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China: Country Economic Memorandum Macroeconomic Stability and Industrial Growth Under Decentralized Socialism

(In Three Volumes) Volume I: Macroeconomics

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Country Operations Division

China Department

Asia Region

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CURRENCY EQUIVALENTS

The Chinese currency is called Renminbi (RMB).
It is denominated in Yuan (Y). Each Yuan is
1 Yuan = 10 jiao = 100 fen

Calendar 1988
US\$1.00 = Y 3.72
Y 1.00 = US\$0.27

June 1989
US\$1.00 = Y 3.72
Y 1.00 = US\$0.27

FISCAL YEAR

January 1 - December 31

WEIGHTS AND MEASURES

Metric System

LIST OF ACRONYMS

AIC	- Administration for Industry and Commerce
CASS	- China Academy of Social Sciences
EEC	- European Economic Corporation
FAW	- First Auto Works
FEAC	- Foreign Exchange Adjustment Center
FTC	- Foreign Trade Corporations
GDP	- Gross Domestic Product
GNP	- Gross National Product
GVIO	- Gross Value of Industrial Output
IMF	- International Monetary Fund
MOF	- Ministry of Finance
NICs	- Newly Industrializing Countries
PBC	- People's Bank of China
REER	- Real Effective Exchange Rate
SAEC	- State Administration of Exchange Control
SEZ	- Special Economic Zone
SNA	- U.N. System of National Accounts
SSB	- State Statistical Bureau
TICs	- Trade and Investment Corporations
TVE	- Township, Village and Enterprise
VAT	- Value-added Tax

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ABSTRACT : The report is divided into two volumes. The first volume analyzes recent macroeconomic developments with special attention to the reforms that have been responsible for China's rapid growth. It also examines policies introduced during 1988-9 to dampen inflationary pressures that have resulted from high rates of expansion. The second volume looks at longer term prospects for industrial reform and development. After describing the industrial structure and the changes that have occurred in the eighties, it concentrates on (i) the dynamics of the Chinese manufacturing enterprise; (ii) the factors influencing the integration of the national market; and (iii) industrial strategies that are likely to promote competition allocative efficiency, technological progress and X-efficiency.

Table of Contents

	<u>Page No.</u>
EXECUTIVE SUMMARY	i - xi
Aims of Reform.	i
Emergence of Macroeconomic Instability during the Second Phase.	ii
Framework for Future Policy Actions	iv
Control of Inflation in the Short-run	v
Long-Term Strategy.	viii
 <u>VOLUME ONE - MACROECONOMICS</u>	
I. <u>MACROECONOMIC OVERVIEW</u>	1
Macroeconomic Overview.	1
Political Economy of Reform	2
Growth and its Sources: 1978-88.	4
Inflation	8
Employment.	10
Productivity.	12
Foreign Trade	18
External Borrowing.	25
Macroeconomic Agenda and Actions.	27
II. <u>INFLATION AND ITS CONTROL THROUGH MONETARY AND INCOMES POLICIES.</u>	30
Reform and Inflation Dynamics	30
Section A: The Pricing System and the Pattern of Inflation	32
Price Patterns.	33
Recent Inflation and its Cost	39
Section B: Monetary Trends and Management	41
Monetary Policy: Short- and Medium-Term.	51
Section C: Incomes Policy	56
Labor Earnings.	56
III. <u>FISCAL STRUCTURES AND POLICY</u>	62
Background on Fiscal Development.	62
Fiscal Structures	64
Fiscal Reforms and Budgetary Dynamics	69
Theory and International Practice of Fiscal Policy.	76
Fiscal Policy for the Transition.	80

IV.	<u>INVESTMENT BEHAVIOR AND DOMESTIC RESOURCE AVAILABILITY.</u>	85
	Section A: Investment.	85
	Investment Pattern.	85
	Investment Planning and Management by the Central Government.	88
	Investment Imperatives of Local Governments	95
	Investment Control and Financing.	96
	Section B: Savings	101
	Structure and Trends.	101
	Household Saving Behavior	103
	The Stability of Savings	109
V.	<u>INDUSTRY, AGRICULTURE AND LONGER-TERM REFORM.</u>	114
	Section A: Industry.	115
	Section B: Agriculture	119
	Trends during 1978-86	119
	Emerging Bottlenecks.	121
	Food Production Strategy.	126
	Future Policy Initiatives	127
ANNEX	A CHRONOLOGY OF ECONOMIC REFORMS, 1979-88	129-137

VOLUME II. - INDUSTRIAL STRUCTURE, DYNAMICS AND POLICIES

EXECUTIVE SUMMARY	i - ix
National Market Integration.	i
Directions for Industrial Policy	iii
Role of Small Firms.	v
Enterprise Microeconomics.	vii
Administrative Environment	viii
VI. <u>STRUCTURE OF INDUSTRY</u>	1
Pattern of Industrial Change	5
Industrial Concentration	6
Subsectoral Growth	11
Small Scale Industry	13
Role of the Market	16
Geographical Trends in Industry	17
Industrial Finance and Enterprise Ownership	20
Equipment and Technology	22
Structure and Dynamics in Electronics,	
Consumer Durables and Steel	23
Changing Industrial Contours	29

VII.	<u>CHINESE STATE ENTERPRISES AND THEIR ECONOMIC ENVIRONMENT</u>	32
	Background	32
	Enterprise Evolution	33
	Labor Markets, Incentives and X-efficiency	35
	Technological Change and Its Financing	41
	Structure of the Enterprise	44
	Resource Allocation	48
	A Direction for Reforms	49
VIII.	<u>REGIONAL INDUSTRIALIZATION AND MARKET INTEGRATION.</u>	53
	Pattern of Industrialization in the U.S.	54
	China's Regional Development Policies, 1953-79	56
	Measuring the Cost of the Interior Development Strategy	61
	Regional Development in China Compared with Other Countries	65
	Subregional Industrial Policies	73
	Two Regional Scenarios	74
	Integrating Markets	80
	Interprovincial Trade	80
	Marketing	85
	Transport	86
	Investment	94
	Tariffs	94
	Modal Choice	95
	Strands of a Regional Strategy	95
IX.	<u>ASPECTS OF INDUSTRIAL POLICY</u>	97
	SECTION A: CHINA	98
	Legal Rules and Market Development	98
	Industrial Policy	103
	Interfirm Linkages	103
	Industrial Regulation and Barriers to Entry	105
	Price Competition	107
	Bankruptcy	109
	SECTION B: CROSS-COUNTRY EXPERIENCE	110
	Antitrust Policy and Administrative Guidance	111
	Bankruptcy Law	115
	Board of Directors	116
	Takeovers	117
	A Recapitulation of the Main Points	118
	Technology and Industrial Structure	119
	Role of Small Firms	124
	Industrial Policy Guidelines for China	126

TABLES IN TEXT - VOLUME I

1.1	Sectoral and Demand Linked Sources of Growth 1980-88	6
1.2	Savings and Investment, 1978-88	7
1.3	Measures of Inflation.	9
1.4	Sources of Growth Analysis	13
1.5	Relation between Output and Productivity Growth, 1975-1986 . .	16
1.6	Price Index of Non-Residential Industrial Construction, 1970-85.	16
1.7	Investment in Housing.	18
1.3	Exports of Selected Food Items	20
1.9	Exports of Commodities from China.	20
1.10	Imports of Commodities to China.	21
1.11	Real Effective Exchange Rates	24
1.12	External Borrowing.	27
2.1	Measures of Inflation	35
2.2	Quarterly Measures of Inflation	36
2.3	Nationwide Measures of Price and Wage Inflation	36
2.4	Market Price Indices by Category of Commodity, 1981-87. . . .	37
2.5	Price Dispersion for Selected Products	39
2.6	Growth Rates of Monetary Aggregates	44
2.7	Contributions to Liquidity Growth	45
2.8	Contribution to Reserve Money Growth	46
2.9	Monetary Control Ratios	47
2.10	Share of Loans to Enterprises and Individuals in Total Lending .	48
2.11	Sources of Domestic Credit Growth	49
2.12	Revenue From Money Creation	49
2.13	Money Demand Parameters	50
2.14	Trend in Velocity	50
2.15	Interest Rate Structure	52
2.16	Industrial Wage and Productivity Indices.	58
2.17	Industrial Wage and Productivity Growth Rates	58
3.1	Structure of Consolidated Government Revenue, 1978-1987 . . .	65
3.2	Developments in Government Revenue, 1978-88.	66
3.3	Structure of Government Expenditure, 1978-88	67
3.4	Developments in Government Expenditure, 1978-88.	68
3.5	Budget Deficit and its Financing, 1979-88.	68
3.6	Changing Fiscal Importance of the Central and Subnational Government Sectors	73
3.7	Simulation of Budget Deficits at Various Rates of Inflation, Real Growth and Interest Rates	83
4.1	Gross Domestic Investment (GDI) as Percent of GDP.	86
4.2	Percent Share of Total Capital Construction Investment	87
4.3	Proportion of Total Output Under Central Allocation.	89
4.4	Financing of Domestic Fixed Investment	92
4.5	Central Government Priority Investment	93
4.6	Uncompleted Construction	100
4.7	Composition of Saving, 1978-87	103
4.8	Gross Domestic Savings, Selected Countries, 1965-88.	106
4.9	Household Savings Rates.	106
4.10	Growth of Financial Savings Versus GDP Growth.	108
4.11	Rural-Urban Terms of Trade	109
4.12	Household Savings Rate in China, 1978-87	111
4.13	Financial Asset Holdings of Selected Countries	113
5.1	Current and Projected Per Capita Food Consumption.	120
5.2	Agricultural Indicators.	120
5.3	Fresh Vegetable Mixed Average Retail Prices in Major Cities, China, May 1985 to February 1988	123
5.4	Land Under Vegetables.	125

TABLES IN TEXT - VOLUME II

6.1	National Income by Province, 1986.	1
6.2	Provincial Distribution of per capita Industrial Output, 1957, 1965, 1979, 1983 and 1986	4
6.3	Summary Measures of Interprovincial Inequality in Gross Value of Agricultural Output (GVAO).	5
6.4	Number of Industrial Enterprises	7
6.5	Gross Value of Industrial Output	8
6.6	Gross Value of Industrial Output per Enterprise in 1980 constant prices.	9
6.7	Summary Measures of Industrial Concentration of China, Korea and India	9
6.8	Gross Value of Industrial Output in 1980 constant prices, by Branch.	11
6.9	Number of Industrial Enterprises by Province	12
6.10	Gross Value of Industrial Output in 1980 Prices, by Province	13
6.11	Industrial Shares of Township and Village Enterprises.	15
6.12	Ownership Structure of Industrial Output in 1987	18
6.13	Current Liabilities as a Percentage of Networth.	21
6.14	Total Electronics Output Value in Top Four Regions	25
6.15	Share of Rolled Steel Production by Zone	28
6.16	Share of Pig Iron Production by Zone	28
7.1	Time Allocation by Managers.	46
7.2	Structure of the Industrial Work Force, 1986	47
8.1	Personal Capita Income in Each Region as a Percentage of the U.S. Average, 1840-1980.	56
8.2	Agricultural Growth in Interior Provinces.	58
8.3	Regional Capital-Labor and Output-Labor Rates for Large- and Medium-Scale Industrial Enterprises in 1985.	62
8.4	Regional Differences in Large & Medium Enterprise Efficiency	63
8.5	Net Material Product by Province (1985).	69
8.6	Structure of Industry by Province in 1986.	70
8.7	Farm Incomes and Nonagricultural Employment by Province.	72
8.8	Regional Inequality in China and the U.S.	73
8.9	The Percentage of Commodities Imported from Other Provinces by Commercial Establishments in Various Provinces and Municipalities in their Total Purchase of Commodities.	83
8.10	Percentages of Main Industrial Products Produced by Coastal, Inland, Eastern, Central and Western Areas Respectively in China's Total Output.	83
8.11	Net Exports by Province, 1985.	84
8.12	Transport Investment vs Economic Output in China	87
8.13	Railway and Road Network Density in Selected Countries	87
8.14	Distribution of Intercity Passenger Traffic by Mode China, U.S.S.R., India, Brazil and U.S.	88
8.15	Distribution of Freight Traffic by Mode.	88
8.16	Freight Traffic Intensities.	89
8.17	Indicators of Railway Asset Utilization, A Comparison between China, U.S.S.R., India and U.S.	90
8.18	Transport Supply Developments.	92
8.19	Characteristics of Chinese Railway Freight Traffic	93

GRAPHS

2.1	Different Measures of Inflation.	34
2.2	Price Dispersion for Beer, Tea and Cake.	40
6.1	Gross Value of Industrial Output, China.	10
6.2	Number of Industrial Enterprises, China.	17

BOXES

1.1	Productivity Growth in China	14
6.1	Causality between Agriculture and Industry	30-31

MAPS

IBRD 21483	2
IBRD 21484R.	14
IBRD 21485	59
IBRD 15512R3	128
IBRD 15525R2	138

The Report was prepared by a mission that visited China in June 1988. Mission members were Shahid Yusuf (Mission Leader), Gerd-Peter Dittus (AS3CO), Barry Naughton, Dwight Perkins (Consultants), Gyorgy Szapary (IMF), and Tejaswi Raparla (AS3CO). Background papers for the report were prepared by Thawat Watanatada (AS3TE), Peter Harrold (AS3CH), Andrew Feltenstein, Dorothy J. Solinger, Renee Schwartz and Robert M. Field (Consultants).

Executive Summary

Aims of Reform

1. China achieved respectable growth rates in the pre-reform era but the economic gains came at a very high cost in terms of investment and labor input. The principal goal of the reform is to improve on past growth performance and to do so largely through an increase in efficiency. The strategy being evolved has a number of strands, of which the following deserve mention:

- Ever since the late fifties, China has accommodated a measure of provincial autonomy within a system geared to central planning and administrative allocation of resources. Starting with the household responsibility system in the rural sector, the approach taken in the eighties involves a dispersal of decisionmaking powers as well as control over resources to lower ranked economic units. With markets multiplying, farmers along with an increasing number of industrial enterprises are acting with reference to price signals rather than plan directives. Layers of bureaucratic controls, that stifled initiative and interfered with the efficient use of resources, are being stripped away.

- A planned economy in which no effort was spared to maximize capital accumulation provided the populace with the basic necessities but gave low priority to the widening of consumption opportunities. Over time, this dulled the desire to work hard or to innovate. One of the central tenets of the reform drive is the importance attached to expanding consumption possibilities so as to restore incentives eroded by years of austerity.

- Technological advance is a third strand. An inward orientation, neglect of industrial research and the preoccupation with the volume of production meant that technology lagged. In many important fields, China is still producing and utilizing 1950s vintage technology long ago abandoned elsewhere. The reform program has sought to multiply trade links and establish channels through which Chinese producers can obtain foreign technology. The growing commercial bias of enterprise activities, the significance attached to profitability as a decision rule together with the rising prominence of free markets, are also helping to shift the focus from the sheer volume of output to such market concerns as quality and technology.

- Under pre-reform central planning, enterprise relationships were determined by the hierarchical structure of supervising ministries and tended to be vertical in nature. Reform is attempting to break down the severe compartmentalization that resulted. Enterprises are being encouraged to forge horizontal links across sectors as well as geographically.

- Provincial autonomy and the segmenting effects of ministerial hierarchies meant that the country was divided into a large number of subeconomies each more or less independent, with most of the trade being restricted to a few, bulky, raw materials and intermediate products. A cellular pattern of development involved a considerable sacrifice in terms

of efficiency. Industrial location was not guided by comparative advantage; scale economies remained unexploited; and the potential of the vast domestic market to generate trade and competition was neglected. A dismantling of some controls and the emergence of new marketing networks, especially in agriculture, is bringing down a few of the barriers to the flow of goods and factors across the country. Regional markets are emerging. Eventually, through institutional change, legislative action and investment in infrastructure, these would expand and coalesce into a national market.

Emergence of Macroeconomic Instability during the Second Phase

2. Agriculture responded immediately to the measures introduced in the late seventies and provided a powerful impetus to growth until 1984. Industrial reforms, put into effect from about 1983-84, gave an equally strong stimulus and during 1985-88 most of the growth impulse came from the vigorous expansion of industry. Over the past eleven years, China has averaged a growth rate of more than ten percent and there is no apparent slackening in the momentum. Unprecedented rates of sustained GDP growth have been matched by a substantial increase in domestic savings that have helped maintain resource balance, and except for the period 1985-86, minimized China's reliance on foreign capital to meet industry's enormous appetite for investment.

