Part VI: Financial Reforms

China's Money and Banking in 1990s

By Geng Xiao

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INTRODUCTION

This paper draws directly from my previous research on China's money and banking in late 1980s and early 1990s (Xiao and Xu 1993, Xiao 1994b, Xiao and Gao 1994 and Xiao 1996). It focuses on three main issues: policy directed lending, inflation and growth, and foreign exchange regime. Although China's money and banking system is in a stage of transition after some major reforms in mid 1990s, the three issues discussed in this paper will still be major problems for the rest of 1990s. Based on basic economic theory, observed institutions and statistics, the paper attempts to explain the impact of policy directed lending, the sources of inflation and growth, and the working of China's foreign exchange regime. Due to space limitations, this paper omits theoretical models and statistical tables, which can be found in the original papers cited above for interested readers. The current version of the paper intends to facilitate discussion on the key issues in the development of China's money and banking system in 1990s.

INSTITUTIONS

It is useful to put the development of China's money and banking system into the context of its overall transition from plan to market. This section discusses some key changes in the institutions of China's money and banking system.

Transition from Budgetary to Bank Finance

Before 1979, China had a mono-bank system with the People's Bank of China (PBoC) 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 (SOEs) 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 risk and profitability of their 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 changed dramatically the allocation system for financial resources. The mono-bank system has been separated into a central bank, the People's Bank of China (PBoC), and four specialized state banks: (1) the Industrial and Commercial Bank of China (ICBC), which provides mainly short-term loans to urban industrial and commercial enterprises; (2) the Agricultural Bank of China (ABC), which 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; (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 Co-operatives (UCCs) and the Rural Credit Co-operatives (RCCs) are co-operative financial institutions which can be characterized as between banks and non-bank financial institutions. They channeled a significant amount of commercial loans to the rapidly growing urban collectives and rural Town and Village Enterprises (TVEs).

Together with rapid changes and expansions of financial institutions, control of financial resources has been dramatically decentralized. As a result, the central government has monopolized fewer and fewer 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 less than that during the six years before reform. This shows clearly the declining role of the budget in production and investment.

Since the budgetary funds are not required to be paid back while loans have to be returned to the bank for re-lending, the annual increase of state bank loans is the one comparable to the annual government budgetary funds for production and investment. The increase of state bank loans was 3.2 billion yuan in 1972, 18.7 in 1978, and 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 of state bank loans represent the annual injection of new 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, 57.5% of working capital expansion came from the budget. The share reduced 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 budget and 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. SOEs' share of the Gross Value of Industrial Output declined from 84.9% in 1972, to 77.6% in 1978, 54.6% in 1990 and 48.1% in 1992. The rapidly growing non-state enterprises, such as the urban collective enterprises and the rural Town and Village Enterprises, compete more and more intensely for financial

resources with the state enterprises of key sectors such as energy, transportation, communication, export-import, farm product procurement, etc.

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 plan is still the most important tool of controlling the total credit. However, credit plan 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 the 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 were specified through the centrally-co-ordinated comprehensive credit plan. The plan simultaneously determined 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 PBoC. Each branch was assigned a quota of the gap between deposits and loans. Some branches had quotas of positive gap, which meant that their deposits had to exceed their loans by a specified amount. Other branches had a negative gap. These quotas were planned to make sure the consolidated gap between total deposits and total loans would be fixed so that total credit was under control. Given the planned gap between deposits and loans, a branch could extend more loans if it had more deposits. Surplus funds of the branches with a quota of positive deposit-loan gap would be mobilized through the plan to meet the deficit at other branches with a quota of negative deposit-loan gap. Initially, the transfer of deposits between branches was administered through the Head Office of PBoC without any explicit borrowing or lending contracts. This was possible since the ownership of funds among PBoC 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 PBoC Head Office had to allocate funds to those branches with a quota of negative deposit-loan gap. However, branches with a quota of positive deposit-loan gap might not have enough surplus funds to deliver to the Head Office. Hence, the ex post consolidated actual gap between total deposits and total loans could be very different from the planned gap. Credit expansion could happen when some of the branches fail to meet their quota of delivering surplus deposits to the Head Office. Under this system, borrowing from the Head Office by the local branches was automatic as the Head Office could calculate "their borrowing" only after the ex post statistical report.

After PBoC became a central bank in 1984, ownership of funds was separated among PBoC and other specialized state banks and their local branches. Each branch of the specialized state banks has to deposit their required reserve and extra reserve at the PBoC. When they need funds from PBoC, each branch has to apply for loans from the PBoC. So, the PBoC can, in principle, control its total lending to other banks. Moreover, the PBoC can also decide the

reserve ratios and interest rates of its loan to other banks. Hence, theoretically, PBoC can control the total credit and money supply by controlling central bank lending to other banks, changing the reserve requirement, and adjusting interest rates of central bank lending. However, for many reasons discussed below, 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 planing (e.g. maximum quotas on total loans each bank can extend) to control the total credit and money supply. Theoretically, credit planing can easily limit the total amount of loans. In reality, it is not so simple. State banks with sufficient deposits will lend to the limit of their loan quota. They may deposit their surplus funds at the PBoC as extra reserve which is liquid and earns interest, or they can place their funds in the highly profitable interbank market to earn interest at market-determined rates. Other state banks with extra loan quota but insufficient 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, discussed below. The central bank will usually meet demands for policy lending resulting from government pressure. Central bank lending expands.

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

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

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

Incentives and Behavior of State-Owned Banks

Reform of the state bank management has followed the experiences of rural and industrial responsibility system. The core of various responsibility system is decentralization of management and profit retention. Reforms in the banking sector separated the state banks' ownership of assets and liabilities from the central bank account, specified costs ratios and profit retention schemes, 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% may be used for business development and the other 40% for bonuses and employee welfare. The profits after retention were then handed to the central government as either budgetary income (62%) or new funds to be allocated to the state banks (38%)[1]. These measures gave strong incentives for state bank branches to expand their business and 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 tradition of a planning system, they have to follow the government's industrial policies and credit plan and extend loans to risky and unprofitable projects. Also, the state banks largely monopolized the financial sectors. Except for the Urban and Rural Credit Co-operatives, and a few foreign bank branches, 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-financing than the state sector).

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 (TICs), the People's Insurance Company of China, Finance Companies, Financial Leasing Companies, Securities Companies, etc. In fact Urban Credit Co-operatives and Rural Credit Co-operatives are sometimes also regarded as non-bank financial institutions.

