The challenge of bank restructuring in China

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Creating a modern financial system is essential if China is to meet the central goal of its economic reform program – improving the efficiency with which capital is allocated and utilised. In the prereform era the rate of investment increased from about 25% of gross domestic product in the first Five-Year Plan (1953–57) to an average of just over 30% in the 1960s and 1970s. But the average annual rate of real growth fell from about 7 to 8% in the first Plan to only about 4% in the 1960s and 1970s, suggesting a marked deterioration in the efficiency of resource use. Deng Xiaoping began the process of economic reform in the late 1970s in order to raise economic efficiency.

There is little doubt that the economic reforms initiated under Deng's leadership raised the efficiency of resource allocation and use in agriculture and in parts of the non-agricultural sector of the economy, contributing importantly to the marked acceleration of economic growth in the reform period. But a growing body of evidence suggests that state-owned manufacturing firms have not achieved comparable gains in the efficiency of resource use. Indeed, as shown in Diagram 1, while the absolute level of profits has increased significantly, efficiency has declined dramatically over time. The rate of return on assets (measured by pre-tax profits divided by the sum of the depreciated value of fixed assets plus working capital), which averaged 24–25% in the early years of reform, has declined continuously since 1985 and stood at only 6% in 1997.

The declining rate of return on assets in state-owned manufacturing firms has major implications for the health of China's financial system. Most obviously, a large and growing share of state-owned firms are

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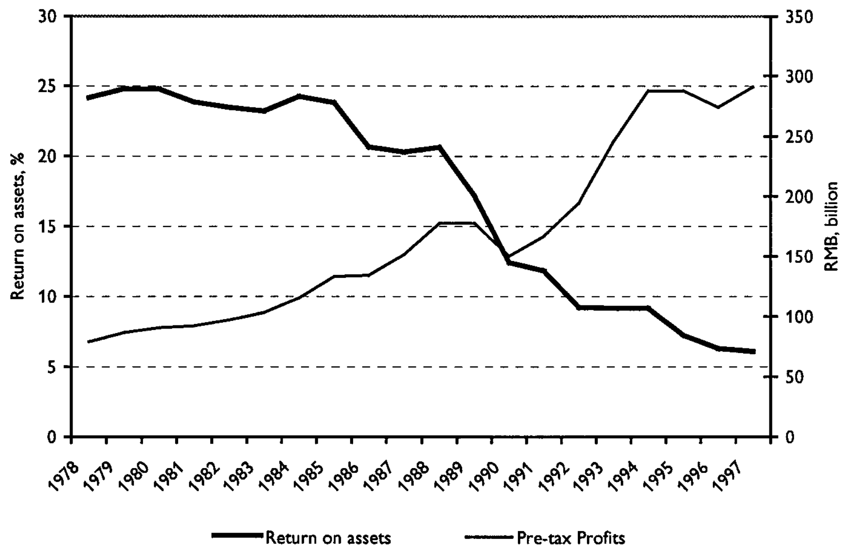
Diagram 1

Profitability of state-owned industrial enterprises

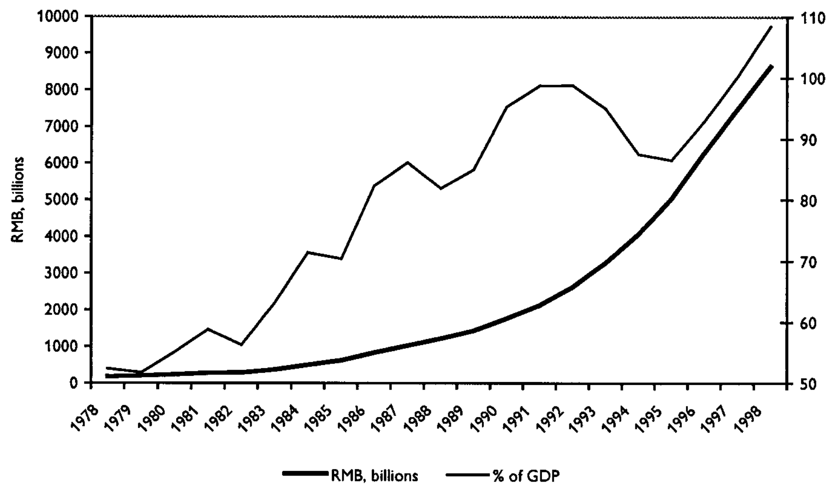


unable to service their borrowing, contributing to declining profitability, declining capital adequacy and an increasing share of non-performing loans for the largest state-owned banks. Less noticed, this negative feedback from a declining rate of return on assets to diminished performance of the financial system has increased over time. The reason is that state-owned firms have become increasingly dependent on credit to finance their activities. As recently as 1987, state-owned manufacturing firms were able to finance about three-fifths of the sum of their reported investment in fixed assets and increased working capital from their after-tax retained earnings. By 1996, because the return on assets had plummeted, the share of investment these firms could finance from their after-tax retained earnings had dropped to only one-tenth. Thus, these firms have become ever more dependent on credit to finance their activities. I use the word activities rather than investment because it appears that a significant share of the funds state firms borrow from banks is used to pay for workers' wages and pensions, taxes and other items that are not normally financed with loans for fixed asset or working capital investment.

