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The Asian currency crises of autumn 1997 inevitably lead to heightened scrutiny of China's financial system and reform. The economy of China and the economies of southeast Asia share some important common features, which are especially evident in the character of their financial systems. The sustained high growth of the ASEAN countries led to a sense of complacency, leading many to overlook the potential for instability in financial systems with failings that had been widely recognized. Similarly in China, sustained high saving and rapid growth have long diverted attention from deficiencies in the financial system which have, however, been widely acknowledged.

China shares with most of her Asian neighbors a general pattern of bank-dominated finance. Bank lending is large in relation in GDP, while capital markets are relatively less developed. Problems in the banking system, ultimately traceable to poorly specified agency relations, may on occasion threaten financial stability. Markets for fixed-income securities are especially underdeveloped. Equity markets are more substantial, but remain relatively thin and extremely volatile. In comparison with the Southeast Asian economies, it is natural to ask whether China, with similar growth achievements and equally similar financial shortcomings, is likely to suffer similar woes.

Conversely, the southeast Asian experience can also be interpreted as confirming the caution of China's reform process. Numerous observers have commented lately on China's emergence as a "bastion of stability" in the Pacific region. China's foreign reserves of over $130 billion continue to grow, and the Chinese currency remains stable with a tendency toward appreciation. Most fundamentally, China differs from ASEAN in the relationship between domestic and foreign financial markets. Most of the massive capital inflow China has enjoyed has come in the form of foreign direct investment, and the currency is not convertible on the capital account. China has relatively little exposure to private debt denominated in foreign currency, and the interactions between volatility in domestic financial markets and foreign currency markets are quite limited. As a result, there is little danger of a downward spiral caused by mutually reinforcing volatility in the markets for foreign exchange and domestic financial assets. There is thus little danger for the present that China will catch the "Thai disease."

However, China faces formidable problems of its own. These problems may prove especially difficult to manage in the next year or two. Successful macroeconomic stabilization is now being followed by a renewed burst of enterprise restructuring. On balance, this creates new opportunities to reform

the financial sector, but also complicates the environment in which reform must proceed. It is inevitable that significant efforts will be made in the next few years to clean up bank balance sheets and restructure the financial system. The magnitude of the problems and the uncertainty of the overall economic environment could easily lead to short-term financial problems. These in turn might reduce growth rates and derail essential financial sector reforms.

The first section of this paper examines the basic trends and main achievements of financial reform to date. The second and third sections look at the banking system and stock market respectively. The fourth and final section examines the current situation, with stress on the impact of current restructuring initiatives in concert with current macroeconomic conditions. The basic message is that while substantial progress has been made, there is a significant danger that financial problems may disrupt further progress.

I. Overall Trends and Achievements

China is both a developing economy and a transitional market economy. Financial development in China reflects the influence of both these contexts. Economic development is generally accompanied by a gradual process of financial deepening. The ratio of various financial assets to GDP increases steadily with development. Transition to a market economy from a planned socialist economy is also expected to lead eventually to financial deepening, but for most European transitional economies, this process was not unidirectional. In many European transitional economies, economic transition was preceded or accompanied by substantial inflation that wiped out accumulated financial balances. Many households lost their life savings. In those countries, transition took place in the context of a major disintermediation process: in Russia, broad money declined from 80% to only 20% of GDP between 1990 and 1993, and bank credit to enterprises and households declined from 40% to about 16% (Dittus and Prowse). At the same time, economic disruption caused a decline in current saving. Saving by government and enterprises collapsed, and households were unable or unwilling to increase saving rapidly. Financial systems had to be rebuilt from the ground up.

In China, national saving was high before, during and after reform. However, the composition and institutions of saving changed dramatically. Government saving, as in most transitional economies, has dropped sharply, in response to the deteriorating financial position of state-owned enterprises. However, household saving has increased very rapidly in response to the new opportunities created by transition. Total household saving—including both in-kind and financial saving—jumped rapidly from 7% of household income in 1978 to 17% in 1982, and have continued to increase steadily since.[1] Even more crucially, financial saving tripled, increasing from 2.3% of household income in 1978, to an average of 6.8% in the years 1980-83. (Cheng Xiaonong 1991, Macroeconomic 1987). As of 1995, households were generating 70% of domestic saving, over 25% of GDP (Xu Meizheng 1997).

In response to these changes in saving behavior, China's financial system began to diverge from the standard command economy model, and resemble that of most market economies. Saving surpluses in the household sector were transferred primarily through the banking system to fund investment in the enterprise and government sectors. The banking system has been fundamentally transformed. M2 increased from 32% of GDP in 1978 to 112% in 1996 (Figure 1). By this measure, since 1992, China has had a "deeper" financial system than any other major transition economy (Caprio and Levine: 16). Changes in household balances were the largest part of financial deepening, as household saving deposits increased from 6% to 57% of GDP between 1978 and 1996. During this period, China has put in place the basic administrative structures that govern a modern financial system. The People's Bank of China (PBC) was made into a central bank, with the potential to control lending and monetary aggregates through reserve requirements and central bank lending. The beginnings of competition were introduced into the banking system. Stock markets were established in Shanghai and Shenzhen in 1990, and enterprises were given authority to issue various kinds of stocks and bonds. Government bonds of various sorts have been issued since 1981, with Treasury bonds making up the bulk of issuances. During 1996, important steps were taken with the government bond market. The Ministry of Finance designated fifty authorized bond traders in an attempt to begin marketizing the primary issuance of securities. The Ministry also began issuing Treasury notes of less than one year maturity, and the PBC launched open market operations on April 9, 1996.

