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Economic Reform in China

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Economic Reform in China *

I. Reforming a Centrally Planned Economy

Reform Efforts in Socialist Countries

After the Second World War, the newly-established socialist states of Asia and Europe adopted, with few modifications, the system of centralized physical planning practiced in the Soviet Union. Under this system, the authorities set output targets, material allocation, employment, and other objectives for the producing units and determined the pattern of investment, exports, and imports. The principal targets were established in physical terms, with prices serving chiefly an accounting function.¹

The system of centralized physical planning permitted the large-scale mobilization of resources in pursuing selected objectives, in the manner of a war economy. However, the shortcomings of this system became apparent as multiple objectives were to be pursued. As all details could not be perceived from the center, the plan objectives of output, material allocation, employment, and production costs often came into conflict, and the producing units had to abandon some targets in order to attain others. Also, the lack of scarcity prices for products, factors (capital, labor and natural resources), and foreign exchange did not permit making appropriate choices in production,

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¹ For a detailed description, see BELA BALASSA, *The Hungarian Experience in Economic Planning*, New Haven, Conn., Yale University Press, 1959.

investment, and foreign trade. Finally, the system of incentives was not conducive to technological improvements.

The workings of the system of centralized physical planning are exemplified by the Soviet Union, where it has been applied since the nineteen-thirties. As long as a few, selected objectives such as the development of heavy industry were followed, rapid rates of economic growth could be attained by mobilizing labor reserves and maintaining a high rate of investment. The subsequent pursuit of multiple objectives, however, led to imbalances in the economy composed of sectors with disparate levels of efficiency: a highly modern sector producing for armament and space exploration; comparatively backward sectors manufacturing consumer goods and producer durables, several of which have required the infusion of Western technology; and an inefficient agricultural sector that has increasingly necessitated food imports to provide for the needs of the population. At the same time, there continue to be shortages of various consumer goods, the available industrial products are of rather low quality, and they are limited in variety.

Following the absorption of labour reserves, except for those of agriculture that could not be mobilized under the incentives applied, the low rate of technological change led to increases in incremental capital-output ratios in the Soviet Union. In the absence of a rise in investment shares, there resulted a decline in rates of economic growth.

Several attempts were made to reform the system of centralized physical planning, in the Soviet Union and elsewhere. Piecemeal reforms were unsuccessful, however, and they may have even brought a deterioration of the situation by combining the negative features of centralized and decentralized systems. These adverse consequences, leading to the subsequent abandonment of the reforms, reflected a failure to recognize the interrelationships of decentralized decision making, the use of prices as signals for resource allocation, incentives at the production level, and competition among producing units.

Thus, in the absence of scarcity prices, delegating decision-making power to regional authorities and introducing profit criteria for firms *à la* Liberman did not bring the desired results in the Soviet Union. In turn, barring the improbable case of solving an all-encompassing economic model on a giant computer, one cannot establish appropriate scarcity prices for individual commodities unless decision-making is decentralized, supply and demand are equated, and competition is ensured. Nor would the shadow prices derived in the model ensure conforming behavior on the part of producing units if appropriate incentives are not provided.

Comprehensive reforms were introduced in Yugoslavia in 1949 and in Hungary in 1968. The reforms aimed at replacing central directives by market relations among producing units; liberalizing prices; linking the prices of exports and imports to world market prices at realistic exchange rates; using interest rates as a cost element and as a criterion of investment choice in partially decentralized decision making on investment; and relying on profit criteria for decision-making on the level of the producing units.

In Yugoslavia, the reforms represented a response to the situation that was created as the Soviet Union and its allies, accounting for three-fourths of its exports and imports, suddenly ceased all trading relationships with Yugoslavia. In Hungary, the reform was motivated by the increased sophistication of the economy and the salient importance of foreign trade in national income that puts into focus the shortcomings of centralized physical planning. And, in both cases, economists were able to convince a forward-looking leadership of the need for reforms that was not the case in e.g. Poland. The reform efforts were successful in the two countries, despite resistance on the part of vested interests in the bureaucracy, although practical difficulties of implementation were encountered because of the limitations of competition in small national markets.²

China does not yet have a highly sophisticated economic structure and foreign trade represents a small share of national income. However, it has some industrially advanced regions and, in its large territory, the multiple objectives of modernizing the economy and providing for the growing and increasingly diversified needs of the population may not be efficiently pursued through central decision making. In particular, reforms are needed to increase the productivity of investment that has declined over time. According to official figures, the incremental capital-output ratio increased from 1.68 in 1953-57 to 3.76 in 1971-75.³ Yet, the incremental capital-output ratio is underestimated in China because of the overstatement of rates of economic growth owing to the overpricing of industrial goods.

² On the Yugoslav reform, see BRANKO HORVAT, *The Yugoslav Economic System*, New York, M. E. Sharpe, 1976; a description of the development of the Hungarian reform and an evaluation of recent changes, respectively, are provided in the author's "The Hungarian Economic Reform, 1968-81" World Bank Staff Working Paper No. 506, Washington, D.C. February 1982 (to be published in the Proceedings of the U.S.-China Conference on Alternative Development Strategies) and "Reforming the New Economic Mechanism in Hungary", *Journal of Comparative Economics*, forthcoming. All subsequent references to Hungary derive from these sources.

³ Sources for all the figures cited in respect to China are available from the author.

Also, while the reduction in the average number of people supported by each income earner from 2.60 in 1952 to 2.08 in 1978 and, again, to 1.77 in 1981 contributed to economic growth in the past, this ratio may well increase in the future as the share of old people in the population rises. The reduced share of investment in national income, and the decrease in the share of productive investment in total investment, also point to the need for improving investment efficiency.⁴ At the same time, a few industries apart, competition may be ensured in China, so that the market mechanism could operate even if import competition is limited at the present stage of its economic development. In turn, postponing the reform would lead to the establishment of an inefficient production structure that may be difficult to subsequently modify.

Readjustment and Reform

In recent years, much has been said about the alleged conflict between readjustment and reform in China, when readjustment has been defined in terms of remedying macro-economic disequilibria that have generated inflationary pressures. Yet, readjustment and reform are not necessarily in conflict and may even complement each other. This has been the case in Hungary, where investments were substantially reduced to redress macro-economic imbalances in 1980-81 and, simultaneously, additional reform measures were taken to improve the rationality of prices and to further the decentralization of decision making at the firm level.