It is useful to note that most non-bank financial institutions have close ties with the state banks. Many of the TICs were initially sponsored by the state banks. RCCs and UCCs are usually linked administratively and financially with some state banks. On the other hand, the non-bank financial institutions are more sensitive to profitability, subject less to credit planning and other regulations, and possess more flexibility than the state banks. Since the

[1] see Sheng 1992, page 44

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. Moreover, it should be noted that both the state banks and non-bank financial institutions are not private institutions. The Urban and Rural Credit Co-operatives are collectively owned. Other non-bank financial institutions are generally sponsored by the central government or local governments. Therefore, most financial institutions are implicitly protected by the government from bankruptcy. As a result, they are concerned more with profits than risk management.

Non-bank financial institutions 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.

Financial Markets

The emerging financial markets in China included discount market for commercial bills, interbank market for short-term funds, foreign exchange swap market, 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 of production and investment through stocks and bonds is still insignificant compared to the bank financing.

These emerging financial market have been important in the allocation of funds among the banks and non-bank financial institutions. The interbank markets for short-term funds are particularly useful but also chaotic. Both banks and non-bank financial institutions can participate in the interbank markets. Unlike the other financial markets, where either the interest rate or the volume of financial assets are tightly controlled, both interest rates and volumes were negotiated in the interbank markets and at least approximate the market rates and volume 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 have surplus funds but can not increase loans because of the loan quota restriction. The banks can earn handsome interest from the interbank markets. Some non-bank financial institutions were not constrained by the credit plan and can afford high interest rates for funds since they can 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.

Savings, Investment and Macroeconomic Stability

The rapid expansion of financial institutions, markets, and assets has produced strong pressure on China's macroeconomic conditions. China experienced inflation of around 10% in 1985, 1988, and 1992. However, the inflation during these periods was low compared to around 30% growth rates for money and quasi-money (M2). Two factors were crucial in explaining the relative stability of China's macroeconomic conditions. First, over the past 15 years, the Chinese economy was increasingly 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 transaction. Second, during this period, high investment was backed up by high savings. Both investment and savings were at around 40% of GDP.

On the one hand, it should be noted that the savings have been increasingly coming from the rural and urban individuals (as opposed to the government), but that a very small proportion of financial assets are invested directed by these private individuals. This situation was possible because the government has monopoly on both savings deposits and investment. In 1993 about 70% of investment in fixed capital in China was in the state sector. The government also has tight control over direct private investment in stocks and enterprises bonds. The double monopoly on savings and investment allowed the state banks to control a majority of the society's financial resources. This large gap between private savings and private investment would not have serious problems 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 that state banks have done very successfully is the so called "financial deepening," which means increasing the ratio of total financial assets over GDP. The 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 for China's financial development. However, financial assets controlled by the inefficient state banks are difficult to compare with those managed by commercial banks in South Korea and U.S.

The change of ownership structure in the Chinese economy has profound implications for China's financial system. As the non-state sectors expands, individuals' disposable income has increased rapidly from 45.2% of GNP in 1978 to 62.3% of GNP in 1991. A significant part of that income becomes private financial assets. In 1991, of 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%. The 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 -- at the state banks, but to guide the tiger into the proper places.

POLICY-DIRECTED LENDING

This section discusses first the rationale for the government to establish various policy loans and the extent the policy loans served the stated purposes. Then, it points out several problems of policy-directed lending and analyses its impact on the Chinese economy. The impact of policy loans on excessive credit expansion and on the development of non-state sectors is emphasized. It concludes with a discussion on some implications for current financial reform and policy.

Stated Purposes of Policy Lending

In the previous section, policy directed loans in China are classified into four groups: fixed capital loans; working capital loans; loans for poverty reduction, agriculture, rural industry, science and technology; and loans for the key state-owned enterprises.

Fixed Capital Loans. Policy loans for investment in fixed capital include basic construction loans (and "loans for replacing budgetary grants") from the PCBC and technology improvement loans from the ICBC. Construction loans by the PCBC have been clearly directed toward basic industries and infrastructure. The technology loans by the ICBC started as an instrument to meet with serve shortage of textile and light industry products at the beginning of China's reform. Since then the ICBC has adjusted the orientation of these loans towards basic industries.

The reasons for supporting the basic industries and infrastructure development are quite obvious. First, these sectors have long been a bottle-neck for the Chinese economy. Slow growth in these sectors has hindered economic growth and development. Second, an important reason for supporting these sectors relates to the low and controlled product prices of these sectors. Artificially low prices in rail transportation, sea-shipping, iron and steel, coal, electrical power, and petroleum have benefited manufacturing and processing industries but rendered enterprises in these basic industries relatively unprofitable. Without subsidized priority loans, many state-owned enterprises in these basic industries would not survive. The low prices also failed to attract investment from non-government sources such as individual business, collective enterprises, foreign investors, and funds from financial markets. In 1990, only 51.9% of investment in these basic industries and infrastructure development came from the non-government sources. Third, investment in basic industries and infrastructure is characterized by long-term horizons and high risk. Banks with autonomy are reluctant to extend loans to these sectors. Therefore, it is imperative for government to require banks to grant priority loans to these industries.

Hence, these fixed capital policy loans for basic industries and infrastructure development have been crucial for the increase of services and products in the supported sectors. During 1986-1990, investment in these sectors have added capacity of 2561 kilometers in railroad lines, of 145.1 million ton in shipping, of 5.2 million ton in steel production, 126.9 million ton of coal mining, 46.3 million kW of power generation, 77.4 million tons of petroleum production, etc.

Working Capital Loans. These include procurement loans for farm products and for export and import products. They reflect the government's policy of supporting agriculture and foreign trade.

Before recent economic reforms, the government monopolized the trade of agricultural products. The farm collectives had to sell all surplus production to the state-owned agricultural product retail networks at government-controlled prices. Urban residents could only buy the rationed amount of agricultural products from those retail stores at fixed prices. Hence, both the procurement and retail sales of agricultural products were centrally controlled. Agriculture reform, on the one hand, abolished the collective farming; on the other hand, it relaxed the monopoly position of the government in farm products trade. After

the agriculture reform the farmers need only sell a pre-contracted amount of farm products to the state-owned retail networks at the controlled prices. The farmers may sell production in excess of the quota in the free markets at free market prices.

To enhance farmers' incentive to sell their products to the government and to maintain a stable supply of the products to urban residents, the government also raised the procurement prices over time. However, retail prices of agricultural products at the state-owned stores have not followed the rapid rise of procurement prices. As a result, these stores have to rely on direct subsidies from the government to cover their losses due to negative margins as well as use subsidized priority loans for their working capital. Apparently, agricultural procurement loans have been crucial in maintaining the farmers' incentive to produce and sell their products to the government. The stable supply and prices of agricultural products to the urban residents have been one of the most important factors for urban economic and political stability during the reform period.

