

The macroeconomy and reform of the banking sector in China

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Introduction

First of all, it is useful to put the Chinese economy into the proper context. Chinese GDP and GDP per capita in 1998 were, at market exchange rates, US\$960 billion and US\$770 respectively. In comparison, the GDP and GDP per capita of the US economy were approximately US\$8.5 trillion and US\$31,000 respectively. The Chinese economy, despite 20 years of phenomenal economic growth at approximately 10% per year, is still relatively small in both aggregate and per capita terms.

The effects of the East Asian currency crisis

The Chinese economy has managed to remain relatively unscathed from the East Asian currency crisis, which has been ravaging most of the other East Asian economies since mid-1997. China and Hong Kong are the only two economies whose currencies have not devalued. The real rate of growth of the Chinese economy has remained the highest in East Asia and even the world (8.8% in 1997 and 7.8% in 1998), while almost all of the other East Asian economies, including Japan, had a negative real rate of growth in 1998, except Singapore and Taiwan. The growth of Chinese exports, at US\$183.8 billion in 1998, has, however, slowed down significantly to 0.5%, compared to 26.2% in 1997, mostly due to the decline in exports to the affected East Asian economies, including Japan. Otherwise, exports to European and North American markets have continued to grow at double-digit rates. In real terms, exports probably increased by 4.5% in 1998. Chinese imports declined for the

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first time in almost a decade, by 1.5%, to US\$140.2 billion, compared to an increase of 2.5% for 1997. In real terms, imports probably increased 2.5%. There continued to be a healthy trade surplus of US\$43.6 billion in 1998.

Foreign direct investment (FDI) arrivals in China totalled US\$45.6 billion in 1998, an increase of 0.7% over 1997, with the reduction in investment from the East Asian economies offset by the increase in investment from Europe and the United States. FDI commitments totalled US\$52.1 billion, 2.1% higher than in 1997.

The Chinese domestic price level has been falling for 15 consecutive months. For 1998, the retail price index (RPI) fell by 2.6% and the consumer price index (CPI) by 0.8%. However, much of the fall in the price level could be attributed to the worldwide decline in the prices of commodities, especially that of oil, resulting from the East Asian crisis, and the decline in the domestic price of food, due in part to good harvests.

However, the East Asian currency crisis and the resulting turmoil in the financial sectors of the East Asian countries does focus attention on the banking and financial sectors of China and the need for their improved regulation.

The macroeconomy

As mentioned above, the Chinese economy has remained relatively healthy – growing by 8.8% in 1997 and 7.8% in 1998. The rate of inflation has actually turned negative – prices have been falling for 15 consecutive months. The urban unemployment rates for 1997 and 1998 were 3.1 and 3.5% respectively. For 1999, the official government target rate of growth of real GDP is 7%. My own forecast is that it will be somewhere between 7 and 8%.

Two points are worth making here. First of all, for all practical purposes, the 8% target rate of growth for 1998, which was the focus of much discussion last year, was effectively achieved. For the entire year, the rate of growth of real GDP was 7.8%. However, the floods in the summer of 1998 reduced the rate of growth of real GDP by at least 0.5%. Thus, if it were not for the floods, 8% growth would have been comfortably achieved. My own estimate of the “core” rate of growth of

the Chinese economy, based on its long-term fundamentals, is around 8%. Second, it is almost “dogma” among most financial journalists that the Chinese economy “requires” a real rate of growth of at least 8%, otherwise the social order will crumble and the economy will collapse. However, no theoretical argument nor empirical evidence have ever been produced to support this often-expressed opinion. (There is also no other economy that is supposed to “require” an 8% or even 6% growth.) A simple calculation shows how fallacious this belief is. Chinese GDP and GDP per capita in 1998 were US\$960 billion and US\$770 respectively. The net new entrants into the Chinese labour force may be estimated to be approximately 10 million a year. If we assume that each new entrant into the labour force commands a wage rate of US\$1,800 a year, which is on the generous side, the total cost of absorbing the net additions to the labour force comes to US\$18 billion a year, which is less than 2% of GDP. Thus, in principle, a 2%, rather than an 8%, growth of the economy should suffice. I happen to think the Chinese economy has the potential of growing at approximately 8% per annum over the next two decades. However, the sky will not fall in if the Chinese economy occasionally slows to a 4% or even 2% annual growth.

Are the reported rates of growth of real GDP reliable?

One significant argument is, however, whether the official rates of growth of Chinese real GDP are reliable. There are many reasons why the real rates of growth may have been overstated at different times and for different reasons. For example, in the early to mid-1980s, it was quite possible that the rate of growth of real GDP might have simply reflected, in part, the effects of magnetisation (or marketisation) of the economy. The eggs produced by a farmer for an in-kind exchange with another farmer for pork would not be included in the GDP figure. However, if both farmers sold their own outputs and purchased each other's output on the market, GDP would register an increase even though total output has not changed at all. In the late 1980s and early 1990s, the effects of land transactions on profits of enterprises and hence value added might have also caused GDP to be overstated. This is because land used to be carried on the books of Chinese enterprises at zero cost. When land was transferred from one enterprise to another, or to a foreign-invested firm (usually in the form of a long-term lease) at market, all the proceeds

would be recorded as profit in the income statements and hence treated as value added in the national income accounts. In truth, many of the transfers were of raw, unimproved land, with little real “value added”.¹ This was thus also a source of overstatement of GDP. However, over time, the importance of this source of overstatement would diminish as more and more land, especially the more valuable parcels, was marked to market on the books through the transfers. A possible source of understatement of real GDP comes from the upward bias in the measurement of the GDP deflator and generally the price indexes. The price indexes are likely to be overestimated because of the fixed weighting (changed only periodically), the lack of adjustments for quality improvements and for the introduction of new products, among other things. The effects of the upward bias in the deflators should be higher in high inflation periods and lower in low inflation periods.

There is, however, no evidence of any deliberate falsification or change in the statistical methods on the part of the National Bureau of Statistics (NBS) of the People’s Republic of China – although there may be discrepancies between the NBS data and reports made by provincial, regional, municipal and local governments. Moreover, the incentives for falsification work in both directions at the provincial and local levels. On the one hand, the provincial and local leaders may wish to appear to have done a good job, both to the central government and to their local constituencies. Thus, they may be tempted to inflate the statistics. (That is one reason why the central government statistics are likely to be more reliable.) On the other hand, they may also wish to minimise their liabilities for taxes and profit remittances to the central government.

By far the most convincing arguments that the official rates of growth figures are reasonably reliable are based on cross-validation using other methodological approaches for the measurement of GDP. In addition to the production approach, that is, the measurement of GDP by summing up the value added of the productive sectors, e.g. agriculture, industry and services, there is at least the expenditure approach and the factor incomes approach. These alternative approaches yield estimates for 1998 that are consistent with a rate of growth in the order of 7–8%, as we shall show below.

¹ The transfer and sale of raw, unimproved land from one entity to another does not create value added per se even though it may create profit in the accounting sense.

