Heading off China's financial crisis

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For many observers, the Chinese banking problem is one of the most serious in the world and perhaps the most serious. The situation of the Chinese currency is seen by many observers as precarious, with devaluation almost inevitable. These views may be entirely unfounded, exaggerated or wrong but they surely affect the stability and economic prospects of the Chinese economy. It would be a mistake to dismiss them with the argument that capital controls shelter the economy. The urgent need to deal with the banking problem is difficult to exaggerate, a view obviously shared by the Chinese authorities.

Around the world, emerging market economies have experienced currency crises in the aftermath of imprudent credit policies, neglectful supervision and poor regulation of politicised financial systems. Even in those cases where problems of the financial system were not the immediate cause of the currency collapse, financial sector weakness prevented an effective defence of the exchange rate and added to the fireworks of the collapse and the depth and duration of the post-crisis distress. Conversely, in Argentina or Hong Kong the strong financial system has made the effect of a dramatic regional crisis far more sustainable. In sum, countries have an overarching interest in establishing a sound financial system with great haste.

A sound financial system is also a first-order issue for sound investment and sustained growth. The case of Japan manifests dramatically that neglect of financial regulation and supervision leads to appalling balance sheets and a serious credit deterioration and credit crunch. The politics is decidedly difficult when a government has to own up to the fact that the population has worked hard and saved for years only to find that their accumulated assets are seriously impaired. In Japan, banks and insurance companies are bust because they invested poorly for a long period of time; the same is true throughout Asia. China has a great interest in preventing its high saving ratio from ultimately showing a payoff for savers in the form of productive capital accumulation rather than high taxes to bail out depositors and investors.

Politicians respond to a troubled financial system by cover-up. That is a sure way to let the rotten apples in the barrel take over and spoil the entire credit system. A decisive intervention early on, starting up a sound and transparent system of regulation and supervision, and a system of accountability and performance-oriented management rewards is the right strategy.

The cost of bad banks

In this section we discuss what banking problems around the world have cost and what the numbers in China might be.

Banking crises around the world

Systemic banking problems arise as a result of three possible sources. They can in fact all come together to make a very bad story much worse. First, finance is repressed with *directed lending* and hence not scrutinised on grounds of profitability and spreads between active and passive rates not reflecting performance prospects.[1] These conditions emerge, of course, quite naturally when banks are connected to the public sector and are an arm of a development strategy or when high deposit rates are part of a mobilisation of saving effort while loan rates are compressed to favour privileged borrowers.

A second possibility is that a basically sound banking system is exposed to a severe *macroeconomic* shock. If the cost of funding suddenly rises while loan rates are locked in, losses are made and disintermediation forces the banks into high cost and short maturity funding at a loss. If the situation lasts, it is only a question of time before the capital is eaten up. The same possibility arises if there is a severe and lasting recession that brings systemic defaults on the portfolio on a scale that cannot be dealt with by traditional spreads. Finally, there is the possibility that a currency crisis drives the banking system under, either because loan customers in other funding suffer dramatic capital

[1] With L and D denoting loans and deposits, l^* the active rate and l the deposit rate and α the fraction of loans that are non-performing, the bank breakeven spread, $i^*–i$, is given by $(1–\alpha)(1+i^*)L = (1+l)D$. Hence the presence of non-performing loans creates the need for a spread that increases with default risk. Other factors are of course the cost of operating the banking system, etc.

losses or because the banks themselves, having borrowed offshore in unhedged foreign currency positions, experience a funding shock that wipes out the capital base.

The third possibility of systemic banking crisis is associated with *deregulation enhanced by poor supervision*. The typical situation is that the banking system is sheltered from both competition of the cross border kind and domestic competition from non-bank financial intermediaries. Once competition is opened up, as in the United States in the early 1980s, the newcomers will be relatively unregulated and have a low cost of capital and strong balance sheets. The established banks will have less perfect balance sheets and be locked in loans at unattractive rates. Good customers will leave, the loan quality will deteriorate, the funding costs will rise, and it is only a question of time before the equity is gone.

