ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

ESCAP-ADB Joint Workshop on Mobilizing Domestic Finance for Development:
Reassessment of Bank Finance and Debt Markets in Asia and the Pacific
22-23 November 2001
Bangkok

ASSESSMENT OF CHINA'S FINANCIAL REFORMS

----

* This paper has been reproduced as submitted. A limited number of copies has been issued for use only by participants.

This paper was prepared by Dr Sayuri Shirai, Associate Professor of Economics, Keio University and Visiting Scholar, Asian Development Bank Institute, Tokyo, Japan. The views expressed in the paper are those of the author and do not necessarily reflected the views of the United Nations.

Assessment of China's Financial Reforms [1]

November 23, 2001

By

Sayuri Shirai
Associate Professor, Keio University and
Visiting Scholar, ADB Institute

And

Prithipal Rajasekaran
Research Associate, ADB Institute

Abstract

Since the early 1990s, major financial reforms have been initiated in the banking sector of the People's Republic of China. Financial reforms included commercialization of specialized banks, re-capitalization of banks, entry and interest deregulation (albeit at a very minimum level), and a reduction of direct lending typically known as a "credit plan". This paper examines whether these financial reforms have produced some noticeable impact on the performance of the wholly state-owned commercial banks (WSCBs), since their transformation from specialized banks to commercial banks. This paper shows that the reforms have not produced a significant impact yet on the performance of the WSCBs. Also, other commercial banks (OCBs) have been a better performer throughout the reform period. A more worrisome feature, however, is that the performance of the OCBs has deteriorated rapidly in recent years. These outcomes suggest an urgent need for the government to undertake more comprehensive and decisive steps for restructuring the WSCBs. At the same time, further deregulations—properly-sequenced interest rate deregulations, a broadening of the scope of business, further entry deregulations for new banks that are well-capitalized and technologically-advanced, etc.–should be adopted in order to promote the OCBs to become more viable and commercial-oriented financial institutions. This paper has also found that the performance of policy lending banks was as poor as the WSCBs.

1 We are grateful to Prof. Liping He of Beijing Normal University; Mr. Xu Guoping of the People's Bank of China; Mr. Ke Long of Fujitsu Research Institute; and Mr. Yuan Yuedong of the Bank of China for providing useful information.

Table of Contents

I. Introduction

People's Republic of China (PRC) has launched comprehensive reforms since the opening up of its economy to the world in 1979. Since then, the government has removed price controls; has eased investment restrictions; has increased tax neutrality across different types of enterprises; has exposed the domestic market to international competition; and has lowered entry and exit barriers with the promulgation of the 1995 Corporation Law, which has allowed firms to merge, switch production lines, and close down (Bajpai, Jian and Sachs [1997] and Broadman [1999]). Moreover, the government has improved inter-sectoral labor mobility by permitting rural residents to set up new businesses and work in factories or firms, workers to resign/retire at an early age, and firms to hire workers and set wages; and has also improved inter-regional labor mobility by encouraging city governments to establish human capital exchange centers. The government also introduced special economic zones, which have contributed to high economic growth and trade expansion. These reforms have given rise to township and village enterprises, urban collectives, individually-owned firms, and foreign-funded ventures, all of which rapidly increased production and market shares.

Prior to reforms, the banking system served a limited role in promoting economic growth. This reflects that the limited role of banks in highly centralized planning system whose primary functions were collecting revenue from wholly state-owned enterprises (SOEs) and allocating investment through budgetary grants (Ma, 1997). Given this condition, the banks simply provided credit needed by the SOEs to implement production plans and provided/monitored cash used principally to cover labor costs and purchases of agricultural products.

Following comprehensive economic reforms applied to various sectors of the economy since the 1980s, the government has also launched a series of financial reform programs since the 1990s. Such programs were initiated at a later stage as compared with other economic reforms, because the government needed to focus initially on institution building of the financial market in the 1980s—namely, establishing a two-tier banking system that comprises primarily of a central bank and four specialized banks. Under this framework, the People's Bank of China (PBC) was transformed to a central bank by removing all commercial activities. Among the four specialized banks, the Agricultural Bank of China (ABC) was established to take over PBC's rural banking business, and a network of 60,000 rural credit cooperatives (RCCs) was established under the supervision of the ABC to provide small-scale rural banking businesses (IMF, 1996). The Bank of China (BOC), the second specialized bank, was delegated to handle foreign transactions. The China Construction Bank (CCB), the third specialized bank, was assigned to focus on the construction sector, and also the China Investment Bank was set up under the control of the CCB. The Industrial and Commercial Bank of China (ICBC), the fourth specialized bank, was formed to take over PBC's urban commercial banking activities.

Moreover, the China International Trust Corporation (CITIC) was set up as the first nonbank financial institution in the 1980s. A number of international trust and investment companies (ITICs) were allowed to set up by allowing them to raise funds from foreign sources and finance foreign-funded enterprises. Most of them were established and owned by the local governments. In addition, trust and investment companies (TICs)–which receive government and enterprise trust deposits (deposits that can be invested at the discretion and risk of the TICs) or entrusted deposits (deposits that are invested at the specific instruction and risk of depositors)—were established mostly by the four specialized banks, the Ministry of Finance (MOF), and the local governments. Moreover, the 1983 reform replaced direct grants with interest-bearing loans in an attempt to solve the soft-budget problem of the SOEs. This shift in policy enabled the banking sector to expand its business and open branches in all major cities.

Once the two-tier banking system was established in the 1980s, major financial reform decisions were made in the 1990s. Financial reforms included a commercialization of specialized banks, a reduction of direct lending typically known as a "credit plan", a separation between policy and commercial lending activities, a re-capitalization of banks, and entry and interest deregulations (albeit at a very minimum level). In spite of these reforms, the financial sector has remained dominated by the wholly state-owned commercial banks (WSCBs) and intervened heavily by the government even today. As of 2001, the Chinese banking system consists of the four WSCBs, 3 policy lending banks, more than 100 commercial banks, about 3,000 urban credit cooperatives (UCCs), and about 42,000 RCCs, and about 160 foreign banks with branches or representative offices. The WSCBs were established in 1995 after the transformation of specialized banks to commercial banks. These are the ABC, the BOC, the CCB, and the ICBC, together accounting for about 70% of loans and deposits, respectively. Furthermore, these WSCBs dominate the banking sector in terms of branches (103,000 branches) and employment (nearly 2 million). The policy lending banks (the Agricultural Development Bank of China [ADBC], the China Development Bank [CDB], and the Import-Export Bank [IEB]) were established in 1994 to take over long-term development finance and policy lending business engaged previously by the specialized banks. Prior to the commercialization, these banks' lending used to be largely restricted to the designated sectors based on the industrial policy formulated by the government. Since then, however, all WSCBs are allowed to engage in any business freely. Most of other commercial banks (OCBs) are owned by local governments and/or SOEs.

This paper examines whether these financial reforms of the 1990s have produced some noticeable impact on the performance of the WSCBs since their transformation to commercial banks with quantitative analysis. In particular, this paper assesses how the performance of the WSCBs has changed over time in the reform period and whether their performance is comparable to OCBs. Moreover, the paper examines factors affecting such results. This paper shows that the impact of the financial reforms has not produced a noticeable impact so far on the performance of the WSCBs. Even a more worrisome feature is that the performance of the OCBs has deteriorated in recent years. These outcomes suggest an urgent need for the government to undertake more comprehensive and drastic steps for restructuring WSCBs. At the same time, further deregulations—properly-sequenced interest rate deregulations, an expansion of the scope of business, further entry deregulations for new banks that are well-capitalized and technologically-advanced, etc.–should be adopted in order for the OCBs to become more viable and commercial-oriented. Moreover, the very poor performance of policy lending banks indicates a strong and urgent need for actions that would enable them to operate in a sustainable manner.

II. The Financial Reforms of the 1990s

The Financial Reform Process

The major reforms of the early 1990s were a separation of commercial lending and policy lending by transforming the four specialized banks to commercial banks, establishing three policy lending banks, establishing new commercial banks, as well as transforming UCCs to commercial banks. A separation between commercial lending and policy lending was aimed at facilitating the implementation of liquidity management by the PBC at the level of the banking system, rather than liquidity management at the level of individual banks (IMF, 1996). The PBC also introduced capital adequacy requirement first in Shenzhen, and later applying to all commercial banks in line with the Commercial Bank Law promulgated in 1995. Also, other prudential norms, such as the loan-deposit ratio, the liquid asset-liquid liability, etc. were introduced. Even though such guidelines on prudential norms were introduced, few banks implemented them. However, the loan classification system was reformed in 1998 together with a tightening of existing prudential regulations based on recognition that banks' poor management was the fundamental cause of the East Asian crisis.[2] Further, in 2000 these prudential regulations were tightened even more in the face of the increasing challenges from globalization and PRC's accession to the World Trade Organization (WTO).

As for the entry of new banks, two nationwide commercial banks (formerly called universal banks), 6 regional commercial banks, and 2 housing savings banks were established in the first half of the 1990s. In 1995, furthermore, Minsheng Bank was established by the Chamber of Industry and Commerce comprising of numerous small and medium enterprises (SMEs), as the first domestic private bank. The Commercial Bank Law has given rise to a de facto two-tier commercial banking system that consists of (1) commercial banks that are subject to prudential regulations and are supervised by the PBC, and (2) three policy lending banks, which are not subject to this Law and whose operations are guided by individual charters (IMF, 1996). With respect to the scope of banks' business, foreign exchange business—that used to be monopolized by the BOC—has been granted to other banks and financial institutions since the 1980s. While commercial banks used to be allowed to invest in nonbank financial institutions and enterprises, engage in securities operations, and use interbank lending to extend fixed-asset loans, the Commercial Bank Law prohibited banks from engaging in these business with firewall provisions.

As a part of the comprehensive monetary reform launched since 1994,[3] the government has also decided to gradually reduce the credit plan that determines each bank's

2 The system before 1998 has the following problems (Lardy, 1999). First, the loan classification system was based on payment status, rather than risk. Thus, in case of multiple loans extended to a single borrower, individual loans were classified as non-performing loans (NPL) only when the contractual terms of each loan were violated. Second, classifying loans as NPL was often delayed since they were tied only to repayment of principal and many loans were bullet loans (such that no repayment of principal was required until the end of the loan term.) Third, the most impaired category of NPL was dead loans.

3 Other monetary reforms included (1) PBC reforms (clarifying PBC's primary objective as maintaining price stability, enforcing strict supervision over financial institutions, conducting clearance and issuing banknotes, increasing the authorities of PBC's headquarter for effective monetary policy, rationalizing regional branches of the PBC, etc.), (2) a gradual shift to indirect monetary policy such as open market operations, reserve requirements, and operations in the foreign exchange market, (3) a termination of PBC's financing of the government by printing money, which promotes the government to issue bonds, and (4) shortening of the maximum length of maturity allowed for interbank loans from 3 month to 3 days. Many of these reforms were formalized by the passage of the Law of the PBC in 1995.

aggregate credit volume on a quarterly basis. In the past, the WSCBs were often asked to allocate credits to support the operations of loss-making SOEs. This happened even though the WSCBs just like other commercial banks have been required to manage their loan portfolios based on the asset-liability ratios in line with the Commercial Bank Law. This was justified because the provision of Article 41 of the Commercial Bank Law stipulates that WSCBs shall provide loans for projects approved by the State Council and thus were interpreted as a continuation of the credit plan. The continued practice of a credit plan reflected that the size of credit extended by policy lending banks was too small to meet high demand for credit by the SOEs. In the face of the performance of SOEs, however, the WSCBs have become gradually more prudent in terms of credit allocation and, by 1997 only 80% of the credit quota was fulfilled. Since the PRC faced recession caused by the contagion of the East Asian crisis, the PBC found it necessary to increase credit growth and thus removed the credit plan for both working capital loans and fixed investment loans in 1998, because of its restriction on aggregate credit growth. Instead, the PBC replaced it with an indicative, nonbinding target, where indicative target only serves as a reference for commercial banks to plan their business. Since the abolition of the credit plan, the WSCBs are supposed to be free to lend according to commercial considerations, provided that their total lending is in line with asset/liability ratios and monetary policy target set by the PBC (Mo, 1999). Nevertheless, the PBC continues to intervene in credit allocation based on window guidance.