3. Rapid expansion of the national product has raised living standards throughout the country. Because of changed relative prices for agricultural products, the rural four fifths of the populace has participated fully in this new prosperity. Industrial wages, bonuses and benefits in kind also appear to have forged ahead. Although the detailed statistics are lacking, it would appear that economic gains have been widely dispersed.

4. From the very start of the reform program, it was apparent that decontrolling a planned economy subject to chronic shortages, in which many prices were seriously out of line from "true" scarcity values and where strong latent demand pressures from enterprises as well as consumers lay beneath the surface, was beset with risks. The dangers of macro-instability were particularly serious if the economy were to be operated at near its maximum potential. During the first five years of the reform a combination of factors helped keep macroeconomic disequilibria at bay. The average growth rate between 1980 and 1983 was lower-averaging 7.6% per annum. Reforms were concentrated in the agriculture sector and food supplies expanded at a brisk pace which had a dampening effect on prices. This was a period when light industry took the lead and there was a growing availability of consumer goods to satisfy household demands. Consumption demand provided the fuel for growth and mostly paid for itself through improved incentives for productivity growth.

5. When the focus of reform shifted to state enterprises after 1983, the situation changed quite dramatically. Industrial reform freed enterprises from some of the checks that had been imposed upon them; they were permitted to retain a portion of their profits and were given wider latitude in deciding how to spend them; profit incentives and market prices began to exert a greater influence on their behavior; and enterprise investment which had once been regulated through the government budget

became dependent on bank financing. Further, the central government transferred more of the planning and industrial management functions to provincial and lower levels.

6. Industrial change on such a scale is bound to cause macroeconomic strain but certain features of the reforms worsened the danger of instability. Enterprises were given more independence and the option of participating in free market trading but they were not simultaneously subjected to the rigors of market discipline and accountability which encourages prudence. Because budget constraints on most state and collective enterprises remained soft, the reforms introduced an asymmetry: enterprises had greater freedom of decision but the penalties for poorly conceived production and investment decisions remained relatively insignificant. Moreover, the unreformed pricing system interfered with socially efficient investment decisions. Second, decentralization encouraged the provinces to aggressively pursue their own industrial ambitions and exploit fully the financing avenues provided by the reform of banking. Without a national industrial strategy to coordinate provincial objectives and spending, or price reform to signal which investments were socially beneficial, this has resulted in much duplication and a waste of capital.

7. These three factors taken together: greater autonomy for enterprises and the absence of credible hard budget constraints; the lack of a unifying national industrial policy; and the opportunities afforded by a decentralized banking system for raising funds, produced a tremendous surge in capital spending. And remaining distortions in the price system meant that a considerable volume of this investment was directed toward relatively low productivity projects.

8. Growth accelerated to over 11% p.a. between 1984 and 1988 pushing the economy to the limits of its productive capacity. Where consumption had been the main source of growth in the early eighties, industrial investment moved decisively into the lead after 1983 supported by an expansionary credit policy. By absorbing the bulk of investable resources, industry compromised the development of energy and transport infrastructure tightening bottlenecks that already existed. With many commodities being traded on free markets and the majority of prices now permitted to move within bands, conditions of chronic excess demand accommodated by a rapidly growing money supply have resulted, inevitably, in rising prices. Because grain production has stagnated and the output of other high value food items has lagged behind demand, food prices soared during 1987-88. Premium consumer durables have also become relatively more costly.

9. The cellular nature of the Chinese economy and the uneven incidence of residual price controls has meant that rates of inflation across the country are highly uneven and the seasonal amplitude of agricultural prices can be very significant. Nevertheless, inflationary tendencies have become very pronounced over the past eighteen months. As they impinge most strongly on wage goods, urban dwellers earning only partially indexed incomes, have begun agitating for higher wages and bonuses. During 1988, wages increased by over 25%, bonuses at even higher rates, which may have added more fuel to inflation, introducing a wage push element into the inflationary spiral. The government announced in September 1988, a postponement of price reforms until such time as macroeconomic stability has been attained.

Framework for Future Policy Actions

10. As was indicated above, a planned economy in which resources are tautly stretched is in danger of entering an inflationary spiral as it attempts to move towards a market oriented system. Chinese reforms, while amply delivering on the promise of growth, have run afoul of inflation because the direction of change has begun to drift away from the objectives. Productivity increase that would diminish the strain on the economy's resource base is materializing slowly because price adjustments, national market integration and the creation of competitive environment in which relatively autonomous firms behave as responsible economic actors, are behind schedule. Investment spending has raced too far ahead, aggravating demand pressures and the severity of energy as well as transport bottlenecks. The authorities at the central as well as the provincial levels have been too ready to accommodate capital spending through credit expansion, thereby injecting an excess of liquidity into the system. Thus growth since the mid eighties may have been too rapid; it is investment led; consumer goods industries, marketing and services have not absorbed the resources they required (in 1988, light industry did expand faster than the heavy manufacturing sector by a small margin); and the decentralized financial network was overly generous (under political prodding) in responding to the demands for credit from enterprises.

11. A history of industrialization under socialist planning points to structural features that pose adjustment problems as enterprises are exposed to the market. Among the most important are (i) the status and authority of enterprise managers; (ii) accumulation of human capital within firms; (iii) the current obligations of enterprises to their employees and their eventual displacement by new contractual relations; and (iv) issues pertaining to enterprise ownership which affect autonomy, as well as the nature of budget constraints. Until these problems have been resolved, market discipline may remain somewhat ineffectual; the economy would be susceptible to macroeconomic instability; and gains in productive efficiency may accrue slowly.

12. Heading China's policy agenda are two items: one is to curb inflationary pressures running rampant through the economy, in as short a time as possible with the minimum sacrifice of growth and without resorting to a panoply of new controls. Second, the country needs to safeguard its long run prospects of modernization. It must avoid stop-go cycles precipitated by future bouts of inflation that could sour expectations and sap growth momentum.

13. The solution to both of these must be sought through macroeconomic policies juxtaposed with long-run development plans for the production sectors. Unless the intense investment hunger can be blunted and provinces induced to adhere to common development goals, the demand for credit will remain strong as will the political pressure on banks to grant credit even if it means violating ceilings. At the same time, the central government's fiscal strategy can be tailored to contain aggregate demand pressures, while monetary and interest rate policies can do their share in controlling the growth of liquidity.

Control of Inflation in the Short-run

14. Inflation imposes a number of costs: those on fixed incomes find that their economic circumstances are impaired; further, the efficiency of market signals for allocating resources is lowered. This is of critical importance in China's case. Curbing inflation is a prerequisite to the success of price reforms.

15. Causes. Inflation is a complex phenomenon, and supply and demand factors are closely interlinked. Nevertheless, it is possible to trace the process in China to a few main factors:

- Urban reforms in 1984/85 increased enterprise autonomy with respect to spending decisions, and enlarged their share of resources by permitting profit retention and enlarging access to a less constrained banking system;

- Monetary growth that is related to the restructuring of the financial sector in 1984. This entailed loss of monetary control, as it took time for the PBC to disengage from its commercial banking activities. The announcement that future central bank lending would be calibrated with levels reached in 1984 prompted specialized banks to substantially expand lending to enterprises;

- The low cost of funds and soft budget constraints induced enterprises to borrow without restraint for investment purposes. The investment ratio climbed to almost 39% of GDP and a pattern of spending and of financing was established that has proven difficult to break.

- Since early 1988, demand pull pressures have been joined by cost push, as enterprises have exploited their newly gained independence to the fullest by granting workers lavish increases in wages, bonuses and payments in kind.

16. Macroeconomic Strengths. China, unlike many other countries confronted with spiralling prices, can restore stability without a significant sacrifice of growth. There are a number of reasons why the current difficulties should not deter the authorities from tackling the reform issues that have been temporarily deferred by inflationary pressures. First, with growth in GDP exceeding 11% during 1988, demand management for the purposes of inflation control need not be overly constrained by the threat of stagnation or the fear that the economy might lose its forward momentum. Investment could safely be scaled down so as to take the edge off demand pressures. It is when inflation is combined with low rates of growth that stabilization policy becomes a difficult exercise.

17. Second, the economy is at a point of resource equilibrium which makes it possible to use trade policy more aggressively for the purposes of stabilization. In other words, the pressure on domestic resources can be eased somewhat, by increasing imports or moderating the export drive. This can be done without China encountering external financing difficulties which have hamstrung other countries who are forced to stabilize in the face of debt servicing constraints. China has access to a cushion of resources that can facilitate the task of restoring stability.

18. Third, an extended period of price stability and public fear of economic chaos have instilled attitudes that would powerfully support attempts at curbing inflation. Any determined government efforts to contain inflation are likely to be backed by the expectations of wage earners and producers for whom price movements during recent months must appear to be an aberration. The buying spree that erupted during the third quarter of 1988 quickly came to an end once the authorities made it clear that they intended to bring inflation under control through the coordinated use of monetary, interest rate and expenditure policies.

19. Fourth, China possesses an extensive apparatus for monitoring prices, wages and the spending decisions of most industrial units. Decentralization might have dispersed the powers of monitoring and control but the apparatus to ensure that changes in prices and wages conform to certain guidelines remains in existence. Many market economies that have sought to escape from an inflationary spiral have relied on short-term price and wage ceilings. But enforcement has always posed major problems. In China, the means of applying such policies are far better developed, and can still be used effectively. A rigid indexation of wages to the consumer price index that seriously complicates stabilization in some of the Latin American economies, is also absent in China. Payments made to workers to compensate for the rising costs of living are subject to government discretion and are not automatic.

20. Fifth, what is true of prices and wages is also true of a wide range of investment decisions. While enterprises now have greater discretion on spending matters, the larger firms that do the bulk of capital construction and upgrading investment are closely supervised by ministries, industrial bureaus and corporations. Once again, the capacity to regulate investment spending for the purposes of demand reduction, in a highly discriminating fashion, is far in advance of other countries.

21. Finally, there is abundant slack in the urban labor market as well as product markets. In countries experiencing high growth, where the rates of unemployment decline to extremely low levels, this tends to introduce significant cost push pressures into the inflation process. From the evidence at hand, it is difficult to infer that the wages and bonuses paid by Chinese enterprises are being driven by labor scarcities, although it is undoubtedly the case that certain skills are in short supply. It is widely reported that industrial capacity is underutilized because of energy and transport constraints. To the extent that these can be eased, supplies of consumer and other goods can be augmented substantially without much additional investment.

22. Policy Actions. In its efforts at stabilizing the economy, the government can use a number of instruments:

- The most powerful means at the government's disposal even under conditions of economic decentralization is administrative controls over enterprise investment. However, these must be used sparingly, as a drastic reimposition of checks on enterprise decisionmaking could undo much of the good achieved by the reforms. The postponement or elimination of projects must also be done with an eye to the immediate benefits in terms of reduced aggregate demand, but as far as possible these must be balanced against the

longer run implications for industrial development. The government's intention of cutting state investment by 50 billion yuan in 1989 (assuming that it affects the flow) could have substantial deflationary effects and must be carefully implemented so as to strike the optimal tradeoff between inflation and growth.

- The decision by the monetary authorities in the third and fourth quarters of 1988 to restrict lending by the People's Bank of China (PBC) to the specialized banks; to curtail and closely monitor the extension of temporary credit by the branches of the PBC; and to require a monthly accounting by the PBC's branch network, thereby ensuring stricter adherence to targets, should facilitate demand management if these measures can be enforced for a sufficient period of time. As the free reserves of the specialized banks have fallen to relatively low levels, slippages that blunted the efficacy of monetary actions in the recent past can be avoided. The increase in lending and deposit rates in October 1988 and again in January 1989 can, on the margin, be expected to moderate spending behavior of enterprises as well as households. If current levels of inflation persist, a further slowing of the growth in base money and an adjustment of interest rates may be required, although the effects on production will have to be carefully weighed.

- A strong push for exports, by diminishing domestic supplies of premium consumer durables and certain food items, may have worsened inflation. A tightening of the access to imports over the past years might also have produced similar results. Inflationary trends could be dampened by the active use of trade policy. Increased imports of selected goods that are most subject to price pressures, would be a useful adjunct to stabilization policy. Import controls were relaxed in the last quarter of 1988 to ease shortages of intermediate products and raw materials resulting from a higher than anticipated expansion of the economy.

- Announcements by the authorities during June 1988 that some increase in prices - possibly double digit rates of inflation - may have to be tolerated while relative prices were being adjusted, induced people to try and convert depreciating money balances into goods, thereby worsening inflationary pressures in the third quarter of 1988. Workers began also to demand and receive larger wage hikes to offset the rising cost of living. Once, the government reaffirmed its commitment to price stability and increased rates on savings deposit, the flight from money was reversed although wage demands remain strong. Over the period 1988 to mid-1989, real incomes of the industrial workforce have been rising faster than productivity. For the purposes of short-term stabilization, firmer wage guidelines from supervisory departments and a more determined effort at collecting taxes on excess bonuses, are desirable.

- Although budgetary deficits have stimulated demand and the public sector deficit reached 2.5% of GNP in 1988, their effects over the period since 1985 have been relatively minor. As borrowing from the PBC has been entirely displaced by bond placements with the specialized banks in 1988, the inflationary potential has been lessened. A narrowing of the deficit in 1989 is likely as capital spending and inflation (which influences government expenditures) fall but a start at introducing medium-term measures to strengthen revenue elasticity, should be high on the macroeconomic agenda.

23. Deflation must be measured out in small doses. The rate of growth in demand needs slowing but a firm policy consistently applied rather than a sharp contraction is the approach best calculated to avoid a succession of stop-go cycles and prepare the ground for continued reform.

Long-Term Strategy

24. Industrial Policies. The share of industry in GDP is higher than in most countries and a manufacturing base has been established in even the poorest provinces, but industrialization has evolved with little attention to regional comparative advantage; interindustry linkages are sparse; the transport network is inadequate; subsectoral concentration ratios are generally low; most enterprises operate on a modest scale, often with obsolete technology; and interregional competition is fairly weak. These factors combine to depress productivity.

25. A series of steps are needed to set industrial development on an appropriate path. Efficient allocation of industrial resources requires the following:

- A coordination of provincial investment plans to avoid duplication and a geographical deployment of industry with reference to evolving comparative advantage. The formulation of the 8th Five Year Plan offers the central government a fine opportunity to articulate industrial policies that reinforce market integration. As long as each province pursues its own narrow self interest, resources will be wasted, investment will remain too high and gains in efficiency will be slow to materialize.

- Market competition must be increased, by lowering administrative entry barriers to new producers; by stimulating interprovincial trade; and by permitting greater competition from imports. Creating a national market in which goods flow freely, calls for legislative action to remove impediments to interprovincial trade; investment in transport and in marketing infrastructure; and the emergence of large firms that operate on an economy-wide scale.

- The close links which still bind most collective and state enterprises to industrial bureaus and ministries need to be weakened and ultimately severed. Enterprises should not only be given real autonomy but also shoulder the responsibility that is part and parcel of market freedom. The risk of failure must be real and a part of the costs must be borne by owners as well as employees. This requires a rethinking of ownership conditions.

- Rational enterprise behavior and efficient resource use require a strengthening of enterprise management, a substantial upgrading of technical skills and flexibility in using labor resources as well as in defining the structure of compensation.

26. Alongside these, a national industrial strategy must tackle a number of related matters that will help secure growth, efficiency and technological dynamism.

- Industrial progress is likely to be dependent on the pull exerted by a few leading sectors. These must be identified and supported through financial, fiscal, trade and education policies, so that they realize their technological potential and spread linkages throughout the economy.

- In many subsectors, mergers and consolidations driven by market forces, should bring into existence a core of large dynamic firms that can fully utilize scale and scope economies.

