

INFLATION AND ECONOMIC REFORM IN CHINA

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DURING the period from May through August 1988, the Chinese top-leadership repeatedly assured all concerned that price and wage reforms would be carried out by all means. But as soon as the price reform policy was announced, urban residents, peasants, and enterprises alike got panicked and began hoarding activities. This pushed up inflation to an annual rate of over 20 per cent. Faced by this situation, the Third Plenary Session of the 13th Central Committee of the Communist Party of China decided to postpone price reforms indefinitely.

In the following I would like to look into the relationship between inflation and economic reforms in China. Inflation in China in recent years has resulted from the compounded effects of three factors: demand-pull, cost-push, and money supply.

I. PRICE REFORM AND INFLATION

A. *From Repressed Inflation to Open Inflation*

Having shifted to an orbit of open economy at the end of 1978, which called for corresponding economic reforms, China adopted a set of measures to decentralize enterprise management and introduce the market mechanism. This generated a sustained upward price trend. Official statistics show that the employee's cost of living index, which had risen at a meager 1.3 per cent per annum from 1950 through 1978,¹ began to climb at an annual average rate of 6.54 per cent in the

¹ G. Peebles affirms that there were significant retail price changes in China during the period 1950-82 in his "Aggregate Retail Price Changes in Socialist Economies: Identification, Theory and Evidence for China and the Soviet Union," *Soviet Studies*, Vol. 38, No. 4 (October 1986), pp. 477-79. Moreover he criticizes studies by D. Perkins, P. Schran, and Wang Tong-eng because they emphasize long-run price stability in the period before 1978 (D. H. Perkins, "Price Stability and Development in Mainland China [1951-63]," *Journal of Political Economy*, Vol. 72, No. 4 [August 1964]; P. Schran, "China's Price Stability: Its Meaning and Distributional Consequences," *Journal of Comparative Economics*, Vol. 1, No. 4 (December 1977); and Wang Tong-eng, *Economic Policies and Price Stability in China*, Center of Chinese Studies, China Research Monograph, No. 16 [Berkeley, Calif.: Institute of East Asian Studies, University of California, 1980]).

Of course, it is a well-known fact that there was a substantial rise in retail prices in 1950, 1951, and 1961. But the author recognizes that retail prices and consumer prices were kept basically stable during Mao Zedong's party chairmanship in comparison with the years after 1979.

1978–88 period, a figure almost five times higher than during the previous twenty-eight years.

This sudden increase in the price index indicates that with the abolition of official price controls, the inflationary potential lurking in the shadows of the old system was let loose and made itself felt in the form of a rising price index.

In a socialist planned economy where government-set prices carry dominant weight in the price mechanism, supply-demand gaps do not necessarily express themselves in the form of price increases for goods in short supply. The presence of such a gap, therefore, does not necessarily lead to a rise in the price index statistics.

Instead, the gap asserts itself in one or more of the following forms: (1) the inevitability of goods rationing systems, characterized by the familiar scenes of consumers queuing up in front of shops; (2) a widening gap between the official and market prices, and (3) forced savings, and (4) a rampancy of black markets, corruption, and special treatment for the privileged. Thus, vegetables, for example, tend to disappear from state-run stores in the winter time. The cheap-price-tags-but-no-goods phenomenon is also a way in which the supply-demand gap in socialist countries expresses itself [15, pp. 4–9] [8, pp. 167–72] [20, pp. 136–38] [18, p. 4] [5, p. 110]. This factor we will call repressed inflation, which certainly existed in China during the period before 1978.

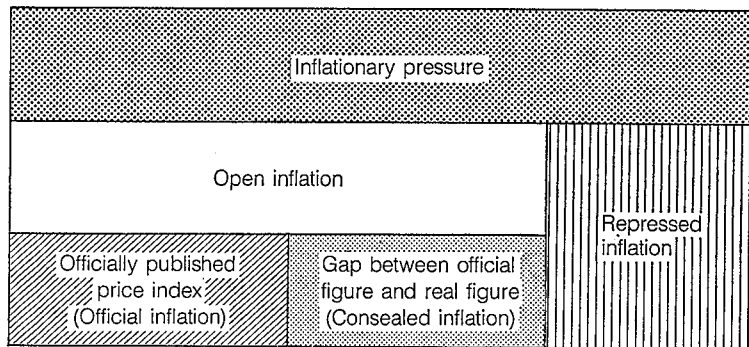
Let me next examine the credibility of the Chinese price index. I have discussed the Chinese method of price indexing in an earlier paper entitled “The Price Problem and Economic Reform” [12]. My conclusion was that there is no reason why current Chinese price statistics should be considered untrustworthy any more than the price statistics of other countries. However, it is in fact true that past Chinese statistics have had some accuracy problems.

Concerning price statistics, the temptation is great for socialist countries to perform some artificial operations to make their inflation rates look lower than they actually are. In addition to attempts to demonstrate stable prices with such operations, they can inflate real output growth rates by underestimating rates of price increases. In calculating price index, all the socialist countries excepting Czechoslovakia, Poland, and Yugoslavia follow the Paasche formula, which is based on comparable period fixed weight. By contrast, most capitalist countries use the Laspeyres formula, which is based on base-period fixed weight. Aside from the question of which formula is the better indicator of the true price level, the index produced by the Paasche formula is certainly lower than that produced by the Laspeyres formula, given that the consumer’s utility function remains the same [22, p. 116].²

According to Alec Nove, “when Soviet statisticians calculate a cost of living index, they are careful to use end year weights, which minimize the increase in

² According to R. G. D. Allen (*Index Numbers in Theory and Practice* [London: Macmillan Press, 1975], Ch. 2), the Laspeyres formula gives a larger figure than the Paasche formula when price and quantity move in opposite directions. Allen cites the retail price index as the example.

Fig. 1. Inflationary Pressure and the Official Price Index



Sources: Made by the author based on [15] [8] [20] [18] [5].

prices and so represent real wages in a more favourable light" [19, p. 312]. China too has stated that it theoretically follows the Paasche formula.³ Supposing that there is a concealed differential between the official figure of price index and the real one, that inflationary figure should also be considered in examining the Chinese price index. (See Figure 1.)

B. *The Abolition of Price Controls*

Since 1979, the year in which economic reforms were initiated, price control measures have been removed one after another.