The foreign trade system was highly centralized before 1978. Reforms in this sector have decentralized many decision making authorities to the local governments. But, the system has retained some basic features stemming from the old central planning system. In particular, producers of export products do not usually have the authority to sell on international markets. The right to sell to international markets is reserved for the state-owned import-export trade companies at the central or local levels. These trading companies buy export products from domestic producers with their yuan working capital and sell them at foreign markets for foreign exchange. About 98% of the yuan working capital in these trade companies are loans from the Bank of China. During 1978-1991, China's exports increased 10 times. Exports and imports together increased 13 times. BOC's loans to support export and import increased about 4 times. These loans are crucial for the rapid growth of export, especially for those exports mediated through the state-owned trade companies.

Loans for Poverty Reduction, Agriculture, Rural Industry, Science and Technology. The first three items consist of small and scattered loans for supporting the agricultural sector. In 1991, about 27.4 billion yuan of agriculture production loans were extended under 12 different programs either for poverty reduction or for the development of production and marketing bases of grain, cotton, and side-line products. The ABC's technology improvement loans to rural industry reflects the government's concern over the poor technology in the sector. The last item, loans for science and technology, has been initiated only recently. The total amount extended by the ICBC was only 10 billion. In summary, policy loans in this group certainly helped achieve the stated objectives but were too small in quantity to have great impact on the sectors concerned or the economy.

Loans for Key State-Owned Enterprises. These loans reflect ad hoc policy decisions akin to the central planning tradition. The lending only reveals the government's concern about these large state-owned enterprises or successful lobbying by these enterprises. The effectiveness of these loans are not easy to evaluate since they are only one of many central planning instruments used to deal with these large state-owned enterprises.

Effectiveness and Problems of Policy Lending

The rise of more market-oriented non-state economic sectors has reduced the importance of policy directed lending to China's overall economic growth and development. Policy

directed lending has evolved toward a vehicle of financing a few shrinking or stagnant state sectors and of supporting price control in agricultural and import-export products.

Policy-directed lending in China was less effective in achieving its economic objectives than in helping the government in diffusing the political crisis from not such extending policy loans. The growth and efficiency of priority sectors were poor. Many policy loans were either diverted or became bad loans.

The implementation of policy-directed lending in China has been deeply influenced by under-developed 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 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 the priority sectors.

Policy-directed loans in China have served many different economic policies of the government. They certainly contributed to the gradual and orderly transition of the Chinese economy from a rigid planing system to a more market-oriented economy. But, because of the transitional nature of the Chinese economy, there are many problems in policy directed lending at both the micro and macro levels. We will only raise a few of them in this paper. More detailed study would require much more in-depth case study and statistical analysis about the China's entire financial system, which are beyond the current paper.

The Boundary between Commercial and Policy-directed Loans

The distinction between commercial and policy loans in China are not clear due to the transitional nature of its financial system. The deeply rooted central planing tradition tends to push all the state banks' loans to the policy-directed lending category. All of state banks' lending has to follow the government's economic policies (including specific industrial policies and the loosely defined policies for economic reform, growth and development). On the other hand, the partially decentralized state-owned banking system has developed its own incentives to make profits as well as non-profit gains from its lending. The state banks are trying to behave like commercial banks even with all the constraints imposed by the old system. Moreover, the declining fiscal strength has led the central government to substitute policy loans for budgetary grants.

Many subsidized priority loans in China have been influenced by the problem of unclear boundary between commercial and policy lending. These include basic construction loans and technology improvement loans to ordinary processing industries, the working capital loans for supporting key large state owned enterprises, loans for clearing up "triangle debt," loans for supporting loss-making enterprises, and loans for poverty reduction. A majority of the processing industries have been exposed to market prices for their products and input materials. These industries have also expanded very rapidly following such price liberalization. Why should the banks grant subsidized priority loans to them? Priority loans to loss-making enterprises have kept them from bankruptcy but deteriorated bank assets. Substantial bank funds are taken up by stockpiles of these enterprises. Borrowers of poverty reduction loans have usually unable to pay back their loans and regarded these policy loans as de facto grants.

Autonomy of Banks in Implementation of Policy-directed Lending

The state banks have only limited autonomy in implementing policy directed lending. Three kinds of decision making process can be identified for the policy loans in China. The first is applied to loans for farm product procurement loans. The government only stipulates the orientation and quantity of these loans while banks can decide the detailed lending process. The second is used with basic construction and technology improvement loans for basic industries. The government not only defines the industrial orientation and the total volume of these loans, but also picks up specific loan projects. However, the government departments in charge of loan allocation do not bear any financial risk. The state banks can make some suggestions about the loan projects but can do little about it except passively assume the risks. The third kind of decision process is a direct extension of central planning. It applies to loans for the key state-owned enterprises. The government just directs a specific amount of funds to specific enterprises. Banks have no say during the entire process.

Interest Subsidies

All interest rates at the state banks are tightly controlled by the government. They are generally lower than would-be market rates and are adjusted infrequently upon policy changes. Interest subsidies to the policy directed loans are usually not a decisive factor for the borrowers. Under a generally low interest rate policy, the quotas for loans are much more valuable than the interest rate subsidies. But, for the state banks (the lenders), the interest rate subsidies directly affect the profitability of their lending. There are two ways to subsidize the interest rates of policy-directed loans. First, the banks offer preferential interest rate and relevant government departments give subsidy to the banks. Second, the banks charge the standard interest rate and the relevant government departments offer subsidies directly to borrowers. Both methods are used in China. However, for many loans, the banks have not been compensated fully for preferential interest rates they grant. Also, borrowers in different loan programs face very different interest subsidies.

Bad Loans and Loan Repayment Ratio

According to our discussions with bank officials, default and over-due policy loans are quite common. But, the problem is less serious in the banks' official accounts. Only a few loans for poverty reduction have reported serious problems of loan repayment. It is not unusual for borrowers to use new loans to pay back old loans. It is also common to use short-term working capital loans to finance long-term investment projects. Because of these problems, the Chinese state banks have not taken loan repayment ratios as very useful indicators of loan performance. Repayment ratios are generally lower for fixed capital loans than for working capital loans. The former are usually controlled more tightly by the government and more likely to fall under policy-directed lending. Among working capital loans, in 1990, the ratios are 82% for farm product procurement loans, 38% for subsidized poverty elimination loans, and 46% for yuan loans complements to foreign exchange loans. However, repayment ratios for loans extended by the RCCs are generally higher than similar loans the Agricultural Bank. Clearly, policy directed working capital loans have low repayment ratios. Moreover, the official repayment ratios may under-estimate the real repayment rates due to extension of new loans for paying back old loans. Hence, the data seem to suggest that policy loans perform worse than other loans.

Diversion of Policy Loans for Other Purposes

This is a serious problem for many policy loans, especially for the agricultural product procurement loans. During each year's harvest season, many farmers sell their products to the state-owned retail stores but only receive "IOUs" because loans to these state-owned retail stores for agricultural product procurement are diverted to other uses. Under the pressure from farmers, the government has increased funds for agricultural products procurement. The increases in funding have not solved the problem. The incentives to divert the funds from agricultural product procurement to other investment projects or even to consumption seem high and the monitoring of fund usage ineffective. Also, some of the loans for farm product procurement were not repaid because the state retail network did sell the agricultural products they bought with the policy loans. As a result, more loans become necessary to finance the same amount of procurement.

