

## China's monetary reforms in the 1980s

Adapted extracts from Tsang Shu-ki, "Controlling Money during Socialist Economic Reform: the Chinese Experience", Economy and Society, vol.19, no.2, 1990, pp.217-242.

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### 1. China's monetary reforms after 1978

One of the key aspects of the Chinese economic reform started in 1979 has been the change in the mode of macroeconomic control by the central authority. As far as reform of the monetary system is concerned, the core problem is the transformation of the mechanism of channelling funds. The way funds are accumulated and distributed exerts a crucial impact on an economy undergoing significant changes in its mode of operation and the direction of reform in China has been **to shift from a system based on budgetary allocations (財政調撥) to one that is centred around credit (信貸)**. This change aims not only at encouraging savings and promoting the efficiency of enterprises, which are given greater autonomy under the reform, in employing funds, but also at the enhancement of the effectiveness of macroeconomic control.

The central strategy to achieve these goals has been reform in the banking system. Before the reforms, the People's Bank of China (中國人民銀行) monopolized the roles of both the Central Bank and the commercial banks although the Construction Bank (建設銀行) existed as a unit under the Ministry of Finance, the Bank of China (中國銀行) had the narrow role of handling the country's foreign trade and exchange. The Agricultural Bank (農業銀行) was established and abolished for several times, and did not function properly.

After the Third Plenum of the Eleventh Central Committee of the Chinese party in late 1978, the situation has been transformed. A system of "specialized banks" (zhuan ye yin hang 專業銀行)---consisting of the Construction Bank, the Industrial and Commercial Bank (工商銀行), the Agricultural Bank (農業銀行), the Bank of China (中國銀行)---was established. Funds among them were divided and monitored through independent accounting. Since 1983, the People's Bank has relinquished all its commercial banking activities and concentrated on its functions as a central bank. Transactions between the central bank and the specialized banks are mainly in the form of credit (re-lending 再貸款) instead of direct allocations, although various modified forms of the latter have persisted. A reserve system, imposed on deposits (存款準備金) of the specialized banks was started in 1983. On the other hand, other non-bank financial institutions (非銀行金融機構) and financial markets have also been developed.

On the surface, the results of financial reform have been quite remarkable. In 1979, the ratio of off-budget funds (預算外資金) (a good deal of which fell into the hands of enterprises and local authorities) to total budgetary revenue of the central government was 42.4 per cent. It climbed to 89.7 per cent in 1987. Much of these off-budget funds entered the banking and non-bank financial systems in various ways. Another indication is the ratio of total deposits in banks and credit institutions to national income, which rose from 40 per cent in 1979 to 85.2 percent in 1987.3 Credit has apparently become a key mechanism of fund allocation.

The real achievement of financial reform cannot of course be judged on these quantitative indications alone. If the major objective is to increase the efficiency of fund utilization and the effectiveness of macroeconomic control, the results so far have not been very encouraging. .... The unusually huge credit expansion in late 1984 which accompanied the launching of the second phase of the reform period, and the large-scale panic conversion of money into goods under the unprecedented inflationary circumstances of 1988 also throw doubts on the effectiveness of the monetary authority to stabilize the economy. **The latter events apparently paved the way for the 'cautious' faction within the leadership to take over the control of economic policy in late 1988.**

There are various factors which have prevented a successful realization of the reform objectives. Some of them arise from the fact that the reform has yet to be completed. Perhaps more importantly, the economic system that has emerged from the reform process has not been very conducive to the effective implementation of an indirect and flexible form of control.

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The Chinese economic reform is constrained by the very **low level of development** of the country itself. Many of the prerequisites for large-scale commodity production and circulation to function properly in a market-like environment, including efficient transportation and communications networks, a stable legal framework for commercial transactions, and relatively high elasticities of supply and demand etc., have not been met. Moreover, the legacy of the pre-reform period of socialist construction also weighs heavily on the economy. The most important of these constraints and legacy are the very low mobility of resources due to underdevelopment and to the state ideology that most production factors and output were not 'commodities' (hence re-trading of any goods was minimal), as well as the special price-quantity system formed by **the Stalinist strategy of industrialization**, which gave priority to Department I (of means of production) at the expense of Department II (of means of consumption or livelihood). Unfortunately, the Chinese reformists have not paid sufficient attention to these constraints-cum-legacy and the possibility that severe structural imbalance may be generated in the reform if they are not carefully tackled.

Given all these constraints, much more than an exercise in comparative statistics (e.g. that of central planning versus the market mechanism) is needed to provide the reformists with the appropriate perspective and policy framework. The dynamic path leading from the pre-reform system to the new one, which remains unfortunately not well defined, is a fortuitous and dangerous one. In reality, the economic entity that emerges under the reform is a mixed one where legacy of the past is entangled with half-baked prototypes of the market mechanism, while politics still plays a vital role in many areas of economic activity. In the terminology of the Chinese economists themselves, it is a 'double-track' or 'dual' system (Wu 1986; Wu and Zhao 1987) and is expected by many (Zhang 1988) to last for a very long period of time.