The growing demand by state-owned firms for credit is so great that state-owned banks have not been able to diversify their lending away from state-owned firms towards private firms. At the end of 1995, for example, the outstanding borrowing of state-owned enterprises stood at RMB 3.36 trillion, 83% of all bank loans outstanding. Bank lending for fixed asset investment is especially highly directed to state-owned firms. For example, more than 90% of all fixed asset lending by the Industrial and Commercial Bank of China from 1980 to end-1995 was to state-owned firms. While the share of industrial output produced by state-owned firms has fallen dramatically since the onset of reform, these firms continue to have a disproportionately large claim on lending by banks and most other financial institutions. Indeed, the massive fixed asset investment program the Chinese government initiated in 1998 has substantially increased the share of investment flowing to state-owned firms.[1]

Diagram 2

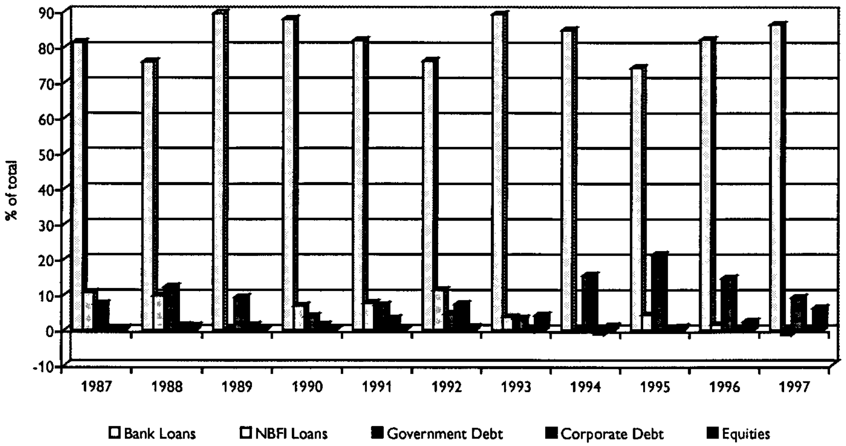
Loans by financial institutions (1978–98)



[1] Fixed asset investment undertaken by state-owned units in 1998 was RMB 2,150 billion, or 75%, of total fixed asset investment of RMB 2,868 billion. In 1997, the comparable numbers were RMB 1,762 billion, of a total of RMB 2,494 billion, or a 71% share. *People's Daily Online*, 31 December 1998.

Diagram 3

Domestic financial intermediation in China by type



The confluence of these factors underlies the more than doubling in domestic credit outstanding relative to China's gross domestic product, from about 50% in 1978 to an estimated 108% at year-end 1998. As can be seen in Diagram 2, almost half of this increase came in the last three years.

One critical step in improving the efficiency of resource allocation and use is the creation of a modern, commercially oriented banking system. The reasons are simple. First, China's existing financial system is dominated heavily by banks. As shown in Diagram 3, their share of financial intermediation is almost nine-tenths and shows no declining trend over the past decade; indeed, it actually increased slightly between 1987 and 1997. Nine-tenths is a ratio higher than that found anywhere else in Asia, a region where banks generally dominate financial systems. The role of capital markets in China is unusually small. Equities and corporate debt combined accounted for only 0.7% of all financial intermediation in 1994–96. The role of equity markets expanded somewhat in 1997 but appears to have fallen back in 1998.

Second, the eventual development of capital markets depends critically on a financially healthy, commercially oriented banking system. Capital markets rely on well-functioning banks to process payments and act as custodians. China also needs to create a capital market to compete with banks in the allocation of investment resources. Bonds can be a more effective instrument than bank loans in providing long-term capital for infrastructure and other projects with long gestation periods. For manufacturing enterprises, equity markets can provide an alternative to bank financing, the latter usually geared more to providing short-term funding, thereby allowing enterprises to achieve a more balanced financing structure. Bonds and equities can offer a better return to savers, helping to maintain a high saving rate. Under some institutional arrangements, the role of capital markets can be quite large, even exceeding that of banks. Even when capital markets are small, their presence can increase competition in financial markets and stimulate banks to allocate investment resources more efficiently.

Performance of the financial sector

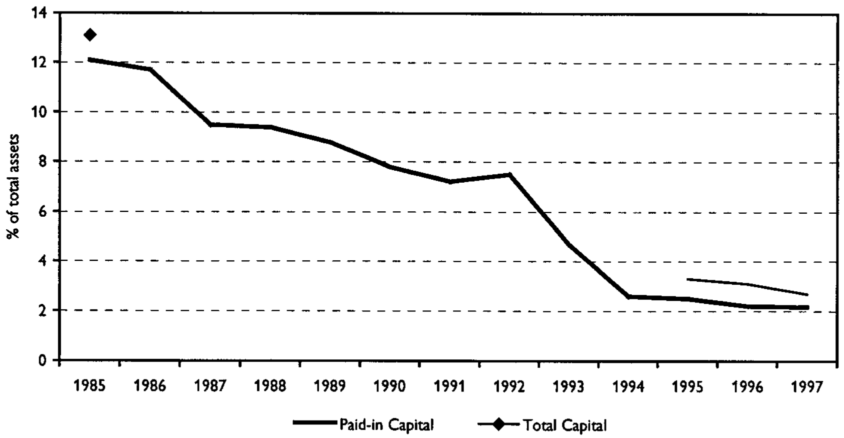
By every available measure – capital adequacy, loan loss reserves relative to assets, profitability, the magnitude of non-performing loans – the performance and health of China's financial sector has deteriorated dramatically in recent years. The deterioration is particularly clear for the largest state-owned banks, which despite the creation of a large number of new banks and other financial institutions still account for more than three-fifths of the assets of the entire financial system. Although it is less well known, some of the newest banks, as well as a broad range of non-bank financial institutions, are also extraordinarily weak. This was reflected in the failure of the China Agricultural Development Trust and Investment Company in January 1997, the Hainan Development Bank in June 1998, and the Guangdong International Trust and Investment Company (GITIC) in October 1998. The data reviewed below suggest similar problems exist in other types of non-bank financial institutions as well.

Capital adequacy

The officially reported paid-in capital of China's four largest state-owned banks has been declining relative to bank assets for years and is now surprisingly small. Between 1985 and 1997, the assets of these banks grew more than five times as rapidly as their paid-in capital. Thus, paid-in capital, which in China corresponds closely to Tier 1 capital in the Basel

Diagram 4

Capital of specialised banks (1985–97)



Accord, fell from 12.1% of assets at year-end 1985 to 2.2% of assets at year-end 1997.[2]

The story is the same if one adds retained profits and other surpluses to paid-in capital, creating a measure of net worth that is roughly comparable to the sum of Tier 1 and Tier 2 capital. In 1985, the four largest state-owned banks had a net worth of RMB 84.8 billion, an amount equal to 13.2% of assets. By year-end 1997, their net worth had risen to RMB 273.9 billion, but was equal to only 2.7% of the much larger stock of bank assets.

