Sharing China's Bank Restructuring Bill

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Abstract

This paper addresses the questions related to the cost of China's bank restructuring and how it has been financed. We first propose a framework for recognizing losses. Then, we examine the recent major moves by the Chinese Government to repair the country's bank balance sheets. Finally, we explore the implications of the Chinese Government's methods of funding bank restructuring. We find that the Chinese Government has been decisive in confronting the costly task of bank restructuring. So far, Chinese taxpayers have paid most of the bill for bank restructuring.

Key words: China, bank restructuring, non-performing loans, recapitalization
JEL codes: G21, G28, O53, P34

I. Introduction

Bank restructuring, including resolution of non-performing loans (NPL) and the associated recapitalization of banks, is often costly, but is crucial for the stability and efficient functioning of banking systems.[1] Although effectively stemming the flow of new NPL is necessary for sustained improvement in the banking system, the importance of dealing with the stock of legacy NPL still on the books of banks or within the system should not be understated: it might reveal the political willingness of authorities to confront serious problems in the banking sector. Moveover, NPL resolution is often inextricably linked with bank recapitalization and is a major component of the broader financial safety net. Therefore, the questions of how bank restructuring should be financed and how the

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[1] See, among others, Sheng (1996), Dziobek and Pazarbasioglu (1997) and Hawkins and Turner (1999).

associated potential loss should be allocated among parties involved must not be swept under the carpet.

The bill for bank restructuring in China might eventually approach 30 percent of GDP. Costs of this magnitude should not be surprising, given that NPL are believed to have accounted for as much as 40–50 percent of outstanding loans at their peak in the late 1990s (Lardy, 1998; BIS, 1999). Since the late 1990s, the Chinese Government has taken several major steps to recapitalize its banks and to reduce NPL. First and foremost, it has focused on repairing banks' balance sheets, but has also recognized the importance of strengthening corporate governance, fostering a credit culture and liberalizing markets. The question of how bank restructuring efforts on this scale will be funded is obviously of great interest.

This paper aims to shed light on the potential cost of bank restructuring in China, how it will be funded and who will foot the bill. There has been little research so far to understand these issues. This paper attempts to fill this gap and is organized as follows. Section II lays out a framework to suggest that there are three possible groups of players to foot the bill of bank restructuring: bank shareholders, bank customers and taxpayers. Section III reviews some of the recent measures taken by the Chinese Government to repair bank balance sheets, including how they were funded and the probable amounts involved. In Section IV, we discuss some of the short-term and long-term implications of how Chinese authorities have apportioned losses among the parties involved. Section V concludes the paper.

We arrive at three main conclusions in this paper. First, since the late 1990s the Chinese Government has made determined efforts to face up to the costly and politically difficult challenges of cleaning up bank balance sheets, which, in our view, has enhanced the credibility of the overall economic restructuring process in China.

Second, the funding arrangements for China's bank restructuring have been quite elaborate. Taxpayers, shareholders and bank customers have all paid for the restructuring bill, with the Ministry of Finance (MOF) and the People's Bank of China (PBC) splitting some 85 percent of the cost between them. Foreign banks and other foreign investors have also helped foot the bill, and in so doing have become an emerging force in the Chinese banking sector.

Finally, the ways in which the restructuring task has been funded and losses apportioned have implications for the long-term prospects for China's banking sector. We believe that, as the restructuring process deepens, a more transparent and rule-based framework for assigning financing responsibilities will be necessary to contain moral hazard, to improve corporate governance, to strengthen central bank credibility and to further develop bond markets.

II. Footing the Bank Restructuring Bill

How will the expected large financial losses in the Chinese banking system ultimately be recognized and paid for? Experiences from elsewhere in the world suggest that, in general, three possible groups of players end up paying the bill for bank restructuring: existing and new bank shareholders, bank customers and taxpayers.

It is useful to distinguish between existing and new bank shareholders. Existing shareholders' capital should be extinguished first to cover losses. In China, the largest banks are state-owned, so that the government might end up absorbing a portion of the losses. Sometimes, investors or new shareholders are willing to pay for a portion of restructuring costs because of a troubled bank's franchise value by investing a price above the undercapitalized bank's net asset value.

Bank customers, meaning borrowers and depositors, also share bank costs through a relatively wide net interest margin, above competitively determined market levels. Therefore, they contribute to bank operating profits that over time help rebuild bank balance sheets. This is a flow approach to recapitalizing troubled banks and often requires regulatory forbearance and tax incentives.

The government and, ultimately, the taxpayer contribute their share when public funds are injected into the banking sector. Three arguments put forward to support the use of public funds to bail out troubled banks are as follows. First, if the troubled banks are state owned, the government has an obligation to repair their balance sheets or, at least, to fund their exit from the market. Second, if bank losses are substantially related to past policy lending, the government is directly implicated and needs to take the responsibility for cleaning up the banking sector (Zhou, 2004). Finally, with or without a deposit insurance scheme, imposing big losses on a large number of small depositors can lead to even more costly systemic risks and even to political crises. Bank deposits represent some 80 percent of Chinese households' financial wealth. On all three grounds, the Chinese Government might find it both necessary and desirable to use taxpayers' money to fund bank restructuring.

Injecting public funds can take a number of forms: (i) direct budget outlays funded by government debt as well as bank operating earnings and tax credits; (ii) debt issued by public agencies with full state backing (contingent liabilities); and (iii) financing by quasi-public agencies without explicit government guarantee. A policy question therefore arises as to how the costs of financial restructuring should be apportioned. The major challenge here is in striking the delicate balance between (i) safeguarding systemic financial stability;

(ii) expediting the much-needed restructuring process; and (iii) preventing or containing future moral hazard (Hawkins and Turner, 1999; White, 2004). In our view, a well-defined institutional framework for the cost-sharing process tends to work best for strengthening the banking system over the longer term (Crockett, 1998).

