

Financial Reform in China: Evolution, Theory, and Policy

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I. Evolution of China's Financial Sector

1. Transition from Budgetary to Bank Finance

Before 1979, China had a mono-bank system with the People's Bank of China (PBC) acting as a central bank, a commercial bank, as well as a book-keeper for China's planned economy. The Ministry of Finance (MOF) allocated most of the production and investment funds. It allocated working capital to state-owned enterprises according to a quota system. Funds for investment in fixed capital were also allocated by the MOF according to plans set by the State Planning Commission. The banking system only gave a small amount of short-term loans to state-owned enterprises for their above-the-quota working capital needs. Even the limited lending activities followed closely the government's credit plan and served the government's economic policies. The government budget and credit plan directed the flow of financial resources. The banking system, as a bookkeeper, kept all records of financial transactions but was not sensitive to the risks and profitability of loans. Under China's centrally planned economy, the role of the banking system in the allocation of financial resources was passive, limited, and disposed to serve the government economic policies.

Economic reforms since 1979 have dramatically changed the allocation system for financial resources. The mono-bank system has been separated into a central bank, the People's Bank of China (PBC), and four specialized state banks: (1) the Industrial and Commercial Bank of China (ICBC), which mainly provides short-term loans to urban industrial and commercial enterprises; (2) the Agricultural Bank of China (ABC), which

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services agriculture, industry, and commerce in the rural area; (3) the People's Construction Bank of China (PCBC), which engages mainly in long-term loans for key investment projects; and (4) the Bank of China (BOC), which administers foreign exchange business and extends loans to import-export enterprises.

All these specialized state banks are still heavily restricted by the state credit plan, industrial policies, and administrative interventions. However, the current contract responsibility system gives the specialized state banks some autonomy in selecting borrowers as well as using part of the retained banking profits.

There are also a few newly established state-owned commercial banks such as the Bank of Communications, the CITIC Industrial Bank, the Guangdong Development Bank, the Shenzhen Development Bank, and the Fujian Industrial Bank.

The Urban Credit Cooperatives and the Rural Credit Cooperatives are cooperative financial institutions which can be characterized as something between banks and non-bank financial institutions. They channeled a significant amount of commercial loans to the rapidly growing urban collectives and rural township and village enterprises.

Together with rapid changes and expansion of financial institutions, control of financial resources has been dramatically decentralized. As a result, the central government has concentrated less and less financial resources. Individuals, enterprises, local governments and ministries have increased their share of financial assets.

During the pre-reform period from 1972 to 1978, the budgetary funds for production and investment grew at an annual rate of 9% from 37.8 to 58.2 billion yuan. During the reform period from 1978 to 1991, they increased from 58.2 to 93.4 billion yuan at a rate of only 1.2% a year, much lower than during the six years before reform. This shows clearly the declining role of the budget in production and investment.

Since budgetary funds are not required to be paid back while loans still have to be returned to the bank for re-lending, the annual increase of state bank loans is comparable to the annual government budgetary funds for production and investment. The increase in state bank loans was 3.2 billion yuan in 1972, to 18.7 in 1978, and to 287.8 in 1991. The average annual growth rate of newly injected loans was 81% during 1972-1978 and 110% during 1978-1991, indicating clearly the increasing importance of bank lending in production and investment.

The budgetary funds and the increase in state bank loans represent annual injections of new sources of funding for production and investment in China. Among the total new funding, the share of budgetary funds decreased from 92.3% in 1972 to 75.7% in 1978 and to 24.2% in 1991. The fall of budgetary funding is particularly dramatic with working capital. In 1972,

37.5% of working capital expansion came from the budget. The share fell to 26.3% in 1978 and to merely 0.6% in 1991. Hence, enterprises are now relying heavily on the banking system for their operational funds.

The declining role of the budget and the increasing role of bank loans in financing China's production and investment activities resulted largely from China's rapid economic transition from a planning system to a market economy. The share of the state-owned enterprises in Gross Value of Industrial Output declined from 84.9% in 1972, to 77.6% in 1978, to 54.6% in 1990 and to 48.1% in 1992. The rapidly growing non-state enterprises sector, including urban collective enterprises and rural township and village enterprises, competes more and more intensely for financial resources with the state enterprises in key sectors such as energy, transportation, communications, export-import, farm product procurement, etc.

2. Credit Control

China has experimented with many direct and indirect ways of controlling total credit and money supply. So far, the experiments have not been very successful. Credit planning is still the most important tool of controlling the total credit. However, credit planning is not as effective as it was several years ago. Loss of control in total credit and money supply has been a serious problem of China's financial system. Let's review some of the major experiments in direct and indirect monetary control.

Before 1978, China had a system of direct monetary control through a central credit plan. The amount of deposits, loans, and currency at the state banks was specified through the centrally coordinated comprehensive credit plan. The plan determined simultaneously both the total credit and the structure of credit allocation. Hence, the banking system was merely a bookkeeper for the central planning authority.

After 1978, reform of the banking system started with a limited decentralization of lending and deposit-taking authority to local branches of PBC. Each branch was assigned a quota of the gap between deposits and loans. Some branches had positive quota gaps, which meant that their deposits had to exceed their loans by a specified amount. Others had negative gaps. These quotas were planned to make sure that the consolidated gap between total deposits and total loans would be fixed so that the total credit was under control. Given the planned gap between deposit and loan, a branch could extend more loans if it had more deposits. Surplus funds of the branches with quotas of positive deposit-loan gaps would be mobilized through planning to meet the deficits at other branches with quotas of negative deposit-loan gaps. Initially, the transfer of deposits between branches was intermediately administrated through the Head Office of PBC without explicit borrowing or lending contracts. This was

possible since the ownership of funds among PBC Head Office and local branches was not separated at the beginning of the banking reform. This gap-control system gave local branches some incentives and autonomy to attract deposits and expand lending activities.

However, the deposit-loan gap control system was not effective in controlling the total credit and money supply. The problem was with the central ownership and central allocation of deposit funds. Under the gap control system, the PBC Head Office had to allocate funds to those branches with quotas of negative deposit-loan gaps. However, branches with quotas of positive deposit-loan gaps might not have enough surplus funds to deliver to the Head Office. Hence, the actual ex post consolidated gaps between total deposits and total loans may have been very different from the planned gaps. Credit expansion happens when some of the branches fail to meet their quotas of delivering surplus deposits to the Head Office. Under this system, borrowing from the Head Office by the local branches was automatic since the Head Office could find out "their borrowing" only after the ex post statistical report.