- Markets, competition and efficiency all depend on the rationality of the price mechanism. Without selective price adjustments in some areas and a widening role for free market prices, investments may be misdirected and productivity gains could remain elusive. An important next step might be in the area of energy and transport prices. Energy is in short supply and is still used wastefully. This imposes tremendous costs. Not only does much industrial capacity lie idle because of insufficient electricity, but also the demand for coal monopolizes much of China's limited rail transport facilities, crowding out the interprovincial transfer of other goods. Meanwhile, the tariff structure for the different transport modes discourages the use of water and road transport. Adjusting energy and transport prices would lead to a significant advance in efficiency. It would cut down investment in energy intensive projects, increase capacity utilization and make it possible to use the transport system to strengthen trade links between provinces.

- Sizable gains could be had from a removal of barriers to the circulation of capital, labor and market information throughout the economy. Financial flows have commenced but intrafirm labor movement is limited and much information still moves along vertical ministerial channels. Reforms in these areas must be included in the industrial strategy.

27. Industrial actions require an appropriate macroeconomic environment in order to be successful. As recent experience has shown, an expansionary monetary policy, and an overly rapid deterioration in central government revenues interacted with the reform effort to release the forces of inflation. Careful management of effective demand will always be important but it is especially critical during the transitional phase of reforms.

28. While industry will remain the leading sector over the foreseeable future, agriculture will need continuing attention so that the country can satisfy its changing requirements for food and industrial raw materials in most part from domestic sources. Neglect of rural infrastructure and soil productivity has influenced grain production. For a variety of reasons, farmers have also been unable to respond fully to the demand of increasingly affluent urban consumers for meat, vegetables and fruit. The potential exists to meet the government's targets for the mid 1990s, but aside from investment in irrigation and water conservancy, farmers might need firmer assurances regarding leasehold rights, stronger price incentives and more by way of technological assistance.

29. Fiscal Policy. For the purposes of short-term stabilization, fiscal policy is a less flexible tool than either administrative controls or monetary policy, because considerable planning, negotiation and institutional changes must precede large cuts in government spending or the raising of appreciable amounts of additional revenue.

30. Over the longer term, fiscal strategy should have the following aims:

- develop a tax system that satisfies the canons of simplicity, efficiency, equity, and revenue elasticity.

- a sustained effort should be made to trim subsidies in conjunction with reforms of prices and the industrial sector.

- Although caution is required in viewing tax effort (i.e. the ratio of tax revenues to GDP) in normative terms, China is still respectably placed compared to other countries. But there has been slippage in recent years, in part because tax contracts negotiated with provinces and enterprises were not indexed in anticipation of rising inflation. This trend needs to be reversed. A gradual move to a consumption based, high-rated VAT would ease some of the revenue constraints. It would be an appropriate step for a country of China's level of development; and it would be in line with trends elsewhere in the world. Both the maintenance of revenue elasticity as well as the effective conduct of fiscal policy requires a strong apparatus at the center for planning and monitoring the government's efforts at raising revenue. The resources at the disposal of the recently created State Administrative for Taxation are not yet adequate to the task and will need to be augmented.

- Simplicity is a worthy objective but difficult to achieve. Countries with a few taxes usually have impenetrable tax laws that provide endless opportunity for legal conflict, evasion and tax bargaining. However, China's tailored contract responsibility arrangements, by injecting myriad variations does render the system somewhat opaque and it is this aspect of taxation that should be replaced by a system of rules, commonly employed in other countries once the recently negotiated contracts mature in 1990-91.

- Since 1986, the shift to tax contracting with its low marginal tax rates provides enterprises with the maximum incentive for profitable expansion. Unfortunately, it also promotes evasion by enterprises and concealment by the provinces who are suspicious of the central government's intentions. It will require some ingenuity to develop a better system, which is also simple, so long as the current pattern of relationships continues to prevail. The Government's plan should be to evolve cooperative arrangements with the provinces that will make possible a coordinated fiscal strategy, develop the administrative machinery needed to raise the level of fiscal centralization, and subject revenue sharing to the discipline of uniform and binding rules.

31. Monetary Policy. Fluctuations in the growth of the money supply that have been observed in the eighties can be destabilizing and in the future, demand management might aim to avoid such shocks. Improving the coordination between monetary and fiscal policies would certainly be

helpful. A closer monitoring of likely developments in the real sector could also make it possible to defuse crises before they become too serious. The research on links between money and prices conducted in the industrial economies suggests that the relationship is variable. Further, recent experience in China suggests that a tightening of the money supply depresses production in the state sector after a short lag. A fixed rule for monetary expansion is not an answer to problems of stability whether in the short or in the medium run. During the next few years, when new institutions will be emerging and financial market ties proliferating, the PBC should conduct a stable monetary policy tailored to the rapidly unfolding developments in real and financial sectors.

32. Rather than attempting to employ interest rates for the purposes of short-term demand reduction, the government might aim instead for a step-by-step increase in the level of lending rates. Within a 2-3 year period it should be possible, with the minimum of disruption, to institute a rate structure and a system of interest management that allows the monetary authorities to use interest costs as a flexible tool for controlling demand. The manipulation of the money supply (through open market operations or repurchase agreements) would exert a more powerful influence on aggregate demand nationwide if mechanisms for transmitting the effects of PBC policies were better developed. China has made a beginning with an interbank market but interbank transactions are still at a very early stage. Similarly, financial markets exist on a provincial, or at best, a regional scale with the minimum of interlinkages. For these reasons monetary policies initiated by the central authorities have uneven consequences and may influence demand with uncertain lags. Integrating financial markets and deepening interbank linkages could add to the forcefulness of monetary measures and over the medium term, diminish the reliance on direct credit controls. An efficiently functioning interbank market would, in addition, provide the PBC with information on pressures in the financial system and if it contains provisions for issuing bills, create another avenue for open market operations.

33. The PBC could be extended a measure of formal autonomy as regards budgeting, audit and appointments, but it is doubtful that these alone will give the agency a more meaningful role in the sphere of stabilization policy. The PBC can acquire an independent voice when government agencies at all levels, financial entities and enterprises realize the costs of inflation and look towards the PBC to present their case. There are several major distributional issues to be resolved before that stage will be reached. Until then, the expedients proposed by the central government of appointing PBC branch managers directly drawing on personnel that do not belong to the particular province; and closer monitoring by the headquarters, should be implemented with the greatest possible speed and vigor.

34. A program for stabilizing prices during the course of 1989, using administrative and monetary instruments alongside price controls, has been defined. Once it takes effect, the government could push ahead with the reforms related to macromanagement, enterprises and the price system, so as to assure steady growth and defuse the threat of recurrent stop-go cycles.

I. Macroeconomic Overview

1.1 The active pursuit of economic reforms began ten years ago.^{1/} It started on a modest scale in the poorer areas of Anhui, Sichuan and Guangdong with the piecemeal dissolution of collective agriculture.^{2/} By the mid-eighties virtually all agricultural production, including deliveries to the State, were contracted to households farming parcels of land on leases of 15 years or more. Communes, brigades and teams that had organized farm activity in minute detail so as to meet plan targets were reconstituted as local (township and village) government units having only indirect responsibility for economic activities. Rural markets, absent for decades, reappeared with official blessing, permitting peasants to trade their surpluses of meat and vegetables. As rural purchasing power rose, farmers began using their new freedom to diversify into light manufacturing. Local authorities quickly realized that industry promised employment and revenues so after some hesitation, they gave such activities their unstinting support. Between 1978 and 1986 agriculture grew by nearly 8% p.a., validating the leadership's faith in management through quasi-markets and preparing the ground for industrial reforms.

1.2 Following experimentation with enterprise autonomy in the early eighties, the enterprise responsibility system was formally introduced in 1984 and China took a decisive step on its journey from central planning to an eclectic, market oriented, socialist commodity economy. Then, in 1986, China switched to the contract management system, and contracting has penetrated deep into the urban economy which is now trying to master the institutional complexity of markets and a multi-tier pricing system. Meanwhile, the state is learning to manipulate the indirect levers with which this hybrid system must be run. This is a difficult period, fraught with considerable risk. Other East European countries have walked this tightrope: attempting to achieve market discipline while holding on to certain vestiges of planning and socialism. Hungary, after a successful start fell afoul of resource imbalance and slow growth. Yugoslavia is still struggling to cope with the macro-economics of self-management even as a steepening inflationary spiral complicates macroeconomic policy. How quickly China completes the transition to a mixed economy that will deliver on the promise of the four modernizations program depends on the skill with which the authorities stabilize an overheating economy and direct future industrialization.

^{1/} The Chinese objective is to become an economic power of the first rank by the year 2000 through the modernization of industry, agriculture defense and science and technology. The strategy is often referred to as the "four modernizations," an idea first broached by Zhou Enlai in 1975 which became the touchstone of government efforts after 1978.

^{2/} Agrarian Radicalism in China, 1968-81, by D. Zweig, Harvard University Press, 1989, pp. 169-70; and "The Household Responsibility System in China's Agricultural Reform," by Justin Yifu Lin, Economic Development and Cultural Change, Vol. 36, No. 3, April 1988 supplement. On the merits of individual over collective farming, see, The Political Economy of Collective Farms, by P. Nolan, Westview, 1988.

1.3 This chapter first sketches the political economy of the reform program and against this backdrop provides an overview of macroeconomic developments in the eighties, giving special attention to the 1987-88 period. Price trends and demand management using monetary and incomes policies are examined in Chapter II. The role of fiscal policy as regards resource mobilization and macro-stability is the subject of Chapter III. Factors influencing investment behavior are explored in Chapter IV. This chapter also treats the dynamics of saving performance and the likely persistence of high savings into the future. The final chapter of Volume I discusses the state of agriculture and industry; analyses constraints on growth; and considers the prospects for further gains in efficiency through price and other reforms. Chapter V serves as a bridge to Volume II of the report that is concerned with industrial change and the integration of the national market.

Political Economy of Reform

1.4 Armed with hindsight it is easy to see why a major shift was required in the running of the Chinese economy. Central planning in such a large country was always problematic and the Cultural Revolution rendered it more difficult. It grievously damaged the machinery of government. The organizational integrity of both the bureaucracy and the Party were compromised. Although administrative decentralization had been practiced during the years of the Great Leap and was under discussion once again in 1964, the decade stretching from the mid sixties to the mid seventies witnessed a significant fragmentation of administrative authority, with the provinces gaining at the expense of the center. Statistical work ground to a complete halt for three years starting in 1966. Staff were disbanded, material burned and the activity of accurate reporting cast into disrepute. It took time to recover from these wounds. Starved of factual information, economic control from Beijing moved into the realm of qualitative guidelines with provincial authorities taking over the detailed, routine managerial tasks.^{3/}

1.5 External and internal developments intervened to strengthen the forces of change. After the mid seventies, the need for a garrison state to deter foreign military aggression was far less acute. China could begin concentrating on purely economic goals. It could limit the growth of military expenditures and devote more funds to consumption (see Chapter III). Industrial dispersion geared to defensive purposes and transport investments driven by military exigencies could all be subjected to economic rationality and the imperatives of market integration.

^{3/} A slow rehabilitation of the statistics gathering apparatus commenced in the early seventies. But as recently as 1981, the State Statistical Bureau had a staff of just 193 professionals. China's Political Economy, by C. Riskin, Oxford University Press, 1987, Chs. 6 and 7 and p. 282. See also China: Socialist Economic Development, World Bank, 1985, Vol I, The Statistical System. A Statistics Law was passed in 1983 calling for the creation of an independent nationwide statistics gathering network and establishing guidelines to safeguard the accuracy of the data collected. By the end of 1987 government statistical units at the county level or above employed a staff of 54,000. The slow spread of computers has meant that over half of the county bureaus lack a microcomputer, although city, provincial and central offices have at least one.

1.6 While the external as well as domestic circumstances noted above were conducive to reform, it is the belief that Chinese socialism can escape poverty only through pragmatic search for results that has animated the four modernizations program. Socialist theory is being reinterpreted in order to cut new paths for practical experimentation leading to market centered development. The dictum being followed is "Take one step and take one look." In short, make progress but with due care.4/

1.7 A major economic reform is shaped by political contingency. Given China's past history, change is occurring in a charged political environment and it is impossible to comprehend the policy formulation process or the tentativeness of actions taken to date without a sense of the basic political parameters. To drastically change economic direction, strong political coalitions are needed. To win a broad base of political support with the minimum of economic disruption, the Center tacitly approved the testing of the household responsibility system in a few provinces and then formally adopted it in 1978. Greater freedom and higher prices brought prosperity to the rural economy and created a national sentiment favoring the reform effort.

1.8 In post-Cultural Revolution China much power had percolated into the hands of provincial authorities. Beijing could propose but it was up to provincial administration to dispose. Winning province-level support for continuing change thus entailed a further transfer of power.5/ Influence over fiscal resources and investment funds was the most tangible inducement for provincial backing and it has greased the wheels of reform since the mid eighties (see Chapter III). Aside from cementing alliances, this move drained crucial influence from the bureaucracy with a deeply vested interest in centralized management,6/ and is paving the way for a transformation of the

4/ "China after the 13th Congress," S.R. Schram, China Quarterly, No. 114, June 1977, pp. 180-3.

5/ "Assault on the Reforms: Conservative criticism of political and economic liberalization in China, 1985/86," L.R. Sullivan, China Quarterly, No. 114, June 1988. The forces behind the cycles of centralization and decentralization observed in China over the past century are ably analyzed in "The post-Mao reforms in historical perspective", by P.A. Cohen, Journal of Asian Studies, Vol. 47, No. 3, August 1988.

6/ The Hungarian economist Janos Kornai maintains that the progress of reform in socialist countries depends on the willingness of the bureaucracy to refrain from interfering with the workings of the economy. Parallel developments to those in China occurred in the Soviet Union from the mid to the late fifties. There was a steady devolution of responsibility from the center to the republics and an increase in the latter's budgetary share. See Outside Moscow, by Donna Bahry, Columbia University Press, 1987; pp. 26-27, 51. Gorbachev's strategy has also entailed giving the local authorities a greater say on expenditures and combining this with selective appointments to win political support for reforms. Opening up the Soviet Economy, by Jerry H. Hough, Brookings, 1988, pp. 30-31.

bureaucracy into a professional civil service.^{7/} Furthermore, the political weight of the large and enthusiastic rural populace and more independent provincial leaders enabled the reform minded leadership to divert resources long monopolized by the military into economic sectors (see Chapter III).

1.9 Decentralization of economic authority wins provincial political adherence and creates multiple foci of initiative, but it stores problems for the future. As in Yugoslavia, the transfer of economic authority to enterprises has become lodged in provincial bureaucracies, which are emerging crypto-states within the Chinese polity.^{8/} Their fiscal gains give them independence even as they constrain the Center's fiscal options. Monetary as well as industrial policy is increasingly in their grasp, forcing the central government to negotiate interminably for the sake of coordinated industrialization, reflecting nationwide comparative advantages. Mounting investment pressures and the upward march of inflation have signalled the onset of fierce competition for resources between provinces over which the center can exercise only ultimate and draconian checks. All obvious solutions, within a socialist economic context, lead back to bureaucratic centralization--fiscal, monetary, industrial and of course political.^{9/} These the reformers find unpalatable. To thwart expectations so recently sharpened could destroy morale and dissipate the gains made. Yet decentralism that is not brought under the roof of a new economic consensus and a framework of rules could precipitate disequilibrium and industrial stasis. Markets, the price mechanism and the autonomy of economic units would all be thoroughly discredited. These tensions cannot be defused by Beijing alone. However, a point has now been reached when enough participants have a stake in the unfolding of reforms for China to achieve growth with stability, if the government takes the initiative in defining a macro-industrial strategy that is convincing as well as interregionally equitable.

Growth and its Sources: 1978-88

1.10 An industrial and infrastructure base developed during the pre-reform period served as a springboard for the era of high growth that commenced in 1977. At first, rural reform provided the impetus. Except for 1980, when weather conditions curtailed production, agriculture with a one third share of GNP led the economy, accounting for between 40% and 60% of GDP growth during

^{7/} Currently all levels of the government employ 4.2 million people of which one half million work for the central and provincial administrations. Plans call for a civil service system to be introduced at the central and provincial levels by 1992, extending to all other levels by the end of the century.

^{8/} Communism and Development by R. Bidelux, Methuen, 1985, pp. 177-188.