There are several alternative approaches to gauging the potential costs of restructuring bank balance sheets. A broad approach is to include resources needed to restore the balance sheets to a reasonably healthy state. A narrow measure would be to estimate only the realized losses. In between, there are various ways of defining the costs of bank restructuring. In this paper, we define the bank restructuring bill as the costs required to clean up the bank balance sheets, whether the involved resources have been recovered or not. It includes, but is not limited to, realized losses.

III. Recent Bank Restructuring Steps in China

In practice, how the costs associated with China's financial restructuring are to be apportioned among bank shareholders, customers and taxpayers depends in part on the country's institutional realities, and the underlying condition of its financial system. Since the late 1990s, the Chinese Government has taken a number of significant measures to repair bank balance sheets, with a cumulative headline restructuring cost possibly as high as 22 percent of the newly revised 2005 GDP.[2] Its restructuring efforts were initially concentrated on the big four banks, which account for more than half of China's banking

Table 1. The Big Four Chinese Banks

	2002 (%)	2003 (%)	2004 (%)	2005 (%)
Asset share in the Chinese banking system	60.1	58	53.6	52.5
Average NPL ratio	26.2	20.4	15.6	10.5

Sources: China Banking Regulatory Commission (*http://www.cbrc.gov.cn/mod_cn00/jsp/cn002013. jsp? itemid =9&type=1*); Moody's Investors Service (2005a,b).

Notes: end of period. The big four banks are China Construction Bank, Bank of China, Industrial and Commercial Bank of China and Agricultural Bank of China.

[2] The latest census indicates that the size of the Chinese economy might have been underestimated by some 17 percent in 2004 GDP figures. This paper uses only the census-based 2005 GDP throughout.

sector (see Table 1), but now extend to the rest of the sector and even the securities firms industry. This section summarizes the principle measures taken by Chinese authorities since 1998 to strengthen bank balance sheets.

1. Issuance of RMB 270bn in Special Government Bonds in 1998

In August 1998, the Chinese Government issued bonds to recapitalize the big four banks. The PBC first lowered the statutory reserve requirement ratio for the banking sector as a whole from 13 to 9 percent. The MOF then issued RMB 270bn (US$33bn)[3] in special government bonds. The big four state-owned banks used the liquidity freed up by the lowering of the reserve ratio to purchase the bonds. The government then injected all the bond proceeds as equity into the big four banks (Mo, 1999), with the consequence that the capital base of the big four banks more than doubled. As the initial sole owner of the big four banks, the MoF therefore met the capital call from these banks and explicitly burdened future taxpayers to fund a capital injection.

2. The First Round of Non-performing Loan Transfers Totaling RMB 1.4tn in 1999

In 1999, the Chinese Government carved out RMB 1.4tn (US$173bn, or 20 percent of the total loan balance at that time) in NPL from the big four banks at par value and transferred them over to four state-owned asset management companies (AMCs). In return, the AMCs issued bonds to the four banks and assumed some of their liabilities to the PBC. Effectively, this batch of NPL acquisition was financed 55 percent by AMC bonds and 45 percent by PBC credit. This move was a double act of NPL removal and bank recapitalization (Ma and Fung, 2002).

However, because of the "constructive ambiguity" of the MoF towards its backing of these bonds, the value of the bonds issued by the AMCs was initially called into question. Indeed, there might still be the risk that the big four banks have swapped their own NPL for AMC bonds with uncertain prospects of timely debt service. Disclosure is such that it is not clear if the AMCs have made regular interest payments to the big four banks on their bonds, or to the PBC on the liabilities assumed by the purchasing AMCs. So far, the four AMCs have resolved approximately half of the acquired NPL, with a 20 percent cash recovery rate. This would not collectively cover the interest payments on their bonds and PBC loans assumed so far.

Therefore, at least for a period, the effective recapitalization of the big four banks might

[3] In this paper, the exchange rate of the Chinese renminbi is RMB 8.1/US$1, unless otherwise specified.

not be as large as the headline NPL removal would suggest, whereas the PBC balance sheet has clearly suffered. This is a case of recapitalizing banks through injections by the central bank and other public agencies (AMCs) without an explicit government guarantee.[4]

3. US$60bn in Capital Injections out of Foreign Reserves since 2003

In exchange for equity, the PBC has injected US$60bn capital out of its foreign reserves into three of the big four banks since late 2003. To bypass the Chinese Central Bank law that prohibits the PBC from owning any commercial banks, a state-owned investment vehicle called the Central Huijin Investment Corporation Limited (Huijin) was set up in 2003 to receive funding from the PBC, and to invest the money into the three commercial banks' equity. Thus far, Huijin has injected US$22.5bn each into the China Construction Bank (CCB) and the Bank of China (BOC) and US$15bn into the Industrial and Commercial Bank of China (ICBC). Presumably, such equity investments form the risk capital of the restructured banks, which would mean that Huijin, as the equity investment arm of the PBC, has become the largest financial holding company in China. Because funding at the margin can be taken to be interest-bearing PBC bills, this is a case of financing through debts issued by public agencies without full-faith state backing.[5]

4. Loss Recognition by Existing Bank Shareholders

Until recently, most Chinese banks were wholly state owned. As the initial sole owner of the big four banks, the MoF opted to recognize loss of all of its equity in CCB and BOC (some RMB 320bn) as the counterpart of the loan loss write-offs and increases in provisions. Therefore, through Huijin, the PBC took over these two recapitalized banks and became their controlling shareholder. In this case, the original bank shareholders, that is, China's

[4] The MOF became more forthcoming about its willingness to support the bonds issued by one AMC (Cinda), ahead of the initial public offering of CCB on the Hong Kong Stock Exchange in November 2005. It says "in the event that Cinda is unable to pay any interest on the bond in full, the MOF will provide financial support, … when necessary, the MOF will provide support with respect to Cinda's repayment of the principal of the bond" (CCB, 2005). Even here, there was no mention of the status of the bonds issued by the other three AMCs.