After PBC became a central bank in 1984, ownership of funds was separated between PBC and other specialized state banks and their local branches. Each branch of the specialized state banks had to deposit their required reserves and extra reserves at PBC. When they needed funds from PBC, each branch had to apply for loans from PBC. Therefore, PBC could in principle control its total lending to other banks. PBC can also decide the reserve ratios and interest rates of its loans to other banks. Hence, theoretically, PBC can control the total credit and money supply by controlling central bank lending to other banks, changing reserve requirements, and adjusting interest rates of central bank lending. However, for many reasons I will discuss later, these standard instruments for monetary control are not very effective under China's under-developed financial system.

China's central bank still relies on credit planning (e.g. maximum quotas on total loans each bank can extend) to control the total credit and money supply. Theoretically, credit planning can easily limit the total amount of loans. In reality, it is not so simple. The state banks with enough deposits will lend to the limit of their loan quota. They may deposit their surplus funds at PBC as liquid extra reserves which earn interest, or they can put their funds in the highly profitable interbank market to earn market-determined interest rates. Other state banks with extra loan quotas but without enough deposits will ask for central bank credit. The best reason for them to borrow from the central bank is usually that they need funds for so-called policy loans, which I will discuss further later. The central bank usually meets the demand for policy lending under government pressure. Central bank lending expands.

As central bank lending increases, the actual credit and money supply exceeds the planned target. Since central bank loans are high-powered money, the actual increase in the credit and money supply may be several times the increase in central bank loans. This multiplication effect will be particularly significant under the conditions that the credit plan is not strictly enforced and its coverage is not complete. The half-reformed Chinese financial system seems to fit these conditions.

In 1991, the items on the assets side of the central bank balance sheet included policy loans extended directly by PBC (4.9%), central bank lending to other banks (66.6%, most of them for policy lending), gold (1.2%), foreign exchange reserves (12.4%), and borrowing by the government (14.9%). On the liability side, the items were fiscal deposits (14.1%), required reserves (20.2%), extra reserves (26%), currency in circulation (35.9%), own capital (2.4%), and profits (1.4%).

The borrowing from the central bank by the banking system and the government was the major channel for credit expansion. It is interesting to note the high extra reserves in China's banking system. This is apparently associated with tight credit control policy. Chinese state banks accumulate extra reserves because they don't have quotas for loans. This high extra reserve reduces the role of reserve ratios in controlling the total credit and money supply, since changes in the required reserve ratio will only shift part of the extra reserves into required reserves for many banks, but will not have a significant effect on the total credit and money supply. The high extra reserves (a liability) cannot be reduced by a reduction in central bank lending (an asset) under the credit control regime. Banks with extra reserves do not borrow from the central bank. Banks with central bank loans do not have extra reserves. The central bank's assets and liabilities are therefore inflated under the credit control regime. When control on credit quotas and financial markets is tight, the banking system may not be able to transform extra reserves into actual loans. However, once control is loosened, the extra reserves quickly put pressure on for credit expansion.

3. Incentives and Behavior of State-Owned Banks

Reform of the state bank management has followed the experiences of the rural and industrial responsibility system. The core of various responsibility systems is decentralization of management and profit retention. Reforms in the banking sector separated the state bank's ownership of assets and liabilities from the central bank account; specified cost ratios and profit retention schemes; and provided limited autonomy on allocation of funds, adjustment of interest rates, decision on internal organization, use of retained profits, and appointment and compensation of management staff and employees. The profit retention rate set in 1983 was

12% for the Industrial and Commercial Bank of China, 21% for the Agricultural Bank of China, 3% for the Bank of China, and 12.6% for the People's Construction Bank of China. Among the retained profits, 60% was permitted for use in business development and the other 40% for use in bonuses and employee welfare. The profits after retention were then handed over to the central government as either budgetary income (62%) or new funds to be allocated to the state banks (38%, see Sheng 1992, page 44). These measures gave strong incentives for state bank branches to expand their business and to compete with each other.

However, even after all these reforms, the state banks are still state-owned and still have many non-profit obligations. They have to observe the tight control on interest rates and the credit plan and industrial policies. Hence, the contest between the state banks is characterized by non-price competition such as excessive branching, in-kind bonus schemes for savings deposits, and flexibility in selecting borrowers and projects.

The state banks are caught in a dilemma in the competition for funds. On the one hand, responding to market demand, they would prefer to extend more loans to those profitable state and non-state enterprises to generate more retained banking profits for themselves. On the other hand, given the deeply-rooted traditions of the planning system, they have to follow the government's industrial policies and credit plans, and extend loans to risky and unprofitable projects. Also, the state banks largely monopolized the financial sectors. Except for the Urban and Rural Credit Cooperatives and a few branches of foreign banks, there are no non-state financial institutions in China. Hence, the state banks have to accommodate demands for financing from both the state and the non-state sectors (although the non-state sector relies more on self-finance than the state sector).

4. Non-Bank Financial Institutions

The rigidity of the state bank system and the high demand for financial inter-mediation by both the state and the non-state sectors have given rise to a rapid surge in non-bank financial institutions. They include various trust and investment corporations, the People's Insurance Company of China, finance companies, financial leasing companies, security companies, etc. Sometimes, Urban Credit Cooperatives (UCC) and Rural Credit Cooperatives (RCC) are also regarded as non-bank financial institutions.

It is useful to note that most of the non-bank financial institutions have close ties with the state banks. Many of the trusts and investment corporations are initially sponsored by the state banks. RCCs and UCCs are usually linked administratively and financially with certain state banks. On

the other hand, the non-bank financial institutions are more sensitive to profitability, less subject to credit planning and other regulations, and present more flexibility than the state banks. Since local governments are the main supervisory authorities for many non-bank financial institutions, their behavior is heavily influenced by local government policies. Across regions, the degree of flexibility presented by the non-bank financial institutions varies greatly. Finally, it should be noted that neither state banks nor non-bank financial institutions are private institutions. The Urban and Rural Credit Cooperatives are collectively owned. Other non-bank financial institutions are mostly sponsored by the central or local governments. Hence, most financial institutions are implicitly protected by the government from bankruptcy. As a result, they concern themselves more with profits than risks. The non-bank financial institutions have reduced the monopoly of the state banks in both lending and absorbing savings. They are particularly important in channeling funds to the more market-oriented non-state sectors.

5. Financial Markets

The emerging financial markets in China include discount markets for commercial bills, interbank markets for short-term funds, foreign exchange swap markets, markets for government, enterprise, and financial bonds, and stock markets. All of these financial markets are quite primitive. In terms of the volume of transaction, the interbank markets, government bond markets, and the foreign exchange markets are the most significant. Direct finance for production and investment through stocks and bonds has not been significant compared to bank finance.

