

Public Disclosure Authorized

THE WORLD BANK

*Internal Discussion Paper*

ASIA REGIONAL SERIES

Report No. IDP 52

*Chinese Reforms, Inflation  
and the Allocation of Investment  
in a Socialist Economy*

Oktay Yenil

*October 1989*

**CHINESE REFORMS, INFLATION AND THE ALLOCATION OF**  
**INVESTMENT IN A SOCIALIST ECONOMY**

**Oktay Yenil**

**October 20, 1989**

## ABSTRACT

This article explores the causes of China's recent inflationary experience, identifies the linkages between inflationary pressures and decentralization of investment decisions, discusses the problems of organizing "enterprise" investments in the absence of private risk capital and concludes with some thoughts on possible approaches to China's dilemma of creating a "socialist capital market."

**CHINESE REFORMS, INFLATION AND THE ALLOCATION OF INVESTMENT  
IN A SOCIALIST ECONOMY**

	<u>Page</u>
The Transition to Market Socialism.....	3
Inflation.....	8
Investment Efficiency in A Decentralized Socialist Economy.....	12
Major Challenges and the Reform Agenda.....	23
Notes.....	33

Appendix No.

- 1 Determinants of Money Supply in China
- 2 Savings, Transfers, Investments

CHINESE REFORMS, INFLATION AND THE ALLOCATION OF  
INVESTMENT IN A SOCIALIST ECONOMY\*

by

Oktay Yenal

1. The program of economic reforms in China has completed its first decade. It was in the Third Planning Session of the 11th Party Congress in December 1978 that a historic resolution was adopted to "decentralize decision making" and "to place more reliance on the market mechanism." This resolution and the reform doctrine underlying it embrace the use of markets and market prices, but do not disturb a basic tenet of socialism, the public ownership of the means of production. This model of socialist development sometimes referred to as "market socialism," is considered to have seen its most successful application in China. Spectacular GDP growth rates, rapid increase in agricultural productivity, a dramatic reduction in the incidence of poverty, and more recently a surge in industrial production place China's experience with market socialism in its own category of achievement.<sup>1/</sup>

---

\* This article was completed before the crisis of May/June 1989. It does not deal with the changes in economic trends and policies since then. The structural and systemic issues discussed are, however, still topical and important.

2. As China enters its second decade of reform, the first wave of economic dynamism introduced by decentralization and market forces has been followed by the emergence of unresolved issues in several sectors, including wage and labor policies, welfare programs, and pricing issues. Difficult as the resolution of these issues may be, they are overshadowed by the urgency of reducing the rate of inflation which has now gripped China's economy and by the complications of "enterprise reform", which, in addition to being at the root of inflationary pressures, also constitutes the most intricate dilemma faced by socialist reformers.

3. The causes of China's inflationary problems can be explained on the surface in terms of the government's monetary expansion and deficit financing which has fuelled price increases over the past four years. But at a more fundamental level, the inflationary experience is intimately linked to the country's experiment with market socialism. Inflation is not an uncommon feature of other economies which have attempted to engineer transitions from centrally planned to a decentralized market-oriented model. And it is a manifestation of the difficulties involved in such experiments, especially those that relate to the question of how decentralized decision making can be reconciled with social ownership of means of production. Drawing from the literature on the theory of socialism and the experiences of other socialist economies, this article will explore the roots of China's inflationary experience, then discuss the problems of organizing "enterprise" investments in the absence of private ownership of capital <sup>2/</sup>, and conclude with some thoughts on possible approaches to China's dilemma of creating a "socialist capital market."

### The Transition to Market Socialism

4. The first phase of the reform process in China was accomplished with remarkable speed and success. The objective was to move the agriculture sector towards a market-oriented system with greater scope for private initiatives. Significant productivity increases were unleashed by more efficient utilization of existing resources and by more intensive use of the infrastructure that had been built up in previous years. With the benefit of hindsight, this success was not so surprising. The Chinese household system had survived the collectivist imprint of the Maoist period, and served as a ready made productive unit within the reform context. Allowing the farmers to use part of the land for their private cultivation accompanied by the relaxation of price controls went a long way to raise productivity even while other questions were created and left unanswered. 3/

5. Encouraged by the success of rural reforms in 1984, the Chinese Government intensified its efforts to reorganize the industrial sector. Some experiments had already been carried out in the area of enterprise reforms before 1984. Selected enterprises had been allowed to retain larger shares of profits and to give bonuses to their workers. Experiments had also been carried out to replace the central government budgetary grants to enterprises for investment with Bank loans for the same purpose. In 1984, a State Council circular generalized these experiments and decreed a shift towards greater autonomy of the production units. Included in this

set of reforms were also a profit tax scheme replacing to a large extent the system of profit remittances by the firms to the central budget as well as greater autonomy for the firms to set their prices, production levels and wages. To implement these changes, a major administrative innovation was introduced in the form of a "responsibility system" for managers. This was a contractual arrangement which also defined the respective roles of the enterprise director, Party Committee and the Workers' Congress.

6. This experiment is still continuing. Although it is not feasible to provide a quantitative index of the changes that have taken place in the systems of production, pricing, employment and investment, it is evident that the scope of decentralized decision making and the extent of unregulated markets have grown significantly. Many factories now function outside the physical plan directives of central authorities or the day to day supervision of the Party; large portions of products are sold at freely negotiated market prices and many investment decisions are taken at provincial levels. Thus, a spectrum of markets has evolved with varying degrees of regulation and free interaction of supply and demand.

7. A mixture of decentralized initiatives and central controls has also evolved in the area of financial transactions, such as profit remittances, taxes, bank credit, the use of savings, and investment decisions. Most significantly, a conscious shift has been decreed from a system consisting of profit remittances from the enterprises to the



Government and targeted budgetary grants for investments flowing in the reverse direction from government to enterprises, to a system which involves larger profit retention, higher enterprise taxes and the financing of public investments through Bank loans.

8. Although significant and far reaching, these arrangements have evolved in a pragmatic rather than a legalistic manner. The rules of the game are, in a sense, more informal than explicit.<sup>4/</sup> The functions of the managers vis a vis the party, provincial government, workers' council and the central government have been quite variable over time and from place to place. So has the share of the product subject to rationing and controls or the scope for bonuses and other worker benefits. The same lack of formalism also permeates the negotiated deals regarding profit remittances, taxes and credits. Finally, private ownership and entrepreneurship has expanded even though its scope and nature are not well defined. This pragmatic approach has allowed for experimentation and provided flexibility in implementation.

9. But it has also introduced complications and strains. Each new move has given rise to new questions. Provincial parochialism has worked against national market integration. New bonus and wage policies have increased incomes, but aggravated problem of labor surplus and restrictions on labor mobility. The commercialization of enterprises has raised the need for social service provisions to be organized outside the production units. These problems will have to be dealt with in future adjustments to

policies and institutions. While posing challenges of great administrative and political complexity, these are essentially problems of implementation and most of them do not contradict fundamentally the basic socialist tenets of the Chinese society and polity. More integrated markets of final and intermediate goods, flexible prices and wages, labor mobility and various ways of providing social services can and have been introduced without necessarily coming into conflict with public ownership of the means of production or reasonable equality of income.