[5] There are reports in the press that Huijin has also made equity investments in some undercapitalised local securities houses. It is not apparent how such investment has been funded. One possibility is that the financial resources came from paid-out dividends accruing to Huijin's equity stakes in the three big state banks. Another possibility is that the investment was financed by capital gains realized by the sale of part of Huijin's equity stake in CCB to foreign investors. A third possibility is additional equity or debt financing from the PBC.

taxpayers, absorbed the loss.

In contrast, in the case of ICBC, the MoF wrote down only one-third of its original RMB 170bn equity stake, and retained the rest of its equity claims to share a 50/50 control of the restructured ICBC with Huijin. However, a massive RMB 246bn of ICBC's remaining loan losses has been parked under a joint MoF/ICBC special purpose "receivable" account at ICBC, which yields interest to ICBC and is funded by future dividends (supposedly accruing to the MOF as a 50 percent equity owner) and possibly additional tax credits.[6] Therefore, this is a real mixed bag: shareholders and, therefore, taxpayers recognize some of the loss instantly and some in installments. Moreover, the latter arrangement smacks of regulatory forbearance. Whether the restructuring takes the form of receivables or outright write-offs and provision of risk capital, taxpayers will eventually have to pick up the tab.

5. Additional Non-performing Loan Transfers Totaling RMB 780bn since 2004

Since 2004, the PBC's balance sheet has been tapped on two occasions to fund the transfers of the doubtful loans at the recapitalized CCB, BoC and ICBC onto the books of the AMC. The total book value of loans transferred was some RMB 780bn (US$96bn). In 2004, the PBC bought the first batch of RMB 320bn in doubtful loans from CCB and BoC (as well as Bank of Communications: see below) for half their book value and then auctioned them to the AMCs for 30–40 cents in the dollar. In 2005, the PBC bought a second batch of RMB 460bn in doubtful loans from ICBC at par value and auctioned them to the AMCs for an average of 26 cents in the dollar.

In these two transfers, the PBC appears to have made an outright loss from the differences between the acquisition and auction prices of the doubtful loans involved of nearly RMB 400bn (US$50bn): or some 20 times the PBC's own reported capital. Furthermore, the PBC balance sheet has additional exposure to the AMCs because it provided the credit to finance their two NPL acquisitions.[7] In essence, the PBC has been decapitalized to finance bank recapitalization, all without a government guarantee, at least on the public record.

6. Recapitalizing the Fifth Largest Chinese Bank in 2005

In June 2004, the Bank of Communications, the fifth largest bank in China, was recapitalized

[6] One main motive for the MoF to give up future earnings rather than to extinguish all of its equity could be to retain a say in the bank restructuring process.

[7] The credit risk to the PBC loans in this case would be marginally smaller than in the 1999 case, given that this time, the AMCs purchased the NPL at auctioned prices rather than at book value.

to the tune of RMB 35bn (US$4bn). The MoF and other existing bank shareholders contributed new capital of RMB 7bn; Huijin invested RMB 3bn (reportedly funded by PBC bills); the National Social Security Fund chipped in RMB 10bn in return for an equity stake; and HSBC paid RMB 15bn for a 19.9 percent stake, a premium of some 40 percent to the valuation for the MoF and Huijin equity investment (see Table 2). This recapitalization exercise was a "hybrid" one financed by funds from the government and public agencies, existing shareholders, as well as domestic and foreign investors.

7. Foreign Equity Participation

Foreign investors are footing China's bank restructuring bill to the extent that they are paying a premium for equity stakes in Chinese banks. The official policy has been to

Table 2. Announced Direct Foreign Investment in Chinese Banks

Year	Target name	Acquirer name	Equity investment
2006	Ningbo City Commercial Bank	OCBC	US$70.6m (12.2%)
2005	ICBC	Goldman Sachs-led consortium	US$3600m (10%)
2005	Tianjin City Commercial Bank	Australia and New Zealand Bank	US$110m (20%)
2005	BOC	RBS/Temasek/UBS/ADB	US$5220m (16.84%)
2005	CCB	BOA/Temasek	US$3966m (14.1%)
2005	Bank of Communications	HSBC	US$1750m (19.9%)
2005	Bohai Bank	Standard Chartered Bank	$123m (19.9%)
2005	Huaxia Joint Stock Bank	Deutsche Bank/Pangaea	US$454m (20.9%)
2005	Hangzhou City Bank	Commonwealth Bank of Australia	US$78m (19.9%)
2005	Bank of Beijing	ING/IFC	US$270m (24.9%)
2004	Bank of Jinan	Commonwealth Bank of Australia	US$17m (11.0%)
2004	Xian City Commercial Bank	IFC/Bank of Nova Scotia	US$6m (5.0%)
2004	Shenzhen Development Bank	Newbridge Capital	US$150m (17.9%)
2004	Minsheng Bank	IFC/Temasek	US$458m (6.2%)
2004	Industrial Bank	Hang Seng Bank/IFC/GIC	US$326m (24.9%)
2002	Shanghai Pudong Dev Bank	Citigroup	US$73m (5.0%)
2002	Nanjing City Commercial Bank	IFC	US$27m (15.0%)
2002	China Everbright Bank	IFC	US$19m (4.9%)
2002	Bank of Shanghai	IFC/HSBC/HK Shanghai Com Bank	US$133m (13.0%)
Total			Approximately US$16.8bn