The emerging financial markets were important in the allocation of funds among banks and non-bank financial institutions. The interbank markets for short-term funds was particularly useful, but also chaotic. Both banks and non-bank financial institutions could participate in the interbank markets. Unlike the other financial markets, where either the interest rates or the volume of financial assets was tightly controlled, both interest rates and volume were negotiated in the interbank markets, and at least close to the market rates and volumes of a region or a banking sector. This setting provided both incentives and conditions for large-scale and frequent trading of short-term funds for the purpose of long-term investment. As discussed earlier, the many state banks had surplus funds but could not increase loans because of the loan quota restriction. The banks could earn handsome interest payments from the interbank markets. Some non-bank financial institutions were not constrained by the credit plan and could afford high interest rates for funds since they could invest in the more profitable non-state sectors such as TVEs, as well as real estate, foreign exchange, and

stocks. It turned out that the interbank markets became the major channel for the flow of funds from the state sectors, which were usually associated with policy lending, to the non-state sectors, which were the main targets for "commercial" lending.

6. Savings, Investments and Macroeconomic Stability

The rapid expansion of financial institutions, markets, and assets has exerted strong pressure on China's macroeconomic situation. China experienced inflation of around 10% in 1985, 1988, and 1992. However, the inflation during these periods was low compared to the 30% growth rates of money and quasi-money (M2). Two factors were crucial in explaining the relative stability of China's macroeconomic condition. First, during the past 15 years, the Chinese economy was continuously commercialized during the transition from the old planning system to a more market-oriented mixed economy. A significant part of the increased money supply was absorbed by the expansion of the non-state sector and the volume of market transactions. Second, during this period, high investment was backed up by high savings. Both investment and savings were at a level of about 40% of gross domestic product.

It should be noted that savings have been increasingly coming from private rural and urban sources (instead of the government). On the other hand, a very small proportion of financial assets are invested directly by private individuals. This situation was possible because the government has a monopoly on both savings deposits and investment. In 1993 about 70% of the investment in fixed capital in China was in the state sector. The government also has tight control on direct private investment in stocks and enterprises bonds. The double monopoly on savings and investment allowed the state banks to control a majority of society's financial resources. This large gap between private savings and private investment would not have been a serious problem if China's state banks were efficient in channeling savings to investment. Unfortunately, the state banks were not efficient in allocating the huge individual savings for profitable investment. Since 1991, one to two thirds of the state-owned enterprises have been losing profits explicitly or implicitly by not paying back bank loans.

One thing the state banks have done very successfully is the so called "financial deepening," which means increasing the ratio of total financial assets over gross national product. This ratio for China increased from about 95% in 1978 to 151% in 1984 and 232% in 1991. In 1988, the ratio was 234% for South Korea and 326% for the U.S. Apparently, this ratio is not a good indicator of China's financial development. Financial assets

controlled by inefficient state banks are difficult to compare with those managed by commercial banks in South Korea and the U.S.

The change of ownership structure in the Chinese economy has profound implications for China's financial system. As the non-state sectors expand, individual disposable incomes have increased rapidly from 45.2% of GNP in 1978 to 62.3% of GNP in 1991. A significant part of the income became private financial assets. In 1991, of the total private financial assets, 66.7% was current and savings deposits. Other items included cash (17.5%), government bonds (5%), other bonds (3%), foreign exchange (3%), gold (3.3%), stocks (0.82%), and insurance (0.59%). Savings deposits owned by private individuals are very sensitive to inflation and interest rates and may put pressure on the stability of China's financial system. But, more fundamentally, allocating these private savings deposits more efficiently among competing investment projects will be the key for both rapid growth and macroeconomic stability in China. The key is not to lock "the tiger," -- the household savings deposits -- in the state banks, but to guide it into proper places.

7. Policy Loans

Policy loans are usually based more on government policies and less on profitability and risk. They may not be as efficient as commercial loans because of heavy intervention by the government. However, policy-directed lending as developed in China is a much better arrangement than the budgetary allocation of all financial resources under the planning system. The rise of the more market-oriented non-state economic sectors has reduced the importance of policy-directed lending in China's overall economic growth and development. Policy-directed lending has evolved into a vehicle for financing a few shrinking or stagnant state sectors and for supporting price controls in farm and export-import products.

Policy loans certainly contributed to a gradual and orderly transformation of the Chinese economy. In particular, policy-directed lending played an important role in cross-subsidizing key state-supported investment projects and price control schemes in farm and export-import products. However, the growth and productivity performance of the state-supported priority sectors were poor. Also, many policy loans were either diverted or turned into bad loans.

The implementation of policy-directed lending in China has been heavily influenced by underdeveloped private financial institutions, immature financial markets, rapid growth of market-oriented economic activities, and considerable decentralization of decision-making power from the central government to local governments and local financial institutions. Evidence shows that it was difficult and costly for the central

government to monitor closely the waste and diversion of financial resources in priority sectors.

Xiao and Xu (1993) found evidence supporting the following analysis about the impact of policy-directed lending on the Chinese economy.

First, policy-directed lending has been closely associated with excessive credit expansion during the reform period. Priority loans have become one of the major channels for expansion of central bank credit, which then generates excessive credit expansion in the economy. In recent years, about one third of total bank credit was allocated for policy lending and most of the policy lending was financed by central bank credit, which amounted to about one third of total bank credit.

Second, policy-directed lending in China had a very significant indirect impact on non-priority sectors through excessive credit expansion and distorted implementation of policy loans. For example, the rural Township and Village Enterprises (TVEs) have never been a priority sector and have received very few subsidized loans. However, TVEs have been expanding very rapidly through both self-finance and heavy borrowing from the banking system. Against the will of the central government, funds have been flowing to the TVE sector through various channels. The ratio of loans to TVEs over total state bank loans increased from 2.2% in 1979 to 6.1% in 1984, and to 8.5% in 1991. These loans to TVEs reflected only the legitimate flow of funds into one of the most dynamic non-state sectors. Some of the questionable flow of funds into TVEs are reflected in their rising share of fixed and working capital. The working capital in TVEs was only 4.3% of that in the state-owned enterprises in 1979. The ratio increased to 10.2% in 1984 and 27.5% in 1990. The ratio of fixed capital between TVEs and SOEs increased from 5.7% in 1979 to 7.8% in 1984, and to 14.3% in 1990.

Third, the rapid growth of non-priority sectors such as TVEs increased the supply of goods and services, and reduced the inflationary pressure rooted in the credit expansion. However, the overly loose credit control led to an artificially low and negative real interest rate. The distorted low interest rate encouraged many "irrational" capital investment by both the state (priority) and TVE (non-priority) sectors. As a result, the capital efficiency of both sectors decreased rapidly. The ratio of profits and taxes over total assets decreased from 24.0% during 1978-1983 to 19.1% during 1985-1991 for the state-owned enterprises and fell from 30.6% during 1978-1983 to 19.2% during 1985-1991 for the TVEs.