The expenditure approach consists of looking at the rates of growth of the components constituting aggregate gross domestic expenditure (which in principle must be equal to gross domestic product). We begin with the gross domestic expenditure (GDE) equation, which is by definition equal to the sum of personal or household consumption expenditures (C), government consumption expenditures (G), gross domestic investment (I), and net exports of goods and services (X–M). Gross domestic investment or, equivalently, gross domestic capital formation, is in turn equal to the sum of gross domestic fixed investment (GDFI) and change in stocks or, equivalently, inventories (ΔS). Thus,

$$\begin{aligned} GDE &= C + I + G + (X-M) \\ &= C + GDFI + \Delta S + G + (X-M). \end{aligned}$$

The rate of growth of real GDP can therefore be estimated from the expenditure side as the weighted sum of the real rates of growth of the components of gross domestic expenditure.

In 1998, the rate of growth of real retail sales was 9.7%. While the rate of growth of real retail sales alone does not translate directly into the rate of growth of real household consumption expenditures, the latter may be conservatively estimated to be 5%, or approximately half the rate of growth of real retail sales. On a per capita basis, this amounts to a 4% growth, which was quite consistent with the rates of growth of real per capita disposable income in 1998 of 5.8% in the urban areas and 4.3% in the rural areas. Since real household consumption has approximately a share of 40% in GDE, it contributes approximately 2.0% (= 0.4 times 5%) to the real rate of growth of GDE. The rate of growth of real government consumption was 6.5%. With a share in GDE of approximately 10%, real government consumption contributes 0.65% (= 0.1 times 6.5%) to the real rate of growth of GDE. The rate of growth of real gross domestic fixed investment was 14.1%. With a share of GDE of between 35 and 40%, real gross domestic fixed investment contributes at least 4.9% (= 0.35 times 14.1%) to the real rate of growth of GDE. The real rates of growth of change in stocks and net exports were negligible in 1998. Thus, an approximate estimate of the rate of growth of real GDP may be obtained as the weighted sum of the real rates of growth of the components of GDE as 7.55% (2.0 + 0.65 + 4.9), which turns out to be very close to the official estimate of 7.8%.

The quantity theory of money provides another way of cross-validating the estimate of the rate of growth of real GDP. The quantity theory says that:

$$MV = PT,$$

where M is the nominal quantity of the money supply, V is the velocity of circulation of money, P is the price level, and T is the real quantity of transactions in the economy. Under the assumption that the velocity of money is constant, the rate of growth of the money supply is equal to the sum of the rate of growth of the price level (inflation) and the rate of growth of real GDP (identified with the real rate of growth of transactions). Thus, the rate of growth of real GDP may be estimated as the rate of growth of the money supply less the rate of inflation. In 1998, the rates of growth of the different measures of money supply were, respectively: M0, 10.1%; M1, 11.9%; and M2, 15.3%. Given a negative rate of inflation (−2.6% for the retail price index and −0.8% for the consumer price index), the implied rate of growth of real GDP would be in excess of 10%, no matter which concept of money supply is used. In reality, V must have been declining. Thus, the rate of growth of the money supply in China was not inconsistent with a rate of growth of real GDP of between 7 and 8%.

Why are the rates of growth of electricity, energy and freight traffic so low?

One final question that needs to be addressed is the following: was it possible for real GDP to grow at 7.8% per annum while the rate of growth of electricity production was 2.8% and that of freight traffic was −1.3%? The answer is yes, mostly because the Chinese economy has been undergoing very rapid structural change. If China were a mature economy in steady state like the US economy, such large “discrepancies” in the rates of growth of real GDP compared to those of the production of energy, especially electricity, and freight traffic would have been impossible.

First, the rate of growth of electricity consumption has been lagging behind the changes in the real price of electricity, which has risen threefold since 1990. Thus, the ratio of electricity consumption to GDP was expected to decline over time – the rate of growth of electricity consumption should, based on consideration of the price effect alone, be

lower than the rate of growth of GDP. The same argument applies more generally to the energy consumption to GDP ratio. In addition, there were also other forces at work to reduce the electricity consumption to GDP ratio. Second, the composition of the output of the Chinese economy has also undergone rapid change in recent years: the rate of growth of the manufacturing sector, which uses more electricity per unit value added, has slowed relative to the construction sector and the services sector, which uses much less electricity per unit value added. This results again in a decline in the electricity consumption to GDP ratio. The differential rate of growth between heavy and light industry also has an impact. Third, the effects of intra-industry changes in the composition of outputs can be very significant for a rapidly transforming economy. As the steel industry upgrades the quality of its products from ordinary steel to, say, stainless steel, the value added per metric ton doubles or triples, but the electricity consumption per ton increases much less. The same argument applies as the garment industry moves from making plain cotton shirts to silk shirts, with a significant increase in value added but almost negligible increase in electricity consumption. Thus, intra-industry changes in the composition of output by quality can result in a significant reduction in the electricity consumption to GDP ratio. Of course, in a mature economy, changes in the intra-industry composition of output are likely to be much smaller.

Fourth, there were genuine gains in efficiency, quite aside from the direct price effect, resulting from the replacement of old equipment with new equipment and from economies of scale of operation. Fifth, many of the arguments advanced above apply with equal force to the freight traffic to GDP ratio. A metric ton of steel is a metric ton of steel in terms of freight traffic even though the value added per metric ton can be vastly different. However, in the case of China, concern about pollution and environmental regulation had the additional effect of reducing the use of coal. But coal was responsible for 60% of Chinese freight traffic. Thus, a substitution of coal with oil, gas, hydro or nuclear electricity would result in a significant decline in freight traffic with no necessary corresponding effects on either total energy consumption or real GDP. This is the best and most plausible explanation for the observed contraction in freight traffic. Sixth, more generally, changes in the loci of production and consumption would have the effects of reducing both electricity consumption and freight traffic. Suppose one

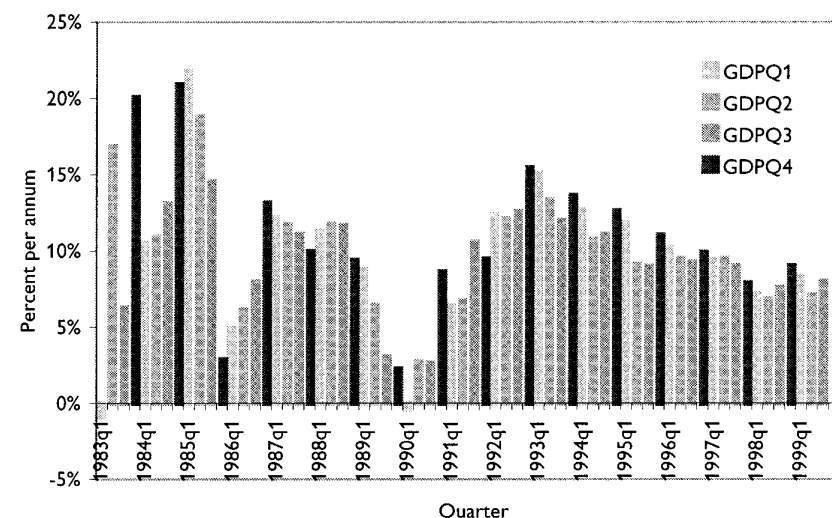
power plant used to supply two cities 400 miles apart. Now suppose a new power plant closer to the second city becomes operational and takes over as the electricity provider for the second city. The overall electricity demand will come down because of the reduction in transmission losses; however, such contraction does not indicate a reduction in the economic activities in either city. The same argument works for freight traffic as well. A new plant opens in Chongqing, supplies the local area and replaces the “exports” from the old plant in Shanghai. Total GDP probably rises as the freight traffic declines. Of course, these effects would not have been important in a mature economy.