The deregulation story may also play out in another way where new intermediaries open up to serve a neglected segment of the credit market, say household loans, and without diversification of the loan portfolio extend credit oblivious of lending standards. While the credit boom lasts, profitability is dramatic and fuels a rapid expansion of lending. The house of cards crashes once a slowdown leads to a skyrocketing of defaults. Exactly the same story applies to real estate lending. In each case it is important to remember the banker's adage: "It is not speed that kills, it is the sudden stop." That is what happens when the low-cost funding that underpins the credit bubble suddenly vanishes or turns dramatically costly because it was contracted in foreign exchange and a devaluation has magnified the cost of debt service.

The accompanying table shows the *fiscal* cost of banking crises in a number of countries. The basic point is that the numbers are extraordinarily large! They effectively amount to creating a large public debt which was implicit in an insured, badly regulated and poorly supervised financial system which is then made explicit in an outright crisis. The bottom line is always the same: the deposits are insured, de facto because anything else is politically impossible, the loans are bad and the government holds the bag. The capital of stockholders is never enough to make up fore the trouble and, incredibly, often the bankers even get to benefit from the crisis, thus adding to the cost. The table is by no means exhaustive; few countries have not suffered a banking crisis in the past two years (including OECD countries) and in several it is still under way. That is the case in Asia (Korea, Thailand,

Table 1

Fiscal cost of systemic bank restructuring

As a percentage of GDP

Spain	15.0	Ghana	6.0
Sweden	4.3	Kuwait	45.0
Côte d'Ivoire	13.0	Mauritania	15.0
Chile	33.0	Tanzania	14.0
Finland	9.9	Mexico	12.0–15.0
Hungary	12.2	Venezuela	17.0
Poland	5.7		

Source: Dziobek and Pazarbasioglu.

Indonesia and Japan), the transition economies and of course Latin America.

The fiscal cost of a banking crisis is certainly not all. When a banking system goes under, established loan customers lose their credit access; typically there is no smooth transition to another source of credit and absolute credit rationing is the rule. That means profitable projects have to be called off, distress forces disruption in production and employment, aggregate growth suffers. Asset prices are forced to low levels, making bankruptcy pervasive. Large companies may mitigate the effects by offshore credit, if they have foreign collateral, but small firms will simply be cut off and die in masses. A credit crunch is a formidable shock to the small business sector that is typically bank-financed. The fall in growth, or the outright recession and even depression, feeds back to the budget with a steep extra cost that may easily be of the order of 10% of GDP. Once it is in the open, a banking crisis lasts years in its after-effects, even if the authorities bring a relatively speedy solution.

The Chinese banking problem

"Banking distress is … quiet distress" is the apt expression van Wijnbergen (1998) uses to characterise severe banking problems in the making. China is surely a case in point. The saving rate is high, there are few banking institutions and there are no significant alternative saving vehicles. Deposit liabilities of banks in 1997 amount to 140% of GDP, growing on average at 30% per year over the past four years. For the

Table 2

The Chinese banking institutions

In billions of RMB

Reserves	1,646	Demand deposits	2,381
Foreign assets	532	Saving deposits	4,364
Claims on central government	152	Time and other deposits	989
Claims on other sectors	7,689	Bonds	354
		Foreign liabilities	489
		Credit from monetary authorities	1,404
		Capital account	429
	10,019	Other net	–390

Note: Data are for 1997. GDP in 1997 was RMB 7,600 billion.

Source: IMF.

banking system, net cash flow is strongly positive even if non-performing loans (NPLs) are substantial and growing. True, there is a hole in the balance sheet and it is growing, but as long as nobody asks a question and the public deposits in net terms, the problem merely grows and does not explode.

There is great uncertainty as to just how bad the loan situation is. Two questions are obvious in this context:

- What fraction of loans is non-performing?

Speculation on this question has as an anchor a remark of the PBC authorities to the effect that 20% of state bank loans are unrecoverable. See Cho (1998), who also quotes a Standard & Poor's estimate of 24%. Wilder guesses go as high as 40%.

- Of the NPLs, what fraction is recoverable?

This is entirely unknown. Pessimism about the quality of state-owned enterprises (SOEs), the borrowers, leads to numbers that might be as high as 50% or even 70%. A look at the very poor credit culture and in particular a willingness and need-to-pay criteria would place recoverability in a far more favourable light.

Combining these two considerations, we can place a broad range of estimates on the likely macroeconomic cost of a bank restructuring. The answer is between 10 and 20% of GDP with the upper end of the range the more likely number, since the credit deterioration is picking up speed with the deterioration of the macroeconomic environment.