Despite these achievements, the development of capital markets in China has not been impressive to date. This is somewhat ironic, given the attention that has been paid to China's nascent stock markets as symbols of capitalism. However, it is indisputable that, at least if we limit our attention to formally recognized and regulated institutions, the development of capital markets has been much less steady, and much less impressive than the growth of the banking system. There was very little capital market development during the 1980s. For a period after 1990—when the stock exchanges in Shanghai and Shenzhen were established—capital market development proceeded rapidly. But after 1993, development slowed markedly, and the atmosphere shifted from one of financial permissiveness to a renewed stress on control and regulation. As we shall see, that slow-down was intimately related to shortcomings in the existing financial system. Figure 2 shows the development of the Chinese stock exchanges, relative to GDP, as well as several comparison economies.

At the end of 1995, government bonds (including treasury bonds and all other government-backed investment bonds) amounted to 6% of GDP, also virtually unchanged since 1992. There had even been a contraction in the stock of enterprise bonds outstanding, which peaked in 1992. Between 1992 and 1996, then, the incipient growth of China's capital markets was drastically slowed, while the real economy—and the banking system—continued to grow. As a result, as of 1996, the financial system still displayed the same fundamental characteristics that have marked its development since the beginning of reform: it is a system that has undergone very substantial financial deepening, but in which virtually all of the deepening has been channeled into the banking system. It is a bank dominated system, and the growth of competition to the state-owned banking system has been real, but much too slow.

However, there is one important caveat to this generalization. Informal financial markets in China are large and important, and little studied. At the "bottom", informal rural credit mechanisms—including credit clubs, money lenders and unregistered private banks—are very significant. In a recent court case, it was decided that private money-lenders were not usurious so long as interest rates were not more than four times officially regulated lending rates. According to the best available estimates, rural informal financial markets surpassed formal rural institutional lending in size in 1986.2 Moving up a level on the scale of enterprise size, many firms have issued various kinds of promissory notes and "stocks." Since May 1992, the central government has attempted to regularize the hitherto chaotic form of joint stock corporations, and created a new registry of joint-stock corporations. By the end of June 1994, there were 5,964 registered corporations (compared to only a couple hundred firms listed on the stock exchanges). But fully 62.5% of the registered capital of these corporations was held by the government and or by government subsidiary entities (Liu Jipeng). Finally, government statistics on fixed investment reveal that "other" financial sources of investment (outside of bank lending, government funds, or private or enterprise retained funds) equal about 4% of GDP annually, about half as much as formal bank lending. These funds are generally intermediated by local government officials or entities set up under their control. Thus, there is a large amount of financial intermediation occurring in China which is captured very imperfectly—or not at all--by officially reported statistics.

II. The Banking System

Banking sector reform is best approached by considering the "stock" problem and the "flow" problem, where the stock problem refers to the stock of bad loans, and the flow problem refers to the fact that current lending decisions are still not made on a commercially sound basis. After a brief discussion of the stock and flow problems, I discuss the resources available to the banking system to address these problems, and the way in which attempts at liberalization interact with broader macroeconomic fluctuations.

IA. The Stock of Nonperforming Loans

The stock problem is large, ironically because of some of the successes of China's transition strategy. In both Russia and Poland, bank assets were reduced essentially to zero by hyperinflation on the eve of, or in the early stages of, economic transition. This freed the banks of the burden of the stock of bad loans, but at the enormous cost of wiping out the value of the accumulated saving deposits of households. In China, there was no reduction in the relative value of bank deposits or loans on the eve of transition, and they have in fact grown rapidly throughout the transition process.

Instead, the banking system benefited throughout the transition from the massive inflow of household funds. In this sense, the current Chinese situation is in some respects more like that in a country that has successfully undergone stabilization, rather than a socialist country undergoing transition. That is

because after successful stabilization, there tends to be an inflow of funds into the banking system. Particularly if the country were previously undergoing high inflation, stabilization is typically accompanied by high real interest rates and a return of funds into the banking system. As a result, the money multiplier increases, and there is a credit boom. The result is frequently "overlending" and a subsequent financial crisis. This framework is generally applicable to China. China has generally kept real deposit interest rates positive, on some occasions only after short-run panics or runs on the bank. As a result, the bulk of increased household saving has flowed into the banking system, creating a fairly abundant source of credit funds. Banks have responded by increasing credit rapidly, extending credit generously to state-owned enterprises, among others.

An important related development has been the steady increase in the share of bank debt in enterprise worth since the beginning of the reform process. The aggregate debt of industrial state-owned enterprises (SOEs) is 73% of aggregate book value (depreciated fixed capital plus all inventories). Indeed, SOEs finance 99.8% of their inventories through bank credit. Moreover, the debt load has grown inexorably since the beginning of the reform era. In 1978, the debt burden was only 11% of book value, and by 1988 it had grown to 45%. This ratio is now much higher than in most other transitional economies. For example, in Hungary in 1992 the ratio was 34% and in Poland 41%. Comparable figures for OECD countries are in the range of 42% to 69% (Baer and Gray). In addition, leverage is high for most sectors, and for virtually all ownership forms. Indeed, leverage in the non-state sector (at 70%) is only three percentage points lower than in the state sector.

Because the outstanding volume of bank lending is large, bad loans, default risk, and costs of recapitalization of the banking system, are all large, relative to GDP. There is no firm figure of problem loans in the banking system, because there is no adequate audit process to accurately determine which loans are really in risk of default. However, the central bank governor, Dai Xianglong, recently put the proportion of nonperforming loans at state banks at 20%, with 8% of total outstanding loans more than 3 years overdue, and another 12 percent overdue less than 3 years.3 A recently released figure roughly consistent Dai's comments puts the total of nonperforming loans at 1.06 trillion *renminbi* in 1995.4 This would actually amount to 21% of all loans in the banking system, and 18% of GDP. It is a huge number.