Sources: *Caijing Magazine*, No. 123 (2004) and No. 136 (2005); *The Asian Wall Street Journal,* 20 June 2005 and 27 January 2006; *The 21st Century Economic Report*, 24 August 2005; The *Financial News*, 7 and 9 September 2005. Notes: The year is the announcement date of the investment. Some announced deals are still pending regulatory approval. The sizes of investment in Bank of Communications and CCB are those before the latter's recent initial public offerings. The Bohai Bank is a new bank with Standard Chartered as one of its founding shareholders. RBS, Royal Bank of Scotland; IFC, International Finance Corporation.

encourage foreign strategic investors to become shareholders of Chinese banks and, subsequently, to list those banks on stock markets. The purpose of this strategy is not just to attract capital, but also to diversify ownership, to improve corporate governance, to promote a credit culture, to enhance disclosure to and facilitate transfers of know-how.[8] Moreover, private or public foreign equity participation provides an exit strategy for the state to recoup its equity investment in recapitalized banks: through sales of equity stakes to foreign investors.

Foreign capital committed to the Chinese banking sector, in the form of either direct or portfolio investment, has been considerable, and the inflow has accelerated since 2002 (see Table 2). By late 2005, the total declared FDI in Chinese banks had reached US$16.5bn, representing some 15 percent of the banking sector's core capital, according to some estimates.[9] The Bank of Communications and CCB have been listed on the Hong Kong Stock Exchange. In June 2005, the former became the first Chinese bank listed overseas when it raised some HKD 2bn (US$250 million) globally through new share placements, and in November 2005 the latter issued primary shares in its initial public offering, raising a record HKD 71.6bn (US$9.2bn).[10]

8. Cleaning up the Rural Credit Cooperatives and City Commercial Banks

As the pace of bank restructuring quickened, Chinese policy-makers turned their attention to the other two segments of the banking sector: the second-tier city commercial banks and 34 000 rural credit cooperatives (RCCs). In both the RCCs and city commercial bank sectors, local taxpayers, the PBC and shareholders (existing and new) have footed the bill. The total bill for restructuring the balance sheets of these two sectors could well have exceeded RMB 500bn by late 2005.

To date, the PBC has issued and handed over at least RMB 168bn of its special interest-

[8] Listing on overseas stock markets has also been intended as one way for the Chinese Government to push through bank restructuring without being held hostage to the vagaries of local stock markets, which have been undergoing overhaul lately, with falling prices for more than 3 years.

[9] *Securities Times*, 17 December 2005.

[10] Foreign investors foot the bill only to the extent that they pay a premium for their equity stakes in Chinese banks. For instance, HSBC paid a 40 percent premium to take a 19.9 percent stake in the Bank of Communications, which was listed at an IPO price of 1.54 times the book value. BOA paid 1.15 times book in its investment in CCB, which was later listed at an IPO price of 1.96 times book. RBS paid 1.18 times book value to take 10 percent of the BOC, whereas the Goldman Sachs-led consortium paid 1.22 times book value. Newbridge Capital paid a price of 2.38 times book value to be the largest shareholder in the Shenzhen Development Bank.

bearing bills to the RCCs to cover half of their negative equity arising from the recognition of their loan losses; apparently without receiving equity stakes in return. The remainder of the clean-up bill has been made up by local governments (through their budgetary accounts or their investment arms) as well as existing and new shareholders. Financing from the PBC puts the total estimated restructuring cost of the RCCs at a minimum of RMB 336bn (US$42bn): and that just to keep the sector's net worth positive. In addition, to lift the capital adequacy of the RCC sector towards international standards, both existing and new RCC shareholders had reportedly injected capital of RMB 104bn for the sector as a whole by mid-2005.[11]

Separately, the clean-up of the city commercial bank sector has been funded mainly by a mixture of equity dilutions of existing shareholdings and contributions from local fiscal authorities, who have coughed up RMB 36bn (US$5bn) thus far.[12] Foreign investors might have also shared the bill by paying a premium to acquire equity stakes in a number of Chinese city commercial banks (see Table 2).

9. The Changing Role of Chinese Bank Customers

Bank customers have been, in effect, contributing to the restructuring bill as well. Although liberalization has led to greater interest rate flexibility in China, the authorities have continued setting benchmark deposit rate ceilings and minimum lending rates to maintain interest spreads of some 300 basis points. Although such spreads might not be the widest in the world, they could shrink considerably if market forces were to play a more prominent role. In addition, the underdevelopment of China's money and capital markets means that larger depositors cannot seek higher returns on other instruments such as mutual funds, and that sound enterprises cannot lower funding costs by directly tapping the bond markets. In short, disintermediation has taken place on a much smaller scale than otherwise. Until 2004, corporate debt securities represented no more than 2 percent of the total outside funding of China's non-financial firms (see Table 3).[13]

If Chinese banks have been able to charge their customers a conservatively estimated

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[11] The *Financial News*, 20 October 2005.

[12] *The 21st Century Economic Report*, 11 August 2005.

[13] The situation, however, has been changing since May 2005 when the short-term corporate commercial paper (CP) was first introduced in the interbank bond market. It has been priced at less than 3 percent, compared to the prevailing official 1 year best lending rate of 5 percent. To partially compensate the commercial banks, the regulators have limited the principal CP underwriters mainly to these banks so that they can earn as much as 40 basis points of the CP underwriting fees and charge primary rates at 60 basis points above the prevailing yields in the secondary market.