The Impact of Policy Lending on Credit Expansion and TVEs

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

Except for the ICBC, all of the specialized state banks have higher levels of policy loans than their borrowing from the central bank. Hence, the specialized state banks must rely both deposit funds and central bank loans to finance policy loans. But, the central bank loans to each of the four specialized banks exceeded one half of their policy loans. Therefore, central bank loans were crucial in financing more than half of the policy loans in China.

In an austerity program, the central government would usually like to cut or tighten loans for non priority sectors and protect priority sectors. On the other hand, the state specialized banks would have as much or more incentive to lend to the non-priority sectors as to the priority sector. Hence, the banks would usually use their own loanable funds for non-priority lending first and borrow extra funds from the central bank for priority lending.

However, as discussed above, the amount of loans the central bank grants to the specialized banks for use in policy lending are high powered credit, which will not only increase total credit to the priority sector but also to non-priority sectors through the multiplier effect. The final credit expansion may be more significant for the non-priority sectors than for the priority sectors.

The ratio of PBoC credit over total bank credit has been quite stable at around 30% level. Therefore, empirically, for every 30 yuan increase of central bank loan, total loans from China's banking system may increase by 100 yuan. Suppose the 30 yuan is ear-marketed for priority sector. Because of the diversion problem, the priority sector may only utilize 20 of the 30 yuan policy loan. Hence, at one extreme, 80 of the 100 yuan increase of the total loans may be used by the non-priority sectors. Since the 100 yuan total loan is derived from the original expansion of 30 yuan central bank credit for the purpose of policy lending, it

means that for every 30 yuan expansion of central bank credit on behalf of the priority sectors, the non-priority sectors may get an increase of 80 yuan non-priority loan.

It is possible that in addition to the 30 yuan priority loan funded by central bank, the priority sector may share part of the derived increase of 70 yuan in the total credit. Assuming the priority sector get 20 of the 70 yuan credit, which was created by the banking system through the multiplier effect, and also assuming no diversion of funds from the priority to non-priority sectors, the non-priority sectors can still get more than half of the total credit increase resulted from central bank credit expansion. In short, the non-priority sectors may benefit more from credit expansion.

The above analysis about the impact of policy lending on excessive credit expansion and on the non-state sector is consistent with the development pattern of the Town and Village Enterprises. The TVEs have never been put on the list of priority sector by the central government and have received very few subsidized loans. However, TVEs have been expanding very rapidly through both self-financing and heavy borrowing from the banking system. Against the will of the central government, funds have been flowing to the TVE sector.

The ratio of the loans to TVEs by RCC and ABC over the total state bank loans increased from 2.2% in 1979, to 6.1% in 1984 and 8.5% in 1991. The rapid expansion of TVE output was apparently supported by legitimate loans from the banking system . But, TVEs may also get funds through many legal or illegal channels other than legitimate loans from RCCs and the ABC. The use of various financial resources by TVEs is reflected in their fixed and working capital data. The ratio of total TVE fixed capital over total SOE fixed capital increased from 5.1% in 1978 to 7.8% in 1974 and 14.3% in 1990. The ratio of TVE working capital over SOE working capital increased from 3.3% in 1978 to 10.2% in 1984 and 27.5% in 1990.

One rough measure of actual use of total financial resources is the sum of working capital and the increase of fixed capital during the year. The ratio of TVE total fund use over SOE total fund use increased from 5.3% in 1979 to 11.2% in 1984 and 24.9% in 1990. The structural change of fund use by TVEs and SOEs is more dramatic than that of their output value. The ratio of TVE output value over SOE output value increased from 7.2% in 1979 to 13.0% in 1984 and 22.2% in 1990. Apparently, the TVEs have competed successfully in financial resources with the state-owned enterprises as well as in output markets.

The flow of financial and real resources into the TVE sector can also be seen from the growth statistics. The growth of total loans of the state banks was 15.2% during 1980-83 and 21.4% during 1985-90. The growth of TVE loans by RCCs and the ABC was 35.9% during 1980-83 and 27.6% during 1985-90. In both periods, financial resources grew faster in the TVE sector than the state sector. Physical resources in terms of fixed capital increases and working capital (total fund use) show a similar pattern. The growth of total found use by the SOE was 5.7% during 1980-83 and 14.9% during 1985-90. The growth of total fund use by the TVE was 14% in 1980-83 and 31.9% during 1985-90. The growth of TVE loans was almost as fast as that of policy loans during 1985-90 (27.5% versus 27.9%).

It should be noted that TVEs' increasing share in financial and real resources was not so obvious in the official statistics on investment. According to the Statistical Yearbook of China (1992), the share of investment in fixed capital for the state-owned sector did not have a declining trend. It fluctuated at around 66% of the total investment. However, these statistics may be biased since they did not include many TVEs at the village level or below. The official investment statistics also show that the major sources of funds for investment came from self-accumulated funds and domestic bank loans for both the state and collective sectors. For the state sector in 1991, sources were: 10.2% from the budget, 28.1% from the banks, 8.3% from foreign investment, and 43.1% from self-accumulated funds. For the collective sector: 0.3% came from the budget, 31.7% from the banks, 2% from the foreign investment, and 45.8% from self-accumulated funds.

The rapid growth of non-priority sectors such as TVEs increased supply of goods and services and reduced the inflationary pressure rooted in the credit expansion. However, overly loose credit control led to artificially low and even negative real interest rates. Distorted low interest rates encouraged many "irrational" capital investments by both the priority and non-priority sectors. As a result, the capital efficiency of both sectors decreased rapidly. The ratio of profit and tax over total assets decreased from 24.0% during 1978-83 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. The TVE sector started with much higher capital productivity than the state-owned sector but ended at the same level of capital productivity as that of the state-owned sector. TVEs were in the best position to take the advantage of abundant and cheap labor supply in rural China. It was a gross economic distortion that TVEs turned into a capital-intensive growth strategy. Of course, TVEs themselves had been very rational. They were merely responding to the negative real interest rates resulting from the highly regulated state banking system. Outside the state banking system, in the informal markets, real interest rates are positive and high. So, we also observed the boom of labor-intensive service and manufacturing business in China.

Implications for Financial Reform and Policy

Policy directed lending has been one of the most important sources of credit expansion in the partially reformed Chinese economy. The excessive credit expansion has put pressure on inflation. The rapid growth of non-state sector has expanded the volume of market exchange and absorbed substantial amount of transaction demand for money which tends to reduce inflation during the transitional period. The higher productivity and growth of the non-state sector also increased supply of goods and services and reduced inflationary pressures.