The proportion of bad loans in China seems to be roughly comparable to those in other transitional economies: for instance, in 1992, Hungary, Poland, and the Czech Republic all had nonperforming loans estimated at between 19 and 26% of total lending, roughly the range within which estimates of Chinese nonperforming loans fall. However, because for each of these economies, the volume of loans relative to GDP is considerably smaller, the potential default burden is considerably smaller (Dittus 1994). The total problem of bad loans in China may be even larger than these overall estimates indicate. In the first place, the classification of bad loans in the Chinese system is quite lax, with loans

classified as fully nonperforming (*daizhang*) only when firms are bankrupt or have virtually no possibility of payment; and overdue loans classified as overdue more than three years (*daizhi*) or six months (*yuqi)*. Loans repeatedly rolled over are not classified as nonperforming, so long as some interest payments are made. Moreover, non-bank financial institutions also have significant nonperforming loans. A PBC study found that 21.6% of a large sample of urban credit cooperative loans were nonperforming, with the proportion expected to be higher for rural credit cooperatives, and probably even higher for Trust and Investment Companies, since they have invested heavily in real estate (Jing Xuecheng and Shen Bingxi 1997: 47-48).

Moreover, there is no possible "firewall" between bad, pre-transition lending and current, relatively good, market-responsive lending. As a result, it is almost inconceivable that a principle could be found to segregate past non-performing loans into a separate institution, such as that proposed by Begg and Portes (1993) or carried out by the Japanese government after World War II (Hoshi). The rapid build-up in lending, documented in the previous section, implies that many of these problem loans are of relatively recent provenance. They cannot be simply blamed on the pre-reform economy, but rather represent poor lending decisions made during the transitional process.

Finally, a subsidiary implication is that a relatively large proportion of lending is for long-term fixed assets. In the traditional system, with only a few minor exceptions, banks did not lend for fixed investment. Bank credit for long-term, fixed investment is thus an innovation of the transition process. Long-term lending is inevitably more risky than short-term lending. Chinese bank balance sheets show 25% of state bank lending (1,336 billion yuan) as of mid-1997 as being medium to long term (i.e., over one year). In addition, there is universal agreement that this understates total long-term lending, since a significant portion of short-term lending is diverted to fixed investment. Thus, the accumulated financial risk of the banking system, and by implication the entire economy, is large.

IB. The "Flow" Problem: Ensuring Good Lending Decisions

It is insufficient to deal with the "stock" problem of non-performing loans. In addition, it is necessary to create the proper incentives so that the "flow" of new lending is shaped by market return and a prudent attitude toward risk. In principle, a gradual transition should make it easier to gradually improve the incentive environment that works within the banking system. In that vein, it would be nice to be able to report that the accumulation of a stock of problem loans had been the price paid to purchase substantial improvement of the flow problem. But that does not seem to be substantially true. In short, the banks still operate at relatively low levels of efficiency, meaning that poor lending decisions continue to be made, and the stock of non-performing loans continues to increase.

The broader context is the generally low level of efficiency of the banking system as a whole. This inefficiency affects all parts of the banking system’s activities.

Broadly speaking, the banking system has two jobs: financial intermediation and provision of liquidity services. The above discussion, like most discussions of financial development, stresses financial intermediation, but provision of liquidity services is, if anything, even more important. Other institutions can provide financial intermediation, but only the banking system can effectively provide liquidity services. Provision of liquidity is particularly difficult in a large, diverse, agricultural economy. The fact that the economy is large and diverse means that liquidity needs fluctuate in different areas according to different factors; the fact that it is agricultural means that the seasonal component to the demand for liquidity is large. In the current Chinese banking system, the primary mechanism used to adjust regional and seasonal fluctuations in liquidity demand is to adjust the net position of each regional bank with the central bank. That is, additional central bank lending is used to provide liquidity when necessary, especially at the peak demand season, i.e., the harvest. If possible, the central bank will attempt to draw down liquidity in other regions (and seasons) by having local banks maintain "excess" reserves at the bank. Local bank branches are not in a position to manage their own liquidity needs. Their position is fairly passive, and they approach the central bank for additional funds when needs arise. This system works, but not very well, as is shown by repeated cases in which local banks are unable to provide adequate funds to finance procurement of the harvest, and are reduced to giving farmers promissory notes (*bai tiaozi*) for later payment. Relatively inefficient performance of the banking system in both its primary tasks reflects technological factors, but also the inadequate incentive environment for bank workers. The most important problems include:

---ownership. Since the main banks remain state-owned, they remain subject to serious problems of incentives, risk management and soft budget constraints. Loan officers have been given employment contracts that reward them for increasing revenues and maintaining low default rates. But it is extremely difficult to design contracts that provide adequate risk sharing, and this has not been done. This is particularly true given the ease with which individual loan officers may roll over loans, postponing problems indefinitely. No individual has the incentive to carry out the overhaul of administration and procedures necessary to improve operations.

---oversight. Oversight appears to be seriously deficient. Loan officers have a great deal of decision-making power with respect to individual loans, and the identification and monitoring of credit risk is delegated to the loan officer. Once a loan is granted, oversight weakens further. Credit departments classify loans according to repayment status, but there are no procedures for assessing changes in creditworthiness or projected cash flows. There are no specialized problem loan work-out units

---skills and reporting. Credit personnel are seriously lacking in training relating to analyzing cash flow, assessing repayment ability and risk. Reporting of problem loans follows subjective and inconsistent criteria. Overdue interest payments do not automatically trigger classification. Information is frequently

missing, and loan classification are often inaccurate (much short-term lending is diverted to long-term uses and repeatedly rolled over.)
These characteristics mean that the ability of the banks to discriminate between good and bad loans on commercial principles are quite limited. Moreover, with so much decision-making authority at the loan officer level, and so little specialized oversight, there are also significant opportunities for diversion of funds and corruption.

