

**Testimony before the US-China Economic and Security Review Commission
China's banking system and access to credit**

March 7, 2013

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It is a pleasure to provide testimony to the Commission on China's banking system. My comments seek to address the following kinds of questions. What role do China's banks, particularly its five largest state banks, play in the nation's economic development? What is the basis for their lending practices and to whom do they lend? How are interest rates determined? What is the quality of bank assets and just how stable are China's financial institutions? Finally, I will briefly touch on the role of rural credit cooperatives.

The role of banks in China's financial system

In China, capital begins and ends with the Big 4 banks¹ and Bank of Communications (the "Big 4+"). The banking system has thousands of entities if the 12 second-tier banks, the urban and rural banks, Postal Savings Bank, and rural credit cooperatives, are included. But the heart of the system includes just four. In 2011 state-controlled banks held \$16 trillion in financial assets or 75 percent of China's total financial assets with the Big 4+ banks alone accounting for almost 60 percent (see Table1).

Table 1: Relative holdings of financial assets in China, FY2011 (RMB trillion)

<i>RMB trillion</i>	2007	2008	2009	2010	2011	2011 US\$ Trn
PBOC	16.91	20.70	22.75	25.93	28.10	4.10
Banks	52.60	62.39	79.51	95.30	1,13.29	16.54
Securities companies*	4.98	1.19	2.03	1.97	1.57	.23
Insurance companies	2.90	3.34	4.06	5.05	6.01	.88
	77.39	87.62	108.35	128.25	148.97	21.75

Note: *includes brokerages and fund management companies.

Source: PBOC *Financial Stability Report*, various.

In terms of incremental capital raising, in spite of all the fanfare, it is obvious the stock markets in Hong Kong, Shenzhen, and Shanghai are an afterthought. For example, 2007 was a record year for Chinese equity financing: more than \$123 billion was raised in all markets both domestic and overseas. In the same year, however, banks extended new loans totaling \$530 billion, while total debt issues in the bond market accounted for another \$581 billion. Over the past decade, equity as

¹ The Big 4 are China Construction Bank, Bank of China, Industrial and Commercial Bank of China and Agricultural Bank of China.

a percentage of total capital raised has been measured in the single digits as compared with loans and bonds. Who underwrites and holds all that fixed-income debt? Banks hold over 70 percent of all bonds, including those issued by the MOF (see Figure 1). Taking this a bit further, in the stock markets as well, the huge deposits placed by institutional investors seeking share allocations in the primary market are also funded by loans from banks.

China's heroic savers underwrite this risk; they are the only significant source of capital inside the system of the Communist Party-controlled domestic economy. This is the weakest point in China's economic and political arrangement, and the country's leaders understand this. This is why over the past 30 years of economic experimentation they have done everything possible to protect the banks from serious competition and from even the whiff of failure. As for foreign bank participation, in spite of the WTO, they consistently constitute less than two percent of total domestic financial assets: foreign banks are simply not important providers of capital in China. Nor does China, its banks or corporations issue foreign currency denominated debt overseas. China's foreign debt is miniscule, limited almost entirely to short term trade-related borrowings.

Beyond the pressures of competition and overseas debt holders, the Party treats its banks as basic utilities that provide unlimited capital to the cherished state-owned enterprises. With all of banking under the Party's control, risk is thought to be manageable. In China, the banks are everything.

The banks and the fiscal system

The banking system cannot be analyzed independently of China's fiscal system. In theory, a transition from a centrally planned to a market economy requires a fundamental change in the role of the government in economic management, in particular as it affects investment. As is well known, investment in infrastructure and fixed assets has been the major force driving China's economic growth to near double-digit levels over the past 20 years (see Table 2). In the past three years investment's contribution to GDP growth has exceeded 50 percent, a level unseen in the history of economic development. It is no wonder that high-speed rails now

Table 2: Drivers of GDP Growth, 2000 - June 30, 2011

	2000	2007	2008	2009	2010	1H 2011
Investment	35%	38%	38%	92%	55%	53%
Consumption	62	39	47	53	37	48
Net Exports	2	24	16	-45	8	-1
Nominal GDP Growth	8.4	14.2	9.6	9.2	10.3	9.6

Source: Wind Information

crisscross a China that is also dotted with entirely new cities, airports and endless real estate projects. China's banks have provided the loans and underwritten the bonds that financed these investments. Such lending was directed and approved by the central government based on projects submitted by local governments. To this extent China's banks should be seen as a part of the fiscal system; in fact, they have never been transformed into truly commercial institutions.