The government intends to protect the priority sectors through subsidized policy loans. But, under the partially reform Chinese banking system, the non-priority sectors have actually benefited more from the credit expansion aimed to help priority sectors. As a result, the non-priority sectors, such as the rural TVEs, have been able to expand rapidly through heavy borrowing while the heavily subsidized state-owned industrial enterprises continue to lose money and shrink relative to the non-state sectors. Low subsidized interest rates to the priority sectors and excessive credit expansion have led to low or even negative real interest rates in the non-priority sectors as well. These distorted interest rates have negative effects on productivity of the priority as well as non-priority sectors. Evidence seems to indicate that while rural TVEs have been able to compete with the state-owned enterprises and

expand their market shares, their productivity has been falling as they increase their capital intensity under distorted interest rates.

Policy directed lending has now become a crucial issue for China's macroeconomic stability, financial sector reform as well as general economic transition. It is closely related to a number of important economic problems: the survival of the loss-making large state-owned enterprises, the growth of non-state enterprises, the stability of farm product production and marketing, the stability of exchange rates, and the general price level.

According to the analysis in this paper, an austerity program will hurt the non-priority sector much more serious than the priority sector just as the previous credit expansion benefited the non-priority sector more than the priority sector. This is too bad in the short-run in terms of fighting inflation since the non-priority sectors are becoming the main sources of supply for many key goods and services.

One of the most significant contributions of an austerity program is probably the rise of real interest rates. The more market-oriented non-state enterprises may do better than the state-owned enterprises in dealing with such high real interest rates. It is doubtful whether the inefficient state sector could survive a rigorous austerity program with limited policy loans. Hence, the success of austerity program hinges on the reform of the state-owned enterprises and the state managed agricultural product procurement system. If major reforms in the two priority sectors fail, policy loans have to expand again.

Previous it was discussed and concluded that policy loans are the root of excessive credit expansion. It has also been emphasized that the non-state sector have unintentionally (sometimes illegally) "save" the Chinese economy from serious macroeconomic imbalances under excessive credit expansion. It was also noted that one of the most serious side effects of excessive credit expansion was negative real interest rates. We would also point to one of the most important factors in solving the problem of excessive credit expansion: finding stable and sizeable fiscal revenue for the central government.

Behind all of the support for the state sector, and hence the priority loans, is the deeply-rooted concern about the loss of the central government revenue from these state sectors. The central government urgently need a sizeable and stable revenue sources. Except for the state sector, it can think of none. However, the state sector has become more a burden than an asset for the central government. The non-state sectors and the booming real estate and stock markets have not yet brought direct revenue for the central government. One lesson from this paper for tax reform is that it is difficult and costly for the government to monitor closely the behavior of banks, enterprises, and the local governments. This applies to the implementation of both policy lending and taxation. Also, even if the central government has to give support to the state sectors for political stability, it would be more effective to use direct subsidies through the budget than the current primitive financial system. In particular, the use of central bank credit to finance policy lending has to be stopped.

INFLATION AND GROWTH

From our previous research on the recent Chinese economy, we tend to draw two important conclusions: first, the engine of China's recent economic growth has been the non-state enterprises: second, the failing state sector has been the root of China's macroeconomic instability. These two powerful underlying economic forces, which were unleashed by 15 years of market-oriented reforms, once again dictated the dramatic change of economic variables and government economic policies during 1993. In 1993 the state sector absorbed 70% of China's investment in fixed capital but produced only about 30% of GDP (valued added of all output). There may be important biases (over- or under-estimation) of the two statistics but it is doubtful that the statistical biases would change the basic conclusion that the state sector was grossly inefficient compared with the non-state sector in terms of output-investment ratio. The state sector growth was even more disappointing when compared with the non-state sector. In 1993, the growth of the value added of the state industry was less than one fourth that of collective industry, one sixth of that of rural collective industry, and one seventh of the foreign joint-venture enterprises. Hence, in 1993, as in the previous years, the engine of growth was the non-state enterprises. The rise of the non-state sector created the Chinese economic miracle and saved the Chinese economy from serious macroeconomic instability by providing steady and increasing supply of commodities and services.

Unfortunately, even with the favorable supply conditions provided by the non-state sector, China's central bank and the central government was not able to limit the expansion of the policy directed loans to loss-making state enterprises, to highly regulated energy, transport, and communication sectors, to state managed farm procurement system, and to corrupt state officials and their friends. Because of the unique feature of China's credit creation process the policy directed loans forced an explosion of central bank credit to the state banks. Inflation resulted. Real interest of state bank loans and deposits turned negative. Individuals rushed to banks and withdrew deposits to buy gold, foreign exchange, stocks, and durable goods. Firms, state-owned or non-state, also rushed to get loans to invest in stocks, real estates, and new development projects. Chaos emerged in the financial sector, especially in the inter-bank lending markets.

However, the chaos (or decentralization) also weakened the monopoly of state bank loans by the state sector. Increasingly, the non-state sector was able to get loans legally or illegally from the state banking system, thanks to the newly developed profit incentives by the state banks and the emerging inter-bank lending markets. These "diverted" loans facilitated rapid growth of the non-state sector. As a positive result, the rising share of non-state sector output filled the supply gap left by the shrinking share of state sector output and reduced some of the inflation pressure in the consumer goods market. On the other hand, the loose credit environment (negative real interest rates in the state banks) led to a rise in capital intensity and a decline in capital productivity in both the state and non-state enterprises. Hence, the Chinese enterprises, state or non-state, competed to take the advantage of "cheap" domestic capital while foreign investors rushed in for cheap labor in China.

For outsiders such as the World Bank, it was so clear that the Chinese economy was overheated in 1993. Nevertheless, insiders - such as economists, policy makers, and Chinese

government officials, debated fiercely on whether the economy was overheating or not. While the debate disappeared from the public after Zhu Rongji declared an emergency retrenchment program in July it resurfaced again in November before a new comprehensive reform plan was to be launched by the Third Plenary of the 14th CCP Congress. With inflation running into double digits and steel prices jumping above the world market prices, why didn't so many veteran economists and officials accept that the Chinese economy was overheating? Our conclusion is that they were concerned about the impact of harsh austerity program on the more dynamic and market oriented non-state sector of the Chinese economy. The non-state sector was to be hit the hardest by an effectively implemented austerity program.

However, as usual, the most effective cry for an end to the austerity program came from the protected state-owned enterprises. The state-owned enterprises were less able to bear the belt-tightening burden of retrenchment as reflected in the serious problems of their working capital shortage and triangle-debts in the second half of the year.

Most Chinese economists and officials have recognized that it is difficult if not impossible to bail out the profit-losing state-owned enterprises. Sooner or later, the government will have to rely on the non-state sector for tax revenue and economic prosperity. However, state ownership is still insisted officially. Privatization is still out of question as a matter of government policy (but not in unofficial practice) although commercialization is encouraged officially. The barrier to a complete free market system still lies in ideology and the entrenched interests.