Inflationary pressures in China, with the official cost-of-living index rising by 9.3 percent between 1978 and 1980, may be largely explained by the macroeconomic policies followed, or the lack thereof. Such pressures were generated as capital construction expenditures (fixed investment) financed from extra-budgetary funds rose at a rapid rate while, despite a cutback of capital construction financed from the state budget, a large budget deficit was incurred.

⁴ Between 1978 and 1981, the share of investment in national income (net material product) was reduced from 36.5 percent to below 30 percent and that of productive investment in the total fell from 82.6 percent to 58.9 percent, with commensurate increases in the share of housing, cultural, educational, and health-related investments that are classified as unproductive.

Capital construction expenditures financed from extra-budgetary funds increased from 8.4 billion yuan in 1978 to 25.8 billion in 1980, reflecting reduced transfers to the central government, increased levies by local governments, and the institution of investment loans from the People's Bank of China. At the same time, notwithstanding the decline in budget-financed capital construction in state-owned units from 39.6 billion yuan in 1978 to 28.1 billion yuan in 1980, with lower revenues and increased subsidies to urban consumers the small budget surplus of earlier years turned into a deficit of 17.1 billion yuan in 1979 that was followed by a deficit of 12.7 billion yuan in 1980, equivalent to 3.0 percent of national income in that year. In 1979, one-half of the deficit in the state budget was financed by money creation and the remainder by running down the accumulated reserves of the Treasury with the People's Bank of China;⁵ in 1980, the share of money creation was about two-thirds, 8.0 billion yuan, with the compulsory purchase of long-term treasury bonds by localities and enterprises in early 1981 accounting for the remainder.

China succeeded in limiting inflationary pressures in 1981, with the official cost-of-living index rising by 2.4 percent. This was accomplished by lowering expenditures on capital construction in state-owned units by 21 percent, reducing the budget deficit to 2.5 billion yuan and asking local authorities to lend 7 billion yuan to the central authorities in 1981.

The decline in capital construction was more than offset by increases in the production of domestic consumer goods and by eliminating the deficit of 2.8 billion yuan in the balance of trade of the previous year. As a result of these changes, the combined value of agricultural and industrial output rose by 4.5 percent over the 1980 level while the increase in national income was 3.0 percent.

It is especially noteworthy that agricultural output increased by 5.7 percent in 1981, although floods and drought reduced the harvest in several areas of the country. This result, and the 5.6 percent average annual rate of increase of agricultural output in the preceding two years that included the year 1980 characterized by natural calamities, reflect the impact of the incentive measures applied and contrasts with slow agricultural growth in the previous two decades.

Industrial production increased by 4.1 percent in 1981. Although the production of heavy industry fell by 4.7 percent, this was the result

⁵ It is conceivable, however, that these reserves were not considered to be part of the money supply.

of deliberate efforts to limit output at lower investment levels. In turn, with the reform measures providing inducement to the expansion of production, the output of light industry rose by 14.1 percent and there was a considerable increase in the provision of simple consumer goods by collective (i.e. cooperative) and by individual enterprises.

The reform measures applied thus contributed to the satisfaction of the needs of the population and, in increasing supply, reduced inflationary pressures. At the same time, certain adverse changes occurred owing to the fact that, in the absence of scarcity prices and the lack of competition in a number of industries, the interests of producing units and those of the national economy do not necessarily coincide. The measures taken, and their effects, will be briefly considered in Section III below.

The Need for a Comprehensive Reform

Any adverse consequences the reform measures may have had should not however lead to limiting reform efforts or undoing the measures taken. Rather, such consequences may be eliminated, and the favorable effects of the reform enhanced, by adopting a comprehensive approach. This would require taking measures simultaneously to decentralize decision-making, rationalize prices, provide appropriate incentives to producing units, and encourage competition. In the following, recommendations will be made for a reform package that combines these elements and also provides a macroeconomic framework in which the reform measures can bring fruit.

As regards the macroeconomic framework, Section II will examine the requirements of a suitable credit and interest rate policy as well as budgetary policy in China. This will be followed by a consideration of appropriate balance-of-payments policies pertaining to the inflow of foreign capital, exchange rate, tariffs, and subsidies. A consideration of exchange rates, tariffs and subsidies leads to the issue of domestic price formation. Section III will analyze the pricing of exports and imports and of goods produced for the domestic market, together with possible reforms of the decision making process in industry. Policies aimed at increasing agricultural value added and the potential role of private initiative will also be discussed in this section.

II. The Macroeconomic Framework

Credit and Interest Rate Policy

As noted above, financing the government budget deficit in 1980 involved money creation of 8 billion yuan. This amount represented, however, only one-fifth of total money creation. Currency and deposits increased by 40 billion yuan between the end of 1979 and the end of 1980, corresponding to an increase of 25 percent. This compares with annual increases averaging 8 percent in the 1955-79 period, and while the figures need to be adjusted for inflation that reportedly averaged 6 percent in 1980, increases in the real value of the money supply were still 18 percent.

Various considerations explain the acceleration of the growth of the money supply in 1980. Apart from the direct effects of the government budget deficit, reduced budgetary appropriations for working capital led to increased demands for credit. Also, the People's Bank of China began providing investment loans in substantial amounts, totalling 5.6 billion yuan in 1980. At the same time, in the application of government priorities, there were large increases in loans to rural communes and production brigades (3.6 billion yuan) and to urban collective and individual enterprises (2.1 billion yuan). Finally, negative real interest rates, with the rate on loans for circulating capital remaining at 5.2 percent a year for industry and commerce and 4.4 percent a year for agriculture, (compounded monthly interest rates), notwithstanding inflation rates of 6 percent following the price stability of the earlier period, may have encouraged the accumulation of inventories.

In accordance with its traditional mode of operations, the People's Bank of China continued to grant loans virtually automatically on the presentation of documents concerning the purchase of materials. At the same time, the decentralization of credit management, which stimulated the local branches of the PBC to attract deposits and to make loans, had added to money creation through the operation of the money multiplier.⁶

⁶ This point is made in WILLIAM BYRD, "China's Financial System: The Changing Role of Banks", Cambridge, Mass. Harvard University, September 1981 (mimeo).