The trend of declining capital adequacy, measured by both Tier 1 capital and the sum of Tier 1 and Tier 2 capital relative to assets, is reflected in Diagram 4.

The total capital of the Agricultural Development Bank, one of the three more recently created policy banks and now China's fifth largest financial institution, is even smaller, only 1.85% of assets at year-end 1996.[3]

As will be seen below, even these figures provide an optimistic assessment of the financial health of the banking system. Bad debt on the

[2] All capital adequacy figures cited in this paper are capital divided by assets, i.e. they are not risk-weighted.

[3] *Almanac of China's Finance and Banking 1997*, p. 502.

balance sheets of the banks substantially exceeds the reserves that are available to write off non-performing loans, implying that such write-offs would have to come out of the banks' own capital.[4] Second, not all of the largest state-owned banks report their financial results on a consolidated basis, allowing them to conceal losses in the profit and loss statements of subsidiary companies.[5]

Provisions for loan losses

Provisions set aside by the four largest state-owned banks to cover potential loan losses are minuscule. Cumulative provisions at the Construction Bank and the Agricultural Bank of China at year-end 1996, for example, were 0.58% and 0.47%, respectively, of these institutions' outstanding loans. Provisions relative to outstanding loans fell sharply in 1997 to 0.13% and 0.39% for the two banks, respectively.[6] For the largest bank, the Industrial and Commercial Bank, the figures are only slightly higher, 0.70% and 0.39% in 1996 and 1997, respectively.

Profitability

As shown in Diagram 5, profitability reported by China's largest financial institutions has been falling for more than a decade. Reported profits rose from RMB 13.103 billion in 1985 to RMB 20.518 billion in 1997. Return on assets, however, fell from an average of about 1.4% in 1985–87 to an average of well under 0.3% in 1995–97.[7] In short, loans and thus assets have grown rapidly while profits have grown much more slowly.

[4] All of the reserves for non-performing loans Chinese banks hold are included in their net worth. Thus, Chinese practice diverges substantially from the international norm, under which only reserves not ascribed to particular non-performing assets are counted as part of a bank's own capital.

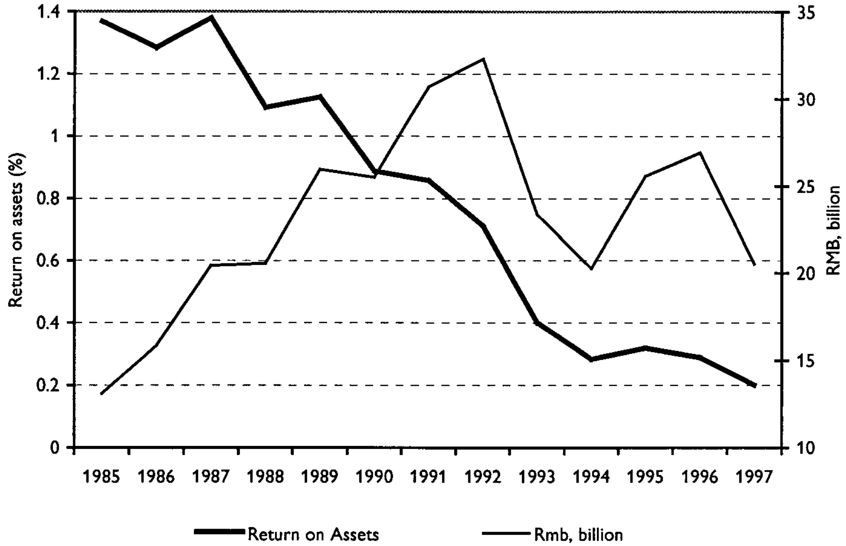
[5] The Bank of China has historically reported its results on a consolidated basis. The Agricultural Bank began doing so in 1996, the Construction Bank in 1997. The Industrial and Commercial Bank has yet to report its results on a consolidated basis.

[6] The numbers for both banks for 1997 are on a consolidated basis. In the preceding year, provisions of the Construction Bank were 0.62% on a consolidated basis, slightly higher than the 0.58% previously cited, which was on an unconsolidated basis. The 0.47% and 0.39% figures are directly comparable since both are on a consolidated basis. China Construction Bank, Annual Report 1997, p. 48. Agricultural Bank of China, *Annual Report 1997*, p. 35.

[7] The analysis here is based on rate of return on assets. Since Chinese banks have relatively little equity, rates of return on equity that could be calculated would be somewhat misleading. Nicholas R Lardy, *China's Unfinished Economic Revolution*, p. 100.

Diagram 5

Pre-tax profits of China's specialised banks (1985–97)



Moreover, Chinese banks vastly overstate their profits. This arises primarily because of the practice of capitalising interest payments and accruing interest on non-performing loans. For example, while loans are classified as "past due" (yuqi daikuan) as soon as any scheduled interest payment or repayment of principal has been missed, the largest state-owned banks have been required to accrue interest for two years after a loan is classified as "past due".[8] Recording accrued interest as income results in a vast overstatement of income and thus real profits as well. It appears that the banks do not go back and restate their earnings, even when the actual interest payments are never forthcoming from borrowers. Equally common, loans are rolled over and the interest due is capitalised and recorded by the banks as income.

[8] Some of the newer, smaller institutions have more conservative accounting practices. The Bank of Communications, for example, only accrues interest on loans overdue for less than one year. Bank of Communications, *Bank of Communications 1997 Annual Report* (Shanghai, 1998), pp. 29 and 32. It appears that the largest state-owned banks reduced the accrual period to one year beginning in 1998.