Consequently, the market share of the goods sold at government-determined prices has remarkably diminished. Between the pre-reform year of 1978 and the mid-reform year of 1986, the weight of government-pricing declined from 92.4 per cent to 37 per cent for agricultural products, from 100 per cent to 64 per cent for major capital goods, and from 97 per cent to 45 per cent for industrially manufactured consumer products (see Table I).

In addition to the abolition of price controls, price reform involved two more aspects: government adjustment of relative commodity prices and the decentralization of pricing decision powers. Price reform was aimed at creating rational relative prices among different commodities by introducing, or at least partially employing, the market mechanism. The reform in itself would not necessarily lead to price increases.

In reality, however, it was difficult to reduce the prices of overvalued commodities, since such actions would go against the interests of the enterprises and government agencies involved. Consequently, adjustment was done only by raising the prices of low-priced goods. Given a lack of downward price elasticity, price reform inevitably caused price increases. All in all, the abolition of price controls

³ For the Chinese methods for calculating price indices, see [12, pp. 5-6].

TABLE I
COMPOSITION OF PRICE FORMS

(%)

	Peasants' Agricultural Product Sales		Important Capital-good Sales		Industrial Product (Consumer Goods) Sales	
	1978	1986	1978	1986	1978	1986
Government-determined price	92.4	37	100	64	97	45
Government-guided price	} 7.6	23	} 0	23	} 3	23
Market-adjusted price		40		13		32

Source: Tian Yuan, "Jiage gaige yu chanquan zhidu zhuanhuan" [Reforming the price and transferring the property right system], *Jingji yanjiu*, 1988, No. 2, p. 12 and "Qiyе dingjia jiangzuo" [Lectures on enterprise pricing], *Jiage lilun yu shijian*, 1988, No. 1, p. 58.

TABLE II
FACTORS CONTRIBUTING TO INCREASES IN THE RETAIL PRICE INDEX

	Effect of Previous Year Price Liberalization	Price Rise in Extra-Planning Sector	Planning Price	
			Government-guided Price	Government-determined Price
1986	40	38		22
1987	19.2	54.1	17.0	9.7
1988	13.5	44.9		41.6

Source: Zhu Min, "1986 nian jiage gaige zongzhu" [Summary on price reform in 1986], *Jiage lilun yu shijian*, 1987, No. 4, p. 6; "1987 nian woguo wujia gaishu" [General survey of China's price problems in 1987], *Jiage lilun yu shijian*, 1988, No. 6, p. 8; and "1988 nian de wujia biadong" [Price fluctuation in 1988], *Jiage lilun yu shijian*, 1989, No. 5, p. 34.

also helped bring to the surface the long repressed inflation. Therefore, the officially published price index had to rise.

The retail price index thus climbed 6.0 per cent and 7.3 per cent in 1986 and 1987, respectively. (Unlike the employee's cost of living index, the retail price index does not cover service charges, but includes agricultural capital goods prices.) As shown in Table II, of the 1986 increase, 40 per cent reflected the consequences of the 1985 reforms, namely the deregulation of food prices other than staples and the raising of the sales prices of food and edible oil in the countryside. Another 38 per cent was accounted for by price increases involving non-planned sectors. The share occupied by this latter factor climbed as high as 54.1 per cent in 1987. Repressed inflation was thus let loose, and it found its expression in the rapid increase in China's officially published price index.

TABLE III
GROWTH RATE COMPARISON

	GNP in Real Terms	Nominal Fixed Asset Investment	State-sector Share	Nominal Wages Total
1985	12.7	38.8	41.8	22.0
1986	8.3	18.7	17.7	20.0
1987	11.0	20.6	16.1	13.3
1988	10.8	23.5	20.2	23.1

(%)

Source: State Statistical Bureau, *Zhongguo tongji nianjian, 1988* [Statistical yearbook of China, 1988] (Beijing: Zhongguo-tongji-chubanshe, 1989).

Note: Using the above yearbook, the author has revised the figures cited by Zhang Zhuoyuan [31].

II. ANALYSIS OF INFLATIONARY FACTORS

The explanation that China's repressed inflation found its way to the surface through economic reforms in general, and price reform in particular, which were institutionally generated, refers only to the general background against which inflation gained momentum. The factors responsible for this inflationary pressure still remain to be discovered. In the following sections, I will analyze and typify those factors in the Chinese economy that have brought about recent inflation.

A. *The Demand-pull Factor*

The Chinese economy is basically one of shortages, where gross demand constantly remains above gross supply. This being the case, the demand-pull factor is of great significance among the inflationary factors at work.

Table III compares the growth rates of GNP in real terms with those of nominal fixed asset investment and aggregate nominal wages. The table shows that the latter two rates are about double the former. The difference between the rates of increase in investment demand (fixed asset investment) or consumption demand (total wages) and the rates of increase in real GNP constitutes an inflationary gap, a factor that pushes the price level upward.

The following four background factors account for the remarkable recent rise in total wages and consumption.⁴

The first factor is increase in wages paid. Each enterprise receives a contracted norm. While some enterprises meet their norms, others fail to do so because of too strict planning requirements. Thus, a large gap exists between enterprises in the amount of profit retained within them. In 1985, for instance, retained profit per employee was 800 yuan for the manufacturing sector, 1,000 yuan for the

⁴ Concerning the first to the third factors, see Dai Yuanchen and Li Hanming, "Gongzi qinshi lirun" [Wages swallowing up profits], *Jingji yanjiu*, 1988, No. 6, pp. 7-9.

commercial sector selling consumer goods, and 2,600–2,800 yuan for enterprises distributing capital goods. In the manufacturing sector itself, retained profits ranged widely from 4,571 yuan for auto plants to a meager 447 yuan for spinning factories.

The workers at enterprises with large retained profits obtain large bonuses, amounting sometimes to 2,000 yuan a year. Those employed by enterprises with low retained profits are entitled only to 200–400 yuan. The employees feel this to be unfair, since they think that the enterprises paying larger bonuses do not possess any particularly higher level of managerial ability nor do they require more skilled or more intensive labor. Obviously, the retained profit gap stems from the difference in the bargaining power which the enterprises concerned wield in their negotiations with the government agencies concerned. The underpaid workers thus feel they have the right to demand the same amount of wages and bonuses as those working at enterprises with larger retained profits.