IC. Bank Resources

The banking system does not possess sufficient capital to deal with problem loans on its own. Table 1 shows that the state-owned specialized banks started off, in 1985, with sufficient capital to meet the 8% ratio required according to the Basle standards. However, capital adequacy has eroded steadily in three of the four specialized banks, with only the Bank of China displaying some increases in capital adequacy, at least up through 1992. After 1992, there is substantial evidence of further worsening in capital adequacy ratios, and comprehensive statistics become increasingly scarce. There was undoubtedly further erosion of bank capital through 1995. Conceivably there has been some improvement since 1995, as inflation has come down and real lending rates and the spread over deposit rates both turned positive. Nevertheless, capital ratios are said to be below 7% currently (Jing and Shen 1997: 48).

Table 1: Capital Adequacy Ratios of Main Chinese Banks

	Industrial-Commercial Bank	Agricultural Bank	Bank of Construction	Bank of China
1985	10.0%	12.6%	n.a.	4.4%
1986	8.9%	11.8%	n.a.	5.4%
1987	9.1%	10.7%	n.a.	4.3%
1988	7.2%	9.9%	9.2%	5.6%
1989	7.4%	8.8%	8.2%	7.0%
1990	6.8%	7.4%	7.5%	6.7%
1991	6.7%	6.5%	6.5%	6.6%
1992	6.6%	6.3%	6.5%	7.9%
Sources: Zhao Wenjie, 1996, p. 151.				
Du Xuncheng 1996, p. 58				

If 20% of bank loans are non-performing, and the banks are ultimately able to collect half of those loans (a generous assumption), then the ultimate reduction in the banks' value will equal 10% of total lending. This is substantially greater than the total owned capital and loss reserves (limited to 1% of outstanding loans) possessed by the banks. Thus, Chinese banks are in a state of chronic insolvency, and the unresolved burden of bad loans contributes to the difficulty

in restructuring the incentive environment to improve the quality of new lending. The banking system clearly needs financial strengthening.

The erosion of bank capital is easily traced to a single fact: Under the current system, the state banking system is subject to heavy explicit and implicit taxation by the government. The government uses the banking system to achieve objectives its limited fiscal resources do not enable to achieve directly. The government exacts large implicit taxes on the banking system through a number of channels. Most important, of course, are the mandates given to the banking system to fund government investment projects. Clearly, these lead to extensive resource misallocation and heavy burdens on the banking system. Even in addition to these basic costs, government implicit taxation is large because of three factors. First, interest rates are controlled and interest rate spreads are narrow during the best of times. During inflationary episodes, the government protects households (and the liquidity of the banking system) by indexing long-term savings deposits. Figure 3 shows the pattern. When an inflationary episode begins—as in 1988 and 1993—real interest rates turn negative. Soon, the government is compelled to protect the value of household deposits (and the liquidity of the banking system) by providing indexation to term deposits (three years or above), bringing the ex post real interest rate back up to zero. However, the government is unwilling to impose the full costs of positive real interest rates on enterprises, and real lending rates remain negative until inflation is tamed. The result is that the modest spreads in normal periods become large negative spreads of up to fifteen percentage points. The figure shows 3-year term deposits and working capital loans: spreads are larger for sight deposits and shorter term deposits. Notice that at the end of 1996, spreads turned positive for these two interest rates, reflecting an across the board shift in interest rate policy.

Second, reserve ratios are relatively high. The required reserve ratio has been at the moderate level of 13% since 1988, but commercial banks are never allowed to dip into their reserve funds for clearance purposes. As a result, they maintain substantial additional reserves at the central bank, conventionally termed "excess reserves" in order to meet their normal inter-bank transactions demands. (This differs from regulations in, for example, the US, where banks are allowed to use their required reserves with the Federal Reserve for transactions purposes, so long as they have adequate reserves at day end.5) Given the relatively inefficient clearance mechanisms that still characterize the Chinese banking system, additional reserves on the order of 5-7% of deposits are required for the normal functioning of the system. Thus, de facto reserve requirements amount to 18-20% of deposits. In turn, the PBC recycles these funds to the specialized banks in the form of central bank lending, which is large. PBC lending to specialized banks averaged 32 and 37 percent of total specialized bank lending between 1988 and 1993. The specialized banks receive 9.18% interest for reserves deposited at the PBC, but pay over 10 percent on loans from the PBC.6 As a result, high reserve ratios and central bank lending further erode specialized bank profitability.

Third, banks often have their assets wiped out when enterprises run into financial difficulty. Bankruptcy procedures, whatever the law says, typically involve writing off bank debts first. In a large sample of bankrupt enterprises in 1996, the banks recovered only 15% of their loan values. Moreover, local governments often negotiate forgiveness of bank debt as a part of enterprise bailouts.

