

China's Non-Performing Bank Loan Crisis: the role of economic rents

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Various reasons have been put forward to explain the massive accumulation of non-performing loans in China. This paper applies the financial-restraint model as the analytical framework and argues that failure to create sufficient economic rents is the chief reason underlying the current dismal performance of banks. While the formal financial system is less important than the informal system—especially for financing the private enterprises that are playing a crucial role in economic growth—not addressing the non-performing loan crisis in the formal financial system will likely invite an economic slow-down.

Introduction

Efficient intermediation of financial resources is considered an engine for accelerating economic growth. There is, however, no universal financial system for facilitating financial intermediation and, therefore, different financial systems—bank-based and market-based—must be viewed from different country-specific perspectives. For example, Japan and Germany rely mostly on bank finance for corporate financing needs, whereas Anglo-Saxon countries resort to markets. In the former case, the bank is placed centre-stage in channelling financial resources to investment.

In developing countries, where asymmetry of information is widespread and individual investors have limited capacity to absorb risks and uncertainty, banks step forward to overcome these problems and ensure sound and smooth financial flows. Moreover, through

accumulating knowledge and skills and by providing discipline in the markets, banks ensure that high-quality borrowers have access to the necessary funds and at relatively lower costs. This means that a rigorous and robust banking sector is not only a necessary condition for a bank-oriented financial system, it is a prerequisite for economic development.

The Chinese financial system—which can be characterised as bank-centred—appears incongruent with this view in that, while China is keeping its banking sector 'bedridden' it is, nevertheless, enjoying unprecedented economic growth. Since 1978, China's economy and financial system have seen rapid development under a policy of 'reform and opening-up'. Corporations and governments frequently resort to bank loans mainly for their funding requirements because of the lack of sound alternatives, such as developed bond and stock markets. For example, bank loans to non-financial corporations accounted for 66

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Table 1
Non-performing loans (NPLs) in the
state-owned commercial banks

Year	NPLs (US\$ billion)	Total loans (US\$ billion)	Ratio of NPLs to total loans (%)	Ratio of NPLs to GDP (%)
1997	155	n.a.	25	17.2
1998	75	753	10	7.9
1999	198	793	25	20.0
2000	196	786	25	18.2
2001	213	850	25	18.4
2002	245	968	25	19.8
2003	232	1,139	20	17.0

Source: Garcia-Herrero and Santabarbara 2004.

Table 2
Breakdown of the ratio of non-performing
loans among the big four banks
(December 2003)

Name	Capital adequacy ratio (%)	Ratio of NPLs (%)
China Construction Bank	6.51	9.12
Industrial and Commercial Bank	5.52	21.24
Bank of China	6.98	16.29
Agricultural Bank of China	n.a.	30.07

Source: Tamaki and Yamazawa 2005.

per cent of their total funding sources, amounting to RMB1,953.29 billion, whereas bond financing by those corporations comprised of only 6 per cent as of the end of 2005 (PBC 2006). However, the so-called 'big four' state-owned banks—the China Construction Bank (CCB), the Bank of China (BOC), the Agricultural Bank of China (ABC) and the Industrial and Commercial Bank of China (ICBC)—play the central role. Their assets were valued at RMB22.54 trillion as of the end of 2006 and accounted for about 51.3 per cent of the total assets in the banking sector (China Banking Regulatory Commission, various). On the other hand, the 'big four' suffer from a huge accumulation of non-performing loans (NPLs), resulting in low profitability (see Tables 1 and 2).

The success of some bank-centred economies in ensuring sound financial intermediation negates the possibility of attributing the dismal performance of Chinese banks to the bank-based financial system *per se*. For example, in Japan, banks played the vital role in the 'rent-based' banking system for fulfilling corporate financing needs, while suffering little from NPLs during its heyday. Rents that were available to banks through various financial policies were supposedly provided to them as an incentive to undertake the roles of prudent intermediaries and monitors.

This history generates several interesting questions: given the underdevelopment of the capital market, how is it possible for China to achieve such a high economic growth rate while its banking system is ailing? How can we explain the contrast between China and Japan? What has been responsible for the extreme level of NPLs in the 'big four' while the Chinese economy has expanded rapidly and seemingly so successfully? While the financial-restraint policy worked in the catching-up period in Japan, has it worked in China? This paper attempts to answer these questions. Here we refer to the Hellmann et al. (1997) financial-restraint model, which provides a theoretical framework for substantiating the efficiency of the rent-based system. In so doing, we analyse the process by which the Chinese bank-centred system is evolving in comparison with the path the Japanese rent-based banking system took.