At its start the People's Republic adopted a Soviet-style planned economy. This presupposed a financial system in which banks played a very minor role as deposit taking institutions, while the national budget provided investment funds to state enterprises as grants. After 1979 this arrangement gradually changed as a weakened fiscal capacity pushed capital investment out of the budget (see Figure 2). Local governments and state enterprises were then compelled to take responsibility for investment and funds came from the banks in an arrangement that still had a strong aspect of state planning. This continued in place until the Asia Financial Crisis in 1997. The collapse of China's second largest non-bank that year brought home to the government the need to strengthen its financial institutions.

The government acted with a sense of urgency. Within a decade the Big 4+ banks had been stripped of problem assets, adopted international accounting standards, incorporated as companies limited by shares and been recapitalized using foreign strategic investors and public listings in Hong Kong. From an institutional viewpoint, the banks were no longer under the leadership of the Ministry of Finance, having been placed under the central bank during the course of their restructuring. It seemed as if the banks were indeed emerging from their dominance by the fiscal system with the explicit objective of becoming far more commercial in their operations.

This effort, however, hardly outlasted the changeover in political leadership in 2003. By 2007 the banks had been changed over to the management of the Ministry of Finance. In 2008 the global financial crisis and the collapse of China's exports compelled the government to use the banks as the channels for a massive economic stimulus. The floodgates opened and China nearly drowned in liquidity. By 2010 total outstanding bank loans alone were 131 percent of GDP and by some measures new credit in 2010 reached 40 percent of GDP. It is not surprising that M2 climbed to 2.5 times the size of the country's GDP. In short, China's big banks may appear to be commercial entities, but in reality they, and the Big 4+ state banks in particular, remain simply an arm of the Ministry of Finance and the national budget.

To whom do the banks lend money?

China's banks lend overwhelmingly to the state sector. Data provided by the central bank illustrate this fact: over the decade encompassing the bank reforms mentioned previously, loans to the private sector including foreign-invested companies never exceeded 10 percent of total outstanding loans and, in fact, declined from 8 percent in 1996 to 4.2 percent in 2005 when the data series ends. A close review of bond

market issuers in 2012 shows a similar picture. Of the total value amount raised in the bond markets in 2012, non-state issuers accounted for only 3.7 percent.

Why have the banks focused on the state sector when it is clear both to the government and the banks that the non-state sector² is a vital part of the economy? For example, in FY2010 the private sector provided 80 percent of new job opportunities, accounting for 75 percent of urban employment. That same year total employment in China was 150 million with the private sector accounting for 110 million or 73 percent. The small and medium-size enterprises constituting this sector contributed 60 percent of China's GDP, but obtaining finance is typically their biggest challenge. Why don't China's banks lend to this incredibly important sector?

There are two parts to an answer. The first is that the banks try to lend, but have an extremely difficult time. One reason is that the majority of these companies are extremely small scale. For the larger private companies Chinese banks typically lend against collateral or a guarantee. In the case of collateral, even if it is available, banks will discount its value to offset risk and, in the end, any company has only a limited amount. Such asset-backed lending limits an enterprise's ability to grow. As for guarantees, perhaps not so amazingly there were some 6,000 guarantee companies in China in 2011. Local governments back a few of these companies and banks treat their guarantees as of value. The rest are privately established, thinly capitalized and unprofessionally managed. In short, banks have a difficult time lending to this sector. Such loans as are made are inevitably constitute only a small percentage of overall bank lending.

The second part of the answer is a corollary of the first: lending to the state sector is easy. The basis of the lending decision is straightforward: the banks are state-owned, the state enterprises are also state-owned: where is the risk? As for the now famous local government borrowing platforms, these are simply government bodies in the guise of corporations and often carry an implicit government guarantee. Bankers will never be criticized for such lending. In addition, the 116 large centrally-owned state groups can borrow in bulk due to their huge, national operations.

When the 2008 financial crisis broke out and the central government launched its massive economic stimulus, local governments were asked to provide for approval all outstanding projects that required funding. Based on such central government approvals the banks simply provided the funds. As for the larger state enterprises, the banks had no problem making loans; the enterprises, in effect, became a part of the fiscal mechanism to stimulate the economy. The ease of lending huge amounts without concern for risk helps explain why a planned US\$750 billion equivalent stimulus package turned out to be more than twice as much (see Figure 3).