Table 3. Outside Funding Sources of the Non-financial Corporate Sector (in billions of RMB)

Year	1998	2000	2002	2003	2004
Total sources of outside funding	1354	1524	2065	3120	2794
Bank loans	1015	932	1449	2374	1771
Domestic corporate bonds	4	10	24	37	33

Source: *PBC Quarterly Statistical Bulletin*, various issues.

50 basis point excess interest margin over the past 5 years, we estimate that bank customers would have paid RMB 270bn (US$33bn) towards the bank restructuring bill. Related to this issue is the use of pre-provision net earnings and tax credits to strengthen a bank's capital base. The annual reports of the big four banks suggest that in 2003 and 2004 alone, roughly RMB 150bn (US$18.5bn) was injected into these banks in the form of pre-provision net earnings and tax credits.[14]

10. Interbank Swaps of Subordinated Debt

Finally, since 2004, subordinated bonds have been issued by Chinese banks as tier-2 capital to strengthen their balance sheets. So far, 12 banks have issued more than RMB 186bn of subordinated debt, most of which has been taken up by fellow banks and insurance companies.[15] Banks have been allowed to buy each other's bonds, with holdings permitted up to 20 percent of their own stated core capital. Of course, interbank swaps of tier-2 capital do not strengthen the banking system as a whole against common adverse shocks. In addition, purchases of such bonds by insurers pose a risk of contagion across the financial system. Taxpayers get little protection from such "recapitalization" (Fukao, 2002).

IV. Implications

To gauge the total cost of bank restructuring in China, one must take into account the financial resources expended in recognizing the past losses as well as those used for beefing up the banking sector's capital base to the required levels. Adding up in an ad hoc manner and crudely adjusting for possible double counting, the estimated partial payments towards China's bank restructuring bill to date have reached RMB 4tn (US$500bn), or 22

[14] However, the operating profits taken to clean up the bank balance sheet might include the extra bank earnings resulting from captive bank customers.
[15] *Caijing Magazine*, 3 October 2005.

Table 4. Estimating the Cost of China's Bank Restructuring (by late 2005)

No.	Estimation	Billions of RMB
1	The RMB 270bn of special government bonds is straightforward.	270
2	A 20 percent net cash recovery ratio of the RMB 1.4tn NPL transfer in 1999 should result in a loss of 80 percent, or RMB 1.12tn.	1200
3	US$60bn foreign exchange capital injection is worth RMB 496bn at the strike price of RMB 8.27/US$1.	496
4	The MoF wrote off its equity of RMB 320bn in CCB and BoC, and RMB 50bn in ICBC. A loan loss of RMB 246 is shelved under an ICBC receivable account to be funded by the MoF in instalments.	616
5	The PBC bore the RMB 400bn loss related to the carving out of the doubtful loans at CCB, BoC and ICBC in 2004 and 2005.	400
6	RMB 35bn recapitalization of Bank of Communications in 2004.	35
7	Foreign investors took equity stakes or purchased new shares at a premium. The premium is conservatively estimated at RMB 30bn.	30
8	RMB 440bn for RCC and RMB 36bn for city commercial banks.	500
9	RMB 270bn spent by bank customers over the past 5 years, and RMB 150bn in pre-provision net earnings based on forbearance in 2003 and 2004. It is assumed that there is an overlap of RMB 100bn between the two.	350
10	Low-yielding bank subordinated debt (assuming free lunch).	0
Tota		4047

Source: author's own estimates.

Notes: BoC, Bank of China; CCB, Bank of China; ICBC, Industrial and Commercial Bank of China; MoF, Ministry of Finance NPL, non-performing loans; PBC, People's Bank of China; RCC, rural credit cooperatives.

percent of the revised 2005 GDP (see Table 4). Even this figure is likely to be an underestimate. Indeed, the headline cost could eventually exceed RMB 5tn (US$620bn), or more than 28 percent of GDP, given that the most troubled of the big four banks has yet to be restructured, the three policy banks will have to be recapitalized, and more RCC and city commercial banks still need to be cleaned up.[16]

The financing arrangements for China's bank restructuring have been complex and wide-ranging. They have included outright MoF bonds; tapping the PBC balance sheet; recent and promised future flows of tax credits and operating earnings; excessive interest margins shouldered by bank customers; capital calls on existing shareholders; and premiums associated with equity investment by domestic and foreign investors. Therefore, taxpayers, shareholders and bank customers have all shared the restructuring bill. The MOF and PBC together have taken care of 85 percent of the bill, with the rest of the tab being picked up by bank shareholders, investors and customers. Therefore, the consolidated public sector

[16] Reportedly, the Agriculture Bank of China might require some RMB 800bn to fully restore its balance sheet to health, whereas the tab for Guangdong Development Bank could run as high as RMB 50bn. The author estimates that the city commercial bank sector might need additional injections of some RMB 150bn to clean up the balance sheets or fund their exit, whereas the restructuring bill for the three policy banks might reach RMB 250bn.

(ultimately the taxpayers) is bearing the lion’s share of the overall bill.

Although one might debate the relative merits of various ways of funding and apportioning bank losses and the probable size of the restructuring bill, there is little doubt that the Chinese authorities have moved expeditiously in meeting the challenges to the banking system. Nevertheless, the Chinese experience raises a number of important questions. First, what is the likely effect of such restructuring efforts on bank balance sheets? Second, how might the headline and effective costs of bank restructuring differ? Finally, what are the long-term implications of these funding approaches?

