

# Financial Reorganization of Banks and Enterprises in China: A Proposal

by

Lawrence J. Lau and Yingyi Qian  
Department of Economics  
Stanford University

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Since January 1994, foreign exchange reform and tax and fiscal reforms in China have proceeded smoothly and successfully. These achievements, however, leave banking reform and enterprise reform lagging behind and becoming the major drag on the whole reform process. In this paper, we attempt to address some immediate concerns of the Chinese economic policy makers by proposing some schemes for financial reorganization of banks and enterprises that are implementable at the current stage. First, we propose a scheme to deal with the problem caused by massive non-performing loans on the balance sheets of the specialized (commercial) banks and the associated problem of their under-capitalization; and second, in conjunction with the cleaning-up of the balance sheets of the banks, we propose a method of financial reorganization for the state-owned enterprises without resort to massive and immediate bankruptcy. In order to achieve these dual objectives, we also propose to establish a government trust fund named the Enterprise and Bank Reconstruction Fund (EBRF) for facilitating the financial reorganization of enterprises and banks.

The paper is organized as follows. In section 1 we specify the task of cleaning up the balance sheets faced by China as well as the constraints in carrying out the task. Section 2 summarizes some lessons from the experience of Eastern European countries and post-war Japan. In section 3 we present the three basic principles underlying our proposal. In section 4 we explain the need for the new institution EBRF. We proceed to elaborate details of the proposal on reorganizations of the banks and enterprises in sections 5 and 6 respectively.

## 1. The Task of Cleaning-Up the Balance Sheets

There are several features of the non-performing bank loan or bad debt problem in China.<sup>1</sup> First of all, the scale of the problem is massive.<sup>2</sup> If 20-30 percent of total outstanding bank loans is regarded as non-performing, bad debts would amount to 17-25 percent of GDP by the end of 1993 as the total outstanding loans to GDP ratio is 84 percent. This would translate into about 530-800 billion yuan (A Statistical Survey of China, 1994). Second, the reasons for bad debts are complicated and multi-dimensional. Bad planning, distorted prices, political considerations, bad management, etc. are all possible. Third, the problem of bad debts is not just a one-time phenomenon inherited from the past, it is an on-going phenomenon. The vicious circle of bad debts to policy loans to bad debts is still continuing. Fourth, because the creditor is the state, serious commitment problem may arise as the state has too strong a power to renege on its earlier promises. This may seriously damage its reputation and abort the otherwise successful reform scheme. Finally, the current macroeconomic environment in China is favorable to the solution of the bad debt problem in the following sense. High real growth rates (around 10 percent per year) implies raising future revenue to cover past losses is relatively easy; high savings rates (above 35 percent of GDP) means the assets of banks and hence their profits and net worth can recover rapidly in a relatively short period; and high inflation (between 10-20 percent per year) and negative real interest rates will reduce or eliminate some of the real liabilities of enterprises as well as banks.

It is important to understand the deeper reasons that make the bad debt problem in China fundamentally different from the bad debt problem in many other countries. There is essentially only one creditor--the state bank. (The real picture is a little more complicated than the single creditor model, as there may be two or three state banks involved.) To the extent that much of the difficulty involving the bankruptcy

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<sup>1</sup> Throughout the paper, non-performing loans (daizhi daikuan or daizhang) do not include over-due loans (yuqi daikuan).

<sup>2</sup> This does not include the inter-enterprise debt, more commonly referred to as triangular debt (sanjiaozhai).

procedures in the West arises exactly because of many creditors and many classes of creditors, the case of China is theoretically simpler than that in a typical case in the West. Moreover, since both the creditor--the state banks--and the debtor--the state enterprises--are ultimately owned by the same "person"--the state, it is in principle easy to simply cancel the debt. However, the real challenge in China is that under the same nominal owner--the state, three major groups of stakeholders involved have very different institutional interests. State-owned enterprises (as represented by the State Economic and Trade Commission) would want to see more write-offs and forgiveness of the bad debts; state banks (as represented by the People's Bank of China) would incline against doing so if they cannot be sufficiently compensated; and the Ministry of Finance would not want to further increase the budget deficit for financing recapitalization by budgetary revenue. The crux of the reform is to ensure that these various institutional interests should be considered and balanced out but without sacrificing the whole of the national interest. In addition, the state should also make sure that the cancellation of the debt does not set up, by precedent, implicit incentives for undesirable behavior on the parts of enterprises and banks in the future.

Restructuring financial relationship between enterprises and banks in China is a very complicated and long process. It is useful conceptually to decompose the whole process into two stages: The task in the first stage (the transition stage) is to clean up the balance sheets of the banks and enterprises from the past, which is essentially an once-for-all task. The task for the second stage (the stable stage) is to establish normal rules of the game to deal with non-performing debts and bankruptcy procedures for enterprises exiting from the transition stage. The two tasks are related, because the commitment to the task in the second stage affects the expectation of enterprises and banks in the first stage. We will restrict ourselves in this paper to only the task in the first stage: how to deal with the current bad debt problem without causing massive and immediate bankruptcy of the enterprises?<sup>3</sup>

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<sup>3</sup> Aghion, Hart, and Moore (1992) proposed a new bankruptcy procedure shown to be superior to the current Chapter 7 (liquidation) and Chapter 11 (reorganization) of the U.S. bankruptcy codes. They believe the former is too harsh and the latter is too soft, and their proposal strikes the right balance between liquidation and

Why is cleaning up the balance sheets of the banks and the enterprises so necessary and urgent? First, it is for the release of the state banks from burdens of the bad debts and policy loans. This removes the major obstacle of their conversion to commercial banks to operate on purely commercial principles. Especially, this will provide the state banks with incentives to monitor the process of enterprise restructuring and to play active roles in enterprise governance. Second, it is for the release of enterprises from the debt-overhang so that they can move on to restructuring and to new businesses. Finally, it is for containment of the bad debt problem, if not stop it, so as to change the expectations of both the banks and the loss-making enterprises.