^{9/} Reformers have to resist the strong tendency to seek a cure for the stresses experienced during the transition to a mixed economy, by reasserting central controls. A dialogue between Kenneth Galbraith and Stanislav Menshikov on the Soviet Union under Gorbachev highlights this tendency. Capitalism, Communism and Coexistence, by J.K. Galbraith and S. Menshikov, Houghton Mifflin, 1988.

1979-82. A bumper grain harvest of 407 million tons in 1984, a year during which rural output rose by 12.3%, conclusively underlined the success of agricultural reforms and helped shift the focus of policymakers towards industry. Although the primary sector far exceeded expectations, strains were already evident elsewhere in the economy. Warehousing, transport, milling and marketing facilities could not accommodate the avalanche of grain, a part of which went to waste. Nor could the country's consumer industries satisfy the surge in demand for goods from the increasingly affluent rural inhabitants. This was reflected both in the retail price index that rose by 9% in 1985 and in the insatiable appetite for imports, liberalized so as to absorb demand pressures.

1.11 The mid-eighties marked a watershed in the reform drive. A new phase commenced; new goals were adopted; and the economy was faced with a fresh configuration of constraints. Industry, which for two years had been pulling ahead of agriculture, was firmly established as the leading sector in terms of both size and future potential. By allowing enterprises to retain a much larger share of profits; by enlarging their latitude in the disposition of resources; and by introducing contracting into the field of industry, the government unequivocally committed itself to the immense task of industrial reform. It relinquished direct control over a substantial volume of resources. Government revenues that had amounted to 34% of GNP in 1978 declined to 20% of GNP by 1988 (Chapter III). Industrial growth was also supported by a relatively liberal expansion of credit which accommodated investment demand. Between 1984 and 1988, broad money grew at an average rate of over 27% p.a. which has worsened inflationary pressures, a point analyzed in Chapter II.

1.12 An acceleration of growth, which began in 1982, continued through 1988. The GDP grew at an average of slightly over 8% during 1978-83. It expanded by over 11% p.a. in the period 1984-88. A quarter of the growth in 1983 stemmed from agriculture, only 14% in 1987. Thus, the period since the mid-eighties shows the waning effects of agriculture reforms, exceptionally strong performance from industry--especially the township and village enterprises--which provided much of the growth momentum (50% in 1983, 93% in 1987) and a slackening of the service sector (Table 1.1). The expansion of services is not fully captured by Chinese national income statistics. 10/

10/ An assessment of China's national income accounts using the 1985 industrial census and physical data on agricultural output reveals a high degree of internal consistency. Two problems remain. The use of overlapping price indices for 1952, 1957, 1970 and 1980 to construct a constant price index for industrial output, exaggerates the increase in production--a LasPeyres type bias, also known as the "Gerschenkron effect." The exclusive use of the 1980 index would yield superior results. While this procedure imparts an upward bias to GDP growth, the incomplete statistics on the expanding services sector--which includes transportation, construction and commerce--understates the true rate of growth. Whether the two are self cancelling is difficult to determine. It is also possible that the capital deflators lend an upward bias to the share of investment in GDP. Problems posed by price weights, deflators and index number biases in centrally planned economies are analyzed in, Dollar GNPs of the U.S.S.R. and Eastern Europe, by Paul Marer, Johns Hopkins Press, 1985, pp. 166-9.

Agricultural production rose by an average of 3.8% p.a. between 1985 and 1987, with a gradual recovery in grain output to 404 million tons, very close to the 1984 peak. Inclement weather during 1988 resulted in losses of grain, pushing the total harvested down to 394 million tons. However, the robust performance of other farming subsectors helped sustain growth estimated to be close to 3.5%. After expanding by nearly 22% in 1985, stabilization policies slowed the increase of industrial output in the following year. Growth rebounded to 16.5% in 1987 and rose to 20.7% in 1988 with light industry leading heavy industry by a small margin. Sub-sectoral growth rates in 1988 showed wide dispersion. Transport equipment, machine tools and certain consumer items such as TVs, washing machines and bicycles did extremely well. Other industries, dependent on supplies of scarce raw material such as cotton, wool, coal and iron ore performed poorly by comparison. Cloth, silk, pig iron, steel and fertilizer registered fairly low rates of increase. Overall GNP growth in 1988 was 11.4%.

Table 1.1: SECTORAL AND DEMAND LINKED SOURCES OF GROWTH 1980-88

	1980	1981	1982	1983	1984	1985	1986	1987	1988/ ^a
GDP growth rate	6.60	4.91	8.80	10.20	14.50	12.70	7.90	9.40	11.2
Agriculture	-1.71	6.40	11.10	7.90	12.30	3.40	3.40	4.70	3.2
Industry	12.26	2.28	7.80	11.20	16.30	21.70	11.40	16.50	20.7
Services, etc.	8.19	8.85	7.45	11.66	13.89	6.35	5.44	-3.42/ ^b	-9.2/ ^b
Contribution to GDP growth in percent									
Agriculture	-9.02	41.71	40.98	25.70	27.68	8.53	12.58	14.01	
Industry	84.59	22.27	41.45	50.87	52.55	81.14	74.00	92.93	
Services	24.44	36.02	17.57	23.43	19.89	10.33	13.42	-8.93	
Total	100	100	100	100	100	100	100	100	
Contribution to GDP growth in percent									
Total consumption	95.49	75.36	36.92	67.45	43.22	18.39	25.52	10.67	
Gross domestic investment	6.02	-10.90	57.34	43.06	63.16	105.84	42.74	67.04	
Exports of goods & NFS	17.29	24.17	1.13	6.98	6.04	18.78	11.54	14.15	
Imports of goods & NFS	-18.80	11.37	4.60	-17.49	-12.41	-43.01	20.20	8.15	
Total	100	100	100	100	100	100	100	100	

^a Preliminary estimates.

^b As indicated in Footnote 10, the estimates for service sector are biased downwards quite severely. Hence, the contribution to growth may not be fully captured.

Source: Staff estimates.

1.13 Once reforms had taken hold in the late seventies, gains in consumption spearheaded the growth of GDP. Total consumption rose by 7.5% over the six year period from 1978-1983. But by 1984 investment had once again regained its place as the principal source of demand. Consumption increased by a mere 3.5% p.a. in 1985-86. In 1987 it grew by less than 2%. Essentially much of the quickening in growth from the mid-eighties was achieved by "extensive" means, that is, through greater capital accumulation. This trend is also captured by the ratios of investment and saving to GDP (Table 1.2). Consumption as a percentage of GDP hovered around 70% through most of the seventies. In 1978, it had dropped to 66%. Thereafter, it rose once again to 70% by 1981 before declining to 69% during 1982-83. A four year slide brought the consumption ratio to its lowest point in over two decades. In other words, China's ratio of savings to GDP in 1987 was nearly 38% and the highest it had ever achieved. Preliminary estimates for 1988 suggest a flattening of the trends. Real consumption rose by 10% which is less than the expansion of GDP but a considerable departure from the performance of the past three years. Investment grew by about 15-16% so that the savings investment balance slipped slightly into negative with savings equal to 36.0% of GDP and investment amounting to 39%, the gap equivalent to about 1.0% of GDP being financed through foreign capital inflow. The savings and investment ratios must be treated with some caution. The spread of the underground economy means that the denominator is being underestimated. Second, enterprises are prone to misclassify consumption items as investment. And the price deflators used give an upward bias to the estimates of investment.

Table 1.2: SAVINGS AND INVESTMENT, 1978-88
(percent of GDP)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Savings as percent of GDP	35.5	33.7	30.9	29.5	31.1	31.0	32.9	34.5	35.9	37.6	36.5
Investment as percent of GDP	36.2	35.0	32.2	29.2	29.1	29.6	32.2	38.8	38.8	37.6	39.0
Reliance on foreign savings	0.6	1.3	1.4	-0.3	-1.9	-1.4	-0.7	4.3	2.9	0.0	-0.5

Source: World Bank and IMF staff estimates.

1.14 A glance at the resource balances over the past twenty years indicates that national savings equalled domestic investment in all but a few years. During 1979-80 a combination of falling saving rates and somewhat above trend levels of capital spending resulted in current account deficits of a little over 1% of GDP. A much larger deficit equal to 4.3% of GDP appeared in 1985 because of the tremendous leap in investment that followed on the heels of industrial liberalization. The resource gap was halved in 1986 by compressing consumption and more or less eliminated in 1987 by taking the ratio of consumption to GDP down another two percentage points. A small resource deficit reappeared in 1988 as investment continued to bound ahead and there was a marked spurt in consumption.

1.15 The aggregates suggest that the second phase of the reforms, beginning in 1984, primarily affected industrial investment. Because savings lagged there appeared an imbalance which was removed by tackling the growth in consumption. A closer look at savings behavior indicates that adjustment efforts have weighed most heavily on households (see Chapter IV, Table 4.7). Put in a somewhat different way, the balancing of resource demand with domestic supplies is the outcome of a continuing upward trend in household savings. These rose from 10% of GDP in 1983 to over 17% of GDP in 1987. Enterprise savings reached 16% of GDP by 1987 from 15% in 1983. Superior enterprise performance mirrored a deterioration in budgetary savings as profit retention by firms reduced the government's revenue take, and current expenditures climbed primarily as a result of mounting subsidies. As a share of GDP, revenues dropped from 28% in 1983 to 23% in 1987. They fell to 19% of GDP in 1988.

Inflation

1.16 In tautly run, shortage ridden, planned economies, the urge to invest on the part of enterprises is very strong. Cheap capital and soft budget constraints only sharpen the appetite to accumulate. Reform has given Chinese firms more command over resources and loosened the grip of bureaucratic controls on their activities, without significantly increasing accountability for losses, or the cost of capital or even the discipline exerted by market competition. Moreover, decentralization has generated a race to industrialize between the provinces, each of which is trying to gain a larger share of resources. Investment has soared in state, collective and township enterprises alike. It seems almost impervious to directives from the state or taxes on construction and it acts to reinforce expansive policies in a range of producer goods industries.^{11/} During 1988, the central government was able to exercise a degree of restraint on those segments of capital spending by state enterprises that drew upon budgetary resources, but it failed to check investment from the enterprises' internal funds or that financed through the banks. As the demand for capital seems once again to be pulling ahead of the supply generated through domestic savings, the administrative restrictions on investment proposed by the government for 1989 (discussed below see para 1.38) may be necessary to ensure that the resource gap does not widen.

1.17 Rapid growth through much of the eighties has begun to destabilize prices. Inflation flared briefly in the late seventies but was soon contained. It reappeared in 1985, when demand pull pressures became especially acute. With slower growth in 1986, inflation abated somewhat but by late 1987, with economic expansion pushing beyond 10% p.a., prices began to spiral upwards (Table 1.3). The retail price index which had registered an increase of 6% in 1986 rose by 18.5% in 1988, while the inflation in market prices went from 8% to nearly 35%.

^{11/} The prevalence of investment hunger in East Europe and its causes are discussed in "The Hungarian Reform Process: visions, hopes and reality," by Janos Kornai, Journal of Economic Literature, Vol. 24, December, 1986; "The Dilemmas of A Socialist Economy: The Hungarian Experience," J. Kornai Cambridge Journal of Economics, Vol. 6, 1980; Modern Soviet Economic Performance, T. Buck and J. Cole, Blackwell 1987, Chs. 3 and 4.

Table 1.3: MEASURES OF INFLATION

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988/ <u>a</u>
Retail prices	2.0	6.0	2.4	1.9	1.5	2.8	8.8	6.0	7.3	18.5
Market prices	-4.5	2.0	6.6	3.5	4.1	0.3	16.9	7.7	15.8	28.7
Construction costs	8.7	8.8	13.0	5.8	12.2	13.3	9.6	12.7	16.9	-
GNP deflator	4.0	3.5	1.9	0.1	1.3	5.0	9.0	4.7	6.4	-

a preliminary estimates

Source: Statistical Yearbook 1988, p.692, p.700 and p.624, for 1979-1987; and China Statistics Monthly, p.81 from The University of Illinois for 1988.

Note: Construction costs do not include land costs, demolition and removal expenses, and investment in outdoor supplementary projects.

1.18 Investment was the major contributor to aggregate spending during 1985-7. It was supported by an expansionary monetary policy which accommodated the capital expenditures of enterprises. Broad money increased by 41% in 1984 and, after a slowdown in 1985, it averaged over 27.0% p.a. growth in 1986-8. This pace was maintained through the first half of 1988. There was some slowing in the third quarter but the financing of the harvest stimulated money demand in the final quarter of the year and induced the People's Bank of China (PBC) to increase the supply of funds.

1.19 The share of construction in fixed investment is about two thirds and this is one of the sectors that has felt the full brunt of investment spending. Shortages of construction materials and skills have become steadily more acute and led to a worsening of inflationary pressures. Construction costs rose by 13% p.a. between 1983-87, well ahead of the retail price index and somewhat in excess of the market price index as well (Table 1.3). Needless to say they accelerated sharply in 1988.

1.20 Over the past eighteen months the trickle down of growth into higher earnings has spurred consumer spending on foodstuffs and, more recently, certain durables. Changing expectations regarding price trends and the view expressed by senior officials in June 1988 that China might have to tolerate inflation while price reforms were being implemented, induced people to modify their spending pattern. Because the supply of quality food items such as vegetables, fruit and meat was slow to respond, food prices climbed steeply during the second and third quarters of 1988. A weak integration of the national market which interferes with the distribution of pork and vegetables exacerbated local shortages (Chapter VIII). And poor grain harvests added to price pressures as it had in 1980 and 1985.

1.21 Although the forces of demand pull abetted by monetary actions and shifting expectations are the major culprits, price movements are also linked to the removal of controls on a wide range of prices and a partial restructuring of relative prices. Where once the vast majority of prices were set by central or local agencies, they are now determined either by the market or through bilateral negotiations between enterprises and price bureaus. Thus, possibly one half of the increase in prices through 1987 could be ascribed to adjustments in relative prices and the balance to pure inflation (see Chapter II, para. 2.18). A higher proportion of price changes in 1988--possibly two thirds--are purely inflationary but precise calculations are difficult. Suffice to say that a lifting of price controls has had a hand in the inflationary process by permitting relative price movements; by enabling producers to take advantage of the sellers market; and by engendering expectations of inflation that have strongly influenced wage demands and spending patterns in 1988-9.

1.22 Accelerating inflation during 1987-8 has resulted in a backwash of distributional effects that are arousing discontent among vocal segments of the urban populace, especially those on fixed salaries such as state employees and teachers. A point may have been reached when the pain inflicted by rising costs of living begins to obscure other gains from reform. Any system of prices will perform the work of allocation most efficiently if it is broadly stable (i.e. inflation is maintained at single digit rates)--"it is allowed to acquire to some degree the sanction of custom [and] not at frequent intervals being torn up by the roots".^{12/} The immediate objective of the government's macroeconomic strategy must be to dampen inflation without a sharp reduction in the growth rate. Some moderating of the pace of economic expansion is an essential element of a stabilization strategy as the current rate of growth is straining the country's resource base. But growth in the 7%-8% p.a. range is needed to sustain support for further reforms; satisfy employment goals; and to stimulate productivity which is vital from the standpoint of both price stability and future development.

Employment

1.23 Reform and demographic forces are opening fissures in the labor market long accustomed to full employment through administrative fiat. In parts of the country the switch to rural household contracting has uncovered a reservoir of disguised unemployment estimated in the tens of millions. Similarly, many urban enterprises that are becoming more profit conscious and beginning to exercise their autonomy are also anxious to reduce overstaffing. Statistics released by the authorities indicate that some 30 million out of an urban labor force totalling 133 million in 1988 could be classified as having

^{12/} The Crisis in Keynesian Economics, by J. Hicks, Blackwell, 1974, p. 79. Price reform is of vital importance in China and can promote factor productivity. However, ascending rates of inflation could easily become a major macroeconomic roadblock as well as a political liability.

low or zero marginal productivity. They are carried on the books at an annual cost of 60 billion yuan.^{13/} The losses from discipline, weakened motivation and chronic organizational slack could be as large. Most workers are allocated to enterprises by local labor bureaus. Neither party as yet has such choice in the matter and appointment still virtually assures tenure the so-called "iron rice bowl". Firms sometimes find overmanning an asset because production peaks are easier to accommodate and requests from city authorities for assistance can be met with minimal disruption. The negative side of the ledger is far more imposing. Enterprises are weighed down by the direct wage costs of employment and the indirect costs of providing housing and services. The problem of x-inefficiency in a slack work environment is a separate burden that inevitably drags down the quality of effort and labor productivity.