Table 3

Bad news: guesstimate of the bank restructuring cost

In billions of RMB

		Unrecoverable loans (%)	
		50%	70%
Non-performing loans (%)	20%	800	1,120
	30%	1,200	1,680

Even this upper-end estimate needs to be raised for two reasons. First, the banking numbers above may not include all non-bank financial institutions. Second, the existing bank capital, not even considering bad loans, is not up to the Basel standard. A working assumption, therefore, is a total clean-up cost of 25% of GDP.

The good news is that China has only negligible public debt and no domestic debt to speak of. Thus the bank clean-up essentially represents a one-time creation of public debt in that amount. If depositors are to be protected, the government needs to put net worth certificates equal to the bad loans in the banks' balance sheet. The next question is how the bad debts are worked out – say, a Resolution Trust Procedure – on one side and a structure by which the banks can liquefy the net worth certificates over time to have resources for new credit expansion. Of course, bank restructuring is an art and we discuss below issues and incentives, including regulation and supervision, that will make it more effective. We also discuss the connection between bank restructuring and SOE reform.

We note here that bank restructuring should go hand in hand with the creation of a national capital market for both debt and equity. The clean-up in itself needs a capital market in which banks can see the government's rescue bonds over time. The government itself may want a bond market so that budget deficits, if and when they arise, can be funded by debt rather than money. And banks need competition if only to determine a sound benchmark for the cost of credit and spreads between deposit and loan rates. When credit is repressed and all rates are administrative, mispricing of credit is endemic and can build up to very large problems in balance sheets.

We also note here that the opening of the capital account surely must not happen until the banking problem has been resolved. The worst possible situation is one where banks that have balance sheet problems already attempt to resolve them by borrowing at low rates offshore to lend at high rates in the national market, oblivious of currency and credit risks. Asia's financial crisis is a monument to just this kind of problem.

How to restructure the banking system

Principles for successful bank restructuring

Severe banking crises are not unusual situations. In the last two decades at least two out of three IMF member countries have experienced significant banking sector problems, usually involving government assistance for their solution.[2] Insolvent banks are typically kept alive: a survey of 120 banks in 24 developed countries in the 1980s and 1990s finds[3] that two-thirds of failed banks were bailed out, directly or indirectly, by the government. The use of public money, however, is not enough to guarantee a successful restructuring – that is a programme which restores the financial viability of banks and puts them back at the centre of the country's intermediation system.

From the studies of a broad group of countries reflecting different regions of the world and levels of development,[4] one can detect common patterns in the policies that turned out to be successful at addressing *systemic* banking problems – that is, situations in which banks in trouble held a large fraction of total deposits. These common patterns can be summarised in eight basic principles:

1. *A clear diagnosis:* identifying the underlying causes of the banking problem and designing a strategy aimed at addressing each of them, and not just their symptoms in the banks' balance sheets. Because bank losses are often rooted in the real economy – loss-making enterprises and fiscal deficits – failure to address these issues typically prevents a long-run solution to the banking problem;

[2] See Daniel (1997).
[3] See Goodhart (1995).
[4] See Sheng (1996) and Dziobek and Pazarbasoglu (1997).

2. *Prompt action:* success is more likely when action is taken within a year of the problem emerging. Prompt action requires transparent accounting, as insolvent banks tend to hide bad loans with bad accounting;
3. *A comprehensive approach:* addressing not only the immediate stock and flow problems of weak or insolvent banks, but also the shortcomings in banks' accounting practices and in the legal and regulatory environment in which they operate, and improving bank supervision and compliance;
4. *Addressing banks' operations, not just their balance sheets:* inadequate management is a typical cause of banking problems. Success in bank restructuring is highly correlated with whether or not the management problem is addressed early on;
5. *Limiting the involvement of the central bank:* the countries that achieved the best results understood at an early stage that the problem was bank insolvency, not a lack of liquidity. In contrast, in all the cases where progress was slow the programmes made heavy use of protracted liquidity support from the central bank. Although few countries refrained from using short-term liquidity support, those that were most successful took a conscious decision to minimise the use of central bank financing and avoid central bank lending to insolvent banks. A parallel finding is that progress is slower when the central bank is the sole agency responsible for bank restructuring, because it is then drawn into financial commitments that exceed its resources, and conflict with the ability to run a sound monetary policy. At the root of a successful programme lies the recognition that systemic banking crises are a fiscal, not a monetary problem;
6. *Addressing openly the problem of who will pay for the programme*. Failure to do so can result in the politically easiest allocation of the cost: inflation.
7. *Removing bad loans from banks' balance sheets*. Carving out bad loans helps banks concentrate on their business and resume financing worthy projects: progress in management practices can only come after the balance sheet has been cleaned, otherwise bank managers will always have good excuses to justify poor results. "Loan workout" units typically played an important role in all countries that made substantial progress. In some countries the responsibility for workouts was centralised and assigned to a special government agency;