The second factor is the changing role of the factory director. Under the traditional system, the factory director used to represent the government itself, or the government agency in charge of the factory. Economic reform attempts to change this system so that the director becomes a new type of manager representing the interests of his factory. But at the moment the main concern of the factory director is how he can best meet the demands of his employees and promote their interests. He is least interested in investment for long-term goals. This happens to be so because his evaluation during his term of appointment is based on how the employees evaluate him, and so it is important for him to create favorable personal connections in order to make his job easier during the appointment and to facilitate his career promotion after the expiration of his term of office. For these reasons 80 per cent or so of the retained profit is appropriated for bonuses and intra-enterprise welfare, while only 20 per cent is set aside for productive purposes.

The third factor is so-called unit-ism (*danwei zhuyi*) on which all Chinese enterprises are based. The Chinese state-run enterprise is not merely a workplace but also the total arena of life, so to speak, of its employees, which of course includes social welfare aspects. The state enterprise provides for their employees restaurants, apartment houses, and cultural or recreational facilities as well as labor insurance, health insurance, and pensions. The facilities are provided free or very inexpensively. With this protection, urban residents employed by these enterprises tend to concentrate their cash spending on the purchase of food, clothing, and other articles for daily consumption [7, p.27]. This is one reason why the prices of daily necessities tend to rise so easily.

Under this enterprise system, the portion of retained profit ultimately appropriated for consumption tends to grow rapidly. It rises in the form of bonuses, increasing allowances of various kinds, and non-productive investment, mainly housing construction. From 1981 through 1986 the basic wage per state-enterprise employee grew by an annual average of 17.5 per cent, while bonuses and allowances paid out of retained profits kept growing at an annual rate of 25.7 per cent. In the meantime, the share of non-productive investment by these enterprises out of total fixed asset investment ranged between 40.3 per cent and 45.5 per cent

during the 1981–85 period. Housing investment alone accounted for 18.2 to 25.4 per cent during the same period. On the other hand, during the 1953–80 period, non-productive investment accounted for 14.6–33 per cent, with housing investment according for 4 to 11.8 per cent. Obviously non-productive investment has made a quantum leap since the introduction of the economic reform program [7, p. 22].

The most remarkable growth may be seen in the so-called collective consumption by units. This means the use of official money for official purposes by government agencies, party organizations, and other social bodies, as well as enterprises, army units, rural collective-ownership economic bodies, and various other cooperatives. This type of expenditure involves the purchase of furniture, office equipment, gymnastic equipment, books, newspapers, magazines, electrical appliances, cars, kitchen equipment, calculators, pharmaceuticals, general work safety equipment, as well as medical services, labor insurance, banquets, and recreational tours and outings for employees [6, p. 183] [25, p. 5].

Even though consumption restrictions were attempted in order to remedy economic overheating, still collective consumption in 1987 amounted to 55,300 million yuan, up 19.6 per cent from the previous year. It is also well known that the actual collective consumption figure is always larger than official statistics suggest [26].

In 1981 workplace units all over the country collectively consumed 15,728 small passenger cars, worth 340 million yuan. Five years later automobile purchases had risen to 115,677, worth 5,340 million yuan. During this period workplace units added 300,000 more vehicles to their fleets. Supposing that one vehicle requires 10,000 yuan a year in driving and maintenance costs, the expenditure increment in the ten years since 1986 comes to a staggering 30 billion yuan, which is equal to 13.4 per cent of the central and local governments' revenue in 1986. Furthermore, the construction of *lou, tang, guan, suo* ("office buildings, assembly halls, hotels, and guest houses") has increased at a rapid pace, and this has necessitated the collective consumption of furniture and electrical appliances. For example, the purchase in this category of video recorders rose thirty-two times and that of sofas twenty-one times between 1981 and 1986. Collective consumption of air conditioning equipment, color TV sets, and carpeting also grew two to three times during the same period [2, p. 48].

Personal consumption also remained vigorous. High- and medium-grade goods, once only objects of collective consumption, have now begun to be bought by individuals. Falling in this category are pianos, Chinese and English typewriters, high-grade cameras, and electronic organs. Wedding costs in urban centers are also skyrocketing. A survey in Liaoning Province in 1986 showed the average wedding costing as high as 7,000 yuan. Given the 400,000 weddings held per year in this province, the total cost of these ceremonies comes to a surprising one quarter of the total wages paid in the province [29, pp. 46–47].

The fourth and final factor is the increase in total wages paid due to increases in the number of employees. Nine million people moved from the primary sector (agriculture, forestry, and fishery) to the secondary and tertiary sectors during the ten-year period beginning in 1978. Most of them work for rural area village or

township enterprises (*xiangzhen qiye*), and many of the newly employed workers still do agricultural work on a part-time basis. Even making allowance for this, the massive movement of population certainly has created a huge additional group of people who consuming commercialized agricultural products.

B. *The Cost-push Factor*

1. *Multiple capital-good prices*

Price reforms pulled up the government prices of raw materials and energy, which are traditionally low-profit goods. It was also decreed that capital goods over and above planned quotas (norms) could now be sold at premium or market prices. Consequently, we have the emergence of the phenomenon of multiple pricing for the same good, ranging from the low centrally controlled price to the high market price.⁵ Taking advantage of relaxed central price control, some enterprises began to sell their products on either the official or black market of capital goods without fulfilling government-imposed production targets. They were able to sell high whenever they enjoyed monopoly or oligopoly positions.

It is said that Chinese enterprises generally can absorb only 30 per cent of raw material and energy price increases, while the remaining 70 per cent has to be shifted onto their product prices [31]. Therefore, the rise in capital-goods prices becomes a major cause for cost-induced inflation.

The State Council's "Provisional rules on further expansion of the autonomous powers of state-owned enterprises" put into effect on May 10, 1984 permitted part of the capital goods produced by state enterprises to be sold freely. This came on the occasion of official ratification of multiple pricing, that had already become the general practice.⁶ In the case of steel, either 2 per cent of the normal output or any excess over the plan-provided output was thus liberalized for free sale. Also made permissible were price hikes of under 20 per cent for extra-quota pig iron, copper, aluminum, lead, zinc, tin, coal, cement, nitric acid, thick sulfuric acid, caustic soda, refined soda, and rubber.

