

Dealing with the Bad Loans of the Chinese Banks

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Although China averted a collapse of its currency during the recent East Asian crisis, its banking sector is quite fragile as the large banks are undercapitalized and hold a high percentage of non-performing loans (NPLs) on their balance sheets. Estimates indicate that NPLs are at least 30 per cent of total bank loans and that the cost of restructuring the banking sector is at least 20 per cent of GDP. During the reform period, increasing financial fragility was attributable mainly to the evolving triangular relations among the fiscal system, the state-owned enterprises (SOEs) and the state-owned banks (SOBs). To reduce financial risks and build a strong banking system, the Chinese government has introduced a set of reform measures including adopting a new accounting system, improving financial supervision and regulation, recapitalizing the SOBs, and establishing four asset management companies (AMCs) for dealing with the bad loans. Drawing on the experiences of the Resolution Trust Corporation in the United State and bank restructuring in Central European transition economies, we argue that the current AMC policy will not be successful in resolving existing NPLs or in preventing the creation of new NPLs. We recommend a modification of the current proposal that redefines the relationships between the parent banks and the AMCs by transferring the deposits of problem enterprises along with their NPLs from parent banks to AMCs.

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1. Introduction

China was the only major economy in East Asia that not only avoided the recent financial crises but also continued strong growth. This was attributable mainly to the strengths of the Chinese economy when the crisis began, including the current account surpluses, the dominance of foreign direct investment in capital inflows, the size of foreign exchange reserves and the control of capital account (Huang and Yang 1998; Song 1998).

However, sufficient evidence points to the fragility of China's banking sector (Bonin 1999; Bonin, Cheng, and Jaffee, 1999, Cheng, 1999, and Lardy, 1998). Reform of the state-owned banks (SOBs) is regarded as among the least successful areas in China. After twenty years of reform, the allocation of financial resources is still heavily tilted toward the declining state sector and ignores, for the most part, the increasing importance of the non-state sector (Fan 1999). The financial vulnerability of SOBs, in the form of bad loans, financial losses and undercapitalization, endangers both the stability of the macroeconomy and the sustainability of growth.

China was fortunate to have controls over the capital account in place when the East Asian financial crises began (Fernald and Babeson 1999). The insulation of the domestic capital market helped to prevent some fatal international uncertainties and attacks. However, a weak banking sector like China's is unsustainable even in an autarkic economy and, furthermore, the liberalization of China's capital account is inevitable. Recent studies suggest that, even in the presence of the capital account controls, capital outflows through informal channels have been significant (Sicular 1998; Song 1999).

If financial risk is not eliminated quickly, the probability of a banking crisis will increase. A crisis would not only lower the living standard of the Chinese people but also eliminate many of the economic reform's achievements overnight. International experience suggests that cleaning up of banking problems is costly, often accounting for 10-20 per cent of the GDP (Goldstein and Turner 1996; Dziobek and Pazarvasioglu 1997). Existing estimates indicate that, at best, the costs for China would be at the upper end of this range.¹

Resolving the bad loan problem is crucial to sustaining growth and continuing reform as the ratio of bank loans to GDP stands at more than 120%.² In any banking system, the bad loans problem consist of a stock component, old debt that is not performing, and a flow component, new lending that may become non-performing. The two components are linked by the normal client relationship in banking and, in some countries, by the government's encouraging or even directing state-owned banks to lend to unprofitable state-owned enterprises (SOEs).³ New lending to a client with non-performing old debt is likely to become a bad loan. Government-encouraged loans to SOEs that are chronic loss-makers are likely to be non-performing. Both aspects must be considered in designing policy for bad loans in China.

¹ See, for instances, *Australian Financial Review* (August 19, 1999) and Dornbusch and Givazzi (1999).

² For comparison, credit to the non-financial sector as a percentage of GDP was 20% in Poland, 23% in Hungary, and 53% in the Czech Republic in 1995 (OECD, 1997, p.81).

³ At the National People's Congress in March, Zhu Rongji called for an attack on "the unprecedented and grim" economic environment and reminded state banks of their "political" responsibilities to lend to money-losing enterprises (*The Economist*, March 13, 1999).

The Chinese government has taken a series of measures designed to build a strong banking system including: recapitalization of the SOBs, adoption of the international standard accounting system, establishment of four asset management companies (AMCs) and introduction of debt-equity swaps as an instrument for dealing with bad debt.

The exact policy procedures for dealing with the bad loans are still unfolding, as only one of the AMCs is currently operational. Hence, many questions remain to be answered and some opportunities to modify policy remain. Is the current institutional set up of the AMCs efficient? Will the AMCs be able to work out the non-performing loans (NPLs) as expected? Will asset sale and debt for equity swaps prove feasible? How will the government prevent moral hazard problems from affecting all parties: the enterprises, the banks and the AMCs?

This paper analyzes the bad loan problem of the Chinese banks with an ultimate goal of providing some answers to these questions. The next section explains why financial fragility developed rapidly during the reform period by focusing on the changing relationship between the fiscal system, the state-owned enterprises (SOEs) and the SOBs. Section 3 assesses the seriousness of the bad loan problem both for the banks and for the macroeconomy. Section 4 discusses the experiences of the Resolution Trust Corporation (RTC) in the United States and bank restructuring policies in three Central European transitional economies with an eye to drawing lessons for the Chinese AMCs. Section 5 characterizes the institutional arrangements for the AMCs and identifies some remaining problems. The final section concludes with a suggestion to modify the current AMC program and several other policy recommendations.

2. Gradual Reform and Financial Fragility

Financial fragility is a new phenomenon that emerged during the reform period as a result of the evolving triangular relationship among the SOEs, the SOBs and the fiscal system (Huang and Yang 1998). In pre-reform China, the SOEs were run as workshops of the planned economy with all the inputs supplied, output taken away and financial accounts automatically balanced by the state. The state budget played the role as accountant and cashier for both the government and the enterprises. The monobank system was responsible for the allocation of a small proportion of working capital.