Seventh, technical improvements – new plants, better cables, higher voltages – over time could also have reduced transmission losses and hence overall electricity consumption in general.² Finally, as co-generation becomes more widespread in China, many industrial users have become marginal users. Thus, as their output level declines, they will not buy from the electric utilities. The output of the electric utilities is therefore especially sensitive to a slowdown in the rates of growth of industrial output. This will lead to a downward bias in the electricity consumption to GDP ratio if co-generated electricity is not fully included in the data on electricity production and consumption.

Is there sufficient aggregate demand?

In order to answer this question, we should first examine what has happened to real GDP. Figure 1 presents the year-on-year quarterly rates of growth of Chinese real GDP. (There are no seasonally adjusted data available as yet; the measurement of quarterly rates of growth on a year-on-year basis is an attempt to control for the seasonal factors.) It shows that the rate of growth began to decline in the third quarter of 1992 until it reached bottom in the second quarter of 1998 (at 6.8%). It has been rising since. There is, however, a pronounced and readily apparent seasonality even in these year-on-year rates of growth. Thus, while the rate of growth appeared to have begun declining again from the fourth quarter of 1998, one should focus instead on the comparison of the rate of growth by the specific quarter, that is, for example, the fourth quarter

Figure 1
Real GDP
Year-on-year quarterly rates of growth



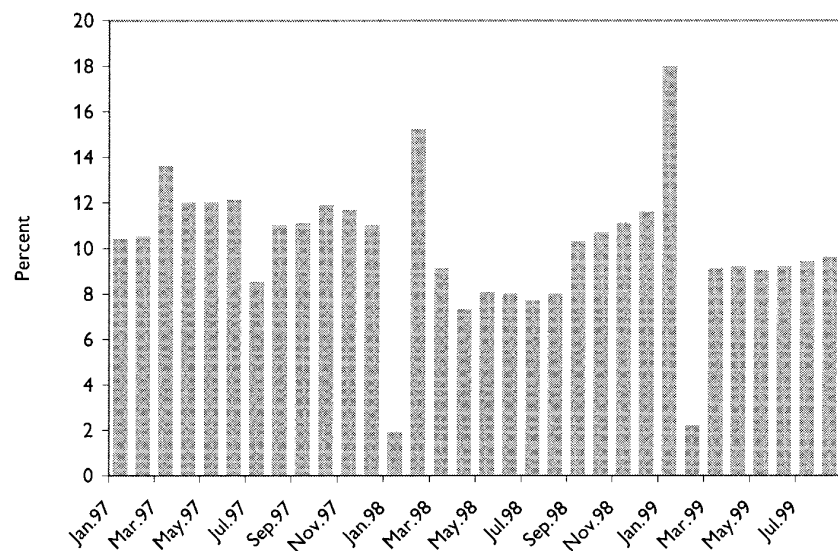
with the previous fourth quarter (shown as similarly shaded columns). The resulting picture is actually one of a slow but steady rise in the rates of growth since the fourth quarter of 1998. Real GDP grew 7.6% in the third quarter of 1998 despite the floods which probably caused a reduction of 0.5% in real GDP and 9.0% in the fourth quarter of 1998, representing a strong turnaround from a string of declining quarterly growth rates. We conclude that the declining trend in the growth rates so evident in the figure has finally been reversed. It is also useful to note that the year-on-year rates of growth tend to lag behind. Thus, when rates are rising on a year-on-year basis, the economy is actually doing better than the rates indicate (unfortunately, the reverse is also true, so that when the year-on-year rates are falling, things are worse than they appear).³

The rates of growth of industrial output, measured in terms of value added, are presented in Figure 2, and they tell a similar story. Ignoring the

² Measures to reduce theft of electricity also result in a reduction in the “measured” rate of transmission loss.

³ Developments subsequent to this conference have proven that our analysis is basically correct.

Figure 2
Value added in industry
Year-on-year monthly rates of growth



anomaly caused by the shifting of the Chinese (lunar) New Year between January and February, there was a readily discernible recovery in the rates of growth beginning in September 1998 and continuing through early 1999.⁴ For 1998 as a whole, value added in industry grew 8.9%.

Beginning in the summer of 1998, the central government undertook a massive infrastructural investment programme. As a result, real gross domestic fixed investment grew by 14.1% in 1998. In the first two months of 1999, real gross domestic fixed investment of state-owned and other enterprises (excluding the collective and private enterprises) grew by 28.3% on a year-on-year basis, reflecting the continuing effects of the infrastructural investment initiative.

Prices have been falling for 15 consecutive months. However, much of the decline in the prices was caused by falls in the prices of energy, especially oil, and in the prices of food. The core rate of inflation, that

is, the rate of inflation net of the changes in the prices of energy and food, may be estimated at between 1 and 2%, comparable to that of the United States. Thus, there is no empirical evidence of either a resurgence of inflation or of deflation. The rate of interest has been reduced four times since mid-1997. The yield on 10-year yuan-denominated bonds has fallen below 6%. Three-year yuan-denominated bonds issued in March/April 1999 carried an interest rate of 4.72%, whereas five-year bonds carried an interest rate of 5.13%. These long-term rates of interest are similar to the rates of US Treasury securities of comparable maturity. They provide evidence of an absence of expectations of either long-term inflation or a devaluation of the renminbi.

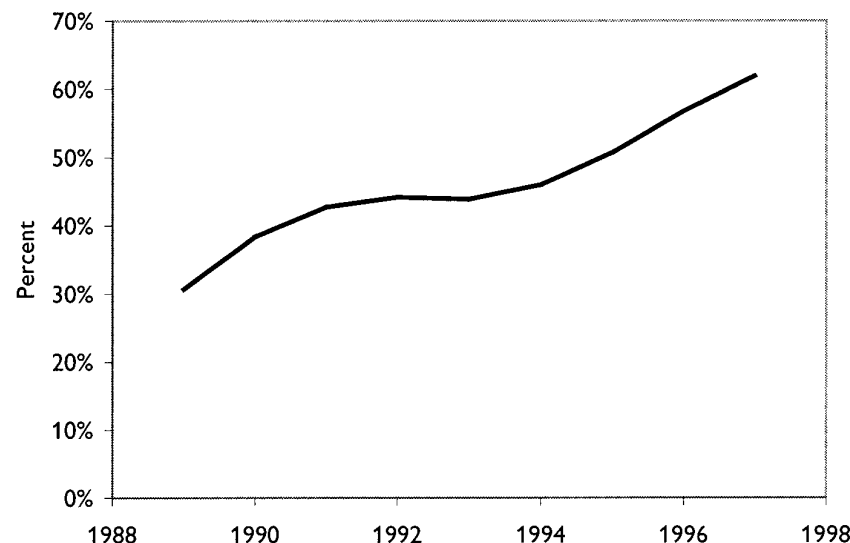
The growth of household consumption has remained sluggish and lagged behind the growth of disposable income. This is because household consumption has been adversely affected by actual and expected furloughing of workers by the state-owned enterprises (SOEs), the reduction in the staff of the central government by almost 50%,⁵ and the prospective reform of housing, health care, education, pension and other social services. It has also been affected by the East Asian currency crisis through its negative effects on consumer confidence, even though the direct effects of the crisis on the Chinese economy as a whole have remained relatively small. As a result, the national saving rate has remained high at approximately 40% and household savings deposits as a percentage of GDP have continued to rise, reaching over 70% in 1998 (see Figure 3). The enterprises, both state-owned and non-state-owned, faced with a weak consumer market and excess capacity, have also reduced or even stopped their new investment altogether. Moreover, because of the East Asian crisis, exports to as well as the foreign direct investment inflow from certain East Asian countries have also slowed dramatically. This, coupled with the clampdown on smuggling since mid-1998, has resulted in pockets of economic recession, especially in the southern Chinese provinces of Guangdong and Fujian.