Improvements were registered in 1981. The rate of increase in outstanding loans granted by the PBC declined to 14.5 percent from 18.4 percent the year earlier while the rate of increase of the money supply fell from 25.2 percent to 21.2 percent. These results were attained, despite the fact that increased private activity required additional liquidity and that time deposits rose to a considerable extent. Notwithstanding these improvements, there is need to reform the financial system in China, both to carry out an active monetary policy and to conform to the requirements of its changing economic structure. To begin with, rather than continuing to take a passive stance in providing loans for the purchase of materials, it would be desirable that the PBC followed an active monetary policy. This may involve relying on interest rates and/or credit ceilings.

Interest rates on circulating capital to industry were increased to 7.4 percent in April 1982, practically eliminating the "negative financial transformation" that existed after April 1980 when interest rates on time deposits were substantially raised.⁷ Increases in time deposit rates, in turn, contributed to the rise in urban and rural savings. Total time deposits increased from 21.1 billion yuan at the end of 1978 to 39.9 billion yuan at the end of 1980, followed by an increase to 52.3 billion yuan in the next year. Individuals will receive an interest rate of 8 percent on long-term treasury bonds issued in 1982, of which they are expected to take about one-half. While this rate slightly exceeds the 7.1 percent interest rate on five-year time deposits, the differential is warranted given that the repayment of treasury bonds begins only in the sixth year after issue and it is undertaken in five annual instalments. At the same time, following the decline in inflation rates, the present rate structure on demand and time deposits seems appropriate.

It would be desirable, however, to further increase interest rates on circulating capital, so as to limit credit demand for purposes of holding inventories. Interest rates on loans for capital construction would also need to be raised. The PBC presently charges interest rates of 5.2 to 6.6 percent, depending on maturity, while budget-financed loans by the People's Construction Bank of China carry an annual interest rate of 3.0 percent. But it cannot be expected that, under the present system of

⁷ Interest rates on six-month deposits were increased from 3.7 to 4.4 percent, on one-year deposits from 4.1 to 5.6 percent, on three-year deposits from 4.6 to 6.3 percent, and on five year deposits from 5.1 to 7.1 percent. Prior to April 1979, interest rates on all time deposits were 2.2 percent. In turn, interest rates on demand deposits were raised to 3.0 percent in April 1980 from 2.3 percent in the preceding two decades.

economic incentives, interest rates could be increased sufficiently to equilibrate the demand for, and the supply of, credit. Correspondingly, one may employ a combination of higher interest rates and credit ceilings to the branches of the PBC. These branches could eventually become regional banks managed on commercial principles and be subject to reserve requirements. This would permit establishing a separate central bank, to be responsible for overall monetary policy.

Budgetary Policy

The compulsory purchase of treasury bonds by local governments and by state-owned and collective enterprises, and borrowing from the local authorities, partly compensated for the reduced transfers to the central government. Such financial transactions can provide only a temporary remedy, however, since they create a repayment obligation for the future. At the same time, notwithstanding these transactions, capital construction expenditures financed from the state budget fell by 7.3 billion yuan in 1981 while the decrease in capital construction financed from extra-budgetary funds was only 3.8 billion yuan, raising the share of the latter from 47.8 percent in 1980 to 51.4 percent in 1981.⁸

In fact, there is evidence that local authorities have utilized the increased availability of extra-budgetary funds to undertake investments that were not warranted by economic considerations. These investments have reinforced autarchical tendencies and have led to the local small-scale processing of materials that could have been better utilized in efficient, large-scale establishments. In Sichuan province, such has reportedly been the case in regard to silk and tobacco, for example.

More generally, local authorities do not have an overview of alternative investment possibilities and they are inclined to pursue regional rather than national interests. At the same time, rapid economic development in China requires substantial investments in infrastructure, in particular in transportation and energy. Also, increased funds would need to be provided to state-owned enterprises for

⁸ According to an official report, "the investment not covered by the national budget exceeded the plan to a fairly large extent, and blind and duplicate construction was not eliminated". Communiqué on Fulfilment of China's 1981 National Economic Plan for 1981", *Beijing Review*, No. 20, May 19, 1982, p. 19.

investment purposes. This may be done through the People's Construction Bank of China, with the interest rate increasingly used as an allocative device.

The above considerations point to the need for reducing the share of the local authorities in government revenues and limiting their power of taxation. Central revenues would be further increased through the institution of capital charges on a uniform basis and through higher depreciation allowances as suggested below.

Balance-of-Payments Policy

Foreign sources of investment in China comprise borrowing abroad as well as foreign direct investment. China attempts to attract increasing amounts of capital in the form of equity and contractual joint ventures, when the former but not the latter involves a capital expenditure by the domestic partner. Furthermore, compensation agreements involving the repayment of foreign loans in kind have assumed importance.

In evaluating the desirability of foreign borrowing, it is customary to introduce liquidity as well as profitability considerations. The former played a role in the cutback of borrowing for major investment projects but, at this point of time, the debt-service ratio is relatively low in China. Correspondingly, attention may be focused on profitability considerations, an appropriate objective being that the investment has a rate of return at world market prices at least as high as the rate of interest on the loan. In this way, it can be avoided that the cost of the domestic production of capital-intensive industrial materials financed from foreign loans, such as steel and petrochemicals, exceed the cost of importing them.

At the same time, the continued encouragement of joint ventures is desirable since, in addition to capital, they bring technological know-how and marketing expertise and involve a sharing of profits rather than a fixed interest charge. Such ventures could be further encouraged by clarifying some of the provisions of China's 1979 foreign investment law and by negotiating investment treaties with additional foreign countries. Joint ventures designed for production for domestic markets, such as automobiles, trucks, and diesel engines, should be evaluated at world market prices, lest high-cost industries be established behind protection and profit transfers made from high prices paid by domestic users. Such is not the case for export-oriented investments and, in particular, for

investments in the special economic zones where, in addition to wages, China earns foreign exchange from taxes and other fees imposed on foreign operations.

But, one should not give excessive emphasis to the special economic zones that are largely isolated from the domestic economy, and hence multiplier effects are foregone. Rather, it would be desirable to create similar conditions for exports throughout China, so that exporting firms increasingly use domestic materials and also produce for domestic markets. Finally, "straight" borrowing and sales will often be superior to compensation agreements that may involve getting unduly low prices for exported products.