The reform of the SOEs was aimed at transforming them into financially viable, independent economic units. The introduction of responsibility systems, first in Sichuan province and then elsewhere at the end of the 1970s, expanded autonomy and improved incentives. During the second half of the 1980s, the contract system augmented the responsibility of enterprises. From the early 1990s, a more flexible reform strategy was adopted designed to privatize the small and to emphasize the big, with the share-holding system as the new key institution (Huang *et al* 1999). To increase further the enterprises' independence, financial relations between the SOEs and the state were re-defined through the loan for grant and the tax for profit reforms during the first half of the 1980s. Bank loans replaced free budget grant allocations as the key source of SOEs' capital and tax payments replaced profit remittances as sources of fiscal finance.

The objective of the SOB reform was to build a well functioning two-tier bank system with the central bank responsible for financial supervision and monetary policy and the commercial banks responsible for the allocation of capital. In 1983, the People's Bank of China (PBC) became the central bank officially. A large state banking system

was gradually built on four pillar SOBs, namely, the Agricultural Bank of China (ABC), the Industry and Commerce Bank of China (ICBC), the Bank of China (BOC) and the Construction Bank of China (CBC). These four major banks account for about 70 per cent of domestic credit and hold over 70 per cent household deposits (Lardy 1998). These banks are to remain under state ownership for the foreseeable future and are large by international standards when assets are used to measure size. At the end of 1996, the largest was ranked fifth and all four were among the top fifty of all banks in the world.⁴ Hence, the big four SOBs dominate a banking sector that is itself the dominant part of the financial sector in China.

The goal of fiscal reform was for the state to withdraw gradually from both the direct collection of profits from SOEs and the allocation of capital to SOEs. The government was to concentrate on supplying public goods. Thus, the state budget would rely exclusively on revenues from taxes and other fiscal sources, such as bond issuances, to finance public-good activities, including the construction of a national infrastructure network, the provision of assistance to disadvantaged groups in society, and the maintenance of law and order. From the mid-1980s, the fiscal system was decentralized to give more incentives to the local governments. In 1994, a new scheme was introduced to specify clearly the division of local-central tax revenues (Brean 1998).

Although the reforms had clear objectives, they were implemented gradually and often incompletely. This led to important drawbacks and eventually gave rise to financial

⁴ For comparison, only one of the Polish banks ranks amongst the 100 largest banks in **Europe** and this is a consolidated financial group.

fragility. The debt-equity ratio of the SOEs rose dramatically from 23 per cent in 1980 to 440 per cent in 1998, following the loan for grant reform. Rapid accumulation of enterprise debts is not a problem in itself, but it may lead to significant financial distress if net earnings do not cover the increasingly larger interest payments. The enterprise reforms succeeded in expanding autonomy and providing incentives but failed to establish a governance system for monitoring and enforcing responsibility. State-ownership was maintained, loss-making SOEs were rarely liquidated and redundant workers were not usually dismissed until very recently. Over-spending became acceptable behavior for SOEs. For example, during the 1985 to 1996 period, the average real wage rose by more than 50 per cent in SOEs, which was almost twice the increase in collective firms that were much more profitable.⁵ Non-wage spending also grew rapidly. Between 1980 and 1994, enterprise expenditures on social welfare increased by six times and, in the mid-1990s, it was roughly half of the SOEs' total wage bill (Huang *et al* 1999). Consequently, the profitability of SOEs fell sharply and, from 1996, the consolidated state sector became a net loss-maker. As a result, SOBs were often forced to extend new loans to inefficient SOEs.

The financial deficits of the SOEs had direct fiscal implications. The revenue capacity of the fiscal system declined significantly during the reform period. The share of fiscal revenues to GDP decreased from above 30 per cent in the early 1980s to 12 per cent in the late 1990s (Brean 1998). This was partly an expected outcome due to the 'tax for

⁵ This was particularly odd given that labor productivity of the SOEs relative to collective enterprises declined by 80 per cent during the same period (Huang *et al.* 1999).

profit' reform by which the government no longer collects directly enterprise profits and partly an unexpected consequence of the government's inability to enforce tax collection upon the newly growing non-state sectors. However, the government could not refrain completely from intervening in enterprise activities, especially from subsidizing loss-making SOEs.⁶ In doing so, the government sought financial resources from the commercial banks in the form of policy loans, which accounted for about 35 to 40 per cent of total bank loans in the 1990s (Institute of Economics 1998). The official fiscal deficit was around 1 per cent of GDP, which is healthy and sustainable by international experience. However, if the policy loans were regarded as implicit budget expenditures, the implied fiscal deficits would be as high as 25 per cent of the GDP (Table 1). In addition, projects financed by policy loans usually have high default rates.

Historically, the big four SOBs have provided the financing required by the large SOEs. At the end of 1995, exposure to SOEs was high as 83% of all loans from the big four were to SOEs and 90% of all lending for fixed investment by ICBC was to SOEs (Lardy, 1998, p. 83). Since approximately one-half of the SOEs are loss making, the credit risk faced by the SOBs from such lending remained significant even after the creation of the policy banks in 1994. The banking sector's financial performance is also affected by the fact that the SOBs are organized as SOEs; hence, they suffer from principal-agent problems and their operations are subject to state intervention. The allocation of capital was controlled largely by the credit plan until recently. Commercial

⁶ Direct government subsidies to loss making SOEs were relatively stable throughout the 1980s and 1990s, ranging between RMB33 billion and RMB60 billion per year (Perkins 1999).