10. On the surface, the inflationary trends which have emerged in the last two years can be considered as a temporary glitch in macro policy, arising from inadequate attention to demand management. Indeed, similar to many other economies, the correlation between the expansion of the money supply and the rise in prices is quite close, implying that inflation is a monetary phenomenon and can, in principle, be dealt with through the control of the money supply. But behind these standard explanations of inflation lie more particularistic factors, some of which throw light on the forces behind the monetary expansion while also raising fundamental issues in the implementation of market socialism.

11. Budget deficits are usually the cause of monetary expansion in many other developing countries experiencing inflation, but in China this expansion was forced by the credit demands of large numbers of state and collective enterprises and the accommodation of this demand by the banking network, all of which functioned in a system of "soft-budget constraints."

The demands of enterprises (or provinces) or the flow of investable funds supplied by the banks were not always subject to a rigorous risk/incentive calculus. These issues point deeper to fundamental issues in the Chinese economic system: who is to decide the allocation of savings and investments, according to what signals, subject to which constraints and within which incentive cum risk system?

12. Indeed, it is in this area that the Chinese reforms face a basic problem -- reconciling a system of decentralized investment decisions with public ownership of the means of production. This dilemma in a socialist economy between public ownership and the "competitive solutions" to economic calculation was at the center of early theoretical debates on the feasibility of socialism. (Mises 1932, Hayek 1935, Lange 1938, Taylor 1938, Dickinson 1939, Lerner 1944) The same problem has also haunted the reform attempts in the Socialist countries of Eastern Europe during the past three decades. For a few years it appeared as if Chinese pragmatism combined with the remarkable dynamism which the reforms unleashed could trivialize this fundamental question, but the recent shock of macro-imbalance has brought the issue of designing and implementing market socialism to the forefront of economic policy.

### Inflation

13. After years of stability, the price level in China rose by about 7 percent per year during 1985-87, but in 1988 the inflation rate accelerated to 30-40 per cent. Given the large number of markets which are officially controlled in varying degrees, the use of a single index of inflation encounters more than the usual caveats. All indicators, however, point to a sharp rise of prices. This trend has been attributed -- as in many other developing countries -- to product shortages, corruption or ineptitude. Much attention has also focused on the cost push explanations, which point to the links with price reforms, the upward adjustments in some prices and the relaxation of controls on others. The Chinese authorities have looked beyond these more convenient explanations and have recognized the role of aggregate demand. This clarity of analysis is less cogent, however, on the ultimate causes of excessive demand, the mechanisms producing it and possible remedies.

14. As to the first order of causes, the role of monetary expansion is strikingly obvious. From 1983 to 1988, the currency supply and the deposits at banks have grown, respectively, at average rates of 28 and 25 percent per annum, compared to around 15-18 percent during the preceding years. Even with the excellent performance of the Chinese economy on the supply side (GDP rising by about 10-12 percent per year) one does not have to be a narrow monetarist to see the link between growth of money and

inflation.<sup>5/</sup> Similar to episodes of deficit financing in other LDCs, the reaction of the markets has been delayed due to a probable rise in monetization (increase in the demand for real money balances) until inflationary expectations set in. In the case of China this delay could have been reinforced by the price and wage rigidities which still exist. It appears that inflation expectations now caught up with the expansion of the money supply after 1987 thus defining the limits of inflationary finance in the sense that efforts to sustain high levels of bank financing in real terms lead to acceleration in the rate of inflation.

15. What were the causes of the increase in the money supply? Expansion of credit by the regional branches of the specialized banks and the inability of the center to restrain these banks have been cited as a major factor. Closer analysis shows that two processes were at work behind this credit expansion. First of these was the increase of investments by the enterprises -- from about 26 percent of the GDP in 1983 to 33 percent in 1986 -- financed largely through borrowing from the banks. Secondly, this credit expansion was accommodated by an increase in the money supply to the tune of 25-30 percent per year. Whatever political pressures may have exerted themselves at the center or the periphery, the expansion of the money supply has been facilitated by the expansion of the base money (currency and central bank deposits) over which the People's Bank of China, as an arm of the central government, had absolute control (see Appendix 1). As far as the mechanics of controlling the money supply, the People's Bank of China (PBC) or the government did not lack adequate instruments. The

PBC, if it so chose, could have reduced the rate at which it issued currency or could have raised mandatory reserve requirements to control the rapid expansion of the money supply. The specialized banks could not have increased their lending as much as they did, had the PBC not accommodated them with the monetary base. Given the general stability of the deposit-currency ratio since 1984, the PBC would have no mechanical difficulty in influencing the trend of money supply expansion.

16. In trying to understand the second order determinants of the money supply and how the financial flows related to the real aspects of the economy, especially savings and investments (see Appendix 2) we see that the Chinese economy has gone through an investment boom financed to a significant extent by quasi- public sector deficits -- increasing volume of public enterprise investments financed through back credit and monetary expansion. This resembles the experiences of many developing countries which resort to deficit financing when faced with the ---- political pressures of increasing public expenditures without additional taxation. But in terms of the mechanics of the process, the Chinese episode bears striking similarity to the experiences of the socialist economies of Eastern Europe. Studies of the latter show that socialist enterprises functioning under a "soft-budget constraint" have an inherent tendency to generate inflationary pressures arising from "chronic shortage, strong expansion drive, quantity drive [and] unrestrainable investment spirit." (Kornai 1982). It has also been argued that in such a system, the reforms which reduce the degree of controls and regulations in the economy may transform suppressed inflation to open inflation.

17. Another interesting observation about the socialist economies of Eastern Europe is how inflation can go hand in hand with stagnation, demonstrating the phenomenon of stagflation (Bechtold and Helfer 1987). This is a real danger for China and may pose a very important short-term policy challenge to the authorities. On the one hand, measures to check the excessive growth of demand are bound to slow down the growth of investments and production especially in industry. On the other hand, even if the society could endure an inflation rate of 30-40 percent per year, it is not clear that the real growth rates of the past few years can be sustained. In the medium term, to avoid falling into the trap of stagflation, China, like the other countries attempting to establish a system based on socialist markets, will have to address the structural issues of decentralization and enterprise reform.

18. The same set of forces which create a propensity for stagflation also raise serious questions of allocative efficiency. This outcome is more clearly seen in the other socialist countries. The remarkable growth of the Chinese economy over the past decade has so far pushed the worries about allocative efficiency to the background. In a sense, at least until 1988, it appeared as if something in the nature of the country or the reforms had obviated the basic problem of the socialist markets. Events of

1989 have changed the picture and leave less room to be sanguine about allocative efficiency. Therefore the basic question remains: How can the Chinese economy continue the reforms of decentralization without seriously jeopardizing the stability or the efficiency of the economy while preserving public ownership of the means of production?

#### Investment Efficiency in a Decentralized Socialist Economy

19. The number of enterprises in China is in the range of half a million. Only one-fifth of these are directly owned by the state. The rest are mostly collective enterprises or town and village cooperatives of one kind or another, the ownership structure of which are less clear. (Although the number of privately owned activities have risen very rapidly, their share in the total industrial and commercial production is still quite low.) Given these numbers, there are clear limits to central planning and an obvious logic to decentralization. The part of the reforms which essentially decentralized production policies -- how much to produce, how to combine the inputs, what prices to sell at and how to make small adjustments to productive capacity -- have worked quite well. The use of management incentives to maximize profits within the confines of existing capacity has been on the whole, satisfactory, although incompletely implemented.