The most systematic evidence on this practice is for the China Construction Bank (CCB). For the four years 1993–96, the CCB reported annual profits that cumulated to RMB 11.608 billion. If income is reduced by the amount of accrued interest, however, over this period the bank actually lost RMB 22.410 billion. In 1994, the year of the greatest disparity, actual losses (i.e. the level of reported profits minus interest income recorded but not actually received) were almost three times reported profits.[9]

For one year, more comprehensive information on unpaid interest is available. In 1996, state-owned firms paid only RMB 134.2 billion of RMB 468 billion in interest that was due on loans from banks. I estimate that the portion of this unpaid interest that the four largest state-owned banks may have accrued under the regulations then in effect was equivalent to five times their reported pre-tax profits.[10]

A second reason income is overstated is inadequate provisioning for non-performing loans. If the four largest state-owned banks had made additional annual provisions as small as 1% of their new loans in 1995, that would have reduced reported pre-tax profits by one-quarter.

Third, China has no deposit insurance scheme. If China's four largest state-owned banks in 1995 had made deposit insurance contributions of only 0.2% of their deposits, the same proportion the Japanese Ministry of Finance has required of Japanese banks since late 1995, that would have reduced their reported pre-tax profits by one-third.

Fourth, in the absence of universal consolidated financial reporting, some banks continue to overreport their profits if their subsidiaries have lost money. This is not unlikely since bank subsidiaries include securities

[9] Li Xinxin, "Looking at China's Hidden Financial Danger from the Perspective of the East Asian Financial Crisis: An Analysis of the Utilisation and Management of Assets by China's State-Owned Commercial Banks", *Gaige (Reform)*, 1998, No. 3, p. 33.

[10] Total unpaid interest was RMB 333.8 billion. I assume that the amount that was unpaid to the four largest banks was proportional to their share of total credit extended by the financial system, which was about three-quarters. Of this amount, RMB 250 billion, about 55% was eligible for accrual (overdue for less than two years). Thus the amount of unpaid interest due from state-owned firms to the four largest banks that should have been accrued was five times their reported pre-tax profits of RMB 26.9 billion. This is probably an underestimate since state-owned firms borrow disproportionately from the four largest state-owned banks, and thus three-quarters is probably an underestimate of the share of unpaid interest that was due to those four large banks.

firms, trust and investment companies, and other institutions that in recent years have increasingly engaged in risky businesses.[11]

Fifth, in recent years as much as one-half of reported bank profits have been due to special injections of funds provided by the Ministry of Finance to the banks to help offset the increased interest expenditures they have incurred as a result of an indexing scheme introduced in 1993 to prevent disintermediation in the face of substantial inflation.[12]

Taking all these factors into account, there is little doubt that China's four largest banks, as a group, have operated heavily in the red beginning in the mid-1990s, if not earlier.

Non-performing loans

The quality of the loan portfolios of most Chinese financial institutions has deteriorated dramatically in the 1990s. The best data available to outside observers are for the four largest state-owned banks. Central bank governor Dai Xianglong and other high ranking officials in China's financial system have stated that "non-performing loans" (buliang diakuan), as a share of their total loans, increased from 20% at year-end 1994 to 22% at year-end 1995, and then to 25% at year-end 1997. Moreover, it appears that the share of non-performing loans that is accounted for by the most impaired categories of non-performing loans has increased. Specifically, the sum of the share of loans that are outstanding to firms that have already gone through bankruptcy and been liquidated without the banks recovering any of their outstanding loans, so-called "dead loans" (daizhang daikuan), and loans that are two years or more overdue, so-called "doubtful loans" (daizhi daikuan), increased by at least

[11] This is not true for the Bank of China, the only major bank that has regularly reported its results on a consolidated basis. The bank's subsidiaries appear to be highly profitable. For example, in 1997 the after-tax profits of the bank alone were RMB 3,935 million. Inclusive of wholly owned subsidiaries, after-tax profits were RMB 9,338 million (Bank of China, *Bank of China Annual Report 1997* (Beijing, 1998), pp. 31 and 35). The main wholly owned subsidiaries of the bank are involved in investment banking outside China. These include the Bank of China International in London and the China Development Finance Co. (HK) Ltd. the Bank of China Group Securities Co. Ltd., the Bank of China Group Investment Co. Ltd. and the China Construction Investment Management Co. Ltd., all in Hong Kong.

[12] For example, the message of the president of the Construction Bank in the bank's 1995 annual report stated that although the bank's profits were only RMB 3.38 billion, deposit index subsidies received from the treasury allowed the bank to report total pre-tax profits of RMB 6.3 billion.

half between year-end 1994 and year-end 1997.[13] The share of non-performing loans falling into the least impaired category, "overdue loans" (yuqi daikuan), loans on which interest or principal has not been paid for up to two years, fell correspondingly.

Data available to outside observers that reflect the quality of assets at other banks are more limited. But it appears almost certain that the quality of assets in some of these institutions is even lower and has deteriorated even more rapidly than in the four largest state-owned banks. For example, the Agricultural Development Bank, created only in 1994, has grown extremely rapidly and emerged as China's fifth largest bank, with assets in excess of RMB 710 billion by year-end 1996. But as its assets have expanded, their quality has deteriorated even more rapidly. The acknowledged share of non-performing loans surged from 20% at year-end 1995 to 26% at year-end 1996 and then reached 27% by end-February 1997.

Although most of them do not report any information on the quality of their assets, some of the new smaller national and regional banks may also have high ratios of non-performing loans. This assessment is based on the riskiness of the loan portfolios of these institutions. One example of a small national institution is the Huaxia Bank, which was established as a wholly owned subsidiary of the Shougang Group in 1992. As such, it functioned as the financial arm of Shougang, a widely diversified conglomerate with interests spanning shipping, mining and electronics as well as steel. Prior to the bank's reorganisation in late 1995, related-party lending amounted to 60 to 70% of Huaxia Bank's total loan portfolio, a ratio that is not believed to have shrunk significantly, at least in the first year after its reorganisation in November 1995.[14] As has frequently been noted, "connected lending compromises objectivity in credit assessment and produces undue concentration of credit risk" and has been an important contributory factor to past banking problems in many countries.[15]

[13] Ye Hongyan, "Recognising the Current Crisis of Bad Loans in China's Financial Structure," *Ta Kung Pao* (Hong Kong), 20 January 1998. Ye's article is based on an extensive interview with Dai Xianglong, Governor of the People's Bank of China.