The paper focuses on economic realities in China, including the percentage of total financial transactions banks account for and to what extent they are helping China's current economic progress. It describes the financial-restraint policy and bank rents within the theoretical framework for the analysis. Moreover, the paper analyses the causes of the massive NPLs in Chinese banks. Also it concentrates on the limited role of state-owned commercial

banks (SOCBs) compared with informal mechanisms in the Chinese financial system.¹ A brief conclusion follows.

Economic realities in China

The pre-1978 Chinese financial system can be characterised as a mono-banking financial system similar to that in other centrally planned economies, which made the central bank the focal point for undertaking the necessary function of financial intermediation. The state budget was the crucial mechanism for accomplishing this task. Put simply, state funds were collected through fiscal and other means of revenue collection and siphoned off to the state-run corporations. China, therefore, placed little weight on commercial banking and the capital market as active players in financial intermediation. Moreover, there were few specialised banks and most functions and authority in the banking system were concentrated in the People's Bank of China (PBC), a central government-owned and controlled bank under the Ministry of Finance.

At the end of 1978, there were only two specialised banks—BOC and the People's Construction Bank of China (PCBC, now CCB)—and one insurance company. Imai (1985) characterises the pre-1978 Chinese financial system as monolithic and hierarchical with centralised banks. The functions of the banks as financial intermediaries were constrained by the extraordinarily small bank deposits, such as household savings. However, bank deposits have increased many-fold since the reform initiative, paving the way for financial deepening.

Financial deepening in the post-reform era

A noteworthy contribution of the reform measures was that savings deposits surged and corporations began relying increasingly on loans from the SOCBs rather than from budgetary allocations. For example, in the early 1980s, the government budget accounted for roughly 25 per cent of the state-owned enterprise (SOE) finances. By 1994, that figure declined to about 2 per cent (Lardy 1998). The percentage of total credit to GDP was a mere 40 per cent in 1977 but rose to 140 per cent in 2006 (Figure 1). By this measure, the Chinese banking market is now larger than the bank-based financial system. In contrast, the share of the stock-market in financial intermediation is miniscule. In 2004, shares represented only 5 per cent of funds raised by non-financial corporations, whereas bank finance made up more than 80 per cent (see Figure 1).²

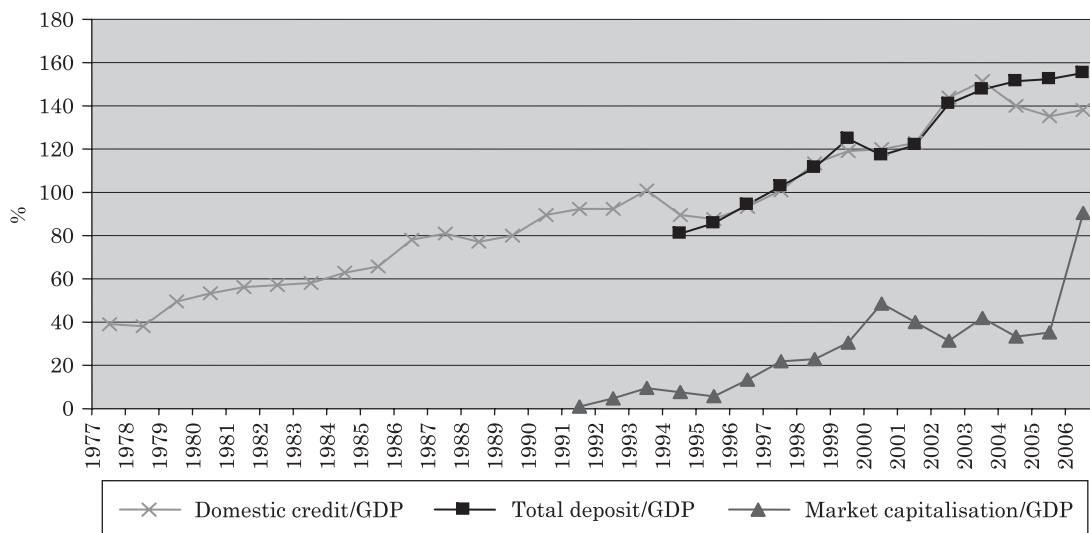
Not only is the Chinese banking system much larger than that of most bank-based countries with an equivalent level of GDP, the growth of lending has increased greatly since the reforms took place. Annual loan increases now exceed government revenue. For example, in 1979, the government budgetary expenditure of RMB127 billion was almost seven times the increase in loans; in 1992, the increase in loans of RMB498 billion surpassed for the first time the annual government expenditure of RMB439 billion. By 1996, the RMB1.1 trillion increase in outstanding loans was more than one third larger than the total government fiscal expenditure of RMB791 billion (Lardy 1998). This increasing trend has accelerated in the first half of this decade.