20. The problem of decentralization, however, becomes more complicated when the decisions at issue refer to those that have to do with the use of internal or external resources of the publicly owned enterprises for expanding the productive capacity, that is, investments in fixed capital (Mises 1932) especially in industries where the share of fixed capital in total value added is large (Ma Hong 1983).<sup>6/</sup> The complications arise essentially from two questions. First, how can a capital market <sup>7/</sup> be created to provide the necessary signals for investment decisions when most of the capital is owned collectively? Second, can the motivations of the managers (or provincial administrators, party functionaries) with rather short horizons (tenures) be consistent with the requirements of the long-term efficiency in the economy? In brief, is a socialist capital market feasible? Or as Alec Nove puts it, "Can a 'socialist market economy' function effectively unless something resembling a capital market is also in existence? And what shape could such a market take in an economic system that can call itself socialist?" (1988, p.107).

21. Regarding the theoretical basis of socialism, it had been demonstrated in the early debates that "there exists for any centrally controlled system a uniquely determined set of solutions, in the same sense and with the same qualifications as does perfectly competitive capitalism, and that this set enjoys similar maximum properties."<sup>8/</sup> Nor was ingenuity lacking, on a theoretical level, in defining competitive solutions which would, among other markets, also take care of the capital allocation under

public ownership. 9/ In practice, however, all socialist countries had a mixture of central planning and markets. The Russian, like the pre-reform Chinese model, has more central planning while the socialist countries in Eastern Europe, especially in recent decades have experimented with more decentralized systems. In Poland and Hungary, for example, firms have been allowed to retain their profits and to borrow from banks for fixed investments. In Yugoslavia and to some extent in Poland, the workers' councils were given the authority to decide the use of enterprise surpluses. This went further in Yugoslavia with industrial complexes linked to their own financial institutions.

22. Decentralization of investment decisions occurred at a very rapid pace in China. Whereas almost all investments before 1978 were financed through budgetary grants, by 1988 budgetary grants accounted for about one-fifth of the total investments in the economy. Although the State planning Commission approval is required for investments above a certain size, it has been estimated that, leaving out individual investments in rural housing, as much as half of the investments in the economy in 1988 was controlled by the local governments and enterprises [Dittus 1989]. 10/

23. While decentralization has progressed at a rapid pace in China over the past decade, the process of how and by which authority investment plans are made and ratified have been neither uniform nor explicit. From one case to another, the roles of central plan agencies, concerned ministries, banks, industrial bureaus, local governments and enterprise

managements show great variation. For a few years, this kind of muddling through appeared to have worked well thanks to the pragmatic approach of the Chinese authorities.<sup>11/</sup> It now seems, however, that the allocative inefficiencies that occurred in the system were probably concealed beneath the overall dynamism stimulated in no small measure by the investment boom and deficit financing. As that dynamism and its causes are reigned in, the underlying efficiency problems will inevitably surface.

24. The need for financial retrenchment to be followed by tighter resource availability is likely to focus more of the government's attention on allocative efficiency. Even before the emergence of recent imbalances, experimentation with the organizational prerequisites of decentralized management had not been lacking in China. Under the rubric of "enterprise reform" many new management styles were adopted and procedural measures were taken. However, the aspect of reforms that related to investment decisions do not seem to have received much systematic attention. In this respect, the pragmatic Chinese approach to enterprise reform contrasts with the East European experiences where the location of investment decisions has been at the center of reform controversies and policy swings. Yugoslavia, being the first socialist economy to break away from the centralist Russian model, has since the 1950's experimented with variants of workers' self management systems. This model was further modified after the mid-1970s with reforms designed to improve coordination within the "associations of labor" and between these associations and the financial sector. Hungary and Poland have also gone through several iterations of

reforms aimed at decentralizing investment decisions, with mixed success. But in all these cases, the shifts in authority and responsibility were explicitly defined.

25. In the case of China, the delegation of authority for investment decisions to enterprises or local administrators has been bolder. Early success in better capacity utilization in industry coming on top of a spectacular success in agriculture and the political euphoria that these successes produced were certainly major stimulants for these bold moves, without much concern for the consistency of the emerging system. It is possible that some participants in reform discussions, especially the foreign advisors, viewed the evolution towards decentralization as a transition towards a system where the scope of private ownership of the means of production would grow significantly larger. Many policy decisions or declarations were also open to similar interpretations (like the two-China model) although explicit intentions were not discussed. If viewed as part of a transition, then the problem of the capital market was, to some extent, obviated by the expected final model, namely the capitalist system.

26. A second train of thought, again including the recommendations of many external advisers, was based on the belief that an efficient capital market (a system for making efficient investment decisions) could be created by transplanting some of the management institutions of more

advanced capitalist countries into a socialist economy. The recommendations of an International Symposium on State Enterprise Management and Organization held in 1987 reflect these views: (Tidrick 1987).

- "Participants from the socialist countries and managers of state enterprise in the non-socialist countries all agreed that the need for managerial authority does not depend on who owns the enterprise."
- "The joint stock corporation is as useful for socialist ownership as for capitalist ownership."
- "Who owns the enterprise is of secondary importance. The key issue is how to structure relationship for effective management."
- "There are enormous advantages to having diversified ownership in China ... If most enterprises, for example, were owned by several state-owned independent investment funds or pensions in different provinces or regions, the owners would have a strong incentive to focus mainly on the financial performance of the enterprise."
- "The board of directors is a useful device for separating ownership from management under a wide variety of conditions."

27. Implicit in these recommendations is a belief that a solution to economic decentralization in socialist economies can be found through the creation of competitive markets among publicly owned production units. This belief, in turn, is cultivated by the so-called "managerial revolution" in the advanced economies where the role of professional managers in running the big corporations has increased while private shareholders are increasingly passive. Thus, only a small step is needed to the conclusion that a capital market can be simulated in the socialist systems by having various official or semi-official entities -- provinces, municipalities, universities, pensions funds, etc. -- hold the stocks of public enterprises. This line of reasoning has even led some economists to foresee a national convergence of the two economic systems. (For a critical discussion of the convergence thesis see Halm 1969.)

28. Basically, these theories are based on an interpretation of the nature of corporate business which sees the whole system evolve around the "management" function reducing "ownership" to a non-issue as far as the working of the competitive markets are concerned. Gerschenkron provides historical insights into the origins of such views 12/ and offers the following observations:

"The political implication of this appraisal for the future socialist economy was fairly clear. If the joint stock enterprise had facilitated so much of the task of entrepreneurship and management, the socialist economy could have been expected to simplify it further. Despite all the differences in fundamentals and approach, Hilferding's conclusion came close to Schumpeter's view of the process ... entrepreneurship and management could be taken for granted. As in so many areas, the problems of socialist management were assumed to be resolved in the course of the capitalist development ... Socialism meant organization of production not indeed by the state which was to 'wither away,' but by the free collectives of 'associated producers,' (Gerschenkron 1962, p. 276).