Further, the WSCBs are now required to appoint heads of branches on a provincial level according to their autonomous decision at their headquarters. This means that local governments, which used to appoint heads of WSCBs' branches together with their headquarters, no longer have major influence on their appointments. Since loans are now granted based on the repayment ability of borrowers, some loss-making SOEs find it more difficult to obtain bank credit. However, the WSCBs continue to extend credit to many SOEs, in part because of their high demand for credit due to their heavy involvement in a large number of infrastructure-related projects, and in part because of few attractive nonstate borrowers. In 1998, the government introduced a "life time responsibility system" which penalizes the bank manager in charge of bad lending practices to nonstate sectors. Since then, some banks reduced credit extended to nonstate sectors, causing a credit crunch among the sectors.

As for interest rate deregulations, banks used to be allowed to adjust lending interest rates within a certain margin below and above the administered rate in the late 1980s, although such flexibility on deposit interest rates was not granted. However, the austerity program of 1989 reversed this liberalization process until the early 1990s, when the austerity program ended and banks were allowed again to set lending interest rates within a certain margin. The PBC gradually expanded this margin. As of now, the floor of the lending rate is 5%, while the ceiling is 10% for large firms and 30% for SMEs and rural sectors. With the purpose of strengthening interbank markets, the interbank markets were unified with a computer system in January 1996, contributing to a modest reduction in banks' excess reserves held partly due to inefficiencies in liquidity management. In June 1996, ceiling on the interbank rates (China Interbank Offer Rate) was lifted. In 1997, the interbank market based on bonds repo arrangements was introduced in addition to the already existing call markets (that do not take any collateral). There are essentially two ways for the PBC to

---

During 1995-1996, the PBC issued a number of short-term bonds to facilitate open market operations. Moreover, PBC lending to commercial and policy lending banks has increasingly played an important role in liquidity management.

conduct open market operations in the interbank bond market: one based on a quantity auction after an interest rate is set and the other based on an interest rate auction. Since the interest rate is set by the PBC in the former, this practice certainly affects the interbank interest rate. Furthermore, the government introduced a policy to subsidize the difference between inflation rate and an administered deposit rate to protect depositors in 1993. However, this "indexation" policy was terminated since inflation rate declined sharply in 1997.

With respect to the financial sector restructuring, the following methods have been experimented: (1) recapitalization, (2) conversion of debt into equity, (3) mergers, (4) disposal of non-performing loans (NPL), and (5) closure and bankruptcy of insolvent financial institutions. As for the first measure, the government made a capital injection of 270 billion yuan ($32 billion) to the WSCBs in 1998 by issuing bonds.[4] On the second measure, the PBC arranged a debt-equity swap of about 5 billion yuan in 1996 for Everbright Trust and Investment Company, since it could not meet its maturing debts. PBC's intervention aimed at preventing its bankruptcy, in part to protect its biggest creditors including a state oil firm and two WSCBs.

As a third measure, more than 2,000 UCCs were merged into 88 city commercial banks during 1995-1998 in accordance with the assessment of assets and capital, write-off of some bad debts, and encouragement of new shareholders. In 1995 and 1997, Hainan Development Bank purchased some TICs and UCCs. In 1998, the State Development Bank purchased China Investment Bank. In 2001, the ICBC reached an agreement with the China Merchants Group in Hong Kong with respect to the purchase of Youlian Bank established by the latter in Hong Kong in 1994. The government intends to engineer mergers of TICs in order to reduce the number from the current 240 to about 60.

As a fourth measure, four asset management companies (AMCs) were established in 1999 to acquire and dispose NPL of the WSCBs: Cinda with the CCB, Great Wall with the ABC, Oriental with the BOC, and Huarong with the ICBC. In addition, further 6 licenses have been issued to other companies to allow them to be involved in asset management business. These AMCs remain under the supervision of the PBC with input from the State Securities Supervisory Committee of China and the MOF. So far, their major activities have been restricted primarily to transferring debts contracted before 1995 at the face value, when the current Commercial Bank Law was passed. This suggests that 1.4 trillion yuan of assets (about 20% of combined outstanding loans) has been transferred from the four WSCBs to the AMCs. The AMCs financed this transfer by issuing 850 billion yuan and borrowing 550 billion yuan from the PBC. This enabled the four WSCBs to reduce NPL by 10 percentage points from 35%, purchase all the bonds issued by the AMCs, and repay debt from the PBC. Of 1.4 trillion yuan, the AMC plans to conduct a debt-equity swap of 400 billion yuan with respect to 580 SOEs that are relatively better performer than others and thus can be regarded as candidates for becoming public companies. These SOEs, however, have been selected by the State Economic and Trade Commission, not by the AMCs themselves. As a longer-term goal, the AMCs aim at recovering about 1 trillion yuan of NPL owned by the WSCBs,

4 In 1998, the PBC lowered the reserve requirement imposed on customers deposits from 13% to 8% and removed an excess reserve requirement of 7% introduced in 1992. This reduction has enabled the SOBs to investment in government bonds issued for recapitalization. This recapitaliation procedure is equivalent to two swap transactions resulting in doubling the capital of the SOBs: (1) asset swap of bonds for reserve deposits between the SOBs and the MOF and (2) a liability swap of equity for PBC borrowing between the SOBs and the PBC (Mo, 1999).

rehabilitating the loss making large SOEs and eventually liquidating their stakes by selling or listing the shares of the firms (IMF, 2000).

As a fifth measure, the aforementioned Hainan Development Bank and three TICs became highly insolvent and thus were closed in 1997-1998.[5] In 1998, the PBC closed Guandong International Trust and Investment Company (GITIC) that incurred heavy losses and could not meet maturing debts. Subsequently, the liquidation led by an international accounting firm recognized that GITIC was seriously insolvent, which induced GITIC to apply for bankruptcy in 1999—the fist case of bankruptcy of a financial institution in the PRC.

Sluggish Achievement of Financial Reforms

In spite of the government's efforts, the above financial reforms have remained marginal, and have not produced noticeable impacts on improving the performance of the WSCBs. Their profitability, capital adequacy, and loan loss provisions have remained low.[6] Paid-in capital (comparable to Tier 1) of the WSCBs declined relative to bank assets from 12.1% at the end of 1985 to 2.2% at the end of 1997 (Lardy, 1999). Their net worth (roughly comparable to Tier 1 and 2 capital) declined rapidly from 13.2% in 1985 to 2.7% in 1997. Provisions set aside by the WSCBs to cover potential loan losses are minuscule. Even though NPL of 1.4 trillion yuan was transferred to the AMCs, the four WSCBs still hold 25% of NPL. The risk-weighted capital adequacy requirement is estimated at about 5% as of the end of September 2000. If proper accounting methods are applied, all WSCBs would have found to face a negative networth and thus would have been categorized as insolvent.

Nevertheless, the WSCBs are not illiquid and able to operate in reality, because households have increasing saved their funds at these banks believing that these banks are safe and protected. Also, underdeveloped financial markets have left households no other choices but to save in banks. Moreover, the WSCBs continue to be agents of the government, even though the Commercial Bank Law stipulates their transformation from specialized banks into commercial entities. Although their policy lending practices have been lessened, lending to the SOEs still constitutes a large share of WSCBs' total credit, reflecting continued high demand for credit by the SOEs and in some cases persuasion made by the government or through connections. Moreover, the WSCBs have been burdened by a stock of NPL accumulated by previous policy lending activities.

---

5 In the PRC, the closure of financial institutions differs from bankruptcy, since closure follows the following procedures (Pinig, 1999). First, the PBC announces a closure and designates a commercial bank to take care of its claims and debts. The commercial bank or an external accounting firm liquidates the assets of the closed institution, calculates its losses and realizable net assets, and registers/confirms debts. Second, the principles for the repayment of debts are decided. The principal and legal interests of foreign debtors and individual depositors will be repaid in priority. Third, in case that the institution incurs a heavy loss, it can apply for bankruptcy to the court. Once the bankruptcy procedure begins, the procedure of closure and liquidation terminates.

6 Chinese banks overstate their profits because of the practice of (1) capitalizing interest payments and accruing interest on NPL, (2) inadequate provisioning, (3) no deposit insurance scheme, (4) lack of universal consolidated financial reporting, and (5) support by the MOF for injection of funds to compensate for an increase in interest rate expenditure caused by an indexation scheme applied since 1993 (Lardy, 1999). As an example of (1), while loans are classified as past due as soon as any scheduled interest payment or repayment of principal has been missed, the largest SOBs have been required to accrue interest for two years after a loan is classified as past due. Also, loans are rolled over and the interest due is capitalized and recorded by the banks as income. Some of the newer, smaller institutions have more stringent accounting practices. For example, the Bank of Communications only accrued interest on loans overdue to less than one year. However, this practice appears to have been practiced by the SOBs as well since 1998.

Furthermore, an upsurge of illegal lending and corruption scandals by the WSCBs has been a recent phenomenon. A large number of borrowers find it difficult to obtain loans from the WSCBs in the presence of practices of lending based on personal connections, bribery, and pressures from local governments. The PBC continues to control official lending rates, preventing the WSCBs from operating based on market principles. While the interest rate policy aims at subsidizing the SOEs, it has given rise to collusive behavior among financial institutions despite penalty imposed against it. For example, the WSCBs attempt to legally circumvent the interest rate controls by lending to nonbank financial institutions that are subject to looser interest rate control, which in turn lend the funds at higher rates and share the profits with the banks[7]. Also, the fact that black markets exist and their prevailing interest rates are in the range of 100% to 200% of the regulated lending rates indicates that banks' incentives to lend at higher lending rates are strong. Further, AMC activities to day have largely been concentrated on book-keeping transactions, far from a stage in which the AMCs would ensure the restructuring of the WSCBs as stakeholders. Among 1.4 trillion yuan transferred, only 6% or 87 billion yuan was recovered. Moreover, engagement in local-currency-denominated transactions by foreign banks is largely limited only in Shanhai and Shenzhen and is allowed only against foreign capital enterprises. Also, foreign banks are not allowed to become wholly-owned. Further, entry barriers have been hardly deregulated.

Moreover, the financial sector restructuring programs indicated above have not necessarily produced good outcomes. For example, Everbright Trust and Investment Company has hardly earned any profits, even after the debt-equity swap deal was orchestrated and thus creditors suffered great losses from this conversion in 1996. Also, aforementioned Hainan Development Bank—which was formally established in 1995 after the merger of five TICs and the introduction of new shareholders—did not perform well due to the poor asset quality. In 1997, moreover, Hainan Development Bank took over another 28 local UCCs faced by liquidity problems, resulting in a further deterioration of its performance. Although the PBC provided more than 3 billion yuan in liquidity assistance to this bank, it could not prevent runs on deposits and thus finally decided to close it in 1998. Also, the aforementioned new 88 city commercial banks face high NPL and payment crises due to the poor asset quality inherited at the time of merger.

The biggest constraint against the implementation of drastic financial reforms arises from the problems of their borrowers—namely, the poor and deteriorating performance of the SOEs. A growing number of SOEs have experienced a substantial decline in profits in the 1990s in spite of overall economic growth. This has not only caused a rapid deterioration of WSCBs' loan assets, but has also limited credit available to nonstate firms by absorbing more than 75% of bank loans, thereby deterring the latter's investment and output growth. About a half of SOEs incur net losses nowadays, as compared with only 30% just a few years ago. Factory capacity utilization rates for major industrial products of SOEs have been at a level below 60%.

The poor performance of the SOEs is attributable to a number of factors. First, the SOEs have suffered from growing competition, deteriorating efficiency due to the slow adoption of technological advancement, and large accumulated debt. Second, the SOEs are obliged to provide social services to workers and maintain their employment and, in some

7 However, this kind of collusive behavior disappeared nowadays, since the government prohibited nonbank financial institutions from engaging in lending business after GITIC's problems emerged.

cases, continue to pay salary to retirees. These practices make it difficult for the SOEs to become commercial-oriented (Broadman, 1999). Third, in practice, few managers of SOEs are able to exert "14 autonomous management rights" (e.g., the right to set prices, the right to hire and fire workers, etc.) granted under the 1992 regulation. Fourth, the absence of clear identification of owners of SOEs and inadequate property rights undermine corporate governance since it is not clear who should monitor managers of SOEs. Also, the introduction of nonstate shareholders through public listings has not resulted in a clear separation of ownership and management, since few outsider shareholders exercise discipline on the management of SOEs. Finally, most mergers of large SOEs are orchestrated by the government, not driven by market. This undermines the role of mergers as effective disciplining devices against poor management.