1. Balance Sheet Impact

The short-term impact of these restructuring exercises on the balance sheet of the Chinese banking sector has been marked (see Table 1). Following injections of public and private funds, the balance sheets of most Chinese banks are now in far better shape, as evidenced by lower NPL levels, enhanced provisions and a stronger capital base across the sector (Moody’s Investors Service’s, 2005a,b). For instance, the recorded aggregate equity capital of China’s RCC sector swung from a sickly minus 10 percent at end-2002 to almost positive 6 percent by June 2005.[17] The recent credit rating upgrades by several international rating agencies of several Chinese banks and the success of their recent initial public offerings (IPO) have been an endorsement of such restructuring efforts.

Nevertheless, it is far from clear to what degree recapitalization measures have strengthened the banking system. One possible qualification is the ambiguous status of the AMC bonds and the “interbank swaps” of subordinated debt. Moreover, some in the media claim that public capital taken from foreign reserves should be principal-guaranteed. Such media opinions would raise doubts about whether such equity should be treated as core risk capital for absorbing real shocks or for decoration only. If such equity capital investments by the state are counted as forming genuine core risk capital at all, they should, by definition, be subject to downside as well as upside risks.

There have also been some concerns that, absent other complementary reforms, such injections of public financial resources into the banking sector might give rise to moral hazard, which, in turn, would lead to new NPL in the system and repeated state bailouts. Although the risk of moral hazard clearly exists and needs to be taken seriously, our view is that the best approach is not to play down but to face up to the potential size of the bank restructuring bill. In fact, by not fully recognizing past loan losses, the risk of moral hazard is likely accentuated, not mitigated.

[17] *China Securities News,* 7 September 2005.

2. Headline versus Effective Restructuring Costs

The bank restructuring bill might not be finalized soon because of: (i) the ongoing use of tax credits and bank earnings flows to strengthen bank balance sheets; (ii) exchange-rate risks; and (iii) possible gains/losses on new equity investment by the government in the restructured banks. For example, in the case of future financial flows to fund bank restructuring, the state reportedly has promised ICBC and city commercial banks additional tax credits and the use of future retained earnings to rebuild its balance sheet over the next several years.

The exchange-rate risks to bank capital might add to or subtract from the final effective restructuring bill. This factor is more relevant in China today, as a result of mainly of large foreign exchange capital injections, greater RMB flexibility and the different currency compositions of the three recapitalized banks' equity. In particular, the recapitalized banks are not allowed to convert the injected foreign currency-denominated capital into RMB for a "vesting period" of approximately 3 years. Therefore, the new bank capital might fluctuate in RMB terms along with the exchange rate. In addition, the foreign exchange rate risks were initially transferred from the PBC to Huijin and eventually to the recapitalized banks.

Two particular questions arise in relation to exchange-rate risks. First, what might the currency composition of bank capital look like? It differs from one bank to another. Whereas the core equity capital of ICBC is likely to be denominated half in local currency and half in US$, almost the entire tier-1 capital of BOC and CCB might be denominated in a currency other than RMB. Indeed, BOC core capital might be a mix of US$, other foreign currencies and even gold,[18] and CCB core capital would most likely be almost completely US$-denominated. This, in turn, gives rise to a more general issue of the optimal relation between the currency compositions of a bank's equity and assets (Fukao, 1991).

Second, with a 3-year vesting period preventing conversion of US$ into RMB, how can these recapitalized banks hedge their exchange-rate risks? It has been reported that in early 2005, Huijin issued currency options to the three recapitalized big banks to hedge, fully or partially, the US$ portions of their respective capital injections. The banks paid premiums to buy the European style options to sell US$ for RMB at strike prices around the prevailing rate of RMB 8.277 per US$ before the recent currency regime shift for a period of up to 3 years.[19] Therefore, exchange rate risks could be shared between Huijin and the

[18] *Bank of China 2004 Annual Report.*

[19] CCB bought put options to sell dollars to fully cover the US$22.5bn foreign exchange capital injection from Huijin. The BOC bought options to cover only US$18bn out of the US$22.5bn capital injection received from Huijin. The ICBC option agreement with Huijin covers US$12bn out of the US$15bn capital injection received from Huijin. The *Southern Weekend Magazine*, 19 April 2005; *China Money*, August 2005, No. 46.

recapitalized banks. It is not quite clear, however, how Huijin would itself hedge against such exchange-rate exposure. Most likely, part of the foreign exchange risks have been passed back to either Huijin or the PBC.

The realized gains or losses from Huijin's equity investment and the premium paid by new shareholders might influence not only the headline bill, but also how it is apportioned. Therefore, it is interesting to consider the valuation effects of subsequent private and public equity transactions. For instance, the Bank of America (BOA) and the Royal Bank of Scotland (RBS) bought 14.1 percent and 16.84 percent, respectively, of Huijin's stakes in CCB and BOC. We estimate that relative to the original valuation of the initial investment in 2003, Huijin realized gains of nearly RMB 10bn (US$1.2bn) from selling down its CCB and BoC stakes in these two private equity deals (see Table 2).

However, if mark-to-market accounting applies, this headline realized capital gain for Huijin could be mostly offset by its currency loss as a result of the appreciation of the RMB over the latter part of 2005. Moreover, one needs to take into account the rest of the deal packages, including options, lock-ups, or promises of net asset values above the acquisition prices. In the case of the CCB private equity deal, BOA received a call option to increase its CCB stake up to 19.9 percent, with an expiration date in 2011 and an elaborate strike price structure. The value of such a call option could be significant. By contrast, in the BoC private equity transaction, RBS might not receive any call options, but will reportedly have some downside protection for a limited period. Therefore, the gains or losses related to Huijin's recent partial divestments of CCB and BOC might not be known until these options expire or are eliminated.