29. Although the relative roles of stockholders vs. managers in the control of the modern corporation is a subject of continuous debate,<sup>13/</sup> there is no controversy on two points which are relevant to the discussion about socialist capital markets. First, however diffused, the owners have the right to change the management. Secondly, owners exert an influence over the market, if not over an individual corporation, by changing their portfolios -- selling or buying stocks. A university board in the U.S. can buy and sell stocks to improve its endowment. But if the stock market which is dominated by risk takers did not exist, it is doubtful that a market composed of only official entities could perform the same function.<sup>14/</sup> Ownership and property rights imply exclusivity and transferability. Without these properties, dividing the assets of a production unit to nominal shares is not sufficient to create a market.<sup>15/</sup>

30. Some experiments have been tried in Eastern Europe as well as in China in stock issues by enterprises but these have not amounted to anything more than selling fixed-return debt certificates (bonds) with no impact on the functioning of the business let alone on its investment decisions.<sup>16/</sup> It is surprising how the "joint stock company" structure has been discussed or experimented with in China as if dividing the capital of an enterprise into paper certificates (shares) per se would help the creation of a socialist capital market, without realizing that the fundamental questions relate to who will own these shares and what ownership rights they can exercise.<sup>17/</sup> Nor would the introduction of boards of governors solve the problem of adequate and right incentives for capital market rationality when the members of the board are appointed bureaucrats. Schemes such as having the local governments or universities hold the stocks of profitable enterprises <sup>18/</sup> may serve as a revenue sharing device but are unlikely to assist in ensuring efficient resource allocation because in the absence of markets where the price of capital reflects real ownership risks or benefits, schemes for distributing assets among public sector units would still suffer from the problems of bureaucratic coordination.

31. It is becoming clear to some students of East European experiences that the grafting of capitalist institutions to socialist systems is not likely to provide a solution to the resource allocation/investment dilemma. "In the absence of a secondary stock market where shares can be converted



into cash, the schemes do not play one of the essential roles equity shares play, or ought to play in the capitalist economies, of providing a pricing mechanism by which companies value themselves." (Uvalic 1987). This observation applies to yet another device, in which the enterprise workers hold stocks which allow them to participate either directly or through workers' councils in decisions to allocate the enterprise surplus. As the Yugoslav experiment has demonstrated, having workers possess shares without allowing them to convert these rights into cash constitutes just another kind of communal property system where the opportunity cost of capital is again not taken into account in its allocation. (Iwanek and Swiecicki 1987).

32. Ownership or management of production units by workers of the same unit as a solution to decentralizing investment decisions under socialism has a long history. While some economists have designed theoretical variants of it and emphasized its attractive features (Cole 1920), others have viewed it as a system with serious flaws and with potential for producing economic anarchy. For example, Schumpeter who does not see any theoretical difficulty with the central planning solutions, argues that "in the case of federalist socialism, where there is no central agency and each industry is controlled autonomously by the workmen attached to it... The problem becomes oligopolistically indeterminate" (1954, p.988). Arthur Lewis is more devastating in his criticism:

"Worker management has a long tradition, including some anarchists, Guild socialists, the Kibbutzes, and perhaps most importantly the new economic system in Yugoslavia. But Marx submerged the anarchist tradition, and his successors' elevation of the state to be our holiest institution was reflected in Fabianism, Stalinism and the nationalization programs of Western Europe. Now marxism is dying and philosophical anarchism is being resurrected all over the world... Worker management would be inefficient because management would be kind to inefficient workers; and it would not save enough because the workers would want to consume as much as possible" (1971, p.10).

The same warning is given by the prominent Chinese economist Ma Hong:

"How can we avoid a state of anarchy if, as suggested by some people, the system of socialist state ownership were to be changed into the system of collective ownership" (1983, p.116)

The dramatic deterioration of the Yugoslav economy in the past decade is robust evidence for the concerns expressed by these economists.

### Major Challenges and the Reform Agenda

33. Given the complexities of the issues summarized above, it is not surprising that reconciling the basic objectives of socialist economies -- limits on private ownership, equality of incomes and high efficiency -- has proven more difficult than was expected some decades ago. For a while it appeared as if the difficulties of reforming the economy would be less in China than what had been the case in Eastern Europe but increasingly it appears that the major challenges for China's reform program have not yet been met. What are these major challenges for future economic reform and what are the options for efficient solutions if China will remain essentially a socialist economy? The rest of the paper will sketch the outlines of a workable agenda for China which may also be relevant to other socialist economies in the process of reform.

34. Continuing price reform should come at the top of the reform agenda. There are many prerequisites which need to be in place for markets to function efficiently but without market determined prices, "economic calculation" is not possible in any economy. Therefore, policy options for China in the coming years should refer to the timing, sequencing and packaging of price reforms rather than whether to proceed with price reforms. Nor should a policy of stabilization rule out progress on price reforms. While temporary controls on the prices of some wage goods may be necessary for reasons of social welfare, trying to suppress inflation

through price controls would be, as seen throughout history, counterproductive. Moreover, a rising general level of prices may even provide opportunities for normalizing some price relatives. And not the least important, upward adjustment of interest rates and the devaluation of the currency should be an important element of both price reform and stabilization policy.

35. Secondly, the merits of allowing private ownership or long-term lease arrangements for production or commercial units that require modest amounts of fixed capital is increasingly recognized in the socialist countries and no longer considered inconsistent with socialist objectives. The most important activities that fall into this category are those in agriculture, retail trade, many service enterprises and small rural and urban production units. The Chinese economy could benefit if the scope and modus operandi of such arrangements could be explicitly codified and areas of future expansion carefully planned. Defining the scope for private investments, ownership and market in housing should also be an important item on the reform agenda.

36. Thirdly, no economy can afford to function without some kind of macro-plan if it is to achieve sustained stability and growth. In capitalist economies, macro-allocation policy decisions are usually confined to budgeting the share of national income to be acquired and used by the government. In China, at least for the medium-term, the government will continue to be involved not only with the fiscal flows but also with the apportionment of non-fiscal (financial) resources. The options and the

type of decisions for China can be illustrated in terms of a medium-term macro-plan. This macro-plan should provide a projection and decision framework for aggregates such as national income, wage bill, tax revenue, net external borrowing, current public expenditures and investable resources. After projecting the growth in national income, estimates and decisions are needed on what the claims of the wage bill from total value added will be. The parameters for the wage bill will have to take into account productivity increases in the economy, desired saving rates and political considerations.

37. Since an increasing area is recognized for private ownership (although its scope needs clarification as noted in paragraph 34) the macro-plan has to estimate the investment needs of this sector as well. The remaining resources then can be allocated among three categories: for current consumption expenditures of the government, for infrastructure investment expenditures of the public sector, and for "enterprise" investments. Enterprise investments are used as an abbreviation for all types of investments which are neither in the private sector nor in the infrastructure area.

38. China has, as part of its enterprise reform, introduced a set of taxes intended to cover government expenditures. In the years following the reforms, however, tax revenue has barely covered the current expenditures of the government or, as happened in the last two years, has

fallen short of it producing deficits on current account. It appears that capital expenditures for infrastructure are treated under the "enterprise" sector and separate accounts for these are not available. Hence, available data do not show how the infrastructure investments were financed -- out of their own generation of funds, from budgetary grants or borrowing from banks -- except that they were not financed by tax revenue. Why infrastructure investments would be financed with Bank credit when even in capitalist countries they are generally financed through budgetary allocation is difficult to understand. It would be useful if China were to adopt the conventional budgetary approach in which current expenditures of the government, capital expenditures for infrastructure investments, internal generation of funds and the tax revenue needs could all be planned in an integrated budgetary framework.