² The non-state or private sector here refers to small and medium sized enterprises not directly owned by the state. It excludes foreign-invested enterprises and joint ventures.

How are interest rates determined?

China's interest rates are not set by the market, they are set by the central bank based, in turn, by the approval of the State Council and ultimately the Party's Leading Group on Finance and Banking. The People's Bank provides a schedule of mandated minimum interest rates for borrowers with maturities out to five years. Banks have the discretion to lend to their best customers at 90 percent of the respective rate; there is no limit to how high banks can set borrowing rates. The one-year lending rate is the most influential lending rate and it is paired with the one-year deposit rate. The central bank sets the two rates so that there is a 300 basis point (or three percent) spread between them (see Figure 4). This, in effect, guarantees that banks will make a profit on their lending business.

The one-year rate is also a critical reference point for China's huge primary bond market. As of FY2012, China issued new bonds with a value of US\$902 billion and had the equivalent of US\$3.7 trillion in bonds outstanding. As in international markets, corporate and bank bonds in China are priced at a spread to the underlying MOF yield curve. For example, the minimum 15-year AAA-to-MOF spread is circled on Figure 5.³ The trouble in China, however, is that the MOF yield curve is largely disregarded in favor of the central bank's loan rates. It is disregarded because the yield curve does not truly exist, as is explained further on. When a bank underwrites a bond, therefore, it will compare its potential return with that of a loan of a similar maturity to a similar borrower. The issuing company will, of course, consider the same thing. To the extent that this comparison to loan rates influences the underwriting decision, bond

Table 3: Yields on loans, investment and restructuring bonds, 2008-2009

	2008			2009		
	Loans	Bonds	Bonds from restructuring	Loans	Bonds	Bonds from restructuring
CCB	7.16	3.64*	2.01	5.35	3.11*	2.13
BOC	6.12	3.63*	2.10	4.44	2.73*	2.25
ICBC	7.07	3.88	2.23	5.21	3.38	2.19

Source: Bank FY2008 financial statements

Note: * CCB and BOC bond rates are calculated on portfolios that include the restructuring securities, hence returns are pulled down; ICBC rates have been separately calculated. Restructuring securities were issued by the asset management companies to each bank to finance the purchase of bad loan portfolios from the banks when each bank was recapitalized.

pricing does not reliably reference the MOF yield curve. In actual practice, the MOF curve is frequently disregarded and corporate and financial bonds are priced lower than the curve would indicate (see Table 3). This results in loans and bonds of similar terms to

³ The Ministry of Finance is rated by China's five rating agencies as an AAAA.

the same borrower being priced very differently: bonds are a public instrument compared to loans – the market and anyone interested can see the cost of borrowing by bonds - and issuers compete for the best pricing. Banks, on the other hand, are motivated by added compensation from the issuer from other supplemental businesses. All involved know full well that, as mentioned, the MOF yield curve is a fiction and, as one Chinese banker put it, “Bond underwriting is policy business.”

It is precisely because corporate and other bonds are set lower than equivalent loan pricing that there is effectively no secondary trading market in China despite the massive primary market. And because there is no trading, there can be no real yield curve. For example, on January 4, 2010, the entire bond market saw only 615 trades (see Table 4), among which government bonds traded the least of all, representing only 3.3 percent of the total value traded. In contrast to the US\$25 billion equivalent in bond value traded that day in China, the average daily trading volume in the US debt markets is around US\$565 billion, a figure itself far in excess of the average total daily *global* equity trading of US\$420 billion. With such trading volume across all maturities a market-defined yield curve easily emerges from the pattern of trading.

Table 4: Interbank bond trading summary, January 4, 2010

	Value Traded (RMB mm)	No. of Trades	% Value Traded
MTNs	31,050	149	18.3
Enterprise bonds	10,909	97	6.4
Government bonds	5,570	32	3.3
PBOC notes	31,550	74	18.6
CP	15,220	144	9.0
Financial bonds	75,390	119	44.4
Total	169,689	615	100%

Source: Wind Information

The catatonic nature of the bond markets is of great significance to the banks since they are the ultimate holders of some 70 percent of all bonds outstanding. As Figure 6 shows, bond portfolios account for 25-30 percent of the total assets of the Big 4 banks. These bonds are overwhelmingly held in investment accounts so there is no need to mark them to market. Given the discrepancy between bond portfolio values and secondary market values as suggested by loan pricing, any liberalization of interest rates would inevitably have a major impact on bond portfolio valuation and, consequently, on bank profitability and capitalization.