Later, the free-sale portion of the output was enlarged, and in 1985 the permissible price increase ceiling of 20 per cent was abolished. Now subject to multiple pricing are primary and secondary forms of energy, oil products, coke, timber, metal materials, sheet glass, and mineral products. In January 1988, however, price ceilings were reintroduced for extra-quota products as a means of curbing inflation.

In 1980 there were 256 kinds of capital goods subject to distribution control by the State Planning Commission or State Bureau of Materials and Equipment (materials and equipment under category I) and 581 other kinds of capital goods subject to distribution by industrial and economic ministries of the central govern-

⁵ For details of multiple prices of capital goods, refer to Kyoichi Ishihara, "China's Multiple Price System," *China Newsletter*, No. 80 (May-June 1989).

⁶ Concerning the significance of the provisional rules as the official recognition of existing realities, see Kyoichi Ishihara, "Keikakuka to kakaku" [Planning and price], in *Tenki ni tatsu Chūgoku keizai* [Chinese economy at a crossroads], ed. Nobuo Maruyama, Kenkyū soshō No. 329 (Tokyo: Institute of Developing Economies, 1985), p. 50.

TABLE IV
SHARES OF CENTRALLY DISTRIBUTED GOODS AS PER CENT OF TOTAL OUTPUT

	1980	1982	1987
Steel	74.3	53	47.1
Coal	57.9	51	47.2
Timber	80.9	57	27.6
Cement	35.0	25	15.6

Source: For 1980 and 1987, [16, p. 15]. For 1982, Kyoichi Ishihara, "Planning and the Market in China," *Developing Economies*, Vol. 25, No. 4 (December 1987), p. 292.

ment (materials and equipment under category II). The goals were reduced in number to 20 and 561 respectively by 1987. According to Chai Zonghe, prices of 40 per cent of all capital goods have been deregulated so far. The liberalization rate should reach 80 per cent by 1995 [1, p. 12].

Even among the items still subject to central government control, shares of the centrally distributed portions are diminishing. This applies to steel, coal, and cement (Table IV). The centrally distributed portions of other category-I goods are 16 to 50 per cent of their respective total output.

In 1985 the market prices of major capital goods stood at from 2 to 2.6 times government prices [30, p. 20]. Also, imported capital goods are now sold at premium prices according to an entirely different system. Import shares are fairly large for steel (31.2 per cent), timber (10.2 per cent), copper and copper alloys (28.4 per cent), and aluminum and aluminum alloys (32.2 per cent).

2. *The transfer of cost increases onto product prices*

Multiple pricing has developed along two lines. First, the pricing bifurcated into government-controlled and enterprise-determined sales prices. Enterprises under central government control can sell surplus products exceeding the government quota at the government-guided and/or the market-adjusted price. Second, the price has been ramified in accordance with the diversified systems of ownership, ranging from central state-owned, through local government-owned, to collectively owned and privately owned. The pluralization of ownership under economic reform went hand in hand with multiple pricing. Insofar as it developed along with the progress in economic and price reforms, multiple pricing has played a positive role. Li Baoshi and others argued that multiple pricing has had the following positive aspects [16, p. 16].

First, China at the present time is not prepared to shift fully from a government-determined price system to a market-adjusted price system. The multiple price system is a proper choice in view of the central government's limited fiscal capacity, the low degree of development of a market economy, and the enterprise's poor ability to absorb cost increases. Under this system the margin of price fluctuations is relatively small, so both the buyer and seller can accept them. Secondly, the fluctuations of market-adjusted prices can be used as a referent in the determina-

tion of government-determined prices. Thirdly, the enterprise can increase its revenue by selling its surplus products at self-determined prices. Fourthly, this system encourages the manufacturing enterprise to absorb raw-material price increases through production cost reduction. Fifth, the share of goods distributed by the central government as well as the importance of government-determined pricing will decrease with the spread of multiple pricing.

On the other hand, the same Chinese scholars point to negative aspects of this system.

First, the enterprises producing capital goods will endeavor to increase the portion of their output that is marketable at higher prices. Thus, in many cases they will be tempted to sell products at self-determined prices without fulfilling government-imposed production targets. Secondly, market-adjusted prices under the multiple pricing system do not accurately reflect the actual supply-demand situation. The market-adjusted price subject to this system tends to be higher than if it were subject to a total market mechanism. The market seems to be tighter than is justified by the real supply-demand situation. The dual presence of government prices and market prices thus distorts both of them [32, p. 30]. Also, goods in short supply can often serve as hard currency exchangeable with any other good. Thirdly, it is possible under this system to buy cheap and sell dear. Therefore, it spurs speculation, selling short, and other irregular economic practice.

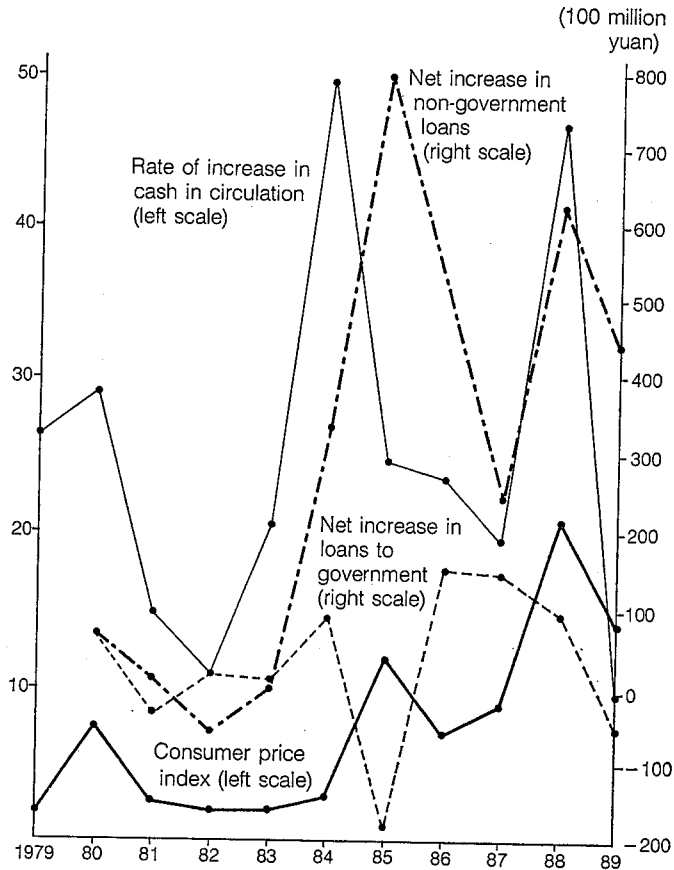
The multiple price system thus has both positive and negative aspects. While serving as an incentive to enterprises to increase production, this system also tends to trigger price hikes in both legal and illegal forms. The most serious illegal price hiking involves capital goods. In fact, most of the cases of illegal price hikes which produce revenues of 10,000 yuan or more are carried out by enterprises selling, buying, or producing capital goods [4, p. 30]. In May 1987 the State Council had to issue a decree to strengthen price controls on capital goods and prohibit arbitrary increases in their prices [13, p. 49].