In response to the rapidly deteriorating performance of the SOEs, the government has attempted various experiments in the 1990s, including management contracting, greater autonomy provided to managers, corporatization, and ownership diversification. Moreover, the supervisory capacity over most industrial SOEs (about 110,000 firms) has been transferred from the central government to local governments (Broadman, 1999). Furthermore, a multi-layered organizational network has emerged by including state asset management bureaus, state asset operating companies, and state asset supervisory committees.

Nevertheless, only a few SOEs have been divested to the nonstate sector and almost all of such firms have been small. Thus, the government still remains an owner of key businesses and a main driver of the industrial sector, notwithstanding that SOEs account for only 30% of national production. Truly private companies (majority owned by individuals) still account for less than 20% of GDP and employ only about 50 million of the jobs held by 1.4 billion people. It has also become increasingly apparent that the SOE reform strategy has produced problems unanticipated by the reform's framers, including: asset stripping, decapitalization, wage manipulation and tax evasion (Broadman, 1999). These problems undermined severely the performance of the banking sector.

The second constraint against a smooth implementation of financial reforms is attributed to the lack of a deposit insurance system and thus no mechanism of guaranteeing repayment of individual depositors and creditors. Since many deposit-taking financial institutions do not have sufficient realizable assets, their closure or bankruptcy would imply that either the government or the PBC has to provide funds to subsidize the repayment, which may be too costly. Moreover, the absence of a specific closure and bankruptcy law for financial institutions makes it difficult to promote their bankruptcy.[8] Even though AMCs were established to deal with NPL of the WSCBs, furthermore, NPL was purchased at the face value and thus, the question of who will compensate for the final losses is yet to be resolved.

The difficulty of establishing a deposit insurance system reflects the following trade off. If a deposit insurance scheme is applied to all deposit-taking financial institutions except the four WSCBs, their contributions will be too small. Thus, an increase in premiums would generate a sense of unfairness among these financial institutions against the WSCBs. On the other hand, if the scheme is applied to the WSCBs as well, they have to make very large

8 The case of GITIC bankruptcy was based on the bankruptcy law for general enterprises.

contributions for possible rescues of medium and small-sized financial institutions due to their disproportionately large deposit base. Thus, the WSCBs will be opposed to this idea.

Reflecting the awareness that the privatization of the WSCBs (as well as the SOEs) is a key to successful financial reforms, the government has recently expressed its intention to gradually restructure the WSCBs by allowing them to become joint-stock companies listed on both domestic and foreign stock exchanges. Immediately after the announcement, however, the stock prices of listed banks (and SOEs) plunged in the expectation that a massive disposal of stocks would lead to a decline in prices and thus investors would experience a capital loss. Therefore, the government reversed this decision. Nevertheless, privatization is important and inevitable solution although a proper sequence is needed. Among the OCBs, Shenzhen Development Bank was listed in the early 1990s. Then Shanghai Pudong Development Bank and Mincheng Bank were listed in 2000 and 2001, respectively. The government also plans to encourage other commercial banks to become listed at stock exchange markets. To make these policies successful, moreover, it is essential for the government to adopt the following comprehensive measures.

First, it has to clean up and restructure the balance sheets of WSCBs before they become public. In this process, the government must strengthen the capital base of these banks through a further recapitalization and a promotion of financial bond issuance. However, the absence of secondary markets for credit and collateral and inadequate property rights makes it extremely difficult to transfer, sell or securitize the assets of WSCBs, since the market price of the assets can hardly be realized and the ratio of realized asset values to book values is extremely low. Thus, improving a legal and institutional environment is essential to fulfill this goal. Moreover, the government should ensure that the AMCs are granted with the authorities to restructure the SOEs and formulate asset resolution procedures, including a revision of the bankruptcy law that would provide AMCs with the skills and incentives to discharge their responsibilities and would ensure that their financial positions are soundly based (IMF, 2000). Similarly, the balance sheets of OCBs should be cleaned up and restructured.

Second, as a related measure, the government needs to adopt global standards on accounting, auditing, and disclosure requirements, particularly with respect to potential listed banks. The government already tightened prudential regulation in 1998 and 2000, however, existing accounting principles appear to be largely problematic, especially as to the calculation of maturities of interest receivable and the principle of provisioning for NPL. Also, reliable, transparent business records of financial institutions are hardly available at this stage, which makes it difficult for mergers, restructuring or closure of any financial institutions. Thus, promoting standardization of information regarding financial institutions as well as enterprises is prerequisite not only for a successful restructuring of the WSCBs and other financial institutions, but also for fostering sound capital markets.

Third, the WSCBs should be promoted to become more commercial-oriented and risk-conscious through reforming their corporate governance structure in accordance with the provisions of the corporate law and the law of commercial banks. This policy is essential not only to limit a further accumulation of NPL, but also to prepare for the fuller-scale entry of foreign banks that will take place within the next 5 years after the accession to the WTO. A further liberalization of interest rates is also a crucial step to improve banks' risk management skills. The WSCBs should also ensure that the practices such as, deciding senior management of their branches jointly with their headquarters, are terminated.

Fourth, the government needs to introduce necessary measures to develop the investor and issuer bases that are prerequisite for the development of sound capital markets. Until 2000, the state authorities used to decide which firm could list stock on Shanghai and Shenzhen stock exchanges and rarely granted the privilege to private companies over the SOEs. However, in 2001, this policy has been slightly modified. Moreover, the government allowed local individual and institutional investors to invest in B-share market, where the shares of Chinese enterprises are denominated in foreign currency and only foreign investors and domestic securities companies used to be allowed to invest.[9] The new policy attracted a new inflow of $2.5 billion to B-share market.

Finally, and most importantly, more drastic and comprehensive SOE reforms must be undertaken with a further emphasis on ownership diversification, liquidation, mergers, and closure. Without fundamental resolution of the SOEs, the likelihood that the WSCBs become viable, solvent financial institutions is small. The prolonged maintenance of problematic WSCBs would eventually undermine PRC's economic growth through limiting a further expansion of nonstate enterprises.

III. Performance of Wholly State-Owned versus Other Commercial Banks

PRC's initiated economic reforms since 1979 and later conducted a series of financial restructuring reforms in the 1990s thus following a gradual approach. A gradual approach can be justified if adjustment costs are lower than that of a "big ban" approach; credibility can be enhanced further; the cost of adjustment can be spread out so that there will be more political support; it is not practical to try to introduce many reforms at once and even then it takes time to implement them (Feltenstein and Nsouli, 1998). On the other hand, a big bang approach may be desirable if rapid reforms increase the incentive to relocate resources, thus lowering adjustment costs; full-scale reforms help enhance credibility; and political resistance to prolonged reforms is overcome.

Given that the PRC has achieved remarkably favorable macroeconomic performance, the gradual approach appears to have been successful on the surface. There are few counties in the world that have been able to achieve high real GDP growth of 10%, on average, in the past two decades and rapid financial deepening, as shown by the ratio of savings to GDP from 26% in 1985 to 120% in 1999 and the ratio of M2/GDP from 33% in 1980 to 148% in 1999 (Table 1). However, deeper insights of this giant economy revels deeply-rooted structural problems, as exemplified by the extremely poor and deteriorating performance of SOEs coexisted with the equally unfavorable performance of WSCBs. In spite of the fact that non-state enterprises achieve increasing production growth, a large share of credit is still allocated to the SOEs, which in a way would hinder the further sustained growth in the foreseeable future.

9 B-share market was established in December 1991. But the market remained marginal reflecting (1) the attractiveness of Hong Kong stock exchange as a place to list high-quality SOEs, (2) divestment by foreign companies that became disenchanted with the quality of the companies listed there, and (3) the poor liquidity of the market (World Bank, 2001). By the end of 2000, therefore, B-share market tradable capitalization was no more than $5 billion, while A-share market tradable capitalization reached $192 billion.

Concentration in the Banking Sector

Even after the financial reforms have begun in the 1990s, the dominance of WSCBs appears overwhelming. This paper examines to what extent the degree of concentration has changed during the reform period by adopting two approaches: (1) the m-bank concentration ratio adopted by Sarkar and Bhaumik (1998) and (2) Herfindahl Index adopted by Juan-Ramon, Randall, and Williams (2001). The m-bank concentration measures four-bank concentration ratio (market share of the four largest banks or WSCBs). This paper uses deposits and assets to estimate the m-bank concentration indicator. The Herfindahl Index is defined as $100 \times \Sigma_{i=1}^{i=N} k_i^2$ where $k_i = K_i / \Sigma_{i=1}^{i=N} K_i$ and N=number of banks during the period under consideration and K_i is bank i's deposit or asset. This indicator can be calculated for the whole commercial banking sector, other commercial banks, and the whole banking sector including deposit-taking financial institutions, respectively. The higher the indicator, the greater the concentration of the banking sector. The lower limit of this indicator is obtained as 100 divided by N and the upper limit is 100.

The m-bank concentration indicator based on deposits for 1996-2000 reports that the degree of concentration in the banking sector has barely changed, accounting for over 78% of total deposits during 1994-1999 (Table 2). The 6-bank concentration indicator based on deposits was not calculated since the fifth and sixth largest banks (the ADBC and the CDB) are policy lending banks and do not take deposits. With respect to assets, both 4-bank and 6-bank, a degree of concentration has slighted declined between 1996 and 2000, from 80% to 75% and from 89% to 85%, respectively. Nevertheless, their dominance is overwhelming. Since these banks are disproportionately large with an extensive branch networks across regions, it appears that new banks, in spite of the increase in the number, find it difficult to penetrate into the banking sector.

On the other hand, the Herfindahl Index reports that the degree of concentration based on deposits has declined steadily in the whole commercial banking sector from 37 in 1993 to 20 in 1997. However, the declining trend over concentration has ceased since then. The same indicator based on assets shows a decline from 41 in 1993 to 19 in 1999-2000. A similar pattern is observed in terms of the whole banking sector including policy lending banks and deposit-taking nonbank financial institutions. In terms of the other commercial banking sector, the degree of concentration has declined steadily. Since the lower limit (100/N) has also declining throughout the sample period (except 2000 when the number of reported banks was less), it can be inferred that new banks, namely other banks, have exerted some competition at the lower end.

Trend Patterns of the Performance of the Banking Sector

In spite of the government's efforts with respect to the financial reforms, the overall performance of the banking sector appears significantly weak. According to the rating on the overall financial strength of a bank prepared by Moody's, Table 3 shows that ratings of selected banks are low and no single bank has a rating of above D^+. These ratings reflect Moody's evaluation of the intrinsic financial strength of each bank on a scale of A-E, with A being the highest rating. In general, the ratings of WSCBs are lower than those of OCBs.

Moreover, even after specialized banks have been transformed into commercial banks, the performance of the WSCBs has been unimpressive in terms of profitability, cost- and earnings-efficiency, capital adequacy, and loan-loss reserves, as compared with the

OCBs. The more worrying sign, on the other hand, is the rapidly deteriorating performance of the OCBs. The results derived from the comparison between the WSCBs and the OCBs during 1994-2000 are reported in Table 4 and can be summarized as follows:

First, the WSCBs have maintained profitability (defined as after tax profits divided by average assets [ROAA]) at a level below 0.2% throughout 1994-2000. This level of profitability is remarkably small, when compared with the OCBs that achieved nearly 2% of profitability in 1994-1995. In particular, the ABC was the worst performer among the WSCBs. By contrast, the two WSCBs (CCB and ICBC) have improved profitability in recent years. Meanwhile, it should be noted that the profitability of OCBs has rapidly deteriorated from 2% in 1994 to 0.5% in 2000. This may be associated with slow asset growth (GASSET) experienced by OCBs in the aftermath of the East Asian Crisis as a result of a deposit run from small OCBs to the WSCBs, following rapid asset and loan growth (GLOAN) during 1994-1995. The decline also reflects a deterioration of cost-efficiency as suggested below.