39. In addition to infrastructure investments, like many other developing countries, the Chinese Government will probably continue to play a major role in the planning and implementation of investments in some basic industries. Where the boundaries between infrastructure and basic industries should be drawn is not important as far as their planning is concerned, although it may be for purposes of appropriate organizational set up. The planning of this sector which corresponds essentially to the so called "public enterprise sector" in many LDCs should also include the financing plan -- own surpluses, budgetary grants or borrowing. Thus, the parts of the central planning that have to do with current government expenditures, capital expenditures for infrastructure and for investments

in basic industries is an exercise in the planning and budgeting of the government account and is not different from practices in capitalist countries. Although the principles are clear, China will have to define more clearly the scope of these exercises and strengthen the role of central planning and budgeting for these activities and to clarify the modalities of coordination among the center, local governments and the implementing agencies or departments.

40. On the basis of the trends in the last few years outlined above, one can speculate about the direction of the relative shares of the macro-plan aggregates. Given the rising expectations of the workers to share in prosperity, it is likely that the pressure for higher wages and higher private consumption will continue. As a result, the share of the wage bill in the GDP may rise. The pressures for higher consumption expenditures by the central government are also likely to intensify parallel with the transfer of some social and welfare functions from enterprises or communes. These trends would leave a lower share of the national income for fixed capital formation (investment fund) and raise important trade-off questions especially regarding the levels of external borrowing. Like many other economies of East Asia, a high capital formation rate appears to be a major determinant of the Chinese economy's dynamism, and the future trends of this variable have to be watched carefully. Whether the share of government's capital budget will grow or decline will depend on the extent of the relative fall in the share of "basic industry" investments to compensate the likely increase in the share of "infrastructure" investments.

41. Progress in price reforms, in clarifying and perhaps expanding the role of private ownership or leaseholdership -- including the institutional instruments for more flexible external trade transactions -- and in macro-planning -- including the planning and budgeting of the government sector -- will go a long way towards establishing the basis for a coordinated and consistent policy framework and contributing towards allocative efficiency. But it will still beg the question raised above, namely how and by whom the remaining investable resources -- essentially the after-tax surpluses of the "enterprise" sector plus whatever private savings intermediated through the banks which, on a rough estimate may be in the order of 15-20 percent of the GDP -- be allocated? In the light of what has been argued above it is easier to provide negative answers than positive suggestions. The need for reforming the present arrangements affecting the decisions of enterprise investments is very urgent. Among the alternatives, strengthening the role of central authorities -- move towards stricter central planning -- would be a serious regressive step. By now, it is clear that even with the most sophisticated methodologies or information systems, comprehensive central planning is bound to lead to waste and inefficiencies. Among the models of decentralization, guild socialism (self-management systems like that in Yugoslavia also referred to as associative or federalist socialism) does not pass the test of efficiency either in theory or practice. And the pseudo-capitalist model based on grafting the institutions of advanced capitalist systems to a socialist environment would not serve a useful purpose unless this was an interim arrangement in the transition to a system with considerably wider private ownership.



42. Given the drawbacks of centralizing investment decisions or leaving them to thousands of publicly owned enterprises (their managers, workers or other organs) amply demonstrated by the experience of countries that have tried them, it appears that the search for viable solutions to the socialist capital market problem has to concentrate on decentralized planning. One variant of this has figured very prominently in many socialist economies. Experiments with "economic councils (Sovnarkhozy)" in Russia during early 1960s, "unions" of industries in East Germany, strong sectoral ministries in Eastern Europe and "industrial bureau" or provincial agencies in China were attempts to serve the function of decentralized planning, as an intermediate layer between the center and the enterprises. Whatever may have been their contribution in other areas, such "administrative" entities failed to provide a mechanism for efficient allocation of capital. Intermediate level administrative organizations usually amounted to extended arms of the central authority (Brus 1972) or of the provincial authority as happened in China. The experiment with State Investment Corporations initiated in 1988 in China may also fall into this category.

43. Some economists have argued persuasively that what is needed is a system of decentralized planning at intermediate levels through economic organizations. (Brus 1972, Tardos 1982, Schuller 1988 and Spulber 1971) These organizations would be the owners (trustees) on behalf of the state of a group of enterprises in a sub-sector -- hold the majority of their

stocks -- and their most important function would be to pool the investable resources and, on the basis of cost/benefit analysis, to reallocate these resources among existing or new enterprises. They would have an advantage over central planners in terms of their proximity to the enterprises, because of their sectoral and financial specialization and because they would be dealing with fewer enterprises. On the other hand, compared to the systems where investment decisions are taken at the enterprise level, the intermediate-layer organizations would be able to take into consideration economy wide-signals and weigh the alternative costs and benefits of the projects. They would also have the opportunity of shifting resources from one enterprise to another.

44. The responsibility and authority to make plans for investments will involve the search for new lines and new technologies hence embodying very important entrepreneurial or innovation functions. Such intermediate-layer economic organizations could also perform other useful functions. They could differentiate between equity financing and loan financing (a distinction totally lost in the present system of bank finance in China) thus strengthening the financial structure of the enterprises as well as laying the basis for rational and effective economic accounting. They would be conduits of investment funds coming from the budget and borrowing, domestic and foreign. If the resources that the banking system can spare for fixed investments -- which will not be as large as was the case in the inflationary period of the last five years -- would be channelled through these intermediate entities, then the banking system can

be organized separately on the lines of commercial banking, essentially receiving deposits and providing working capital for enterprises. The intermediate-layer economic organizations can also play a constructive role in the selection of managers and in restructuring the enterprises when needed. This last function would respond much more effectively to the concerns which are behind the efforts to put in place bankruptcy legislation and procedures.

45. These institutions could take the form of development banks, holding companies or other legal forms so long as they are run on commercial principles. Examples of institutions which have performed similar functions can be found in many non-socialist countries -- industrial banks in Germany, "bank d'affaires" in France, public holding companies in Italy and some apex institutions in the developing countries. In China, in most cases, these can take the form of horizontal organizations covering a large region of the country and specializing by sector or sub-sector. But in some cases vertical organizations holding the stocks of various levels of production or specialization by territory can also be considered. Although the allocation of additional investment funds among these holding companies would be part of the central macro-plan, it is extremely important that these institutions have autonomy in making professional judgments and decisions regarding the allocation of capital among the enterprises. To build cadres and cultures for such institutions will not be easy and will take time. Like all public bodies, the danger of bureaucratization will always be there. And even in its best applications

this kind of decentralized planning may fall short of generating the degree of dynamic efficiency achieved by modern capital markets. But experimentation on these lines holds, in the author's view, the highest promise of approximating the allocative characteristics of a market for capital while preserving the principle of public ownership of major assets, an objective still cherished by Chinese socialism.