1 We define 'formal financing' in the narrow sense as 'funding from formal external resources', which includes borrowing from formal financial institutions, typically commercial banks. Therefore, 'informal finance' typically constitutes equity or shareholders' funds, loans from relatives and friends, and other informal sources, including internal reserves. Since our purpose is to estimate the contribution of commercial banks to total financing, this definition does not contradict the literature.

2 From its inception until 2005, stock-market capitalisation as a share of GDP hovered around 40 per cent. With the prices of stocks in the major exchanges soaring, however, it experienced such an astounding rise that, in 2007, market capitalisation surpassed GDP. At its peak, market capitalisation accounted for 1.2 times China's 2006 GDP. Some economists argue that rampant speculative activities have contributed to a stock-market frenzy that is fuelling an unsustainable bubble and they warn of the possible repercussions if the regulatory authority fails to prevent the bubble swelling. On the contrary, such overwhelming success could give the market more room to play its role in smoothing financial intermediation. Even if the sharp increase is temporary, firm conclusions cannot be drawn at this juncture. It would, however, be practical to conclude that the increase in market capitalisation will not cause China to shift its financial regime from bank-based to market-oriented in the near future.

Figure 1

Financial deepening in post-1978 China



Source: World Bank (various); IMF (2000–07).

Total domestic credit more than doubled from 2001 to 2006—equivalent to eight times the total government expenditure and 1.15 times the total GDP in 2005.³

Whether the dramatic rise in bank lending activities has been associated with economic growth and sound financial intermediation is highly questionable. The Chinese banking system is dominated by the four largest SOCBs, which have captured approximately 70 per cent of domestic credit and household deposits. Their assets currently make up almost 55 per cent of total banking-sector assets. Most of the lending activity of the SOCBs has, however, been concentrated in SOEs, which are traditionally loss making. The high degree of state ownership of financial institutions on the one hand and the SOCBs' tendency to function as government agencies on the other have been accompanied by an emphasis on lending to state-owned or controlled enterprises, crowding out non-state enterprises. For example, domestic loans for fixed asset investments

by private enterprises were zero in 1985 and increased to only 5 per cent by 2000 (OECD 2005). Similarly, short-term loans to private enterprises and individuals comprised only 2.5 per cent of the total short-term loans extended by all financial institutions in 2005 (PBC, 2006).

This conclusion is supported by a World Bank survey in 1999–2000 covering 10,000 firms, the majority of which were privately owned and operational in 81 countries. The survey results showed that 66.3 per cent of the firms surveyed in China ranked the General Financing Constraint—a measure of the perception of the severity of credit constraints—a major constraint on their business. This percentage was the second highest among the surveyed countries, after Moldova with 69.1 per cent (World Bank 2000).

Cull and Xu (2000) report that while domestic bank loans for fixed investment increased from 13 per cent of the total domestic financing in 1981 to 20 per cent in 1990, the

³ Domestic credit increased from 13,487.6 billion *yuan* in 2001 to 28,873.78 billion *yuan* in 2006 (International Financial Statistics) whereas government total expenditure in 2005 stood at 3,393.03 billion *yuan* (NBS 2006).

average share of bank finance of SOEs increased from 15 per cent to 27 per cent in the same period. Therefore, although direct government budgetary appropriations to the SOEs have seemingly been replaced by commercial and other banking activities—which can be seen as a structural change—functional changes have not taken place. A massive accumulation of NPLs, especially in the SOCBs, reveals this biased portfolio management.

Extremely high ratio of NPLs in the big four banks

Despite China's dramatic growth, the level of NPLs in the big four banks is so extreme that the stability and economic prospects of the Chinese economy can be affected. According to Lardy (1999), the amount of NPLs held by the SOCBs is such that deducting them from the banks' balance sheets would render them insolvent. He further noted that the total net worth of the banks at the end of 1995, including paid-up capital, reserves, retained profits and other surpluses, was RMB269 billion. Taking into account only those parts of bad debts where the dues were not repaid from the liquidation proceeds of the bankrupt firms, the net worth of these institutions amounted to RMB191 billion. These figures could underestimate the true situation, considering the fact that four asset management companies (AMCs) formed to rescue problem-stricken banks together absorbed RMB1.394 trillion of bad assets, or 20.7 per cent of the total loans outstanding from banks at the end of 1998 (Ma and Fung 2002).

