last quarter NPLs at a 50% rate, the overall NPL rate on LIC debt would be 20% and total NPLs would be Rmb2.3 trn or about 7% of 2009 GDP. This amount can probably be absorbed through a combination of write-offs by the banks and assumption of the liabilities directly by the central government, which could finance that liability through issuance of long-term bonds. Given that the central government's

At the bad-debt coal face

For a sense of how local government borrowing works on the ground, we recently took a trip to Shizhu, an agricultural county in Chongqing municipality. Lying about 280km east of Chongqing's urban center, Shizhu is famous for producing a herb used in traditional Chinese medicine to cure diarrhea. In 2008, total county revenues were Rmb1.24 bn, of which Rmb869m, or 70%, were subsidies from the central government. Locally generated tax revenue was just Rmb200m, and the county generated another Rmb143m from land sales and other one-off sources. The subsidy revenue was all earmarked for specific programs, and most of the locally-generated revenue went to pay administrative overheads. In total, only about Rmb90m was uncommitted income the county could apply to new services or programs.

Like many rural counties, Shizhu is a big borrower. In addition to Rmb219m in direct loans (mainly from the World Bank and other policy lenders), it has borrowed Rmb650m indirectly through two local government investment corporations (LICs), which held bank loans at a 6% interest rate. With total liabilities of Rmb870m, about two and a half times locally generated revenue, and nearly ten times its minuscule uncommitted revenue, Shizhu clearly has no way to pay back its debt principal. But its uncommitted revenue is enough to cover its annual interest payments of around Rmb50m.

In mid-2008, Chongqing party secretary Bo Xilai persuaded the Export and Import Bank to lend Rmb5 bn to Chongqing to help the municipality absorb export processing industries moving inland from the coast. The funds were divided among 16 poor counties, each of which would get about Rmb300m. Shizhu's share was given to one of its LICs. Although the cash was ostensibly for development of export-processing industries, the Shizhu LIC is using it mainly for primary land development for Shizhu's second industrial zone. It did not get the full Rmb300m at one go, but receives funds in dribs and drabs based on the project's demonstrated progress.

But the Shizhu LIC is not really the borrower; it is merely the entity spending the money. The true chain of transmission is more complicated. Exim Bank signed a loan contract with a Chongqing municipality LIC, which then sent the funds down to county-level development companies, including the Shizhu LIC. But since the Shizhu LIC has no cash flow, responsibility for servicing the loan lies with the Shizhu country government. And since Exim Bank knew that the Shizhu government cannot repay the loan principal, it got two guarantees to cover principal repayment, one from its own captive guarantee company, and another from a state-owned guarantee company in Chongqing. These guarantee companies in turn demanded comfort letters from the Shizhu county government, people's congress and finance bureau promising that county revenues would be used to repay the loan.

Just what will result from this complicated transaction is not clear. LIC transactions of this type – backed solely by local guarantees, rather than real collateral – were banned in early 2010, but the Shizhu LIC says its industrial zone will be ready by early 2011. When we visited, a couple of bulldozers were hard at work leveling the ground. Nearby, two six-story residential buildings were half-complete; these will house villagers whose old homes were destroyed to make way for the zone. When asked how many companies will invest in the zone, the project manager looked annoyed and said he had received three expressions of interest. It will certainly be some time before Shizhu rivals Shenzhen as an export zone.

– GaveKal Dragonomics staff

explicit debt is less than 20% of GDP, a resolution of bad LIC debts half financed by central government bond issuance would leave China with a modest debt-to-GDP ratio by international standards. But if the current momentum of local debt expansion is not stopped, the problem will grow much faster than the economy or fiscal resources, making it much more difficult to resolve in 2012.

A tax on property values would be a major first step to restoring local governments to solvency

In the long run, off balance-sheet financing must be put back on the balance sheet. This is not possible now because local governments run chronic deficits. Therefore comprehensive fiscal reform must aim to restore local governments to solvency. The first step would be to institute a tax on property values, which would mainly accrue to local governments. This would reduce the reliance of localities on land sales and give them a stable and rising source of income to cover current expenses. Once this is in place, cities could be allowed to issue municipal bonds with floating rates above central-government bond rates to finance long-term expenditures.

So far, however, the government has opted for neither bold macroeconomic retrenchment nor fiscal reform, but has contented itself with mild constraints on bank lending to LICs. Seeing a lack of resolve from Beijing, several provincial governments have announced new fantastical investment drives this year, as officials are anxious to complete prestige projects in time to secure their promotion prospects at the 18^{th} Communist Party Congress in the autumn of 2012. Hubei and Chongqing alone want to invest Rmb7 trn by the end of 2012.

Beijing has taken steps to slow down lending to LICs, but stronger measures are needed to shrink the debt mountain

In fairness, Beijing has prohibited the use of local-government guarantees for LIC loans, and the China Banking Regulatory Commission and National Audit Office are conducting a systematic audit of LIC lending. Credit lines shown by the audit to be insufficiently collateralized will be cancelled unless sufficient collateral can be posted by September 30. Although this is a worthy effort, the risk is that in the months before the September deadline localities and banks will find new ways to paper over problem loans – enabling local governments to continue their projects and banks to avoid embarrassing write-downs. Until the central government takes a clear stand and follows it up with strong measures, the local debt mountain will continue to grow.