Making estimates on the rate of return at world market prices would necessitate using a realistic exchange rate in the calculations. Increasing the accounting rate from 1.5 yuan to 2.8 yuan to the U.S. dollar in January 1981 was an important step in this direction. However, notwithstanding the substantial appreciation of the U.S. dollar vis-à-vis other currencies in the following eighteen months, the accounting exchange rate has not been subsequently changed. In a market economy, the exchange rate should equilibrate the balance of payments, with allowance made for the desired inflow of foreign capital. While the exchange rate cannot be called upon to perform this role in China under the present system of import restrictions, a further step in this direction may be taken, and exports encouraged, if a more flexible procedure is applied in setting the accounting exchange rate.

It would appear that foreign exchange retention schemes for exporting firms and the provision of foreign exchange to firms producing inputs for export production have encouraged the expansion of exports in China. There is no particular rationale, however, for the retention of foreign exchange by local authorities that do not engage in productive pursuits.

In increasing the profitability of domestic sales, the high protection of domestic markets through import restrictions and tariffs tends to discourage exports. Also, China's tariff structure has developed in a rather haphazard way, and it unduly raises costs to some industries and provides too little protection to others. There is need, therefore, to rationalize the system of protection by reducing disparities in tariff rates. At the same time, *pari passu* with the establishment of a realistic accounting exchange rate, average tariffs may be lowered.

The expansion of exports would further permit easing the foreign exchange bottleneck and accelerating economic growth through the

increased imports of industrial materials and capital goods embodying sophisticated technology. For exchange rates to have appropriate effects, however, they should enter into domestic price formation and decisions on production and exports would need to be decentralized, with producing units aiming at higher profits. These conditions will be considered in Section III in the context of economic reforms in China for manufacturing industry as well as for agriculture, with further attention given to the role of collective and individual enterprises.

III. Reforming the Operation of the Productive Sectors

Reform Efforts in Manufacturing Industry

Manufacturing industry in China made considerable strides during the period following the Second World War. However, it suffered from the usual shortcomings of centralized physical planning, including low-quality production, the accumulation of stocks of material inputs, an excess supply of goods that did not correspond to user needs, as well as shortages of various commodities for which there was demand. Largely as a result of the accumulation of stocks of material inputs, circulating capital per 100 yuan of output increased from 17 yuan in 1956 to 31 yuan in 1979. There were also growing inventories of finished goods. In 1980, inventories of steel products and machinery and equipment reportedly exceeded one year's production. In the same year, stockpiles of unsold goods for export accounted for more than one-third of annual exports.⁹

Various reforms were introduced on an experimental basis to improve the operation of industrial enterprises in China. They included profit retention schemes; the use of retained profits for reinvestment, for social and cultural purposes, for the payment of bonuses, and for reserves; the right to sell above-plan output directly at negotiated prices up to 15 percent higher or lower than plan prices; and greater freedom in labor relations. While the reforms originally applied only to a few firms, in 1981 they were extended to 6000 enterprises accounting for

⁹ BYRD, *op. cit.*, p. 38

about 60 percent of industrial output. Since 1982, investment decisions again require permission by the supervising authorities and, in practice, little change has occurred in labor relations. However, *de facto*, if not *de iure*, the remaining reforms have been extended to practically all industrial firms.

In the Shanghai area, an average of 8 percent of profits was retained in 1980, with workers receiving annual bonuses averaging two months' wages. The profit retention ratio was higher — often by a substantial margin — in other areas where profits tend to be lower;¹⁰ it reportedly varied between 10 and 20 percent in Sichuan province. In the same province, 40 percent of retained profits were to be used for investments, 30 percent for social and cultural purposes, 20 percent for bonuses and awards, and 10 percent for reserves in the 417 firms that participated in the decentralization experiment in 1980.

The introduction of the profit retention and bonus schemes led to the expansion of industrial production while the increased practice of negotiated sales contributed to the satisfaction of the users' needs. In 1980, the 417 firms applying these schemes in Sichuan province experienced production increases one-half larger than the other firms of the province. Profits also increased more rapidly in the former group of firms than in the latter. However, profits on the firm level do not necessarily conform to the national interest, because of the existence of price distortions. This is of particular importance in China where prices were set at the time of the introduction of particular products and seldom changed afterwards. Prices were not raised in response to increases in costs, so as to avoid inflation;¹¹ nor were prices reduced in cases when productivity increased, in order to provide revenue for the state budget.

Thus, some firms changed their product composition, with little consideration given of their saleability. They could do so, even though inventories accumulated, since profits are measured on the basis of production value rather than sales. There were further cases when the firm raised prices by replacing existing products with new ones that had a higher price. Finally, there were instances of lowering product quality.¹²

¹⁰ In 1979, profit rates on total assets reportedly averaged 24.2 percent in Chinese industry and 47.1 percent in Shanghai alone (*Ibid.*, p. 61).

¹¹ A case in point is silk brocade where a collective enterprise in Sichuan could not increase its price despite the rise in the price of silk paid to farmers, leading to a decline in profit margins.

¹² The official report on plan fulfilment in 1981 writes: "Owing to the blind pursuit by some enterprises of output value and speed in disregard of quality of products and market demand, the output of some products that should be limited under the plan also increased blindly, so that there is warehouse overstocking... In addition, some enterprises sold shoddy goods for quality goods, decreased quantities at original prices or otherwise raised prices in disguised forms" (*op. cit.*, pp. 18, 21).

These adverse consequences may be limited if profits are based on actual sales rather than on production value. Also, as suggested above, inventory accumulation may be discouraged by raising interest rates on circulating capital, a measure that has been successfully used in Hungary. At the same time, in order to avoid distortions owing to interfirm differences in the cost of circulating capital financed from budgetary appropriations and from bank loans, the same interest rate should be applied to both.¹³

For the same reason, the treatment of funds provided directly from the budget and in the form of loans for capital construction would need to be equalized. Every firm should pay a charge for the use of its fixed capital, over and above depreciation, equal to the rate of interest on investment loans, which would also have to be raised from existing levels. In addition, depreciation charges would need to be increased from their present low level of 4-5 percent a year, in order to account for the obsolescence of equipment.