Table 1. Official and implied fiscal deficits, 1990-98

	Fiscal revenue (RMB b)	Revenue/ GDP (%)	Fiscal expenditure (RMB b)	Official deficit/GDP (%)	Policy loans (RMB b)	Implied deficit/GDP (% GDP)
1985	200.5	22.4	200.4	0.0	185.8	-20.7
1990	293.7	15.8	308.4	-0.8	545.9	-29.5
1991	314.9	14.6	338.7	-1.1	678.2	-31.4
1992	348.3	13.1	374.2	-1.0	741.1	-27.9
1993	434.9	12.6	464.2	-0.8	932.3	-26.9
1994	521.8	11.2	579.3	-1.2	1148.5	-24.6
1995	624.2	10.7	682.4	-1.0	1416.0	-24.2
1996	740.8	10.8	793.8	-0.8	1644.0	-24.0
1997	865.1	11.6	923.4	-0.8	1986.2	-26.6
1998	985.3	12.4	1077.1	-1.2	n.a.	n.a.

Notes: The last column gives the total implied deficits including both official fiscal deficits and policy loans. n.a. represents data not available.

Sources: SSB (various years).

banks have little autonomy in determining interest rates. Risk assessment was not a necessary part of banking until recently. As late as 1994, the behavior of banks was severely constrained as is shown from a survey of SOEs (Table 2).

Table 2. Investment applied for and approved by SOEs, 1994

	Number of sample SOEs	Investment applied for (RMB '000)	Proportion of approved investment (%)	Amount of approved investment (RMB '000)	Proportion of firms denied (%)	Net Value of fixed assets in 1994 (RMB '000)
Loss-making firms	200	14,941	47.9	6,061	22.1	25,146
Profitable firms	221	11,997	52.4	7,918	19.0	30,346
Total	421	13,393	50.2	7,037	20.5	27,880

Notes: Information derived from 421 sample SOEs of the survey data set in six industries: food processing, textiles, building materials, chemicals, machinery and electronics.

Source: Survey by Hongling Wang of the Chinese Academy of Social Sciences.

3. How Serious is the Bad Loan Problem in China?

These arrangements were understood to be inefficient; the profitability of the SOBs banks declined consistently in the 1990s as a consequence. Before the East Asian financial crises, the average reported profit to asset ratio for the SOBs was only 5.6 per cent (Table 3). If uncollected interest payments are excluded from the revenue side of the financial accounts, most SOBs, except the BOC, would report financial losses by 1996 and in the following years (Li 1998). At that time, the average capital-adequacy ratio was only 4.4

per cent, which was lower than in 1994 and much lower than that required by China's Commercial Bank Law (Lardy 1998). In 1998, the Chinese government recapitalized the banks to raise their capital-adequacy ratio to 8 per cent.

Table 3. Some financial indicators of SOBs, before the Asian crisis

	Capital-adequacy ratio	Reported profit-net asset ratio	Loan circulation rate
State-owned commercial Banks	4.37	5.55	1.07
Industrial and Commercial Bank	4.35	6.17	1.30
Agricultural Bank	3.49	1.44	1.30
Bank of China	4.84	10.29	1.01
Construction Bank	4.81	5.70	0.68

Source: PBOC (various years); Li (1998); and RGCFSR (1997).

Discussions of China's banking problems concentrate on non-performing loans (NPLs), although the exact quantification of these is difficult. Chinese authorities do not release official data for confidence reasons. Prior to 1998, Chinese banks used a loan classification system based on actual loan performance that divided NPLs into three types: 'overdue', 'doubtful' and 'bad'.⁷ This approach underestimated NPLs as it did not

⁷ 'Loans overdue' were defined as loans not repaid when due or not repaid after the due date has extended. 'Doubtful loans' were defined as loans that have been overdue for more than two years or operation of the projects has been stopped. And 'bad debts' were defined as loans that have not been repaid after the enterprises' bankruptcy or liquidation.

include highly risky loans that were still paying interests and were not yet overdue.⁸ The central bank once dictated that SOBs could classify no more than 5 per cent of all of their loans as ‘overdue’, no more than 8 per cent as ‘doubtful’ and no more than 2 per cent as ‘bad’ (Lardy 1998). Hence, even bank managers did not know the exact extent of their NPL problem.

Existing estimations suggest that the proportion of the NPLs was likely to have been about 24 per cent before the crisis and 29 per cent after the crisis (Table 4). Such proportions are very high even compared with NPLs in the crisis-affected East Asian economies. The pre-crisis proportion of NPLs in these countries were as follows: Thailand: 15 per cent, South Korea: 16 per cent, and Indonesia: 12 per cent. China’s proportions are similar to those in the post-crisis situations in these countries, e.g., Thailand: 27 per cent, Indonesia: 33 per cent, and Korea: 25 per cent.

⁸ Lardy (1998) suggests other reasons why the NPL problem might be underestimated in the old Chinese system. Bank accounting and auditing practices in China have severe shortcomings; external auditing was not a common practice until very recently. Apart from NPLs, banks often have substantial non-performing assets that are not reported. Finally, because the data on NPLs exclude interbank and trust lending as well as credit that is concealed in balance sheets as ‘other items’, they may underestimate significantly the total amount of non-performing assets of China’s largest banks.

Table 4. Estimated proportions of NPLs and estimated costs of clean up

Study	Period	Estimate
<i>Problem loans</i> (as percentage of outstanding loans)		
Li (1998)	End of 1996	24.4%
	Mid-1997	29.2%
CCER (1998)	1997	24.0%
Fan (1999)	1997	26.1%
	1998	28.3%
<i>Clean up costs</i> (as percentage of GDP)		
Moody	1999	18.8%
Dornbusch and Givazzi (1999)	1999	25.0%

Notes: Fan's (1999) estimates were inferred from his reported share of NPLs in GDP. Moody's estimate was quoted by the *Australian Financial Review* (August 19, 1999).

These estimates for China are supported by SOE survey data found in Yuan (1999) reporting non-performing debts owed by the SOEs. These debts must be highly correlated with the NPLs in SOBs because SOBs account for about three-quarters of all financial intermediation and loans to SOEs account for about three-quarters of all bank loans. The average proportion of non-performing debts in SOEs increased from 25 per cent in 1991 to 31 per cent in 1995 (Table 5).⁹ Bad debts, themselves, were 6 per cent of

⁹ SOEs in Jiangsu province had the lowest numbers, partly because of their better positions in the market and partly because of their lower concentration in heavy industries. The problems of the SOEs in Sichuan and Hunan provinces were quite bad as most of these firms were military-related and relocated to their

total debt in 1995, which is similar to the estimate by CCER (1998) for the whole banking sector in 1997.