Another profitability indicator or after tax profits divided by average equity (ROAE) reports that the OCBs have earned greater profits than the WSCBs—a pattern similar to ROAA. However, this indicator too suggests a deteriorating performance of the OCBs during 1995-2000. On the other hand, MARGIN (defined as net interest income divided by average assets) of the OCBs has exceeded that of the WSCBs during 1995-2000. However, MARGIN has declined both for the OCBs and WSCBs during 1998-2000, suggesting its declining contribution to overall profitability. This may be attributed partly to partial interest rate decontrols that took place largely in the interbank market in 1996. Moreover, while those of the WSCBs rose during 1995-1998, the interest rate margins of the OCBs showed a declining trend, accounting for 40% of the decline in earnings-efficiency.

With respect to profitability related to non-interest income (defined as net other operating income plus net other income as a share of assets [DIVERSE]), OCBs have been more profitable than WSCBs. Since these items include profits from foreign exchange transactions and commissions from remittances, it can be derived that the OCBs are more successfully diversified than the WSCBs, even though a greater extent of diversification is limited by the PRC under the Commercial Bank Law. In 1992, the PRC allowed banks to engage in some non-traditional banking business, which encouraged all specialized banks and most of their major branches and established finance companies to engage in imprudent or fraudulent operations and thereby leading to the 1992-1993 financial chaos. Also, many of these banks divested funds earmarked for agriculture and other key projects into speculation in the stock market and real estate market. When monetary policy was tightened in late 1993, many banks and branches lost money from such securities activities and caused instability in the banking system (Ma, 1997). Since then, the government requires all banks to divest themselves of investment banking affiliates and prohibit commercial banks from engaging in securities trading and underwriting, investment in nonbank financial enterprises and productive enterprises, and investment trust business under the Commercial Bank Law. [10]

Moreover, the OCBs tend to invest in (mostly public) bonds more intensively than the WSCBs, based on the indicator of investment as a share of assets (SBOND). The OCBs also hold more liquid assets (proxied as deposits with the PBC divided by customer deposits

10 This regulation prevents banks from lending to insiders or related parties. However, increasing dept-equity swaps as a way to clear up banks' NPL may create this problem by allowing lending to insiders.

[$LIQUID_1$]) than required by the reserve requirement in recent years and are more liquid than the WSCBs. In addition to the fact that the PBC pays an interest rate of about 2%, these results may suggest (1) their preference toward more liquid safe assets than longer-term illiquid bank loans because of their heavy reliance of short-term loans, (2) difficulty in penetrating into the existing markets given a limited branch networks and little information about clients, (3) high cost involved in lending to newly emerged enterprises in the absence of information (adequate accounting, auditing, and disclosure), legal, and judiciary infrastructures, and (4) a recent tightening of accounting and provisioning requirements. Given that both WSCBs and OCBs have maintained about 75% of assets in the form of deposits or short-term liabilities, the view of (1) appears not applicable. Instead, other views mentioned above are also important factors. Another liquidity indicator (the sum of cash and bank deposits divided by assets [$LIQUID_2$]) also reports that the OCBs have been more liquid than the WSCBs during 1998-2000.

Second, while the WSCBs have been more cost-inefficient (as proxied by operating expenses/operating income [COST]) than the OCBs, their difference has rapidly shrunk during 1996-2000. This is primarily because cost-efficiency of the OCBs has deteriorated in recent years, mainly because an expansion of their business in the initial stage increases costs of manpower and equipment. Among the WSCBs, cost-efficiency of the BOC declined, while the ABC has remained the worst performer. On the other hand, the CCB has become more cost efficient in 1999-2000.

Third, the OCBs have performed better than the WSCBs with respect to earnings efficiency (defined as income divided by assets [INCOME]) during 1998-2000. However, OCBs' performance has deteriorated during the same period. During 1994-1997, the WSCBs, particularly the ICBC, maintained greater earnings capacity.

Fourth, the OCBs have more capitalized than the WSCBs, according to the measure of equity divided by assets (EQUITY). Although the WSCBs have increased capital from 3% of assets in 1997 to 5.8% in 1998, the level remained more or less constant during 1999-2000 and was far smaller than that of the OCBs. Moreover, the OCBs have greater equity as a share of liabilities (an inverse of leverage [INVDEBT]) than that of the WSCBs, although decreasing in 1999-2000. Moreover, the OCBs have greater loan loss reserves as a share of loans (PROV) than the WSCBs. This is due to the regulation that requires banks to set aside only 1% of their outstanding credit. Since 2001, however, some banks began to place provisions above the ceiling level.

Testing the Differential Performance between Commercial Banks by Ownership

As a next step, it is important to examine empirically whether the OCBs are, on average, better performers than the WSCBs. To fulfill this purpose, this paper tests the null hypotheses that the OCBs are relatively more profitable and efficient, and at the same time, more capitalized and provisioned as compared with WSCBs. The test is conducted each year for 1994-2000 (Table 4).

The results show that based on both the indicators of ROAA and ROAE, the OCBs have been consistently more profitable than the WSCBs during 1994-2000 and this difference was statistically significant at the level of 1%. Moreover, it was found that the OCBs have been consistently more cost-efficient than the WSCBs during 1994-1999 based on the indicator of COST, and this difference was statistically significant at the level of 5-10%.

Using the earnings-efficiency indicator (INCOME), the OCBs were found to be more efficient than the WSCBs during 1998-2000 with the significance level of 1-5%. Further, it was found that the OCBs are more structurally sound than the WSCBs, since the OCBs are more capitalized at the significance level of 1% throughout the observation period, and has more loan-loss reserves relative to loans at the significance level of 1-5% during 1994-2000 except 1995. These results support all of our hypotheses and thus, this paper concludes that ownership matters in terms of overall performance of the banking sector in the PRC.

In addition, the OCBs were found to have greater profitability with respect to non-interest earnings compared with the WSCBs, based on the indicator DIVERSE, at 5-10% significance level during 1996-2000. This suggests that non-traditional banking business can be an important explanatory variable for profitability. Also, MARGIN was found to be greater for the OCBs than for the WSCBs during 1995-1997 and 2000 at the significance level of 1-5%. On SBOND, the statistically significant difference was observed only in 1994-1996. With respect to GLOAN and GASSET, OCBs' growth was greater than that of the WSCBs in the initial period of financial reforms and their difference was significant at the level of 5-10% during 1994-1997 and 2000. As for the two liquidity indicators, the statistically significant differences were observed only in 1999-2000 for $LIQUID_1$ and in 1999 for $LIQUID_2$.

IV. Main Issues and Testing Hypotheses on Performance of the Commercial Banks

This section assesses the progress of the financial reforms by focusing on (1) entry deregulation, (2) interest rate liberalization, (3) liquidity requirements, and (4) direct lending. Since privatization of the WSCBs has not taken place yet, this section does not focus on this issue.

Entry Deregulation

Imposing entry barriers in the banking sector often gives rise to inefficient resource allocation across sectors and projects and, at the same time, collusive behavior among creditor banks and between banks and borrowers. On the other hand, such a policy can be justified theoretically if it improves efficiency in the banking sector, provided that commercial banks perform a unique role, which cannot be replaced by nonbank financial institutions and capital markets. Commercial banks collect, analyze and process inside information about borrowers by forming long-term relationships with their borrowers. This role is important especially when disclosure, auditing and accounting requirements are loosely or inadequately implemented against borrowers in the absence of sophisticated legal and institutional infrastructures. Since information about borrowers, especially on small and medium enterprises, is largely idiosyncratic, banks do not have to provide depositors with such inside information on credit worthiness of borrowers in order to attract depositors (Yoshitomi and Shirai, 2001).

This suggests that bank loans are largely idiosyncratic and non-transferable, but cannot and/or need not be standardized, whereas standardization is necessary for corporate bonds and stocks. This may explain partly why the banking system is likely to emerge as dominant at the early stage of economic development. Further, Rajan and Zingales (1998) have pointed out that in countries where corporate governance is inadequate and bankruptcy laws are virtually non-existent, the specific expertise of commercial banks—which know how to exercise power over borrowers even when explicit protections for the banks are inadequate—is necessary when extending loans to firms. They have also demonstrated the existence of a negative correlation between the degree of sophistication of accounting standards and the size of the banking sector. Such illustrations appear too simplistic, since bankruptcy laws, for example, are necessary to protect commercial banks even in the banking system. Nonetheless, they highlight the essential points raised above.

When bank regulators determine entry criteria, therefore, they need to ensure that commercial banks have an incentive to conduct information collecting and monitoring functions. To do so, bank regulators need to balance between allowing banks to maintain profitability (or earn economic rents that offset risks borne by banks in the process of providing various financial services) and preventing them from extracting excessive rents. Without sufficient rents, banks may have no choice but to engage in risky activities because they need to fight for their market shares or profit margins. As a result, such risk-taking behavior would reduce the value of banks' future earnings and associated incentives to avoid bankruptcy (Allen and Gale, 2000). To maintain sufficient profitability in the banking process, therefore, excessive competition among banks needs to be avoided through granting a relatively small number of them the privilege of offering demand deposits and payment services (Rajan, 1997).[11]

While attempting to maintain adequate rents for banks, nevertheless, regulators need to introduce measures to prevent banks from giving rise to excessively high risk-taking behavior and extract rents from their borrowers that are more than justified by risks that they bear. This discourages borrowers from undertaking innovative, profitable ventures, thereby achieving slower economic growth (Rajan, 1992). Thus, regulators need to carefully consider the extent of competition in the banking sector by taking account of the trade-off and supplement this policy with other policies that contribute to limiting banks' excessive risk-taking behavior, such as capital adequacy requirements.

Given this background, whether tight entry barriers can be justified or not should be assessed by examining the performance of existing commercial banks or the WSCBs in the case of the PRC. The analysis conduced in Section III indicates that the WSCBs have performed poorly throughout the observation period as well as relative to the OCBs, suggesting that such entry barriers have not improved banks' performance and thus making it difficult to justify them. In line with this argument, this paper tests the null hypothesis (H_1) that ownership matters in terms of profitability (ROAA), cost-efficiency (COST), and earnings-efficiency (INCOME). If this hypothesis is supported, it indicates that a greater degree of entry deregulations would improve the performance of the banking sector.

11 The study by Petersen and Rajan (1994) supports this view. They have demonstrated in their model that credit market competition imposes constraints on the ability of borrowers and commercial banks to intertemporally share firms' surplus when uncertainty about firms' prospects is high. When the banking sector is competitive and banks cannot hold equity claims, they cannot expect to share the future surplus of their borrowers. In this case, banks are constrained to break even on a period by perio d basis since they would be driven away from competitive market if they charged interest rates above the competitive level. And such high interest rates may distort firms' incentives and at the same time lower the credit availability. Thus, competition makes lending relationships less valuable to borrowers because they cannot expect financial support from commercial banks when most needed. On the other hand, a monopolistic bank is able to share borrowers' future surplus through extracting future rents. This enables the bank to receive delayed interest payments from borrowers over time and encourages it to provide more credit than the amount available in a competitive credit market.

Interest Rate Deregulation

Interest rate deregulation constitutes the essential part of financial reforms undertaken by many countries. Lending rate ceilings can be justified if they can be used as a measure of consumer protection against malpractices undertaken by monopolistic moneylenders. The deposit rate controls can be justified if they prevent ruinous competition between banks and, at the same time ensure sufficient implicit rents needed for banks to conduct the unique role indicated above. On the other hand, setting too low deposit rates (far below the market-clearing level) may provide banks with excess profits at the expense of depositors.[12] Moreover, setting too low lending rates may give rise to a high degree of rationing, which invites wasteful rent-seeking behavior and distortion. A removal of interest rate ceilings not only shifts surplus from borrowers (including government) to lenders, but also results in some relaxation of rationing, so that some borrowers previously crowded-out of the market will have a better chance to secure funds (Honohan, 1999).