in others, such as Poland, the responsibility for dealing with bad loans remained with the banks but was separated from current operations and placed in special departments. In general, the use of distinct loan workout units appears to be an important element of best practice.

8. *Privatisation.* Although privatisation is crucial for the long-run viability of the banking systems, rapid and ill-designed privatisation programmes can lead to future banking problems. This happens (as the early experiences in Chile and Mexico have shown) when banks are overpriced, supervision is weak and legislation allows a few industrial conglomerates to buy a large portion of the banking system.

The benefits of transparent accounting and sound finance: SOEs should not be an excuse.

The first principle – recognising that bank losses are rooted in the real economy, often in loss-making SOEs – is typical of the experience of transition economies. Banks are unlikely to remain "clean" when their normal dealings are with loss-making firms. This observation, however, should not be used as an excuse to postpone bank restructuring. On the contrary, cleaning up the banks can do a lot to start improving the allocation of resources in the economy and to ensure that the enterprise losses are eventually stopped.

According to some observers,[5] restructuring Chinese banks before the underlying causes of the accumulation of bad loans are removed would be close to useless. Restructuring SOEs – that is, reforming these firms and imposing upon them a hard budget constraint[6] – should be the first step. This in turn would require discharging SOEs from the responsibility for providing a broad range of social services, shifting such costs directly to the budget: the accompanying increase in public expenditure should then be matched by a corresponding increase in tax revenues.

[5] See e.g. Lardy (1998).

[6] According to estimates quoted by Lardy (1998, p. 38), to reduce their leverage to a sustainable level, in 1994 SOEs should have written off an amount of bad loans corresponding to 25% of GDP.

While obviously correct, this approach runs the risk of justifying doing nothing, until an unlikely Big Bang turns the Chinese economy around. The losses of SOEs cannot be stopped overnight: still, transparent accounting and a clear assignment of responsibilities can be a powerful instrument to make sure that SOEs are eventually restructured.

The presence of bad loans in the balance sheet of banks distorts the incentives of both creditors and debtors. Banks which are technically insolvent lose the incentive to price new loans accurately – since they are already insolvent, they can hardly be worse off. Additional lending to allow bankrupt firms to service the old loans becomes rational, as it enables banks to report the loans as formally performing, thus delaying the day of reckoning. Firms' managers, on the other hand, are under no pressure to scrutinise their projects: they know that banks have no alternative but to keep lending. Those who lose are the potentially good borrowers, whose projects are crowded out. Households are among the first to be crowded out, and this prevents the housing market from taking off. Lending to new private businesses is crowded out through two distinct channels.[7] The first is simply an insufficient amount of credit, as this is used to roll over bad loans; the second is unduly expensive credit – banks in trouble tend to widen the gap between lending and deposit rates in an attempt to gradually rebuild their capital. High intermediation margins drive a wedge between the incentive to save and the cost of investment: the lesson from developing countries suggests that such financial repression can be extremely costly.

The first step thus requires identifying the non-performing loans and removing them from the balance sheet of banks. This is a precondition for reintroducing into the banks the culture of risk evaluation.

The credibility of this approach obviously relies on the ability of the banks to terminate any lending that is not based on sound commercial grounds. For such a commitment to be credible, in the presence of SOEs that are either obviously bankrupt but regarded as too sensitive or important to be abruptly closed down, or in need of costly restructuring, the government should introduce a special financing window to cushion liquidation and to pay for restructuring. As the German

[7] See Begg and Portes (1993). On the crowding-out of private firms in transition economies, see Webster (1992).

experience with the Treuhandanstalt indicates, this is best done through a special government agency with a set time horizon.[8] The financing needs of this agency should be provided for in a line item of the budget.