II. A Theory of Inflation and Growth in China

1. Basic System of Money, Banking, and Production

(1) Money Supply

$$M = B + D = k \cdot B;$$

M: money;

D: deposits in commercial banks;

k: money multiplier;

B: base money;

(2) Base Money

$$B = D_f + D_g + D_p + R_r + R_e + M_0;$$

D_f : fiscal deposits;

D_g : deposit by government units;

D_p : postal deposit;

R_r : required reserves;

R_e : extra reserves;

M_0 : currency;

(3) Balance Sheet of the Central Bank

$$B + D_f + K_1 = X + F + C + B_{T1};$$

D_f : foreign debt in the central bank account;

K_1 : capital and profit of the central bank;

X: foreign exchange reserves;

F: central bank lending to the fiscal budget;

C: central bank lending to commercial banks;

B_{T1} : government bonds bought by the central bank;

(4) Balance Sheet of Commercial Banks

$$D + C + K_2 = L_c + L_p + B_{T2} + B_p;$$

K_2 : capital and profits of commercial banks;

L_c : commercial loans;

L_p : policy loans;

B_{T2} : government bonds bought by commercial banks;

B_p : policy bank bonds bought by commercial banks;

(5) Demand for Money

$$M \cdot V = Y = Y^s + Y^n = P \cdot y = P \cdot (y^s + y^n);$$

V: velocity of money;
P: domestic price level;
Y: total nominal output;
 Y^s : nominal output of the state sector;
 Y^n : nominal output of the non-state sector;
y: total real output;
 y^s : real output of the state sector;
 y^n : real output of the non-state sector;

(6) Credit Allocation

$L^s = L_p + (1-\beta) \cdot L_c$;
 $L^n = \beta \cdot L_c$;
 L^s : loans to the state sector;
 L^n : loans to the non-state sector;
 β : non-state sector share of commercial loans;

(7) Production Function

$Y^s = f(L^s) = L^s$;
 $Y^n = (1+\delta) \cdot f(L^n) = (1+\delta) \cdot L^n$;
 δ : productivity gap between the state and non-state sectors;

(8) Real Output Constraint

$y^s \leq y^s_{\max}$;
 $y^n \leq y^n_{\max}$;
 y^s_{\max} : maximum real output of the state sector;
 y^n_{\max} : maximum real output of the non-state sector;

2. Key and Simplifying Assumptions

1) Interest Rates and Credit Plan

In this model, interest rates are not explicit in determining the total money supply and demand and their structure. This approach is based on the empirical observation that interest rates in China play only a limited role in stabilizing household deposits and in allocating loans within the non-state sector.

Also, the credit plan (loan quota) is not explicitly modeled here. The implicit assumption is that the quota is not binding during a credit expansion.

2) Productivity Gap

The productivity of the non-state sector exceeds that of the state sector by $\delta > 0$. This is based on a large body of recent empirical research on comparative productivity of the Chinese industry (Xiao 1991, 1992, and 1994; Singh, Ratha, and Xiao 1994).

3) Policy Lending and Central Bank Lending

According to Xiao and Xu (1993), most policy loans are funded by central bank credit. Also, the size of central bank lending to commercial banks is roughly equal to that of policy loans (e.g. $L_p = C$) and is about 40% of the total loans in the state banks.

However, the sources of funding for the newly established policy banks will be the central government budget and policy bank bonds sold to banks and financial institutions.

4) Credit Allocation

The non-state sector share of commercial loans (β) summarizes the effects of the government policies as well as the behavior and function of the existing financial institutions and markets. The profit incentives of the Urban and Rural Credit Cooperatives as well as the state banks after reform have helped to increase β . The active inter-bank market has also smoothed the flow of funds from the state sector to the non-state sector. However, an austerity program will usually decrease β because of strict implementation of credit planning and the government's preferential policy towards the state sector.

5) Real Output Constraints

The physical and institutional constraints on real output expansion for the state and non-state sectors can be grouped into the following categories:

Case (a): $y^s = y^s_{\max}$ and $y^n = y^n_{\max}$. This case assumes full capacity in both the state and non-state sectors (an overheated economy).

Case (b): $y^s < y^s_{\max}$ and $y^n < y^n_{\max}$. This case assumes surplus capacity in both the state and non-state sectors (after a deep recession).

Case (c): $y^s = y^s_{\max}$ and $y^n < y^n_{\max}$. This case assumes full capacity in the state sector and surplus capacity in the non-state sector (probably normal for the transitional Chinese economy).

Case (d): $y^s < y^s_{\max}$ and $y^n = y^n_{\max}$; This case assumes surplus capacity in the state sector and full capacity in the non-state

sector (not very likely for the transitional Chinese economy).

6) Central Bank Lending as the Main Monetary Instrument

In addition to central bank lending (C), the monetary system outlined in the above model has many other potential instruments for monetary control and credit allocation as reflected by the other variables in both the central bank balance sheet (D_I , K_1 , X , F , and B_{T1}) and the commercial banks balance sheet (K_2 , B_{T2} , and B_p). However, under the current Chinese banking system, central bank lending together with the credit plan is the most important monetary instrument.

In 1992, central bank lending (C) was 73.9% of its total assets; central government fiscal borrowing (F) was 12.2%; foreign exchange reserves and gold (X) was 11%. The central bank in China has not yet started using open market operations (buy and sell government bonds) to control money supply (e.g. $B_{T1}=0$). On the liability side, central bank borrowing from international financial organizations (D_I) was 2.1% of the total liabilities; net capital and profit only 0.03% (capital cancelled out by large negative profit and assets). Therefore, most of the central bank liability was base money (13.8% in fiscal, government unit, and postal deposits; 23% in required reserves; 16% in extra reserves; 45% in currency).

Borrowing from the central bank is an important source of funding for the state-owned commercial banks. In 1992, central bank borrowing was 24% of the total liabilities for the Agricultural Bank of China (ABC) and 16.7% for the Industrial and Commercial Bank of China (ICBC). The ABC and ICBC's net capital and profits were respectively 3.4% and 4.9% of their total liabilities. ABC and ICBC spent respectively 1% and 1.3% of their total assets in buying government bonds (B_{T2}). Starting in 1994, the state commercial banks may need to buy bonds issued by the newly-established policy banks (B_p).