As **the operational patterns of such a mixed entity are difficult to grasp**, the Chinese monetary authority has been facing **a daunting task** in trying to estimate with relative accuracy the economy's demand for money, at whatever level of aggregation or dis-aggregation it chooses. **Various factors pull in different directions and it is not easy to come up with a reliable summary view.** Moreover, despite the reform, **the People's Bank** has yet to enjoy the autonomous status commonly assumed for a central bank in the West and the interference into the process of supplying money is still great (some may say that it is even greater than before), **its ability to control the magnitudes of credit and monetary aggregates is also manifestly low.** All these only make the job of monetary control under the economic reform a very difficult one.

## **2. Factors leading to rising money demand under the reform**

The first major problem confronting the People's Bank is to estimate and forecast **the demand for money of the mixed system.** This is no easy job. While a number of factors causes the demand for money to increase significantly under the reform, there are also other factors which necessitate the suppression, or at least a very cautious handling, of the desire to cater automatically for the superficial symptoms of such an increase.

The most important factor generating a higher demand for money is the '**commoditization**' (商品化) (or, in Western terminology, **monetization** 貨幣化) of the economy, which is a consequence of the economic reform. The proportion of direct transfer and allocation of materials, goods and services in overall economic exchanges has dropped markedly. Most transactions are now mediated by money. Failure to cater for such a change may lead to a serious contraction in the real economy.

Second, the rise in the national living standards means that **aggregate saving will increase.** Since currency in hand and deposits with banks and credit co-operatives are the major forms of saving in China, the demand for money under all definitions will rise. This factor is reinforced by the change

in government policy to rectify the past Stalinist tendency of emphasizing accumulation at the expense of consumption. To rally the people to the cause of economic reform, the reformists have deliberately carried out measures to raise the income and consumption levels of the population, examples being the large increases in the procurement price for agricultural produce in the first stage of reform (1979-84), and the freedom given to enterprises in the cities to raise wages and consumption funds in the second stage of reform which started in late 1984. Under such circumstances, household income will grow at a higher rate than the economy. As incomes have been largely, if not totally, monetized and higher incomes lead to higher saving in monetary forms, **the demand for money will also increase at a higher speed than the growth rate of the economy** (Liu 1986).

Moreover, the increasing importance of **transactions mediated by cash**, due to the fact that **banking services in China have not been growing as fast** as the economy itself, also implies that the velocity of circulation would fall and demand for money would increase, as cash supposedly changes hands more slowly than transfer across bank accounts.

Given these considerations (see Appendix A for a stylized model using the quantity equation), economists such as Song and Zhang (1986) and Liu (1986) argue strongly that monetary policy must be loose and accommodative during reform, at least in its early stages. Otherwise, severe **contractionary forces** may be **inadvertently imposed** on the real economy.

### **3. The precipitation and re-emergence of money**

Nevertheless, the above arguments are implicitly predicated on an assumption of market equilibrium, which may not hold in reality. Other Chinese economists have stressed this possibility and warned against the danger of neglecting the phenomenon of 'huobi chendian' (monetary precipitation 貨幣沉澱) and consequently over-estimating the demand for money. Further injection of money supply would add to the money stock, part of which is already involuntarily held, and could aggravate the inflation problem.

Monetary precipitation may be caused by at least three different types of factors:

- (1) **Poor financial services.** For example, there are not enough branches of rural credit co-operatives in the countryside. Farmers, irritated by the troubles and unattracted by low interest rates, choose to keep their cash under their pillows.
- (2) The problems of **the economy being over-heated** under the reform. The reform has resulted in an excessive distribution of purchasing power and an aggravated investment thirst. For reasons

that we will expound later, various bottlenecks in basic industries, energy and transportation, are formed and effective supplies are severely constrained. As a result, household incomes and funds held by enterprises cannot be smoothly transformed into consumer goods and materials according to ex ante plans. Because of such 'double shortages' in both intermediate goods and final output (Fu et al. 1986: 200-7), these parties are forced to store up their money.

(3) **The mismatch between supplies and demands.** Stockpiling and forced inventory accumulation may occur concurrently with shortages. While speculative stockpiling aims at profiteering, and there is ample evidence that it has been rampant during the reform, forced inventory accumulation is a result of enterprises putting forth 'unsaleable' goods in a market structure dominated by the sellers who are still under a 'soft' budget constraint (Shen 1986). Monetary precipitation will occur when consumers fail to buy goods that they want and enterprises cannot purchase materials that they need.

As things evolve, the first form of precipitation is voluntary saving, the only question is its manner of expression; cash under the pillow instead of deposits in banks or rural credit co-operatives? The second form is however involuntary or forced saving (非自願儲蓄). The intention of the holder of money is not realized. Money is forced to precipitate in the form of withdrawn cash, or to sit immobile in current and fixed deposit accounts. The velocity of any precipitated money will drop significantly, although it may not necessarily be zero. In both cases, anyway, the higher the proportion of precipitated money, the lower the velocity of the monetary aggregate.

The third form of precipitation has aroused some controversy. Inventory accumulation *per se* can be interpreted as a symptom of 'insufficient aggregate demand', à la Keynes. It is then meaningless to talk about monetary precipitation. The problem is rather a lack of funds to foster effective demand. The phenomenon could however be a result of mismatch between supply and demand, and monetary precipitation will occur as a result.