Bank asset quality

Based on the audited financial statements provided by international auditing companies to the overseas regulators and minority shareholders of the Big 4 banks the quality of their loan portfolios is outstanding. Non-performing loan ratios are less than one percent (see Figure 7). One might ask how this can be when bank

lending over the years 2009-2012 approached 30 percent of GDP each year. Bankers everywhere routinely make mistakes, but the performance of China's largest banks during this period indicates either that no mistakes were made or that, somehow, the mistakes have been hidden because without a doubt there are non-performing assets out there in China's financial system.

What might be the size of the bad debt problem? Any answer to this question must be speculative, but here are two simple ways to think about it. In the 1999-2005 period the Big 4+ banks were restructured and ultimately listed on the Hong Kong Stock Exchange. Approximately RMB3 trillion (US\$400 billion) in bad loans were removed from bank balance sheets during this process. These bad loans constituted about 25 percent of total loans, which themselves equaled 75 percent of GDP. Using the same logic, assume that just 12 percent of total loans as of 2011 have gone bad. This would equal approximately RMB7 trillion (US\$1.1 trillion) on total loans of RMB60 trillion, at FY2011 138 percent of GDP. A second way would be simply to say 25 percent of RMB60 trillion, or RMB15 trillion (US\$2.3 trillion). The actual number, which no one anywhere can know with any certainty, may lie somewhere between the two.

This is just the calculation of problem loans; there are also the bond portfolios to consider; a decade ago there were only government bonds. At year-end 2011, banks held a total bond portfolio of RMB14.6 trillion of which RMB4.2 trillion were corporate loans. If 12 percent were to go bad the figure would add another RMB500 billion to the bad loan portfolio figure above. With total bank capital equal to RMB2.9 trillion, these are huge numbers and would indicate the need at some point in the future for a massive round of bank capitalization.

If the amount is so large and bank auditors aren't catching it, then where has it gone? China's experience with bank restructuring a decade ago and the apparent growth of its debt capital markets, including certain kinds of asset-backed securities, have provided the channels by which problem loans are either removed from bank balance sheets or transformed into contingent liabilities.

First, the four asset management companies that relieved the banks of their bad loans portfolios a decade ago are back in business. At the start of 2012 there was noise that these entities would be incorporated and listed and the most successful of the four, Cinda, has indeed incorporated and even accepted two foreign "strategic" investors. All have hired international audit firms to go over their books and Cinda had even made public its accounts for 2010. These show a doubling of assets from US\$8 billion to US\$17 billion in a portfolio of "marketable securities" that includes both bonds and wealth management products. Unfortunately, but not surprisingly, accounts since 2010 have not been provided and the IPOs of these four companies have been delayed. With funding provided by the central bank and the banks themselves, these companies will play a major role once again.

Second, the bank/trust company nexus has grown rapidly since 2007. At that time

banks were under pressure to control loan growth and used trust companies to securitize loan portfolios for sale to wealthy Chinese bank retail clients; the loans disappeared off-balance sheet. After the green light went on for stimulus lending in late 2008, banks had similar problems: with loans expanding so rapidly, how could they stay within the regulatory liquidity ratio (the loans to deposits ratio is 0.75 for all except the Big 4+ where it is 0.60). Even more loans were moved off bank balance sheets as loan and trade bills were securitized and sold to investors. One result was that bank depositors rapidly got used to rates of return better than the PBOC mandated deposit rates. Banks suddenly found themselves in competition to provide higher yield products to keep an increasingly fickle depositor base. According to Fitch, as of FY2012 these “wealth management products” now equal 13 percent of total Big 4+ bank deposits and a similar amount of bank loans. Problems with these securities are beginning to emerge as this off-balance sheet business is illiquid and depends on on-balance sheet resources in the event of problem. The size of this business increasingly calls the integrity of bank assets into question.

Third, local governments have actively accessed the bond market to restructure loans and extend maturities of their obligations. At FY2010 outstanding bank loans and bonds to such borrowers totaled RMB9.2 trillion according to the government auditing agency; of this over 40 percent was to have been repaid by FY2012. Recently, however, a senior bank regulator noted that actual outstandings as of FY2012 was RMB9.1 trillion. The only explanation is that these loans and bonds were refinanced (see Figure 8). Maturities were also extended; bank loan portfolios are opaque, but China’s bond markets are not and this data supports the conclusion.