Thus, if interest rate deregulation is conducted, bank regulators should accompany alternative methods (such as allowing diversification of business), so that banks are able to ensure implicit rents, and at the same time strengthen prudential regulations that would prevent banks' excessive risk-taking behavior. Premature and prompt liberalization may undermine banks' profitability rapidly, which would lead to excessive lending to high-risk high-return projects. This is likely to happen especially when commercial banks have already extended long-term credit, but their funding sources are short-term. Even if their lending rates have been floating, these banks may not be fully insulated from risks arising from increased volatility of interest rates. Increasing lending rates in line with the higher deposit rates would not necessarily compensate banks, since higher interest rates may worsen the risk-mix of the would-be borrowers (Honohan, 1999).

Also, governments may end up refinancing large domestic borrowings at the new interest rates to protect banks and borrowers, especially when measures to hedge interest rate exposure is limited. Furthermore, nominal interest rate volatility often leads to real interest rate volatility, increasing macroeconomic fragility and uncertainty. Since such disruption to financial and real activities is costly, the timing of interest rate liberalization is important. The disruption will be less if the transition could be arranged at a time when the controlled interest rates are not too far away from market-clearing levels (Honohan, 1999).

Various empirical studies point out that banks tend to experience higher profitability in the early post-liberalization period, followed by a reversal once existing banks become more aggressive and new entrants intensify competition. It is generally known that interest rate liberalization expands interest rate spreads in emerging market economics, while an opposite trend is observed in industrial countries. In the second half of the 1990s, for example, the spread widened by 800 basis points in emerging market economies, while the spread declined by over 300 basis points in industrial countries which is regarded as a sign of efficiency improvement (World Bank, 2001).

With respect to the appropriate sequencing of interest rate liberalization, Mehran and Laurens (1997) have pointed out that the government needs to distinguish not only between

---

12 However, deposit rate controls are often offset by side-payments in the form of in-kind gifts, and provision of below-cost banking services to those who place deposits. These practices were more commonly observed during the period of interest rate controls than today (Honohan, 1999).

loan and deposit transactions but also between wholesale and retail transactions. They have argued that interest rates on wholesale (interbank) transactions between sophisticated entities, such as financial institutions and government agencies, should be liberalized first, followed by lending rates and, last, deposit rates. Since the interbank market rate does not affect the public directly, deregulation of the interbank interest rates is likely to generate the least political and social exposure. This sequence also makes it possible to avoid overly fierce competition in the banking sector, which could adversely affect the profitability of financial institutions and enterprises. Moreover, it gives breathing space not only for commercial banks to strengthen their operations and financial structure, but also for governments to enact legislation on collateral and bankruptcy.

Moreover, Mehran and Haurens (1997) have stressed that to avoid unstable deposit flows between financial institutions, it is prudent not to wait until all lending rates are fully liberalized before beginning to liberalize rates on some types of deposits--large time deposits, for example, which are usually held by large companies and institutional investors, in contrast with "retail" deposits held by individuals. Early liberalization of rates on large deposits is also justified by the fact that they will increasingly be competing with money market instruments (treasury bills or repurchase agreements). Many industrial countries, such as Japan-and the United States, liberalized "wholesale" deposit rates at an early stage. The emerging market economies such as, South Korea also freed interest rates on wholesale deposits, as well as on large-denomination repurchase agreements, early in its reforms.

As described in Section II, interest rate decontrols took place in the PRC mainly in the interbank market, in line with the sequence prescribed by Mehran and Laurens (1997). While the decision took place in 1996, the interbank market rates become market-determined since 1999. Since interest rate liberalization is still at a preliminary stage, its impact on the performance of the banking sector is likely to be miniscule. Since detailed data on interest rates classified by category and ownership are not available, this paper examines the impact of MARGIN, as defined in Section III, on the performance of the banking sector. Although MARGIN does not necessarily indicate the degree of interest rate liberalization, the relationship between MARGIN and banks' profitability (cost-efficiency) is expected to vary depending on the degree of deregulation. If no significant interest rate deregulation has taken place like the PRC, MARGIN is expected to positively affect profitability and earnings-efficiency of the banking sector. If high interest rate margins reflect the scale economy, then MARGIN is expected to improve cost-efficiency. This paper tests the hypothesis (H_2) that an increase in MARGIN is expected to improve profitability and cost- and earnings-efficiency.

Reserve Requirement

The reserve requirement requires banks to hold a minimum percentage of their customers' deposits with the PBC. As one of the monetary policy instruments, the PBC uses the requirement for influencing the banks' willingness and ability to extend or call in loans, and thus to influence the size of the money stock. Lowering the reserve requirement increases the bankers' availability of funds to make more loans or allocate for other business, thus tending to expand the money stock and increase profitability and cost- and earnings-efficiency of the banking sector. On the other hand, raising the requirement restricts the bankers' ability to make more loans and diversify their business, thereby lowering their profitability and cost- and earnings-efficiency.

The government increased the reserve requirement from13% in 1988 to 20% by adding an excess reserve requirement of 7% in 1992, but then reduced it to 8% in 1998. Table 4 indicates that the OCBs have maintained the ratio of deposits with the PBC to total customers' deposits ($LIQUID_1$) at around 20% even after the requirement was substantially lowered in 1998. This behavior is contrasted with the WSCBs that lowered the ratio in 1998-2000 in line with a decline in the requirement. Such holdings of liquid assets reduce banks' opportunity to diversify their portfolios and thus improve their performance. This paper tests the null hypothesis (H_3) that an increase in liquidity lowers banks' profitability and cost- and earnings-efficiency.

As a related issue, this paper also tests the null hypothesis (H_4) that an increase in diversification improves profitability and earnings-efficiency. However, its impact on cost-efficiency is not clear. If diversification enables banks to exert economies of scope and scale adequately, it is likely to improve cost-efficiency. On the other hand, the limited opportunities to diversify banks' business as in PRC are likely to exert a minimum or even negative impact on cost-efficiency.

Direct Lending

Strong government intervention in directing bank credit is often regarded as adversely affecting commercial banks' incentives to collect inside information and monitor borrowers. Such a government intervention is often used as a way to encourage the expansion of particular industries or firms as a part of the government's development strategies. Indeed, such a policy helps countries to promote economic growth and tends to work well when the extension of external markets is limited and the capital markets are at a nascent stage. This is because the government may be able to coordinate private investment so as to induce their economies to take off. As the external markets expand and the industrial input-output nexus becomes complex, however, such government interventions are likely to fail (Yoshitomi and Shirai, 2001).

While direct lending is quite common across countries, the degree of government intervention is far more severe and extensive in the planned economies, such as the PRC. The extremely poor performance of WSCBs arises primarily from poor lending decisions made by the government toward the SOEs. Furthermore, the OCBs have freedom in operation, but these banks also extend loans to unviable SOEs, partly because some banks are controlled by the government or partly because corruption and connections are commonplace in the absence of a strict legal and judiciary environment. This paper tests the null hypothesis (H_5) that direct lending lowers profitability and cost- and earnings-efficiency.

Estimation Results

Based on the hypotheses formulated above, this section investigates the progress of PRC's financial reforms. In the first step, it assesses the overall impact of the financial reforms on commercial banks by using panel data for 1994-2000 compiled by Bankscope. The performance measures adopted in this paper are ROAA, COST, and INCOME. The time dummy (TIME) has been introduced to capture time trends in the sample. Also, the time dummy representing each year is introduced to account for difference in performance every year (although the overall results did not produce major changes). This paper includes ownership dummy (OTHER) to test H_1, which is equal to one if the bank is not characterized as a wholly state-owned commercial bank and zero otherwise. Fiver control variables that capture banks' specific features and behavior are introduced: those are (1) MARGIN used to test H_2, (2) $LIQUID_1$ used to test H_3, (3) DIVERSE used to test H_4, (5) GLOAN used as a proxy for direct lending (due to the lack of detailed data and based on recognition that increasing large demand comes from SOEs that engage in infrastructure-related projects, some of which are not necessarily profitable and efficient), and (5) size of the bank (proxied by the log of each bank's asset size [SIZE]). Some of these indicators were employed from Claessens, Dmirguc-Kunt, and Huizinga [2000]; Dmirguc-Kunt and Huizinga [1997]; Sarkar, Sarkar, and Bhaumik [1998]; and, Sarkar and Bhaumik [1998].

The results from the OLS estimation are reported in Table 5. First, the time effects on ROAA and INCOME (and COST) given in columns 1, 3, and 5 were negative and statistically significant, suggesting that the overall performance of commercial banks have deteriorated over time: profitability and earnings-efficiency have declined, while cost-efficiency has deteriorated.

A significant coefficient of the yearly time dummy variable would indicate that the particular year was different, which could be due to numerous factors, including regulatory changes that happened during that year. The yearly time dummies reported in column 2 show that the impacts of time dummies on profitability were statistically significant and positive during 1994-1997, but their relative contribution (the scale of coefficients) has gradually declined over time. This suggests that profitability has hardly improved in recent years. A similar pattern was observed for cost- and earnings-efficiency as shown in columns 4 and 6—a statistically significant improvement in the early period, followed by no apparent gain in the recent period. These results may indicate that the financial reforms of 1994-1995 with a focus on commercialization of banks has given a positive impact on the performance of the commercial banking sector, but the impact has faded away in the later reform period.

Second, the coefficient of OTHER with respect to ROAA (COST) was positive (negative) and statistically significant. This suggests that the OCBs have performed better than the WSCBs in terms of profitability and cost-efficiency, supporting H_1. However, the coefficient in the INCOME equation was negative contrary to our expectation, but statistically insignificant.

Third, MARGIN has exerted a statistically significant and positive (negative) contribution to ROAA (COST), supporting H_2. However, the coefficients of MARGIN on COST and INCOME were statistically significant only at the 10% level. The coefficient of $LIQUID_1$ on ROAA was negative and statistically significant, suggesting that increased holdings of liquidity (in the form of depositing at the PBC) would contribute to lowering profitability of commercial banks. This result supports H_3 with respect to profitability. However, the impacts of $LIQUID_1$ on COST and INCOME were statistically insignificant. Moreover, DIVERSE is statistically significant and positive in COST equation, suggesting that limited diversification granted by the government has made it difficult for commercial banks to exploit economies of scope and scale, supporting H_4. On the other hand, coefficients of DIVERSE on ROAA and INCOME were insignificant. Fifth, GLOAN has exhibited a statistically significant and negative contribution to INCOME, supporting H_5. While coefficients of GLOAN with respect to ROAA and COST were insignificant, their signs suggest that GLOAN tends to reduce profitability and cost-efficiency. Finally, the size of banks does not matter when it comes to the performance of the commercial banking sector.

V. Assessment of the Performance of Policy Lending Banks

The three policy lending banks were established in 1994 as institutions that would focus on long-term development finance and other policy lending activities. Among the three banks, the CDB has a broader scope and is responsible for financing key construction and infrastructure projects and strategic industries. The IEB has a narrower scope and provides credits to importers and exporters. The ADBC focuses on financing the government's procurement of agricultural products and agricultural development. Main capital sources of these policy lending banks are borrowing from the PBC and bond issuance.

Since the establishment, the overall performance (except cost-efficiency) of policy lending banks has remained poor. Their profitability based on the indicators of ROAA and ROAE has remained as low as that of the WSCBs, as shown in Chart 1. With respect to cost efficiency, there was an improvement in 1995, but then followed by a sharp deterioration in 1996 and a gradual reversion to the level of 1994. Nevertheless, the policy lending banks were more cost-efficient than the WSCBs and OCBs after 1998. On earnings efficiency, INCOME rose sharply during 1994-1996, but subsequently dropped in line with the pattern observed with the WSCBs and OCBs. Thus, a more or less constant level of profitability of the policy lending banks in the last few years is explained by a deterioration of their earnings-efficiency that is offset by a slight improvement in cost-efficiency. As for the soundness, policy lending banks used to be more capitalized during 1994-1997, according to the indicator of EQUITY. Since then, however, the capital level relative to assets has become low and comparable to that of the WSCBs. With respect to loan loss reserves (PROV), the level is as low as that of WSCBs.