Based on the above patterns of the central bank and commercial bank's balance sheet, for simplicity, I will assume zero values for the less important variables (e.g. D_I , K_1 , X , F , B_{T1} and K_2 , B_{T2} , B_p) in deriving the following inflation and growth results. However, these variables and the equation containing them provide a useful framework for later discussions on the 1994 financial reform package.

3. Theoretical Results on Inflation and Growth

Using the above simplifying assumptions, the domestic price level (P) and output for the state and non-state sectors (y^s and y^n) can be solved from the model as functions of central bank lending (or policy loans, $C=L_p$), the non-state sector share of total commercial loans (β), the non-state sector

productivity premier (δ), the money multiplier k , and the velocity of money (V), respectively, for the four possible cases of real output constraints. The money multiplier (k) will change with the required and extra reserve ratios currently set by the central bank as well as currency and central bank deposit ratios, which the central bank may not control completely. The velocity of money is also changing under constant reform of the financial system. However, in order to focus attention on the important policy variables we are interested in, k and V will be assumed constant in the following discussion. A rigorous and detailed test of the simple theory proposed cannot be carried out here. In addition to the general discussion in the previous section of this paper, I will also refer to Xiao and Xu (1993) and Xiao and Gao (1994) for more detailed empirical support to the theory. I would emphasize that this simple theory of inflation and growth for the Chinese economy is abstracted from our empirical research on both the micro- and macroeconomic aspects of the Chinese economy. It is my opinion that the following results from the simple model provide us with solid grounds for discussing the current Chinese financial system and its reform.

Case (a) Assumption: $y^s = y^s_{\max}$ and $y^n = y^n_{\max}$;
 Results: $P = k \cdot V \cdot C / (y^s_{\max} + y^n_{\max})$;
 $\ln P = \ln C$;

In this case, the expansion of central bank lending (or policy loans) generates only inflation but no growth since the economy has arrived at its full capacity. This fits an overheated economy. Many government and the World Bank economists would regard the Chinese economy in 1993 with the real growth of GDP at 13.4% and the retail price inflation at 13% as a pretty good fit for case (a). I disagree. In 1993, China not only saw an increasing trend of both urban and especially rural unemployment, as reflected in the huge flood of rural labor seeking jobs in the coastal regions, but also had the realized value of foreign direct investment up 91.5%. The rise of steel prices brought a rapid increase in steel imports. Shortages of energy and transportation prompted foreign investors' interest in building roads and power plants. Hence, it seems to me that in 1993 China not only had enough physical resources, but also the institutional facilities, which were necessary for the private, collective, and foreign joint-venture sectors to invest productively, and to support double digit real growth with low inflation.

Case (b) Assumption: $y^s < y^s_{\max}$ and $y^n < y^n_{\max}$;
 Results: $\ln P = 0$;

$$\begin{aligned}
Y^s &= [1+(1-\beta)\cdot(k-1)]\cdot C; \\
Y^n &= (1+\delta)\cdot\beta\cdot(k-1)\cdot C; \\
Y &= \beta\cdot\delta\cdot k\cdot(k-1)\cdot C; \\
\ln Y &= \ln\beta + \ln\delta + \ln C;
\end{aligned}$$

In this case, there is surplus capacity in both the state and non-state sectors. This seems to fit the Chinese economy right after a recession such as during 1989-91. With no inflation, real growth of the economy can be generated by expansion of central bank lending ($\ln C$), productivity gains in the non-state sector ($\ln\delta$), and increased availability of commercial credit to the non-state sector ($\ln\beta$).

Among the four alternative cases of the model, only this case allows the expansion of policy loans, central bank lending, or the money supply ($M/k=C=L_c$ given the model's simplifying assumption) to generate real growth. This gives some theoretical rationale for the expansionary monetary policy that China adopted after the latest recession in 1989-1991 to restart the economy. In the other three cases, policy loans only generate inflation and not any real growth.

Previous experiences suggest that after a deep recession, in addition to credit expansion, the government is likely to relax control and restriction on the non-state sector usually imposed during the previous 'overheating' period. As a result, productivity in the non-state sector (δ) and its share of financial resources (β) may rise, generating real growth during the recovery.

It seems plausible that surplus capacity may exist in both the state and non-state sectors after a recession. However, the surplus capacity in the state sector may not easily be transformed into real output without fundamental reform of the state-owned enterprises. Hence, the assumption of case (b) may not fit the Chinese economy very long before it enters a regime described by case (c).

Case (c) Assumption: $y^s = y^s_{\max}$ and $y^n < y^n_{\max}$;

Results:

$$\begin{aligned}
P &= [k\cdot V - (1+\delta)\cdot\beta\cdot(k-1)]\cdot C / y^s_{\max}; \\
\ln P &= \ln[k\cdot V - (1+\delta)\cdot\beta\cdot(k-1)] + \ln C; \\
y^n &= (1+\delta)\cdot\beta\cdot(k-1) / [k\cdot V - (1+\delta)\cdot\beta\cdot(k-1)]\cdot y^s_{\max}; \\
\ln y^n &= \ln\{(1+\delta)\cdot\beta\cdot(k-1) / [k\cdot V - (1+\delta)\cdot\beta\cdot(k-1)]\};
\end{aligned}$$

In this case, the state sector is producing below its full capacity. This may have more to do with a lack of effective governance than a lack of land, labor or capital in the state sector. The non-state sector has surplus capacity

because of China's huge underutilized labor pool and other resources, as well as its better incentives and enterprise governance.

In this case, the theory suggests that an expansion of policy loans or central bank lending will generate inflation. However, the productivity gain in the non-state sector and its increasing access to commercial credit will generate real output growth and reduce inflation. It should be emphasized that the theory clearly separates the root of inflation and the sources of real growth. While the increase of the non-state sector's productivity (δ) and its access to credit (β) generates real growth, it does not put any pressure on inflation and indeed reduces inflation. On the other hand, the rise of policy loans or central bank lending ($C=L_p$) only generates inflation and does not affect, positively or negatively, the real growth of the non-state sector. Theoretically, monetary policy has no direct effects on real output. But in reality, changes in monetary policy (C) in China have been closely related to shifts in δ and β . The government's control of and restrictions on the non-state sector have been loose during credit expansion, and tight during credit contraction. Hence, an economic boom will usually benefit the non-state sector while an economic bust will hurt it. Moreover, the theory predicts that a policy of supporting the state sector through policy loans and restricting the non-state sector by reducing δ and β may lead to stagflation. Unfortunately, the above policy seems to have been adopted in the recent macroeconomic adjustment program to the Chinese economy, fitting the assumptions of case (c) described here.