**The crucial question facing the Chinese monetary authority is to distinguish carefully these forms of monetary precipitation.** The first form does not seem to create very serious problems and the major remedial measure is to set up more extensive branching networks and provide better financial services so that the withdrawn cash can be efficiently re-absorbed into the circuit of integrated fund flows. The second and the third forms (the latter interpreted as a corollary of forced inventory accumulation due to mismatch rather than insufficient aggregate demand) however represent the damming up of latent purchasing power, which may re-emerge at any time, making a strong impact on the goods market. Since the economic reform has not removed many of the price controls and restrictions, the phenomenon may as a first approximation be regarded as 'repressed inflation'. The real solution lies in the restoration of the balance in aggregate supply and demand

and the match between production and preferences.

A direct consequence of monetary precipitation is that it takes a very long time, if at all, for money holders to pass their money to units which require funds to carry out their normal operations, so that the velocity of monetary circulation drops significantly. These latter constrained units will seek further credit from the banks and other credit institutions to relieve their difficulties. The financial institutions will however be reluctant to respond because their previous loans may already be in jeopardy as enterprises cannot obtain the necessary materials, turn them into profitable sales and repay the principals plus interest. From the macro-perspective, moreover, further monetary injection may lead to another round of precipitation, creating further problems. The situation becomes a real dilemma.

#### **4. Resource constraints (資源制約) and the debate on monetary policy**

For all these reasons, it is no easy task to separate the 'real' from the 'illusory' elements in an apparent increase in money demand in a socialist developing economy under reform. ....

Rigorous efforts to deal with the problem empirically within China have been surprisingly sparse and started to appear only recently. Yang et al. (1988), for example, consider the conflicting influence on money demand of only two factors: the monetization of the economy versus price rigidity. Using a modified quantity equation and their own estimates of the ratio of monetization of the economy, which, depending on the definition of income, rose from 78.5 or 82.4 per cent in 1978 to 81.4 or 85.6 per cent in 1986, they come up with estimates of the degree of repressed inflation, which turned out to be about 10 to 12 per cent in 1986. In their conclusion, they criticized both theorists who neglect the trend of increasing monetization under the reform and those who assume price rigidity and repressed inflation away by using equilibrium quantity models.

Efforts of this kind must be regarded as preliminary attempts, and controversy is bound to remain. It has actually aroused heated debates in China. In 1986, economic growth rates nose-dived because of the tightened measures in 1985, which were responses to the overheating of the economy after the launching of the reform in the cities and further liberalization in external trade in late 1984. The pace of industrial expansion slowed markedly, with the year-on-year quarterly real growth rate plunging from over 20 per cent in the first half of 1985 to about 4 per cent in the first quarter of 1986. Chinese economists were split with regard to the diagnosis of the sharp recession. Some (e.g. Song and Zhang (1988)) argued that the tightening was excessive and enterprises were severely constrained in funding. Major pieces of evidence included the decline in the growth rates of currency in circulation and enterprise deposits in the second half of 1985 as well as the rising level of inventories of many enterprises. The economy had in their view become excessively deflated.

**Table 1 Growth rates of macro-aggregates in China**

<b>Year</b>		<b>TC</b>	<b>TD</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>IP</b>	<b>RPI</b>
<b>1982</b>	<i>Q1</i>	14.9	23.1	3.8	20.9	29.2	12.0	N.A.
	<i>Q2</i>	13.0	21.6	15.1	19.0	28.7	8.0	N.A.
	<i>Q3</i>	12.3	20.0	13.3	16.7	29.0	7.0	N.A.
	<i>Q4</i>	10.9	15.9	10.8	11.7	29.0	3.0	N.A.
<b>1983</b>	<i>Q1</i>	11.2	18.0	28.2	14.6	26.5	7.0	0.7
	<i>Q2</i>	12.8	18.3	19.7	14.0	28.8	11.0	1.2
	<i>Q3</i>	14.5	17.3	23.8	11.5	31.7	11.0	1.4
	<i>Q4</i>	25.7	18.7	20.7	13.8	32.1	12.0	2.7
<b>1984</b>	<i>Q1</i>	13.3	19.6	18.0	14.4	31.6	12.0	1.6
	<i>Q2</i>	13.0	21.0	16.3	16.5	30.6	11.0	2.6
	<i>Q3</i>	17.1	23.1	25.7	18.8	32.0	14.0	2.7
	<i>Q4</i>	32.8	26.8	49.5	22.7	36.1	17.0	4.3
<b>1985</b>	<i>Q1</i>	37.7	30.6	54.1	25.2	41.5	23.0	5.6
	<i>Q2</i>	36.1	23.4	54.3	14.7	40.3	23.0	8.5
	<i>Q3</i>	31.7	21.1	40.9	12.1	38.3	17.0	10.0
	<i>Q4</i>	20.8	15.2	24.7	17.9	33.6	10.0	10.7
<b>1986</b>	<i>Q1</i>	29.9	24.2	14.1	20.1	31.5	4.0	7.5
	<i>Q2</i>	35.9	36.0	17.3	36.3	35.7	5.0	3.5
	<i>Q3</i>	37.5	38.1	18.3	39.2	36.5	8.0	4.0
	<i>Q4</i>	41.5	39.2	23.3	26.2	37.9	16.0	5.5
<b>1987</b>	<i>Q1</i>	29.3	33.7	45.1	29.3	40.7	14.0	5.2
	<i>Q2</i>	27.6	30.5	49.9	25.1	39.1	16.0	7.3
	<i>Q3</i>	28.3	31.1	29.8	25.9	39.4	16.1	8.1
	<i>Q4</i>	20.5	24.2	47.2	16.5	37.2	13.4	8.4
<b>1988</b>	<i>Q1</i>	22.5	22.3	26.2	15.4	33.2	16.9	10.8
	<i>Q2</i>	24.0	23.5	35.9	20.8	30.3	17.3	14.6
	<i>Q3</i>	21.3	17.4	45.7	16.1	23.6	18.0	22.6
	<i>Q4</i>	16.9	13.2	46.7	7.5	23.8	18.9	26.3