Banks with clean balance sheets and that are shielded from the need to finance SOEs have no excuse for diverting lending away from good projects, and for not monitoring such projects after the loan has been disbursed. Over time these banks can be privatised; meanwhile the government can monitor their managers. Setting in place sound regulation and supervision is obviously essential.

The bottom line is that there is no free lunch, but there are important benefits from transparency and a clear allocation of responsibilities. In the end, the cost of cleaning up the banks and the SOEs will be high, and will show up in an increase in public debt (needed to recapitalise the banks) and in higher government spending (needed to pay for restructuring and delayed closures). But this will only be the recognition of government obligations that were previously hidden by the lack of transparency. Meanwhile clean banks stop distorting the allocation of credit, and a government agency that deals with SOEs with a set time horizon, drawing its resources directly from the budget, is the best guarantee that the losses of such enterprises are gradually reduced.

Disposing of the bad loans

Removing the bad loans from the balance sheet of commercial banks poses two problems: where to put them, and how to replace them.

[8] The main tasks of the Treuhandanstalt (see Fries and Lane (1994) for a description of this agency) were to evaluate the balance sheets of the former East German SOEs, write off their old debts, reorganise and close enterprises by dismantling the Kombinate, and sell off whatever could be sold. To judge the potential viability of SOEs, the Treuhandanstalt used a team of West German managers. Their evaluation was based on whether the company had marketable products and capable management. These conditions were evaluated after an amount of old debt had been written down so as to bring the company to a degree of leverage similar to that of a corresponding West German firm. The agency had the power to circumvent management opposition to restructuring by dismissal. Selling prices were adjusted according to the investments that the buyers committed to undertake and to the jobs they would preserve. The agency was created in 1990 with a set deadline: the legal base for its existence vanished on 31 December 1994. Setting a time limit is essential: IRI, an agency created by the Italian government in 1936 to deal with bad loans, is still in existence. By 1994 the Treuhandanstalt had privatised some 14,000 companies, 3,000 of which were sold to their managers. The total cost for the budget amounted to approximately US$ 150 billion. On 1 January 1995, 60 companies remained unsold and were transferred to a special government agency.

Before discussing the possible solutions, we note that there is at least one experience where bad loans have not been removed from the banks. The Polish government chose, in 1990, to leave the bad loans inside the banks.

The motivations behind that decision illustrate the basic choices facing the authorities:

"We did not believe in our ability to create, within a reasonable time, a strong central institution in terms of the high quality of its staff and internal organisation. Nor did we believe in the possibility of devising an adequate incentive system that would ensure the institution's active approach toward restructuring SOEs. We did not believe that such an institution could resist political pressure. We also felt that the centralised solution did not address the causes of the problem, which we believed lay primarily in the banks' lack of experience in handling credit. By painlessly removing the burden of bad debt from the banks, the centralised approach creates a danger that a bad debt loan portfolio will re-emerge in the near future. It does not contribute to enhancing the banks' experience in conducting credit operations and facing bad debt situations. Instead we recapitalised the banks to such an extent that they were able to create adequate provisions for the bad loans. The amount of ex ante recapitalisation was a function of an estimate of the bad debts that could be recovered, so as to introduce an incentive to recover as much debt as possible."[9]

The risk with this approach is that the banks do not sever their ties with bad debtors: old debt may thus be financed with new loans. To avoid this risk, the Polish law on "Financial Restructuring of Enterprises and Banks" prevented banks from extending new credit to enterprises whose debt had been placed in the bad loans portfolio, unless such credit was given in connection with a conciliation procedure (similar to the United States Chapter 11 bankruptcy procedures). Banks were also subject to a two-year deadline to either recover the bad loans or obtain a court bankruptcy decision.