In 1993, China's real GDP grew 13.4%, while retail prices increased 13%. Concerned about economic overheating, the government introduced an austerity program in July. Tight credit policy led to severe shortages of operational funds in the state-owned enterprises. The number of official loss-making state-owned enterprises increased from one third to one half in less than half a year. Before the end of 1993, in order to help the state sector, the government selectively relaxed credit to it. According to the latest official statistics, in the first quarter of 1994, industrial value-added output grew 2.2% in the state sector, 32% in the collective sector, and 79% in the private and foreign invested sector, while the national retail price index jumped 20% over the same period in 1993. The Chinese economy at present, with a stagnant state sector, a high level of policy loans, a high inflation rate, and a high real growth rate for the non-state sector, seems to fit very well with the theory. So far, the government's control of and restrictions on the non-state sector have not yet been effective. However, if they do become effective in the near future, China may see stagflation (see Xiao and Gao, 1994, for a detailed review of the Chinese economy in 1993).

Case (d) Assumption: $y^s < y^s_{\max}$ and $y^n = y^n_{\max}$;

Results: $P = [k \cdot (V-1) + \beta \cdot (k-1)] \cdot C / y^n_{max}$;
 $\ln P = \ln[k \cdot (V-1) + \beta \cdot (k-1)] + \ln C$;
 $y^s = [1 + (1-\beta) \cdot (k-1)] / [k \cdot (V-1) + \beta \cdot (k-1)] \cdot y^n_{max}$;
 $\ln y^s = \ln\{[1 + (1-\beta) \cdot (k-1)] / [k \cdot (V-1) + \beta \cdot (k-1)]\}$;

This case assumes that the non-state sector is overheated while there is usable surplus capacity in the state sector. Some economists in the West, at the World Bank, and especially in the Chinese government seem to have subscribed to this assumption for the Chinese economy. Given these assumptions, the theory predicts that inflation may be caused by policy loans (or the central bank), as well as increasing diversion of credit away from the state sector to the non-state sector. The diversion of credit away from the state sector is also to blame for the slow growth in real output.

The above explanation of the Chinese economy given by the theory proposed here is very similar to that given by some government economists and foreign experts. They emphasize that local investment expansion and diversion of funds away from the bottleneck sectors, such as energy, transport, and materials, which are usually monopolized by the state sector, have caused inflation. They also point out that the slow growth of the state sector compared to the non-state sector is caused mainly by competition from the non-state sector. The only problem with these totally logic explanations is that their assumptions are unconvincing. How could the non-state sector that supposedly exhausted its capacity have continued to grow at 32% for collectives and 79% for private and foreign invested enterprises, while the state sector that is supposed to have usable surplus capacity grew only 2.2%?

III. China's 1994 Financial Reform Package

China has sustained on average about 10% annual real growth in GDP since the start of Deng Xiaoping's reforms in 1978. This respectable achievement has been supported by an outdated but rapidly changing financial sector. In 1993, concern about overheating of the economy led Chinese scholars, foreign experts, and government officials to conclude that financial reform had to speed up so that a new system of macroeconomic management could be established to guide an emerging socialist market economy (see Harrold, Hwa, and Lou 1993). Under the leadership of Zhu Rongji, the Vice Premier and the newly appointed Governor of the People's Bank of China (the central bank), a new comprehensive agenda for fiscal, financial, and enterprise reform was proposed and announced in late 1993.

The new financial reform package has been scheduled for implementation in 1994. The package contains the following key elements: (1) to strengthen the central bank independence; (2) to establish new policy banks; (3) to transform existing state banks into state-owned commercial banks; and (4) to unify foreign exchange rates. This package is called by some scholars as a 'mini-bang' approach. The financial reform plan has benefited not only from the experiences accumulated by a younger generation of Chinese policymakers during the past 15 years, but also from the extensive studies on the recent Chinese economy by the World Bank and other Western researchers. Hence, in general, the 1994 financial reform package, if implemented properly, should push China's financial sector a large step forward towards the international standard. Here, I will not repeat many useful points proposed in the package (see Harrold, Hwa, and Lou 1993 for a detailed discussion). Indeed, there are so many aspects of China's financial system that need urgent improvement because of its backwardness. Instead, I will discuss some potential problems with the new financial reforms, taking advantage of the theoretical and empirical discussions about China's financial system in the previous sections. My critical assessment about the new reform package is prompted by two simple questions: First, how could China's outdated financial system have supported the fantastic growth of the Chinese economy during the past 15 years? Second, what is the root of China's macroeconomic instability?

1. Strengthening the Central Bank

The new policy of strengthening the central bank has two key elements: first, it is suggested that the central bank's main responsibilities should be reduced from both macroeconomic stability and economic growth to only the former. Second, it is proposed that the authorities on monetary control (e.g. allocation of central bank credit) should be centralized at the headquarters or a few regional branches, instead of being delegated to thousands of local branches of the People's Bank of China, which are prone to local government pressures to expand credit. These are clearly necessary changes to make China's central bank more like a true central bank. The problem is how to separate the central bank's monetary control from its support for policy loans when the main instrument for monetary control is central bank lending and the central bank lending is largely driven by policy loans. Another problem is how to take away the rents derived from the control of central bank credit by the local branches of the central bank and the local governments. In 1992, the People's Bank of China had 30 provincial branches, 14 branches for special cities with economic plans separate from their provinces, 148 district branches, 167 city branches, and 2065 county branches. Only recently have the county branches been

excluded from allocating central bank credit to other state banks under their jurisdiction. The idea of reorganizing China's central bank into a system similar to the U.S. Federal Reserve Banks based on economic region instead of administrative boundary has been resisted fiercely by the local central bank branches and local governments. As long as policy loans are tied to central bank lending, this resistance will be difficult to eliminate.

On the other hand, the decentralized central bank system may have helped shift financial resources from the less efficient state sector to the more efficient non-state sector. The local central bank branches are also managed through a responsibility system similar to that of other state banks. Therefore, these local branches have strong profit incentives. Their access to local information allows them to allocate central bank credit more productively. In terms of the model in the last section, a decentralized system tends to push for high central bank credit (high C) but it may also increase the flow of credit to the more productive non-state sector (β).

2. Establishing New Policy Banks

Chinese policymakers have apparently recognized the problem of policy loans. There is a rather strong consensus among Chinese scholars, foreign experts, and government officials on the necessity of establishing a few policy banks so that the other state banks can be transformed into commercial banks. Two of the three planned policy banks have been in operation since the financial reform plan was announced late last year. They are the State Development Bank and the Import and Export Bank of China. The third will be established soon, and it will be responsible for policy loans in the agricultural sector. In China, few economists have voiced criticism on the establishment of policy banks. Expectations for positive contributions by the new policy banks to financial reform in China are high.