3. Longer-term Implications

There are at least four longer-term issues arising from the recent funding practices of China's bank restructuring. First, until the well-defined rules governing loss apportionment emerge and Huijin becomes more transparent, Chinese taxpayers might find the financing arrangements a bit opaque. Ex ante and ex post transparency about the financing of bank restructuring is needed for good corporate governance. To address both the "stock" and "flow" problems in the Chinese banking sector, accountability is key: and that needs to start with a set of well-defined rules stipulating financing responsibilities.

Second, some of the ways of funding bank restructuring in China might not be conducive to debt market development. Until recently, the goal of keeping bank interest margins artificially high could have been one reason for the underdevelopment of China's corporate bond and money markets. More developed debt markets, although possibly compressing bank interest margins for a while, would benefit the banking sector and economy as a whole over the long term. This is because a deeper and broader capital market would encourage banks to rely less on balance sheet expansion and more on fee-income producing activities and, thereby, increase the resilience of the financial system to shocks (Gyntelberg *et al*., 2005). In addition, fragmented and often non-tradable debt issued by multiple agencies in financing the bank restructuring process tends to depress debt market liquidity generally (McCauley, 2003). Unifying different issues by various agencies would help to improve secondary market liquidity and promote bond market development.

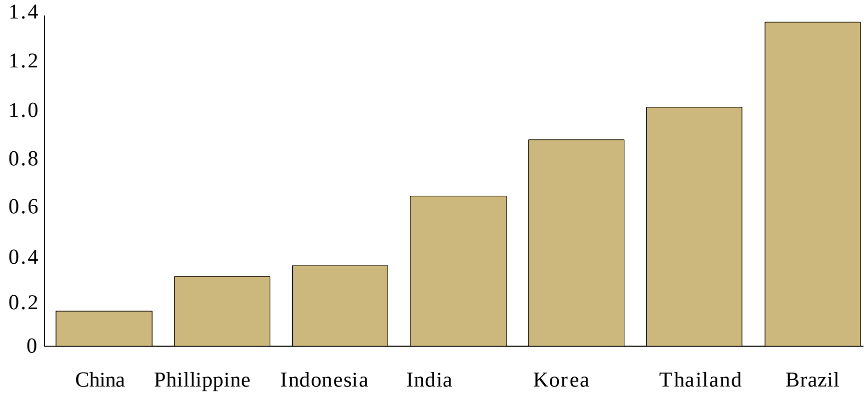
Third, specific concerns have arisen about the heavy use of the central bank balance sheet to fund bank restructuring in China (Ma and Fung, 2002). Although taxpayers have footed some 85 percent of China’s huge restructuring bill, many conventional measures of government debt levels in China have not risen as much. This is possible, in our view, because of funding by the central bank balance sheet. Between end-2001 and end-2005, the size of the PBC balance sheet more than doubled, with the estimated central bank financing of the country’s bank restructuring now representing some 15 percent of the entire balance sheet.

In essence, the PBC is being decapitalized to the benefit of the banks. Heavy use of the central bank to fund such quasi-fiscal burdens could damage its balance sheet. This could be the result of either a mismatch between liquid liabilities and illiquid assets or the loss of budgetary autonomy (in the event that the central bank’s cash flows become negative), or both. These problems could hinder the long-term institutional development of the PBC.

Finally, the recent pickup in foreign equity participation in the Chinese banking sector begs the question of how open its domestic banking market is and how this will affect the outlook for the banking sector. Even though the process of WTO-agreed access for foreign banks to the domestic market is proceeding apace, the shift to domestic currency lending in China by major international banks has hardly altered their China positions to date. The Bank for International Settlements reporting shows that by mid-2005 only US$13bn of RMB claims were in their local operations, compared with a RMB bank loan market of some US$3.4 trillion. Figure 1 suggests that access by foreign banks to local RMB banking business has been quite limited relative international cross-border US$ business. Figure 2 shows that the overall share of foreign banks in China’s banking market (broadly defined) has been low. In this light, the Chinese domestic banking market arguably remains one of the most closed major emerging banking markets in the world.

However, despite the official ceilings on foreign bank ownership, substantial FDI and foreign portfolio investment in domestic banks suggest that the Chinese banking sector is opening up. To date, FDI has reached some 15 percent of the domestic banking sector’s capital base. Although the prevailing official ceilings on foreign bank ownership in a Chinese bank are 20 percent for a single foreign investor and 25 percent for all foreign investors combined, these restrictions appear to apply only to non-listed banks. For instance,

Figure 1. Domestic Currency Claims on Local Residents by Bank for International Settlements-reporting Banks [a]

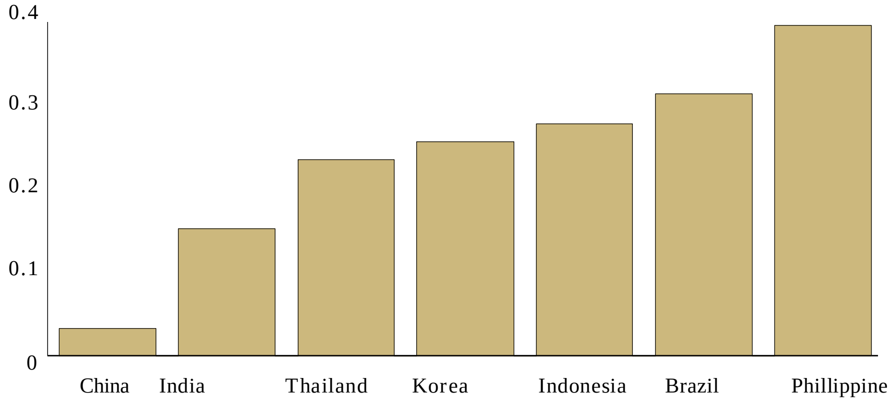


Source: *BIS Quarterly Review*, various issues.