How does the banking system continue to attract such high levels of deposits of it is so heavily taxed? The answer appears to be twofold. First, households only partially bear the cost of taxation. In normal times, households receive a lower rate of return to their assets than they would if a more diversified set of financial assets were available. However, in return, they receive implicit insurance of the value of their assets: if inflation accelerates, real interest rates will be prevented from turning negative. This insurance seems to be enough to make saving deposits attractive to households. Second, the supply of alternative assets is rigorously controlled. Although households can always lend funds on the informal market, in such markets risks as well as returns are high. In general, household access to alternative assets with moderate risks and returns is strictly rationed.
The Chinese government bears particular responsibility for the plight of the banking system, and this is recognized in numerous implicit and explicit commitments. Of course, the banks are state-owned to begin with. The government bears additional responsibility because of years of directing bank credit to government-favored projects, many of which are low-return; and also because government policies have drained the banks of capital over the last decade. Governments in most countries provide a level of insurance to the banking system, and China is no different. But in China the government is essentially in the position of providing extensive and ongoing insurance for the banking system. However, this ongoing protection further erodes incentives within the banking system, contributes to a "soft budget constraint" within the banks, and inevitably leads to further accumulation of bad loans.
The high level of central bank lending does provide a mechanism through which government-sponsored write-offs of bad bank debts will occur. Because liabilities to the central bank are a large item on specialized bank balance sheets, commercial loan write-offs can be fairly easily accommodated by writing down liabilities to the central bank. In turn, the central bank can receive new government debt. In this sense, the already high level of government interference in the banking system may make it somewhat easier to restructure assets and liabilities to more adequately reflect government responsibility. As is always the case with bad lending decisions, the misallocation of resources has already occurred, and the highest priority is to reallocate the current burden of non-performing assets in order to slow the future accumulation of bad loans. The relatively low level of outstanding public debt makes this feasible, but it will require the reversal of a long-standing habit of relying on the banking system to compensate for fiscal weakness.

ID. Failed Liberalization

The preceding section described the combination of government controls on the banking system and extensive implicit taxation that leads to a financially weakened banking system. A further implication of the situation is that attempts at incremental liberalization often fail. When the overall financial system is liberalized, there is a large outflow of funds from the state banking system. This creates liquidity shortages and generally leads the government to recontrol the

financial system. Depositors looking for higher rates—that is, looking to escape the increasing implicit taxation which is rapidly becoming confiscatory—move funds into informal, risky channels. These episodes are particularly likely to occur when liberalization intersects with accelerating inflation (as occurred, for example, in 1985, 1988, and 1992-93). Disintermediation creates a liquidity crisis in the banking system, to which the government responds in three ways. The central bank injects reserves into the commercial banks; administrative restrictions on non-bank financial institutions (formal and informal, legal and illegal) are tightened; and ultimately the deposit rate is increased, typically to the rate of inflation for term deposits. At this point, the implicit tax on the banking system is at its maximum. Deposit rates are high; lending rates are low; and the implicit subsidies received through increased central bank lending are insufficient to offset the implicit taxation in the interest rate differential.

Moreover, the high implicit tax on the banking system sustains the large and persistent presence of "irregular" financial institutions. Extra-budgetary funds are large, and are managed by government agencies so that they won't have to pay the punitive taxes levied on funds that go through the banking system. (Note that bank deposits owned by enterprises and organizations never enjoy the inflation protection that household deposits receive). For example, the growth of various Trust and Investment Companies (TICs) in China can be understood as well as the attempt to avoid punitive taxation on the banking system. Many of the TICs have been established by state banks: 181 of 394 authorized TICs in September 1995 were associated with the specialized (commercial) banks. Many of the others are subordinate to local governments. The TICs provide convenient outlets for bank money to avoid regulatory strictures and seek out higher returns than are available through regulated lending. As we will see in the next section, such funds are frequently channeled into the stock markets.

We are now in a position to understand why the development of capital markets faltered after 1992. Concerned about the rapid drain of funds from the banking system, and an acute funds shortage in 1992-93, Vice-Premier Zhu Rongji, in charge of economic policy, adopted a series of measures to restrict the operation of bank subsidiaries. These policies caused the relative shrinkage of the stock market shown in Figure 2. However, while these policies retarded capital market development, they were quite effective in restraining the excessive growth of aggregate demand which was building up during 1993. Adoption of restrictive credit policies turned out to be essential and effective. Inflation accelerated to a peak annual rate of 28% during 1994, but began to come down shortly thereafter. By May 1997, the consumer price index had come down to under a 3% annual growth rate. Macroeconomic stabilization—a "soft landing"—was achieved, but at the cost of aborting the ongoing financial liberalization, in particular the development of capital markets. If sustained, though, macroeconomic stability will prepare the ground for further financial reform, under more favorable conditions.

III. Stock Markets: On the Verge of the "Big Leagues"?

It was noted above that China's formal stock markets have remained small, in contrast to the very large changes in the volumes transacted in the banking system. Since early 1996, though, China's stock markets have grown rapidly, and growth continues through the present. Nevertheless, up until now, China's formal stock markets have developed in an artificially controlled environment. Indeed, some observers have dismissed China's two stock markets in Shanghai and Shenzhen as Potemkin villages. It is perhaps more accurate to refer to them as the tip of the iceberg, that is, as the shiny visible pyramid atop a huge murky mass of informal credit relations. In any case, by international comparisons the formal stock exchanges are of modest size. Even after rapid appreciation and expanded listings during 1996, the total market value of listed stocks (both A and B-shares) on the Shenzhen and Shanghai stock exchanges came to 986 billion renminbi at the end of 1996, equal to 14.5% of 1996 GDP (Figure 2). By the end of June 1997, the value surpassed 20% of GDP.[7] In sheer volume terms, then, China's stock markets appear to be just now approaching medium development status.

Nevertheless, there are important characteristics of these markets that limit their ability to play their full economic function. Table 2 shows the breakdown of ownership by owner type on the Shanghai exchange. Government agencies own a large proportion of total stock, 46% in mid-1995, down from 65% in 1990. The category of "legal entities" (literally "legal persons" in Chinese) refers to legally constituted autonomous organizations. It is crucial that in the Chinese case these legal entities are generally not mutual funds, pension funds, or insurance companies, but are generally holding companies established by government agencies as a management tool for government-owned stocks. Thus, most Chinese observers consider them "secondary government ownership" (e.g., Du Xuncheng: 160). Shares classified as government of legal-entity owned are not allowed to circulate on the exchange. Thus, two-thirds of total share value on the Shanghai exchange did not circulate.[8] The Shenzhen exchange shares this characteristic, but in a less extreme form: the Shenzhen exchange has many more companies listed that are in joint ventures with Hong Kong companies, and have fewer direct government connections.