[14] Thomson Bankwatch, *Hua Xia Bank-Company Report*, 24 January 1997.

[15] Morris Goldstein, *The Case for an International Banking Standard* (Washington: Institute for International Economics, 1997), p. 15.

Examples of weak regional banks include Pudong Development Bank, Shenzhen Development Bank and Guangdong Development Bank. Each of these institutions appears to have substantial loan exposure to property developers in local real estate markets that are vastly overdeveloped, as reflected in unusually high vacancy rates. Because their loan portfolios have little or no geographic diversification, they are quite vulnerable to the real estate shakeouts that appear to be inevitable, particularly in Pudong and Shenzhen.

Asset quality of China's non-bank financial intermediaries, which account for about one-fifth of the assets of the financial system, is significantly lower than that of the large state-owned banks. By the end of 1996, their non-performing assets were about 50% of their total assets.[16] Asset quality of these institutions, particularly trust and investment companies and rural credit cooperatives, appears to be worsening rapidly.[17] Many trust and investment companies in the 1990s reduced their traditional lending and investment activities and increased their exposure to property development and stock brokerage. In addition to shifting into these riskier activities, most trust and investment companies have significantly increased their off-balance sheet exposures, mostly in the form of loan guarantees. GITIC, for example, by year-end 1997 had extended guarantees equal to almost five times its own capital! Finally, most international trust and investment companies have built up huge unhedged foreign currency exposures. Most of their lending is denominated in foreign currencies. But most of their borrowers have insignificant foreign exchange revenues, meaning that a currency devaluation that eroded the repayment ability of the borrowers would ultimately be reflected in the financial soundness of the trust and investment companies themselves. These problems are acute, in part because of inadequate supervision and regulation of trust and investment companies. Although they are nominally regulated by the central bank, in Moody's judgement the trust and investment companies exist "largely in a regulatory vacuum".[18]

[16] Li Xinxin, "Looking at China's Hidden Financial Danger from the Perspective of the East Asian Financial Crisis", p. 31.

[17] Moody's Investors Service, *Banking System Outlook: International Trust & Investment Corporations (ITICs) in China, Awkwardly Embracing a New Reality* (New York, April 1998).

[18] Moody's Investors Service, *Banking System Outlook*, p. 11.

This judgement is borne out by a number of failures of trust and investment companies, including most notably the China Agriculture Development Trust and Investment Company, which was directly controlled by the Ministry of Agriculture. When it was closed by the People's Bank in January 1998, it was China's second largest trust and investment corporation, with assets of RMB 29.9 billion at year-end 1995.[19] Although it was established in 1988 to oversee the disbursement of loans from the World Bank and other international agencies, it later moved into a range of riskier activities, including property development, securities trading and commodity speculation. Its demise was reported to be due in part to losses on speculation on the price of sugar in the international market.[20]

Rural credit cooperatives are yet another little-noted example of weak non-bank financial institutions. By year-end 1996, their non-performing loans comprised 38% of their total loan portfolios. Twenty-six thousand cooperatives, over half of the total of 49,692 rural credit cooperatives then in existence, were running in the red, with reported losses of more than RMB 14 billion in the same year.[21] The central bank has sought to improve its supervision and regulation of this sector and "comprehensively deal with those rural credit cooperatives facing high risk exposure and insolvency".[22] It is difficult for outside observers to judge the progress of this effort.

Any assessment of the magnitude of non-performing loans in the financial system must also take into account the leniency of China's loan classification system compared with standard international practice. The People's Bank began to introduce important reforms of the loan classification system in 1998. The data cited above are based on the old system, which had several obvious shortcomings. First, the loan classification system was based on payment status, rather than risk.[23]

[19] 1995 was the last year for which financial results were reported. *Almanac of China's Finance and Banking 1996*, p. 518.

[20] Ian Johnson, "Beijing Plans to Shutter Some 150 Trust Companies", *Asian Wall Street Journal*, Weekly Edition, 12 January 1998, p. 11.

[21] "The Green Book Points Out: Take Precautions Against and Resolve Rural Financial Risk", *Zhongguo xiangzhen qiye (China's Rural Enterprises)*, No. 8, 1998, p. 38.

[22] People's Bank of China, *China Financial Outlook* '98, p. 32.

[23] A risk-based classification scheme is reportedly already in use in the State Development Bank and is to be broadly adopted by all banks by the end of 1998. Yang Shuang, "Renhang banbu 'daikuan fengxian fenlei zhidao yuanze' (shi xing)" (People's Bank Promulgates "Guiding Principles in Risk-Based Loan Classification" (Implementing Provisions)), *Jinrong shibao (Financial News)*, 24 April 1998, p. 1.

Thus, in the case of multiple loans to a single borrower, individual loans were classified as non-performing only as the contractual terms of each loan were violated. By contrast, in a risk-based system all loans to a single borrower are classified as soon as the borrower is out of compliance with the terms of any single loan agreement.

Second, compared with international standards, Chinese banks were allowed to delay classifying loans as non-performing, primarily because classification was generally tied only to repayment of principal and many loans were bullet loans on which no repayment of principal was required until the end of the loan term.

Finally, the most glaring discrepancy compared with international practice was that the most impaired category of non-performing loans was loans on which banks had recovered no funds, even after the borrower had declared bankruptcy and had gone through liquidation. Two per cent of all loans outstanding fell into this category in the mid-1990s. The practice of delaying the complete write-off of loans not repaid from the proceeds of the liquidation of a borrower is unknown in financial systems in which banks are solvent.

The net effect of these shortcomings is that at least until end-1997 China's own published figures on non-performing loans were biased downwards, possibly by a large margin. Particularly during a period of declining asset quality, China's long-standing methodology almost certainly understated the rate at which non-performing loans were accumulating in the banks.