1.24 Contract employment is the Chinese approach to maintaining discipline while introducing flexibility into the urban labor market. In the long run, alongside complementary changes in education, social welfare, access to housing and labor laws, it might well transform labor relations and productivity. However, initial results have been less than satisfactory. Capital intensive enterprises using skilled labor are unwilling to hire expensively trained employees. They are skeptical over hiring on contract and when they do are likely to place entrants in long-term, de facto, tenured jobs. Other enterprises find that contracted workers are suitable for some assignments only. Segregation as well as invidious comparisons between benefits enjoyed by those feeding from the iron bowl and those on 3 to 5 year contracts, damage worker solidarity.^{14/}

1.25 Aside from the army of underemployed who need to be provided with more productive jobs, the ranks of the unemployed in the cities have swelled to some 15 million. With inter and intra-provincial migration becoming more common, the urban areas are also attracting a "floating" population in search of work now, believed to number 50 million nationwide. Demographic trends are adding an additional twist to the employment problem. The proportion of Chinese of working age i.e. 15-64 years is expanding. It rose from 61.5% in 1982 to 65.7% in 1987. More women from the rural areas have begun competing for jobs in the cities.

1.26 If the rigorous application of the Bankruptcy Law is extended beyond Shenyang, where trials started in 1988, urban unemployment could become more serious. As social security institutions are still at a very early stage of development, the threat of redundancies is arousing understandable apprehension. Inflation only makes matters worse. Labor unrest, relatively uncommon in China so far, was reported during 1988 and there were scattered strikes to protest threatened layoffs or wage agreements.

^{13/} "Macroeconomic changes in the Chinese Economy During Readjustment" by K.C. Yeh, China Quarterly, No. 100, December 1984, p. 693; and; "So That the Sky Won't Fall Down", Economist, June 18, 1988, pp. 33-34.

^{14/} "The Politics of Economic Reform in Chinese Industry: The Introduction of the Labor Contract System", by G. White, China Quarterly, No. 111, September, 1987; and "The Chinese Work Force," J.P. Horsley, China Business Review, May-June, 1988.

1.27 Under these circumstances, expansion of industry, the spread of township and village enterprises (TVEs) in rural areas and the widening of employment opportunities in the commercial sector, have assumed a greater importance. The Chinese expect that between 80 and 100 million people will have to be absorbed in off-farm employment over the coming decade. The numbers employed in commercial and service jobs which increased by 67% and 21% respectively between 1982 and 1987, will also have to continue rising. All this requires a careful allocation of investment and attention to sectoral strategy so that the maximum amount of employment can be generated through GDP growth of about 8% p.a. without compromising the other goals of modernization.

Productivity

1.28 The need to create employment will have to be paired with the quest for higher productivity which is vital for two reasons: it will lessen the pressure of rapid growth on the economy's resource base, and it helps neutralize rising labor and capital costs.

1.29 The record of productivity improvements in China has been a poor one. Industrial efficiency deteriorated after 1965. Rough estimates based on the inadequate statistics of this period suggest that total factor productivity stagnated until 1977 (see Table 1.4). To maintain growth rates of 5% p.a. the share of investment in GNP had to rise as incremental capital output ratios increased.^{15/} Gross domestic investment as a ratio to GDP was 20.4% in 1969 and 31% in 1975. By squeezing consumption this weakened worker morale and diminished effort, compounding the productivity problem. Industrial efficiency lagged because centrifugal forces released by decentralization encouraged wasteful vertical integration by enterprises attempting to minimize risky dependence on distant suppliers. Inattention to transport and commercial services further compartmentalized the economy into units which had difficulty realizing scale economies. It also hampered efficient multi-plant operations. Without market integration the tight mesh of input-output relations that spawn linkages, promote efficiency and spread gains from one industry to the other, never materialized.

^{15/} See "Soviet Economic Growth: 1928-1985," by Gur Ofer, Journal of Economic Literature, vol. 25, December 1987, for a review of the Russian experience which has many similarities, p. 180.

Table 1.4: SOURCES OF GROWTH ANALYSIS

Analysis I: D. Perkins, Reforming China's Economic System, Journal of Economic Literature, Vol. 26, No. 2, June 1988

Period	Growth rate of Material Product	Capital Stock	Contributions Labor Force	Productivity
1953-57	6.61	0.84	1.67	4.10
1957-65	2.09	1.87	1.63	-1.41
1965-76	5.11	2.81	1.68	0.62
1976-85	8.78	3.30	1.69	3.79

Analysis II: Financing Asian Development, 2; China and India, by R.F. Dernberger and R.S. Eckaus, University Press of America, 1988, p. 65.

Period	Output: National Income	Inputs:		Total Factor Productivity	
		Labor	Fixed Capital	(1)	(2)
1953-57	8.9	2.8	21.7	-5.2	-1.5
1958-62	-3.1	1.7	17.4	-14.2	-11.1
1963-65	14.7	3.4	4.1	10.9	11.0
1966-70	8.3	3.7	5.9	3.3	3.7
1971-75	5.5	2.1	9.3	-0.9	0.5
1976-80	6.0	1.9	8.2	0.3	1.6
1981-84	8.7	3.2	8.3	2.4	3.5
1953-80	6.0	2.5	11.4	-1.8	-0.1

Analysis III: Productivity Change in Chinese Industry, 1953-1985, by K. Chen, et al, University of Pittsburgh, Department of Economics, mimeo, October 21, 1987.

Period		Growth rates			Contributions to output growth	
		Output (1)	Labor (2)	Capital (3)	factor input C-D (4)	productivity C-D (5)
1953-85	A	9.8	5.8	9.6	7.9	1.9
	B	9.8	5.8	9.0	7.5	2.3
1953-57	A	16.7	6.1	16.4	11.6	5.1
	B	16.7	6.3	16.3	11.4	5.3
1957-78	A	8.8	6.8	9.9	8.4	0.4
	B	8.8	6.7	9.3	8.0	0.8
1978-85	A	8.6	2.5	4.8	3.8	4.8
	B	8.6	2.5	4.0	3.4	5.2

Note: See Box 1 for description of methodologies.

Box 1.1: PRODUCTIVITY GROWTH IN CHINA

Sources of growth calculations decompose output growth into additions to the capital stock, additions to labor used, and increase in total factor productivity. Additions to capital and labor are weighted by their production elasticity, (which is obtained by estimating aggregate production functions), and added to obtain output growth arising from an increase in inputs (extensive growth). Total factor productivity (intensive growth) is calculated as the residual between this and total output growth. For the estimate to be meaningful, output, capital and labor have all to be measured in real terms, that is in constant or comparable prices.

Traditional analysis of total factor productivity in China has found declines over a period from the 1950s to the late 1970s, indicating suboptimal use of resources over this period. Dernberger's analysis, takes Chinese data at face value. He measures output by national income in constant prices, and labor by labor force statistics. The measure of capital stock begins in 1952, adding investment in current prices in subsequent years, and assuming annual depreciation of 5%. Capital labor ratios are assumed as 60:40 (Case 1) and 40:60 (Case 2).

The weaknesses of this approach are data related: (i) capital is not measured in constant prices, which overstates capital inputs; (ii) capital and labor statistics include "unproductive" activities like housing; and (iii) most output in comparable prices is calculated in 1950s prices, which tends to overstate total output growth.

Perkins adjusts the data by calculating output in 1980 prices, and by deflating annual investment data to arrive at a constant capital stock series. He assumes a capital-labor ratio of 40:60. With the corrected data, Perkins arrives at positive productivity increases of the Chinese economy, except for the period of 1957-65 which includes the "Great Leap Forward."

Chen et al. calculate increases in total industrial factor productivity for the state sector only. Output figures are not adjusted. The capital stock series used is in constant prices, and is corrected for investment in housing. Likewise, labor force figures are adjusted for "unproductive" work. The capital labor ratio is estimated as 54:46. Chen et al. find significant productivity increases in the Chinese economy for different periods analyzed.

Two main conclusions emerge from these pieces of evidence: (a) productivity increases in the Chinese economy from the 1950s to the late 1970s have been underestimated in the past; and (b) evidence of rapid productivity increases since the inception of the reform program is unequivocal.

1.30 As growth quickened after 1978, so too did the increase in productivity. Estimates in Table 1.4 range from 1.6% p.a. to 5.2% p.a. but they all point towards a substantial shift in trends. Research into the dynamics of factor productivity, suggests that GDP growth within a certain range might be correlated with productivity.

1.31 There may be several reasons behind such a relationship. Learning is closely associated with the volume of output produced and scale economies are more likely to be realized, the more quickly output increases. Enterprises will be spurred to invest in equipment embodying the latest technology and the firms can expect to reap larger gains from research into process and product technology. Rapidly expanding markets present fewer entry barriers to new firms and are likely to be more competitive. As firms attempt to enlarge market shares, competition can be waged by way of prices and through product innovation. All of these factors--learning, scale, newer vintages of capital, more research and fiercer competition--enhance productivity and it stands to reason that faster growth should have positive consequences for factor returns. Research in Europe and the East Asian countries provides qualified support, although productivity benefits most when growth occurs in the competitive environment arising out of export oriented development.^{16/} Tests using Chinese data appear to support the hypothesis, a robust link being apparent over the 1975-86 period (see Table 1.5).

^{16/} This was first noted in the sixties, See, Causes of the Slow Rate of Economic Growth of the U.K., by N. Kaldor, Cambridge University Press, 1966. More recent estimates are presented in "Productivity, Growth and Factor Reallocation," by M. Syrquin, in Industrialization and Growth, ed. H. Chenery. S. Robinson and M. Syrquin, Oxford University Press, 1986, esp. p. 260-1, and "Productivity, Growth and Manufacturing" by M. Nishimizu and S. Robinson, in H. Chenery et. al. eds. op cit. While it is not possible with the scanty Chinese data on total factor productivity to test the hypothesis convincingly, output per unit labor tracks the growth in manufacturing closely from the mid seventies onwards. Each one percent increase in production resulting in a 0.97% rise in labor productivity. The regression equation is $PROD_GR = CONST + p \cdot OUT_GR$. $PROD_GR$ and OUT_GR , are the growth rates of productivity and output, respectively. In a crude approximation, productivity is measured as gross industrial output value over staff and workers. Output is measured as gross industrial output, since longer time series for net industrial output are not available. Time series from 1975 through 1986 were used, and p was estimated by OLS as .97. The coefficient is the same if the model is re-estimated with data from Chen et. al. for the state sector, using TFP instead of labor productivity.

Table 1.5: RELATION BETWEEN OUTPUT AND PRODUCTIVITY GROWTH, 1975-1988

Year	Output	Labor Productivity
1975	15.1	7.4
1976	1.3	-4.2
1977	14.3	8.8
1978	15.9	8.9
1979	8.5	3.4
1980	8.7	3.6
1981	4.1	-0.6
1982	7.7	4.4
1983	10.5	8.3
1984	14.0	10.5
1985	18.0	13.5
1986	8.8	5.0
1987	13.9	10.4
1988	18.0	14.8

Source: Statistical Yearbook 1987, p. 219 and p. 93 for 1975-86; China Statistics Monthly, March 1987 from The University of Illinois, p. 8 for 1987 and 1988 (Statistical Yearbook 1988 does not give gross value of industrial output in 1980 prices for 1987).

Note: See footnote 16 for definitions.

1.32 Excessively high rates of growth have their drawbacks. The longer an economy operates at close to its potential the more likely it is that bottlenecks will appear, the costs of constructing new facilities will increase, gestation periods will lengthen and the least efficient resources will be brought into use. With the persistence of rapid growth, these have become visible in China as they have been for almost two decades in the Soviet Union. Construction costs in the manufacturing sector have increased quite steeply (Table 1.6) and account for a significant part of the outlay on industrial investments. The number of incomplete projects remains large and keeping to schedules is possible in only a few cases enjoying the highest priority (see Chapter IV, Table 4.6).

Table 1.6: PRICE INDEX OF NON-RESIDENTIAL INDUSTRIAL CONSTRUCTION 1970-85

Year	Index
1970	100.0
1978	105.6
1980	119.0
1983	189.7
1984	194.4
1985	208.3

Source: New estimates of fixed investment and capital stock for Chinese State Industry, by K. Chen et.al. China Quarterly, No. 114, June 1988.

1.33 Unlike countries that are well within the technological frontier and derive major benefits in productivity from investment in new, technologically, advanced equipment, China remains at a disadvantage. As in other socialist countries, neglect of commercial technology and an emphasis on maximizing output slowed innovation and discouraged the incorporation of new knowledge into the making of producer goods. Except in a few selected areas, China's factories are still producing machinery and products several generations behind those offered by the western countries. The Japanese approach of steady incremental refinements and technological upgrading has been conspicuously absent (see Chapter IX). With imports of equipment constrained by the limited availability of foreign exchange and relatively conservative borrowing practices, the huge volume of investment that drives China's growth, is being poured into capital goods of an elderly vintage. No doubt the average age of capital stock is being lowered but the bonus, in terms of productivity, is in no way commensurate with either the technological gap or the scale of spending.

1.34 Rigidities that interfere with the diffusion of technology and crimp the innovative urge are one reason behind the technological lag. China has also failed to derive the most out of the industrial drive because of a chronic shortage of skills. Inadequate funding of vocational institutes and on-the-job training has been one constraint on supply, but the nation also continues to suffer from the neglect of technical education during the Cultural Revolution. Workers are discouraged from seeking new skills because wages depend on seniority. In most instances there is no premium on technical qualifications.17/

1.35 The number of places at secondary vocational schools will grow from 4.4 million in 1986 to 7.8 million in 1990.18/ More funding is being provided for in-service training, but the stock of human capital improves slowly through the interactive process of training, experience, incentives and opportunity. With supplies of seasoned human capital limited, it is difficult to use physical capital to its fullest or to move process technology up by a notch, all of which would feed into factor productivity.

17/ "Analysis of wages and hours payments among Tianjin urban workers," by Hu Tehuei, Li Ming and Shi Shuzhong, China Quarterly, No. 113, 1988; and "A Social Contract," Far Eastern Economic Review, May 12, 1988.

18/ "China's Vocational and Technical Training," by H. Noah and J. Middleton, World Bank, PPR Working Paper No. 18, June 1988. Two threats to expansion in the supply of technical skills are (i) a shrinking supply of teachers who are being lured by higher pay to manufacturing enterprises; and (ii) a likely cut back in funding for vocational schools by the state. See "The Technical Education Challenge," by T. Henze, The China Business Review, Jul-Aug 1988; The great importance of technical skills is underlined by the achievements of the German manufacturing industry, which, hand in hand with the state, operates a unique nationwide training system. "A Success Story Called Training," Financial Times, August 25, 1988.

1.36 A final link between growth and productivity travels through the composition of investment. Manufacturing registers the largest immediate gains. The benefits from housing may be spread over a longer period. China's strategy until the late seventies paralleled that of other East Asian countries, all of which attached priority to industry in the earlier stages of development and have only now begun to raise housing standards. Following a statement by Deng Xiaoping who recommended a 8.5 sq meter per capita target for 1990, construction became an instant growth industry not the least because it provided households with one of the few outlets for their accumulated savings. The share of housing in national income rose from 6.4% in 1981 to 7.9% in 1987, but declined as a percentage of fixed asset investment from 31% in 1981 to 24% in 1987 (Table 1.7).^{19/} Investment in housing has risen faster than GDP, but less than investment in fixed assets. Living space per capita went from 3.6 sq meters in 1978 to 6.36 sq meters in 1987 and 50% of the entire urban housing is of post 1980 vintage.

Table 1.7: INVESTMENT IN HOUSING
(in %)

	1981	1982	1983	1984	1985	1986	1987
Housing as % of GDP	6.4%	7.1%	7.4%	6.9%	7.7%	7.7%	7.9%
Housing as % of fixed asset Investment	30.8%	29.0%	29.1%	25.4%	25.2%	24.1%	23.9%

Source: Statistical Yearbook of China, 1988, p. 493.