Why should massive and immediate bankruptcy be avoided in the reorganization of enterprises to solve the non-performing loans problems in the early phase of the transition stage? First, as the Chinese government clearly stated, political stability is the first priority. As bankruptcy involves too many layoffs of workers, it would undermine political stability. Second, experiences in other countries have shown that bankruptcy is too costly a procedure. It is even more costly for transition economies, as it could easily overload the system and cause delays. Third, even if bankruptcy is not costly, it may not be desirable in the first place, as it is very difficult to judge the real causes of non-performing loans. Bad loan performance could be due to bad assets in place, regardless who manages them; it could be bad management, a better manager would save the enterprise; it could also be external reasons in the past beyond the control of management, but continued reform efforts would eliminate these external factors (e.g., price distortions, or bad accounting practices). Finally, there is a pervasive agency problem associated with the liquidation process when the state has a weak capability to protect the interests of the creditor and the state assets will likely be ripped off by managers and workers of enterprises.

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reorganization. Elements of their proposal might be useful in making the choice of bankruptcy procedures for China in the second stage.

## 2. Lessons from Other Countries

Although developed market economies can offer much on the task in the stable stage, they have little to offer on the task in the transition stage. The most relevant experience for China comes from two other sources: the recent transition experience in Eastern Europe, and post-war Japan, in both cases massive non-performing loans were the major concern. In the Eastern European case, the environment is very similar to that of China, except that the governments there have committed to privatization. However, it is too early to judge the results of their reform strategies.<sup>4</sup> In the case of Japan, the bad debt problem looked similar (about 20 percent of GDP), but its environment was a little different. In Japan, bad debts were exogenously imposed by the war only as a one-time damage and bad debts could be clearly identified. Further, Japan had more quality managers in both banks and firms, and had much more developed financial institutions (e.g., the stock market) after the war than present-day China. But the Japanese experience has proved successful. Elements from both experiences could be useful for China.

Non-performing loans in Eastern European countries have the same magnitude of scale (about 20-30 percent of total outstanding loans in 1991-92) as that in China. The methods used vary across countries as well as over time, but some patterns can be identified in Hungary, Czechoslovakia and Poland (Dittus, 1993). The stock of loans are divided into two categories. For the category of loans with well-defined stock carrying low interest rates (e.g., housing loans), countries preferred to separate these loans from the banks and put them into separate organizations and resorted to budgetary interest subsidies. For the remaining non-performing loans, there are basically two approaches. The first approach is to recapitalize banks and let them deal with the loans themselves (Czechoslovakia and Poland), and the second approach is to separate out some bad loans into a separate organization (Hungary). In both cases recapitalization was made by capital injection through government bonds. In the case of Poland, recapitalization of banks is conditional on their

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<sup>4</sup> In Russia, hyper-inflation wiped out most old debts.

monitoring of enterprise restructuring, while in Hungary, recapitalization is unconditional. As for those enterprises which had relied on the continued flow of credit to survive, Poland provided an alternative to liquidation: A special facility provides support to enterprises subject to annual budget ceilings and conditioning on harsh adjustment on the part of enterprises. Czechoslovakia had committed to privatization without providing such supporting program.

The post-war Japanese experience of a large scale restructuring and reorganization of banks and non-financial corporations had several distinct features (Hoshi, 1994). (1) In Japan, reorganization of banks came before reorganization of industrial non-financial corporations, partly because of the delay of the latter due to anti-trust issues. (2) In both cases, balance sheets were separated into new accounts and old accounts, and the new account was created for the purpose of continuation of the on-going business. (3) Inside the old account, a reconciliation account was created to continue the reorganization process even after the later mergers of the old and new accounts.<sup>5</sup> (4) Banks were able to use the stock market for recapitalization just before it collapsed in August 1949. (5) During the corporate reorganization, banks sent representatives to firms which started the close relationships between the banks and firms. The Japanese approach is interesting because it avoided formal bankruptcy procedures, relied mainly on (out of court) reorganization with little liquidation, and, most importantly, succeeded.

### 3. The Three Basic Principles Underlying Our Proposal

Our proposal draws useful lessons from other countries and takes the special circumstances of the Chinese economy into consideration. We recognize, right from the start, that sunk costs are sunk costs, the losses of the enterprises are real, and most, if not all, of the non-performing loans are not recoverable. The question is how to reflect these losses on the financial balance sheets and how to move forward without

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<sup>5</sup> The process was actually slow: it took two years for the two accounts of banks to be merged (and even longer for non-financial corporations) and full repayment of the frozen bank deposits in the reconciliation account was completed 13 years after the start of reorganization.

creating incentives for the massive non-performing loans problem to occur again. There are three basic principles underlying our proposal: (1) In addressing the sequencing problem of reorganization of banks and enterprises, we give priority to that of banks; (2) We make a clear distinction between the stock of non-performing loans and the flow of "policy loans" that are expected to be non-performing and treat them differently, and we feel that overall the flow problem is more important; and (3) We emphasize on the importance of credible commitment by the government to use the proposed method of reorganization only once-for-all and to change the regime henceforth.

Why should reorganization of banks be addressed first? First, the number of state banks is very small, the state banks remain subordinated to the central government and the internal organization and accounting of banks are also quite centralized. In comparison, the number of non-financial enterprises is huge, most of them are subordinated to local governments and the internal organization of these enterprises is quite decentralized. Therefore, the state control and monitoring for banks during reorganization are made much easier than those for enterprises. Second, the banking sector is an expansionary sector of the economy, reorganization of banks is unlikely to involve any layoffs or liquidations. Third, after reorganization, the banks' incentives can be improved so that they can be effectively utilized for monitoring reorganization of enterprises on behalf of the state. Indeed, banks will be relied upon later in our proposal for financial reorganization of enterprises. And fourth, recapitalization of state banks will be less costly as, compared with enterprises, the banks have a diversified portfolio and expose to little idiosyncratic risks.