Under the described procedures, the cost of capital would enter into the calculations of the firm, thus allowing differences in capital intensity among firms and among industries to bear on the cost of production. At the same time, in view of the high profits noted above, capital charges would not impose an undue burden on most industrial enterprises.

It would further be desirable to limit the present proliferation of profit retention rates. While the purpose has been to differentiate among firms having different production conditions, these cannot be measured even in an approximate way. Nor is there a rationale for varying profit retention rates, and income tax rates, according to the absolute size of profits when there are interfirm differences in the capital stock.

A possible solution is to replace profit retention schemes by profit taxes, with progressivity in the tax rates based on the rate of profit on fixed and circulating capital. These rates would be applied to base level profits, and lower taxes paid on subsequent increases in profits. In this way, one could avoid the arbitrariness involved in setting different profit retention rates for different industries, and for firms within each industry, while appropriating the "rent" element in profits without affecting incentives to improve operations.

¹³ This is being done today on an experimental basis. Such exceptions aside, however, firms do not pay interest on circulating capital provided from the budget. This is also generally the case for budgetary appropriations for capital construction, except for the loans provided through the People's Construction Bank of China in recent years.

It would further be desirable to modify the present system of bonuses. While bonuses had been designed to reward work performance, they have often become a supplement to wages provided without distinction to all workers in the firm. Also, under the existing schemes, bonuses tend to be higher in firms that earn higher profits. Correspondingly, bonuses have frequently become divorced from individual performance while adding to inflationary pressures as well as to income differentials. Average real wages in state-owned enterprises increased by 5 percent between 1979 and 1981, while industrial labor productivity stagnated. At the same time, in industrial enterprises making losses as well as many nonindustrial enterprises bonuses were not provided.

In his report to the Fifth National People's Congress on November 30 and December 1, 1981, Premier Zhao Ziyang demanded that "the present practice of handing out bonuses indiscriminately should be strictly checked",¹⁴ and subsequently called for limiting bonuses payable in 1982 to the 1981 level. Further steps would include integrating bonuses into an extended piece-wage system; providing bonuses independently of profits; and including bonus payments in production costs.

At the same time, on the example of Hungary, it would be desirable to provide profit-based bonuses to management that directly contributes to the profitability of the firm's operations. Hungary further rejected the Yugoslav system of labor management on the grounds that it tends to be conservative, both in discouraging new investment and in limiting increases in the firm's labor force, and it reduces labor discipline.

It has been reported that in China "democratic election of factory directors began last year on an experimental basis in a number of provinces, autonomous regions, and municipalities, including Beijing. It was suggested that "this is an effective move towards democratic management, ensuring the exercise of democratic rights by the workers".¹⁵ The experience of Yugoslavia and Hungary raises doubts about the desirability of having workers elect managers, however. A more appropriate alternative would seem to be to entrust the task of hiring — and firing — managers to a board of supervisors, consisting of the representatives of governmental authorities, the banks, management, labor, as well as independent experts, when utilizing experienced cadres on the board of supervisors would also permit making room for the young and the middle aged in government administration.

¹⁴ *Beijing Review*, No. 51, December 21, 1981, p. 28.

¹⁵ "Election of Directors", *Beijing Review*, No. 52, December 29, 1981, p. 6.

A related issue is to provide greater authority to managers to fire undisciplined workers. This possibility has been officially admitted but it involves a rather complicated process. This fact may explain that few workers have been fired, and only for gross undiscipline, such as being absent without leave for several months.

A more difficult question is the need to reduce the labor force of the firm that encounters difficulties and, in extreme cases, closing down the firm itself. Premier Zhao stated that "factories and enterprises that fail to meet [established] requirements within a certain time limit must either suspend operations pending consolidation or close down".¹⁶ In fact, a number of plants have closed down; for example, the number of small iron plants run by prefectures and counties has been cut from 466 to 276, representing a reversal of the policy of "backyard iron furnaces" of some time ago. An extension of this policy would involve closing down high-cost units of particular enterprises.

The Pricing of Industrial Products

The described measures would contribute to improving the performance of Chinese industry. Their effects would, however, be limited as long as prices are not reformed. Establishing rational prices that reflect resource scarcities, in turn, requires the decentralization of decision-making to the firm level as well as effective competition. In this connection, comparisons with Hungary may be of interest.

Its small market size limits the extent of domestic competition in Hungary. By contrast, China has a number of producing units in practically all industries, thereby providing possibilities for competition. There has in fact been competition following reductions in plan targets for firms manufacturing steel products and machinery as these firms have attempted to increase the extent of capacity utilization.

In turn, given its large market size and relatively low level of industrial development, it would not be appropriate for China to follow the example of Hungary in adopting world market price relations for its domestic sales, as a general principle.¹⁷ At the same time, continuing

¹⁶ *Op. cit.*, p. 21.

¹⁷ In fact, the Hungarian price system is much more complicated than this statement would indicate. Also, the adoption of world market price relations necessitates import competition that would not be practicable under present conditions in China. For a detailed discussion of the Hungarian experience, the reader is referred to the papers by the author cited earlier.

with the separation of domestic and world market prices for China's exports and imports would not permit exploiting its possibilities in international trade to best advantage. In the following, recommendations will be made for a mixed system of pricing, to be applied in conjunction with decentralized decision making and profit incentives.

For manufactured exports, the appropriate goal is to equate prices paid to domestic producers to the fob export price less domestic transportation costs. In conjunction with an appropriate exchange rate policy, this would contribute to the expansion of exports that are profitable from the point of view of the national economy and encourage investment in such activities by ploughing back profits. Exceptions would need to be made, however, in cases when exports are limited by foreign restrictions (e.g. textiles) or by the extent of foreign demand (tungsten). In such instances, an export quota system may be employed to avoid price-cutting through competition among Chinese exporters. At the same time, it is doubtful that this would be the case for many of the 173 export commodities, for which unified export management was established in May 1982. Extending the export quota scheme to products that are not subject to limitations abroad may have adverse effects by stifling initiative to seek out new markets and to introduce new product varieties. Rather, it would be desirable to increase the number of industries and products where firms can establish direct market relations abroad. This would permit firms to adjust to world market conditions and to seek out profitable market outlets. With domestic prices linked to export prices, firms would also have a direct interest in obtaining better prices abroad.