Overall, business and consumer confidence has remained weak. In order to continue to sustain a rate of growth that is close to the potential of the Chinese economy, additional economic stimulus by the central government is necessary.

⁴ The recovery would probably have occurred in August had there not been the floods.

⁵ The central government employees have been reduced by approximately 48% across the board (approximately four million in total).

Figure 3
Household savings deposits
 Year-end stock, as a percentage of GDP



The roles of the banking sector in a developing market economy

In this section, we consider the different possible roles of the banking sector in a developing market economy. First of all, a banking system is a payment and settlement system – it facilitates transactions and hence economic activities. Without a reliable banking system, all transactions will have to be conducted in the forms of barter, cash or buyer- and seller-specific credits. The volume of economic activities that can be supported will be much smaller in the absence of a functioning banking system. Second, banks provide a safe depository for the money balances of households and enterprises, as a convenient and reliable alternative to mattresses and private vaults. Third, banks provide low-risk⁶ investment

⁶ In economies with either explicit or implicit deposit insurance, such investment vehicles are virtually risk-free.

vehicles for the savings of households and enterprises in the form of different types of savings deposits. Finally, by extending credit to enterprises and households, the banking system also performs financial intermediation, allocating savings to their highest and best use and pooling and hence diversifying the risks across investment projects on behalf of its depositors.

In terms of loans (and investments), the banking sector has many options. The safest loans for the banks are of course those to the central government, and the safest investments are debt securities issued by the central government.⁷ Next in the order of higher riskiness are short-term loans for international trade financing backed by letters of credit, followed by construction loans and short-term working capital loans. The biggest risk in construction loan and working capital financing is the diversion of the loan proceeds for unauthorised purposes. Construction loan financing, properly disbursed in accordance with verified progress, is relatively low-risk, but there may be some repayment risk to the extent that the structures constructed cannot be readily sold at completion. Short-term working capital is also relatively low-risk, provided that it is adequately monitored and collateralised (e.g. with warehouse receipts).⁸ Banks can also provide loans for investment by government and enterprises. However, these loans are typically long-term in nature. While loans to the government are generally quite secure,⁹ long-term loans to enterprises should properly be the province of specialised development, industrial and long-term credit banks. Ordinary commercial banks do not normally have the long-term funding base to make these long-term loan commitments because the bulk of their deposits are short-term in nature. Moreover, loans for financing long-term investment by enterprises are also inherently riskier because of both the long gestation period and consequently the long exposure period – the loans become much more like equity investment in terms of their risk characteristics. Finally, banks can also finance personal or household investment (e.g. residential mortgage loans) and consumption; however, non-collateralised

⁷ This also provides the central government with an alternative to the practice of printing money to finance budget deficits.

⁸ Working capital financing based on cash flows is riskier. In the East Asian developing economies, cash flow-based lending is extremely rare among the local East Asian banks. Collateral is almost always required and most often takes the form of real estate.

⁹ Even then there may be a risk of maturity mismatch.

consumption loans are probably quite risky in developing economies, and even collateralised loans such as mortgages may face the problem of potential maturity mismatch with respect to the liabilities (deposits).

It is, of course, not necessary that all financial institutions perform all of the roles discussed above. Division of labour is quite possible. For example, the postal savings system in many countries essentially fulfils only the safe depository role. It does not typically support transactions other than those between the postal savings system and its depositors. It also does not typically make loans, except possibly to the central government, and purchases only central government securities. For another example, it is also possible to conceive of a system of narrow banking institutions that is specialised as a payments and transaction settlement system and does not otherwise make loans, except possibly to the central government, either directly or through the purchase of central government securities.¹⁰

How has the Chinese banking sector fulfilled these roles? As Figure 3 reveals, the savings deposits in Chinese banks have been growing much faster than Chinese GDP in recent years. The ratio of savings deposits to GDP has been rising rapidly, which demonstrates that the Chinese banking sector has done a great job in mobilising and collecting savings. The rising savings deposits also attest to the confidence of the average Chinese citizen in the ultimate ability of the Chinese banking system to pay its depositors upon demand. However, the Chinese banking sector does not seem to have done as good a job in terms of allocating the savings. The stock of non-performing loans in the Chinese banking sector is large and increasing. We shall discuss these problems in the next section.

The conditions of the banking sector

In this section, we examine the conditions of the Chinese banking sector in some detail. We assess the capital adequacy of the state-owned commercial banks as well as the potential gravity of their non-performing loans problems.

¹⁰ Money market funds, common in western countries, come closest to this type of narrow banking institutions.

Capital adequacy of the state-owned banks

The “Big Four” state-owned commercial banks – Bank of China, Industrial and Commercial Bank of China, Construction Bank of China and Agricultural Bank of China – account for 90% of all bank assets. Recently, the People’s Bank of China lowered the reserve requirement for the commercial banks. A special government bond issue in the amount of Yuan 270 billion (US\$32.5 billion), with an annual coupon rate of 7.2%, was then purchased by the commercial banks with funds freed up by the lowering of the reserve requirement. Using these proceeds, the government, in turn, purchased subordinated debt of the commercial banks, which counts as “capital”, to enable them to satisfy the standard capital requirement of 8% of assets laid down by the Basel Committee on Banking Supervision. Further recapitalisation along these lines is possible. One possibility is the exchange of government bonds by either the Ministry of Finance or the People’s Bank of China for the (non-performing) loan assets of the state-owned commercial banks. Such an asset swap would strengthen the balance sheets of the commercial banks by improving the average quality of the bank assets. Another possibility is the purchase of government bonds by the state-owned commercial banks from the Ministry of Finance or the People’s Bank of China, which in turn would purchase preferred shares or subordinated debt of the commercial banks with the proceeds. The net result would be an increase in capital as well as an increase in good assets (government bonds) on the bank balance sheets. Thus, it should be clear that capital adequacy for balance sheet purposes per se is not an issue. There is no question that the state-owned commercial banks are capable of satisfying the capital requirements. The more important issue has to do with the non-performing loans of the state-owned commercial banks.

The non-performing “loans” of the state-owned banks

The majority of the non-performing loans of the state-owned commercial banks in China are fundamentally different in nature from the non-performing loans of privately owned commercial banks in market economies. First of all, they are almost exclusively owed by state-owned enterprises to the state-owned banks. Until very recently, only SOEs had access to credit from the formal banking sector in China. Second, the fact that the loans have 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.¹¹ These are, in fact, policy loans.