Why should the stock and flow be separated and the flow problem be given more weight? The stock problem is a problem of the past--the money has already been lost, it is an accounting exercise to determine where and how the losses should be recognized. The remaining issue is mainly a problem of rents redistribution. It is important to distinguish between one-time cleaning up (i.e., the stock problem) and repeated procedures (i.e., the flow problem) in the future. With repeated procedures, ex post division of rents has critical ex ante incentive effects. This is not true in the one-time cleaning up. Therefore, solving the

flow problem is more important at this stage because it affects future expectation and behavior. Unlike Eastern Europe and Russia, privatization is not on the agenda in China and therefore continuation of subsidies or "policy loans" is more of a problem. Of course, the stock and flow are closely related: on the one hand, without solving the flow problem, the stock will grow; on the other hand, without solving the stock problem of the bad debts, banks may continue to lend to old customers and have no incentives to help restructuring enterprises due to debt-overhang, so the flow problem with credit misallocation continues. At the present time, we believe the first effect is dominant.

Third, why is commitment by the government critical? In one-time cleaning-up, the important issue is to provide credible signals that such a practice will not be repeated in the future, that is, to prevent flows from becoming stock again. Unlike normal bankruptcy procedures which is to achieve dual roles of ex post efficiency and ex ante disciplinary effects, the dual purpose of the strategy for the transition period is ex post efficiency and commitment to the regime change. Without such a commitment, the financial mess would repeat within a few years. Therefore, the government should set priority for making a credible commitment, through institutional arrangements, to containing the flow problem of policy loans and eventually stopping it. The credibility of commitment will be enhanced if the government enacts new bankruptcy procedures which will apply to firms after they exit the transition period. Cancellation of bad debts of enterprises and recapitalization of banks can only be done once, to avoid moral hazard on the part of enterprises and banks. Henceforth market principles will prevail and the state will no longer intervene to avert bankruptcy. It is, however, also important for the government to provide some leniency up front to avoid social instability which may in turn lead to ex post reversal of the policy, destroying the credibility of government commitment.

#### 4. Establishment of Enterprise and Bank Reconstruction Fund

We propose to establish the Enterprise and Bank Reconstruction Fund (EBRF) (qiye yinhang

chongjian jijin) for the sole purpose of facilitating enterprise and bank restructuring. The EBRF could be subordinated to either the State Council or the Ministry of Finance. The EBRF has two crucial functions: (1) to serve as an intermediary to issue bonds to the banks to offset the losses created by the non-performing loans as a first step toward solving the stock problem; and (2) to provide subsidies through a special facility for loss-making enterprises in lieu of the policy loans, thus solving the flow problem. The EBRF will hold common shares of the banks solely in a custodial capacity on behalf of the state. The state, through the State Council or the Ministry of Finance, ultimately exercises the voting rights on the common shares held by the EBRF.

Why is the EBRF needed for this purpose? The problems with policy loans have long been recognized. Since January 1994, three policy banks have been established which are supposed to take the responsibility of policy loans. Because each of the three policy banks has specific development missions, they are really development banks in infrastructure, export-import, and agriculture sectors. Therefore they started to take away only loans for development purposes from the specialized banks and they are unable to remove all policy loans from the specialized banks. As a result, the remaining part of the policy loans (the hardcore of the problem) is still under the responsibility of specialized banks--the flow problem continues. The proposed EBRF is precisely for the purpose of removing policy loans to free the banks to operate on purely commercial principles, and of taking care of the necessary subsidies in a transparent way. As such, the EBRF provides a critical linkage between reorganizations of banks and enterprises.

We emphasize that the EBRF is a government trust fund, not a bank, and the operation of the EBRF is totally transparent. Being a new institution-a trust fund with a well-defined and specific mission, the EBRF is perhaps most valuable in enabling the government to signal the real change of the regime and to commit to termination of policy loans, and eventually subsidies, in a credible way. With the help of this new institutional arrangement, our proposal of financial reorganization of banks and enterprises is not just an accounting exercise, it intends to change the future expectations of the banks and enterprises.

The EBRF is a trust fund and needs to be capitalized. It can be capitalized in many different ways. Its liabilities, in terms of bonds issued to the banks and to some enterprises as replacements of "policy loans" will be quite large. However, its annual expenditure, in terms of cash outflow, will be relatively small. But even then, it requires a stable source of cash flows. One potential source is the dividends paid by the banks on the common stock held by the EBRF, to the extent the banks are profitable enough to declare dividends on their common stock. Another potential source is from its interest in the non-performing loans of the banks (to be discussed in the next section); however, this depends on the extent of recoveries and is unlikely to be a reliable source. The government can, of course, contribute some interest-bearing bonds to the EBRF, or authorize the EBRF to issue its own bonds to the public. To secure stable source of cash flows, we propose that in addition, the government may wish to consider allocating shares of some good state-owned enterprises to the EBRF, which can then use the dividends paid by these enterprises to pay its expense without directly resorting to the state budget. Under our proposal, the balance sheet and cash flow of the EBRF will have the forms presented in Table 1 and Table 2 respectively, with details to be discussed in the following sections.