Table 5. Non-performing debt ratios of sample SOEs, 1991-95 (%)

	Jilin	Sichuan	Hunan	Jiangsu	Total
1991	33.3	21.9	27.6	15.8	24.5
1992	33.8	23.7	26.7	17.0	25.0
1993	36.6	26.3	27.4	15.7	26.3
1994	38.5	29.6	31.2	17.2	29.1
1995	42.6	31.5	31.2	18.9	31.0

Note: The total numbers of valid sample firms are 631 for 1991, 645 for 1992, 699 for 1993, 712 for 1994 and 711 for 1995. Sample firms are roughly equally distributed among four provinces surveyed.

Source: Survey data by Yuan (1999).

In 1998, China adopted the international standard loan classification scheme that consists of five categories: normal (pass), special mention, substandard, doubtful, and loss (unrecoverable). Reclassification of loans using the international standard was completed in the four large SOBs by July 1999. Critical to the solvency of banks is the sufficiency of loan loss reserves. In most banking systems, two types of loan loss reserves are allocated. The specific reserve fund consists of provisions set aside against loans that

remote locations in the 1960s. The worst situation was in Jilin province that was a traditional heavy industry base in China.

are classified as non-performing with specified weights attached to each of the categories. The general reserve fund consists of monies put aside as insurance against general portfolio risk but not ascribed to any particular assets. In China, the bank's loan-loss reserve fund is not classified in this manner and actual bank reserves are very low. In 1996, loan loss reserves were 0.6 and 0.5 per cent of outstanding loans for CBC and ABC, respectively. The official target for commercial banks was a loan-loss reserve of 1 per cent of outstanding loans (Lardy 1998).

Reserves of this magnitude are obviously not sufficient to fill the hole created by bad loans in the banks' balance sheets. Given that the usual recovery rate on NPLs is lower than 25 per cent in the other transition economies,¹⁰ unrecoverable bad debts held by the SOBs are probably above 20 per cent. Hence, the SOBs are currently insolvent. Existing studies suggest that the costs of restructuring China's banks are likely to be between 18 and 25 per cent of GDP (Table 4). These estimates are at the upper end of the usual range for countries experienced banking crises. Put another way, it will cost China an amount equal to proceeds from the entire export sector to clean up the banking sector problem.

The state budget will have to bear most of the cost of bank restructuring; this has important macroeconomic implications. China is regarded as a low debt burden country, with a debt to GDP ratio of 25 per cent, of which about 10 per cent is domestic debt and 15 per cent is external debt. This ratio is significantly lower than the internationally

¹⁰ The recovery rate in Poland of debt sold on secondary markets in a bank restructuring program was 23% on average and the scale was quite small; see Gray and Holle [1997], p. 41.

acceptable level for sustainability of 60 per cent (Fan 1999). However, given the low and declining revenue capacity of the fiscal system, the feasibility of accumulating further debt may not be as attractive as the low ratio suggests. More importantly, if we were to regard unrecoverable bank loans as a form of government debt, total debts would already account for about 45 per cent of GDP.

4. International Experiences with Bad-Debt Workout

Klingebiel (1999) considers cross-country experiences with centralized asset management companies to deal with NPLs and to resolve solvency problems of distressed financial institutions. Two types of agencies are identified: rapid asset disposition agencies and longer term restructuring agencies. Of the seven cases considered, four are in the former category. Of these, only one the U.S. Resolution Trust Company (RTC) has been wound up. The other three are still in existence, although they were designed to be temporary government agencies. In two of these three cases, Mexico and the Philippines, Klingebiel concludes that the asset management agencies hid the extent of the bad loan problem and prolonged the effective resolution of the banking crisis. After a brief review of the successful RTC experience in the U. S., we summarize the experiences with banking sector reform in three fast-track Central European transition economies. In our opinion, these experiences are more relevant than is the U.S. experience for China.

4.1. The Resolution Trust Company in the United States

The RTC was set up as a rapid asset disposal agency in 1989 to resolve bad loans from the portfolios of failed Savings and Loan Associations (S&Ls).¹¹ As part of a public agency, the RTC had several objectives: to maximize the net revenues from the sale of transferred assets, to minimizing the impact on local real estate markets and financial markets, and to maximize available and affordable housing for low-income individuals. The assets transferred amounted to \$465 billion or about 8.5% of total financial sector assets and approximately 8.5% of GDP in 1989. For comparison with China, it is important to note that the RTC acquired both performing and non-performing assets and that the level of NPLs reached only 3% of total banking sector assets at the height of the U.S. crisis. Furthermore, about 50% of the assets were real estate loans and mortgages while 35% were cash and other securities. Hence, many of the transferred assets were either good or could be sold quickly through bundling, securitization, and auctions in the deepest capital markets in the world.

The RTC was set up as a temporary federal agency intended to operate until 1996 only; it completed its work in 1995 so that the sunset clause was honored. The majority of the senior personnel at the RTC came from the Federal Deposit Insurance Company and, consequently, its staff had experience with the resolution of failed financial institutions. Nonetheless, the RTC relied on private sector contractors to evaluate, manage and sell many of the assets. An effective management structure allowed the RTC to collect almost one-third of the assets transferred reducing significantly the amount to be sold.

¹¹ This section relies heavily on tables in Klingebiel (1999) for information about the RTC experience. The first table begins on p.28 and the others are found in the Appendix.

Although the recovery rate on total assets transferred was 86%, the final cost of the RTC's operations amounted to \$88 billion, which is about 20% of the total value of assets transferred and over 1.5% of 1989 GDP.