The non-performing loans to the SOEs at the state-owned banks can be approximately classified into three categories: loans to traditional old-line industrial enterprises; loans to enterprises established during the mid-1980s in lieu of a founding equity; and loans contracted during the overheated period in the early 1990s. On top of these three categories of loans, there were also the rollovers (appropriately disguised) of these non-performing loans since 1994. In terms of annual flows, the non-performing loans amount to between 2 and 3% of GDP, comparable to the government budget deficits in many countries. In terms of cumulative stocks, they amount to approximately US\$200 billion. With a GDP of approximately US\$960 billion in 1998, this implies a non-performing loan to GDP ratio of slightly over 20%, which is quite consistent with estimates of 20% by the People's Bank of China and 25% by international credit rating agencies. Ultimately unrecoverable non-performing loans have been estimated to be in the order of between one-third (by Chinese bank officials) and one-half (by rating agencies) of all outstanding non-performing loans. As mentioned above, these loans should be regarded as indirect loans by the state-owned banks to the state itself and thus should properly be included as part of the Chinese public debt. Official Chinese public debt outstanding was approximately 10% of GDP as of 1996. Adding in the estimated net new debts issued in 1997 and 1998 as well as the entire stock of outstanding non-performing loans, the public debt to GDP ratio will be somewhere between 35 and 40%, still considerably lower than those of many other countries (see the following section). Moreover, it is also clear that the Chinese banks will never be allowed to fail in a way that hurts the depositors – in other words, there is, in fact, universal implicit insurance for bank deposits.

¹¹ If the fiscal condition of the Chinese central government were better, these subsidies could have come directly from the budget rather than indirectly through the state-owned commercial banks as loans.

Why do state-owned enterprises lose money?

Since the majority of the non-performing loans are essentially government subsidies for making up the losses of SOEs, it is useful to try to understand why SOEs lose money. Presumably if and when these losses can be stopped, the subsidies will no longer be necessary, and the flow of new loans can be discontinued. The SOEs' losses can be attributed to many factors, most of which are unrelated to the profitability of the business operations of the enterprises. First, there is the burden of unfunded or under-funded pension and other social welfare liabilities such as housing, education and medical care. Second, there is the burden of the interest costs on loans incurred on the establishment of the enterprises in lieu of a founding equity. This applies to most SOEs established in the early 1980s. An enterprise otherwise breaking even on an operating basis may thus wind up in the red because of the payment of interest on the initial capital loan. Third, there are genuine operating losses due to antiquated equipment and technology and/or overemployment. Fourth, there may be losses due to diversion or relending of loan funds for other unauthorised purposes (e.g. from working capital to fixed asset investment; relending to third parties; speculation in the real estate or stock markets) with or without the connivance of the loan officers, due to insufficient monitoring. These losses occurred mostly in the overheated period in the early 1990s. Fifth, there may be losses due to improper transfer pricing (e.g. selling low and buying high from related parties) and other irregular practices on the part of the SOEs – as long as the state or state-owned banks, are ready to absorb them. Most of these losses are in the nature of accounting losses and imply only that the shareholders (the state), as opposed to the enterprises or the management, are losing money.¹² Finally, there may be losses due to the lack of incentives for efficient management or efficient allocation of new investment.

How can some of these losses be stopped? First, the burden of unfunded or under-funded pension and other social welfare liabilities such as housing, education, and medical care for the former and current

¹² A government official was reported to have remarked that, if there were a regulation that any state-owned enterprise that loses money three years in a row would be shut down permanently, then many of the loss-making enterprises would report a small profit in the third year so as to avoid becoming closed.

SOEs must be assumed by the state in one way or another. Otherwise the haemorrhage will simply continue. Second, for an enterprise that did not have a founding equity, there should be a debt-equity swap, converting the initial capital loan into the equity of the enterprise, thus greatly reducing the burden of the continuing interest costs and hence the potential losses. Third, for an enterprise with antiquated equipment and technology and/or overstaffing, measures should be taken to close down the enterprise and/or reduce employment. To a certain extent, “xiagang” (literally, “stepping down from one’s post”), the furloughing of the workers of the Chinese SOEs, which by the end of 1998 had already shrunk the workforce of the SOEs by some 20 million, is a major step in this direction. However, the speed with which the furloughing of workers can continue to be carried out may have to depend on the robustness of the rest of the economy, so that the majority of the redundant labour force thus released can be absorbed. Fourth, for loan losses due to diversion or unauthorised relending of loan funds, the obvious solution is increased monitoring. By adopting relatively simple controls on the disbursement of loan proceeds – e.g. the implementation of the “real bills” doctrine (collateralising the loans for financing inventories of materials, intermediate inputs and finished goods), using the construction loan method of disbursement (direct payment to vendors and contractors in accordance with verified progress), and more generally insisting on the direct transfer of funds to the authorised payees (including suppliers and workers). Fifth, improper transfer pricing and other irregular practices can be reduced with increased monitoring and better auditing. However, a more thorough solution will require a general hardening of the “budget constraint” and selective divestiture of some of the SOEs to the management so as to reduce the incentives for artificial loss creation. Finally, in order to reduce losses due to the lack of incentives for efficient management or efficient allocation of new investment, the system of governance of the SOEs has to be reformed both to solve the principal-agent problem and to reduce moral hazard through the hardening of the budget constraint.

However, it is clear from the discussion above that the SOEs losses do not necessarily reflect social inefficiency as they may have been caused by fixed factors independent of the efficiency of the business operations of the enterprises and by unauthorised redistributions, both of which are basically infra-marginal in nature.

In principle, the solution of the non-performing loans problem is very simple. The liabilities can be simply assumed by the central government or the central bank, either directly or indirectly through another government-sponsored entity (like the Resolution Trust Corporation of the United States). In fact, China Construction Bank was the first of the four major Chinese commercial banks to undertake a restructuring of its non-performing loans by forming an asset management company. However, the real challenge of the non-performing loans problem is how to prevent its recurrence. A permanent solution of the problem of non-performing loans of the state-owned banks is only possible if the SOEs can be made viable so that new policy loans are no longer necessary. Thus, reform of the SOEs is essential for the long-term success of the reform of the banking sector. It is helpful that over time the state-owned sector has been shrinking. The percentage of GDP it accounts for has declined from almost 100% in 1979 to approximately 30% today. A growing GDP and a robust non-state-owned sector facilitates the reform of the SOEs and consequently the non-performing loans problem of the state-owned banks.

Other issues facing the banking sector

In addition to the non-performing loans problem, there are several other issues as well. First, in the current environment, the central government or the central bank must be prepared to guarantee the security of deposits of all individuals (perhaps up to a ceiling amount). In other words, the government must provide universal implicit deposit insurance to all commercial banks, and the central bank must act as the lender of last resort when necessary. The four major Chinese state-owned commercial banks are certainly “too big to fail”. Implicit deposit insurance may, however, lead to moral hazard on the part of the depositors and the banks, and that is why a ceiling amount on the insurance may be desirable and financial regulation and supervision are necessary. For financial supervision and regulation to be effective, the management of the commercial banks must be made responsible for their banks’ performance. Thus, there must be hierarchical and unitary control within the commercial banks. To enforce financial discipline, weak banks and non-bank financial institutions must be allowed to close or become bankrupt, or forced to consolidate and merge if

necessary. To a certain extent, the government has already implemented this policy by the closure of non-bank financial institutions such as China Venturetech and Guangdong International Trust and Investment Corporation (GITIC).