Table 1. Balance Sheet of the Enterprise and Bank Reconstruction Fund (EBRF)	
Assets	Liabilities
Government bonds	Non-transferable zero-coupon bonds issued to state banks
Common shares in state enterprises	Non-transferable zero-coupon bonds issued to "probationary" enterprises
Common shares in state banks	Advances from the Ministry of Finance
50% interest in non-performing loans	Outstanding EBRF bonds issued to the public

Table 2. Annual Cash Flow of the Enterprise and Bank Reconstruction Fund (EBRF)	
Inflow	Outflow
Net new advances from the Ministry of Finance	Zero-coupon bonds issued to state banks due
Dividends from common shares in state-owned enterprises	Zero-coupon bonds issued to "probationary" enterprises due
Dividends from common shares in state banks	Interest and principal payments due on EBRF bonds issued to the public
Recoveries from 50% interest in non-performing loans	
Proceeds of New Bonds Issued by the EBRF	

## 5. Reorganization and Recapitalization of the Banks

For the banks, the simplest solution is for the EBRF to purchase all of the non-performing loans from them. However, this is extremely costly. One method for minimizing the current cost of government bonds issuance is to use non-transferable zero-coupon bonds with staggered maturities--for example, the government can transfer to the banks the equivalent of 100 million yuan worth of bonds in the form of 50 zero-coupon bonds with maturities staggered over the next 50 years (at, say, a 6 percent per annum rate of interest, which is a reasonable estimate of the long-term rate over such a long time horizon)<sup>6</sup>. Since these bonds are non-transferable, their issuance will not have an appreciable effect on the general bond market. The government will only need to redeem 2 million yuan of the bonds the first year, \$2.12 million yuan the second year, \$2.24 million yuan the third year, etc. With continued growth of the economy and inflation, the financial burden to the government is considerably reduced by the use of non-transferable zero-coupon

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<sup>6</sup>The bonds will have a face value equal to its principal value. It will carry a rate of interest that reflects the opportunity cost of very long-term funds, which should be considerably lower than the current, short-term rates. However, interest will be accrued and paid only upon maturity of the bonds.

bonds.

The additional problems with an outright full purchase of the non-performing loans by the EBRF through the issuance of these bonds are: (1) The EBRF has little or no ability to recover anything from the non-performing loans; (2) The banks, which are the only ones with some ability to collect from the enterprises, no longer have any incentive to do so; and (3) There is no real significant increase in the resources of the banks even after the reorganization. In avoiding these problems, we propose the following method of reorganization of the banks. The proposed reorganization of the banks involves the following four steps.

Step 1. Marking to Market. The assets and liabilities of each bank must be marked to market. This means that everything must be revalued at its market value. Loans that have been non-performing for over a year will be marked down to zero; bonds with low nominal coupon rates should be valued at a discount to its face value; real estate owned or controlled by the bank (so that there are long-term transferable use rights) will be valued at the market price; the present values of unfunded future pension liabilities will also be included as a liability; etc. Thus we have a true picture of the net worth of the bank. For some banks, the net worth may well turn out to be negative, on a market basis. However, it may be the case that the banks still own or control considerable real estate and other assets which may have appreciated in value over time. To the extent that the net appreciation in the assets is significant, the assets can be revalued so as to offset partially the writing down or writing off of the non-performing loans by the banks, thus reducing the recapitalization required.

Step 2. Corporatization. Corporatization of state banks means that banks will take the form of a joint stock company but control can still be fully vested in the state. (We want to emphasize that corporatization is not the same as privatization.) Corporatization of banks enables the removal of obligations of extending "policy loans" from and recapitalization of the specialized banks, which will henceforth operate on purely commercial principles. In particular, corporatization of the banks provides conditions for the state

to impose hard budget constraints on the banks, which should in turn impose hard budget constraints on enterprises (the question of which institution will extend "policy loans" after the reorganization of the specialized banks into purely commercial banks will be discussed in the next section). Corporatization is essential to our proposed recapitalization scheme because it makes possible the issuance of preferred stocks (with no voting rights) by the banks to the public, thus making new resources available to the banks.

Banks after corporatization will have two classes of shares, the common stock and preferred stock shares. The preferred shares will carry a dividend, at a rate somewhat lower than a long term bond, and will have a liquidation preference over the common shares. However, preferred shareholders will have no voting rights except when the bank is in bankruptcy proceedings. Thus, the control and the management of the bank, under this proposal, is exercised entirely by the common shareholders, in this case, the state.

Step 3. Determination of the Forms of Recapitalization. Even full revaluation may not be sufficient to offset the losses caused by the non-performing loans. In order to restore the banks to meet the capital adequacy standard of the Bank of International Settlement (BIS), that is, a capital-to-assets ratio of 8 percent, the banks need to be recapitalized. Because

Total Liabilities = Total Liabilities Other Than Shareholders' Equity (TLOTSE) + Shareholders' Equity, the required capital is equal to  $0.087 \times \text{TLOTSE}$  where  $0.087 = 0.08/(1-0.08)$  approximately. Therefore, the amount of recapitalization required is approximately given by the following formula:

$$\text{Maximum of } \{0.087 \times \text{TLOTSE} - \text{Net Worth at Market}, 0\}.$$

After recapitalization in accordance with this formula, the net worth of a bank will be precisely equal to 8 percent of its total assets (=liabilities).

The infusion of capital will take three forms--the revaluation of assets (as proposed in Step 1),<sup>7</sup> the

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<sup>7</sup>The specialized banks are heavy net debtors to the PBC. It is possible, if the net worth at market of a bank turns out to be very negative, to convert a part of the net debt owed by the bank to the PBC into equity (owned by the state)--a similar scheme has been proposed by Wu Xiaoling and Xie Ping (1994). This can take the form of the Ministry of Finance assuming responsibility for part of the debt in return for an increase in the state's capital in the bank. If this is to be done, it is proposed that sufficient debt be converted so as boost the negative net worth at

contribution of non-transferable bonds by the state (and the issuance of common stock to the state), and the issuance of preferred stock (with no voting rights) to the public. As part of the recapitalization exercise, the non-performing loans will be written down to zero on the balance sheets of the banks but a 50-percent across-the-board interest in the non-performing loans will be transferred to the EBRF.

We distinguish between two cases: (1) the net worth at market is nonnegative and (2) the net worth at market is negative.