Table 2: Ownership of Shares on the Shanghai Stock Exchange

	Total Share Value	of which, percentage held by			
	(at face value)	Government	"Legal Entities"	Individuals	Overseas Funds
	Billion Yuan				and Individuals
1990	0.273	65.1%	9.9%	25.0%	n.a.
1991	0.295	61.9%	10.7%	27.4%	n.a.
1992	5.234	51.3%	18.0%	9.8%	20.9%

1993	25.055	56.7%	14.9%	14.0%	14.5%
1994	45.879	49.2%	17.5%	17.6%	15.8%
6/30/95	52.659	45.7%	20.8%	17.0%	16.5%
Source: Du Xuncheng, *Jingji Zhuanxingzhong de Jinrong Chuangxin [Financial Innovation during Economic Transformation]*. Shanghai: Lixin Kuaiji Chubanshe, 1996, p. 158.					

The restricted circulation of shares makes another characteristic of the stock markets even more remarkable. This is the very rapid turnover of stocks: turnover is slightly above total market value in both Shanghai and Shenzhen. However, taking into account the restrictions on circulation, turnover is actually more than 300% of market value of tradable shares, at least in Shanghai.9 In turn, extremely rapid turnover should be interpreted in light of the extreme volatility of the market. Interesting studies show that the market is highly volatile, even in the developing country context. Moreover, even more interesting studies show that volatility is explained by reactions to government policy changes, particularly those that affect liquidity on the markets. Reactions to changes in underlying fundamentals of individual companies are insignificant in comparison (Su 1996).

Thus, the Chinese markets really display extreme volatility and high turnover in a relatively narrow market. It is a casino as much as a market. Who plays at this casino? Although there are a large number of individuals who enjoy gambling on the market, anecdotal evidence suggests that the large players are institutional. This relates to the earlier discussion of "flight" from the banking system. Important players on the stock market have been TICs, and other quasi-governmental companies. Managers of these companies enjoy profitable opportunities from weak oversight over public funds. The odds on gambling are greatly improved by the asymmetry of the bargain: individuals can divert a part of large profits, while posting losses to the public account. In essence, there is a large volume of "hot money" that flows in and out of the market. There are persistent reports of market manipulation, and clear examples of large movements of money in advance of shifts in government policy that affect market liquidity.

The government seems to have made some progress in cracking down on this activity. First, TICs and other agencies controlling public money were prohibited from participating directly in the stock markets. Subsequently, a number of large securities companies were closed down in the wake of speculative excesses and large losses of public money (Shanghai Wanguo Securities in 1995 and China Bank Trust and Investment Company in 1996). Finally, in early 1997, reforms in the state debt secondary market (including the establishment of a central state debt depository) were put in place, and banks were ordered to withdraw from that market. That should restrict bank activity in which government bonds were loaned (sometimes more than once) in order to generate funds for market speculation.

Clearly, the Chinese stock exchanges have not served until now as a market for corporate control. Since majority control of most listed companies remains firmly in government hands, outside investors can do little beyond speculate on the market's fluctuations. Through 1996, the contribution of China's stock exchanges has remained strictly limited. Clearly, the stock markets do not yet serve as devices to improve corporate governance by creating a market for corporate control. It is equally unclear whether the stock exchanges have increased the net availability of investment funds. The individual firms that list on the exchange undoubtedly receive an infusion of cash from their initial public offerings. But given substantial evidence that much of the funds are subtracted from the banking system through various mechanisms, it is unclear that these represent a net increase in available funds. Conceivably the market could provide such a net increment. It is true that in most developed countries, stock markets do not channel large volumes of investment funds to the corporate sector, instead serving primarily as devices for the allocation of existing capital.10 However, this does not necessarily mean that stock markets cannot serve to raise additional investment capital in developing countries. Singh (1995) studies 9 developing countries and finds that in 5, over 40% of the growth of net assets in the 1980s was financed by new share issues, and in two more countries this ratio was over 25%. Singh suggests that this is because financial deregulation has raised bank interest rates at the same time that stock market booms have lowered costs of raising money there. Chinese stock markets are far from playing such a role at this time.

Ironically, the limitations imposed on the market by the Chinese authorities probably make it that much easier for large institutional players to manipulate the market, and may discourage individual investor interest. Until recently, the stock markets have been primarily experimental institutions, not playing a significant role either in the flow of funds, or in corporate governance. However, important changes are occurring in the Chinese financial scene. Market values are up significantly during 1997, and large numbers of new joint stock corporations are being created. It is conceivable that a new stage of financial reform is beginning.

IV. The Contemporary Environment

During 1997, rapid changes in the economic environment are providing the potential to escape from the limitations of financial reform described in the previous sections. However, the sheer magnitude of change also introduces new elements of uncertainty and risk into the financial system. Two broad changes are most important: successful macroeconomic stabilization and a dramatic acceleration in the pace of state enterprise reform. Both are fundamentally positive, but each brings with it the possibility of instability.

Macroeconomic stabilization has occurred remarkably smoothly, apparently achieving the much vaunted "soft landing." The inflation rate (consumer price index) has been brought down from a maximum of 28% during 1994, to a rate

below 3% currently (See Figure 4). Thus, far the effects on the real economy have been modest: GDP grew at a 9.5% annual rate during the first half of 1997, and third quarter growth slowed moderately to 8%. Growth has been drifting downwards since 1992's 14.2% growth rate, but hardly qualifies as a recession. Stabilization has a number of important effects. With much lower inflation and only modest changes in nominal interest rates, real interest rates are significantly positive to a degree rarely true during the transition period (Figure 3). With positive real interest rates, the implicit tax on the banking system has been reduced, and banks have an opportunity to replenish their capital. Moreover, the tendency toward dis-intermediation is strongly reduced, and policy-makers will find it less necessary to impose restrictions on financial innovation in order to maintain the health of the banking system. Overall, stabilization creates favorable conditions for further reform.