It would further be desirable to equate the domestic prices of imported industrial materials to the cif import price plus tariffs and domestic transportation and distribution costs, so as to induce firms to economize with these products. In the case of materials subject to considerable price fluctuations, however, a price compensation scheme may need to be employed.

Investment projects for the replacement of imported industrial materials should also be evaluated at world market prices. As noted above, this is of particular importance in cases where domestic production is undertaken by utilizing borrowed funds. The importation of capital and that of products, then, become alternatives and the choice between them will require careful economic evaluation. More generally, for industrial materials imports provide an alternative to domestic production, and hence world market prices may appropriately serve as a

basis for domestic price formation. At the same time, the application of this procedure is facilitated by the fact that the products in question are homogeneous, so that differences in quality and in specifications do not affect the price comparisons.

Different conclusions apply to differentiated products that account for the vast bulk of manufactured goods, in particular consumer goods, machinery and equipment. For these products, the varieties manufactured in China generally differ in quality and in specifications from those available in the world market. As a practical matter, then, it would not be possible to utilize world market prices in domestic pricing. At any rate, given its large market and relatively low level of industrial development, it would seem appropriate for China to have domestic prices reflect domestic scarcities rather than world market price relationships for these products.

Two alternative procedures for setting the domestic producer prices of differentiated products in the manufacturing sector have been suggested in discussions among Chinese economists. One of these would entail the use of a large input-output table to indicate the interindustry relationships of costs and prices. The other alternative would involve extending the scope of negotiated prices to eventually encompass all sales of differentiated products.

While the first alternative may appear attractive in theory, it would encounter practical difficulties because of the great variety of industrial products manufactured in China and the importance of quality differences for product prices. Thus, a central authority could not set appropriate prices for all conceivable product specifications and there is the danger that firms would lower quality in the pursuit of profits.

Nor would the central determination of prices by the use of an input-output table ensure that demand and supply for individual products are equated, which is a precondition for establishing rational, or scarcity, prices. This purpose can be served by placing reliance on market relationships that would also permit avoiding reductions in quality.

Negotiated sales among industrial firms are expressions of market relations in China. These relationships have assumed importance in heavy industry, where reductions in plan targets have led firms to seek out market outlets. In so doing, firms have changed their product composition to suit the users' needs and genuine competition has

emerged among suppliers.¹⁸ The scope of negotiated sales in heavy industry could be extended further by reducing plan targets, with a view to their eventual elimination. In this industry, competition could be relied upon to limit price increases, when the first step to liberalize prices would entail enlarging the margins around the prices determined centrally.

The described procedure could be applied in heavy industry because of the existence of excess capacity. This is not generally the case in light industry where, despite the increase of production by one-half between 1978 and 1981, there is unsatisfied demand for a number of products. In such instances, production would need to be increased before negotiated prices could come into general use. The output of light industry could be increased, first of all, by raising the extent of capacity utilization. While firms in Shanghai reportedly work in three shifts, one-shift operations predominate in some other parts of China. A case in point is a shirt factory in Beijing, which utilizes expensive modern Japanese machinery in only one shift.

In order to increase the extent of capacity utilization, incentives for multi-shift operations would need to be provided. Increasing the cost of capital to the firm, suggested above, would provide such incentives. Furthermore, firms may be allowed to establish a double deduction for part of the cost of overtime in calculating their profit tax.

Investment in light industry would also need to be increased. While the share of light industry in manufacturing output rose from 42.7 percent in 1978 to 51.4 percent in 1981, with a commensurate decline in the share of heavy industry, investment in light industry was only one-fourth of that in heavy industry in 1981. Although this represents an increase compared to an investment share of one-sixth in 1978, further increases are necessary for light industry to fully meet demand by urban dwellers and, in particular, by the rural population.

While the need for increasing the service orientation of heavy industry vis-à-vis light industry and agriculture has been well recognized in China, there is further need for establishing a dynamic equilibrium between light industry and agriculture. This would take the form of expanding the production of light industry to provide consumer goods

¹⁸ In Chengtu, for example, a machinery-producing enterprise was given a plan for 1980 that would have permitted utilizing only 28 percent of its capacity; in finding new markets through negotiated sales, the extent of capacity utilization was raised to 61 percent. Also, Shanghai machine-building factories created new kinds of machinery for light industry and agriculture and embarked on the production of durable consumer goods while a steel plant developed 80 new products for use in light industry.

for the rural population who, in turn, would increase the output of food for the urban dwellers. In order to ensure that such an equilibrium is attained, appropriate incentives would need to be provided. As far as light industry is concerned, this would entail increasing the scope of negotiated sales *pari passu* with the elimination of excess demand in regard to particular products. It would further be necessary to ensure competition among producing units.

In this connection, reference may be made to recent tendencies for concentration in Chinese industries. Although improvements in productivity could be achieved by reducing the number of the nearly 400,000 state-owned enterprises in China, one should avoid excessive concentration that would reduce competition. Also, while the transformation of certain ministries into corporations will increase their flexibility,¹⁹ the enterprises within the corporations should be encouraged to compete with each other.

Also, as noted above, industrial enterprises should be free to invest by using their own funds as well as funds borrowed at appropriate interest rates. At the same time, the central government would have to make investment decisions in regard to basic industries and utilize economic project evaluation in making these decisions.

Particular importance attaches to improving transportation facilities and increasing the supply of energy. And while this will take time to accomplish, the establishment of highly energy-intensive plants producing industrial materials, which often also have considerable transportation requirements, would need to be postponed further for the sake of providing for the energy needs of consumer goods industries.²⁰

Agriculture

Since 1979, a number of important measures have been taken in China to reform agriculture. The measures in question include

¹⁹ The first case is shipbuilding, to be followed by automobiles.

²⁰ In this connection, note may be taken of a statement made in an article in the official Party daily. "There is an acute shortage of energy supplies such as fuel, oil, and electric power, and communication and transportation facilities are insufficient. However, many of the current projects under construction consume a large quantity of energy resources and materials which need to be transported from far away places". ("How Are We to Grasp this Year's Economic Work Well", *Renmin Ribao*, March 9, 1981, p. 22 as quoted in *Foreign Broadcast Service*, March 11, 1981, p. I. 12).

the introduction of the "responsibility" system, with remuneration based on output; reductions in compulsory procurement, with higher prices applying to above-procurement sales; increases in absolute prices and changes in relative prices for procurement; and the encouragement of sideline activities.