From this vantage point, it can be concluded that if the recoverable rate of the remaining NPLs is not substantial, these banks have at least to report negative net worth. History shows that the recoverable rate of NPLs is not more than 30 per cent and the deteriorating quality of the SOEs leads to an even more pessimistic outcome. Since the current level of capital is far below the level set by the Basel Committee on Banking Supervision, fulfilling

the requirement of capital adequacy in addition to NPL restructuring would cost China 30 per cent of its total GDP (Ma 2006). What leads the SOCBs to accumulate such substantial amounts of NPLs? We put forward several hypotheses to explain the problem.

Policy burden of the big four banks

So far, the explanation for the large NPLs that has attracted the most support in the literature can be called 'policy lending'. Policy loans are given by government on non-market terms, often on the excuse of correcting market failure—a reason used frequently in the case of huge public investments such as infrastructure. In this sense, policy loans are favourable loans either in terms of the borrowing rate or state favouritism towards certain sectors. For a long time, the big four banks have been called 'wholly state-owned commercial banks' (He 2005:17) and have played the key role as policy banks.⁴ If the government had allocated funds for investment in infrastructure, the 'big four' would not have extended loans to investment where commercial profitability was low. Therefore, in spite of the financial reforms, policy lending—which can be considered synonymous with directed credit—has remained a characteristic of the Chinese financial system. For this reason, NPLs in China are fundamentally different from those of privately owned banks in market economies. Lau (1999:74) postulates:

[T]he fact that the loans become 'non-performing' is not in general a surprise to either the lenders or the borrowers—most of the lenders do not expect the loans to be collectible even at the time they are first made and most of the borrowers know full well at the time that they will not be able to repay these loans. The truth of the matter is that most of these loans are actually government subsidies for loss-making SOEs disbursed in the form of bank loans. These are, in fact, policy loans.

While there is little disagreement among scholars that policy lending is one of the

4 He (2005) further points out that the big four banks were called 'specialised commercial banks' before 1994, when three large policy banks were established for the purposes of reducing 'policy burdens' on the 'big four'.

Table 3
A synopsis of interest rate spread and reform characteristics

	1978–82	1983–94	1995–2001
Average interest spread (%)	-2.02	0.44	2.87
Reform initiatives	Gradual opening up	Bo Gai Dai Policy (policy loans 1984)	Commercial banking law (1995)
	Still favouring SOEs while hampering the profitability of SOCBs (transfer of rent)	Government budgetary allocations replaced by commercial lending	Began to resolve NPLs of SOCBs

Source: Figure 2.

reasons for the huge NPLs in the SOCBs, it is not a sufficient reason for the dismal performance of the Chinese banking industry. The accepted view has overlooked an important dimension of the problem offered by modern banking theories, which assume that a satisfactory level of bank rent is necessary to create compatible incentives for banks. This theory would postulate that the Chinese financial system has failed to provide banks with sufficient rents to function profitably and to take heed of their viability in the financial system.

The financial-restraint model and rent creation

The seminal works of McKinnon (1973) and Shaw (1973) can be attributed with the breakthrough in the analysis of the relationship between financial deepening and economic development, which states that an increase in monetary stock relative to the level of economic activity increases financial intermediation, followed by productivity increases and economic growth. Following this contribution, many economists—especially those supporting markets—advocated financial liberalisation in developing countries. Markets in developing countries are, however, unable to cope with fundamental problems of asymmetric information that lead to market failure. The possibility of market failure led to alternative

models in which government intervention in the financial market would enhance financial activities and financial deepening.

The financial-restraint model justifies government control of the deposit and lending rates to create rent incentives for banks. The basic premise of this model is that the real interest rate remains positive while inflation should be low and predictable (Hellmann et al. 1997). The fundamental role of the financial-restraint model is to create rents. In contrast, in a financial-repression regime, the government expropriates them. For instance, in the period from 1978 to the mid 1990s, rents from the Chinese banking sector were transferred to the SOEs (see Table 3).

Although financial-restraint policy now receives less attention than previously in Japan, its framework remains in China. Despite the high liquidity in the financial system, lending and deposit rates are still controlled by the central bank⁵—the People's Bank of China. The central bank has lowered the base rate for lending and deposits eight times since May 1996. The difference between the base rate for lending and that for deposits—that is, the *bank rent* opportunity—has been expanded as the base rate for deposits has been lowered further than that for lending. The difference reached 3.33 per cent per annum as of 2005. The increase in bank rent opportunity is reflected in the government's assistance to Chinese banks in writing off huge

5 The foreign deposit rate for more than US\$3 million has been deregulated since September 2000.

NPLs (Tamaki and Yamazawa 2005). A point to note, however, is that rent creation is not the only option to be considered for restructuring the financial system; rather it is a powerful tool to provide incentives so that lenders have a cushion in undertaking effective screening and monitoring activities. The model's success in some bank-based economies—especially during their rapid growth period—also offers a potential explanation for the Chinese banks' current depressing situation.