But stabilization also brings substantial new stresses to the system. The current stabilization has reinforced the trend towards an intensely competitive domestic market that has been building throughout the transition period. Entry by rural firms, private companies and foreign invested enterprises has created brutal competition for existing SOEs, making it impossible for many of them to survive. Prices for many manufactured goods have been falling during 1997 (with the CPI propped up by increases in previously price-controlled services). In a sense, the current stabilization is the culmination of the entire market-creating transition process. Firms that were protected for nearly twenty years by the initially underdeveloped market and lack of competition are now fully exposed to tough competition from a variety of competitors. State firms, in particular, have lost the protective market conditions that gave them high profits under the planned economy and during the first decade of reform. Start-up firms and foreign investors that initially enjoyed high profitability in niche markets now find their niches have been invaded by other firms, who may be leaner and more innovative. The burden of interest payments is keenly felt by these highly-leverage and less competitive firms. Under such conditions, all the mistakes of past loans outstanding are increasingly evident. More firms are under intense competitive pressure, and the dangers of a chain of defaults is clearly increased.
There are some markets in which asset bubbles are poised to burst. China's major cities are now seriously overbuilt. Office space in Beijing will jump from 1.5 million meters at the end of 1996 to 2.5 million at the end of 1997; Shanghai luxury rents are already down about 20%, with another 10% fall in the cards. [China News Digest, 10/08/97] Real estate development has been a favorite target of "hot money" speculation in recent years: funds have been diverted in substantial amounts, and some of those funds might not now be recovered. The "TICs" described above will be particularly vulnerable. Another key area where financial disorder might arise is in the management of China's embryonic pension funds. Most regions now collect a percentage of wages for investment in pension funds, but oversight over these funds has been abysmal. Some pension fund managers rushed to invest in real estate when that seemed to promise the highest returns. According to preliminary reports trickling out of China, many of these funds have lost substantial sums of money, and it may well be that significant public scandals are brewing. Without proper management these problems could interact with other weaknesses in the financial system to cause major disruption. Thus, the biggest current danger is that defaults by property companies and defaults by production and trade enterprises might combine to rapidly threaten the solvency of key financial institutions. One can expect the Chinese government to respond promptly to such problems, and move to rectify whatever situation emerges. But such crises can be complex, and not always easy to manage, even by governments with the best of intentions.
Over the longer term, China is beginning to face the problem of an overvalued currency. The *renminbi* has appreciated over 40% in real terms since the devaluation at the beginning of 1994 (Naughton 1996). Meanwhile, during the

last three months, the currencies of southeast Asian countries have depreciated by up to 35%. Inevitably, China's export production is suffering a significant erosion of competitiveness. In the short run, currency appreciation does not appear to be a problem. Massive inflows of foreign investment continue to provide abundant foreign exchange, and export growth has bounced back from serious problems at the beginning of 1996. But over a longer time horizon, some problems are evident. New commitments of foreign investment are dropping quickly. Export growth will likely slow in coming months. And if a significant import liberalization occurs, related to prospects for WTO membership, the currency could quickly begin to depreciate. Such a prospect would not likely produce the mutually reinforcing difficulties of the southeast Asian economies, but bears watching for its effect on domestic growth and market conditions, and their indirect effect on the financial system.

The second major factor creating a complex and uncertain environment is the new impetus that has been given to state enterprise restructuring in the wake of the Fifteenth Party Congress. There is no doubt that "restructuring" as defined at the Party Congress involves a much more rapid rate of ownership conversion, increased privatization, and much greater use of joint stock corporations. Government limitations requiring that the state maintain majority or controlling interests are being repealed. Clearly, a flood of new firms is about to be launched onto the formal and informal markets. A number of questions are unresolved.

First, the role of enterprise restructuring in resolving bank debt problems is not yet clear. The banks have substantial stakes in firms that are being restructured. The recently adopted Banking Law has decreed a separation between the commercial and investment roles of financial institutions, thus prohibiting bank ownership of equity. However, this law might be loosely interpreted in reality. Banks might well package loans and sell them as equity stakes; or swap them to subsidiaries; or sell convertible bonds. Unquestionably, the conversion of bank debt into equity and convertible bonds will be a non-trivial part of the ongoing restructuring of enterprises (Li and Li 1996; Xu Meizheng 1997). It is likely that the overall trend of financial development will shift. Capital market development is likely to accelerate, while bank expansion is likely to slow.

Already, the Chinese government shows signs of being willing to facilitate a large-scale shift of financial structure away from the banking system and towards capital markets. The government has recently given its blessing to creation of mutual funds, and these are likely soon to be joined in the market by other institutional players, including pension funds and insurance companies. The government seems willing to countenance a withdrawal of household funds from the banking system, so long as this is accompanied by some orderly write-down of bad debts. Here the maintenance of a low inflation environment presents a precious opportunity to relax controls over the banking system. Returns to bank assets are sufficiently positive that the threat of large scale withdrawal of deposits should be modest (provided implicit government guarantees remain in

place). The potential flood of new listings should soak up substantial liquidity, and prevent the stock market from launching into an unsustainable speculative bubble.

At the same time, the banking system faces an unprecedented opportunity to deal with its stock of bad debts. A combined program of enterprise balance sheet restructuring and fiscally supported write-offs of bad debt could make a serious dent in the bad debt problem. As bank customers are converted to joint stock companies and sold off to private investors, there will be more options for dealing with bad debts. But the resulting process will likely be messy and non-transparent. Many banks will be compelled to simply write down old debt in order to facilitate the privatization ambitions of local government officials.