(1) The case of nonnegative net worth. If the net worth at market is nonnegative, it is proposed that the nontransferable bonds and the preferred stock will each account for 50 percent of the difference between the required increase in capital and the amount of net revaluation of bank assets. The amount of nontransferable bonds to be contributed by the government is equal to:

$$0.5 \times (\text{Net Worth at Market after Reorganization} - \text{Net worth at Market before Reorganization}).$$

The amount of preferred stock to be issued is the same.

The price per share is simply the net worth after reorganization, presumably equal to 0.08 times the total assets, divided by the total number of shares, common and preferred, outstanding.<sup>8</sup>

Let us consider a concrete example. The balance sheet at book value before reorganization takes the following form:

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market to zero. This is a purely accounting exercise and no money actually changes hands although it does change the interest payable to the PBC on the converted part of the debt into additional profit and taxes of the bank which eventually flows back to the Ministry of Finance.

<sup>8</sup> The total number of shares is in a sense arbitrary. However, the ratio of the number of preferred shares to the total number of shares is not. It is given by:

$$0.5 \times (\text{Net Worth at Market after Reorganization} - \text{Net worth at Market before Reorganization}) / (\text{Net Worth at Market after Reorganization}) =$$

$$0.5 - 0.5 \times (\text{Net Worth at Market before Reorganization}) / (\text{Net Worth at Market after Reorganization}).$$

The total equity of the government is given by the sum of its contribution of non-transferable bonds and the net worth at market before reorganization:

$$0.5 \times (\text{Net Worth at Market after Reorganization} - \text{Net worth at Market before Reorganization}) + (\text{Net Worth at Market before Reorganization}).$$

The ratio of the number of common shares to the total number of shares is therefore given by:

$$0.5 + 0.5 \times (\text{Net Worth at Market before Reorganization}) / (\text{Net Worth at Market after Reorganization}).$$

Table 3. Balance Sheet per Book before Reorganization			
Assets		Liabilities	
Performing Loans	250	Deposits	270
Non-Performing Loans	50	Loans from the PBC	50
Deposits at the PBC	30	Shareholders' Equity	40
Government Bonds	20		
Real Estate	10		
Total Assets	360	Total Liabilities	360

After marking to market but before reorganization, the balance sheet looks as follows:

Table 4. Balance Sheet at Market before Reorganization			
Assets		Liabilities	
Performing Loans	250	Deposits	270
Non-Performing Loans	0	Loans from the PBC	50
Deposits at the PBC	30	Pension Liability <sup>9</sup>	5
Government Bonds	10	Shareholders' Equity	5
Real Estate	40		
Total Assets	330	Total Liabilities	330

Shareholders' equity is down to 5, although it is too low, it is still positive. After reorganization, the balance sheets has the following form:

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<sup>9</sup>This is the present value of unfunded future pension liabilities.

Table 5. Balance Sheet at Market after Reorganization			
Assets		Liabilities	
Performing Loans	250	Deposits	270
Non-Performing Loans	0	Loans from the PBC	50
Deposits at the PBC	30	Pension Liability	5
Government Bonds	21.5	Shareholders' Equity	28 <sup>10</sup>
Real Estate	40	of which preferred stock	11.5
Cash on Hand	11.5 <sup>11</sup>	common stock	16.5 <sup>12</sup>
Total Assets	353	Total Liabilities	353

In this example, net revaluation of assets contributes 15 (=30 (real estate) - 10 (old government bonds) - 5 (pension liability)), new government bonds contribute 11.5, and preferred shares contribute 11.5.

(2) The case of negative net worth. If the net worth at market turns out to be negative, then in principle, the bank has no market value, and the price of its preferred shares cannot be set. We propose that bonds be transferred to the banks to first restore the net worth to zero. Then preferred shares equal to 80 percent of the BIS required net worth will be issued to the public. Common shares equal to 20 percent of the BIS required net worth will be issued to the government in exchange for additional contributions of government bonds. The total amount of government bonds required will be given by:

$$0.2 \times \text{Net Worth at Market after Reorganization} - \text{Net worth at Market before Reorganization.}$$

The last term is a negative number. In other words, an amount of government bonds sufficient to raise the

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<sup>10</sup>The required shareholders' equity is calculated as  $0.087 \times \text{TLOTSE} = 0.087 \times (270+50+5) = 0.087 \times 325 = 28$ , approximately.

<sup>11</sup>This cash comes from the issuance of preferred stock, which is calculated as  $0.5 \times (\text{net worth at market after reorganization} - \text{net worth at market before reorganization}) = 0.5 \times (28-5) = 11.5$ . This is also the amount of new government bonds to the banks.

<sup>12</sup>Common stock is calculated as the difference between total shareholders' equity and preferred stock =  $28-11.5 = 16.5$ .

net worth at market to zero is first contributed to the banks by the government, followed by the infusion of another 20 percent of the BIS required capital.

The distribution of the shareholders' equity between common shares and preferred shares is also somewhat arbitrary in the case of negative net worth. The proposed 80-20 split is to reduce the financial burden to the government and increase the amount of new resources available to the bank, taking into account the fact that it may not be desirable to reduce the proportion of common shares (owned by the state) to too low a level. Another possibility is a 50-50 split to have equal amounts of common and preferred stock for this negative net-worth case, so that the proportion of the value of preferred shares issued to the value of all shares is fixed at 50 percent (but this will require the issuance of more government bonds and reduce the net new real resources available to the bank).