In 2012 corporate bond issuance increased nearly three times over 2011, while bank loans declined slightly to their lowest level in years. Local corporates, including the notorious local government borrowing platforms, accounted for nearly 25 percent or RMB1.5 trillion of total corporate bond issuance in 2012. Of these new issues 95 percent had maturities over five years. It seems reasonable to suggest that at least a portion of these bonds were used to refinance bank loans; others were used to restructure existing debt securities. From the bank point of view this simply represents a transfer from the loan to its investment security portfolio and kicking the problem down the road.

Fourth, the role of China Development Bank (CDB) in restructuring local government debt cannot go unmentioned. CDB is funded approximately 80 percent by the bond markets, ultimately the Big 4 banks are its principal investors, and 20 percent by loans from the central bank. In terms of annual bond issuance, in some years CDB has rivaled and even surpassed the Ministry of Finance. According to its mission statement, this policy bank invests in infrastructure projects across the country. But in the last two years it has begun to work with local governments to restructure short-term commercial bank borrowings into its own long-term loans. Basically, CDB is buying up the local government loans made by the commercial banks. To what degree this has happened is unknown – CDB does not publish detailed financial statements. Nonetheless this is another example of how bank loan

portfolios are being transformed into bank investment security portfolios.

For the banks all of this represents a huge challenge in managing its funding activities. While its loan and bond portfolios are increasingly long term, they are being funded by short term deposits a good portion of which are being taken off balance sheet by the new wealth management products. If this trend continues, bank balance sheets will become increasingly illiquid. This will make it increasingly difficult for China's economic growth to be driven by bank lending into investment projects; without such lending growth might drop significantly.

Stepping back a bit, this refinancing activity also shows how loans and other debt obligations of local governments are being assumed by central government agencies. The scope of China's fiscal debt, in other words, is expanding beyond the simple definition of bonds issued by the Ministry of Finance. Through its capitalization of the asset management companies, special purpose vehicles holding the problem loans of two of the Big 4 banks, its outright ownership of the Big 4 banks themselves and the activity of the China Development Bank, the ongoing clean up of the 2009-2012 binge lending is dramatically increasing central government fiscal burdens to levels rapidly approaching those of the developed world (see Figure 10). Put another way, China's growth miracle has been build on debt.

How stable are China's financial institutions?

If the question relates only to China's banks, then the answer is that taken alone the government has the resources and the will to make the banks stable. Since the banking system is the very core of the financial system, which itself is the foundation of Party rule, there is no question but that the Party will do everything it can to ensure both perceived and actual financial soundness. History has shown that the Party has used all necessary means to strengthen the banking system when crises have broken out. The most recent example occurred when the Asia Financial Crisis broke out in 1997. The Party immediately brought bank capital up to international required levels and embarked on a path that further strengthened bank capital by using its, at the time, scarce foreign exchange reserves.

With the massive reserves of today and the experience of the first round of restructuring, there is no question that the banks can be maintained as stable institutions *as they now operate*. But as the wealth management products illustrate, liberalization of the framework now bounding the financial system will potentially be very destabilizing and, at a minimum, will require a second restructuring of bank balance sheets and a large recapitalization. This points to the bigger question: the impact that massive levels of debt will have on government capacity and, ultimately, the country's economic growth.

The role of rural credit cooperatives in China's financial system

Rural credit cooperatives have proven to be a headache over the past 30 years of China's development. Their mission is to help finance farmers, but because they hold significant amounts of deposits they have always been a rich source of capital for cash-strapped local governments. Efforts are ongoing to transform these entities into larger and better-managed rural commercial banks just as was done a decade ago with urban credit co-ops. The process has not been fast given the interests involved.

The central bank provides financial data on a consolidated basis for each broad type of financial institution. As of FY2010, the most recent data, rural credit co-ops held around 12 percent of total national household deposits (see Figure 11); the same data shows that rural commercial banks are still very few and very small. On the asset side, these deposits are used to help fund the interbank market (about 8 percent), invest in corporate bonds (about 6 percent) and "other" (about 19 percent of the national "other" category; see Figure 12). In Chinese "Other" translates directly as "Other Resident Departments," which apparently refers to local government entities.

During the period of 1997-2002, the first effort at a real financial clean-up, the cost to the central bank, in effect China's deposit insurance agency, of making good on the household deposits of failed institutions including rural credit co-ops was RMB141 billion. There can be no question but that the central bank would make good on the deposits of farmers in the event of the collapse of a rural credit co-operative.