These economic realities and economic thinkings are reflected in the new comprehensive reform plan, which is at the core of Zhu Wrong' reform policy. The driving force for tax and fiscal reform is to broaden tax bases for the central government so that it can share better the benefits of rapid economic growth. The objective of financial reform is to commercialize the state banks, standardize the central bank, leave "hot potatoes" (tough and unprofitable lending) to the policy banks, and unify the foreign exchange rates into government managed "market rates". The enterprise reform plan is to transform the state-owned enterprises into modern corporations with dominant state ownership.

Now, for the first time in history, China has produced a comprehensive reform blueprint and is about to implement it, thanks to the help of the World Bank, foreign experts, and newly emerging professional Chinese economists of Western or Chinese education. Will the comprehensive reform plan succeed? We will soon see the results. Our concern at the present is that the new reform measures announced so far seem overlooked what the engine of growth and the root of inflation are for the Chinese economy. In 1993, China had high inflation as well as respectable real growth. However, if the government's new policy threatens the healthy growth of the non-state sector, in the worst scenario, China's engine of growth could be shut down. Stagflation might result in the near future. However, we are cautiously optimistic about the future. As happened has over the past 15 years, government economic policies tend to change with China's economic reality. Hopefully, future economic events in China will reveal more and more clearly what the engine of growth and the root of inflation are and also what the good economic policies are.

FOREIGN EXCAHNGE REGIME

The Issue of Full Convertibility

In October 1993, after a brief visit to China and Hong Kong, Milton Friedman predicted that Hong Kong dollar, which has been linked to U.S. dollar at 7.8 HKS to the USS through a currency board system since 1982, will be replaced by the Chinese currency Renminbi in two years after 1997 when Hong Kong was handed back to China from Britain. On the other hand, in December 1995, Chinese government was planning to make Renminbi convertible at least for current account transactions in 1996 and fully convertible by the year 2000. Since Hong Kong dollar is certainly a fully convertible currency, China's plan to make Renminbi fully convertible could be seen as an attempt to close the difference between Renminbi and Hong Kong dollar, at least with regard to currency convertibility. Milton Friedman's prediction represents probably the most pessimistic view on the future of Hong Kong and in China's monetary system and is in sharp contrast with the Chinese government's optimistic plan.

If the Hong Kong dollar monetary system represents one of the most important institutions of capitalism in Hong Kong, then the current Renminbi monetary system could be seen as the foundation for the socialist market economy in China. The intervention to business by the government through monetary, fiscal, banking and other financial policies is minimized under a currency board system in Hong Kong while maximized under a central bank system with dominant state commercial banks and state-owned enterprises in China. The currency board system in Hong Kong works smoothly with a private property economy while the current Chinese central bank system is essential for a mixed economy with a dominant state ownership of property and heavily regulated markets.

Theoretically, it can be argued that the currency board system in Hong Kong is more competent than the Chinese central bank system in dealing with the problems of inflation, unemployment, growth and development in a mixed economy . But it is difficult to provide clear empirical support for or against the two monetary systems. Inflation in Hong Kong has been close to 10% for almost ten years. Unemployment in Hong Kong is rising now. Growth of GDP in Hong Kong is slower than that in China. Economic development in Hong Kong has been impressive but so has that in China. So what are the problems with the yuan and the Chinese monetary system? Why should we care about the issue of replacing Hong Kong dollar with the yuan or the yuan with the Hong Kong dollar? What is the fundamental purpose for making the yuan fully convertible? What is the best approach toward full convertibility of the yuan?

To answer the above questions, we have to consider the problems of the state-owned enterprises and state banks in China and the nature of its mixed socialist market economy. The core problems in a mixed economy can be summarized as a privatization of property rights and a socialization of property obligations under a dominant state ownership of enterprises and banks. More specifically, state-owned assets are in danger of dissipation through rent-seeking and corruption while state-owned liabilities are accumulated and centralized due to socialist concerns about unemployment and stability. As a result, the

public sector has more liabilities than assets. When public liabilities come due, the government has to print money or borrow to finance the imbalance of assets and liabilities. The central bank and state-owned commercial banks are not only essential in controlling the loss of state assets and accumulation of state liabilities but also indispensable in financing the gap between assets and liabilities in the state sector. It is the mismatch of assets and liabilities or the separation of property rights and property obligations that requires a reform of the Chinese monetary system as well as the ownership structure of the state-owned enterprises and banks. Making the yuan fully convertible is one important component in the broad transition from a centrally planned economy to a free market economy where assets and liabilities are properly matched and property rights and property obligations are inseparable.

Full convertibility of the yuan under a fixed or stable exchange rate requires a stable Renminbi monetary system which is basically free from the pressure of high inflation and the associated pressure for currency devaluation since capital flight would occur under a mixed condition of full currency convertibility at a fixed exchange rate and strong inflation and devaluation pressure. Chinese households are still keeping their yuan deposits in the state banks because they have no choices of converting the yuan at present fixed official rate into Hong Kong dollar or U.S. dollar and the state banks are paying a real interest rate as high as 12% for three year fixed deposits and government bonds even at the cost of systematic losses in the state banking sector. To eliminate inflation and devaluation pressure in China for a reasonably long period, it is necessary to achieve some reasonable success in the reform of the large state-owned enterprises and state banks so that they can balance their own accounts or match their own assets and liabilities without explicit or implicit subsidies from the banking system through bad loans and artificially low lending rate loans. China has still a long way to go in meeting that condition in spite of its most visible success in the marketization of the non-state sector and the development of coastal regions through joint-ventures with foreign investors. Inflation has been falling in recent months due to tight control on the total amount of loans in the state controlled banking system. However, the problems of inter-firm debts, non-performing loans and losses by state-owned enterprises are still as serious as before. In short, China does not seem to have the necessary conditions to make the yuan fully convertible under a fixed exchange rate now. Few would misread this reality. Instead, the debate is centered on what is the best approach toward full convertibility of the yuan at a variable but reasonably stable exchange rate in the near future.

The rest of this paper compares two approaches to full convertibility of the yuan: one could be called "one country, two currencies" with the second currency being Hong Kong dollar; the other could be named as "one country, one currency." What makes this comparison interesting and relevant is that the "one country, two currencies" approach was actually practiced quietly in China for its foreign trade and investment sector for about fifteen years before January 1994 when it was replaced with the "one country, one currency" approach by a dramatic reform in foreign exchange control system.