In addition to the observations made from the charts, the differences between commercial banks (both wholly state-owned and other banks) and policy lending banks have also been statistically tested using one-tailed t-test and the results are reported in Table 6. Caution should be exercised when reading this table due to the small number of observations, but these results does increase the robustness of the observations made above from Chart 1. For example, in terms of ROAA and ROAE, OCBs have been performing much better than the policy lending banks. Also, OCBs have significantly larger PROV and EQUITY compared to policy lending banks. On the other hand, policy lending banks were more earnings-efficient than WSCBs. Observations from Table 6 reiterates our earlier observation from the chart that OCBs are significantly different from the policy lending banks while WSCBs share similar features with policy lending banks.

Finally, this section examines the performance of policy lending banks by conducting the regression analysis for 1994-2000. Since the number of sample is limited, this paper uses panel data including the WSCBs and OCBs and adopts the same approach used in Section IV. The ownership dummy for policy lending banks (POLICY) is introduced and is equal to one if a bank is a policy lending banks and zero otherwise. The OLS estimation results are given in Table 7. The results show that POLICY indicates that policy lending banks have been more profitable and cost-efficient than the WSCBs and these differences are statistically significant in line with observations derived in Table 6.

VI. Conclusions

This paper has attempted to assess the performance of the banking sector and thereby the progress of the financial reforms undertaken by the government in the 1990s. The main findings are summarized as follows.

First, the banking sector has remained dominated by the disproportionately large WSCBs during 1996-2000, accounting for about 70% of total deposits and about 75% of total assets. Competition took place mostly at the lower end—among the newly emerged OCBs. This suggests that the financial reforms have not yet generated a noticeable impact on de-monopolization of the banking sector. The long-standing dominance of the WSCBs is worrisome since it not only discourages new entrants but also undermines the economic and financial stability.

Second, the WSCBs and OCBs do exhibit strong systematic differences in profitability, cost- and earnings-efficiency over the sample period. In general, the OCBs are more capitalized, less leveraged, and more provisioned. Since their average NPL is known to be less that that of the WSCBs, this suggests that the balance sheets of the OCBs are more structurally sound than those of the OCBs. This also reflects that tighter credit review standards are adopted by the OCBs. This leads to a conclusion that a further entry of new banks, provided that they are well capitalized and more technologically advanced, is likely to improve the performance of the banking sector, particularly that of the WSCBs.

Third, although the performance of the OCBs is superior to that of the WSCBs, nevertheless, the former has deteriorated in recent years. The direct cause comes from a sharp deterioration in cost-efficiency, reinforced by a deterioration of earnings-efficiency, as shown in Chart 1. This is contrasted to the WSCBs, in which the sharp deterioration of cost-efficiency was not observed. An increase in OCBs' holdings of liquidity beyond the legally required reserves appears to have contributed partially to deteriorating their profitability and cost-efficiency. Increased holdings of excess liquid assets may reflect OCBs' reluctance to extend credit further in the application of stricter accounting requirements and/or because of the high cost involved in finding profitable and viable enterprises given a limited network of branches and a still early stage of entry.

Fourth, holding of excess liquid assets by the OCBs in recent years may also reflect a limitation of alternative non-traditional banking business as regulated by the Commercial Bank Law. Granting a greater scope of business may also give the OCBs an incentive to lower holdings of excess liquid assets and thus improve profitability and cost-efficiency. However, the types of business should be selected with a careful consideration of advantages and disadvantages, as well as proper prudential regulations to cope with new risks and problems arising from banks' engagement in new activities (Shirai, 2001). Since the prolonged presence of the excessively large WSCBs has resulted in an inefficient resource allocation and a concentration of power in the four banks, this put newly established OCBs in an extremely disadvantageous position in terms of penetrating into the existing retail market. Thus, broadening the scope of business to these banks is important so that they can enter into niche markets and gain in profitability and earnings-efficiency.

The recent deteriorating performance of the OCBs should be considered as a warning signal since this may indicate a smaller positive spillover effect of their entry on the performance of the WSCBs. Given the dominance of the WSCBs, this also implies that the OCBs may not be able to compete effectively in the domestic banking market.

Fifth, the performance of policy lending banks was as poor as that of the WSCBs, except cost-efficiency. While their cost-efficiency is superior to the WSCBs and OCBs, earnings-efficiency deteriorated, thereby maintaining profitability at a very low level.

These outcomes suggest an urgent need for the government to undertake more comprehensive and drastic steps for restructuring WSCBs. At the same time, further deregulations—properly-sequenced interest rate deregulations, an expansion of the scope of business, further entry deregulations for applicants that are well-capitalized and technologically-advanced, etc.–should be adopted in order for the OCBs to become more viable and commercial-oriented. Moreover, the very poor performance of policy lending banks indicates a strong and urgent need for actions that would enable them to operate on a sustainable base.

<u>Reference</u>

Allen, Franklin, and Douglas Gale, 2000, *Comparing Financial Systems*, The MIT Press.

Bajpai, Nirupam, Tianlun Jian, and Jeffrey D. Sachs, 1997, "Economic Reforms in China and India: Selected Issues in Industrial Policy", Development Discussion Paper No.580, Harvard Institute for International Development, Harvard University.

Broadman, Harry G., 1999, "The Chinese State as Corporate Shareholder," Volume 36, Number 3, *Finance and Development*, International Monetary Fund.

Claessens, Stijn, Asli Demirguc-Kunt, Harry Huizinga, 2000, "How Does Foreign Entry Affect
the Domestic Banking Market?" in Claessens and Jansen (eds.), *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*, Dordrecht, Holland: Kluwer.

Demiriguc-Kunt, Asli and Harry Huringa, 1997, "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence," World Bank Policy Research Working Paper No.1900.

Feltenstein, Andrew and Saleh M. Nsouli, 1998, ""Big Bang" Versus Gradualism in Economic Reforms: An Intertemporal Analysis with an Application to China," IMF Working Paper WP/01/98, International Monetary Fund.

Honohan, Patrick, 1999, "Financial Liberalization: How Far? How Fast?," mimeo.

International Monetary Fund, 1996, "Monetary and Exchange System Reforms in China: An Experiment in Gradualism," Occasional Paper No. 141.

International Monetary Fund, 2000, Article IV Consultation with China, September 1, Public Information Notice (PIN) No.00/71.

Juan-Ramon, V. Hugo, Ruby Randall, and Oral Williams, 2001, "A Statistical Analysis of Banking Performance in the Eastern Caribbean Currency Union in the 1990s," IMF Working Paper WP/01/105.

Ma, June, 1997, "China's Economic Reform in the 1990s," World Bank, mimeo.

Mo, Y. K., 1999, "A Review of Recent Banking Reform in China," Policy Papers No. 7, Strengthening the Banking System in China: Issues and Experience, pp.90-109, Bank for International Settlements.

Mehran, Hassanali and Bernard Laurens, 1997, "Interest Rates: An Approach to Liberalization, Finance and Development, Vol. 34, No. 2.

Lardy, Nicholas R., 1999, "When Will China's Financial System Meet China's Needs?" Conference on Policy Reform in China, Stanford University.

Petersen, Mitchell A and Raghuram G. Rajan, 1994, "The Effect of Credit Market Competition on Lending Relationships," mimeo.

Pining, Xi, 1999, "Bank Restructuring in China," mimeo.

Rajan, Raghuram G., 1992, "Insiders and Outsiders: the Choice between Informed and Arm's-Length Debt," *Journal of Finance*, Vol. 47, 11.1367-1399.

Rajan, Raghuram G., 1997, "The Past and Future of Commercial Banking Viewed through an Incomplete Contract Lens," mimeo.

Rajan, Raghuram G., and Luigi Zingales, 1998, "Financial Systems, Industrial Structure, and Growth," mimeo.

Sarkar, Jayati, Subrata Sarkar, and Sumon K. Bhaumik, 1998, "Does Ownership Always Matter?
Evidence from the Indian Banking Industry," *Journal of Comparative Economics*, Vol. 26, pp.262-281.

Sarkar, Jayati, and Sumon Kumar Bhaumik, 1998, "Deregulation and the Limits to Banking Market Competition: Some Insights from India," *International Journal of Development Banking*, July-December.

Shirai, Sayuri, 2001, "Searching for New Regulatory Frameworks for the Intermediate Financial
Market Structure in Post-Crisis Asia, ADB Institute Research Paper No.24.

World Bank, 2001, Finance for Growth: Policy Choices in a Volatile World, Oxford University Press: New Work: NY.

Yoshitomi, Masaru, and Sayuri Shirai, 2001, "Designing a Financial Market Structure in Post-Crisis Asia—How to Develop Corporate Bond Markets," ADB Institute Working Paper No. 15.

ACRONYMS AND ABBREVIATIONS

ABC	Agricultural Bank of China
ADBC	Agricultural Development Bank of China
AMCs	Asset Management Companies
BOC	Bank of China
CCB	China Construction Bank
CDB	China Development Bank
CITIC	China International Trust Corporation
GITIC	Guandong International Trust and Investment Company
ICBC	Industrial and Commercial Bank of China
ITICs	International trust and investment companies
IEB	Import-Export Bank
MOF	Ministry of Finance
NPL	Non-performing loans
PBC	People's Bank of China
PRC	People's Republic of China
RCCs	Rural Credit Cooperatives
TICs	Trust and investment Companies
UCCs	Urban Credit Cooperatives
SOEs	State-owned enterprises
SMEs	Small and medium enterprises
OCBs	Other commercial banks
WSCBs	Wholly state-owned commercial banks
WTO	World Trade Organization

Note: In this report "$" denotes US dollars, unless otherwise specified.

INDICATORS AND VARIABLES USED FOR REGRESSION

COST	Operating cost divided by operating income
Equity	Equity divided by assets
GASSET	Growth of assets
GLOAN	Growth of loans
DIVERSE	Net other operating income plus other income divided by assets
INCOME	Income divided by average assets
INVDEBT	Equity divided by liabilities
OTHER	Dummy variable (=1 if a bank is characterized not as a wholly state-owned commercial bank; = 0 otherwise)
$Liquid_1$	Deposits with the PBC divided by customer deposits
$Liquid_2$	Cash plus bank deposits divided by assets
MARGIN	Net interest income divided as average assets
POLICY	Dummy variable (=1 if a bank is a policy lending bank; =0 otherwise)
PROV	Loan loss provisions divided by loans
ROAA	Profits after tax divided by average assets
ROAE	Profits after tax divided by average equity
SBOND	Investment in securities divided by assets
TIME	Dummy variable for time

Table 1. Selected Macroeconomic Indicators: 1979-1999

(%)

Year	Real GDP Growth	Deposits/GDP	M1/GDP	M2/GDP	Gross Fixed Capital Formation/GDP	Domestic Credit/GDP	Bonds/GDP
1979	-	-	22.6	32.6	28.3	48.6	-
1980	7.8	-	25.2	36.7	29.0	53.2	-
1981	4.5	-	27.5	40.4	25.6	55.9	-
1982	8.3	-	27.1	41.3	27.2	55.5	-
1983	10.4	-	28.8	44.7	28.1	56.6	-
1984	14.6	-	34.2	50.2	29.7	63.0	-
1985	16.2	26.3	34.3	55.5	30.0	67.4	-
1986	8.9	29.9	38.1	62.7	30.6	78.4	-
1987	11.6	32.1	38.8	67.5	31.8	82.4	-
1988	11.3	30.6	37.3	65.3	31.5	78.5	-
1989	4.1	27.7	35.4	69.2	26.4	82.0	-
1990	3.8	30.9	38.3	80.1	25.8	91.1	-
1991	9.2	35.4	42.2	87.4	27.9	94.1	-
1992	14.2	40.1	45.3	94.1	32.2	94.7	-
1993	13.5	76.7	44.8	103.4	37.6	100.9	0.7
1994	12.7	74.6	42.1	100.5	36.1	92.3	0.5
1995	10.5	79.6	39.5	103.8	34.7	91.2	0.7
1996	9.6	88.1	40.3	111.4	34.2	97.2	0.4
1997	8.8	99.1	46.5	122.7	33.6	106.2	4.9
1998	7.8	106.4	48.5	132.2	35.3	119.5	6.7
1999	7.1	119.0	57.3	147.5	36.1	130.4	7.9

Source: IFS Database, IMF.