Moreover, China's banks have yet to resolve the flow problem. Ownership of the state banks continues to be expressed in vague and inconsistent ways that do not provide bank managers with adequate incentives for making appropriate loan decisions. The ongoing agency problems within the banks undermine what would otherwise be an obvious avenue of approach to enterprise restructuring, which is to have the banks play a greatly enhanced role as monitors of newly restructured enterprise management groups. Clearly, the banks are important stakeholders in China's corporations. Most SOEs rely on the banks for virtually the totality of their external financing. Moreover, banks provide substantial amounts of long-term capital, which strengthens the argument for long-term links between banks and enterprises, including the formation of financial groups. Obviously this gives the banks a potentially strong role in disciplining enterprise behavior, since enterprises have limited alternative sources of finance. In recognition of the large stake banks hold currently in SOEs, banks should be encouraged to put representatives on Boards of Directors, and the current prohibition of banks holding equity should be relaxed (though not eliminated). Banks should be allowed to hold small equity stakes, perhaps for limited periods (up to two years) as part of restructuring efforts. This would help banks gain experience, provide better incentives, and prepare banks for a more active monitoring role in the future.11 But such measures can only provide a small incremental benefit under current conditions. Iaddition, it is essential that the government move quickly and decisively to restructure the banks themselves. Enterprise restructuring without bank restructuring is unlikely, in the long run, to be successful. Control over financial enterprises ought also to be restructured, and the role of government ownership reduced.

It should be clear that the current period is one of great opportunity. But it is also one of substantial risk. The complexity of the problems facing China's policy-makers has increased sharply. It will be difficult to manage the changes that will emerge rapidly over the next few years. Default risks are substantial. China clearly differs from the Southeast Asian economies in the absence of strong links between domestic financial markets and foreign currency markets. China's financial situation is quite different from that of the southeast Asian economies, and there is no reason to think that China will suffer from contagion of that

region's financial distress. But China's financial system still suffers from important weaknesses, and these weaknesses are likely to intensify over the next year or two. It will require extreme vigilance and skillful management on the part of China's policy-makers to prevent these weaknesses from leading to financial crises that affect significant parts of China's financial system.

Appendix: Sources for Figures

Figure 1: PBC Research and Statistics Department (1992); *Almanac of China's Finance and Banking*, various years. *China Finance* 1997:3, pp. 27-31.
Figure 2: IFC 1996; *China Economic News*, August 4, 1997, p. 9.
Figure 3: Inflation, *China Monthly Statistics*, various issues. Interest rates: *Almanac of China's Finance and Banking*, 1987: pp. II-47, 48; 1988: pp. 117-19; 1991 [English], pp. 119-21; *Statistical Yearbook*, 1996: 618-19; Inflation Supplement: *China Price Yearbook* 1996: 391-92.
Figure 4: *China Monthly Statistics*, various issues.

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Endnotes

[1] The increase in household saving rates cannot be explained simply by the more rapid growth in household income during those years. Instead, saving behavior shifted upward in response to the changed environment. Barry Naughton, "Macroeconomic Policy and Response in the Chinese Economy: The Impact of the Reform Process." *Journal of Comparative Economics*, XI:3 (September 1987).

[2] Xu Xiaobo *et al.*, *Zhongguo Nongcun Jinrong de Biange yu Fazhan 1978-1990 [Chinese Rural Finance Change and Development, 1978-1990]*. Beijing: Dangdai Zhongguo: 1994, pp. 218-220. The estimate is based on household survey data.

[3] Quoted in Seth Faison, "Inflation Curbed, But Not Growth, China Assert," *New York Times*, July 16, 1996, pp. C1, C7.

[4] "Tizhi fengxian youshei chengdan?" (Who will bear the systemic risk?), *Zhongguo Jingji Xinwen [China Economic News]*, August 18, 1997, p. 15.

[5] Meek, Paul. "Central Bank Liquidity Management and the Money Market," in Gerard Caprio, Jr. and Patrick Honohan, eds., *Monetary Policy Instruments for Developing Countries*. Washington, DC: World Bank, 1991, pp. 17-19.
[6] Interest rates after July 11, 1993. Specialized banks pay 10.62% for annual loans from the PBC, 10.26-10.44 for seasonal loans, and 10.08 for "overnight" loans of less than 20 days. PBC, *China Financial Outlook '95*, p. 96.
[7] "China's Stock Market: Some Successes," *China Economic News*, August 4, 1997, p. 3; GDP preliminary figure of 6779.5 billion *renminbi* from State Statistical Bureau, *Zhongguo Tongji Zhaiyao 1997 [China Statistical Abstract]*, p. 9.
[8] This regulation actually conflicts with the July 1, 1994 company law, which states that all shareholders have the right to transfer their shares. Nonetheless, at least until recently, it was the earlier regulation restricting the transferability of government shares that held sway.
[9] The Taiwan stock market is also characterized by extremely high turnover. Singh (1997) reports that in 1989, the Taipei market traded nearly $3 billion daily, compared to $2 billion in London, and less than $6 billion in New York.
[10] Corbett and Jenkinson (1995) find that between 1970 and 1989, the stock market in the UK made a net negative contribution to corporate investment finance, while that in the US was positive, but quite small. Fry (1997) reports that the Taiwan stock market produces a larger flow of dividends to the household sector than the flow of new stock issues.
[11] In Japan, banks hold 19% of corporate equity, and in Germany the figure is 10%. In the US, of course, banks are prohibited by the Glass-Steagal act from holding equity directly. See Dittus and Prowse, p. 23.