One Country, Two Currencies: The Quiet Practice during 1979-1993

As early as in 1979, when the State Administration of Foreign Exchange Control was established, foreign invested enterprises were allowed to open foreign exchange accounts. They could deposit their export foreign exchange earnings and use them to buy imports and to pay wages and dividends to foreigners. Those Chinese enterprises and work units which could earn foreign exchange were also allowed to keep portions of their foreign exchange in quota or in cash so that they can use it to buy imports or to sell the foreign exchange quota or cash at the swap centers. The enterprises and work units had to sell the rest of the foreign exchange earnings above their retention limits to the state banks at the over-valued official exchange rate. The retention rate was usually 25% for foreign trade enterprises, 30% to 40% for non-trade units, and 100% for military and other special units. In 1979, retained foreign exchange was only US$1 billion, about 5.4% of total foreign exchange earnings. By 1985, the foreign exchange retention had increased to US$9.36 billion, about 31.1% of the total earnings. During 1979-1985, total retained foreign exchange earnings by local governments, central ministries, and enterprises amounted to US$44.4 billion. During 1986-1993, both the retention rates and the total amount of retained foreign exchange increased dramatically though the exact amount can not easily be determined from published statistics. What we do know is that the transaction volume in the foreign exchange swap centers increased from US$4.2 billion in 1987 to US$25.1 billion in 1992. The gap between official and swap market rates also gradually converged from more than 60% in 1988 to less than 4% in 1991.

Also, beginning in 1980, individuals could keep 30% to 50% of their foreign exchange income and remittances from their relatives abroad in cash while selling the rest to the state banks. Since 1985, individuals could even open foreign exchange accounts in the state banks from which they could deposit and withdraw all of their foreign exchange in cash in accordance to certain regulations. Since 1993, each individual could also legally bring 6000 yuan across the border which led to a market for yuan for mainland Chinese visitors and local retail shops in Hong Kong.

Moreover, many firms in the services sector such as hotels, shops and restaurants were charging their customers Hong Kong dollars or US$ directly, especially in southern China. About one quarter of Hong Kong currency or about HK$14 billion was circulating in southern China before 1994.

Hence, during 1979-1994, Hong Kong dollars and US$ were used as a medium of exchange, a unit of account, and a store of value by the foreign trade and investment enterprises and some Chinese individuals, parallel with the Chinese yuan. China had adopted unconsciously both a central bank and a currency board for monetary transactions. Those producers, importer-exporters, and joint ventures which accumulate US$ from export and use US$ to import have little foreign exchange risk! They are using two monetary systems: the dollar and the yuan. The two systems are linked by more than 100 gradually developed regional dollar-yuan swap centers used by thousands of end users of dollars and yuan. Under this system, the yuan is clearly not fully convertible at the fixed official exchange rate but is fully convertible at the variable swap center rates for those who could participate in the swap markets. For some enterprises participating in foreign trade and investment, they just use dollar as a medium of exchange, a unit of account, and a store of value and have little

exchange risk. For others that only export or only import, their exchange risk is defined by the imperfect but active and rapidly expanding dollar-yuan swap markets. Foreign investors and domestic enterprises complained about the imperfection of the swap markets but participated voluntarily the swap transactions. Foreign trade and investment in China grew at unprecedented rates from 1991 to 1994.

The foreign exchange retention and swap market system effectively created a dual-currency system or "one country, two currencies": yuan for domestic trade and production and dollar for foreign trade and investment. The two currencies are linked by decentralized and voluntary swap markets. The dual-currency system has incentive compatibility. The dollar and the quotas for dollars are held in the accounts of the individual firms. They could decide whether, when and how much forex to buy and sell in spite of various transaction costs. The system of one country-two currencies would work particularly well with a Chinese-Hong Kong joint-venture. The venture would do all domestic business in yuan and all international business in dollars. It would keep two accounts and convert yuan to dollar or dollar to yuan at the swap centers.

However, the dual-currency system has several problems. The multiple exchange rates between yuan and dollars due to fragmented swap markets and the existence of a fixed official exchange rate created opportunities for speculation and corruption. Another drawback often pointed out by government officials is the volatility of the swap market exchange rates. The most important concern by the government however is the fear of not able to control and regulate the use of dollar as a medium of exchange and a store of value and the problem of capital flight. According to China's balance of payment in 1992, capital inflow was 30.2 billion dollar while capital outflow was 30.5 billion. But there was an error term equivalent to 8.4 billion capital outflow. Hence, in 1992, when China had an unprecedented foreign direct investment, the balance of payment account still showed a net capital outflow of about 10 billion dollars. Moreover, most of the 10 billion dollar net capital outflow could not be traced in government's account and can only be published as an error term.

One Country, One Currency: The 1994 Reform

The new foreign exchange control mechanism introduced in 1994 was designed, intentionally or not, to deal with the above problems while ignoring the incentive advantage of the dual-currency system. It unified the official and swap market exchange rates so that speculation and corruption relating to exchange rate differentials were eliminated. It stabilized the exchange rate at a narrow range around 8.4 yuan per dollar by restricting the participants to the inter-bank foreign exchange market to a few designated state banks and the central bank. Most dramatically, it replaced the dollar-yuan system with a one currency system by requiring all domestic enterprises to sell all of their current and past foreign exchange earnings to the state banks at the unified exchange rate which was set at the prevailing swap market rate at the end of 1993. The enterprises, when they need foreign exchange, have to buy from the state banks with proper documentation showing legitimate use of foreign exchange for current account transactions.

The reform was surprisingly successful from the government's point of view. Exchange rates have been unified and stabilized since 1994 at about 8.4 yuan per dollar. The yuan actually appreciated in 1995 from about 8.45 yuan per dollar to 8.3 yuan per dollar when

inflation was about 25% in 1994 and 15% in 1995. Foreign exchange reserve increased from about 21.2 billion U.S. dollar in 1993 to 51.6 billion in 1994 and 70 billion by the end of September 1995.

However, the success of recent reform in foreign exchange control also brings about some problems. If inflation continues at the currently 15% rate, the yuan has to depreciate to allow exporting profits. At present, the government can control imports more or less effectively through regulations as well as the general austerity program but can not control the losses from exporting due to the inflation which increases Renminbi cost of producing export products which was close to 8.4 yuan per dollar in Shanghai area in mid 1995.

One of the major reasons for a strong yuan since 1994 are due to a sharp devaluation of about 30% from the official exchange rate at the beginning of 1994, strong export performance and foreign direct investment, and effective import controls. Under the new foreign exchange control mechanism, firms earning foreign exchange from their exports have to sell all foreign exchange earnings to the state banks. Therefore, the supply of dollars in the inter-bank market is directly related to export performance and foreign direct investment. Another source of dollars for the inter-bank market is, in 1994, the one-time adjustment by firms clearing their retained foreign exchange earnings accumulated in the past. These two factors pushing the yuan up have, by now, largely disappeared or will disappear soon. The stock of foreign exchange held by the enterprises in the past should have been all transformed into official reserves by now. The flow supply of foreign exchange may decline relative to demand since China's export growth rate has been falling month by month since early 1995 while the recent cut in import tariffs should increase demand for imports in the future.