Implications

The data on capital and non-performing loans reviewed above suggest that in the mid-1990s China's four major banks as a group had a negative net worth and thus were insolvent.[24] The officially reported total net worth of the four big state-owned banks at year-end 1995 was only RMB 269 billion. If we deduct the value of "dead loans" (daizhang daikuan), on which the recovery rate is already known to be zero, the net worth of these institutions would be only RMB 191 billion. Not taking into account any off-balance sheet liabilities, if the ultimate

[24] Li Xinxin ("Looking at China's Hidden Financial Danger from the Perspective of the East Asian Financial Crisis", p. 32) is one of the few Chinese authors who has explicitly acknowledged that the liabilities of the four largest state-owned banks exceed their assets.

recovery rate of the remaining classified loans was less than three-quarters, the magnitude of loans remaining to be written off would exceed the net worth of these banks. Based on international experience with banking crises and the low recovery rate that Chinese banks have achieved in recent years when enterprises have gone through bankruptcy and liquidation, it is extremely unlikely that the ultimate recovery rate on the past due and doubtful loans of Chinese banks will even approach three-quarters.[25]

Liabilities also exceed assets in large portions of most of the rest of China's financial system. China's largest policy bank – the Agricultural Development Bank of China – had acknowledged non-performing loans at year-end 1996 that were 12.3 times the bank's own capital, almost certainly making it insolvent.[26] Many non-bank financial institutions, where non-performing assets average 50%, are almost certainly bankrupt. This problem is most clearly evident for rural credit cooperatives and trust and investment companies. For example, at year-end 1996 the non-performing loans outstanding from rural credit cooperatives were equal to 4.37 times the cooperatives' own capital, implying a high probability of insolvency for the system as a whole.[27] Some finance companies and securities firms probably also have liabilities exceeding their assets.

While large parts of China's financial system, particularly its largest state-owned banks, are insolvent, they are not illiquid. Three factors in combination have thus far allowed insolvent banks to continue to operate. The first is the rising rate of national saving in the reform period. The rate was about 30% of gross domestic product at the outset of reform but had risen to 40% or slightly more by the mid-1990s. Second, the sources of savings have shifted dramatically, so that by the mid-1990s households accounted for about half of all savings, compared with their negligible share at the outset of reform. Third, given the tiny

[25] In 1995 and the first three quarters of 1996, for example, the Industrial and Commercial Bank recovered only about 15% of its outstanding loans to more than 5,000 enterprises that went bankrupt and were liquidated.

[26] The bank's total loans, of which 26% have been acknowledged to be non-performing, were RMB 624.8 billion while its total capital was only RMB 13.2 billion. *Almanac of China's Finance and Banking 1997*, p. 502.

[27] Loans outstanding at the end of 1996 from rural credit cooperatives were RMB 628,984 billion, of which 38%, or RMB 239 billion, were non-performing. The own capital of the rural credit cooperative system was only RMB 54.77 billion. *Almanac of China's Finance and Banking 1997*, pp. 452 and 563.

size of China's bond and equity markets and the absence of capital account convertibility, households have had little choice but to hold financial assets either in currency or bank savings deposits denominated in local currency. The combination of these three factors has meant that ever growing amounts of household savings flow into the banks each year. For example, in 1997 households added RMB 787.99 billion to their savings accounts in banks, which reached a cumulative year-end value of RMB 4,693.65 billion.[28]

China's bank recapitalisation programme

Chinese leaders clearly recognise that the combination of insolvent but not illiquid banks and other financial institutions is not sustainable. Since they do not contemplate allowing state-owned banks or other state-owned financial institutions to default on their financial obligations to households, they plan to restructure and recapitalise the financial system. Indeed, some steps have already been taken, including a RMB 270 billion partial recapitalisation of the four largest state-owned banks in the late summer of 1998 and a number of important institutional reforms. The analysis below focuses on several aspects of this programme – its timing, its size and its fiscal implications. It also briefly considers the need to increase competition in the financial system and overhaul the taxation of banks.

Timing

Based on international experience with banking crises, there is a widespread consensus that one of the greatest risks is that a government's recapitalisation of banks can undermine the incentive of banks to adopt prudent lending criteria. The reason is simple. Recapitalisation "can foster the expectation that, having bailed out troubled banks once, governments would do so again".[29]

This problem appears to be particularly acute in China. There was some evidence, particularly after mid-1993, that banks were beginning to curtail the flow of new lending to money-losing state-owned enterprises.

[28] People's Bank of China, *Quarterly Statistical Bulletin*, 1998, No. 1, p. 9.
[29] World Bank, *From Plan to Market* (Oxford University Press, 1996), p. 101.

This policy was reinforced in the spring of 1998 when the National People's Congress endorsed the goal of encouraging commercial behaviour on the part of state-owned banks. But by mid-year this policy appeared to have been significantly modified when the central bank directed these banks to continue to extend additional loans to money-losing state-owned companies.[30] Shortly thereafter, the central bank completed the RMB 270 billion injection of capital into the four largest state-owned banks. Requiring banks to lend additional funds to firms that have only limited prospects of amortising their loans creates the expectation on the part of banks that additional recapitalisation funds will inevitably be forthcoming. That expectation seriously undermines the prospect for a fundamental change in bank lending behaviour.

Size

A second lesson from international experience with banking crises is that there are substantial costs to succumbing to the natural tendency of trying to minimise the cost of bank recapitalisation by underestimating the magnitude of non-performing loans or by overestimating the amount that can ultimately be recovered from borrowers whose loans have already been classified as non-performing. The experience of transition economies in Eastern Europe shows that a key pitfall of recapitalisation can be the failure to make the first injection of capital into the banking system sufficiently large. When recapitalisation is inadequate to restore banks to financial health, it erodes the credibility of the government's claim that there will be no further bailouts.[31] Like premature recapitalisation, this erodes any incentive for a change in bank lending behaviour.