NOTES

- 1/ For a comprehensive analysis of Chinese reforms see Perkins, 1988.
- 2/ In this article, completed before the events of May 1989 it was assumed that while China had decided to give markets a much greater scope in its economy, it had not given up its social philosophy of public ownership of sizeable capital assets. The solutions to the problem of the Chinese economy would, of course, be different if as assumed by some analysts, the problems were confined to those of transition to a capitalist system. Developments in recent months have not weakened the assumption that China will, at least for the foreseeable future, continue to restrict private ownership.
- 3/ This part of the Chinese reforms is very relevant for the other poor socialist economies of Asia -- Laos, Myanmar (Burma), Vietnam and Cambodia, and shows the scope of dramatic improvements that can be achieved in agriculture. Whether it also applies to the Russian agriculture is more difficult to say.
- 4/ This contrast sharply with the highly developed legal base of the socialist economies such as U.S.S.R., Democratic Republic of Germany and Poland. See Erosi and Harmathy 1971.
- 5/ Perkins writing before the onset of high rates of inflation quotes Chow's analysis (Chow, 1987) about the role of the money supply but he is cautious in accepting a close relationship: "Much more work is required before we have a reliable model for analyzing China's inflationary experience." Perkins 1968, p. 624.
- 6/ This distinction was also used in the discussions of the Hungarian reform. "The naive reformers searched for a reasonable line of separation between the role of the bureaucracy and the role of the market. Many of them thought that such a separation line could be drawn like this: 'Simple reproduction' (in Marxism terms) regulated by the market and 'extended reproduction' by the planners. In other words, current production controlled by the market and investment by the planner. It turned out that this separation is not viable." (Kornai 1986, p.1729). Perhaps Kornai dismisses the distinction too readily.
- 7/ It should be noted that the term "capital market" is used in this paper in its broad meaning comprising all the institutional arrangements of intermediation between investible resources and investment decisions in an economy and does not necessarily refer to the securities market only. It includes the banking system as well as private or public sector investment decision units or arrangements.

- 8/ Quoted from J. A. Schumpeter 1954. For the early debates see von Hayek 1935 with articles by von Hayek, Pierson, von Mises, Halm and Barone; Lippincott 1938 with articles by Taylor and Lange; Dickinson 1939; von Mises 1932 and Lerner 1944.
- 9/ Especially the Lange-Lerner solution.
- 10/ "In the spirit of decentralization, local authorities have been granted powers to approve projects locally, subject to a ceiling on total investment --- State Planning Commission (SPC) control of total fixed asset investments has declined from 50 percent in 1981 to 40.8 percent in 1988, with an especially rapid decline since 1985. The beginning of the rapid erosion of SPC control thus coincides with the implementation of urban and financial sector reforms" (Dittus 1989, p.16).
- 11/ "The piecemeal approach ... adopted is impressively pragmatic, using common sense rather than theory to correct the economic ills that have become all too evident. Indeed if any people can be called experts on the shortcomings of a communist system, the Chinese have no peers. Piecemeal tactics guided by common sense and the economic forces at work have, by and large, been the policy guideline for one decade. And in spite of the political opposition and occasional backslidings that have often occupied news headlines, progress has been phenomenal." (Cheung 1989 p.593).
- 12/ "[Hilferding suggested] that the corporate form opened far more fertile fields to entrepreneurial and managerial activity, permitting a greater degree of rationality, a faster discarding of obsolescent equipment, and a much more aggressive policy in widening the firm's market areas. According to Hilferding, a man who administered an enterprise that was not his could be presumed to set more vigorously, more boldly, and more rationally than an individual owner-entrepreneur, whom Hilferding believed to be restrained by anxieties of personal considerations of all kinds. (Das Finanzkapital, Vienna 1910.)" as quoted in Gerschenkron 1962.
- 13/ For a summary of the debate on the theory of corporations, see Tullock, 1969.
- 14/ "The crucial questions in [the possibility of real competition under socialism] are: what is to be the independent unit? Who is to be the manager? What resources are to be entrusted to him and how his success or failure is to be tested." (Hayek 1935, p.232)
- 15/ "Using or not using the market is not the crucial distinction. Every society, whether communist, socialist, social democratic, or capitalist, uses the market. Rather the crucial distinction is private property or no private property." (Friedman, 1989, p.569).

- 16/ According to one estimate there are some 6,000 enterprises in China practicing the system of joint stock companies, with shares valued at some 6 billion Yuan. However, these are not really shares as most have a formal or informal guaranteed return. Indeed, many of these practices may be just another way of giving employee bonuses.
- 17/ As one high ranking Chinese official put it, "The adoption of a shareholder system with predominant public ownership is by no means privatization."
- 18/ In addition to the western advisors who have recommended the joint stock company as a panacea to the enterprise problems, several Chinese economists have, during the past year, come out with blueprints of reform which, according to the summaries provided in the English language press, have given a central place to enterprise shares being owned by various official entities. For example, a series of articles by Hua Sheng, Zhang Xuejun and Luo Xiaopeng, after criticizing the inefficiencies involved in bureaucratic coordination or decentralization, present a proposal on how the central issue in Chinese economic reforms -- the establishment and reinforcement of property rights -- should be undertaken. According to their scheme, central government would issue entitlement coupons to various levels of government (or universities) and reduce their budgetary grants accordingly. Then the assets of big- and medium-size state-owned enterprises would be auctioned among the coupon holders. (Hua Sheng, Zhang Xuejun and Luo Xiaopeng, "Ten Years in China's Reform: Looking Back, Reflection and Prospect," Economic Research, December, 1988 as summarized in China Daily, January 9-19, 1989.)

Determinants of the Money Supply in China

As can be seen in Figure 1, the currency expansion has been a major factor in determining the increase in money supply. The ratio of deposits to currency showed very small variations. This suggests that faster growth in the deposit component of the money supply which follows the expansion of banking in many developing countries has not taken place to any significant extent in China. In other words, the preferences of the general public as to what share of their liquid balances to keep in cash and what proportion in bank deposits has not changed much. On the other hand, there was a positive effect in the other determinant of money, the deposit-reserve ratio. While the "required" reserves stood around 10% of total deposits, there occurred during the last five years, a sharp fall in the ratio of excess reserves to the deposit liabilities of the banks. This needs careful interpretation. If the size of excess reserves was a behavioral variable for the banks -- totally subject to the discretion of bank managers -- then part of the increase in the total money supply could have been attributed to this cause. But in China, it is more likely that the use of excess reserves was also subject to PBC (Peoples' Bank of China) discretion, in which case, like the currency supply, all the increase can be attributed to the decisions of the PBC. 1/ It is also worth noting that the expansion of the net liabilities (currency, etc.) of the PBC was not the result of an increase in foreign assets, but the counterparts of loans to financial institutions. This qualification is important because the expansion of credit by the regional branches of the specialized banks and the inability of the center to restrain these banks have been cited as an important reason for lack of government control on the money supply (or on the increase in loans). As far as the mechanics of controlling the money supply, PBC or the government did not lack sufficient instruments.

---

1/ The formula of money supply can be written as follows:  $M = C + D = B \times [D/R (1 + D/C) / (D/R + D/C)]$   
where B represents the base money (reserve money in IMF terminology) composed of the currency issues plus deposits at the central bank, C stands for currency in circulation, D as deposits and R as the reserves of banks at the central bank. In China, if R is defined as the legal reserves plus cash in bank vaults (and if other deposits at the PBC are not included in B) then almost all the increase in M can be explained by the increase in B, consisting of currency issue plus the legal reserves at the PBC. This would then show very small magnitude for the money multiplier, i.e., most increase in M explained by increase in B. On the other hand, if R and B would include the deposits of banks at PBC in excess of legal requirements, then the rise in money supply would be the result of both currency issue and a sharp rise in the D/R. But in either case, the role of the PBC seems to be central.