Fortunately, the demand for foreign exchange is still weak at present due to the government's austerity program, which reduces demand for import, and to high interest rates on yuan deposits, which discourages holding of foreign exchange. However, these two factors supporting a strong yuan depend too much on government short-term measures to control inflation and maintain a stable currency. The trouble is the government has not yet found effective and lasting ways to eliminating inflation pressures arising from the imbalance of state assets and liabilities.

The cost of maintaining the current exchange rate may increase sharply. State-owned exporters will complain about a lack of profitability. The state banks holding dollars will also complain for a lack of yuan funds. In mid 1995, the central bank changed the rule from buying all dollars above certain level from the state banks to buying dollars only up to a certain level. The state banks now have to keep the rest of the dollars in their own accounts with no interest earnings. If the yuan continues to appreciate, then state banks holding large amount of dollar will lose profits. On the other hand, depreciation of the yuan will bring forex gains for the central bank and the state banks holding dollars on their own accounts. Moreover, depreciation of the yuan is also likely to lead to a relaxation of yuan credit which would fuel inflation and lead to further pressure for depreciation of the yuan!

A crucial point is that a break-up of the dual-currency system, which was used to separate monetary transactions in the domestic sector and in the foreign trade and investment sector

in the past, has artificially forged a close link between domestic and international economic activities and the associated monetary transactions. The sharp increase of reserves from US$21.2 billion in 1993 to US$51.6 billion in 1994 without a comparable sterilization has produced an artificial shock to the yuan money supply. The increase of US$30.4 billion in reserves in 1994 is equal to an increase of a 252 billion yuan reserve at an exchange rate of 8.3 yuan per dollar, or 43% of the yuan currency in circulation in 1993. The shock has been moderated by a tight monetary policy since 1993 but was felt strongly nevertheless in 1994 and 1995. This kind of monetary link may not be helpful to an economy where foreign trade and investment fluctuate. Here, Hong Kong's experience seems very useful. Due to geographical, economic and political reasons, Hong Kong has to face with a fluctuating foreign trade and investment. It has been forced to link its Hong Kong dollar with the US$ at the cost of losing its own monetary instruments. Scholars and policy makers have overlooked the possibility that the dual-currency system practiced in China before 1994 could have reduced the impact of the fluctuating foreign trade and investment on the domestic yuan monetary system. Under the dual-currency system, an increase in export and foreign direct investment can be channeled more easily to demand for import since the increase in dollar supply would not be immediately transformed into yuan supply. The present one currency system is very much like the fixed exchange rate regime practiced in many countries under the Bretton Woods system during 1960s and 1970s which could easily translate fluctuations in balance of payments into domestic business cycles without careful monetary management like sterilization.

The lack of sterilization in China's monetary management could be solved in principle as the monetary officials become familiar with the tools for managing a modern monetary system. However, the following incentive problem is much more serious and more difficult to deal with under a one-currency system.

The current one-currency system created extra exchange risk for both firms and the state banks by eliminating any opportunities for voluntary or contractual allocation of exchange risk. It eliminated the contractual, voluntary and symmetric transactions at the swap markets for domestic enterprises and added two non-contractual, coercive, and asymmetric transactions between the enterprises and the state banks. The transaction costs saved in the contractual transactions at the swap market may be more than offset by the cost the enterprises have to incur in the coercive selling of their foreign exchange to the state banks and a rationing of foreign exchange from the state banks.

It is possible that when foreign exchange is in shortage, the state banks, under the direction from central or local governments, may give preferential treatment to some firms or industries in accessing to foreign exchange. The problem of eating from the common rice bowl, though, may happen again since the reserve in the central banks and the foreign exchange in the accounts of the state banks are all state property without specific use rights assigned to specific enterprises. Who is going to benefit from the common rice bowl? The ones who can buy exchange from the state banks at the government controlled fixed rate, that's who. In this case the rights to use precious exchange are very likely to be "privatized" to bank officials and their friends.

When foreign exchange is in over supply, then enterprises would voluntarily sell exchange to the state banks at the government-controlled fixed rate. State banks have to buy all of the

forex even if they are losing profits for holding the forex on their own accounts. Now, the obligations to assume the exchange losses or risks are concentrated and socialized through the state banking system.

Hence, it is the separation of rights and obligations or the privatization of exchange use rights and socialization of exchange loss obligations that distinguishes the current system from the previous dual-currency system. Under the dual-currency system, the bulk of the foreign exchange is held by thousands of enterprises. The central bank and the state commercial banks do not hold transactions, production, or investment demand for forex, nor the associated risks.

Policy Implications

Ironically, a less risky and faster way than the current government approach toward full convertibility of the yuan during the transition may be to go back to a revised version of the dual-currency system which allows limited use of Hong Kong dollars in the foreign trade and investment sector. Only a few changes are necessary. The government could allow enterprises and banks to open dollar accounts and let themselves to decide whether, when, and how much to sell and buy dollars. The government could also relax the restrictions on entry into the inter-bank market for foreign exchange and let the inter-bank market rate be real free market rate. The yuan would become fully convertible when the above voluntary trade in dollars is allowed.

However, such full convertibility under a dual-currency system does not mean that anyone can buy any amount of dollar at any time at a fixed exchange rate from the state banks. The government and the state banks have no obligations to sell any amount of exchange at a fixed rate. The government would not defend a fixed exchange rate nor assume any risk from exchange rate fluctuations. All exchange risk has to be assumed voluntarily by specific individuals and enterprises, be they speculators or ordinary producers, traders and investors. There will be no shortage or oversupply of dollars, nor central bank reserves, but there will be a fluctuating exchange rate in the inter-bank market - a cost for true convertibility.

A fluctuating exchange rate, however, would not necessarily lead to capital flight under a dual-currency system. When foreign investors and domestic enterprises can use a fully convertible currency such as Hong Kong dollar in parallel with the yuan, they would feel much safer than under a one-currency fixed exchange rate regime since they could simply ignore Renminbi if the exchange rate fluctuates too much and use only dollars. As a result, China would be able to attract foreign investment in the same way that Hong Kong does. The capital flight observed in 1992 seems better explained as a flight of state-owned capital not private capital. Otherwise, we are unable to explain the surge of foreign direct investment into China in the same year.

The use of Hong Kong dollars as a parallel currency fully convertible with the yuan at variable market rate in China would facilitate greatly economic integration between China and Hong Kong and foreign trade and investment. In a practical sense, China has been using Hong Kong dollars as a parallel currency for many years through the presence in Hong Kong of the Bank of China, CITIC and many other state-owned enterprises. These China funded banks and enterprises in Hong Kong have to follow Hong Kong's legal and business

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