In the previous example, if non-performing loans are 100 instead of 50 and performing loans are 200 rather than 250, and all the remaining items are the same, then the balance sheet at market before reorganization looks as follows:

Table 6. Balance Sheet at Market before Reorganization			
Assets		Liabilities	
Performing Loans	200	Deposits	270
Non-Performing Loans	0	Loans from the PBC	50
Deposits at the PBC	30	Pension Liability	5
Government Bonds	10	Shareholders' Equity	-45
Real Estate	40		
Total Assets	280	Total Liabilities	280

Shareholders' equity becomes -45, which is negative. After reorganization, the balance sheet looks as follows:

Table 7. Balance Sheet at Market after Reorganization			
Assets		Liabilities	
Performing Loans	250	Deposits	270
Non-Performing Loans	0	Loans from the PBC	50
Deposits at the PBC	30	Pension Liability	5
Government Bonds	60.6	Shareholders' Equity	28 <sup>13</sup>
Real Estate	40	of which preferred stock	22.4
Cash on Hand	22.4 <sup>14</sup>	common stock	5.6 <sup>15</sup>
Total Assets	353	Total Liabilities	353

In this case, net revaluation of assets contributes 15 as before, new government bonds contribute 50.6 (45 (for restoring the net value to zero) + 5.6 (new common stock)), and preferred shares contribute 22.4.

In summary, if the net worth at market before reorganization is positive, then there will be more common shares than preferred shares; if the net worth at market before reorganization is negative, then there will be more preferred shares than common shares. But since preferred shares have no voting rights, the relative distribution of shares have no bearing on the control and management of the banks.

Our proposal of the forms of recapitalization has several advantages. First, the total amount of government bonds to be issued is much smaller than the full purchase scheme. Second, as the government only acquires a 50-percent interest in the non-performing loans, the banks still maintain a 50-percent interest in the non-performing loans which have now been marked to zero. Any recovery will be considered net

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<sup>13</sup>The required shareholders' equity is calculated as  $0.087 \times \text{TLOTSE} = 0.087 \times (270+50+5) = 0.087 \times 325 = 28$ , approximately.

<sup>14</sup>This cash comes from the issuance of preferred stock, which is calculated as  $0.8 \times \text{net worth at market after reorganization} = 0.8 \times 28 = 22.4$ .

<sup>15</sup>Common stock is calculated as the difference between total shareholders' equity and preferred stock =  $28 - 22.4 = 5.6$ .

income to the banks. This gives the banks an incentive to recover the loans, which they are more able to do than anyone else, but at the same time it also gives the government an opportunity to receive some revenue on its 50-percent share of the non-performing loans as the loans are recovered by the banks. Thus, this arrangement provides incentives for banks to monitor enterprise restructuring. The across-the-board 50-percent sharing rule gives banks no discretion in the selection of non-performing loans to be sold to the government, thus avoiding moral hazard on the part of the banks. Third, the issuance of preferred stock has the advantage of injecting real new resources into the banks. Of course, the banks can also issue its own long-term bonds to the public, but the cost of issuance of preferred shares to the banks is generally lower than that of bonds, so the cost of servicing the preferred shares may be less than bonds, they do not have a principal to be repaid and they do not involve additional government liability. Moreover, traditionally, households in developing countries favor bank stocks and regard them as "blue chips" and issuing preferred shares in banks at this juncture may help rejuvenate the Chinese stock market. Fourth, by issuing only preferred stocks, the government maintains 100 percent of the voting rights and does not need to give up any control of the banks at all. Finally, the issuance of preferred shares to the public, at the net asset value per share, also reduces any incentives of the banks to either overstate or understate their net worth at market before reorganization through overstating or understating the extent of their non-performing loans. If they overstate their non-performing loans, their net worth or net asset value per share will be understated, and they will be selling their shares too cheap, and the preferred shareholders, who have to be paid a regular dividend, will wind up with a greater proportion of the banks. If they understate their non-performing loans, they will be left with non-performing loans even after the reorganization.

Step 4. The Procedure for Recapitalization. The actual process of recapitalization involves several sequential sub-steps, depending on whether the net worth at market before reorganization is nonnegative or negative.

(1) The case of nonnegative net worth. If the net worth at market before reorganization is

nonnegative, the following substeps will be undertaken:

(i) Recapitalization through government bonds. Rather than issued by the Ministry of Finance directly, government bonds will be issued by the EBRF to the individual banks. The total amount of bonds is equal in value to half of the required recapitalization (that is, 8 percent of the total assets) less net worth at market before reorganization. In return, EBRF will receive a 50-percent interest in all of the non-performing loans of the bank across-the-board and common stock equal in value to the sum of the amount of government bonds contributed and the net worth at market before reorganization. The bank, on its part, will write down the value of the entire portfolio of non-performing loans to zero.

(ii) Determination of the value of the common stock. To the extent that there is a positive net worth after the revaluation of assets and liabilities, a net asset value per share can be established for the issuance of the common shares to the EBRF. This also establishes the price for the issuance of the preferred shares under (iii) below.

(iii) Recapitalization through preferred shares. After the market values of the assets and liabilities of the bank are determined, according to our proposal, preferred shares equal in value to half of the required recapitalization will be issued by the individual banks to the public. The proceeds of the share issuance will constitute the new resources for the banks. (Bear in mind that the common shares, which have voting rights, will be owned exclusively by the state, either directly or through the EBRF.)

(2) The case of negative net worth. If the net worth at market before reorganization is negative, the following substeps will be undertaken:

(i) Recapitalization through government bonds. First, government bonds with a value equal to the absolute value of the negative net worth of a bank will be issued by the EBRF to the bank, so that the resulting net worth of the bank is precisely zero. In return, the EBRF acquires a 50-percent across-the-board interest in the non-performing loans of the bank. The bank, on its part, will write down the value of the entire portfolio of non-performing loans to zero.

(ii) Determination of the value of the common stock. After the net worth has been increased to zero, additional government bonds equal to 20 percent of the BIS required net worth (8 percent of total assets) will be issued to the bank by the EBRF in exchange for common stock in the bank. This also establishes the price for the issuance of the preferred shares under (iii) below.

(iii) Recapitalization through preferred shares. Preferred shares equal in value to 80 percent of the required BIS net worth, that is, 8 percent of the total assets, will be issued by the individual banks to the public. The proceeds of the share issuance will constitute the new resources for the banks.