According to Klingebiel (1999), several unfavorable factors influenced the RTC's operations. First, sporadic government funding increased resolution costs. Second, rapid asset disposal was hampered by inconsistent multiple objectives. On the other hand, several favorable factors were identified. First, the amount of assets transferred was a relatively small percentage of overall financial assets and many of these were performing at the time. Second, the assets could be bundled and securitized for quick sale in deep capital markets. Third, the RTC was able to contract out the disposal of assets to private sector agents having the necessary skills and expertise. As we shall argue below, China's situation makes it unlikely that these favorable factors apply; rather China's reform policy is more likely to fall victim to unfavorable factors.

4.2 Bank restructuring in Central Europe

The experiences of the fast-track Central European (CE) countries, i.e., the Czech Republic, Hungary and Poland, with bank insolvency and bad loans provide a list of more don'ts than do's.¹² Of these three countries, the Czech Republic had a financial structure most resembling that of China with a relatively high ratio of bank loans to GDP and market shares of the big four banks of about 70% for loans and 80% for deposits.

¹² For a more detailed discussion of the bad loan problem in CE, see Ábel and Bonin (1994) and Bonin, Mizsei, Székely, and Wachtel (1998). Some of the material in this section and in the sections to follow also appears in Bonin, Cheng, and Jaffee (1999)

Furthermore, at the beginning of the banking reform in 1990 in then Czechoslovakia, all of the working capital of SOEs was funded by short-term, low-interest, revolving bank credit referred to as TOZ loans. A centralized hospital bank, Konsolidacni Banka (KnB), was created for restructuring these loans on commercial terms. All TOZ loans were transferred along with a comparable amount of enterprise deposits from the other banks. However, the SOE clients remained with their parent banks that provided banking services and new loans. In several stages, other loans classified as bad were transferred from the largest Czech banks to KnB for work out and the government recapitalized the parent banks.

Although considered appropriate at the time, the Czech solution failed to insure the strength of the domestic banking system. Neither the creation of a separate hospital bank for credit obligations extended on non-market terms nor several rounds of cleaning up the banks' balance sheets made the big four Czech banks strong financial pillars. What went wrong? Simply put, the foundations for a strong market-oriented banking sector were not put in place. First, the big banks did not achieve independence from the government as the state-retained majority or near majority stakes in them after these banks participated in voucher privatization. Second, the incentive (flow) problem was not solved as the banks not only retained their clients but they became even more involved with some of them as a result of voucher privatization. In the privatization process, banks through their investment funds took ownership stakes in some of their clients so that the potential arose for a conflict of interest between the bank as an equity holder and the bank as a debt holder. When a mini-currency crisis hit, Czech firms became distressed and the banks' balance sheets suffered. Interestingly, the Czech

government's protectionist policy had allowed domestic banks to maintain high spreads and, hence, earn reasonable profit margins. Even in this environment in which banks could self-capitalize, the bad loans problem was not resolved because soft lending practices were continued. The large Czech banks are currently in need of another round of significant recapitalization before they can be sold to foreign investors. Estimates now indicate that the total cost of bank restructuring in the Czech Republic may be about 30% of GDP, making the Czech clean-up the highest cost restructuring program in any transition economy to date.

By contrast, Hungary pursued a policy of privatizing state banks by selling controlling shares to strategic foreign investors as rapidly as possible. Such sales required recapitalization of the banks to make the combination of current net worth and franchise value attractive to a foreign investor. However, multiple recapitalizations of its domestic banks earned Hungary the dubious reputation as the country most oblivious to moral hazard. The first recapitalization was insufficient both because the instruments used were not sufficiently liquid or financially attractive and because the recapitalized banks were still servicing bad clients. A second recapitalization, using market-type instruments, was ultimately successful because it was followed closely by privatization to independent, foreign, owners. This combined recapitalization and privatization strategy left Hungary with the strongest banking sector of all transition countries.

The Hungarian experience points to the importance of achieving independent governance both from the state and from undesirable clients. Of more importance than inherited bad loans to the forward-looking operations of the bank are inherited bad clients. The Hungarian bank with the most exposure to loss-making SOEs was Magyar

Hitel Bank (MHB). Prior to searching for a strategic foreign investor but after recapitalization, MHB's loan portfolio was divided into good and bad assets. The bad loans along with these clients' deposits were separated from the good part of MHB and a department was set up to work with these clients in an attempt to recover some portion of the bad loans. Only the good bank was privatized; this transaction attracted a strategic foreign investor who increased subsequently the bank's capital.

The Polish experience indicates the inappropriateness of making banks responsible for enterprise restructuring. The World Bank supported a program of bank-led enterprise restructuring based on the notion that the major bank creditor had sufficient information about their clients either to promote restructuring or to decide to liquidate large SOEs. Financial restructuring dominated bankruptcy as the preferred option (Gray and Holle, 1996). The main instrument used to restructure loans was the debt-equity swap; this option was chosen disproportionately by the weaker banks. Hence, weak banks with no expertise in restructuring large companies wound up taking ownership stakes in their weak clients. Furthermore, new bank credit was provided to ailing enterprises in about a third of the cases surveyed by Gray and Holle (1996). In a case study of one Polish bank, Bonin and Leven (2000) find that new credit extended to three large military-industrial clients in the program exceeds the total amount of bank recapitalization and leaves the bank with more, rather than less, exposure to these clients after financial restructuring. As in the Czech Republic, Poland's program strengthened, rather than severed, the ties between banks and their undesirable clients. Hence, the Polish program provided breathing room for weak SOEs to postpone painful restructuring

and, in doing so, it underscores the importance of banks divesting themselves of their non-viable clients.

4.3 Implications for China

How can the policymakers who are promoting banking reform in China use these international experiences? Obviously, it is unreasonable to expect China to follow Hungary's example and sell majority stakes in its SOBs to strategic foreign investors. If resolving the bad loan problem and promoting independent, sound commercial lending decisions in state-owned banks are taken as the medium-term objectives of Chinese banking reform, several lessons can be drawn.