Using financial restraint to create bank rents worked well in the Japanese financial system. This institutional setting contributed to creating and maintaining a system wherein the major Japanese banks played the important roles of financial intermediaries and monitors. The rationale of the regulatory regime was to guarantee that banks would not fail, so their management, stockholders and depositors were protected.

The Stiglitz and Weiss (1981) model is of importance in showing that credit is rationed due to asymmetric information problems. Since lenders cannot perfectly and costlessly monitor the behaviour of borrowers, the price mechanism does not clear the excess demand for loanable funds. For instance, even when a borrower deemed by a bank to be not credit-worthy offers to pay a higher interest rate, the bank might decline the loan application because the offer is interpreted as a sign of higher than normal default risk. Hellmann et al. (1997) expand this theory by arguing that if government-imposed ceilings on the deposit rate are below the market-clearing rate, rent opportunities could emerge that give banks strong incentives to monitor their portfolios carefully.

It is also argued that while savings can respond favourably to higher interest rates, the elasticity is likely to be very low (Hellmann et al. 1997:168). The model also assumes that savings depend on the available infrastructure for deposit collection—in particular, on the extent of the bank branch network and the efficiency of services provided to communities. The model thereby claims that by increasing the returns to intermediation, banks have strong incentives to increase their deposit

base. The model considers the possibility that the 'rent effect' on savings is large, that is, there are increased savings due to greater deposit security and/or increased investments in improving the deposit infrastructure and facilitating access to the formal financial sector. If the rent effect is large relative to the interest elasticity of savings, it is possible that the total volume of funds intermediated through the formal financial sector will be larger with financial restraint than would be the case with free markets (Hellmann et al. 1997).

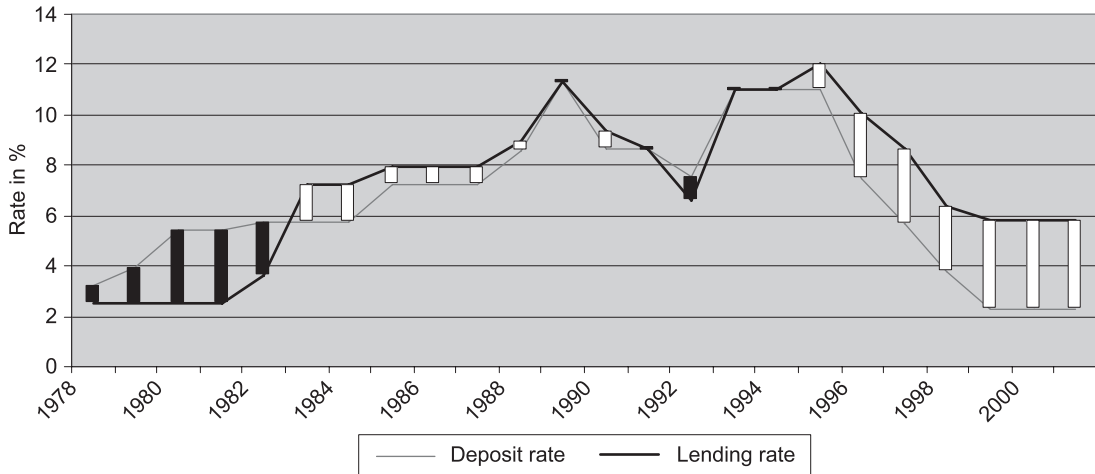
Although the net benefits for society are not always consistent with those for individuals, the important role of bank rents is to create incentives for banks to operate as agents that monitor borrowers effectively. We should then look for explanations for changes in banks' commitment to monitoring efforts in the organisation of this financial-restraint system. We should simultaneously note that the effectiveness of the screening and monitoring activities could be helped or hindered by institutions. The effectiveness of bank rent opportunity depends on institutional settings and changes in the financial system. A particular set of institutional arrangements embedded in broader institutions evolves for each economy. The institutional arrangement of various intermediaries in a particular financial system can have a significant bearing on the performance of the economy in which the system is embedded. The efficiency and effectiveness of a particular financial system can also change over time as the economy progresses (see Aoki 2001; Suzuki 2005 and 2006).