The proposed financial reorganization of the banks is summarized in Table 8. After recapitalization, the banks will operate exclusively on commercial principles and will no longer grant "policy loans". The "policy loans" function will be assumed by the EBRF. Since the banks no longer have the function to subsidize the enterprises, they should be allowed to maintain a small but positive interest rate margin (or spread), say one percent, between the lending and the deposit rates to reflect their true costs. The banks will also adopt a fully funded pension plan for their employees, so that the true costs of labor are fully reflected on a current basis.

Table 8. Summary of the Proposal for Financial Reorganization of the Banks	
Steps	What to Do
1. marking to market	revaluing assets and liabilities at market values.
2. corporatization	reorganizing banks into joint-stock companies.
3. determination of the form of recapitalization	(i) net revaluation of assets and liabilities; (ii) nontransferable zero-coupon government bonds; (iii) preferred stock to the public.
4. sequencing of recapitalization	(i) recapitalization through government bonds in exchange for common stock and 50-percent interest in the portfolio of non-performing loans; (ii) determination of the value of the common stock; (iii) recapitalization through preferred shares.

## 6. Reorganization of Enterprise Finance

First, we note that we are only dealing with the reorganization of those state-owned enterprises with non-performing loan problems; we are not dealing with non-state-owned enterprises or enterprises without non-performing problems<sup>16</sup>. Reorganization of enterprise finance has the following four steps.

### Step 1. Restatement of Enterprise Accounts under the Supervision of Banks.

This step consists of two substeps. First, the balance sheet of the enterprise is marked to market, in precisely the same way that balance sheets of the banks are marked to market in section 5 above---all assets and liabilities of the enterprise are revalued at their market prices. Second, the current annual operating account of the enterprise is restated to reveal the true viability of the enterprise's core business.

(i) Marking to market. The assets and liabilities of each enterprise will be revalued at their market value under the supervision of the banks. Although some assets may turn out to be worthless and the present value of unfunded current and future pension liabilities to employees may be large, intangible assets, the use rights of land, intangible assets (such as patents and goodwill), and many other items may be very valuable. Inter-enterprise, or triangular, debts should also be netted out by balancing credits and debts of the same enterprise. Out-dated inventories that can no longer be sold are written down completely to zero. The market value of residential estate as well as the present value of implicit rent subsidies on residential housing for employees will all be taken into account. The critical question is whether, after marking to market, the enterprise still has a positive net worth. At this stage, bank debts, whether performing or non-performing, should be valued in full. Non-performing loans that are covered in this reorganization are restricted to those incurred prior to a specific date, which should be before the date of announcement of the reorganization plan in order to avoid moral hazard problems.

(ii) Restatement of the current net operating account. The annual net operating profit or loss of the

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<sup>16</sup>It is interesting to note, however, that inter-enterprise, or triangular, debt is almost exclusively a problem of state-owned enterprises. Non-state enterprises generally do not, or are not given the opportunity to, incur inter-enterprise debt.

enterprise will be recalculated before interest, debt service, taxes, depreciation, other capital and non-recurrent items, bonuses (legal and illegal), and payments to the welfare funds<sup>17</sup>. Sales by the enterprise into its own inventory will not be included as part of current revenue for the purpose of this calculation. This provides an indicator of the true long-term viability of the core business of the enterprise.

Step 2. Classifying Enterprises. Under our proposal, all enterprises will be initially given a chance to continue operation and go through automatic financial reorganization. Therefore, initially, the incumbent managers will continue to run the enterprises. We are in favor of this method for three reasons. First, it is in general very hard to tell who should be responsible for the losses and bad debts; second, the managers should be encouraged to make an effort at restructuring the enterprise rather than ripping off the state assets before the perceived end of their careers; and third, it helps to provide more stability during the reorganization phase.

Based on the results of step 1, the current status of all enterprises will be classified into one of the four categories according to its restated balance sheet (stock) and net operating account (flow). We shall discuss each of the four categories in turn.

	nonnegative balance sheet (nonnegative net worth)	negative balance sheet (negative net worth)
nonnegative net operating account	(i)	(ii)
	"normalizable"	
negative net operating account	(iii)	(iv)
	"potentially normalizable"	"probationary"

(i) Enterprises with nonnegative market net worth and nonnegative restated net operating profit.

These enterprises are basically healthy--they can afford to pay off all of their debts as well as fund all of their

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<sup>17</sup>It is important to look at the expense side because sometimes low profitability and the resulting mounting debts may have nothing to do with efficiency, but simply indicate a large transfer of rents to employees from the enterprise.

future pension and residential housing liabilities and they can, once free of these burdens, operate normally in accordance with commercial market principles, provided that it is adequately recapitalized. For these enterprises, the bank supervising the reorganization should be given broad latitude to devise a reorganization scheme which allows sales of assets, debt-asset swaps, and debt-equity swaps with the intention that at the end of the reorganization the enterprise will be free of debt overhang and is adequately capitalized to carry out its core business profitably<sup>18</sup>. After reorganization, the enterprise will emerge as a normal enterprise. To reward good performance, normal enterprises should be granted privileges in managerial autonomy, access to international markets, etc.

(ii) Enterprises with negative market net worth and nonnegative restated net operating profit. These enterprises are also basically healthy--although they cannot afford to pay off all of their debts as well as fund all of their future pension and residential housing liabilities, they can, once free of these burdens, also operate normally in accordance with commercial market principles, provided that it is adequately recapitalized. Their problem is that for historical reasons, they are under-capitalized. Appropriately reorganized and recapitalized, through debt-asset and debt-equity swaps, including partial forgiveness of debts, assumption of future pension liabilities for past employees, issuance of preferred shares, these enterprises can also emerge as normal enterprises. Together, enterprises in categories (i) and (ii) are referred to as "normalizable" enterprises.