Sources: *China Almanac of Banking and Finance*, 1988; *China Finance, Monthly Bulletin of Statistics-China, China's Latest Economic Statistics*, various issues.

Notes: Quarterly growth rates compared with same period in the previous year. TC = total credit; TD = total deposits; M1 = currency in circulation; M2 = total bank deposits minus budgetary deposits and urban savings deposits and plus the deposits of rural credit cooperatives (excluding the deposits of individual farming households); M3 = the total of the urban savings deposits and the deposits of individual farming households; IP = gross industrial production in real terms; RPI = retail price index. From 1985 Q4 onwards, the monetary aggregates included the balance sheet items of the Construction Bank (see note 6). N.A. = not available.

Other economists (Wu 1986; Shen 1986), however, countered by pointing out that the very high growth rates prevailing from late 1984 to mid-1985 were far from normal and were stretching the economy to its structural limits. Moreover, there had not been any real monetary contraction, as can be witnessed from Table 1. From the first quarter of 1985 to the third quarter of 1986, the quarterly growth rate of total credit (extended by banks and rural credit co-operatives) stayed without exception above 20 per cent, far above the real growth rate of industrial production and the economy as a whole, as well as the average annual growth rate of total credit in 1981-3 (12.4 per cent). It is highly doubtful whether this large jump could be entirely explained away by factors such as the commoditization of the economy and the increase in the propensity to save.

To these economists, the decline in the growth of currency and short-term deposits was due to various factors such as the over-expansion in fixed investment, the central government's fiscal position, as well as the huge trade deficits incurred under the open-door policy, rather than a result of monetary contraction. **The major constraint on the economy was not the shortage in funds or aggregate demand, but the shortage in effective supplies** (Wu et al. 1986). If most of the enterprises are resource-constrained, the funds they obtained through budgetary allocations or credit cannot be successfully translated into raw materials and intermediate supplies according to their original plans. Production will inevitably be affected adversely. However, part of the money that the enterprises have procured will be turned into wages and other non-productive expenses, widening the gap between effective supply and notional demand. These amounts of **money will be forced to precipitate, leading to a fall in the velocity of circulation.** Under such a situation, **banks and other financial institutions will also feel constrained as many enterprises face difficulties in repaying or even servicing the outstanding loans.** They may be reluctant to further expand credit. Subsequently, **even enterprises which are operating normally will feel the tension in the whole financial system.**

Under such circumstances, **further increases in the money supply may lead to even worse problems** unless the new funds can eliminate the bottlenecks, rectify the mismatch and remove the blockades in the circuit of money-commodity flows, hence significantly increasing effective supply and re-absorbing large amounts of previously precipitated money. Otherwise, part of the new credit will again precipitate. The time bomb of suppressed buying and **the ultimate eruption** will be more destructive.

## **5. Economic reform, structural imbalances and monetary dilemma**

Rigorous models and conclusive empirical findings that can be used to assess the theoretical positions of the two schools are yet to appear. Nevertheless, prima facie symptoms that resource constraints have been a serious problem affecting the reform abound. The large-scale withdrawal of

deposits (evidenced by the discrepancies among the growth rates of M1, M2 and M3 in Table 1) and periodic outbursts of panic buying under escalating inflation rates from late 1987 onwards were the most forceful testimonies to an economy under supply-side strains.

The present debates on centrally planned economies (CPEs) centre around the controversy between the disequilibrium econometricians led by Portes and the 'shortage' theorists under the leadership of Kornai. For a summary view, readers are referred to Kornai (1982; 1986) and Portes (1986). Both schools have however been criticized for neglecting structural problems. Podkaminer (1986) gives an insightful analysis of the **structural disequilibria** (結構失衡) in the Polish economy and argues that 'it is no longer productive to limit oneself to speculation about the correspondence between traditional macro-economic aggregates' to determine whether a CPE is in a situation of excess aggregate supply or that of shortage. 'In particular, one should allow for the macroeconomic importance of distortion in relative prices and incomes' (1986: 16). .....