Removing distortions in the Chinese banking system

While China made magnificent progress in opening up its economy to the outside world, the financial sector was moribund for a long period after the reform initiatives. Channelling financial resources from the budget to financial intermediaries dominated the reform agenda during its first phase. Lending and deposit activities were, however, concentrated

Figure 2

Interest rate spread 1978–2001



Source: Construction based on People's Bank of China (2006) and Imai and Watanabe (2006).

on state-owned financial institutions. For example, a substantial portion of bank lending was given to the SOEs at a subsidised rate, which deprived the thriving private sector. Investment opportunities other than state-patronage institutions were almost impossible to take up in the face of government restrictions on the circulation of financial instruments. As a result, more than 90 per cent of Chinese household savings were deposited with the SOCBs (Lal 2006).

Because of this lax competition in the financial market—as well as the certainty of tapping deposits—SOCBs were transformed into symbols of inefficiency. They never looked to their financial performance because loan decisions were not motivated by commercial motives; rather policy and directive lending permeated loan decisions. The Chinese financial system in the early reform era was therefore characterised by financial repression implemented through granting monopoly status to the state-owned financial institutions while allocating banks negative or near-zero margins.

From the perspective of bank rents, the post-1978 period can be distinguished by three

distinct phases (see Table 3 and Figure 2): (i) the period of negative interest rate spreads, 1978–82; (ii) the policy loan period of close-to-zero interest spreads; and (iii) the period of positive interest rate spreads since 1995.

The commercial viability of the lending activities was not taken into account in the reform measures and hence the banks' profitability was undermined to a great extent. The relationship between SOCBs and SOEs remained unchanged. Banks were not privileged to enjoy rents from extending loans to SOEs; rather funding subsidised to SOEs yielded banks' negative rents in the period 1978–82, averaging slightly more than 2 per cent annually. In these circumstances, banks could not be expected to operate on a commercial basis.

This bank rent regime was reformed in 1984 when the PBC was designated as the central bank of China. This reform removed the mandate of financial authority from the banks and established the PBC as the monetary authority. The interest rate on lending was, however, increased slightly; the banks therefore did not suffer negative rents, although the interest rate spread was not significantly different

from zero. The near-zero interest-rate-spread regime ended in 1995 when the third set of reforms took place.

The mild financial repression from 1978 to 1994 facilitated the flow of financial resources from savers to users. The policy was, however, unlikely to provide banks with sufficient incentive to undertake commercially viable projects through tapping the large volume of savings available at low deposit rates.

The belief behind the government's mild financial repression policy—which operated through the state monopoly of the financial system—was that the monopoly would provide banks with the capability to capture deposits while curbing the growth of aggregate demand and, in turn, ensuring financial deepening (Li 2001). Moreover, the low interest rate on deposits in order to keep the lending rate low was intended to resurrect the moribund SOEs. Towards this end, the policy was successful as there was a substantial increase in bank deposits during the financial repression; there was an average increase of more than 30 per cent in household bank deposits for almost two decades.

Keeping the SOEs afloat has, however, been achieved at the cost of high inefficiency in the financial sector, which we argue is one of the main reasons for the skyrocketing NPLs of the SOCBs. Therefore, Li's (2001) conclusion that financial repression has facilitated capturing this substantial increase in bank deposits is not without qualifications. Because of the monopoly of the SOCBs, households have had very little choice in investing their savings. Capital flight was not possible because of government restrictions on capital movement. Moreover, in a state of zero or negative profits, banks have little incentive to facilitate the flow of funds to productive sectors.

The government targeted the commercial banks as a source of funds to offset the decline in fiscal revenues during the reform period. The reforms shifted the tax base away from the sources traditionally tapped by the tax system. Government revenue fell from more than 34 per cent of the gross national product (GNP) in 1978 to less than 13 per cent in 1994 (Hofman 1998). The government was therefore

compelled to look for alternative sources of revenue; SOCBs were easy prey. These extra-budgetary funds—as well as the quasi-fiscal activities of the central banks—relieved the government of any macroeconomic shock due to budget deficits (Hofman 1998). Assuming zero opportunity cost of capital, Hofman (1998) estimates that the real resource transfer to banks due to the negative real interest rates was, on average, 2.10 per cent of GDP for the period 1986–94.

The regime of positive interest rate spreads

Since 1995, banks have been enjoying positive interest rate margins. A true financial restraint policy was therefore implemented and resulted in a critical transformation of the financial system. Because of the lateness of this transformation there is, however, a risk that the policy change will not redress the financial mess. By the same token, the question might be asked, if rents create incentives for banks, why have the banks not shown substantial improvements in their performance?

The answer is simple enough. By the time the Chinese government put the financial-restraint model into effect, SOCBs had already accumulated a huge volume of NPLs. The average spread of less than 3 per cent, however, is not sufficient to allocate an adequate amount to cover bad debts. It is usual for business that a portion of profits is reserved for bad debt provision. The additional burden for Chinese banks is, therefore, to cover already accumulated NPLs.