However, according to the model in the last section, the new policy banks may add inflationary pressures to the current Chinese economic system and slow real growth. There are roughly three sources of funds for the policy banks: the state treasury, policy bonds, and deposits. With a worsening government deficit situation, funds from the state treasury for policy banks are equivalent to central bank lending for policy loans in the model. Household deposits are expensive sources of funds for policy banks because of low interest rates charged to their loans. Hence, the major sources of funding for the policy banks will be policy loans bought by the other state banks. According to reports by Agency France Press and United Press International on April 25, 1994, the State Development Bank has planned to supply 80 billion yuan in low-interest loans for infrastructure construction in 1994. The SDB will issue 65 billion yuan in bonds by the

end of 1994. The state treasury has pledged 50 billion yuan in funding over the next four years. So far there is no evidence that the previous policy loans or central bank lending have been reduced since the new policy banks were established in early 1994. In the model, the new policy banks imply adding a positive item for policy bonds ($B_p > 0$) on the right side of the combined balance sheet of all commercial banks, as well as adding an item of the same size as B_p on the state sector credit equation for loans extended by the new policy banks. Assuming the real output constraint is case (c). The price level and real output derived from the model are:

Case (c) Assumption: $y^s = y^s_{\max}$ and $y^n < y^n_{\max}$; $B_p > 0$;

Results:

$$P = \{[k \cdot V - (1 + \delta) \cdot \beta \cdot (k - 1)] \cdot C + (1 + \delta) \cdot \beta \cdot B_p\} / y^s_{\max};$$

$$y^n = (1 + \delta) \cdot \beta \cdot [(k - 1) \cdot B_p / C] \cdot y^s_{\max} / [k \cdot V - (1 + \delta) \cdot \beta \cdot (k - 1) + (1 + \delta) \cdot \beta \cdot B_p / C];$$

Comparing the above equations with those in the last section (differences emphasized in bold characters), the theory predicts that inflation (P) will rise and real growth will fall as policy bonds B_p increase, assuming that the issue of policy bank bonds has not reduced central bank lending for policy loans. Intuitively, the policy bank bonds crowd out credit to the non-state sector. As a result, the real output in the non-state sector and the total real output fall. Given the money supply set by the central bank lending, the price level rises.

To reduce inflationary pressures generated by the policy banks, an increase in policy bank loans has to be accompanied by a decrease in the previous central bank lending for policy loans. However, the crowding-out effect of policy banks on the real output growth will still exist even if the policy banks do not add inflationary pressures. The crowding-out effects can only be reduced, but not eliminated, by the real output increase in the state sector after a deep recession, as shown by the following equations:

Case (b) Assumption: $y^s < y^s_{\max}$ and $y^n < y^n_{\max}$; $B_p > 0$;

Results: $\ln P = 0$;

$$Y^s = [1 + (1 - \beta) \cdot (k - 1)] \cdot C + \beta \cdot B_p;$$

$$Y^n = (1 + \delta) \cdot \beta \cdot (k - 1) \cdot C - (1 + \delta) \cdot \beta \cdot B_p;$$

$$Y = \beta \cdot \delta \cdot k \cdot (k - 1) \cdot C - \delta \cdot \beta \cdot B_p;$$

These dramatic results about the negative effects of policy banks on macroeconomic stability and economic growth are based on the crucial assumption that the state sector is hopelessly inefficient. Any measures that can actually improve the productivity of the state-owned enterprises can

weaken and even negate the above results. This shows why the success of financial reform depends on the fate of enterprise reform.

3. Transforming Existing State Banks into State-Owned Commercial Banks

The problem of policy loans is rooted in the poor performance of the state owned enterprises. The state-owned enterprises are the major borrowers of the state banks. Because of the huge amount of bad loans, commercialization of the state banks would imply writing off a significant part of their assets. According to the model, the effects of this writing off (decreasing K_2) on inflation and growth are similar to that of an increase of policy bonds:

Case (c) Assumption: $y^s = y^s_{max}$ and $y^n < y^n_{max}$; K_2 decreasing;

Results:

$$P = \{[k \cdot V - (1+\delta) \cdot \beta \cdot (k-1)] \cdot C - (1+\delta) \cdot \beta \cdot K_2\} / y^s_{max};$$

$$y^n = (1+\delta) \cdot \beta \cdot [(k-1) + K_2/C] \cdot y^s_{max} / [k \cdot V - (1+\delta) \cdot \beta \cdot (k-1) - (1+\delta) \cdot \beta \cdot K_2/C];$$

Intuitively, the write-off of commercial bank losses does not reduce money supply but reduces commercial loans available for productive activities. Hence, the real output of the non-state sector and the total real output decline. The price level rises given the money supply.

Case (b) Assumption: $y^s < y^s_{max}$ and $y^n < y^n_{max}$; K_2 decreasing;

Results: $\ln P = 0$;

$$Y^s = [1 + (1-\beta) \cdot (k-1)] \cdot C + (1-\beta) K_2;$$

$$Y^n = (1+\delta) \cdot \beta \cdot (k-1) \cdot C + (1+\delta) \cdot \beta \cdot K_2;$$

$$Y = \beta \cdot \delta \cdot k \cdot (k-1) \cdot C + (1+\delta \cdot \beta) \cdot K_2;$$

In this case, inflation is assumed to be zero because of the surplus capacity in all sectors (for example, after a deep recession). The write-off of commercial bank losses decreases credit to both the state and non-state sectors and reduces real output.

The burden of loss-making state-owned enterprises creates difficulties in commercializing the state banks. However, the productive non-state sector gives the state banks good opportunities for commercialization. As the commercialized state banks extend more loans to the more productive non-state enterprises, β and δ may rise and generate real growth and reduce inflation.

Another way of understanding the commercialization of China's financial sector is to look at the structure of loans, deposits, and bonds and securities as shown in Table 1.

During the three years from 1990 to 1992, loans allocated by the state banks decreased from 85.6% to 81.9%. All of the other three non-bank financial institutions (RCCs, UCCs, and TICs) have increased their share of lending activities. This suggests that commercialization of China's financial sector can also be approached by transforming the RCCs, UCCs, and TICs into non-state commercial banks. As shown in Table 1, the RCCs and UCCs have deposits exceeding loans by a large margin because of the credit plan imposed on them by the government. If the central bank can effectively control money supply, elimination of the credit plan will allow RCCs and UCCs to grow much more rapidly and put competitive pressures on the state commercial banks. This approach to commercializing the state banks will ensure low inflation and high growth without dramatic shocks to the existing financial system. After all, the existing financial system, especially the rapidly growing non-state financial institutions, has supported the high growth of the Chinese economy over the past 15 years. The difficult task for reform is in distinguishing between the productive and non-productive institutions.