Better living conditions motivate workers and being able to invest in housing has encouraged rural savings. Its net effect on productivity is somewhat ambiguous but it certainly could not have raised the average (but see footnote 2 in Chapter IV).

Foreign Trade

1.37 Among the East Asian NICs, growth and improvements in productivity are associated with the expansion of trade. Trade extends several opportunities: larger markets, more competition, a solution to the scarcity of fertilizer and a means of closing the gap in foodstuffs. Within the limits of export opportunity and prudent external borrowing, it could serve as a handmaiden to growth and a means of promoting price stability. The strategy currently favored by China is oriented more towards the first objective than the second, but impressive strides have been made towards the opening of the economy.

1.38 Trade liberalization in 1984 triggered a rush to imports doubling China's expenditure on the purchase of foreign merchandise from \$20.7 billion in 1983 to \$40.7 billion in 1985. As exports rose just 20%, the result was an unacceptably large trade deficit of \$12.6 billion. To narrow this gap, the government mobilized trade policy as well as the considerable administrative

^{19/} Many observers believe that the national accounts underestimate expenditures on housing.

machinery at its disposal. In July 1986, the renminbi was devalued to US\$1 = 3.72. This raised the domestic prices of exports sold on an agency basis and allowed Foreign Trade Corporations (FTCs) to increase the volume of their purchase as well as pass along price incentives to their suppliers. For both independent sellers and FTCs, the changed relative price heightened the profitability of exporting, while the greater independence enjoyed by enterprises after 1984 encouraged the more adventurous among collectives and TVEs to seek overseas markets. The central government reinforced the effects of devaluation by supporting the export drive with more generous subsidies. In 1986, it took the further step of creating local foreign exchange adjustment centers (FEACs) in a few cities that brought into existence a decentralized market for foreign exchange. These centers had more or less absorbed the black market for foreign exchange by late 1987.^{20/} Depending on the local trading situation, exporters could sell foreign exchange at rates ranging from \$1 = 4.7 Yuan to 5.7 Yuan in the latter part of 1987, rising to over \$1 = 8.0 Yuan in mid-1989.

1.39 Administrative pressure, state subsidy, tax rebates to exporters and market determined, multiple exchange rates were supplemented by a number of other measures all aimed at promoting exports. Responsibility for managing trade was transferred to the provincial authorities and trading corporations.^{21/} With each province the Center also negotiated retention rights over the foreign exchange earned. As the fate of many projects rests on imported goods, local authorities acquired a deep interest in the opportunities for trade and have been ready to extend fiscal support to enterprises with export potential. Finally, the "open door policy" has continued attracting foreign capital into processing industries that are required to seek export possibilities in exchange for the incentives they receive. About a quarter of China's exports are now comprised of textiles, garments, consumer electronics and foodstuffs. A significant proportion is manufactured by firms in Guangdong and Fujian that owe their existence to the "open door". Petroleum, once China's largest earner of foreign exchange has declined in importance as both prices and volumes have been falling. In 1987, the country exported about 100,000 barrels/day--worth \$3.5 billion.

1.40 The power of these actions was sufficient to raise exports from \$27.4 billion in 1985 to \$39.7 billion in 1987 (Table 1.9). Rapidly increasing exports and stagnating imports contributed 28% of the GDP growth in 1986 and close to a fifth in 1987 (see Table 1.1). Because imports rose faster than the exports in 1988 (28% as against 24%) the contribution of trade has fallen. Export gains must be balanced by reduced domestic absorption. In fact, savings increased significantly during 1986-87 (see Chapter IV). Higher relative prices of exportables and diminished availability was an important factor restraining consumption. As the Chinese consumer has gained in sophistication, demand has shifted towards better quality clothing, bicycles

^{20/} Enterprises engaged in overseas trade can retain up to 20% of the foreign exchange earned and sell it to buyers at the FEACs. About 13% of all Foreign transactions are now conducted through the FEACs, which were established in November 1986. "The Exchange Rate Dilemma," by T. Chan, China Trade Report, August, 1988, p. 4.

^{21/} "Changing the Foreign Trade System," by M.C. Ross, China Business Review, May-June, 1988.

and other household durables. Frequently, buyers will defer purchases rather than acquire lower quality items that will wear out or require frequent servicing. Similarly, the foodstuffs desired by prospering households are meat, fruit and vegetables and not cereals already consumed to an excess. Exports have made deep inroads into the supplies of these premium items and pushed up prices. The manufacturers of Forever and Phoenix bicycles in Shanghai are exporting to the U.S. having mastered the production of derailleurs and cable brakes. Tianjin bicycle factories are also turning outwards. Quality clothing has been diverted to the foreign market. Exports of poultry, vegetables and fruit rose steeply between 1985 and 1987 (See Table 1.8). Overseas sales of meat and vegetables remained strong in the first nine months of 1988, rising by 13% and 17% respectively.

Table 1.8: EXPORTS OF SELECTED FOOD ITEMS

Commodity	Volume Units	1984 Volume	1985 Volume	1986 Volume	1987 Volume	Average Growth Rate 1984-1987
Poultry	million heads	23.9	34.5	42.4	41.1	19.5
Pork	ton	99,596	111,061	104,670	99,984	0.1
Eggs	million	1,093	1,018	1,063	1,109	0.5
Vegetables	ton	521,508	512,008	644,018	641,823	7.1
Sugar	ton	52,208	184,025	266,474	452,494	103.9
Canned food	ton	402,885	389,874	445,117	536,981	10.0
of which						
canned pork	ton	86,960	98,589	88,664	93,757	2.5
canned vegs.	ton	242,446	233,768	278,134	329,865	10.7
Aquatic products	ton	124,016	119,595	166,756	216,210	20.7
Cereals	million ton	3.19	9.33	9.42	7.37	32.2

Source: Statistical Yearbook 1988, p. 649 for 1986 and 1987 and 1986 p. 487 for 1984 and 1985.

1.41 There are other explanations for saving rates and inflation in recent years but trade policy has definitely had an influence under the prevailing conditions of very tight supplies and high income elasticities of demand for the very products for which there are overseas buyers.

Table 1.9: MERCHANDISE EXPORTS OF COMMODITIES FROM CHINA

	1984	1985	1986	1987	1988
Total Exports (FOB) (US\$ billion)	26.1	27.4	30.9	39.4	47.5
of which:					
% shares					
Yarn, fabrics, manufactured goods etc.	11.83	11.86	13.64	14.68	13.58
Petroleum, petroleum products, etc.	21.81	24.78	10.42	10.14	7.09
Seafood, oil seeds, animal and vegetable raw materials, meat	6.53	5.91	6.59	6.49	6.23
Clothing and garments	10.15	7.50	9.41	9.51	-
Textile fibers, etc.	3.55	4.19	3.75	3.82	3.52
Vegetables and fruits	3.17	3.02	3.52	3.27	3.52
Metal products	1.82	1.56	1.79	2.02	2.12

Source: Statistical Yearbook 1988 p. 644 for 1986 and 1987; 1986 p. 483 for 1984 and 1985.

Table 1.10: IMPORTS OF COMMODITIES TO CHINA

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Total Imports (CIF) (US\$ billion)	27.4	42.3	42.9	43.2	55.3
Of which:					
% shares					
Special industry machinery	7.73	11.98	16.89	11.52	8.32
Iron and steel	15.91	16.85	15.71	11.08	9.37
Yarn, fabrics, manufactured goods, etc	3.48	3.80	3.80	4.28	4.32
General industrial machinery, parts	1.53	2.50	2.97	4.03	3.86
Cereal and cereal preparations	6.28	2.30	2.29	3.91	3.36
Power machinery, electric appliances	2.16	3.14	2.74	3.69	4.17
Manufactured fertilizer	6.08	3.58	1.66	3.24	4.23
Artificial resin, plastic and rubber	4.19	3.40	3.06	3.89	6.44
Telecom equipment	4.13	5.97	3.24	3.40	3.30
Land vehicles	4.19	7.57	4.92	3.01	2.70
Non-ferrous metals	4.10	3.90	2.45	1.70	1.59

Source: Statistical Yearbook 1988, p. 645 for 1986 and 1987; 1988 p. 484 for 1984 and 1985.

1.42 By inducing Chinese firms to venture into competitive foreign markets the promotion of exports is leading to advances in quality and productivity. They are also a source of growth. Imports sharpen competition locally. More critically they can remove some of the bottlenecks that impede the growth of supplies. While the role of trade is indubitable, the questions that must be answered have to do with the effect of trade on price stability, the phasing of expansion in trade, and the scope for increasing exports. Very probably, exports of consumer items such as bicycles, textiles, clothing and machinery do not raise the retail price index by much although they may worsen the atmosphere of scarcity. Their positive benefits probably outweigh these costs. Large sales of meat, vegetables, aquatic products and fruit, whose prices have been decontrolled, may, on the other hand, have serious albeit localized inflationary consequences.

1.43 Imports rose with the liberalization of the trade regime in 1984, from \$27.4 bn to \$42.3 bn in 1985. A deliberate policy of stemming the import tide, using macro-policies as well as deploying administrative means like licensing stabilized total imports through 1987 but there was a 28% increase in the dollar value of imports in 1988 as the authorities attempted to ease critical supply bottlenecks. The structure of imports has continued to change. Imports of raw materials, e.g. iron and steel, fertilizer and rubber have declined (see Table 1.18), while the share of specialized equipment has risen from 15.5% in 1984 to 22.7% in 1987. As China moves towards containing investment and credit growth in order to reduce inflationary pressure, consumption demand can be expected to increase. With it, demand for income-elastic items, e.g. foodstuffs and consumer durables, is bound to add some

inflationary pressures as the production structure will change only gradually. Part of the difficulties emanating from changing demand structures could be neutralized by a gradual liberalization of the import regime. For example, the pattern of inflation would suggest that during certain seasons, China might well import meat, vegetables, aquatic products or fruit in parts of the country where spot scarcities seem imminent.22/

1.44 Continuing emphasis on exports of light manufactures would be rational policy. Incentives for exporting foodstuffs in certain categories could be counter-productive. Further, a great surge in exports, as occurred during 1986-88 is bound to be disruptive domestically and doubly so in a socialist economy with a history of shortages and strong latent demand pressures. As other East Asian countries have learned, export surges in narrow product categories that transfer the burden of unemployment and adjustment onto the western countries are difficult for even the vast industrial economies to absorb and are certain to invite retaliation. The recent Multi-Fiber Agreement mirrors these concerns and poisons the trading atmosphere. A gradual build-up a wider range of exports might be more prudent. The policy towards imports should attempt to maximize debottlenecking and technology transfer apart from spurring competition in selected industries. Managed importing along East Asian lines rather than across-the-board liberalization may be necessary for at least the coming several years.

1.45 China is well positioned with regard to policy and labor resources to enlarge its share of the world market for processed manufactures and consumer electronics. Grinding machine tools and lathes are already sizeable export items. Technological improvements and an eye to quality could help in capturing broad markets for simpler machines and tools. Overseas sales of electronics have increased from \$16 million in 1978 to \$228 million in 1986, with the SEZs supplying one fourth. About 25% are components e.g. capacitors and potentiometers. The remainder includes items such as TVs, cassette players and radios. China's exports of high technology items, once limited to products connected with agriculture, have now widened to embrace chemicals, machinery and electronics worth \$200 million in 1988, produced by over a 100 firms. A recent and important entry in this category, is software with sales of \$10 million. There remains considerable export potential still to be exploited once the lack of industrial specialization, inadequate quality control, and poor marketing arrangements have been remedied.

1.46 Export development during recent years has been characterized by three major trends: (a) a rapid increase in the share of manufactures in total exports; (b) a significant diversification of exports; and (c) impressive gains in earnings from tourism. Manufactures as a group (SITC groups 5-8) have risen from 50% of total exports in 1979 to 69% in 1988, at the same time that oil exports have fallen from 26% to 11.5%. Thus, manufactures have replaced lost oil exports, both in value terms, and as share

22/ Indifferent harvests in 1988 induced the Chinese to raise imports of grain and sugar.

of the total. Strong growth was exhibited by textiles and garments, with the former increasing by 77% during 1986-87, and the latter by 81%. This compares to an average growth of exports by 15.6% between 1983 and 1987.^{23/} Weakening demand for cotton garments especially in the U.S. market affected the export of these items in 1988, but sales of clothing made from synthetic materials remained strong. China's 400 carpet manufacturers registered excellent results in the first half of 1988 with earnings of \$137 million, a 60% increase over 1987. Exports of machine tools and metal products also did exceedingly well and for the year as a whole export volume grew by over 23%. Earnings from tourism have performed as well as merchandise exports, climbing from \$4.9 billion in 1986 to \$5.4 billion in 1987. Large increases have also been reported during 1988. In dollar terms, exports grew by 21% in 1988, but as the increase in imports was even steeper the trade deficit, widened from \$1.66 billion in 1987 to \$5.7 billion in 1988.

1.47 Export growth has been helped by real depreciation. Over the last decade China's real effective exchange rate (REER) has depreciated significantly--by as much as 100% according to some measures. While inflation differentials have played a role, major devaluations of the nominal exchange rate and the link with the dollar have contributed as much to this development. Table 1.11 shows real effective exchange rate indices based on consumer and wholesale price inflation of trading partners. Measures for domestic inflation are the retail price index, market prices, and unit construction costs. All indices show a significant real depreciation, though to varying degrees through 1987. Worsening inflation and some strengthening of the dollar during the second and third quarters of 1988 resulted in an appreciation of the REER.

1.48 Real depreciation over the past two years has been matched by the rising market price for foreign exchange. While foreign exchange markets in China are not well developed, this could, nevertheless, signal that real depreciation has been slower than warranted by market forces. The implications of "market forces" must be treated with some circumspection where many prices are administered. The under-pricing of raw materials like steel and rubber artificially increases the demand for these products beyond domestic production capacity. As a result, the inducement to import puts pressure on the exchange rate, and leads to additional exchange rate premiums that would disappear if price distortions were eliminated. It is hard to estimate how important this factor is, but it could be substantial.

^{23/} The commodities not classified elsewhere category has grown rapidly in recent years, and now accounts for no less than 19% of total exports. There are three possible explanations for this phenomenon: (a) a breakdown in customs statistics collection with the liberalization and decentralization of trading arrangements, but with still adequate foreign exchange statistics; (b) growing exports from special economic zones, and other export processing zones, where perhaps detailed trade statistics are not collected; and (c) possibly, growing exports of commodities such as military products, which are not classified elsewhere. Given its magnitude, this sector clearly merits further investigation.

Table 1.11: REAL EFFECTIVE EXCHANGE RATES

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
RMERW										
Retail prices	100.96	108.88	100.00	88.19	83.80	82.88	73.04	63.06	50.24	45.65
Market prices	112.24	108.24	100.00	91.81	88.61	89.87	77.28	71.69	58.03	58.91
Unit Construction Costs	91.86	100.78	100.00	97.32	96.02	104.96	101.95	88.67	75.11	74.85
RMERC										
Retail prices	95.88	100.02	100.00	86.75	81.24	78.56	68.40	57.95	43.76	39.14
Market prices	106.04	104.28	100.00	90.81	85.90	85.19	72.37	65.87	50.55	48.79
Unit Construction Costs	86.31	97.04	100.00	95.78	93.08	99.50	95.48	81.48	65.43	63.74

Source: World Bank economic database

Notes on Real Effective Exchange Rates

RMERW: Real Multilateral ("effective") Exchange Rate, compares wholesale prices of trading partners and China's consumer prices.

$$RMERW = \frac{(NBERS / CPI)}{[\sum (\pi NBERS_j / WPI_j)^{a_j}]}$$

where

- NBERS = Nominal Bilateral Exchange Rate of China per US \$
- CPI = Consumer Price Index for China
- NBERS_j = Nominal Bilateral Exchange Rate of China's trade partners per US\$
- WPI_j = Wholesale Price Indices of China's trade partners
- a_j = Trade Weights (using TOP 10 Trading Partners Exports and Imports averaged over 1984-88).