The CCB in early 1999 announced a tentative plan to establish a separate entity, the Cinda Asset Management Company, to take over RMB 300 billion in non-performing loans, one-quarter of the bank's total loans outstanding.[32] The large magnitude of the loans to be purchased by

[30] People's Bank of China, State Economic and Trade Commission, and State General Bureau of Taxation, "Guanyu jinyibu zhichi guoyou kuisun gongye qiye you xiaolu, you xiaoyi chanpin shengchan de tongzhi" (Notice Concerning Further Supporting State-Owned Industrial Enterprises that Are Losing Money which Have Saleable and Efficiently Produced Products), June 1998. Wang Baoqing, "Points on Supporting Money-Losing Enterprises To Cultivate Winning Increased Profits", *Jinrong shibao (Financial News)*, 25 June 1998, p. 1.
[31] Andrew Sheng, *Bank Restructuring: Lessons from the 1980s* (World Bank, 1996), p. 101.
[32] Ian Johnson and Perter Wonacott, "China is Set to Begin Tackling Biggest Bank's Bad-Loan Problem", *Wall Street Journal Interactive Edition*, 14 January 1999.

Cinda suggests that the RMB 270 billion recapitalisation of the four largest state-owned banks undertaken in August 1998 fell far short of the recapitalisation amount that they will ultimately require.[33]

Although there are obviously uncertainties in any estimate based on the fragmentary information available to outsiders, in my judgement recapitalisation of the financial system will currently require an injection of an amount equivalent to about 25% of the loans outstanding from all financial institutions. With loans outstanding at year-end 1998 equivalent to 108% of gross domestic product, the required recapitalisation can be calculated to be about 27% of GDP, or RMB 2.15 trillion (about US$ 260 billion at the current exchange rate).[34] This estimate recognises that the financial condition of the largest policy bank, several of the regional development banks, the system of rural credit cooperatives, the majority of trust and investment companies, and probably some finance and securities firms is at least as weak as that of the CCB. The estimate also takes into account the laxity of the criteria used for classifying loans. In particular, continuing to count as assets loans to firms that have already gone through liquidation on which banks have had no recovery and allowing banks to classify loans as "doubtful" on an indefinite basis, regardless of how long a borrower has failed to make any interest or principal payments, has led to an understatement of the magnitude of China's non-performing loan problem.

Fiscal implications

There are two elements in the fiscal cost of bank recapitalisation. The first is the cost of paying a market rate of interest on the government bonds sold to provide the funding of the asset management companies, which in turn will presumably purchase non-performing loans from the banks at face value. If the bonds sold were 27% of gross domestic product and the real interest rate 6%, this cost would amount to 1.6% of gross domestic product annually. If China's economic growth remained fairly robust (i.e. 6% or more in real terms), this incremental interest

[33] The CCB received RMB 43 billion, about one-sixth of the capital injected into the four big banks in 1998. Du Deqing, "How Much will This Year's Government Debt be?" *Jinrong shibao (Financial News)*, 9 November 1998, p. 8.

[34] Based on the preliminary estimate of the State Statistical Bureau that GDP in 1998 was RMB 7,974.8 billion. *People's Daily Online*, 31 December 1998.

expenditure could be financed indefinitely by the sale of additional government bonds.

This would be possible because the existing stock of government debt relative to gross domestic product is low by international standards, about 14% at year-end 1998. A one-time 27% increase in government debt relative to GDP would put China's domestic debt ratio at about 40%, a level that is not high by the standards of either emerging market or transition economies. As long as the economy continued to grow at a rate at least equal to the real rate of interest on government bonds, the ratio of the stock of debt relative to gross domestic product would not rise, even if the entire interest cost were financed from additional annual sales of bonds. Thus, the debt would be sustainable. That is, creditors would not be likely to fear that the government was becoming unable to finance its expenditure program, and thus the real interest rate necessary to finance the debt would not rise over time and thereby possibly cause the burden on the debt to rise to a level that could not be financed.

In practice, the ultimate success of any financial reform package will depend on subjecting enterprises to hard budget constraints. But that is an economically rational approach only if enterprises are absolved of all of their quasi-fiscal expenditures. This will require increased government fiscal outlays for education, health and other social expenditures that properly should be borne by the government budget rather than being financed from enterprise income. I estimate that these additional fiscal outlays amount to about 3.3% of gross domestic product.[35]
Thus, the annual fiscal cost of recapitalising the financial system can be estimated to be about 5% of gross domestic product, substantially more than the increased expenditures required by the need to service a larger government debt.[36]

Indeed, an additional 5% of GDP is so large relative to current budgetary revenues that it raises serious questions about the feasibility of bank recapitalisation. Very inelastic growth of taxes and other revenue has meant that total government revenue relative to gross domestic product fell continuously from 31.2% in 1978 to only 10.7% in 1995.

[35] Nicholas R Lardy, *China's Unfinished Economic Revolution*, p. 161.

[36] In addition, China's primary budget deficit in 1998 (the deficit net of the interest cost of servicing the existing stock of government debt) was about 0.6% of GDP.

Introducing a major tax reform and increasing the coverage of the value-added tax has led to slightly more buoyant revenue growth since 1994. By 1997, revenues were 11.5% of gross domestic product, up 0.6 percentage points from 1996, which in turn was up 0.2 percentage points over 1995, when the revenue share of gross domestic product reached an all-time low.[37] Only if the trend of a rising revenue share is sustained over time is there a realistic prospect of financing the recapitalisation program sketched out above.

Competition

Recapitalising the existing large state-owned financial institutions is a necessary but insufficient condition for ensuring that they operate on commercial terms. A substantial increase in competition is a prerequisite to the successful commercialisation of the banking system.

All possible steps to increase competition should be pursued. First, the People's Bank must allow those banks created since the reform began that have accumulated sufficient experience in evaluating credit risk to expand their operations more rapidly, once the recapitalisation of the major state-owned banks has created a more level playing field. The candidates for expansion are the stronger institutions such as CITIC Industrial Bank, Bank of Communications, Everbright Bank, Merchant's Bank and Minsheng Bank, rather than weak institutions such as Huaxia Bank and the increasingly fragile regional development banks such as Pudong Development Bank, Shenzhen Development Bank and Guangdong Development Bank.