As shown in Table 1, although the volume of government bonds increased by about 50% from 1990 to 1991, its share in total bonds and securities decreased from 50.1% in 1990 to 38.6% in 1992. On the other hand, the share of enterprise bonds jumped from 11.1% to 24.3% and the share of stocks rose from 2.6% to 5.8%. Hence, the trend of direct investment also seems to be benefiting the non-state sector. Another trend, which is also useful for commercializing the financial sector, is the high and rising ratio of total deposits/total loans from 83.4% in 1990 to 93.1% in 1992. Enterprise and household deposits are much more mobile than loans across various banks and financial institutions. As individuals have more and more choices about the way they save and invest, the monopoly of the state banks will continue to be weakened.

4. Unification of Foreign Exchange Rates

On January 1, 1994, China unified its official exchange rate and the swap market rates into an 'official market rate' determined by an interbank market of foreign exchange, devaluing China's currency RMB by about 30%. Is this a step forward towards full convertibility of RMB? What will be the effects of the exchange rate unification on foreign trade and investment and on macroeconomic stability? The key to these questions is to understand the workings of China's previous foreign exchange control system. Foreign exchange control is closely related to money and banking issues and is one of the key components of the 1994 financial reform package. However, the topic is quite complicated and requires a separate paper for a detailed discussion (see Lardy 1992, Brahm 1993, Tsang 1994).

This section only points out some potential problems with the new foreign exchange system.

In the previous foreign exchange control system, RMB was not freely convertible. The official exchange rate was over-valued compared to the black market rates. However, during the past decade, China's foreign trade and investment achieved impressive growth (see Lardy 1992). This success has been based on a decentralized foreign exchange control mechanism. The government's general policy was to let the localities and enterprises balance the expansion of their own foreign exchange demand and supply. The core of the system consisted of foreign exchange retention and foreign exchange adjustment centers (swept markets). Enterprises and localities could keep a portion of their foreign exchange earnings from handing over to the government. They could use the retained foreign exchanges to buy imported products, materials, and services, or sell them through the foreign exchange adjustment centers set up in major cities to other enterprises that needed foreign exchanges. This decentralized foreign exchange control system has been improved over the last decade. Retention ratios have been gradually increased on average, and prices in the swept centers have been moving towards the black market rates. Some coastal cities have even tolerated the circulation of Hong Kong dollars. As a result, for many enterprises actively involved in the foreign trade and investment business, RMB has been quite convertible. Those enterprises that earn foreign exchange and use them to buy materials, products, and services have incurred little foreign exchange risks. This is probably one of the most important factors behind the boom of foreign trade and investment in China during recent years.

The new foreign exchange reform tries to replace the decentralized foreign exchange retention system with a centralized current account convertible system. In the new system, domestic enterprises have to sell all of their foreign exchange earnings to the state banks. They can buy foreign exchange from the state banks to pay for any legitimate imports or services. The new exchange rate will be determined by the last day's trading rate in a new interbank market that allows only a few state banks to participate. Apparently, the effects of the new system on foreign trade and investment will depend on how tightly the state banks control their sales of foreign exchange to domestic enterprises, and how closely the interbank rate is to the black market rates. The central government now has much more influence on foreign exchange control. If everything goes well, the government should be able to easily push the new system to full convertibility. However, if it makes mistakes, intentionally or not, RMB can become much less convertible and hurt foreign trade and investment. Under such a high-risk situation, the central government is anxious to accumulate enough foreign exchange reserves. However, as can be seen

from equation (3) of the model in the last section, increases in foreign exchange reserves (X) will generate inflationary pressures similar to an expansion in central bank lending. With double digit inflation, the pressure to devalue RMB will rise as can be seen from the following equation describing a weak version of the purchasing power parity exchange rate:

PPP Exchange Rate:

$$E_{PPP} = \pi \cdot P/P_F$$

$$\ln E_{PPP} = \ln P - \ln P_F;$$

E_{PPP} : weak Purchasing Power Parity exchange rate;

π : parameter for structural deviation from PPP;

P: domestic price level;

P_F : foreign price level;

The black market rates will follow the PPP exchange rate, which will rise if domestic inflation exceeds foreign inflation. Hence, stabilizing the new unified exchange rate depends heavily on curbing domestic inflation, as discussed in the previous sections.

However, several features of the previous system that have so far been left unchanged in the new system could help to reduce the risk of the central bank's mistakes. First, the foreign-invested enterprises can still trade foreign exchange on the swap markets, which have not yet been eliminated, contrary to the government's original intentions. Second, individuals can still have foreign exchange accounts in the state banks, and are not asked to sell their foreign exchange to the state banks. Third, individuals are still allowed to bring a maximum of RMB 6000 on each trip abroad. The last practice effectively legalized convertibility of RMB in Hong Kong. These practices would provide useful information about the true market price of RMB and help the government to set or influence the interbank rate of foreign exchanges.

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Table 1. Structure of Loans, Deposits, and Bonds and Securities in China 1990-1992

RMB 100 million or percentage	1990	1991	1992	1990	1991	1992
Total Loans	17,720	21,379	26,391	100.0%	100.0%	100.0%
All State Banks	15,167	18,044	21,615	85.6%	84.4%	81.9%
Rural Credit Cooperatives	1,413	1,808	2,454	8.0%	8.5%	9.3%
Urban Credit Cooperatives	249	316	487	1.4%	1.5%	1.8%
Trust & Investment Corporation	891	1,211	1,835	5.0%	5.7%	7.0%
Total Deposits/Total Loans				83.4%	88.8%	93.1%
Total Deposits	14,774	18,994	24,573	100.0%	100.0%	100.0%
All State Banks	11,645	14,864	18,891	78.8%	78.3%	76.9%
Rural Credit Cooperatives	2,145	2,709	3,478	14.5%	14.3%	14.2%
Urban Credit Cooperatives	310	448	822	2.1%	2.4%	3.3%
Trust and Investment Corporation	674	973	1,382	4.6%	5.1%	5.6%
Total Bonds and Securities/Total Loans				9.9%	10.2%	12.5%
Total Bonds and Securities	1,754	2,177	3,306	100.0%	100.0%	100.0%
Government Bonds	879	973	1,275	50.1%	44.7%	38.6%
Government Investment Bonds	149	245	278	8.5%	11.3%	8.4%
Bank Financial Bonds	90	123	134	5.1%	5.6%	4.1%
Enterprise Bonds	195	331	802	11.1%	15.2%	24.3%
Stocks	46	75	192	2.6%	3.4%	5.8%
Transferable Large Deposits	395	430	625	22.5%	19.8%	18.9%

Sources: Almanac of China's Finance and Banking 1993.