The Polish approach would seem to work in situations where the number of debtors that can return to creditworthiness is not negligible. But when banks have little leverage to impose the reorganisation of

[9] Kawalec, Sikora and Rymaszewski (1994).

troubled firms, and when bankruptcy procedure functions poorly, removing the loans from the banks and placing them in a specialised asset management company (as with the Treuhandanstalt or the US Resolution Trust Corporation) appears to be a safer solution.[10]

Running the asset management company: incentives not bureaucracy

The risks with asset management companies were clearly identified by the Polish authorities: low quality of the staff, no experience with loan workouts, a bureaucratic organisation, weak incentives, all leading to a lengthy process. The problems are not specific to transition economies: the recent case of an Italian asset management agency, created to recover the bad loans of a failed public bank, shows the dangers of a bureaucratic approach. The company is run by lawyers who fail to see the difference between a loan worth a few thousand dollars and one worth a million: both are subject to the same scrutiny – but there are 15,000 small loans in the company and a dozen million dollar positions. The result is that no positions are closed and the process drags on. As in the Polish example, a clear deadline should be set, compensation of the administrators should not be open-ended but linked to their performance in recovering loans and closing bankrupt positions. When the deadline expires, remaining loans should be auctioned.

Replacing the bad loans

Whether the debt of SOEs is simply cancelled, or transferred at face value to a new agency, the banks need new capital to be able to operate. The typical solution is to replace bad loans, valued at face value, with government paper. This operation should be transparent and final.

Transparency requires that the assets used be straight government bonds. The option, which is sometimes used, of employing bonds that are sitting in the books of the central bank conceals the fiscal impact of the operation in the transactions between the government budget and the central bank. Failure to bring the fiscal cost out into the open reduces the pressure to restructure the SOEs and thus increases the chances that a new bailout will be needed (this may be the reason why successful restructuring tends to be transparent – our fifth principle).

[10] On the choice between the centralised and decentralised solution, see also Sheng (1996, p. 41).

The resources needed to recapitalise the banks will eventually have to be provided by the public, in the form either of taxes or of an increase in public debt. This requires that the bonds issued to recapitalise the banks are eventually sold to the public. If the problem is big and a liquid secondary market for government bonds does not exist, the solution can come in two steps. The bonds are initially placed in the banks, and the banks then gradually sell them to the public. If the yield on the bonds is moderate, the banks have an incentive to sell them, because new loans are more profitable; gradualism will help a secondary market to develop.

The injection of public debt should be a once-and-for-all occurrence, not a government pledge to underwrite banks in perpetuity. This has two implications. First, there should be no doubt as to the quality of the assets with which banks are recapitalised: it should be "good capital".[11] Second, as our third and fourth principles indicate, recapitalisation should be accompanied by measures that address not only the immediate stock and flow problems of the banks, but also the shortcomings in management, in accounting practices and in the legal and regulatory environment in which banks operate. This requires, in particular, improving bank supervision and compliance.

Managers and directors

The first line of defence against unsound banking is competent management. Regulation and supervision, no matter how carefully designed, cannot guarantee that a bank is well run. Bank managers need to possess a high degree of integrity, adequate training, experience, and control over credit approval and risk control procedures.[12] But all this will not be enough if managers do not have the right incentives and boards of directors do not exercise effective control over management.

Managers can be motivated in roughly three ways.[13] Formal incentives, such as bonuses, stock options and evaluation based on verifiable measures of performance; career concerns inside and outside the firm, which encourage forward-looking individuals to work hard, thinking about their future; and monitoring by the board of directors.

[11] Begg and Portes (1993) suggest that it would be unwise to recapitalise the banks with nominal government bonds vulnerable to expropriation through future inflation. They advise using index bonds.

[12] On the need for competent and honest managers, see IMF (1998).

[13] For an illuminating analysis of how to design proper incentives, see Tirole (1993).

These simple principles have powerful implications. First, the reward of bank managers should be based on performance. When bank shares are publicly traded, stock options should constitute the largest fraction of a manager's compensation; alternatively, compensation should be based on bonuses, determined as a function of the bank's performance. Managers of state-owned enterprises, on the contrary, are often compensated in exactly the wrong way: salaries are relatively low, and unrelated to performance, while a significant fraction of the compensation comes in kind, through perks and fringe benefits. What is worse, public administrations often know of only one way to get rid of a bad manager: promotion to another job in the public sector. This guarantees lifetime perks and destroys incentives.