These structural perspectives are of great relevance for the study of the Chinese reform. After all, the price-quantity system in the pre-reform regime was widely regarded as 'distorted'. Most 'distortions', however, have not been eliminated in the reform. In fact, there is a lot of evidence that new distortions have emerged, compounding macroeconomic imbalances. **Economic dualism** (經濟二元現象) is also rampant in the reform: the 'double-track' system (雙軌制) is dualistic in nature. .... A deeper understanding of the dilemma facing the central bank hence requires an appreciation of the origins and dynamics of these structural problems.

Under Chinese economic reform, profit incentives and market mechanisms have been introduced into various sectors of the economy with different degrees of vigour. On the whole, basic industries such as iron and steel, raw material, energy and transport have been least affected. The reason is simple. Despite the fact that China, because of her peculiar historical and developmental settings, was forced to deviate somewhat from the mould, the general pre-reform strategy was to implement 'forced industrialization' by speeding up the development of the basic sectors with strong forward and backward linkages (Zhang, 1988). So in general **the relative prices of the output of the basic industries were suppressed in order that other industries**, especially those producing plant and machinery, could receive cheap input and grow at high speed. This strategy was facilitated by the prevailing ideology that means of production should not be regarded as commodities. The bias in relative prices was also reinforced by the semi-colonial experience of China before 1949 when foreigners and their Chinese accomplices used their political power to exploit Chinese resources at the lowest possible costs (Xu et al. 1982; Zhang et al. 1988). Even the communist regime found it hard to modify significantly the vector of relative prices. Under the economic reform, efforts to rectify the distorted price system have again been obstructed by various considerations, among which is the fear that significant price increases in the sectors with strong production linkages may

touch off inflationary spirals. Hence the 'double-track' price system was instead applied to most of the output of these sectors while the prices of many consumer goods were freed.<sup>10</sup>

Nor is the problem only a matter of relative prices. The expectations of the population have been raised significantly by the economic reform and the open-door policy. In a bid to rectify the past 'Stalinist' mistake of suppressing consumption, the reformists had deliberately facilitated a rapid rise of the living standards of the population. So most Chinese had been keen to raise their income and consumption levels, neglecting whether the strength of the economy could sustain this if everybody goes for it simultaneously. This has been referred to as the phenomenon of '**over-maturing of consumption**' (xiaofei zaoshu 消費早熟). As a result, resources were concentrated on high-profit sectors such as the processing and consumer goods industries, further aggravating the imbalance in the overall economic structure.

The strategy of the reformists to stimulate the economy through decentralizing autonomy and finance to local authorities, captured most succinctly by the motto "**fongquan rangli**" (放權讓利) (decentralizing power and conceding material benefits) has also created its own problem, as these units rushed to build up their own newly acquired spheres of power. Liu and Yang (1987) have given a penetrating analysis with a great deal of supporting evidence of the trends of the "**lightening**" (輕型化) and "**structural duplication**" (結構重覆) of industries at the regional levels in the reform period as many local units attempted to do the same things at the same time, on a much smaller scale. Not only were they reluctant to invest in the basic sectors which showed long development and pay-back periods or low profit rates, the potential economics of scale and structural synergy would have been lost anyway even if they had been willing to do so. This affected not just the basic industries but also many sectors producing capital goods and quite a few in the light industries. Given the newly found virtues of self-interest, moreover, the traditional non-mobility of resources, which was not eliminated by the reform, has been compounded by various forms of local protectionism.

Overall, the problem is related to the historical constraints on the Chinese economy and the uneven impact of the reform strategy. Table 2 gives some evidence of the seriousness of **structural imbalance** in the Chinese economy in recent years, using the heavy industries as an example. In the reform period up to 1986, with the exception of 1980-1 when the government implemented adjustment measures to cool the economy, the extraction and raw-material sectors had been relatively neglected, compared with the manufacturing sector. Thus acute structural distortions and bottlenecks were formed.

**Table 2 Output composition of heavy industries (in percentage)**

	<b>1975</b>	<b>1978</b>	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1985</b>	<b>1986</b>
<b>Extraction (1)</b>	12.1	12.0	11.3	11.7				
<b>(2)</b>				15.2	14.3	13.1	11.4	11.3
<b>Raw material (1)</b>	35.1	35.5	37.8	39.3				
<b>(2)</b>				40.6	39.3	38.3	35.1	35.8
<b>Manufacturing (1)</b>	52.8	52.5	50.9	49.0				
<b>(2)</b>				44.2	46.4	48.6	53.5	52.9

Sources: China Industrial Economic Information Yearbook, various issues.

Note: Series (1) in constant 1970 prices and Series (2) in constant 1980 prices.

Besides material supplies, energy constraints were also very serious. According to the 1986 edition of Chinese Energy Statistics, tension in electricity supply heightened during the reform. The elasticity of electricity production (with respect to national income) averaged 1.49 during 1976-80. It dropped to an average of 0.66 in 1981-5 and stood merely at 0.52 in 1985. Comparable figures for the United States, Britain, West Germany and Japan during 1973-82 were 1.53, 1.94, 1.77 and 1.21 respectively.