The responsibility system has replaced the earlier system, denoted in popular parlance as "eating from the same big public pot", under which work was apportioned by the leader of the production team and remuneration based on hours worked. It now applies to over 90 percent of production teams. The principal variants of the responsibility system include providing remuneration on the basis of the production tasks performed in the framework of the production team and the family responsibility system, *bao gan dao hu*, under which each household retains everything it has produced on the land assigned to it after paying taxes and contributing its share to the accumulation and public welfare funds of the commune. In some instances, households have organized themselves into "integrated units", made up of three to five households, with specialization according to tasks within each unit.

Furthermore, the area available for household plots has been increased from 7 percent to 15 percent of the total; under the Cultural Revolution, household plots were not officially allowed. Finally, the draft of the revised Constitution calls for separating local government administration from commune management, with a view to avoiding the use of compulsory methods.

The family responsibility system has assumed increased importance, covering 60 percent of the land area of the communes in Sichuan province, with family groups accounting for another 7 percent. In the same province, production on private plots, occupying 13.5 percent of the land area, and sideline activities carried out by the family, reportedly accounted for 47 percent of agricultural income in 1981. A slightly lower proportion, 42 percent, applies to a sample of 18,529 peasant households throughout China, for which data were collected by the State Statistical Bureau; the corresponding figure was 29 percent in 1978.²¹

The establishment of the responsibility system has been accompanied by some easing of acreage limitations and reductions in procurement targets. According to one estimate, private sales in rural areas

²¹ In interpreting this figure, it should be noted that household plots are characterized by intensive cultivation and the product can be freely sold at negotiated prices without any tax obligation or payment to the commune.

nearly doubled between 1978 and 1980, reaching one-third of state purchases in that year.²² Prices for such sales exceeded the procurement price of wheat, that was first permitted to be sold in private markets in 1979, by 70 percent in 1981. Approximately the same price applied to the so-called negotiated sales to the state, accounting for one-sixth of procurement sales, while above-quota sales to the state, in approximately the same volume, were made at a 50 percent premium. Similar price differences were observed in regard to oilseeds, a 30 percent premium applied to above-quota sales of cotton, while the differences were smaller for other crops. Also, procurement prices were raised and relative prices adjusted for some major crops, thereby reducing differences vis-à-vis world market prices. Increases in the price of cotton have led to higher output and lower imports, more than offsetting increased wheat imports. Nevertheless, the effects of price changes on output have been limited by acreage controls and by continued restrictions on the interprovincial marketing of grains.²³

In 1978, the ban on the ownership of small factories by production teams was lifted and limitations on the time allocation of production teams to sideline activities were also abolished. There resulted a considerable expansion of sideline activities in producing simple farm implements, consumer goods, as well as industrial materials. In 1981, such production rose by 9.3 percent compared to a 5.7 percent increase in agricultural output, accounting for 27 percent of the increment in output.

Although the expansion of sideline activities raised fears that the production of agricultural staples would be neglected, no action has been taken to limit their expansion. And while emphasis has again been given to the control of acreage, with the objective of avoiding further shifts from grains to rapeseed and tobacco, the continued development of the responsibility system has been repeatedly endorsed.²⁴

Acreage limitations and the continued maintenance of government procurement, however, conflict with the peasants' interest to increase

²² NICHOLAS R. LARDY, "China's Agricultural Pricing Policy", New Haven, Conn., Yale Economic Growth Center, April 1982, mimeo, p. 24. The data also include sales of sideline products, to be considered below.

²³ *Ibid.*, p. 48

²⁴ Liu Hujia, the Minister of Agriculture, stressed the need to "further improve the various forms of responsibility system in farm production with remuneration based on output, since they are welcomed by the peasants. While upholding the principle of collectivization, the system of responsibility in production will not be changed for a long time to come." (*Beijing Review*, No. 47, November 23, 1981, p. 5).

their incomes by changing the product composition of output. This interest could be harnessed to pursue national economic objectives by increasing reliance on prices to guide production decisions while reducing the scope of acreage limitations and government procurement.

In fact, under present-day conditions, the principal gains in agricultural productivity are likely to come through increased specialization within the commune, within individual provinces, and among provinces in China. Increased specialization within the commune would permit limiting the disadvantages of the cultivation of small land areas under the family responsibility system. The extension of the contractual system, applied experimentally in several provinces, would serve this objective as it determines the obligations of the family towards the commune in money terms rather than in kind.

Intra-provincial and, in particular, inter-provincial specialization would further contribute to the better utilization of China's natural resources. At the same time, for the time being, specialization among individual provinces is constrained by the inadequacies of transportation facilities.

Specialization in response to price incentives may, however, further widen income inequalities in rural areas that have increased in recent years. And while income disparities owing to differences in effort are considered desirable, such disparities also result from differences in the quality of land as it is often not possible to produce on poor land more than the amount required under procurement. To eliminate this source of inequality, and to simultaneously provide incentives to increase output, it would be desirable to place increased reliance on land taxes while raising agricultural prices.

Land taxes should be fixed in amount but vary according to the quality of land, so as to absorb a considerable part of the rent element in agricultural incomes. Although China has long had a land tax under the name of agricultural tax, its importance has declined over time; it now accounts for only 3 percent of the value of agricultural output in Sichuan province, for example. While the determination of the land tax encounters administrative difficulties, basing it on past output levels is still preferable to the progressive taxation of agricultural incomes that would reduce income differences at the expense of discouraging effort.

It would further be desirable to review the subsidization of foodstuffs that benefits the recipients of rations in urban areas. These subsidies reportedly increased fourfold between 1979 and 1981, reaching about 6 percent of national income but benefiting only 13 percent of the population.

Finally, a review of agricultural prices would provide an opportunity to align these prices more closely with world market prices. The domestic price of wheat is higher than that of rice in China whereas the opposite is the case in the world market. Also, despite recent changes, cotton is cheaper relative to wheat in China than in the world market. Greater alignment with world market price relations would permit exploiting China's advantages in international trade in agricultural products. While the narrowness of the world rice market and the sensitivity of wheat prices to increased demand in world markets demand caution, steps taken in this direction would increase agricultural – and national – income in China.