Incentives are not enough, however, as managers can always cook the numbers, for instance concealing bad loans. Boards of directors have a crucial role in controlling managers. To make sure that they do this effectively, boards should be organised in special committees with identifiable responsibilities (internal auditing, credit approval procedures, etc.). Board members' compensation should also depend on performance. The choice of good board members is particularly delicate when the company belongs to the government. Two simple rules can help, however. First, it should be clear that any civil servants sitting on a board do so under their personal responsibility: the legal and pecuniary implications of a bankruptcy should rest with the individual board member, not with the public administration they represent – in most countries this is written in the company law. Second, board members should be selected from the administrations which would bear the financial implications of possible losses, typically the finance ministry.[14]

Where to look for good supervisors

The architecture of bank supervision can be almost perfect, and still the ability of the supervisory authority to spot trouble depends almost entirely on the quality and the incentives of individual supervisors. Attractive remuneration, political independence and independence from bankers, immunity against possible legal actions (which does not rule out the right of appeals) are all necessary conditions for creating a successful

[14] In Italy, following 1992, the introduction of these simple principles went a long way towards improving the effectiveness of boards in monitoring SOEs.

team of supervisors, as is experience, particularly that needed to run on-site inspections. Still, recruiting supervisors that are both experienced and independent is often virtually impossible.

Of all the risks, however, the most serious one is capture: the Asian financial collapse is there to demonstrate the cost of corrupt supervision. One option is to offer the job to the new generation. This guarantees the separation from the bankers, admittedly at the cost of some lack of experience. Training, however, is not impossible: a good graduate education and a couple of years with an international bank (much better than spending the time in the supervisory training centre of an international organisation) can go quite far in teaching a bright young lady the right questions to ask.

Concluding remarks

China's banking system needs deep and early reform. The numbers at stake are staggering, the risk of leaving the task too late and hence doing it under conditions where there is no control or much less control of events is serious. The banking system today is largely dysfunctional and operates outside a credit culture. Loans are made without asking questions of profitability and recoverability, while borrowers do not necessarily believe that loans need to be repaid. It is true that China's financial system is not about to succumb to a vast bank run; it is even true that the authorities could face a vast bank run as long as they are focused on getting yuan cash rather than dollars. But that is too little of a test of the quality of the banking system. The basic fact is that the people's saving is being wasted by a dysfunctional banking system and that doing this for a long time means a huge public finance liability. This is dangerous because China's growth is already slowing to half speed and the ageing of the society poses major debt burdens in years ahead. Finally, a banking system that operates by directed lending focusing on what is politically important or just big necessarily risks missing out on financing projects that have a great rate of return. It is those projects that ultimately add up to a high rate of economic growth.

Chinese banking reform is important even if it is not dramatically urgent. It needs to be part of a systematic effort to create a capital market, preferably with long maturities to foster a long horizon in

business and stability in macroeconomics. Such a capital market is essential to shift the operation of the banking system to an allocation perspective that looks at the cost of capital and at credit risk. It is also essential to get away from the view that banks are public sector gas stations where companies go to get their juice without any questions asked. The mechanics of clean-up and the creation of a capital market are important. Lessons, good and bad, from abroad are plentiful and must be used. China is different, but that must not blind the authorities to neglecting important lessons learned elsewhere.

In concluding, we address a few issues of central concern:

The Chinese financial structure at this time fails to draw clear lines between banks, state enterprises, money, credit, debt and the budget – everything is one big glob. There is an urgent need to disentangle credit and intermediation from the rest. The creation of a capital market and a regulated, supervised and cleaned-up banking system goes in that direction.

Next, banking reform must not be too gradual. In a transition state where responsibility of managers for performance comes into play, they will only make political loans because those are the ones they won't be blamed for and anything else is "too risky". Of course, it is precisely these political loans which are the worst.

Chinese banking reform, along with the creation of regulation and supervision, must precede any notion of opening up the capital market. The present stability is entirely due to the absence of alternatives. That is good for stability but it is very bad for the quality of credit allocation. Opening to a domestic capital market and to cross-border capital movements must come, but getting things right must come first and soon.

Any idea of devaluation becomes a very bad idea when placed in the context of the existing unsound financial system. A major devaluation will teach the public the difference between dollars and yuan. Any resulting shift from deposits to black market dollars will quickly erode the present relatively controllable outlook for financial reform.

The most important issue in China today is to create a credit culture, from accounting to enforcement. China's people work hard and save an enormous share of their incomes. They are entitled to expect that their saving will ultimately be there and earn a return. The present system makes almost certain that this good outcome is *not* the case.

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