After opening up the Japanese financial markets to the outside world, the rent-based banking system faltered when the rents were dissipated (Suzuki 2005). An economic slowdown followed, even though the volume of NPLs of the Japanese banks was much lower than what the Chinese SOCBs are now carrying. How relevant is this experience to the Chinese financial system and the Chinese economy? The next section looks at this question, taking into account the contribution of the formal financial system to economic growth in China.

Limited role of state-owned commercial banks

China's long-lasting rapid economic growth could undercut any cautionary remarks regarding an imminent financial crisis. Nevertheless, the need for bold steps to redress the current financial mess—which, in turn, could act as an obstacle to the continuation of this growth—is not without foundation. Dornbusch and Givazzi (1999) argued that China's banking system needed urgent and in-depth reform. Fan (2002), though not especially pessimistic about the future of China's financial system, argued that the fragile banking sector was not sustainable even in a closed economy, let alone when China opened its capital markets. Huang (2002) said that if the government failed to eliminate the banking problems, a financial melt-down would be the likely consequence. Lardy (1998, 1999) and Chang (2001) also remind Chinese policymakers about the potential dangers of failure to react to the banking chaos.

The crisis in the SOCBs is not, however, new. It was noted earlier that the commercial banking system's contribution to total financial intermediation was still substantial, given the underdevelopment of capital markets. Moreover, the lion's share of this financing by the banking sector was concentrated on loss-making SOEs whose economic health was worsening. Given this, what makes it possible for the Chinese economy to maintain the lofty rates of GDP growth? Who has been financing the investment, which stood as high as 40 per cent of GDP? The likely conclusion is that the public sector is not the fundamental determinant of economic growth and there is a system of informal financing that has been the growth driver.

Not only has the amount of losses incurred by SOEs increased over the years, the number of loss-making firms has increased. Lardy (1998) reported that the share of loss-making SOEs fell in the early years of reform to a low of less than 10 per cent in 1985. Since then the percentage has skyrocketed, reaching an all-time high by the mid 1990s, with total losses amounting to RMB80 billion.

Table 4
Contributions to industrial growth (industry value added)*

	State-owned and state-holding industrial enterprises (%)	Private industrial enterprises (%)
1999	19.11	80.89
2000	23.52	76.48
2001	13.16	86.84
2002	19.51	80.49
2003	28.08	71.92
2004	34.93	65.07
2005	29.11	70.89

* Each year's increase in industrial value added is scaled to 100.

Source: National Bureau of Statistics (NBS 2006).

In contrast, the performance of the private sector has risen sharply and its contribution to GDP has intensified. The value added of the private sector to total output increased from 50.4 per cent in 1998 to 59.2 per cent in 2003 (OECD 2005). The growth of value added to industry by private enterprises averaged 76 per cent for the period 1999–2005, whereas the contribution by state-owned and state-holding enterprises hovered about 24 per cent in the same period (Table 4).

The surprising fact is, however, that the formal financial institutions do not serve the non-state sector, which has become the main engine for the economic growth. Only a minuscule volume of short-term financing from the formal financial institutions is allocated to the non-state sector. For example, short-term loans to township and village enterprises stood at about 9 per cent of total short-term finance in 2005, while the share for private enterprises and individuals was 2.5 per cent. The reason is that the banks' monopoly power in the financial market—in lending and deposit markets—has given them discretionary power to extend loans even though the projects are not financially viable.

We argue that the absence of rent opportunities that provide the primary motivation for banks to accept profitable projects is the

fundamental reason why the thriving private sector is deprived of formal financing. It is reasonable for banks to extend their credit at suppressed interest rates to the state sector rather than the private sector as loan managers would be scapegoats in the case of defaults by private entrepreneurs. This is unlikely if the defaults happen to be on the part of SOEs. Responsibility for loans extended in this sector can be shunned, and they can be labelled policy loans. In contrast, where rents are created for banks, it is worthwhile for them to be held responsible in the case of any default.

An All China Federation of Industry and Commerce survey—which is conducted mainly to identify financing behaviour in the private sector—reveals a sorry situation. In its 2002 survey, the Federation showed that the number of firms relying on formal financing was declining. During 1984–89, 24.5 per cent of the private firms surveyed reported receiving formal finance; this ratio declined to 19.6 per cent during 1990–2001. Tsai (2002:2) argues: '[A]s of the end of 2000, less than 1 per cent of loans from the entire national banking system had gone to the private sector. Business owners take their exclusion from formal sources of credit for granted'.