The closure and bankruptcy of GITIC has significance for the banking sector well beyond the GITIC episode itself. It sets a precedent and sends a very strong signal that non-sovereign guaranteed debt is just that – non-sovereign guaranteed debt, and the lenders, both domestic and foreign, should beware. Thus, in one fell swoop, by not bailing out the institutional creditors of GITIC, both domestic and foreign, and otherwise not interfering in the workout process, moral hazard on the part of both potential lenders and borrowers is reduced. The GITIC bankruptcy provides for equal treatment for all creditors in accordance with the priority established by law. It leads directly to the downgrading of the credit ratings of the Chinese state-owned banks and investment companies – Standard and Poor's assigned a "junk" rating to China International Trust and Investment Company (CITIC), the Bank of China, China Construction Bank and the Industrial and Commercial Bank of China, but there was a strengthening in the sovereign credit rating of China. Indirectly the GITIC episode also strengthened central government control over the financial and banking sector.

Moral hazard can also be reduced through a reduction of "excess leverage". Asset price bubbles are frequently caused by over-leveraging. In any case, the damage from the bursting of the bubble can be minimised if the degree of leverage is controlled. Rules and regulations that reduce or limit leverage (e.g. by classification of assets) on the part of bank borrowers (enterprises and individuals) should be enacted – and they should cover loans collateralised by stocks and residential and non-residential properties as well. The swap of debt for equity by enterprises should also help to reduce leverage. Higher capital requirements on the banks also help to reduce the leverage of the lenders and hence their moral hazard. The overall credit quality of bank loans can be expected to improve with a reduction of moral hazard on the part of both lenders and borrowers.

Information asymmetry can also adversely affect both the quality and quantity of credit. Improvement of the accuracy and availability of credit-relevant information will lead to higher-quality and more loans. The information flow may be improved by imposing uniform accounting

and auditing standards, encouraging the emergence of larger and more professional accounting and auditing firms with capital and reputation to protect, and promoting credit information collection, exchange and assessment organisations such as credit bureaus and rating agencies.

Mismatch of the maturities of assets and liabilities is a common problem for financial and banking sectors. The problem of the savings and loan associations in the United States in the early 1980s is a well-known example of such a mismatch – the savings and loan associations make long-term (30-year) fixed rate mortgage loans funded mostly by short-term deposits. The result, as the rate of interest rose in the early 1980s, was an unmitigated financial disaster that cost the US taxpayers approximately US\$600 billion. China will do well to try to avoid repeating the same mistake. As the demand for long-term fixed rate loans increases in the Chinese economy, for example for financing residential mortgages, the banks must make efforts to expand their long-term fixed rate deposits, or to issue long-term fixed rate bonds themselves, or to either directly or indirectly (by selling the loans to another organisation) securitise the loans, minimising the exposure to interest rate risk. The development of a long-term capital market, including secondary markets for debt securities, is absolutely essential to increasing the supply of long-term funds.

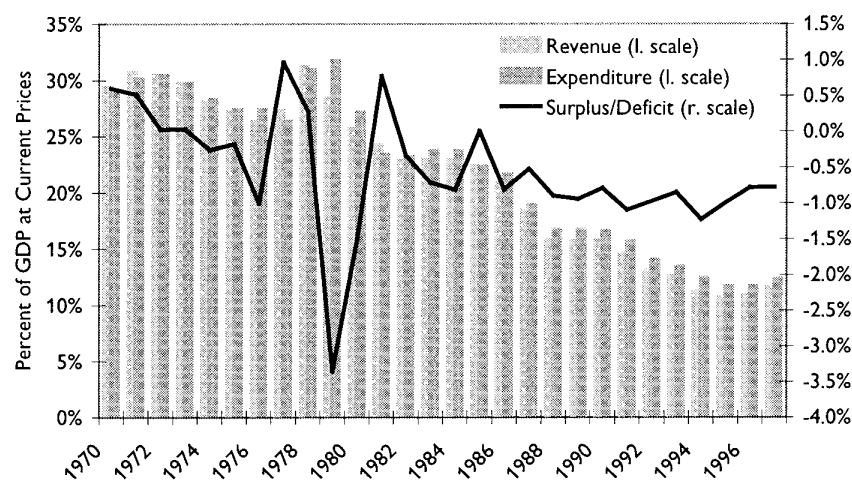
Political interference with banking and monetary policy decisions is potentially a problem. The recent institution of a US Federal Reserve System-like system of district central banks in China is a first step to insulate the banking system from political influence at the provincial and local levels. Nine district branches of the People's Bank of China, each overseeing two or more provinces/municipalities/autonomous regions, have been established (Tianjin, Shenyang, Shanghai, Nanjing, Jinan, Wuhan, Guangzhou, Chengdu and Xian). In addition, the original provincial-level branches have all been abolished. Eventually, perhaps even the central bank itself can become more independent of the executive branch of the government.

Finally, there needs to be more investment in human capital in the banking sector. More education, training and institution building are required. Efforts should be made to develop and nurture a modern bank "culture" with emphasis on credit analysis, risk control and efficient provision of banking services to customers.

The fiscal situation

We now turn to examine the Chinese fiscal situation to assess both the short-term viability and the long-term sustainability of the Chinese financial system. If the Chinese financial system were in imminent danger of collapse, it would place severe constraints on the set of feasible government policies, and in particular would limit the ability of the Chinese government to stimulate the economy through deficit spending. The viability and sustainability of the Chinese financial system depend on a number of factors, including: the size of the annual government total and current (or operating) deficit; the public demand for public debt; the fiscal capacity for servicing the public debt; the lending and bond-buying capacity of the banking system; and public confidence in the banking system and the currency.¹³

Figure 4
Central government budget revenue,
expenditure and surplus/deficit
As a percentage of GDP



¹³ Since the renminbi is a non-convertible currency, only the confidence of the domestic citizens is relevant.

The government budget deficit

In Figure 4, we present the central government budget revenue, expenditure and surplus as a percentage of GDP. It shows that the official Chinese government deficit has been quite low in recent years, less than 1.5% of GDP. However, it is also worth noting that total government revenue (expenditure) as a percentage of GDP has been falling continuously, from slightly over 30% in 1979 to below 15% in 1997. This ratio is actually among the lowest in the world.

In Figure 5, we present the distribution between current (recurrent) and capital (non-recurrent) government expenditures. It is apparent that on a current (or recurrent) expenditure basis, the government budget has been in surplus in recent years. With the recent reduction in the size of the government, 48% of the central government employees have been laid off. This should result in a significant reduction in personnel and related costs in current expenditure in a couple of years. Thus, the surplus should become even larger in the future.