To begin with, four important differences between the Chinese and U.S. situations make the experiences of other transition countries more relevant than that of the U.S. to China. First, the RTC was established to deal with mainly real estate loans from S&Ls that had been shut down or merged with other banks. Hence, the flow issue of new bad loans from the originating financial institutions was not a problem in the U.S. In China, the loans transferred to AMC were made by SOBs to their SOE clients. Both banks and creditors continue to have ongoing financial relations with each other. Hence, the flow problem of preventing new bad loans becomes a prominent concern. Second, the bad assets taken over by the RTC were eventually sold in the deep and sophisticated capital markets of the U.S. China's capital markets are thin and segmented; thus, they resemble capital markets in transition economies so that it will be difficult to dispose of bad assets rapidly. Third, in the U.S., and in the Czech Republic initially, a large portion of the loans transferred were performing, good assets. In China, only NPLs will be transferred so that all such assets will require work out. Taking into consideration the thin asset markets in

China, such loan work out will likely rely more heavily on debt/equity swaps than on asset sales. Fourth, the RTC used outside consultants extensively to manage and dispose of the bad assets. In China, the availability of outside expertise is limited so that emphasis must be placed on attracting and retaining competent staff for AMCs.

The second crucial point is that preventing the flow of new bad loans is more important than getting rid of the stock of existing bad loans. The Czech experience indicates that transferring bad loans from all banks to a single centralized hospital bank does not solve the incentive problem if the client remains attached to the original SOB. Experience in Poland indicates that, while banks may have the information to deal with problem clients, they do not often have the expertise and incentives to do so. The Hungarian experience illustrates the wisdom of separating bad clients from banks that are being restructured and recapitalized. This is an important lesson for China in its reform of the banking sector.

A third lesson is that attention must be paid to the organizational structure of the AMCs. One drawback in the design of the RTC was the inclusion of social concerns among its multiple objectives. In China, the AMCs will be centralized state-owned organizations. As the experiences in the transition economies validate, state-owned financial institutions have their own governance problems. The experience in Poland indicates that, although the state-owned parent banks may have had the necessary information to restructure financially their problem clients, they were not the best agents to promote the business restructuring of SOEs. Hence, internal incentives must be designed carefully to take account of the skills and human capital of the employees and

also to address the likely principal-agent incentive problems in the SOE organizational structure.

A final lesson is that, although privatizing its SOBs by selling them to foreign investors is not a strategy that China can take from the Hungarian experience, the Hungarian government's credible commitment to no further bank bailouts is a fundamental lesson. From the experiences of the three transition countries, stemming the creation of new bad loans by making a credible commitment to a once-off government recapitalization of the banks and, thus, leaving the banks responsible for all future loans is crucial to the success of banking reform policy. The failure to do so cost the Czech Republic both time and fiscal resources. Whether or not a credible commitment to no future bank recapitalization is possible when the four large and dominant banks continue to be state-owned is the critical problem with which China must grapple.

5. Asset Management Companies

The Chinese government began to address the bad loan problem in 1994 with the creation of policy banks to take over policy lending from the SOBs. From 1996 onward, the government set aside each year a large fund, consisting of RMB40 billion in 1998, to write-off the bad debts of SOBs. Between April and October in 1999, China established four AMCs associated with the four pillar commercial banks: Cinda (CBC), Huarong (ICBC), Orient (BOC) and Great Wall (ABC). Each received RMB10 billion from the state budget as registration capital to cover current operating expenses. The AMCs are set up to operate for ten years so that, like the RTC, they have sunset provisions. However, unlike in the U.S., the government is creating four separate centralized agencies rather

than a single centralized loan workout agency. Of crucial concern for proper incentives is the fact that each major SOB will have its own AMC.

Together the AMCs are intended to deal with about RMB1 trillion NPLs, which is slightly less than half of the estimated NPLs of Chinese banks. Even using conservative estimates, the magnitude of the work out in China as a percentage of GDP is significantly higher than in U.S. For example, assume that no more than half of the assets transferred to the RTC was non-performing and that NPLs are 25% of GDP in China. Then, transferred assets to GDP in China would be about three times that same ratio in the U.S. and half of the stock of bad debt would still be left with the parent Chinese banks.

5.1 Operation of the AMCs

In April 1999, the Chinese government established the Cinda Asset Management Company (Cinda) to take over bad loans from CBC. Beginning in September 1999, NPLs were transferred to Cinda for workout and recovery. The intent is to remove some portion of the NPLs from the balance sheet of the parent bank, CBC, and place them with Cinda, which will take responsibility for their workout and recovery. Cinda is expected to collect what it can or repackage the loans and sell them at discounted value on secondary markets. The basic premise is that financial restructuring of the SOEs is necessary to make them economically viable. Reducing the debt burden is intended to promote their profitability. To facilitate a reorganization of their capital structure, Cinda will be encouraged to swap bad debt for equity in some large SOEs.

The transfer of NPLs from parent banks to AMCs involves an exchange at the face value of the loans; thus, the parent banks are compensated fully for all transferred loans. Two methods of compensating the SOBs are to be used. The first is to transfer

some central bank re-lending from the parent banks to the AMCs; this method is planned to account for about 40 per cent of the value of the transferred NPLs. The second is for the parent banks to purchase bonds issued by the AMC, guaranteed by the Ministry of Finance, and paying interest comparable to Treasury bonds of similar maturity; this method is planned to account for about 60 per cent of the value of the transferred NPLs. Obviously, the first approach takes both bad assets (NPLs) and liabilities (re-lending) from the parent bank's balance sheet and thus downsizes, to some extent, the SOB. The second approach exchanges bad assets (NPLs) for good assets (AMC bonds). Hence, the resulting hole on the SOB's balance sheet, created by the transferred NPLs, is filled.

AMCs are temporary financial institutions with multiple roles to play during their ten-year lifespan. They will operate as both rapid asset disposal and SOE restructuring agencies; the latter involves both financial and operational restructuring. Thus, Chinese AMCs will be hybrids of the two types identified by Klingebiel from international experiences. As restructuring agencies, they will play the role of turnaround managers. Because of the lack of investment banks and venture capitalists in China, AMCs are likely to perform a host of tasks required to restructure SOEs and promote their eventual financial viability.