He (2005) analyses the changes in four categories of funding sources of investment in China: 'budgetary funds' (funds mainly from government); 'domestic credits' (long-term borrowings by firms from domestic banks and non-bank financial institutions); 'foreign funds' (long-term international loans, mainly in the form of official development aid, which have been used for investment projects, and foreign direct investment inflow); and 'all others' (miscellaneous means of long-term financing). He (2005) reports data by the State Statistics Office showing that in 1979, for what was called 'basic construction investment',⁶ the share of budgetary funds was 75.8 per cent, while that of domestic credit was 1 per cent, foreign funds was 3.1 per cent and 'all others' 20.1 per cent. In 1990, the share of budgetary funds was about 10 per cent, while that of domestic credit was about 20 per cent. Since

then, the share of domestic credit has remained virtually unchanged. Throughout the period 1979–2004, while the share of budgetary funds was shrinking and that of domestic credit was rising, the most notable change was that the share of 'all others' increased steadily and reached a high of more than 70 per cent of total fixed asset investment. He (2005) places the following components in this category: (i) funds raised from equity markets, domestic and abroad, by issuing debentures or stocks; (ii) funds raised internally, either from undistributed profits or retained funds, for some specific purposes; (iii) funds raised from authorised surcharges such as 'coal for oil' fees and airport construction duty; (iv) funds raised from borrowing in less-regulated markets, including borrowings from non-financial firms and individuals; (v) funds raised from issuing debt/share certificates to employees; and (vi) in collectively owned or private enterprises, funds raised from personal savings. Formal financial intermediation does not therefore play a significant role in the present-day Chinese economy.

In order to overcome the entrenched default culture and to ensure the SOCBs' increased participation in economic progress, the government has implemented some reform measures targeted at boosting market-oriented commercial banking. The importance of non-state commercial banking, albeit still in an embryonic stage, has increased recently. For example, joint-stock commercial banks (JSCBs) and city commercial banks (CCBs)—which are diverse in terms of ownership structure and geographical location—have been prioritised in financing private industrial enterprises.

There are currently 12 JSCBs owned partially by local governments and SOEs with growing shares of private as well as foreign enterprises ownership. They held only 4.4 per cent of total outstanding loans in 1993, but this share had risen to 15 per cent by 2004. These banks finance largely small SOEs and SMEs through an extensive branch network in the fast-growing coastal areas. As of 2004, deposits

6 This is a statistical category smaller than 'fixed asset investment'.

in these banks amounted to RMB4,143.6 billion, which accounted for 16 per cent of total deposits; whereas their loans disbursement amounted to RMB2,926.1 billion or 15 per cent of total banking-sector loans.

The CCBs were created by restructuring and merging urban credit cooperatives. Although plentiful in number, they play a very limited role since their operations are restricted to urban areas. In 2004, all CCBs combined accounted for only 5 per cent of total banking assets. Needless to say, the increased rate of growth of the JSCBs and CCBs has led to a decline in the SOCBs' share of total banking assets: from 73.9 per cent in 1993 to 54.6 per cent in 2004. Scholars are prompt, however, in denying the likelihood that these non-state banks—no matter how efficiently they are driven by the market spirit—will supersede the long-lasting SOCBs in the near future.

Concluding remarks

We explore a potential cause for the persistent, appalling state of China's banking sector—especially the SOCBs—from a perspective overlooked by the existing literature. We argue that proper incentives can motivate incumbents to undertake activities that are compatible with the maximisation of social benefits. The financial repression that prevailed in China from the start of the reform

period until the mid 1990s can explain, to a great extent, why Chinese banks are carrying an enormous volume of NPLs. Negative or zero interest rate margins—along with government expropriation by imposing implicit taxes on deposits through rate ceilings—gave little incentive to banks to consider the commercial viability of the projects financed.

Banks are different in nature from other industries and they therefore need special attention from policymakers, at least in China, because Chinese SOCBs account for a substantial part of total formal financial activities. Informal finance sources are, however, far more important than formal sources; especially for financing private enterprises, which have been the life-blood of rapid GDP growth.

What constitutes informal finance and how the accumulation of that enormous volume of funds has been made possible are issues for future research. Savings by households are, however, at a high level of more than 40 per cent of GDP. The Chinese economy can resort to that accumulation to keep the private sector growing vigorously. Still, there remains a crucial question: can China rely on this financing source for growth at its current level while its formal financial sector is ailing? The simple answer is no. Our presumption is that the Chinese economy has already reached the saturation level of informal finance; therefore, redressing the current mess in the banking system is critical to sustaining economic growth.

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