Table 1

Money Supply and Prices  
Official Definitions  
(Billion Yuan, End of Period)

	<u>Currency in Circulat.</u>	<u>Domest. Deps.</u>	<u>Currency + Deps.</u>	<u>Consumer Prices</u>
1980	35	166	201	100
81	40	204	244	103
82	44	237	281	105
83	53	276	329	107
84	79	339	418	110
85	99	427	526	122
86	122	538	660	130
87	146	657	803	139
88	-	-	-	161

Source: China Statistical Yearbook, 1988

Table 2

Money Supply  
IMF Definitions  
(Billion Yuan, End of Period)

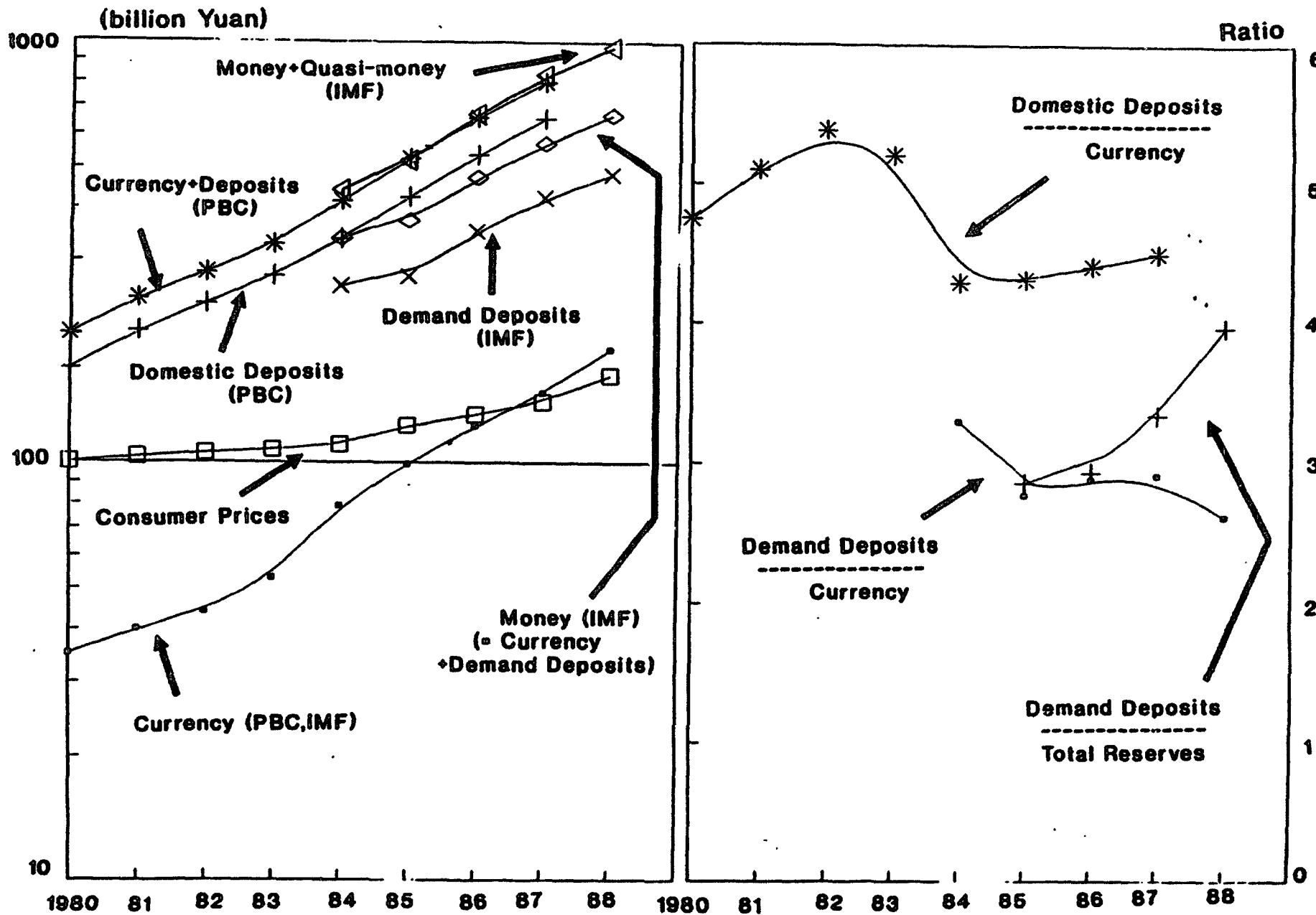
	(1) <u>Currency in Circulat.</u>	(2) <u>Demand Deps.</u>	(3) <u>Quasi Money**</u>	(4) <u>Total Deps. 2+3</u>	(5) <u>Money 1+2</u>	(6) <u>Money+ Quasi Money</u>	(7) <u>Legal Bank Reser.</u>	(8) <u>Total Bank Reser.</u>
1984	79	261	104	365	340	444	-	-
85	99	275	146	421	374	520	42	96
86	122	353	198	551	475	672	57	120
87	146	426	264	690	572	835	67	127
88*	185	485	301	786	670	971	86	122

\* September.

\*\* Other deposits.

Source: IMF estimates.

# Figure 1: Money, Money Determinants and Prices



Savings. Transfers. Investments

Rapid monetary expansion not only produced demand pressures and inflation but, together with the changes in fiscal flows, also affected the real aspects of the economy, especially savings and investments. Tables 1 and 2 have been constructed from official data to trace these changes during the period of urban enterprise reform. These tables give snapshots of the fiscal and financial flows and how they relate to savings and investments by the household and enterprise sectors for 1983 -- just before the start of enterprise reforms -- and for 1986 -- the latest year for which we have data. It was cited above that the two major changes in the financial area were the substitution of enterprise taxation in place of profit remittances and the substitution of bank lending in place of budgetary grants for fixed capital investments. The tables show that while a sharp expansion took place in bank loans to the enterprise sector, direct taxation did not become a significant means of fiscal transfers from the enterprises to the government budget.

The financial, fiscal, and the investment flows in the economy, however, underwent very major changes. A summary of these changes normalized with respect to the GDP is given in Table 1. The highlights from 1983 to 1986 were:

- Gross fixed investment in the economy increased sharply from 20 percent of GNP to 25%. Most of this increase occurred in the enterprise sector.
- This expansion of investment expenditures took place while the before-tax-savings of the enterprise sector declined from 28% of GDP to 24%.
- In 1983, the enterprise sector invested less than its own resources. Total investments, fixed and circulating, were lower than the before-tax-savings of enterprises by an amount equal to 3 percent of the GDP. By 1986, this sector was investing significantly more, to the tune of about 8 percent of the GDP, than its savings.
- This was possible because, on the one hand the fiscal transfers (direct tax and remittances) to the budget declined, from 7 percent of the GDP to 4 percent. On the other hand, the financial net transfers to the enterprise sector from the banks increased by an amount equal to 6 percent of the GDP.
- This sharp increase in bank financing to the enterprises was made possible through a parallel increase in the money supply -- the increase in money and quasi-money as a ratio of GDP went up from 8 percent in 1983 to 13.7 percent in 1986.