The problems of structural disequilibria apparently further deteriorated in 1987 and 1988. In 1988, the real growth of industrial production was 17.7 per cent while the output of pig iron, cloth and rolled steel rose in real terms only by 3.8 per cent, 5.5 per cent and 7.0 per cent respectively. Power generated and the volume of railway cargo meanwhile increased by merely 9.3 per cent and 2.7 per cent. No wonder there were signs of **structural inflation in 1988**.

**With regard to monetary policy, the key question is how to prevent forms of structural disequilibria from worsening to such an acute extent.** As discussed above, these imbalances have been the results of historical, institutional and strategic factors which the monetary authority may not always be in a position to control or influence. Once caught in the imbalances, however, it could be in a **no-win situation. Tightening may push the economy into deep recession, while further injection of money might fuel inflation because the elasticities of production in those bottleneck sectors are very low, at least in the short term.** In the end, inflation, particularly consumer inflation, seems to be the unavoidable cost. Appendix B below, which is adapted from Tsang (1988), gives a stylized presentation of this dilemma.

## 6. Obstacles to the effective control of the money supply

Besides the difficulties of estimating the demand for money, another set of problems troubling the Chinese monetary authority has been its own **ability to control the money supply**. Due to various institutional and policy factors, that ability has unfortunately been manifestly low.

Firstly, as a central bank, the **People's Bank lacks the autonomy** of its western counterparts in carrying out an independent and persistent monetary policy. It has been under constant pressures from the state treasury and other ministries to cater for their expansionary ambitions. Its branches at the provincial and city levels face even worse situations under the reform. Local authorities, with their increased power, constantly interfere into the operations of these branches. They even have a say in the appointment of and remuneration to bank officials. So the central bank and its network are often forced to accommodate their high-growth strategy, and plans for credit expansion and issuance of currency have frequently been violated.

Second, as can be inferred from the discussions above, it is very **difficult to predict the operational patterns and the twists and turns of the mixed system**. Moreover, not enough emphasis has been put on the analysis of **monetary precipitation and structural imbalance**. Once serious symptoms emerge, monetary tightening may produce adverse effects on production and circulation in the short run, which can be easily observed, while the long-term benefits of the measure remain somewhat uncertain. Given its traditionally inferior status in the bureaucratic hierarchy, the monetary authority is often reluctant to go against the prevailing mood, especially during a boom.

Thirdly, **the determinants of the aggregate money supply in the course of the economic reform are very complex, many of which are beyond the control of the central bank**. Take the issuance of currency as an example. Table 3, which is the equivalent of the money supply formation tables regularly compiled in the West, presents a quantitative analysis of the 'determinants' of the change in the amount of currency in circulation in 1981-7, using the aggregate statistics of national banking and credit balance.<sup>11</sup> As can be observed, factors leading to an increase in currency circulation include the enlargement of the '**xindai cha'e**' (信貸差額) (**the deposit-loan gap** 存貸差, see the note of Table 3) of the banking sector, the worsening of the government's fiscal position (which results in higher net borrowing from the banking system, other than the issuance of bonds), an improvement in external payments (indicated by the growth in gold and foreign exchange reserve), as well as the accumulation of net external assets (represented by an increase in the net claims to international financial institutions). The decrease in currency circulation, on the other hand, is mainly a result of the growth of the capital account of the banking system.

**Table 3 Formation table of currency in circulation (unit: RMB 100 million)**

Year	(1) Cash	(2) Deposit-loan gap	(3) Net fiscal borrowing	(4) Reserves	(5) International account	(6) Capital account	(7) Others
1981	50.14	8.96	-32.92	97.92	-17.08	21.24	-14.50
1982	42.78	-60.65	17.43	128.12	-1.62	35.14	5.36
1983	90.66	1.34	11.41	48.38	18.08	46.17	-57.62
1984	262.33	331.99	93.20	-2.51	2.03	39.43	122.95
1985 (exclude CB)	205.72	556.47	-146.28	-170.46	4.90	34.04	4.87
1985 (include CB)	195.72	801.53	-188.22	-170.46	4.90	209.24	42.79
1986	231.53	519.13	151.92	-15.98	-34.31	91.90	297.33
1987	235.12	247.30	149.38	104.96	16.98	121.56	161.94

Sources: *Statistical Yearbook of China*, 1988; *China Finance*, various issues.

$$(1) = (2) + (3) + (4) + (5) - (6) - (7)$$

Notes: All figures are change in amount compared with the previous year. The deposit-loan gap refers to the amount by which total loans were greater than total deposits (a negative figure represents the amount by which total deposits were greater than loans). CB = Construction Bank

Among these factors, **the People's Bank would find it particularly difficult to control or influence the ones that are related to the fiscal position of the government and the trade balance.** Moreover, unlike the situation in the West, their effect on the monetary aggregate is in the same direction. An expansionary policy by a western government through deficit budgeting will usually stimulate imports and lead to a trade deficit. The former result may increase the money supply (if the central bank accommodates) while the latter may reduce it through the drain of reserves. **In China, however, a fiscal deficit is typically associated with a trade surplus (or a reduction in trade deficit) and both may lead to a rise in the money supply.** A fiscal surplus, on the other hand, normally co-exists with a trade deficit, and both would reduce the size of the money supply. This phenomenon is common among socialist countries which emphasize external trade. The main reason is that because of the lack of flexibility in prices and the exchange rate, government subsidy has become the major tool to improve the trade balance, particularly when a country such as China is displaying 'absolute disadvantage' in nearly all lines of products vis-à-vis the advanced industrial countries, with which she is most eager to establish a trade relationship. We have previously given an analysis of this aspect of the Chinese experience in 1979-86 (Woo and

Tsang 1988).