Table 2: Concentration Indicators: 1996–1999

	1993	1994	1995	1996	1997	1998	1999	2000
Concentration Ratio (Deposits)								
4 Bank Concentration Ratio (%)	-	-	-	77.1	78.8	80.0	78.3	78.1
Concentration Ratio (Assets)								
4 Bank Concentration Ratio (%)	-	-	-	80.3	75.2	76.1	75.2	74.9
6 Bank Concentration Ratio (%)	-	-	-	89.3	86.8	86.7	85.6	85.1
Herfindahl Index (Deposits)								
All Commercial Banks	36.7	34.4	27.1	21.1	20.0	19.7	20.1	19.8
100/N	5.0	5.0	4.6	4.0	3.2	3.3	3.6	4.2
Other Commercial Banks	20.4	19.9	17.8	17.0	15.1	12.5	7.7	8.9
100/N	5.6	5.6	5.3	4.8	3.7	3.9	4.2	5.0
All Banks and ITICs and TICs	36.2	33.7	22.2	20.5	19.5	19.4	19.8	19.5
100/N	4.0	3.6	3.0	3.7	2.6	2.6	2.4	2.8
Herfindahl Index (Assets)								
All Commercial Banks	40.9	40.1	28.9	22.7	19.7	19.3	18.8	18.8
100/N	5.0	5.0	5.0	5.0	4.4	4.0	3.9	5.0
Other Commercial Banks	18.6	18.1	16.2	15.4	12.9	11.9	10.8	11.7
100/N	5.9	5.9	5.9	5.9	5.3	4.8	4.8	5.6
All Banks including ITICs and TICs	40.0	37.6	23.8	18.9	15.8	15.8	15.4	15.5
100/N	3.3	3.3	3.1	2.9	2.6	2.6	2.5	3.0

Note: The concentration indicators were estimated from 1996 onward, due to the lack of data on one of the largest wholly state-owned banks.

Table 3: Moody's Financial Strength Ratings of Banks

	Current Rating	Previous Rating	Change Date
Wholly State-owned Commercial Banks			
Agricultural Bank of China	E	E+	Jan-99
Bank of China	D-	E+	Mar-01
China Construction Bank	E+	E	Mar-01
Industrial & Commercial Bank of China	E+	E	Mar-01
Other Commercial Banks			
Bank of Communications	D	D+	Jan-99
China & South Sea Bank Ltd.	D	-	Aug-96
China Everbright Bank	D-	E+	Mar-01
China Merchants Bank	D-	E+	Mar-01
China State Bank Ltd.	D	-	Aug-96
Guangdong Development Bank	E+	E	Oct-01
Kincheng Banking Corporation	D	-	Aug-96
Kwangtung Provincial Bank (The)	D	-	Aug-96
National Commercial Bank Ltd.	D	-	Aug-96
Shanghai Pudong Development Bank	D-	E+	Mar-01
Shenzhen Development Bank Co., Ltd.	E+	E	Mar-01
Sin Hua Bank Limited	D	-	Aug-96
Yien Yieh Commercial Bank Ltd.	D	-	Aug-96

Note: Only banks with ratings are listed in this table.
Source: Bankscope, Fitch IBCA.

Table 4. Selected Indicators for the Performance of Commercial Banks: 1994– 2000

(%)

Return on Average Assets (ROAA)	1994	1995	1996	1997	1998	1999	2000
Wholly State-owned Commercial Banks	0.1	0.2	0.2	0.1	0.1	0.1	0.2
Agricultural Bank of China	0.1	0.2	0.2	0.0	-0.1	0.0	0.0
Bank of China	-	0.2	0.3	0.2	0.1	0.1	0.1
China Construction Bank	-	-	0.1	0.1	0.1	0.2	0.3
Industrial & Commercial Bank of China	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Commercial Banks	2.0***	1.9***	1.8***	1.5***	1.1***	0.7***	0.5***
Return on Average Equity (ROAE)							
Wholly State-owned Commercial Banks	1.8	4.5	4.4	2.6	1.2	2.2	3.1
Agricultural Bank of China	1.4	4.5	5.1	1.3	-1.1	-0.3	0.2
Bank of China	-	6.6	7.0	4.7	2.1	2.0	2.6
China Construction Bank	-	-	2.7	2.1	1.5	4.8	6.8
Industrial & Commercial Bank of China	2.2	2.3	2.8	2.1	2.5	2.3	2.8
Other Commercial Banks	18.8***	19.8***	18.8***	16.2***	11.5***	7.4***	7.3**
Growth of Assets (GASSET)							
Wholly State-owned Commercial Banks	26.5	8.1	13.9	-0.3	15.8	10.5	8.5
Agricultural Bank of China	18.6	-1.8	19.2	7.3	28.5	12.5	-4.0
Bank of China	-	-	5.7	7.2	10.9	5.8	10.5
China Construction Bank	-	-	-	3.6	13.5	14.4	15.0
Industrial & Commercial Bank of China	34.4	18.0	16.8	-19.1	10.3	9.3	12.3
Other Commercial Banks	58.2**	46.7**	31.1**	20.8**	13.5	14.1	24.0**
Growth of Loans (GLOAN)							
Wholly State-owned Commercial Banks	-1.1	17.4	21.1	11.5	18.1	4.3	0.0
Agricultural Bank of China	-11.8	19.1	30.4	13.4	37.9	12.7	-6.6
Bank of China	-	-	11.1	8.5	11.6	3.2	-9.0
China Construction Bank	-	-	-	12.8	9.0	-5.3	15.7
Industrial & Commercial Bank of China	9.6	15.7	21.6	11.2	13.9	6.5	-0.3
Other Commercial Banks	76.7***	65.6*	25.4	33.7**	34.4	6.3	23.5**
Net Interest Income/Average Assets (Margin)							
Wholly State-owned Commercial Banks	3.1	1.7	1.9	2.2	2.3	1.9	1.8
Agricultural Bank of China	4.5	2.4	2.4	2.7	2.5	2.1	1.8
Bank of China	-	1.4	1.3	1.4	1.3	1.2	1.4
China Construction Bank	-	-	2.3	2.9	3.3	2.5	2.1
Industrial & Commercial Bank of China	1.6	1.5	1.7	2.0	2.3	1.9	1.8
Other Commercial Banks	2.6	3.2***	3.2***	3.1**	2.8	2.3	2.2**

Table 4. Selected Indicators for the Performance of Commercial Banks:1994–2000 (Contd.)

(%)

Return from Other Business/Asset (DIVERSE)	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Wholly State-owned Commercial Banks	1.5	0.1	0.1	-0.2	-0.2	-0.1	0.0
Agricultural Bank of China	2.9	0.1	0.3	-0.3	-0.9	-0.7	-0.2
Bank of China	-	0.1	0.3	0.2	0.2	0.2	0.3
China Construction Bank	-	-	0.0	-0.7	-0.1	-0.1	-0.1
Industrial & Commercial Bank of China	0.1	0.2	-0.1	-0.1	-0.1	0.2	0.1
Other Commercial Banks	0.9	0.2	0.4*	0.4**	0.3*	0.4*	0.4**
Investment in Securities/Asset (SBOND)							
Wholly State-owned Commercial Banks	3.0	3.4	3.7	3.4	8.4	7.9	10.9
Agricultural Bank of China	3.6	3.9	4.3	3.4	8.4	7.9	10.9
Bank of China	-	-	-	-	-	-	-
China Construction Bank	-	-	-	-	-	-	-
Industrial & Commercial Bank of China	2.3	2.8	3.1	-	-	-	-
Other Commercial Banks	9.0*	7.9**	12.7***	7.8	13.8	14.5	15.8
Deposit with the PBC/Deposits ($LIQUID_1$)							
Wholly State-owned Commercial Banks	11.3	25.3	23.9	17.6	12.9	11.6	10.1
Agricultural Bank of China	11.3	42.0	40.3	22.2	15.6	15.3	12.2
Bank of China	-	8.7	9.1	8.9	6.9	7.7	7.4
China Construction Bank	-	-	22.3	18.1	15.8	13.0	11.7
Industrial & Commercial Bank of China	-	-	-	21.3	13.3	10.2	9.1
Other Commercial Banks	23.3	17.6	21.4	19.7	16.8	19.7**	21.8***
Cash and Bank Deposits/Assets ($LIQUID_2$)							
Wholly State-owned Commercial Banks	6.3	4.6	3.7	1.6	1.3	1.8	1.0
Agricultural Bank of China	1.2	1.3	0.9	1.0	0.8	1.5	1.1
Bank of China	-	0.6	0.5	0.5	0.5	1.1	0.6
China Construction Bank	-	-	0.7	0.8	0.8	1.5	1.0
Industrial & Commercial Bank of China	11.3	11.8	12.5	4.1	3.1	3.2	1.3
Other Commercial Banks	3.1	3.0	2.9	2.0	1.6	2.8*	1.4
Operating Expenses/Operating Income (COST)							
Wholly State-owned Commercial Banks	85.9	70.2	69.3	67.5	79.9	78.7	77.0
Agricultural Bank of China	98.2	83.9	83.3	80.6	86.9	87.8	84.3
Bank of China	-	54.4	50.8	65.1	75.3	72.2	78.0
China Construction Bank	-	-	72.4	53.0	82.7	71.6	68.6
Industrial & Commercial Bank of China	73.6	72.4	70.8	71.3	74.6	83.3	77.0
Other Commercial Banks	42.0*	38.9**	49.3*	47.7**	56.8***	70.1*	74.2

Table 4. Selected Indicators for the Performance of Commercial Banks: 1994– 2000 (Contd.)

(%)

Total Income/Assets (INCOME)	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Wholly State-owned Commercial Banks	16.0	12.6	11.2	12.4	6.2	5.0	4.4
Agricultural Bank of China	10.0	9.8	9.2	8.1	6.1	4.4	4.3
Bank of China	-	6.9	6.7	6.7	6.1	4.9	4.7
China Construction Bank	-	-	8.1	7.7	6.6	5.2	4.1
Industrial & Commercial Bank of China	22.0	21.0	20.7	27.1	6.0	5.3	4.5
Other Commercial Banks	6.7	8.1	7.9	8.2	7.3***	6.0***	5.4**
Equity/Assets (EQUITY)							
Wholly State-owned Commercial Banks	3.5	3.3	3.0	3.2	5.8	5.4	5.3
Agricultural Bank of China	3.6	3.3	2.9	2.5	6.7	5.9	6.2
Bank of China	-	3.6	3.8	3.9	5.6	5.6	5.6
China Construction Bank	-	-	2.8	3.0	5.2	4.9	4.5
Industrial & Commercial Bank of China	3.3	3.0	2.6	3.3	5.7	5.1	4.7
Other Commercial Banks	15.5***	12.0***	13.1***	15.2***	15.1***	15.4***	9.7***
Equity/Liabilities (INVDEBT)							
Wholly State-owned Commercial Banks	3.6	3.4	3.1	3.3	6.2	5.7	5.6
Agricultural Bank of China	3.7	3.4	3.0	2.6	7.1	6.3	6.6
Bank of China	-	3.7	4.0	4.1	6.0	5.9	6.0
China Construction Bank	-	-	2.9	3.0	5.5	5.1	4.8
Industrial & Commercial Bank of China	3.4	3.1	2.7	3.4	6.0	5.4	5.0
Other Commercial Banks	25.0**	17.6**	29.0*	39.0*	39.6*	17.8**	11.8**
Loan Loss Reserves/Loans (PROV)							
Wholly State-owned Commercial Banks	0.5	1.1	0.9	0.7	0.8	1.2	1.0
Agricultural Bank of China	0.5	0.6	0.5	0.4	0.5	0.9	0.9
Bank of China	-	2.0	1.9	2.0	2.2	2.1	1.8
China Construction Bank	-	-	0.6	0.1	0.2	1.0	0.8
Industrial & Commercial Bank of China	0.5	0.8	0.7	0.4	0.4	0.7	0.4
Other Commercial Banks	0.8**	1.0	2.2**	2.2**	3.0***	4.6**	3.0***

Source: Bankscope, Fitch IBCA.