Multiple pricing, together with consequent legally and illegally conducted price hikes, has brought about a general rise in capital-goods prices. Under the existing Chinese system, such rises inevitably lead to cost-push inflation for the following reasons [21, pp. 23-24].

First, economic reforms centering on retained profits as their chief incentive, combined with the contracted management responsibility system, has the effect of making enterprise behavior myopic. Under the pre-reform system, there was no link between business performance and the wage and welfare level of employees. The enterprise paid no attention to its cost/price ratio, and cost increases did not necessarily lead to rises in product prices. By contrast, under the reformed system the enterprise has to show good result during the contract period. Thus motivated, the enterprise pursues short-term profits, even though it knows such behavior would undermine its long-term interests by causing its market share to diminish and its product competitiveness to decline. Cost increases under these circumstances would be shifted onto product prices rather than absorbed by rationalization.

Secondly, chances for price increase are legionary in the economy of scarcity. Given the seller's market, cost increments are easily translated into higher prices.

Fig. 2. Factors Contributing to Money Supply Increase



Source: Same as Table V.

Note: The rate of increase in cash in circulation dropped markedly in 1989 due to austerity measures under the adjustment policy and the loss of consumers' demand.

Thirdly, the reforms have stressed decentralization, giving enterprises larger decision-making powers, but have not duly taken measures to let the market and price mechanism function normally. The transfer of price determination to individual enterprises would not necessarily cause price increases, as long as the market operates in a competitive environment. But in the absence of a proper market mechanism, cost increases are very easily shifted to prices. This is especially so in present-day China where most state-owned enterprises are monopoly or oligopoly enterprises.

C. *The Factor of the Money Supply*

The analysis of the relationship between the price index and money supply depends largely on which indicator one takes as representative of the money supply. First let us use cash flow, excluding money on deposit (M_0).

The following inter-relationship is identified from M_0 fluctuations shown in the monetary survey table [23, pp. 156–57].

$$M_0 \text{ increase} = (\text{increase in loans to government} - \text{increase in fiscally appropriate deposits}) + (\text{increase in loans to non-government bodies} - \text{deposit increase}) + \text{increase in foreign exchange holdings} - \text{others.}$$

The factors that chiefly influence M_0 fluctuations are net increases in loans to the government and in loans to non-government bodies.

Table V indicates changes over time of the net increase in loans to the government, net increase in loans to non-government bodies, the rate of increase in money now in circulation, and the consumer price index, which are shown in Figure 2.

The 49.5 per cent increase in M_0 in 1984 was largely due to the increase in government loans withdrawn from the People's Bank of China to meet budget deficits (19,957 million yuan in 1983 and 26,078 million yuan in 1984) and the decrease in fiscally appropriate deposits (19,787 million yuan in 1983 and 16,588 million yuan in 1984).

In 1985 the fiscally appropriate deposits increased drastically, while loans to the government did not. Consequently the net increase in loans to the government became minus 18,822 million yuan, which theoretically would drastically push down M_0 . But the M_0 rate of increase stayed as high as 24.7 per cent that year (no significant drop from the previous year) because loans to non-governmental bodies were dramatically expanded. M_0 again attained a high rate of increase, 46.7 per cent, in 1988. This was due to a failure to suppress loans to non-government bodies, as well as a massive withdrawal of private deposits.

Money in circulation, or M_0 , is spent mainly for the purchase of consumer goods. As Figure 3 indicates, 70 per cent of the cash in circulation is used for commodity purchases. Unless consumer goods supply is increased in proportion to M_0 increases, a supply-demand gap will result and create inflationary pressure.

Minoru Nambu has obtained a "total inflation index" using a formula presented by K. H. Hsiao. The formula boils down to the ratio of money in circulation to the commodity retail value [9; p. 232, Table IX-2]:

$$I_t = \frac{I_m}{I_r/I_p},$$

where I_t = total inflation index, I_m = index for money in circulation, I_r = index for aggregate retail sales of social commodities in the current price of the year concerned, and I_p = total index for commodity retail price.

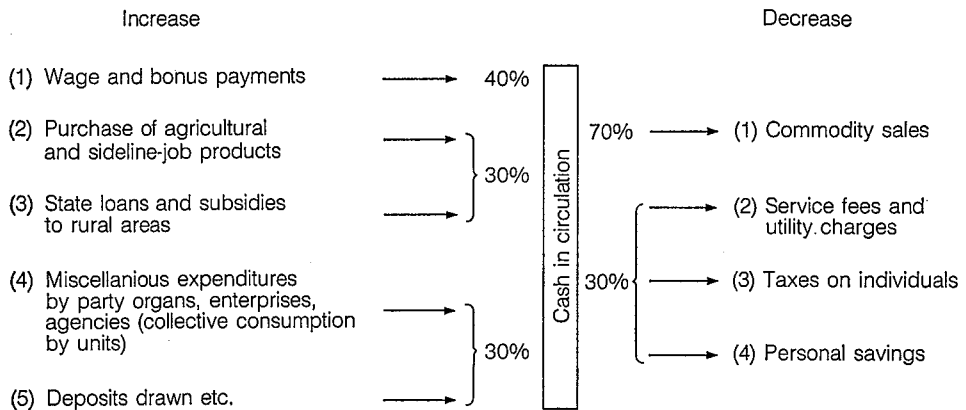
Using this formula, the total inflation index in 1988 (base year 1978 = 100) was 364.2 (Table VI). The annual average inflation rate during this period was