Figure 5
The distribution between current and capital expenditure
As a percentage of GDP

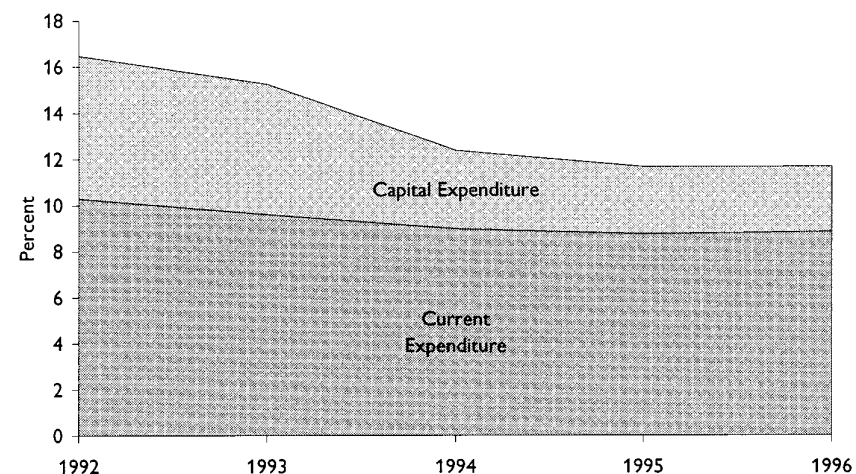
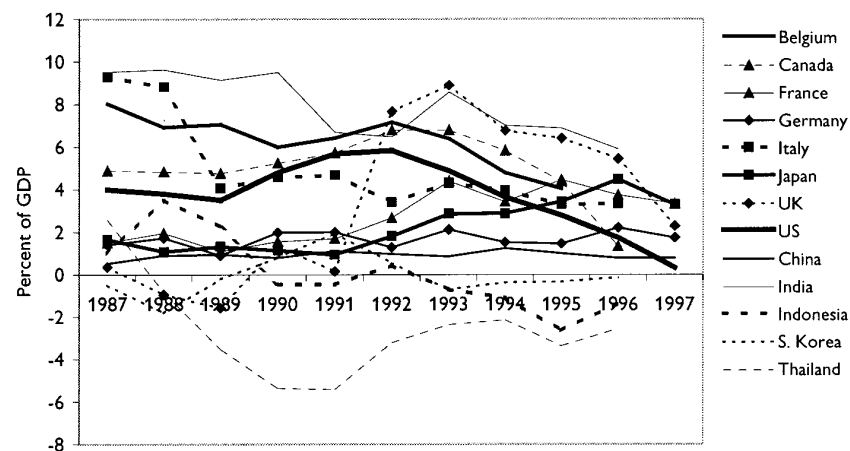


Figure 6
Government deficit, selected countries
As a percentage of GDP

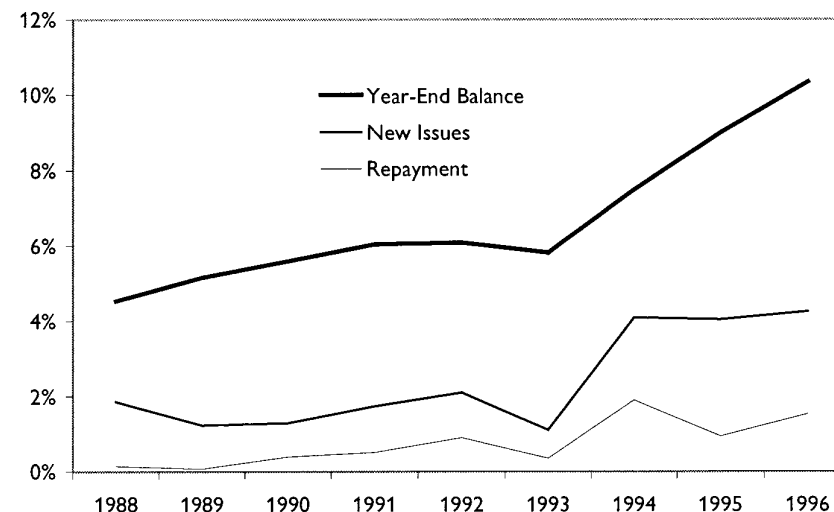


In Figure 6, as a comparison, we present the total government deficit as a percentage of GDP for selected countries. The Chinese government budget deficit has been rather modest compared to other countries, including India, Japan, the United Kingdom and the United States. The current level of official government budget deficit is completely sustainable in the long run.

The stock of public debt

In Figure 7, we present data on the official Chinese stock of public debt as a percentage of Chinese GDP. In Figure 8, we present data on the stock of public debt as a percentage of GDP for selected countries. This shows that the public debt to GDP ratio of China is among the lowest. All the major industrialised countries, including Japan, have much higher public debt to GDP ratios. If we add the entire stock of the Chinese non-performing loans to the Chinese public debt (that is, assuming that nothing is recoverable), the public debt to GDP ratio of China will be approximately 40% in 1998, still below those of Belgium and Italy, which were above 100%, and the United States (70%), Japan (almost 100%), the United Kingdom, India and France. If we assume that approximately

Figure 7
The stock of public debt
At year-end, as a percentage of GDP

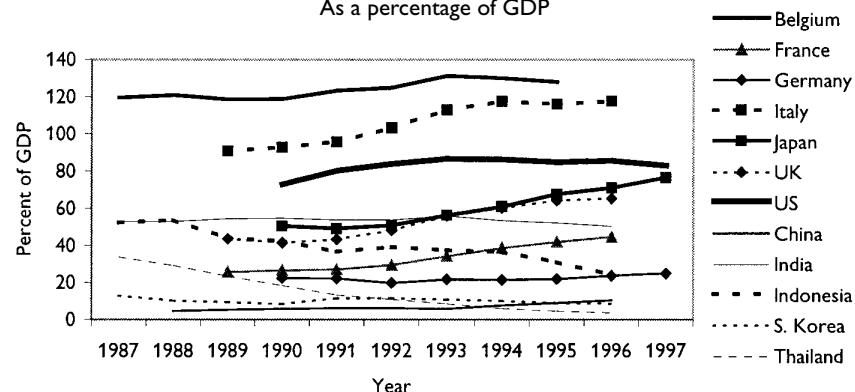


half of the non-performing loans can be recovered, then the public debt to GDP ratio of China will be somewhere between 25 and 30%, which is quite manageable. At 30% of GDP and at a rate of interest of, say, 5% (the current Chinese rate of interest is actually considerably lower), the amount of GDP required to service the public debt each year is approximately 1.5%. As a proportion of total government revenue, the debt service would amount to 10%.

If we assume that new non-performing loans add to this public debt to GDP ratio at the rate of 2.5% per year, and assume again that approximately half of these non-performing loans cannot be recovered, then, in 10 years time, we shall have added another 12.5% to the public debt to GDP ratio, bringing it to approximately 40%, still a manageable figure and nowhere near the danger zone.

We conclude that the Chinese economy is not in imminent danger of financial collapse, despite the existence of a significant stock of non-performing loans. Moreover, while the existence of the non-performing loans and their continual increase over time are not desirable, they do

Figure 8
Public debt, selected countries
As a percentage of GDP



not yet pose a serious threat to the solvency of either the banking system or the central government. The system is sustainable for at least another decade or longer. It has already been pointed out that for a reform of the banking sector to be genuinely, as opposed to cosmetically, successful, it must await a successful reform of the SOEs. The present time, when the growth of the Chinese economy has slowed and public confidence in the economy, for a variety of reasons, is low, is definitely not the right time for hastening real reform of the SOEs, and hence there should be no rush to undertake a radical reform of the Chinese financial sector. Furthermore, the fiscal situation can certainly support a couple of years of deficit financing without significant adverse effects, especially given the low rate of growth of non-government aggregate demand and the low, indeed negative, rate of inflation currently prevailing in the economy.