Table 1

Flow of Funds in the Chinese Economy  
1983  
(Billions of Yuan)

	<u>Households</u>	<u>Ent.</u>	<u>Gov.</u>	<u>Banking</u>	<u>External</u>
1. Resources before Fiscal Transfers	151	155	0		
2. Fiscal Transfers					
Direct Taxes	- 6	- 6	12		
Indirect Taxes	- 75	0	75		
Non-Tax Rev.	- 6	0	6		
Profit Rem.	0	- 67	67		
Grants for Inv.	0	34	- 34		
3. Total Fiscal Transfer	- 87	- 39	126		
4. Current Budget Exp.	0	0	-126		
5. Inv. Res. after Fiscal Transfers	64	117	0		
6. <u>Financial Transfers</u>					
Deposits	- 21	- 13	- 2	36	
Currency	- 8	- 1	0	9	
PBC Facilities				- 6	
Domestic Loans	0	36	0	- 36	
Foreign Loans	0	7	0	0	- 7
Gov. Borrowing	- 2	0	5	- 3	0
7. Total Financial Transfers	- 31	29	3	0	- 7
8. Investable Resources after Fiscal and Financial Transfers	33	145	3	0	
9. Fixed Investments	32	111			
10. Circulating Inv.	0	30			
11. Total Investments	32	141			

Table 2

Flow of Funds in the Chinese Economy  
1986  
(Billions of Yuan)

	<u>Households</u>	<u>Ent.</u>	<u>Gov.</u>	<u>Banking</u>	<u>External</u>
1. Resources before Fiscal Transfers	<u>312</u>	<u>220</u>	<u>0</u>		
2. <u>Fiscal Transfers</u>					
Direct Taxes	- 5	- 69	74		
Indirect Taxes	-151	0	151		
Non-Tax Rev.	- 16	0	16		
Profit Rem.	0	4	- 4		
Grants for Inv.	<u>0</u>	<u>- 44</u>	<u>- 44</u>		
3. Total Fiscal Transfers	-172	29	201		
4. Current Budget Exp.	<u>0</u>	<u>0</u>	<u>-188</u>		
5. Resources after Fiscal Transfers	<u>140</u>	<u>193</u>	<u>13</u>		
6. <u>Financial Transfers</u>					
Deposits	- 50	- 57	107		
Currency	- 20	- 3	0	23	
Domestic Loans	0	165	0	165	
Foreign Loans	0	13	0	0	- 13
Gov. Borrowing	- 4	0	14	- 10	0
Others					
7. Total Financial Transfers	- 74	121	14	- 45	- 13
8. Investable Resources After Fiscal and Financial Transfers	<u>66</u>	<u>314</u>	<u>27</u>		
9. Fixed Investments	65	237			
10. Circulating Inv.		<u>70</u>			
11. Total Investment	<u>65</u>	<u>307</u>			

Table 3

Flow of Funds  
(As % of GDP)

	<u>1983</u>			<u>1986</u>		
	<u>HH</u>	<u>Ent.</u>	<u>Total</u>	<u>HH</u>	<u>Ent.</u>	<u>Total</u>
Resources before Transfers	27	28	54	33	25	57
Fiscal Transfers	<u>-15</u>	<u>- 7</u>	<u>-22</u>	<u>-18</u>	<u>- 4</u>	<u>-21</u>
	12	21	32	15	21	36
Financial Transfers	<u>6</u>	<u>5</u>	<u>0</u>	<u>- 8</u>	<u>12</u>	<u>4</u>
Investable Funds after Transfers	<u>6</u>	<u>26</u>	<u>32</u>	<u>7</u>	<u>33</u>	<u>40</u>
Fixed Investments	6	20	26	7	25	32
Circulating. Inv.	<u>0</u>	<u>5</u>	<u>5</u>	<u>0</u>	<u>7</u>	<u>7</u>

Source: Tables 1 and 2.

Notes to Tables 1 and 2

1. Investments are in gross values. All investments other than by "households" are considered to be enterprise investments. This assumes no distinction between enterprise investments and public investments.
2. Indirect taxes and non-tax revenue are assumed to be paid by the household sector. Since the tables are built up from bottom up, other assumptions about the incidence of taxation would only change the values in the first row, "resources before fiscal transfers." This would not affect the value of row 5 or the analysis of the impact of financial transfers.
3. Following the methodology used in estimating household savings, 85% of the increase in the currency supply is assumed to be held by the household sector and 15% by the enterprise sector.

BIBLIOGRAPHY

Bechtold, H. and Helfer, A., "Stagflation Problems in Socialist Economies," Crisis and Reform in Socialist Economies, Edited by Grey, P., Kosta, J. and Quaissar, W., London 1987.

Brus, W., The Market in a Socialist Economy, London 1972.

Cheung, S.N.S., "Privatization vs. Special Interests: The Experience of China's Economic Reforms," The Cats Journal, Vol. 8, No. 3, Winter 1989.

Chow, G., "Money and Price Level Determination in China," Journal of Comparative Economics, September 1987.

Cole, G.D.H., Self-Government in Industry, London 1920.

Dickinson, H.D., Economics of Socialism, Oxford 1939.

Dittus, P., "China: The State Investment System," 1989.

Elster, J. and Moene, K.O., Studies in Marxism and Social Theory

Erosi, G. and Harmaty, Attila (Eds.), Law and Economic Reform in Socialist Countries, Budapest 1971.

Friedman, M., "Using the Market for Social Development," The Gato Journal, Vol. 8, No. 3, Winter 1989.

Gerschenkron, A., Economic Backwardness in Historical Perspective, Harvard 1962.

Halm, G.N., "Will Market Economies and Planned Economies Converge," in Streissler 1969.

Hayek, F. A. von, (Ed.) Collectivist Economic Planning. Critical Studies on the Possibilities of Socialism, London 1935.

Hua Sheng, Zhang Xuejun and Luo Xiaopeng, "Ten Years in China's Reform: Looking Back, Reflections and Prospects," Economic Research, December 1988.

Iwanek, M. and Swiecicki, M., "Socialist Stock Company-The Missing Link in Economic Reform," 1987 (mimeo)

Kornai, J., Growth, Shortage and Efficiency. A Macrodynamical Model of the Socialist Economy, Oxford 1987.

" " " " "The Hungarian Reform Process: Visions, Hopes and Reality," Journal of Economic Literature, Vol. XXIV, December 1986.

- Lange, O., "On the Economic Theory of Socialism, " in Lippincott 1938.
- Lerner, A.P., Economics of Control, New York 1944.
- Lewis, A., Socialism and Economic Growth, LSE 1971.
- Lippincott, B. (Ed.) On the Economic Theory of Socialism, Minnesota 1938.
- Ma Hong, New Strategy for China's Economy, Beijing 1983.
- Mises, Ludwig von, Socialism. An Economic and Sociological Analysis, Vienna 1932.
- Nove, A., "The Role of Central Planning Under Capitalism and Market Socialism," in Elster and Moene.
- Perkins, D.H., "Reforming China's Economic System," Journal of Economic Literature, June 1988.
- Schuller, A., Does Market Socialism Work, London 1988.
- Schumpeter, J.A., History of Economic Analysis, Oxford 1954.
- Spulber, N., Socialist Management and Planning, Bloomingdale 1971.
- Streissler, E., (Ed.) Roads to Freedom, London 1969.
- Tardos, M., "Developing Program for Economic Control and Organization in Hungary," Aeta Oecon, 1982.
- Taylor, F.M., "The Guidance of Production in a Socialist State," in Lippincott 1938.
- Tidrick, G., "International Symposium on State Enterprise Management and Organization," (mimeo) 1987.
- Tullock, G. "The New Theory of Corporations," in Streissler 1969.
- Uvalic, M. "Shareholding in Yugoslav Theory and Practice," 1987 (mimeo)