Note: [a] At end-June 2005; as a ratio of international claims by Bank for International Settlements (BIS)-reporting banks.

according to the author's own estimates, after the IPO, the effective foreign ownership of the Bank of Communications might have exceeded 30 percent, whereas that of CCB could already have reached 25.8 percent.[20] This trend of increased foreign equity participation is

Figure 2. Market Share of Bank for International Settlements-reporting Banks in mid-2005[a]



Sources: *IMF International Financial Statistics*; *BIS Quarterly Review*, various issues.

Note: [a] International plus local currency claims as a ratio of domestic bank credit, plus international claims.

[20] There have been recent reports in the press that foreign equity stakes of up to 40 percent might be entertained, if foreign investors are willing to pay large enough premiums for some technically insolvent banks. A case in point is the troubled Guangdong Development Bank with significant negative net worth.

also consistent with China's long-held policy of welcoming FDI in its domestic economic development. This could have an important bearing on the landscape of China's banking market over the longer term. To say the least, the Chinese banking sector might not be as closed as some other measures suggest.

V. Concluding Remarks

Since the late 1990s, the Chinese Government has stepped up the pace of cleaning up the banking sector, confronting the sizable restructuring task that might have cost as much as 22 percent of GDP to date. Funding arrangements have been elaborate, with bank shareholders, bank customers and taxpayers all having shared China's overall financial restructuring cost. Taxpayers have footed most of the cost, often with little explicit recognition of this fact in official government debt totals. A significant portion of the funding burden could have fallen on the PBC, as seigniorage has been capitalized through the rising amounts of interest-bearing PBC bills and other liabilities.

Although efforts to rebuild banks' balance sheets are not a panacea for all the challenges faced by the Chinese banking sector, lingering concerns over moral hazard are no excuse to shun these very important measures. We argue, therefore, for a more transparent framework to apportion financing responsibilities among the parties concerned, because well-defined rules of loss allocation restrain moral hazard and promote both accountability and market development. The recent increased FDI in the Chinese banking sector has not only helped fund the restructuring task, but might also alter the sector's landscape over the longer term, if the Chinese manufacturing sector over the past 3 decades is anything to go by.

References

BIS (Bank for International Settlements), 1999, *Strengthening the banking system in China: Issues and experiences*, *BIS Policy Papers* No. 7, Basel.

CCB (China Construction Bank), 2005, *Global Offering Prospectus*, October, Hong Kong.

Crockett, Andrew, 1998, "From banking crisis to solid macroeconomic growth: Lessons for Japan from other industrial countries," speech at the IMF-Kobe University symposium, 14 July, Kobe.

Dziobeck, Claudia and Ceyla Pazarbasioglu, 1997, "Lessons and elements of best practice," in William Alexander *et al.*, eds, *Systemic Bank Restructuring and Macroeconomic Policy*, Washington DC.

Fukao, Mitsuhiro, 1991, "Exchange rate movements and capital-asset ratios of banks: On the concept of structural position," *The Bank of Japan Monetary and Economic Studies*, Vol. 9, No. 2.

Fukao, Mitsuhiro, 2002, "Financial sector profitability and double-gearing," *National Bureau of Economic Research Working Paper* No. 9368, National Bureau of Economic Research, Cambridge, MA.

Fung, Ben, Jason George, Stefan Hohl and Guonan Ma, 2004, "Public asset management companies in East Asia," *Financial Stability Institute Occasional Paper* No. 3, Basel.

Gyntelberg, Jacob, Guonna Ma and Eli Remolona, 2005, "Corporate bond markets in Asia," *BIS Quarterly Review*, December, pp. 83–93.

Hawkins, John and Philip Turner, 1999, "Banking restructuring in practice: An overview," in *Bank Restructuring in Practice, BIS Policy Paper* No. 6, Basel, pp. 6–105.

Lardy, Nicholas, 1998, *China's Unfinished Economic Revolution*, Washington DC: Brookings Institution Press.

Ma, Guonan and Ben Fung, 2002, "China's asset management corporations," *BIS Working Paper* No. 115, Basel.

McCauley, Robert N, 2003, "Unifying government bond markets in East Asia," *BIS Quarterly Review*, December, pp. 90–8.

Mo, YK, 1999, "A review of recent banking reforms in China," in *BIS Policy Papers*, No. 7, *Strengthening the Banking System in China: Issues and Experiences*, October, Basel, pp. 90–109.

Moody's Investors Service, 2005a, "Bank system outlook for China: reform on track, but more needed," June 2005, Hong Kong.

Moody's Investors Service, 2005b, "Reform of China's state banks: moving beyond IPOs; positive rating actions likely," November 2005, Hong Kong.

Sheng, Andrew, 1999, *Bank Restructuring: Lessons from the 1980s*, Washington DC: The World Bank.

White, Lawrence, 1991, *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation*, New York: Oxford University Press.

White, William, 2004, "Are changes in financial structure extending safety net?" *BIS Working Paper* No. 145, Basel.

Zhou, Xiaochuan, 2004, "Some issues concerning the reform of the state-owned commercial banks," speech at the IIF Spring Membership Conference, 16 April, Shanghai, Available at: www.pbc.gov.cn.

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