While it is true that China's current capacity to expand tax collection is weak, it has been steadily improving. The reduction in the size of government should also result in real savings in a few years. For now, household deposits have been rising rapidly as a percentage of GDP and provide the wherewithal for the banks to continue financing the deficits of the SOEs either directly through bank loans or indirectly through the purchase of government bonds. Moreover, savings rates are expected to

remain high and longer-term debt instruments can be used. Furthermore, the state-owned sector is relatively stagnant. It has already shrunk to 30% of GDP, and in another 10 years it will probably shrink to 15%. Its losses as a percentage of a growing GDP must also decline over time. Thus, while the annual flow of losses that need to be subsidised is unlikely to decrease without more genuine reform, its ratio to GDP should not be rising. The rate of interest has also remained low. Public confidence in the banking sector and in the renminbi has remained high, as shown by the continuing inflow of household savings deposits into the banking sector. All these considerations suggest that while the problem is serious, it is neither critical nor fatal, and that the current situation can be sustained for a decade or even two without causing a collapse of the Chinese economy.

The macroeconomic policy options

In the previous section we show that the problem of non-performing loans in the state-owned banks does not impose a significant constraint on the ability of the central government to engage in the necessary fiscal and monetary policies to stimulate the economy. The near-term challenges that face the government include: maintaining aggregate demand (and hence economic growth and employment), stability of the Chinese yuan and the Hong Kong dollar; reform of the state-owned enterprises; reform of the banking system; and reform of the housing system.

First, we consider the external environment. The US economy cannot be any better than it is now, with record low rates of interest, inflation and unemployment and a booming stock market. All of the risks are therefore downside risks. The Japanese economy will take a long time to turn around. The South-East Asian countries (except Indonesia) and Korea will begin to recover in mid-1999 but the rates of growth for the entire year will be relatively low. Hong Kong is already in recession and the rate of growth of the economy of Taiwan has also begun to slow. Thus, China cannot rely on continued growth of its exports and must take the initiative on its own to maintain aggregate demand and to stimulate its domestic economy.

Second, domestically, neither household consumption nor enterprise investment (including foreign direct investment), state-owned or not, can

be the engine of economic growth in the near term. In order to induce households to consume and enterprises to invest again, one must first try to turn around expectations.

Third, among the objectives of the Chinese policy-makers is the preservation of social stability – a policy of “no losers” – at least “no immediate losers”. Thus, it is a high priority for the Chinese government to limit unemployment and create new jobs – approximately 10 million new workers enter the labour force each year.

Finally, economic growth and economic reform are actually complementary – neither one can run ahead of the other. On the one hand, if economic reform runs too fast, it will cause economic growth to slow (because of the furloughing of workers and the adverse expectations that it generates). On the other hand, if economic growth runs too fast without reform, it will run into bottlenecks. However, economic growth actually provides the environment in which genuine economic reform can be implemented. Economic growth and economic reform must therefore go hand-in-hand.

The macroeconomic policy options

In the short run, increasing gross fixed investment through new and accelerated infrastructural investment projects is the only realistic macroeconomic policy option capable of providing immediate stimulus to the economy. This policy has already been implemented by the Chinese government. However, increasing infrastructural investment is only a transitional measure intended to maintain the rate of growth of GDP in the near term and to induce a change in expectations on the part of households and enterprises. Infrastructural investment alone cannot sustain the rate of economic growth for more than a couple of years. The promotion of affordable owner-occupied residential housing investment for and by the domestic population is therefore one of the few alternative promising sources of growth of aggregate demand. This also fits into the plan to marketise residential housing for employees of state-owned enterprises and the government by end-1998. The provision of long-term, preferably fixed rate, mortgages by the banking sector to households is critical to the success of this effort.

In the longer run, continued economic growth requires new investment by enterprises, which in turn requires new and increased lending

to new enterprise (both state-owned and non-state-owned) investment projects. However, in recent months, the growth of loans has been very slow – both the demand for and the supply of loans have been low.

What are the reasons for the low demand for loans? First of all, the expectations of households and enterprises have to be turned around and their confidence in the economy restored. However, this will take both time and sustained economic stimulus on the part of the government. Second, the real rate of interest, at 8%, is still too high for borrowers. Third, the lack of clearly secure property rights (rights of transfer of property in addition to use rights) discourages investment by both non-state enterprises and households.

What are the reasons for the low supply of loans? First of all, there is a general “reluctance to lend” on the part of loan officers at the banks, in part because of the introduction of “lifetime” responsibility of the authorising loan officer for the repayment of the loan. As a result, many loan officers simply go into a defensive mode by simply not making any loans. Those loan officers with loan quotas to meet will make only “overnight loans”, that is, he or she will “pretend” to lend to a customer who by pre-arrangement will borrow on one day and repay immediately on the next day, thus helping the loan officer fulfil the loan quotas but without the risk of any loss (this type of activities gives a new meaning to the term “overnight loans”). Second, the lack of clearly secure collateral, especially in the case of non-state borrowers, discourages lending. Third, information is both inadequate and unreliable for serious credit analysis. Finally, capital inadequacy and existing non-performing loans may limit a bank’s ability to lend.

What can the government do to increase the volume of loans (safely)?

First, the government will try to turn around the expectations of households and enterprises and restore their confidence in the economy by maintaining the growth in aggregate demand through undertaking infrastructural investment projects on a sustained basis. Recapitalisation of some of the enterprises through either a debt-equity swap, injection of new equity or forgiveness of old debt will help enhance the borrowing capacity of enterprises. Second, the central bank can lower the nominal and hence the real rate of interest, which it has already done quite a few times. Third, laws should be enacted that guarantee the

property rights of owners of residential housing units, including, in particular, the right of transfer to third parties (such rights can be completely analogous to the rights of the owners of rural housing units), thus solving the lack of collateral problem. In addition, the introduction of alternative modes of bankruptcy (e.g. reorganisation) in addition to liquidation will also help alleviate the lack of collateral problem.

Fourth, lending can be facilitated by drawing up “safe harbour” rules for loan officers so that they do not have to assume lifetime responsibility for loans they make indefinitely if they follow all the rules.

Fifth, the incentive for commercial banks to lend can be increased by reducing or eliminating the payment of interest on excess reserves held by commercial banks at the People's Bank of China. Lending to non-state owned enterprises can be expanded by implementing a prime rate system – allowing the commercial banks to charge higher interest rates to less established borrowers (this has the advantage of also protecting the net spread of the commercial banks as they lend to small and medium-sized enterprises). Third, the information for credit analysis can be improved by promoting the establishment of credit rating and reporting agencies and by setting up a system of accreditation and regulation of accountants and auditors. Finally, the recapitalisation of the banks and the transfer or sale of the non-performing loans to the government, or another entity set up by the government, should improve the ability of banks to lend.

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