Collective and Individual Enterprises

Following earlier prohibitions, since 1978 individual enterprises can be established in China, and newly-created collective and individual enterprises may receive tax benefits and preferential credits. Provisions have further been made for the establishment of new forms of enterprises. These new forms include joint ventures between state-owned and collective enterprises, between state-owned enterprises and individuals, and between collective enterprises and individuals, as well as enterprises established using funds pooled by individuals, with shareholders receiving part of the profits in the form of dividends.

The purpose of the new regulations has been to create employment and to contribute to the satisfaction of the needs of the population. The results have been quite impressive. In 1980, 810 thousand individuals started their own businesses. In 1981, state-owned enterprises provided jobs for only 29 percent of the 6 million newly-employed urban workers while collective enterprises accounted for 49 percent and individual enterprises for 5 percent of the total, with the remaining 17 percent being temporary workers. Collective and the individual enterprises have engaged in a variety of activities, including tailoring, shoe-making, arts and crafts, the manufacture of toys, rubber products, the selling of their own products, as well as personal services, such as restaurants and hairdressers.

Further expansion of individual enterprises is expected following the October 1981 Decision on Solving Urban Unemployment Problems by the Central Committee of the Chinese Communist Party and the

State Council. Having reviewed the rise of employment in collective and individual enterprises, the Decision states:

"Nonetheless, a number of problems remain unsolved. This refers mainly to the fact that some places put undue emphasis on arranging jobs in already overstaffed state-owned enterprises and undertakings which is detrimental to the improvement of management... In the future, emphasis should be placed on creating jobs in the collective and in individual sectors of the economy."²⁵

This purpose is to be served by permitting individuals to hire two helpers and five apprentices. Furthermore, workers in collective and individual enterprises have been given the same rights and privileges as workers in state-owned enterprises. At the same time, collective and individual enterprises bear sole responsibility for their profits and losses, and they cannot expect that the authorities would help them out in case of financial difficulties.

Given their profit-seeking character, collective and individual enterprises create productive employment in adding to the supply of goods and services. At the same time, these enterprises have considerable flexibility to respond to changes in demand, thus easing shortages in individual commodities. Through their activities, then, the collective and individual enterprises reduce the scope for illicit actions, which tend to proliferate in the absence of market relationships.²⁶

The practical application of the October 1981 Decision will, however, require avoiding interference on the part of state and local authorities, which has limited the scope of individual enterprises in several cases where they competed with state-owned units.²⁷ The danger of interference on the part of the authorities has been recognized in the Decision that took pains to identify the rights and privileges of the cooperative and individual enterprises.

"The ownership of property, regular business activities and incomes of the collective enterprises and individual laborers should be protected by the law and no department or unit is allowed without authorization to interfere in their affairs, transfer their property and resources or swallow them up. They are

²⁵ *Beijing Review*, No. 6 February 8, 1982, p. 22 — This means that the state does not any more take responsibility to provide jobs to all those who enter working age. In fact, it has not been able to discharge this responsibility in recent years.

²⁶ While in the Chinese press it has been alleged that the introduction of market activities is responsible for illicit actions, such actions would not occur if market activities were given full scope.

²⁷ In Beijing, for example, there is still only one small private restaurant.

required to pay taxes and other fees according to state law and the rules and regulations of the various provinces, municipalities and autonomous regions. No department or unit is allowed to change them under any other pretext."²⁸

Potentially, collective and individual enterprises can also play an important role in commerce by improving the distribution of goods. Under recent regulations, no organizations, army units, schools, industrial or mining enterprises are allowed to engage in commercial activities, except for the sale of their own products. While these regulations aim at limiting the proliferation of trading activities, provisions would need to be made for providing alternative forms of trading. This may be done by extending the licensing of private traders outside country fairs and urban markets. Furthermore, it would be desirable to remove existing limitations on the sale of goods produced by others and on the transportation of goods for sale by collective and private enterprises.

Conclusions

This paper has briefly reviewed the experience of centrally planned economies with reforms and the relevance of their experience to China. Attempts made at the decentralization of decision-making in China have further been considered, and recommendations have been put forward for continued reform efforts.

In the discussion, emphasis has been given to the interdependence of decentralized decision making, the use of prices as signals for resource allocation, incentives at the production level, and competition among producing units. In manufacturing industry, recommendations have been made for the increased decentralization of decision making to producing units and the application of bonus schemes for management aimed at improving operations, together with the reform of the price system and an effort to ensure competition, so that decisions taken by state enterprises conform to the national interest.

As regards industrial prices, the application of a mixed system has been proposed that would rely on world market prices in regard to exports, as well as for industrial materials, and would extend the scope of negotiated prices to the bulk of industry. Negotiated prices also

²⁸ *Op. cit.*, pp. 22-23.

provide the appropriate norm for collective and individual enterprises that are called upon to play an increased role in China in creating employment and in contributing to the satisfaction of the needs of the population.

The easing of existing constraints on decision-making and the rationalization of prices would also be desirable in agriculture, involving reductions in differences between relative domestic and world market prices. It would further be desirable to make increased use of land taxes that would permit appropriating a greater part of the rent element in agricultural incomes without adversely affecting effort.

As regards both industry and agriculture, increased reliance would need to be placed on interest rates as a device for allocating investment funds and for limiting credit demands for purposes of inventory holdings. Interest rates, together with credit ceilings, should also be used to pursue an appropriate monetary policy that would eventually necessitate establishing a separate central bank. In conjunction with a balance-of-payments policy pertaining to the inflow of foreign capital, tariffs, and subsidies, then, a macroeconomic framework would be provided for the decentralization of decision making in the productive sectors of the economy.

Objections may be raised, however, to the regional decentralization of investment decisions as the local authorities are not profit-making units and do not have an overview of alternative investment possibilities. Correspondingly, it would be desirable to partially recentralize state revenues. These revenues could be used for increasing lending to productive units as well as for investments in basic industries, in particular infrastructure, where use needs to be made of economic project evaluation.

Investments in infrastructure are necessary for the expansion of manufacturing industry as well as agriculture and for obtaining gains through increased regional specialization. At the same time, the measures proposed for industry and for agriculture are interdependent, inasmuch as the two sectors provide consumer goods as well as inputs for each other. Political and administrative constraints will, however, affect the pace at which progress can be made and there may be differences in this regard between the two sectors.

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