Second, the central bank should allow foreign banks and other foreign financial institutions to expand their domestic currency business by further easing the geographic and other constraints it imposed on the handful of foreign banks it initially allowed to enter the domestic currency business in 1997. The expansion of the domestic currency lending business of these banks might initially be through the continued use of the interbank market as a source of short-term funds. But foreign banks should be allowed to sell domestic bonds to Chinese financial institutions to finance longer-term lending. Within two, or at most three,

[37] Finance Minister Liu Zhongli, "Report on Implementation of Central and Local Budgets for 1997 and on the Draft Central and Local Budgets for 1998", Xinhua News Service, 21 March 1998.

years the central bank should allow foreign banks to take domestic currency deposits directly from Chinese enterprises, institutions and households. This approach, which liberalises most rapidly on the lending side, takes immediate advantage of the greater ability of foreign financial institutions to assess credit risk, while giving domestic institutions a short period of time before they would have to compete head-to-head on the deposit-taking side of the banking business. That should alleviate the concern that allowing unrestricted foreign bank access would lead to substantial disintermediation.

Third, the state should allow the creation of genuinely private banks. They should be subject to an appropriate minimum capital requirement and standards that ensure their independent control and management.

Fourth, the People's Bank should allow foreign banks and international financial institutions to purchase shares of existing banks. The Asian Development Bank's purchase of a stake in Everbright Bank in 1997 is a promising precedent, but other proposed purchases have been unnecessarily delayed.

Fifth, the state should more strongly encourage a reconfiguration of the largest state-owned banks. This process has already started modestly, largely in response to increased competitive pressure on banks. After more than a decade of rapid expansion, in 1996 the largest state-owned banks actually began to reduce their excessive physical presence in many localities. In 1996, these banks shut 2,138 of their local offices. The reduction, however, cut the number of offices by only 2%, an extremely modest proportion. Their cost structures remain extremely high. In 1996, costs absorbed an amazing 86% of bank income – the highest ratio of costs to income in the banking systems of 40 countries for which *The Banker* made the calculation in 1997.

The People's Bank should encourage substantial reductions in the office networks and staffing of the largest banks. This could take the form of an accelerated voluntary shutting of offices or the sale of some sub-branches and offices to newer institutions that wish to expand.

Finally, the authorities should allow the more rapid expansion of equity and corporate bond markets and simultaneously encourage the more rapid development of alternative channels of intermediation, such as pension funds, insurance, investment funds and mutual funds. In particular, China would benefit from the development of a long-term debt market that could be used to finance infrastructure and other projects with long gestation periods. Currently some of these projects are financed offshore, largely because of the absence of long-term funding in China. Since most of these projects have no foreign exchange earnings and there are no markets in which foreign exchange risk can be hedged, this offshore financing entails substantial currency risk. For the corporate sector the availability of equity markets could make possible a more balanced financial structure than the current one, which, as discussed above, has come to rely excessively on debt.

Taxation of banks

Even after they are recapitalised and subject to competition, there is little prospect that China's major state-owned banks could operate on a commercial basis under the existing tax system. Because the current rates of taxation are confiscatory, banks would be unable to add to their capital as their lending business grew. As a result, their capital adequacy would shrink and within only a few years they would require another injection of fresh capital. If such an injection is only a matter of time, it seriously undercuts the incentives banks have to operate on commercial terms. In short, current rates of taxation are so high that they effectively deplete banks' capital.

The current system of taxing Chinese banks is confiscatory for two reasons. First, banks have to pay taxes on phantom profits, particularly on interest that they have been required to record as income but which has not actually been paid. Second, the largest state-owned banks are required to pay a business tax of 8% (plus surtaxes), which is treated as an above-the-line operating expense and thus a deduction from income. The burden of this tax is extraordinarily high since it is assessed on gross income from interest and fees. Most large state-owned banks pay more in business taxes than they do in income taxes, which are now levied at a rate of 33%. For example, in 1997 the Agricultural Bank of China paid RMB 5.332 billion in business taxes and surtaxes but only RMB 259 million in income taxes. The bank's effective rate of taxation in 1997 exceeded 91%.[38]

[38] Calculated based on the assumption that the business tax did not exist (leading to an increase in pre-tax operating profit equal to the business taxes paid) but that the bank then paid an income tax fixed at the rate required to generate the amount of taxes, business plus income, that the bank actually paid. Agricultural Bank of China, *Annual Report* 1997, p. 34.

Conclusion

China's leadership faces a substantial challenge in recapitalising its financial system. In addition to the issues analysed above, a successful bank restructuring program will require a substantially strengthened central bank that can exercise effective supervision and prudential regulation of banks.[39]

If China fails to transform its banking and financial system, the consequences are predictable. The intermediation of funds between savers and investors by banks and other financial institutions would probably continue to be marked by the inefficiencies already apparent. As the contribution to economic growth of various once-for-all factors winds down, one would expect the rate of growth of the economy to slow. An inefficient banking system would also impede the development of stock and bond markets which, as per capita output rises and appropriate regulatory structures are developed, normally come to play an important supplementary role in the allocation of investment resources. The continued fragility of the financial system would also limit the ability of the People's Bank to use monetary policy to dampen the marked fluctuations in economic activity that have characterised the reform era.

Ultimately, the failure to transform the banking system on a timely basis increases the possibility of a domestic banking crisis. A crisis could be triggered if domestic savers lose confidence in the government's implicit guarantee of their bank deposits. This loss of confidence could be triggered by a growth slowdown that obviously further weakened the domestic banking system; the prospect of a major devaluation of the renminbi in response to an emerging current account deficit and sharp fall in inward foreign direct investment; or a premature move to capital account convertibility or opening-up of domestic financial markets. Such a crisis would probably lead to an inflationary spiral, a dramatic curtailment of the growth of bank credit, and a sharp recession. It would also be highly adverse for maintaining the high rate of domestic saving that has been the major source of rapid growth in the reform era.

[39] Nicholas R Lardy, *China's Unfinished Economic Revolution*, pp. 170–6.