The overheating of the economy in 1984, particularly in the fourth quarter, resulted in a significant increase in the amount of currency in circulation, compared with the preceding years. At the same time, the government launched a programme of **trade liberalization** which decentralized trading authority down to the level of enterprises while requiring them to bear their own profit and loss. The so-called '**agency system**' (代理制) was also pushed through. This enabled the government to cut its fiscal burden. Mainly because of that, 1985 saw the first budget surplus in China since the beginning of reform in 1979. Concurrently, for reasons that Woo and Tsang (1988) have analysed in detail, a trade deficit of historically unprecedented size (US\$15.2bn) has resulted. Both these factors exerted strong dampening effects on the issuance of currency. Hence, despite the huge deposit-loan gap of the banking system, the amount of currency in circulation in 1985 was actually smaller than in 1984.

In response to the huge deficit unfolding during 1985, the government started to **re-impose centralized measures to control imports and exports**. Consequently, the trade deficit shrank but the fiscal deficit reappeared in 1986-7, putting heavy pressure on the central bank to issue more currency again.

**In view of such fluctuations in the Chinese government's fiscal and trade policies, which were the result of attempts to wrestle with the mixed system and to push the reform ahead, it would be very difficult for the People's Bank to pursue a stable and persistent monetary policy.**

## 7. Ineffectiveness of monetary tools

Nevertheless, as Table 3 shows, **the deposit-loan gap of the banking sector** is still an important factor affecting the amount of currency in circulation. In this regard, one may argue that the Chinese central bank should be able to exercise more control. The problem however lies in the fact that despite the financial reform, the specialized banks have yet to establish themselves as entities with independent operational status and sufficient resources of their own. In terms of the sources of funds, they are very dependent on the People's Bank because of the fragile nature of their financial balance and the peculiar structure of their assets and liabilities (Wu et al. 1987).

Typically, total loans of the banking sector exceeded total deposits by hundreds of billions of Renminbi in the reform years. To maintain balance, **the banks had to depend on borrowing from the People's Bank**, which often accounted for over 20 per cent of their total funds. As to the uses of funds, the specialized banks turned most of their money into loans. Unlike their commercial counterparts in the West, they did not and could not diversify their funds into a portfolio of assets

with different degrees of liquidity, risk and rates of returns. Table 4 gives in summary form the balance sheet of the Industrial and Commercial Bank, the largest one of the specialized banks, at the end of 1987.

**Table 4 Sources and uses of funds of the Industrial and Commercial Bank of China  
(year-end, 1987) (unit: 100 million RMB)**

<b>Sources</b>		<b>Uses</b>	
Deposits	3172.38 (64.24)	Loans	4448.17 (90.07)
Capital funds	184.35 (3.73)	Res. dep. at PBC	363.72 (7.36)
Borrowing from PBC	1157.69 (23.44)	Dep. at PBC	98.23 (1.99)
Others	424.24 (8.59)	Vault cash	28.54 (0.58)
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<b>Total</b>	<b>4938.66</b> <b>(100.00)</b>	<b>Total</b>	<b>4938.66</b> <b>(100.00)</b>

Source: Almanac of China's Finance and Banking, 1988: 67.

Notes: Numbers in brackets are percentages, PBC - People's Bank of China; Res. dep. - reserve deposits; Dep. - deposits.

Confronted with such a **fragile financial structure** (脆弱財務結構) of the banking system, it would be very **difficult for the People's Bank to implement flexible and effective control of credit expansion and the aggregate money supply**. After the system of specialized banks had been set up, the central bank initially used the method of 'gap' control (差額控制---存差或貸款), which failed to produce satisfactory results. Under the system, banks were assigned an approved 'gap' between total deposits and total loans (usually an amount by which loans could exceed deposits). They could further sub-divide the quota (額度) among their branches at different levels. As long as the gap was not exceeded, the banks could expand credit by as much as they liked. Abstracting from the effects of fiscal and trade policies and other considerations, the gap between loans and deposits obviously has to be filled by additional cash. Thus the method is equivalent to the control of currency issuance. Since the specialized banks could extend more credit if they were able to procure more deposits, provided that the quota was not exceeded, it was hoped that the banks would have more incentives to solicit deposits (thus encouraging savings and speeding up

monetary circulation) (多存多貸) and would be more concerned about channelling funds to more efficient units (since deposits had to be financed).