Note: ***, **, * indicate that other commercial banks are superior to wholly state-owned banks with respect to the indicator under examination at a statistically significant level of 1%, 5% and 10%, respectively. However, the absence of * does not necessarily mean that the statistical difference is absent between both groups. In some cases it could be attributed to lack of enough sample to perform the statistical t test.

Table 5. Regression Results for the Commercial Banking Sector

Explanatory Variables	Dependent Variables					
	ROAA		COST		INCOME	
Constant	0.96*** (2.76)	-0.06 (-0.17)	62.34*** (5.98)	89.62*** (8.89)	11.01*** (5.61)	7.91*** (4.48)
Time	-0.18*** (-4.71)	-	5.06*** (4.45)	-	-0.66*** (-3.07)	-
Time94	-	0.66** (2.19)	-	-18.29** (-2.01)	-	1.38 (0.86)
Time95	-	0.88*** (3.58)	-	-26.02*** (-3.49)	-	3.76*** (2.88)
Time96	-	0.84*** (4.12)	-	-21.39*** (-3.46)	-	3.56*** (3.29)
Time97	-	0.38* (1.93)	-	-15.74** (-2.63)	-	4.69*** (4.47)
Time98	-	0.17 (0.97)	-	-5.31 (-0.99)	-	2.18** (2.32)
Time99	-	0.03 (0.19)	-	0.82 (0.17)	-	0.42 (0.48)
OTHER	0.94*** (4.09)	0.83*** (3.56)	-26.32*** (-3.81)	-24.17*** (-3.41)	-2.15* (-1.65)	-2.57** (-2.07)
MARGIN	0.21*** (3.16)	0.22*** (3.13)	-3.67* (-1.82)	-3.23 (-1.52)	0.69* (1.83)	0.27 (0.72)
$LIQUID_1$	-0.02*** (-2.75)	-0.02** (-2.57)	0.27 (1.44)	0.26 (1.32)	-0.005 (-0.15)	0.01 (0.29)
DIVERSE	0.12 (1.57)	0.14* (1.83)	5.79** (2.58)	5.22** (2.22)	0.35 (0.82)	0.61 (1.47)
GLOAN	-0.001 (-1.50)	-0.001* (-1.77)	0.03 (1.58)	0.04* (1.91)	-0.01** (-2.44)	-0.01*** (-2.85)
SIZE	-0.02 (-0.62)	-0.04 (-1.14)	-0.98 (-0.90)	-0.34 (-0.29)	-0.23 (-1.14)	-0.43** (-2.13)
R^2	0.68	0.70	0.50	0.53	0.32	0.45
F-Statistic	24.17	14.77	11.45	7.16	5.48	5.23

Note: *, **, *** indicate the coefficients are significant at 10%, 5% and 1% respectively. The t-statistic values are reported in the brackets.

Table 6. Testing the Differential Behavior between OCBs, WSCBs and Policy Lending Banks

	OCBs vs. Policy Lending Banks	WSCBs vs. Policy Lending Banks		OCBs vs. Policy Lending Banks	WSCBs vs. Policy Lending Banks
1995			**1998**		
ROAA	4.39***	-0.65	ROAA	6.12***	-1.07
ROAE	5.84***	0.96	ROAE	5.01***	-0.40
COST	-	-	COST	-0.74	2.21*
INCOME	1.98*	1.24	INCOME	-0.82	-2.67*
EQUITY	0.75	-1.61	EQUITY	2.01**	-0.26
PROV	1.59*	1.18	PROV	3.24***	-0.54
1996			**1999**		
ROAA	6.94***	-0.61	ROAA	4.95***	0.17
ROAE	6.19***	1.90*	ROAE	4.19***	0.74
COST	-0.69	-0.09	COST	1.22	1.85*
INCOME	-1.24	-0.17	INCOME	1.71*	-1.07
EQUITY	1.00	-1.63	EQUITY	2.34**	-0.07
PROV	4.09***	0.79	PROV	2.38**	0.84
1997			**2000**		
ROAA	5.73***	0.08	ROAA	3.49***	0.09
ROAE	2.77*	1.04	ROAE	1.41	-0.31
COST	-0.99	0.19	COST	1.75*	2.03*
INCOME	-0.44	0.82	INCOME	1.43*	-2.54*
EQUITY	1.41*	-1.45	EQUITY	1.71*	-0.23
PROV	4.20***	0.02	PROV	3.38***	0.45

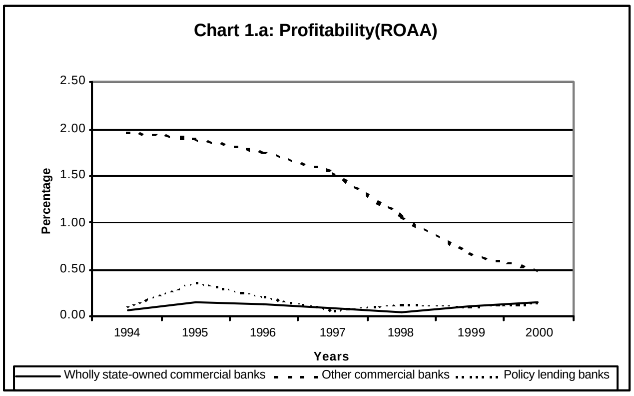
Note: The values reported are t-test values and *, **, *** indicate significance at 10%, 5 % and 1% significance level respectively.

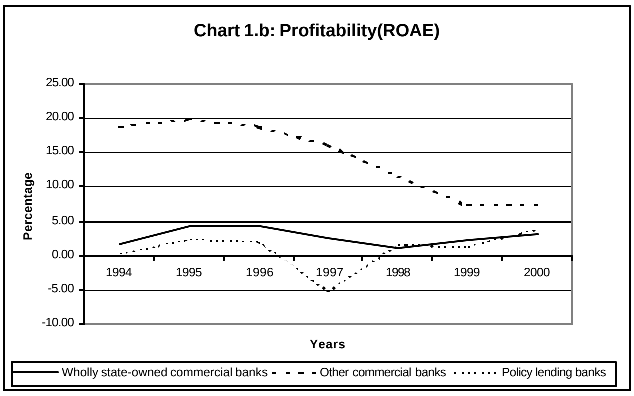
Table 7. Regression Results for the Banking Sector Including Policy Lending Banks

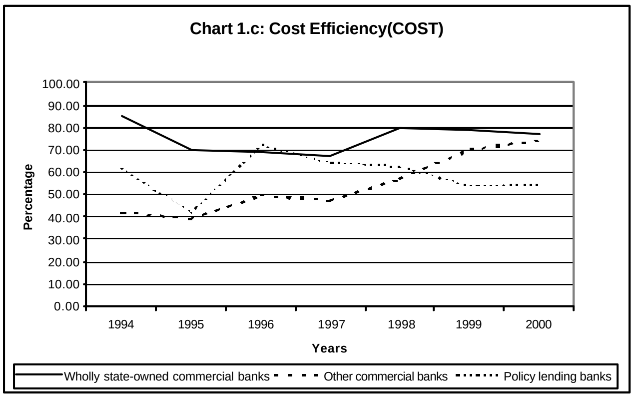
Explanatory Variables	Dependent Variables					
	ROAA		COST		INCOME	
Constant	1.03*** (3.24)	0.03 (0.08)	50.49*** (4.48)	79.23*** (7.16)	10.48*** (5.69)	6.8*** (4.02)
OTHER	0.91*** (4.16)	0.79*** (3.57)	-28.02*** (-3.63)	-25.67*** (-3.23)	-2.51** (-1.99)	-2.85** (-2.35)
POLICY	0.82*** (2.84)	0.76*** (2.64)	-37.08*** (-3.62)	-36.03*** (-3.47)	0.25 (0.15)	-0.11 (-0.07)
Time	-0.18*** (-4.84)	-	4.92*** (3.82)	-	-0.67*** (-3.19)	-
Time94	-	0.64** (2.19)	-	-16.39 (-1.57)	-	1.45 (0.91)
Time95	-	0.91*** (3.84)	-	-29.49*** (-3.49)	-	3.35** (2.59)
Time96	-	0.86*** (4.41)	-	-20.26*** (-2.91)	-	3.59*** (3.37)
Time97	-	0.41** (2.27)	-	-16.99*** (-2.63)	-	4.21*** (4.26)
Time98	-	0.24 (1.47)	-	-8.61 (-1.50)	-	1.91** (2.18)
Time99	-	0.07 (0.48)	-	-1.78 (-0.33)	-	0.29 (0.36)
MARGIN	0.19*** (3.32)	0.19*** (3.26)	-0.30 (-0.15)	-0.16 (-0.08)	0.83** (2.54)	0.66** (2.08)
$LIQUID_1$	-0.02*** (-3.03)	-0.01*** (-2.78)	0.48*** (2.67)	0.46** (2.52)	0.03 (0.91)	0.03 (1.12)
DIVERSE	0.14** (2.27)	0.18*** (2.76)	1.06 (0.47)	0.42 (0.18)	0.099 (0.27)	0.16 (0.44)
GLOAN	-0.001 (-1.51)	-0.001 (-1.78)	0.03 (1.29)	0.04* (1.69)	-0.01** (-2.47)	-0.01*** (-2.89)
SIZE	-0.03 (-0.88)	-0.05 (-1.49)	-0.68 (-0.56)	-0.04 (-0.03)	-0.26 (-1.30)	-0.41** (-2.09)
R^2	0.70	0.72	0.37	0.4	0.39	0.49
F-Statistic	26.22	16.75	6.49	4.27	6.92	6.08

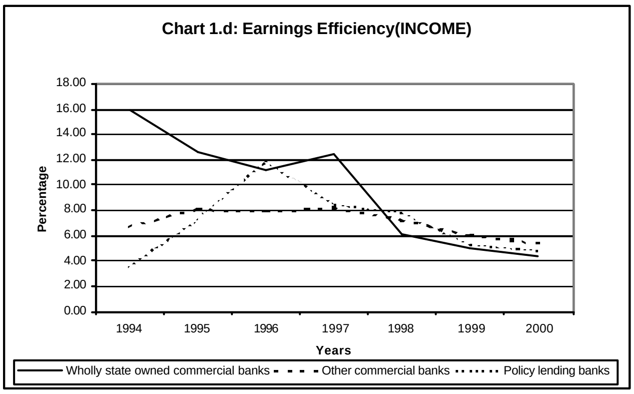
Note: *, **, *** indicate the coefficients are significant at 10%, 5% and 1% respectively. The t-statistic values are reported in the brackets.

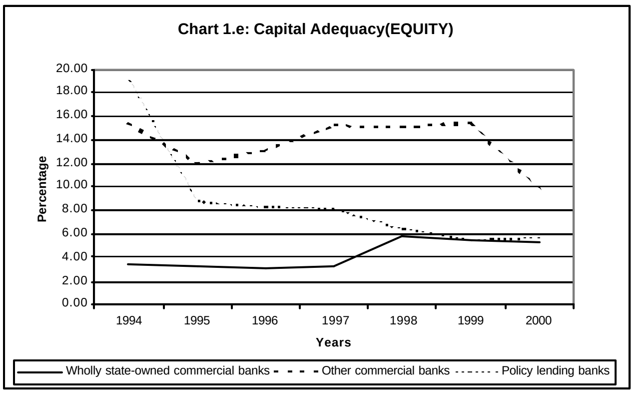
Chart 1. Performance of Overall Banking Sector

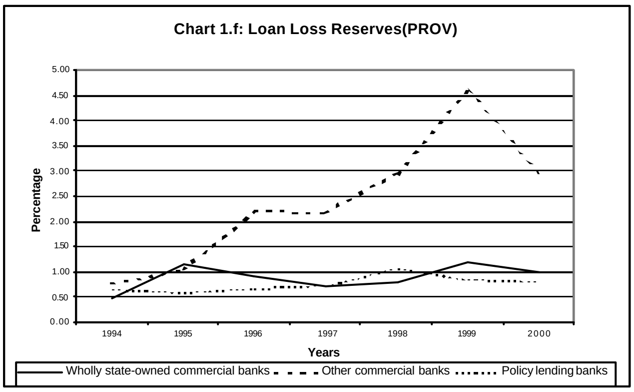












Source: Bankscope, Fitch IBCA.