(iii) Enterprises with nonnegative market net worth and negative restated net operating profit. These enterprises are basically unhealthy--although they can afford to pay off all of their debts as well as fund all of their future pension and residential housing liabilities, they are not viable in the long run even if they are free of these burdens. But since they have resources, it is possible for the enterprise to sustain its current net operating loss for a few years and to contemplate entering another, more viable, line of business. To the extent that the enterprise succeeds in doing this after the reorganization, it can operate normally in

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<sup>18</sup>Recapitalization can also take the form of issuance of preferred shares as in the case of the banks.

accordance with commercial market principles in a few years. For these enterprises, the creditor bank supervising the reorganization should be given broad latitude to work out arrangements with the enterprises. First priority, however, must be given to first, the financing of the annual net operating loss and second, the funding of the current and future pension liabilities of past and existing employees. These enterprises will in general not be permitted to take on new employees or to undertake new fixed investment without explicit approval by the bank. The enterprises in this category will be referred to as "potentially normalizable" enterprises.

(iv) Enterprises with negative market net worth and negative restated net operating profit. This category of enterprises will be referred to as "probationary" enterprises. Continuing annual government subsidies are required in order for these enterprises to survive under current conditions. These enterprises should have their operations restricted and borrowing capacity limited. For example, they will not in general be permitted to undertake new fixed investment or take on new employees. However, not all of these enterprises require liquidation, many of them may still be reorganized to make profits in current operation, and therefore eventually may emerge as normal enterprises.

Step 3. Dealing with the Balance Sheet. The objectives of restructuring the enterprise finance are first to eliminate the debt overhang and second to strengthen the capital base for the enterprises. Under our proposal, bad debts of the enterprises will not be automatically canceled; rather, the bank and enterprises need to engage in workouts for mutually beneficial schemes to solve the historical problem.<sup>19</sup> Banks should have the incentives for doing so because they will receive 50 percent of all future loan recoveries. Enterprises should also have the incentives to settle the old debt problem since their operations are restricted as long as they are not considered normal enterprises. Issuance of preferred shares by the enterprises to the

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<sup>19</sup>For the "potentially normalizable" category of enterprises, debt-equity swaps between the banks and the enterprises will be permitted during the process of reorganization. If necessary, however, the banks may be required to divest the equity shares in an enterprise within a certain period after an enterprise has become normal enterprises in the future.

public can provide an alternative source of funds for recapitalization of the enterprises. Only those enterprises which are unable to go through restructuring after several trials should apply for liquidation.

Step 4. Dealing with the Annual Net Operating Loss. Under our proposal, the EBRF will provide semi-permanent subsidies of fixed amounts through non-transferable zero-coupon bonds to the probationary enterprises which entitle the bond-holding enterprises to receive for a fixed number of years predetermined amounts sufficient to make up for the annual net operating losses of enterprises ("red parachutes"),<sup>20</sup> thus replacing the "policy loans" previously made by the banks.<sup>21</sup> Most policy loans in China are really disguised fiscal subsidies to make up for the net operating losses. These subsidies cannot be terminated immediately for the "probationary" category of enterprises without mass layoffs, and should be continued for sometime. With these subsidies, the enterprises in the probationary category can continue operation without mass layoffs more or less indefinitely. The key is to make the subsidies explicit and terminate them with a fixed, though sufficiently long, timetable. This buys some time for the enterprises and for the government for a more thorough and satisfactory resolution. Fixing the amount of the annual subsidy and making it independent of the net operating results may also provide some incentives for the managers of the these enterprises to improve their performance.

However, in order to prevent the net operating losses of the probationary enterprises from increasing over time, strict financial controls must be imposed on these enterprises. While these enterprises qualify for working capital loans from the banks, they will be put on a commercial basis. The banks, however, must vigilantly guard against (1) the possibility of diversion of the working capital loans for fixed investment, real estate and stock market speculation, and other unauthorized purposes and (2) the use of working capital loans

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<sup>20</sup> This is very much like the policy of buying off capitalists in China during the nationalization movement in the 1950s in which former capitalists sold ownership shares of their firms in exchange for government bonds.

<sup>21</sup> These annual subsidies should ideally be fixed in real terms, that is, they should be indexed to the rate of inflation. Otherwise, there is the risk that the subsidy will be insufficient to cover the annual net operating loss in a couple of years, leading to demands for additional subsidies and the reorganization may unravel.

to finance the production of non-marketable goods. Thus, the banks must insure that the disbursements of the working capital proceeds be tied to their ultimate purposes. For example, a working capital loan for raw materials should be made only if credible evidence of an order or orders for the final products is presented (for example, a letter of credit from the potential buyer) and should be disbursed directly to the raw material suppliers upon delivery. In addition, the banks should undertake to collect the proceeds from the sales of the final products on behalf of the enterprises and deduct the loan repayments directly therefrom, turning over only the net proceeds to the enterprises. Loans for salaries and wages should be directly paid by the banks into individual accounts insofar as possible to minimize the possibility of diversion.

The proposed financial reorganization of the enterprises is summarized in Table 9. In this proposal, we deliberately leave room for banks and enterprises to choose specific methods of reorganization between them, because we recognize that conditions of enterprises in China vary greatly across regions and across industries. In our view, what is important is to provide right incentives for the banks and enterprises to restructure and not to impose a specific model. Flexibility and diversity are extremely valuable for China.

Table 9. Summary of the Proposal for Financial Reorganization of the Enterprises

Steps	What to Do
1. restatement of enterprise accounts under banks' supervision	(i) revaluing assets and liabilities at market values: intangible assets; inter-enterprise debts; pension and housing liabilities; (ii) restatement of the current net operating account.
2. classification of enterprises	all enterprises continue operation and their current status be classified as (a) normalizable enterprises; (b) potentially normalizable enterprises; (c) probationary enterprises.
3. dealing with the balance sheet	the balance sheets of enterprises will be restructured, clearing the bad debts and recapitalizing if necessary, using a variety of means.
4. dealing with the annual net operating loss	policy loans for probationary enterprises to be replaced by direct subsidies in the form of nontransferable zero-coupon bonds.

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