However, due to **the segregation between cash circulation and transfer payments through banks**, a situation which the economic reform has not changed markedly, such a control mechanism failed to produce notable effects. Chinese households use mainly cash for transactions while exchanges among enterprises are largely settled in the form of cheque payments, and nearly all loans are extended to enterprises and other organizations. Therefore, the cash circuit and the loan-deposit circuit are largely detached from each other. As a result, **the money multiplier (貨幣乘數) is very large**. Given a 'gap', moreover, **the total magnitude of loans and deposits is theoretically indeterminate** if the cash drain ratio is unstable unless the monetary authority imposes ceilings on credit, which the central authority actually did most of the time in the reform period. Such **credit ceilings (信貸上限)**, however, are in conflict with the goal of promoting banking efficiency.

To rectify this defect in the control mechanism, the Chinese monetary authority started to introduce **reserve requirements on deposits (存款準備金制度)** in 1985. Banks have been required to maintain a certain percentage of their deposits as reserve (30 per cent for the Construction Bank and 10 per cent initially for the other banks; the latter ratio has been progressively increased over the past few years). It was apparently hoped that the magnitude of the money multiplier could be lowered without having to resort to administrative control.

Nevertheless, even this new system seems to have done very little to restrain credit and keep a lid on the money supply. In fact, **given the fragile financial structure of the banking system, flexible and effective control cannot be achieved through either re-lending policy which makes up for the deposit-loan gap or changing the reserve ratio on deposits**. Suppose the monetary authority feels that the economy is overheated and hence reduces re-lending to the specialized banks. With a major source of funds blocked, the specialized banks would find it difficult to open up other sources, particularly in the short run. Since nearly all their funds have been lent out as loans, there is very little liquid asset out of which they can switch. To restore balance they have few alternatives other than limiting new lending and demanding enterprises to repay outstanding loans. This will generate a drastic impact on the operation of enterprises many of which do not have sufficient funds. A lot of on-going projects will have to stop, touching off chain effects. Hence monetary tightening may lead to severe contraction in the real economy.

Likewise, the effectiveness of raising the reserve ratio is also limited. With the deposit-loan gap amounting to over 20 per cent of the total funds of the banking system, the specialized banks have to rely on the People's Bank to maintain financial balance. An increase in the reserve ratio will put

them in the same difficult situation as a tightening in re-lending. The higher ratio may be imposed only on new deposits rather than on total deposits. But there will be the delicate problem of determining the appropriate marginal ratio. During an inflationary boom, new lending may be vital in keeping liquidity in the mixed system.

Because of all these factors, **the People's Bank in general has been rather reluctant in taking the initiative to implement monetary contraction**, for the fear that it might be blamed for obstructing the high-speed growth of the economy and the progress of the reform (with its 'inevitable' increases in the demand for money). It has been **forced to accommodate the ambitious plans of both central and local authorities. Only until evidence of extreme overheating and distortion in the economy comes to everyone's recognition would all the parties of vested interests in power agree to a major clamp-down. Given the institutional reality in China, although such a measure was often linked to the re-imposition of forms of direct control and usually pushed the economy into severe recession, it did perform, to varying degrees of success, the 'positive' functions of curbing demand and redirecting resources to rectify structural imbalances. Hence the sharp fluctuations and cycles in the Chinese economy. It appears that the economic reform has done little to change that, if not actually accentuating the swings.**

## 9. Concluding remarks

Under the economic reform, monetary policy is supposed to play a more independent, flexible and effective role in regulating the operation of an increasingly 'commoditized' economy. In reality, however, the objective has yet to be achieved because of the confusing, even chaotic, situations of the mixed system. It is difficult enough to fully grasp the operational dynamics of such a system and accurately predict the net effect on the demand for credit and money of factors that pull in different directions. The fact that the specialized banks as well as the central bank have not established truly autonomous operational status with sufficient resources and capabilities only aggravates the problems of effective monetary control.

The Chinese monetary authority often finds itself in **a 'double bind'** under the reform, particularly in the heat of an inflationary boom. Monetary tightening may push the economy into a depression. Further accommodation to distorted growth, on the other hand, would only delay the final adjustment and the eventual reckoning may be more painful. This dilemma has largely been a result of severe distortions in the economic structure of a system that as yet lacks flexibility and mobility, and exhibits very low supply and demand elasticities. To be fair, the Chinese central bank is not the leading actor in the play as many of the problems seem to be outside its direct control. To reverse the argument, therefore, monetary policy alone, irrespective of the form it takes, will not be

sufficient to correct all the disequilibria built up over a span of many years. It can only be used as one of the levers in a policy package that includes fiscal, monetary, and almost inevitably, administrative measures.

The major **lesson** of the Chinese economic reform appears to be this: **a socialist developing economy under reform must be very careful in handling its own historical, developmental and institutional legacy and pay special attention to the problems of structural disequilibria in formulating its reform strategies. Caution must be exercised to prevent the economy from falling into the trap of serious disproportionality. Otherwise, the costs in terms of the slowing down of economic growth and the progress in reform may be very high, and there is not much the monetary authority can do to alleviate them. Unfortunately, this lesson had apparently not been learnt, and the costs turned out to be huge.**

#### Notes

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#### References and appendixes

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