TABLE V
THE MONEY SUPPLY

	(100 million yuan)							
	Cash in Circulation Increase Rate and Workers (%)	Increase in Loans to Non-government Bodies (A)	Increase in Non-government Deposits (B)	Net Increase in Loans to Non-government Bodies (A-B)	Increase in Loans to Government (C)	Increase in Fiscally Appropriate Deposits (D)	Net Increase in Loans to Government (C-D)	
1979	26.3	101.9						
1980	29.3	107.5	374.67	305.26	69.41	80	15.77	64.23
1981	14.5	102.5	350.37	341.41	8.96	0	32.92	-32.92
1982	10.8	102.0	287.6	348.25	-60.65	0	-17.43	17.43
1983	20.6	102.0	378.78	377.44	1.34	29.34	17.93	11.41
1984	49.5	102.7	988.52	656.53	331.99	61.21	-31.99	93.2
1985	24.7	111.9	1,485.54	684.41	801.53	14.27	202.49	-188.22
1986	23.4	107.0	1,684.76	1,165.76	519.13	95	-56.92	151.92
1987	19.4	108.8	1,441.95	1,194.65	247.3	144.91	-4.47	149.38
1988	46.7	120.7	1,518.98	889.67	629.3	61.5	-36.1	97.6
1989	9.8	113.9	1,857.9	1,421.12	436.8	108.1	167.1	-59.0

Source: State Statistical Bureau, *Zhongguo tongji nianjian* [Statistical yearbook of China], various editions; *Zhongguo jinrong*, No. 1, 1983; *ibid.*, No. 4, 1988.

Fig. 3. Increase and Decrease in Cash in Circulation



Source: Liu Hongru, *Shehui zhuyi huobi yu yinhang wenti* [Socialist currency and bank] (Beijing: Zhongguo-caizheng-jingji-chubanshe, 1980).

TABLE VI
TOTAL INFLATION INDEX

	Index of Volume of Cash in Circulation (1)	Total Index for Commodity Retail Price (2)	Total Volume of Retail Sales Index		Total Inflation Index	
			In Current Year Prices (3)	In 1978 Prices (4)	Nambu-Ishihara (5)	Chen-Hou (6)
1978	100.0	100.0	100.0	100.0	100.0	100.0
1979	126.3	102.0	115.5	113.2	111.5	104.7
1980	163.3	108.0	137.3	127.1	128.5	113.6
1981	187.0	110.7	150.8	136.2	137.3	127.5
1982	207.2	112.8	164.9	146.2	141.7	135.0
1983	249.9	114.5	182.8	159.7	156.5	148.0
1984	373.6	117.7	216.6	184.0	203.0	
1985	466.0	128.1	276.2	215.6	216.1	
1986	574.7	135.8	317.6	233.9	245.7	
1987	686.1	145.7	373.4	256.3	267.7	
1988	1,006.6	172.7	477.4	276.4	364.2	

Source: For (1) to (5) State Statistical Bureau, "Zhongguo tongji nianjian" [Statistical yearbook of China], various editions and [18, p. 10]. For (6), [3, p. 823].

13.8 per cent. Incidentally, the official Chinese statistics gives 5.6 per cent as the annual rate for integrated retail prices.

Even in China, money supply calculation done merely on the basis of cash in circulation is inappropriate, since it conceals the size of credit created. In fact most settlements between state enterprises are done through transfers between bank accounts. This being the case, the state enterprises and government agencies

hold under their control only 20 billion yuan out of the 120 billion in circulation [11, p. 37].⁷

There are also other money supply studies which take into consideration M_2 , that includes cash deposits and time deposits [28, p. 4]. According to these studies, K , which corresponds to Marshall's K in a market economy, can be obtained by calculating the monetarized portion of the economy.

$$K = M_2 / (Y \cdot P \cdot H),$$

where Y = GNP in real terms, P = the implicit deflator, H = the monetarization rate, thus $Y \cdot P \cdot H$ = the monetarized portion of economy.

K stood at 41.45 per cent in 1978, 67.08 per cent in 1982, and 85.06 per cent in 1986. Since Marshall's K is the reciprocal of money circulation velocity, any increase means rising inflationary pressure.

III. CURRENT STAGE OF ECONOMIC REFORM AND INFLATION

A. *The Contracted Management Responsibility System*

Faced by inflation, the Chinese government called off reforms originally scheduled for 1986, which would revise capital goods prices across the board. Even though this aspect of reform, which intended to create equally competitive conditions for all enterprises, was abandoned, the other aspects of power decentralization in favor of enterprises was carried on. But since external conditions remained unequal for enterprises, the decision-making powers endowed upon them still had to be subject to control by the government. In delegating such power to enterprises, the government had to take into consideration each enterprise's business conditions and its business environment. Therefore, the so-called contracted management responsibility system was introduced in 1987 and swiftly became the general practice among large and medium-size state-owned enterprises [24, p. 10].

By the end of 1987, of the 12,398 large and medium-size state-owned enterprises existing in China, 9,270, or approximately three quarters, came under one of the following versions of this system:⁸

(1) Contracted system for increasing profit quotas to turn over to the government, under which the enterprise assures the government agency in charge of yearly increases in profit quotas to turn over. Applied to Capital Iron and Steel Company and 988 other enterprises (8 per cent);

⁷ Nai-Ruenn Chen and Chi-ming How [3, p. 821] say that 80 per cent of the cash in circulation is in the hands of individual consumers, the rest being held by the government and collective units as cash reserves.

⁸ "Shiryō Nicchū keizai" [Japan-China economic materials], Vol. 14, No. 8 (August 1987), p. 2, reports that China has more than 8,200 large and medium-size enterprises, large enterprises having fixed assets of more than 20 million yuan each and medium-sized enterprises having fixed assets over 8 million yuan, and that 4,046 of them follow the contracted management responsibility system.

(2) Contracted system for total wage bill, under which wage bills fluctuate in accordance with profits earned. Applied to 1,508 enterprises (12.2 per cent);

(3) Contracted system for definite amounts of losses or decreasing losses, under which enterprises chronically generating losses guarantee that the annual losses be contained under a definite ceiling. Applied to 523 enterprises (4.2 per cent); and

(4) Other various forms of contracted management responsibility systems, under which retained profits shall increase if the contract norm of the taxes and profits turned over to the state is over-fulfilled, and the enterprise itself meets any loss from failure to fulfill the norm. Applied to 6,250 enterprises (50.4 per cent).