Organizationally, AMCs are structured as SOEs under the oversight and control of three government agencies. First, the Ministry of Finance provided AMCs with their initial capital and will bear the consequences of their operation. If the AMCs cannot dispose of all transferred NPLs, the Ministry of Finance will either take over the nominal equity or write off the bad debts directly. Second, the supervision of AMCs is the responsibility of the central bank, PBOC. The main reason that China is establishing the

AMCs as distinct organizations separate from their parent banks is that current regulations prohibit commercial banks from engaging in investment banking activities. However, the combination of close ties between AMCs and their parent banks and a shared responsibility for the operations of AMCs between the Ministry of Finance, in its financing role, and the PBOC, in its supervisory role, is likely to invite moral hazard problems. Finally, the State Economic and Trade Commission (SETC) determines the allowable debt/equity swaps for AMCs so that the government may pursue its industrial policy through the AMCs. Having three government agencies involved in their governance, AMCs will be expected to pursue multiple, and often conflicting, objectives.

5.2 Still unsolved problems

The first problem is that, although AMCs are new financial institutions, they are structured organizationally as SOEs. Although some AMCs have devised incentive schemes to stimulate employees' efforts, it is unclear how these will be sufficient to overcome the regulations. More likely, the traditional problems associated with SOEs in China, e.g., shirking and corruption, will plague the AMCs. Without more independence from government agencies, AMCs are also likely to have their activities influenced significantly by government policy.

The second problem is that, although the AMCs are expected to engage in a broad range of financial activities, e.g., loan recovery, venture capital activities, strategic consulting and investment banking, their employees lack the requisite skills for doing so. Employees transferred from parent banks will not be trained to fulfill these tasks. After five months of operation, Cinda already suffers from two labor problems, namely, redundant workers and the lack of necessary skills in its labor force. Unfortunately, unlike

the RTC in the U.S., the AMCs in China do not have the opportunity to hire specialized agencies to provide the missing skills.

A third crucial concern is the moral hazard problem due to the current one-to-one relationship between a parent bank and an AMC. Although obviously helpful for information sharing and other collaboration, such as working out small NPLs, this connection fosters collusive behavior and inhibits competition. Under the current arrangements, it is likely that the parent bank will perceive the AMC to be an outlet to which it can transfer more NPLs in the future. To the extent that the government can not make a credible commitment that the current transfer is a once-off policy, the SOB will treat its AMC as a government agency that implicitly insures its lending activity. Hence, the SOB will be lax both in refusing local government intervention to make new loans on a non-commercial basis and in managing the risk of its commercial portfolio.

The final problem is related to the possibility of strategic behavior by SOEs if the government can not commit credibly to a once-off policy. The SOBs are concerned about widespread loan defaulting because of the new instrument of debt-equity swaps available to AMCs. Although the objective of this reform tool is to improve the capital structure of debt-burdened SOEs, the new instrument may actually encourage even profitable SOEs to stop paying interests on the bank loans so that they too qualify for debt relief. If this happens, the consequences for China would be beyond measure.

If these problems are not resolved, existing NPLs will not be dealt with effectively but, more importantly, new NPLs will be encouraged through soft lending by the SOBs. AMCs will be forced to take on more NPLs over time as the government will recapitalize

the SOBs again and again. Such a vicious cycle will entrench moral hazard problems and guarantee continuing deterioration of the Chinese banking assets.

6. Conclusion: Policy Recommendations

The establishment of AMC's in China provides the potential for putting in place a solid foundation upon which a strong reformed banking system can be built. However, current policy suffers from a crucial flaw, namely, the inability of the government to make a credible commitment to avoid transferring new NPLs to the AMC's in the future. The true extent of the bad loan problem in China is not known. Identification of bad loans is not trivial in any banking system. The necessary information to distinguish a good from a bad loan is imbedded at the branch level, oftentimes with the responsible loan officer. Even in developed banking sectors, old loans may be rolled over and new lending provided to capitalize interest arrears and maintain a loan as performing for a preferred client. Similar strategies have been applied to loans to SOEs in other transition economies.¹³ The identification problem is magnified in China because the standard international loan classification system has been adopted only recently.

As a policy principle, proposals to resolve the stock component of bad loans must take full account of the flow problem of new bank lending to bad clients; here incentive issues are paramount. The dynamic evolution of the stock of NPLs in other transition economies consists of both gradual recognition and continued soft lending to loss-making

¹³ When a strict trigger was applied to the Bankruptcy Act in Hungary forcing any company with any loan of any amount that is overdue for 90 days to file for bankruptcy, several large banks began granting 89-day loans to preferred clients.

clients, i.e., making new bad loans. The former is related to unrevealed information due to an unwillingness to disclose the true nature of client loans because of internal incentives within the bank and to uncertainty about the ability of a client to repay a loan because of the overall economic environment in which the client operates. In contrast, the latter is solely an incentive problem and is caused by the link between the bank and its longstanding client. Any policy that strengthens this link exacerbates the flow problem. The explicit or implicit backstop support of the government for SOEs promotes the expectation that the government guarantees any loan to an SOE. For this reason, it is well understood that a government bailout to recapitalize a bank that has a stock of old bad debt should be a credible once-off policy. In practice, however, the convolution of information and incentive issues makes this policy principle difficult to follow.