RMERC: Real Multilateral ("effective") Exchange Rate, compares consumer prices of Trading Partners and China's consumer prices.

$$RMERC = \frac{(NBERS/CPI)}{[\sum (\pi (NBERS_j/CPI_j)^{a_j})]}$$

1.49 Accumulating experience and marketing skills should enable China to increase its penetration of the clothing sectors in the West. The MFA limits the growth in volume to 3%, hence gains in earnings must come from quality and the skill at following fashion. The future of cheap textiles (grey cloth) appears dim. Similarly, rising local demand for petroleum and the trend in production will mean an end to net oil exports by the mid-nineties. Land constraints and the multiplying populace will narrow the scope for food exports, and the market for ethnic goods may be saturated. Farther into the future there are the possibilities for selling a range of sophisticated manufactures, including transport equipment, nurtured in the domestic market. The share of trade in GDP has grown steadily throughout the eighties and the export/GDP ratio exceeded 13% in 1987. If current trends persist, the importance of trade is bound to increase and it could, in due course, become a major factor in all macroeconomic calculations. As it is, the contribution of exports to growth is not insignificant. It is likely that both exports and imports are beginning to affect inflation: with expanding trade, domestic price movements will be more strongly influenced by fluctuations in

international prices. A closer integration of China with the international economic system will make trade and exchange rate policies the equal of other policy instruments currently being deployed to achieve growth with price stability.

External Borrowing

1.50 To what extent can foreign borrowing supplement earnings from exports so as to finance needed imports? Debt crises have hobbled numerous developing countries that borrowed lavishly in the seventies at low real interest rates, sometimes for dubious purposes, and now find the drain of servicing debt at current rates impossible to balance with the desired growth of per capita income. China has been reasonably prudent thus far, in borrowing to finance industrial plans. Developments in the mid-eighties (see above) raised net borrowing from \$1.07 billion in 1984 to \$2.8 billion in 1987 and total debt outstanding climbed from \$12.3 billion to \$30.6 billion over this period (see Table 1.12). These are the official estimates. Creditor data suggests that the amount may be higher with total debt being in the region of \$35 billion. 24/ Between 1985 and 1987 there was a significant improvement in the maturity structure of the external debt with the share of short term borrowing falling from close to half to less than a quarter. Debt servicing at around 10.4% of exports is fairly low and all the debt indicators have been held within safe limits until now by the impressive performance registered by GDP and export growth. Were China to run a current account deficit equivalent to 1%-1.5% of GDP each year until the mid nineties, the debt service ratio would be below 15% in 1995, even at export growth rates of 8.4% p.a. and an import elasticity with respect to GDP of 1.2. Whether net borrowing of US\$3.5 billion in 1990 and of US\$5.0 billion by 1995 would be readily financed through the international market is uncertain, but a continuation of recent trends in growth and exports should smooth the way.

1.51 Currently China is an attractive client especially for Japanese institutions attempting to recycle surplus and smaller South-East Asian banks which are trying to gain a toehold in what might grow into lucrative market. China's access to financial markets has also benefitted from endorsement by the Japanese government and a triple A credit rating awarded by a Japanese rating agency. As a result, Chinese borrowers have been able to raise funds on very favorable terms. Margins could widen unless checks are imposed on the many provincial agencies that have begun seeking funds on the international market. China has eleven authorized entities who borrow in accordance with a foreign exchange plan established by the State Council.25/ They have been joined by provincial ITCs and a host others, each engaged in small ad hoc transactions.

24/ After allowance is made to revaluation of non dollar debt in 1987, and borrowing by provincial entities.

25/ They are the MOF, Bank of China, SITCO, CITIC, CIB, Dalian, Shanghai, Guangdong, Tianjin, BOCOM and PCB. BOC and CITIC account for 80% of the overseas issuance by Chinese borrowers as of December 31, 1987.

1.52 The market views each borrower as an arm of the Chinese government and their behavior as well as financial performance shapes the market perceptions of the PRC creditworthiness. If they have difficulty servicing their loans this could affect spreads. Second, uncoordinated borrowing has its drawbacks. China is unable to exert the power that comes from being one of the largest players in the market; it interferes with a broadening of the investor base; and a liquid secondary market is slow to develop.

1.53 A unified borrowing strategy would remedy the deficiencies of the current approach. It would have other advantages as well. There are scale economies in managing such skill intensive transactions and monitoring of external transactions is simplified. It would also reduce the risk of unrecorded borrowing by local entities, which has the potential of becoming a source of debt servicing difficulties. Such an approach calls for a concentration of borrowing responsibilities in a few agencies that would then feed the demand of smaller units throughout China, through appropriate channels.

1.54 Government directions require that all loans be registered with the State Administration of Exchange Control (SAEC), an arm of the PBC.^{26/} In actual practice, there are lags in reporting and not all transactions are caught in the newly centralized administrative net. So far the SAEC does not have either the expertise or the hardware to closely review the timing, terms and execution of transactions.^{27/} It has made a start at gathering data. The SAEC has conducted surveys in each year since 1985 to tabulate the country's total borrowing. As a result the gap between official and creditor data has narrowed. It has not been reduced to insignificance and this leaves a residual uncertainty abroad regarding the true extent of China's debt. More stringent reporting procedures, greater clarity as to the division of labor between the MOF and the PBC and stricter criteria for determining which agencies can borrow on China's behalf are desirable. Steps are being taken to tighten the system. The sooner all of these are attended to the easier will be the task of macroeconomic management.^{28/}

^{26/} All borrowers are required to register transactions with the SAEC's Law Division within 15 days.

^{27/} See China: An IFR Report, IFR, Issue 738, August 20, 1988.

^{28/} Over a hundred international trust and investment corporations (ITCs) throughout the country are now empowered to act as guarantors to foreign lenders. Prominent ITICs from coastal provinces such as Guangdong are now well known internationally and have floated their own bonds abroad, but the majority arouse concern abroad as they provide little balance sheet information. To allay these worries and centralize borrowing, the government is debating a plan to establish a new supervisory department for National debt management under the MOF with extensive powers granted by the State Council. "Concern grows over Chinese guarantors," Financial Times, April 28, 1988 and "China Plans to establish debt management office," China Daily, May 16, 1988.

1.55 The net demand for foreign exchange was in the region of a few hundred million dollars in 1987 as the current account was approximately in balance. A small deficit equivalent to about 1.0% of GNP or about \$3.5 billion is estimated for 1988. Because borrowing by provincial agencies has far outstripped the demand for foreign exchange signified by the current account, there has been a substantial accumulation of reserves. These rose from \$16.3 billion in 1987 to about \$19 billion in 1988.^{29/} Distribution of foreign exchange and the availability of renminbi loans may be the root cause. Local bodies find it easier at this stage to raise funds overseas than within China. To tackle the first problem the government might consider drawing the newly established Foreign Exchange Adjustment Centers into a nationwide exchange pool, fed as the need arose, from central reserves. A domestic interbank market would greatly alleviate local shortages of credit. If these two markets could be successfully created, enterprises could draw the credit they needed from a domestic bank and buy foreign exchange at the FEAC.

Table 1.12: EXTERNAL BORROWING
(US\$ million at current prices)

Year	1984	1985	1986	1987	1988
MLT Borrowing (net)	1070	4006	4315	3980	3423
Disbursements	2357	5302	6126	5704	5130
Repayments	1287	1297	1810	1774	1707
Total DOD	12083	16722	21939	30227	35943
(including short term)					
Foreign Direct Investment	1258	1658	1875	n.a.	
Portfolio Investment	83	764	1193	n.a.	
Debt ^{1/} /Service Ratio	8.0	8.4	9.4	8.9	-
Debt ^{2/} /GDP Ratio	4.2	5.9	8.1	10.3	9.3

^{1/} Long term debt, excluding IMF, and short term.

^{2/} Debt outstanding and disbursed, including long term, short and IMF.

Macroeconomic Agenda and Actions

1.56 Lowering the inflation rate through demand management is the principal macroeconomic goal for the short-term. Over the longer run, the objective must be to seek a level of GDP growth and an institutional system which makes it easier to maintain price stability but allows for the absorption of the labor force into productive uses. Reforms that improve allocative and x-efficiency would also serve to raise factor productivity that has an important role to play in supporting future progress and will make possible a reduction in the share of national income that is invested. Measures that might raise industrial efficiency are discussed in Volume II of the report. Short term stabilization policy is described briefly below and some aspects of it dealing with inflation, fiscal actions and resource flows analyzed at greater length in Chapters II, III and IV.

^{29/} Aside from official holdings of gold and foreign exchange, close to \$2.5 billion in overseas deposits are being held by various Chinese institutions. Errors and omissions amounting to \$0.8 billion in 1987 must reflect, in part, a continuing outflow that is adding to this stock.

1.57 Since March 1988 the central government had been urging provincial authorities to restrain investment by state enterprises and spending on certain types of construction activities. This had limited effect, especially on extrabudgetary outlay. In October 1988, therefore, the central authorities were forced to take sterner actions in the face of mounting inflationary pressure. These included: (i) A proposed 50 billion yuan reduction in state investment expenditures in 1989, that singles out industries using scarce raw material; certain processing industries; energy intensive subsectors; projects not included in the state plan; and in--essential infrastructure, for example office buildings and city halls.^{30/} From November 1988, the investment cuts were widened to embrace joint ventures. Bottleneck sectors such as energy and agriculture as well as projects that are 70% completed were specifically exempted. Net investment in fixed assets is estimated to have been 420 billion yuan in 1988, a 20% increase over the previous year. Were it to proceed along recent trends, it would rise by nearly 80 billion yuan in 1989. The measures announced--if they are stringently implemented--could result in a growth of less than half that amount. (ii) The intention of moving ahead with price reforms announced in June 1988 has been postponed two years by which time it is expected that the rate of inflation will have fallen below 10%. Some of the price controls dismantled or not tightly enforced in the last few years were restored and steps taken to augment the machinery for monitoring prices. (iii) There was a significant tightening of the money supply in the third quarter of 1988, which brought the growth of M2 down from 28% to 25% on an annualized basis, by way of new reporting procedures. The central monetary authorities also instituted a system designed to supervise the actions of the provincial branches of the PBC on a monthly basis by way of new reporting procedures. As these units had been responsible for the above target increase in the money supply, closer monitoring by People's Bank headquarters constitutes an important element of demand management. Making presidents of PBC branches accountable only to PBC headquarters will also help in this regard. (iv) Interest on three year savings deposits was indexed to the retail price index to reverse the flight from money into goods which caused alarm in July-August 1988. The lending rates were also raised, although the increase was insufficient to offset accelerating inflation. (v) The government exhorted the local authorities to discourage enterprises from raising wages and bonus payments, and began exerting moral suasion through the administrative system on firms in the state sector. (vi) Lastly, some easing of import controls was evident in the latter part of 1988 and it served to enhance the availability of intermedia's products and industrial raw materials in short supply.

1.58 Effectively implemented, these policies could blunt demand pressures over the course of 1989 slowing both the rate of growth and of inflation. How much growth has to be sacrificed for a unit decline in inflation will depend on the degree to which prices are inflexible downwards and the extent to which the authorities are able to constrain the wage spiral by means of incomes policies. Three other factors will also influence the course of growth and the inflation accompanying it. First there is increase in consumption and the

^{30/} At the National Planning and Reform Conference on November 28, 1988, Premier Li Peng stated that an indiscriminate cutdown was inappropriate as it would result in a sharp drop in supplies, but making a cut (Qie Yi Dao) was necessary.

extent to which it counters the slowing of capital spending. As investment has been the driving force since the mid-eighties, such a steep fall could eat deeply into growth unless it is partially offset by consumption. Second, there is the money supply target for the year and the PBC's ability to discipline its provincial branches. Third, the speed with which the inflation of prices and wages is checked will depend on the nationwide enforcement of controls.

1.59 In short, the ingredients for an effective short-term stabilization program are in place. It is now a matter of enforcing them. What the short run efforts should not do is to undermine reforms that are designed to equip the Chinese economy with markets that will help impose competitive discipline on enterprises, provide a mechanism for efficient resource allocation and offer opportunities for experimentation with new forms of ownership. Administrative controls on investment, on money and on prices are not a permanent solution to the problem posed by demand management. They are temporary palliatives. If they are not buttressed by techniques of stabilization that emphasize indirect levers, if crucial price, industrial and financial reforms are pushed farther into the future, there is the danger that the economy will gravitate towards a stop-go cycle on a rising inflationary trend.

II. INFLATION AND ITS CONTROL THROUGH MONETARY AND INCOMES POLICIES

2.1 Although deft political management and a steady pyramiding of economic successes have improved living standards across the board, the Four Modernizations have been frequently challenged by vested interests; they have run the gamut of ideological misgivings; and fears of derailment as the economy departs from the certitudes of central planning have never been entirely dispelled. Since 1987, the perception is spreading that the country's long sustained price stability has fallen prey to the pressures released by growth and the dismantling of controls. Inflation quickly brings to the fore concerns regarding chaos (luan) and those pertaining to distribution, both individual and regional, that still lie below the surface of the current prosperity. Rising real incomes have allayed some of the fears, but inflation strains the fragile politico-economic consensus underlying reform and it dominated the government's agenda since mid-1988.

Reform and Inflation Dynamics

2.2 Some of the reasons behind inflation were touched upon in Chapter I, but there are deeper ones at work that need to be brought into the light. By understanding the forces at work, the means of controlling inflation can be determined. More importantly, it should be possible to see what degree of control is compatible with the unfolding of reform.

2.3 Inflation is caused by the simultaneous interaction of several variables; strands of demand-pull and cost-push can be found intertwined together, but usually from the complex web, it is possible to disentangle one or two of the principal factors that are responsible for spiraling prices. As was indicated in Chapter I, China's reformers had to win over the doubters and neutralize the opposition through immediate and dramatic results. A trend acceleration in growth, minimum dislocation and a wide distribution of benefits were necessary. This explains why agriculture was the arena selected for the first round of reforms, the consistent emphasis on growth and the importance of decentralization that has multiplied the numbers of participants with a stake in the reforms.

2.4 It is clear from the literature on socialist economies, that various forces conspire to generate a powerful demand for investment. When the checks imposed by a central plan are eased, capital expenditures can begin to mushroom, since market discipline and the hard budget constraint require generations of reforms to be truly effective. As long as reform was largely confined to the rural sector, investment was kept within acceptable bounds. Once it embraced the industrial economy, macroeconomic stability was immediately in peril. To bring decentralized economic management and market guidance from the realm of debate into the sphere of reality involved a series of actions:

- (a) profit retention by firms and greater autonomy in spending decisions;
- (b) fiscal decentralization which diverted control over a sizable portion of revenues from the center to the provinces;

- (c) a change in the enterprise wage structure allowing firms more leeway in setting bonuses and allocating their social funds;
- (d) financial liberalization which, in conjunction with reduced budgetary support for enterprise investment, enlarged the banking sector's share of capital financing and allowed banks more independence in their dealings with enterprise clientele. At the same time, the local branches of the PBC were permitted greater discretion in responding to the need for credit;
- (e) the stripping of mandatory controls over a wide range of prices, thereby increasing price flexibility through negotiation and enlarging the market's role in price determination; and
- (f) a removal of some import barriers to stimulate competitiveness and remove domestic resource constraints.

2.5 Major initiatives in each of these areas were taken in 1984/85. Given the objectives of industrial reform, they would seem to be complementary, each contributing critically towards the making of a decentralized mixed economy. The choice of 1984/85 was motivated by the propitious configuration of macroeconomic indicators: savings and investment were in balance; the budget deficit was a meager 1.6% of GNP; the largest ever grain harvest was being gathered in 1984, crowning the success of rural reforms; and inflation was running at 2.8%. All of these proposals had been tested through experiments begun in the early eighties, but introducing them together on a nationwide scale entailed substantial risks. It was the speed of response in those two years that confounded the reformers' calculations and has governed macroeconomic trends and the policy actions taken since.

2.6 Enterprises were informed that 1984 would be treated as a benchmark for a new set of wage and bonus guidelines; and banks were instructed that future lending targets would be calibrated with levels reached in 1984. In the context of loosened controls and greatly sharpened provincial development ambitions, these prompted a dramatic shift in behavior. Enterprises increased wages and bonuses substantially, and diverted most of their retained funds for these purposes, along with capital construction. They borrowed heavily for inventories and, where possible, for expanding capacity. Higher costs were passed on by raising prices, under conditions of extensive collusion.