Under all of these systems, a precise and concrete norm is set for each enterprise in accordance with its business performance and product price levels. In setting the norm the government agency in charge and the enterprise concerned engage in serious bargaining. The enterprise's management proves their political abilities by beating down the norm in negotiations with the government [27, pp.3-4]. Therefore, the actual amount of profit retained depends more on this bargaining process than on the enterprise's performance. Enterprises suffering from chronic losses sign contracts to cut losses by a certain amount. If successful in cutting losses to the contracted level, the enterprise can retain that portion of the revenue, even if it is still in the red overall.

Thus, profitable and non-profitable enterprises alike can expect to increase retained profits under this system, and their employees can expect to obtain wage increases or bonuses out of the retained earnings. Nor do government agencies concerned lose their sense of usefulness under this system, since they feel it is their task to successfully bargain with enterprises and negotiate with the Ministry of Finance and its affiliated agencies. The government agencies still keep their enterprises under control and supervision. The Ministry of Finance and its affiliated agencies also feel secure, since they can expect stable annual revenue increases. None of the four parties involved risks the danger of totally losing its powers though none is fully satisfied with powers or profits it does enjoy. This system is a product of compromise and so should be acceptable to all.

What then is the relationship between this system and cost-push inflation? I have already argued that the rising capital-goods prices induced by price revisions and the abolition of controlled prices has spurred inflation from the cost side. The existing contracted management responsibility system demands that enterprise management show better achievement over a short one-year contract term. Management naturally is encouraged to pursue immediate profit increases rather than securing for the enterprise a stable market share in long-term perspective [14, pp.24-25]. Consequently, the enterprises producing or otherwise handling capital goods, taking advantage of their monopoly or oligopoly positions, tend to raise the sales prices of their products. Under the current multiple pricing system, they have abundant opportunities, both legal and illegal, to sell their goods at prices higher than the government has set [32, p.30].

In this sense, the contracted management responsibility system contributes to inflation by generating both demand-pull and cost-push pressures.

TABLE
COMPOSITION OF SAVINGS AND INVESTMENT

	Households			Enterprises, Corporate Bodies, and Self-employed			Investment Quotas According to State Budget ^a
	Savings	Investment	Differential	Savings	Investment	Differential	
1978	5.4	4.1	-1.3	51.5	34.1	-17.4	41.7
1979	11.1	6.4	-4.7	58.8	33.0	-25.8	26.9
1980	19.3	10.4	-8.9	56.3	32.7	-23.6	21.4
1981	20.2	11.5	-8.7	56.0	33.5	-22.5	18.8
1982	24.8	11.6	-13.2	54.9	38.9	-16.0	15.9
1983	29.6	12.9	-16.7	50.8	37.1	-13.7	16.6
1984	35.8	12.1	-23.7	41.7	37.5	-4.2	18.2
1985	25.9	11.0	-14.9	50.9	38.1	-12.8	17.1
1986	31.7	12.1	-19.6	46.9	37.4	-9.5	13.7

Sources: Zhongguo-jingji-tizhi-gaige-yanjiusuo, Zonghe-yanjiushi, "Gaige: Zai qianjin No. 7, pp. 9-10 and Zhongguo-jingji-tizhi-gaige-yanjiusuo, Hongguan-jingji-yanjiushi, in China's reform: Distribution and utilization of national income], *Jingji yanjiu*, 1987,

^a Non-liability funds allocated by state budget; not including the People's Bank's

^b Fiscal investment expended by treasury.

^c Includes both investment in fixed asset and circulating fund.

B. Expanded Bank Loans

The traditional factor contributing to increases in the money supply is fiscal deficit financing. But the Chinese national budget, which suffered from deficits of 4 billion yuan in 1983 and 1984, chalked up a black-ink figure of 2,160 million yuan in 1985. In spite of this fiscal improvement, the money supply (M_0) still increased 24.7 per cent that year, a fairly high figure, if indeed lower than 1984's 49.5 per cent. As shown in Table V and Figure 2, this was because net bank loan increases, i.e., the difference between bank loans and deposits, soared by 141.4 per cent that year. While it is well known that increasing the money supply through bank loans has been a factor responsible for the inflation of the past few years, why did bank loans continue to increase so rapidly during this period?

Table VII categorizes total investment in China according to funding source. Note that officially planned investment from the coffers of the state plummeted from 41.7 per cent in 1978 to 13.7 per cent in 1986. Conversely, loans from domestic financial institutions grew from 20.6 per cent to 32.9 per cent. The sources of these loans are deposits and savings by enterprises, other corporate bodies, self-employed persons, and households. The last source is particularly important, since the central government has little control over how savings by households are used. In 1986 household savings reached 31.7 per cent of the total. In the meantime, investments made out of household savings were over-

VII

ACCORDING TO FUND SOURCES

(%)

State Treasury		Loans by Domestic Financial Institutions	Foreign Loans			Total Investment ^c (100 Million Yuan)
Investment Expenditures ^b	Differential		Initial Investment	Final Investment	Differential	
41.2	-0.5	20.6	1.4	0	-1.4	1,286
37.4	10.5	21.7	3.2	1.5	-1.7	1,382
27.5	6.1	25.8	3.0	3.6	0.6	1,429
21.6	2.8	31.0	5.0	2.4	-2.6	1,396
20.1	4.2	25.6	4.4	3.8	-0.6	1,561
20.9	4.3	25.3	3.0	3.8	0.8	1,788
20.7	2.5	26.4	4.3	3.3	-1.0	2,190
14.8	-2.3	33.0	6.1	3.1	-3.0	2,995
13.6	-0.1	32.9	7.7	4.0	-3.0	3,509

zhong sisuo" [Reform: deeply thinking on the March], *Zhongguo: Fazhan yu gaige*, 1987, "Gaigezhong de hongguan jingji: guomin shouru de fenpei yu shiyong" [Macroeconomy No. 8, p. 28.

subsidies to meet budget deficits.