Resolving the bad loan problem in China rests on two key principles that allow the government to make a credible commitment to a once-off bank recapitalization policy and avoid the moral hazard problem of encouraging new bad loans. First, SOBs must become independent in decision-making from both the state and their bad clients. Independent bank governance turned out to be more elusive than expected in the transition countries; it was often inhibited both by policies designed to deal with bad loans and by policies designed to promote enterprise restructuring through bank involvement. Second, AMCs should be allowed to develop into financial institutions that provide competition for the commercial business of the big four SOBs. In the transition economies, the entry of new undercapitalized commercial banks did not promote effective competition; rather it led to systemic instability. Allowing foreign bank penetration turned out to be an effective means to encouraging such competition;

however, this avenue is not open wide enough in China at present. Hence, effective competition must be developed from within and AMCs can play a role in achieving this goal. Finally, the government should broaden the possibilities for privatization and encourage the participation of a wider group of buyers. What are now thin capital markets in China need to be deepened and broadened to facilitate the eventual disposal of assets by the AMCs.

Since the separation of clients from banks was the key to solving the flow problem in other transition countries, severing relationships between SOBs and weak SOEs should be an important component of the Chinese reform program. Our first recommendation is to designate a review period during which the parent bank can decide which of its clients it wishes to shed.¹⁴ The review period should not be overly long to avoid providing the SOB with disincentives to monitor properly its current assets. The loans to clients so designated should be transferred to the AMC along with these clients' deposits. This policy achieves the dual objective of making the parent bank independent from undesirable clients and holding the SOB accountable for loans to the SOEs that it retains as viable clients. Furthermore, the AMC gains leverage over the SOEs whose loans it is attempting to recover and takes on the responsibilities of an ongoing financial institution rather than acting as a temporary loan collection agency. The current legislation does not permit AMCs to take deposits of any kind so that changes in their

¹⁴ Since Cinda has already begun operations by taking over NPLs from its parent bank, this policy can not be applied without modification to Cinda. However, a transitional period could be arranged for further transfer of loans from CBC to Cinda in keeping with the spirit of the proposal.

charters are required if this proposal is to be implemented. We recommend that AMCs be allowed to take commercial deposits only, and not household deposits, so that their charter would resemble that of an investment bank.

In addition to severing the relationship between weak SOEs and parent SOBs, this modification of the Chinese reform proposal changes the character of the AMCs. The AMC is no longer a temporary collection agency created only to work out bad loans; rather it is a new financial institution given the immediate task of restructuring SOEs and supporting financially the resulting businesses. With this change, it becomes more like a restructuring agency than a rapid loan disposal agency. Recruitment of talented people to the AMC will be easier if it is viewed as an ongoing financial institution rather than as a loan collection agency that is intended to close shop after resolving the existing NPLs.¹⁵ The skills learned by the staff from dealing with enterprise restructuring should be transferable to venture capital and investment bank activities in the longer term leaving the successful AMCs with an important role to play in China's evolving financial markets.

The establishment of AMCs provides a unique opportunity to construct new efficient organizational structures. In order to encourage collection of revenues and to punish nonperformance and corruption, a penalty-incentive scheme is essential. Furthermore, AMCs must have the flexibility to recruit and dismiss employees without

¹⁵ A similar institutional issue existed for the Treuhandanstalt, an agency established to privatize SOEs in the former GDR. The staff members used their experiences in Germany to set up a consulting agency to advise privatizations in other transition economies.

the constraints imposed by labor laws on SOEs. AMCs should be allowed to contract with specialized agencies, including foreign agencies, to assist in handling situations that are beyond the capacity of their own staff. However, the staff of the AMCs should also be given incentives to develop the necessary skills to manage assets efficiently and to restructure SOEs to bring new, rejuvenated companies to the capital market. Hence, the AMCs would provide the training ground for a cadre of domestic staff to acquire the requisite financial skills to further the development of the Chinese capital market. Finally, to promote effective competition among AMCs, the AMC must be independent both from its parent bank and from direct control by government agencies.

To address the problem of insufficient opportunities to dispose of assets on secondary markets, the government should open up capital markets. The capital markets in China are currently very small and thin so that recovery on secondary markets is likely to take a significant amount of time. The potential buyers of these assets include private corporate and foreign strategic investors. However, to attract these investors, privatization policy towards SOEs must become more flexible. Their involvement will help the AMCs dispose of their assets more quickly and also provide an important impetus to SOE reform. In the longer term, privatization of the SOBs themselves should begin gradually. Such policies require a more decisive approach to ownership reform of the state sector at the highest levels of the government.

As a complementary policy, the development of sound banking regulation and effective prudential supervision is necessary to impose the proper incentive structure on the SOBs. From a regulatory perspective, the reform must go beyond legislation requiring banks to adopt the standard five-category loan classification system used

internationally to promote the proper recognition of problem loans. The experiences in Hungary and the Czech Republic make clear that legislation is not sufficient. Attention must be paid to the incentives of bank decision-makers if the actual quality of the loan portfolios is to be revealed. Since banking is a relational activity, bank officers will protect a client with whom they wish to continue to do business.

At the end of last year, the PBC inspected fifty branches of SOBs having a large increase in bad loans. Dozens of managers, including two senior officials at Beijing branches of ICBC, were dismissed for incompetence and mismanagement (*Financial Times*, March 22, 1999). The intent was to change the behavior of managers who had built local fiefdoms and felt secure in their positions because it was rare to be sacked for incompetence. Furthermore, these bank managers were able to maintain good relations with local government authorities because of their support of local SOEs. This policy is a step in the right direction as penalties are an important component of supervision. However, a more comprehensive restructuring of internal incentives and independent bank governance should follow. The information necessary to ferret out improper behavior is difficult to obtain, especially when coalitions form in whose self-interest it is to keep this information hidden.

To resolve completely the NPL problem, both old and new, requires reform strategies that go beyond considerations of the AMCs and the SOBs. Because of the triangularization of the bad loan problem, a successful reform of the fiscal system, the restructuring of the SOEs, and the creation of independent SOBs are all interdependent. The regional reorganization and proper functioning of the central bank is critical because of the regulatory role it plays in the financial system. The reform of fiscal financing is

crucial to the bringing to a halt soft lending by SOBs to weak SOEs and, thus, to removing the responsibility for financing the government's industrial policy from the commercial banking sector. Although these are important policy issues, the consideration of complementary reforms is beyond the scope of the current paper.

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