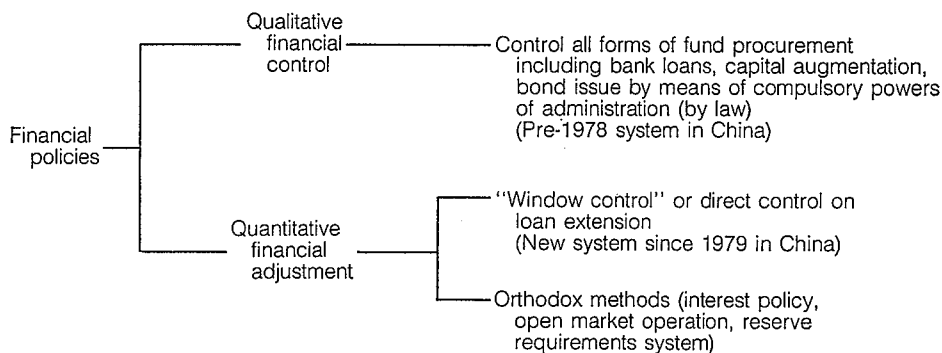
whelmingly used for home-building in rural areas, and they accounted only for 12.1 per cent of total investment. The differential between household savings and investment coming out of household savings, 19.6 percentage points, indicates the amount of deposits with domestic financial institutions.

The shift of investment emphasis from fiscal outlays to bank loans means a shift from non-redeemable grants to redeemable interest-bearing loans. This certainly should raise the operational efficiency of funds, and in fact this was what fiscal and financial reforms were aimed at. But contrary to that objective, what happened was that the explosion of bank loans induced inflation. Why did the reform go amiss? Why were bank loans inflated limitlessly, thus causing investment overheating?

In a market economy like Japan, financial policies as means of controlling the macro-economy follow two methods: one of qualitative control and the other of quantitative adjustment (Figure 4).

In the process of implementing fiscal and financial measures, China has shifted its emphasis from a qualitative control to a direct-control (window-control) method. At the present stage of development in Chinese financial management, where financial markets are just being organized, interest policies as means of control have definite limitations. Nor are the conditions ripe for the effective functioning of orthodox financial adjustment measures, centering on open market operations and changes in reserve ratio.

Fig. 4. Financial Policies as a Means of Controlling the Macro-economy



The basic cause for the credit explosion in China may be sought in the fact that the role of traditional qualitative control was weakened before quantitative control measures, which theoretically were to replace qualitative control, could function effectively.

Table VIII shows a survey on the causes of uncollectible loans financed by local branches of two banks. We can conclude from this table that local bank branches, bound by strong ties with the local party and administrative organizations, extended loans to fulfill guidelines (more or less arbitrary directives) by the local party organizations or local government agencies or else in consideration of the effects of loans on the local economy or local government finances, even when chances of recovering them were doubtful.

There may be several reasons why local bank branches attach more importance to local government guidelines than to the policy of their head-offices.

The major reason is that the local government has the right to appoint or dismiss personnel at local bank branches. Since 1976, local bank branches have been subject to dual control—control exercised both by their head-offices and by the provincial, municipal, and/or autonomous district governments, with the local governments having a stronger say in the running of day-to-day bank businesses. Under this dual system, affairs pertaining to personnel, including the right to appoint, transfer, and dismiss bank staff, were transferred to the local government. Fearing reprisal, local bank leaders would not dare use their discretion to loans, even if the local government policy contravenes the central government's fiscal and economic guidelines [17, pp. 13–14]. Furthermore, the powers of the bank head-offices are being reduced more and more within the current institutional reforms. Traditionally, the head-office controlled all deposits and all loans at the branch level, but now it checks only deposit/loan balances [10, p. 78].

There are other ties between local banks and local governments. Normally, an enterprise having drawn a loan from a bank has to repay it with interest. However, at the same time a preferential tax measure is in force, allowing loan repayment funds to be deducted from the enterprise's income tax, if the local government

TABLE VIII
CAUSES FOR BANK BRANCH "BAD LOANS"

	Industrial and Commercial Bank of China		Agricultural Bank of China	
	Rank	Total Points	Rank	Total Points
Guidance by local party and government	2	3.289	1	2.331
Consideration of loan's effect on local economy and fiscal revenue	1	3.428	3	1.998
Consideration of loan's effect on national economy	3	2.717	1	2.331
Responsibility to support enterprises and farming households	4	1.573	5	1.443
Having enough funds to support enterprises and farming households	5	1.144	4	1.776
Favorable for preservation and expansion of employment	6	1.001	6	0.888
Directives from bank head-offices	7	0.572	7	0.444
Faulty check prior to loan extension	8	0.143	8	0.222

Source: Zhang Shaojie and Zhao Yujiang, "Rongzi: Xianshi yunxing de jizhi ji qi gaige" [The practical financing mechanism and its reform in China], *Jingji yanjiu*, 1987, No. 11, p. 16.

so authorizes.⁹ Whether the borrowing enterprise can avail itself of this preferential treatment or not often decides the enterprise's ability to pay back the loan. Therefore this obviously is a serious concern of the bank in question. It is here that the local government, local enterprise, and local bank find their common interest and tend to cooperate. The three parties work together in persuading the central government to ease its direct control and reduce its obligatory norms. They also closely collaborate to obtain more funds and materials allocations from the central government.

Also, local enterprises and local banks have to depend on the local government for electricity, water, gas, and other services, as well as the provision of housing, day care, schools, and other social services.

CONCLUSION

It is clear that inflation in China has been caused by half-baked economic reforms, exemplified by the contracted management responsibility system and a peculiar

⁹ Luc De Wulf and David Goldsbrough point out that tax reduction is used to enable the enterprise to repay debts to banks in their "The Evolving Role of Monetary Policy in China," *IMF Staff Papers*, Vol. 33, No. 2 (June 1986), p. 235.

bank loan system. Is it then realistic for China to carry out more thorough and complete economic reforms at the present stage?

China's GNP per capita figure still remains in the range of U.S.\$350. With the Chinese economy still so "shallow," can it afford to cushion the heavy shock of across-the-board price reform? Probably not. In fact, China has had to alternately deregulate and control the prices of such daily necessities as meat, eggs, and vegetables. Price deregulation does not directly bring on market competition. Chinese favor selling goods cheap to and through government power structures to build up "kickback connections," rather than selling them at a higher market price, because this practice would bring them more private benefits.

All told, Chinese economic reform will for the time being have to see-saw back and forth, through a process of trial and error, overcoming obstacles and easing contradictions as they emerge. A transitional period where old and new systems coexist will probably last for quite a long period of time before new reform measures can be systematized and institutionalized, and thus begin to fully function.

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