2.7 Supported by local branches of the PBC, that freely extended temporary credit, and encouraged by local authorities, banks were eager to broaden their links with enterprises. Thus, the investment boom gathered speed in 1984-85. An opening of the external accounts permitted some release and drained inflationary pressures but a weak agricultural performance in 1985 tightened crucial supply bottlenecks. The Chinese economy was subjected to its first serious bout of inflation in over three decades and one that was clearly explicable: investment, but also some consumption, demand-pull led the way as controls were deliberately relaxed; and financing became freely available as a result of a weakening control over monetary aggregates following the decentralization of the financial sector. The incentive structure induced enterprises to raise wages and overheads, triggering the cost-push mechanism; while shortages of agricultural commodities added to market tensions. And, finally, price reform allowed more of these pressures

to surface by way of rising prices. The push administered by investment as well as consumption has sustained growth at a high level and brought about a quickening of inflation. The retail price index rose by 7.3% in 1987, and by 18.5% in 1988. Part A of this chapter describes the pattern of inflation in the eighties. Parts B and C examine the potential of monetary and incomes policies respectively, as regards demand management.

SECTION A

The Pricing System and the Pattern of Inflation

2.8 It is easy to understand why increasing prices have provoked such apprehension. Any country that has experienced hyperinflation harbors lasting memories. For China, the latter part of the forties were especially painful. Prices rose by 300% per month in Shanghai. Controls imposed by the government after October 1949 brought inflation down to an annual average of 15% during 1950-52. Near stability reigned for nearly 25 years thereafter, with the country holding fast to a structure carrying the stamp of the pre-1950 price regime. Relative fixity of prices in general and low charges for most raw materials had three consequences: first, people grew unaccustomed to price movements; second, relative prices became seriously distorted; and third, market-based price-setting mechanisms, embodying the discipline and experience of generations, atrophied.^{1/}

2.9 Once reforms commenced, a partial reordering of prices so as to provide the appropriate signals became inevitable and farm prices were the first to be affected. The ripple effects of these changes plus the encouragement given by the agricultural supply response prompted further price adjustment within and beyond the farming sector.^{2/} By the mid-eighties, there had appeared a three-tier price system comprised of state mandated prices, negotiated prices and market prices. As the state has adopted a lower profile and markets have propagated, a significant number are now the preserve of the market, but the state still has a hand in setting over half of all prices.

2.10 The importance of price reform is widely recognized. Without it, markets will not work to ensure efficiency, and the success of other initiatives would be blunted. Ideally, relative prices should be brought to

^{1/} See, "Inflation Control in the PRC 1949-54," by I. Tsakok, World Development, Vol. 7, 1979; "The Chinese Price System and the Thrust of Reform," by K. Yomanouchi, China Newsletter, No. 60, 1985; and "The Price Problem and Economic Reform," by K. Ishihara, China Newsletter, No. 46, 1986; and "China's Price Reform in the Period of Economic Reform," by T.M.H. Chan, Australian Journal of Chinese Affairs, No. 18, July, 1987.

^{2/} As Terry Sicular notes, "markets place pressure on the state to choose planned prices so that they do not deviate too far from market prices. If the state tries to set a planned price that exceeds the market price, then ... [it] will incur budgetary losses. If state prices are considerably lower than market prices, plan evasion can become a problem." "Plan and Market in China's Agricultural Commerce," by T. Sicular, Journal of Political Economy, Vol. 96, No. 21, April 1988, p. 285.

"optimal" market clearing levels and the entire system left to follow its own volition with the minimum regulatory interference. This should be accomplished quickly and in a largely noninflationary manner. Actual experience has been less kind for four reasons: (i) The Chinese economy is still beset with scarcities and rapid growth over a decade has placed unremitting pressure on the resource base; (ii) A wide range of prices are subject to ratcheting: they do not decline when demand weakens or under the influence of burgeoning productivity.^{3/} Price adjustments acquire an upward bias. (iii) After having been unchanged for several decades, many prices are at a distance from desirable levels. Hence, the magnitude of the price shock inflicted by revisions has significant spread effects and is correspondingly painful. (iv) Finally, relative price changes in the presence of "ratchet effects" has induced an accommodating response from the authorities, which has reinforced the inflationary bias. A much tighter monetary policy might have resulted in a lower rate of price increase. In an economy where prices are relatively inflexible, it would have also entailed a significant sacrifice of growth.^{4/}

2.11 A spurt in prices does not inevitably snowball into hyperinflation. If the authorities were to overreact through a sudden, drastic tightening of fiscal and monetary policies, some recentralizing of decisions and a resumption of price controls, not just the future of reforms but also the pace of growth could be at stake.^{5/} At the same time, the upward march of the inflation rate must be reversed as it will erode the worth of the market mechanism and widen social conflict. A measured response calls for a clear understanding of the quantitative dimensions of price movements and a sense of its inner dynamics. These are treated in the next two sections.

Price Patterns

2.12 The statistical course of inflation can be followed with the help of the general official retail price index, the index of free market prices, and retail price series on individual commodities as well as for traded goods: inflation rates across the country are quite dispersed; and the food and

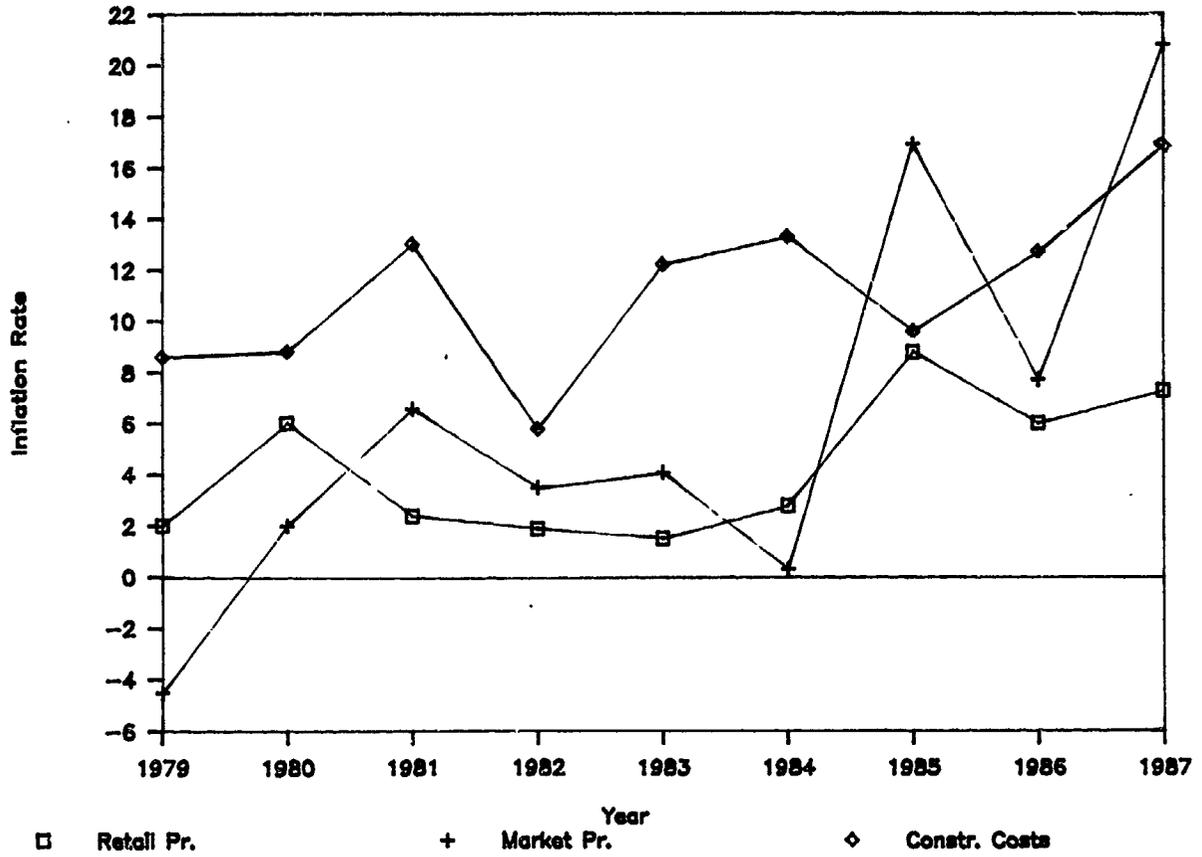
^{3/} Price inertia or the existence of so-called "customer markets" as against rapidly adjusting "auction markets" have been analyzed by A. Okun. He gives special attention to labor markets. See "Upward Mobility in a High-Pressure Economy," by A. Okun, Brookings Papers on Economic Activity, No. 1, 1973; and Prices and Quantities: A Macroeconomic Analysis, by A. Okun, Brookings Institution, 1981.

^{4/} See, Commodity Prices and the New Inflation, by B. P. Bosworth and R.Z. Lawrence, Brookings Institution, 1982, pp 3-17.

^{5/} See, Structuralist Macroeconomics, by L. Taylor, Basic Books, 1983, Ch. 11.

Graph 2.1

Different Measures of Inflation



construction sectors were the most seriously affected. 6/ Market as well as retail price indices for provinces provide a glimpse into the regional course of inflation. From Graph 2.1 and Table 2.1, an inflationary surge can be detected in 1985. A second one began in late 1986 and has continued with increasing vigor into early 1989 (see Table 2.2). Market prices have run

Table 2.1: MEASURES OF INFLATION
(% increase)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Retail prices	2.0	6.0	2.4	1.9	1.5	2.8	8.8	6.0	7.3	18.5
Market prices ^{a/}	-4.5	2.0	6.6	3.5	4.1	0.3	16.9	7.7	15.8	28.7
Construction costs	8.6	8.8	13.8	5.8	12.2	13.3	9.6	12.7	16.9	-

Sources: Statistical Yearbook 1988, p. 692, p. 700 and p. 524, for 1979-1987; and China Statistics Monthly, p. 61 from The University of Illinois for 1988.

^{a/} Refers to prices of items that are traded freely and not subject to any kind of price fixing.

ahead of retail prices as a whole--the cumulative increase between March 1979 and March 1988 being 70% as against 39% for the other index. Both indices display a similar seasonal pattern, with troughs in the first quarter followed by peaks in the third. There is not much divergence between rural and urban inflation rates. Cumulative inflation between 1980 and 1986 was 42% in urban areas, only 8% more than in the rural sector (see Table 2.3). Market prices for individual food items show a wide variation. The cost of edible vegetable oil increased just 14% during 1981-87, that of meat, poultry and eggs by 90% (Table 2.4). When these price movements are correlated with the retail price index, the amplitude of co-movement was greatest for fresh vegetables, followed by aquatic products and fresh fruit. In other words, the prices of these products were the most volatile and subject to the widest swings, both in the upward and the downward direction (see Table 2.4). It would seem that the cause of inflation lies in demand-pull pressures that tend to impinge especially hard on meat, vegetables, aquatic products and fresh fruit. The availability of these items has been growing steadily but their short-run supply response is limited, hence price reactions are exaggerated. So far, causation appears to run from demand-pull rather than cost-push (although this may have begun to change from the second half of 1988) with the food-processing sector exhibiting the forces of changing aggregate demand more strongly than other sectors.

6/ The retail price index is a weighted average of the prices of goods sold through the State's commercial channels and those distributed through the free market. The weight of the latter in the index is about 12-15%. Data for the retail price index is obtained through sample surveys of over 300 commodities sold through 12,400 shops and markets in both urban and rural areas throughout the country. Weights are derived from household income and expenditure surveys. The weight of food is about 50%.

Table 2.2: QUARTERLY MEASURES OF INFLATION

	1986	1987				1988			
	VI	I	II	III	IV	I	II	III	IV
Retail prices	5.5	5.2	7.8	8.1	8.4	10.8	14.6	22.7	26.8
Market prices	6.6	12.4	16.6	17.8	21.1	25.6	22.3	32.7	34.0

Source: Monthly Bulletin, May 1988.

Note: Figures represent percentage increase over same quarter in previous year.

**Table 2.3: NATIONWIDE MEASURES OF PRICE AND WAGE INFLATION
(preceding year = 100)**

	1982	1983	1984	1985	1986
Urban market prices					
National average	103	105	101	119	108
Minimum in % of average	92%	93%	94%	91%	96%
Maximum in % of average	106%	107%	109%	107%	105%
Coefficient of variation	3.76	3.35	3.76	3.58	2.51
Rural market prices					
National average	104	103	101	115	108
Minimum in % of average	93%	94%	92%	92%	96%
Maximum in % of average	106%	106%	107%	110%	107%
Coefficient of variation	3.16	3.10	3.70	4.30	2.45
State sector wages					
National average	104	104	119	112	116
Minimum in % of average	93%	93%	94%	95%	96%
Maximum in % of average	104%	110%	109%	108%	103%
Coefficient of variation	1.80	2.89	4.29	3.50	2.32

Source: State Statistical Yearbook

Note: Statistics are based on panel data from 27 provinces

Table 2.4: MARKET PRICE INDICES BY CATEGORY OF COMMODITY, 1981-87

	1981	1982	1983	1984	1985	1986	1987	1988
General price index	100.0	103.5	107.7	108.0	126.3	136.0	157.5	207.7
Grain	100.0	100.4	97.8	87.5	89.1	107.5	127.0	212.0
Vegetable oil	100.0	93.3	92.0	88.0	95.0	103.4	114.3	166.1
Dried vegetables	100.0	104.5	106.2	101.5	108.3	127.6	145.0	191.1
Fresh vegetables	100.0	102.7	112.6	109.3	132.9	141.9	169.4	190.4
Meat, poultry & eggs	100.0	104.2	107.6	110.3	129.3	137.8	164.5	210.7
Aquatic products	100.0	111.2	125.1	134.7	170.0	181.9	219.7	280.8
Fresh fruit	100.0	102.7	114.2	121.5	157.0	175.5	191.1	300.4

Source: Statistical Yearbook 1983, p.462 for 1982; 1984 p.432 for 1983; 1985 p.535 for 1985; 1987 p.580 for 1986; 1988 p.700 for 1987; and 1988 from China Statistics Monthly 1987 March p.60 of The University of Illinois (1988 data figures are calendar using growth rates between December 1987 and 1988 data).

2.13 Two other price series are relevant. Currency depreciation has nudged the prices of tradeables, especially imports, ahead of retail prices, possibly exerting "contagion effects" and triggering a round of inflationary "demand shifts" to other products. A wave of price increases has also swept through the construction sector (see Graph 2.1 and Chapter I). Unit costs of all types of buildings have soared with factories leading the way, followed by offices and warehouses.

2.14 A first analytical cut using the above price data lends added force to the link between demand pull forces and the supply response from the agriculture sector (Chapter I). Rising earnings have filtered through higher income elasticities for foodstuffs into demand for quality edibles. In some parts of the country, the supply elasticity has been weak and as a result, the amplitude of price fluctuations for food items over the course of the year has mounted. A growth in the share of household expenditures on food from 53% in 1982 to 56% in 1986 suggests that overshooting may be involved. After enduring scarcities for years, families are sufficiently secure in their newly gained prosperity to indulge pent-up appetites. 7/

7/ The anthropologist E.N. Anderson offers this explanation: "Chinese food owes much of its sophistication and elaboration to its uniquely important place in the social scheme of things. . . . in Hong Kong, expenditures on food as a percentage of income rise as people get richer. In all other areas, Engels Law holds: food takes less of the family budget as income increases. The reason is that Hong Kong citizens use food as the great social cement. As in much of the world business deals, marriages and friendly get-togethers involve food; in Hong Kong not only these, but even the most trivial matters are occasions for a feast. The Cantonese are perhaps extreme in this regard." The Food of China, by E.N. Anderson, Yale University Press, 1988, p. 200.

2.15 Investment in manufacturing capacity, infrastructure and urban commercial development, that is such a striking feature of the aggregate series on capital spending, has generated strong cost pressures in the construction sector. Prices of high-quality materials have risen most because these are the ones in demand by urban industries. Housing costs have climbed more slowly in part because much house building is in rural areas where wages are lower, partly also because lesser grades of cement, glass, and iron manufactured by local producers have not been subjected to acute demand pressure, spending on rural infrastructure having tapered off. At the same time many consumer items whose supply is becoming abundant, have escaped the pull of inflation; examples are bicycles (except the premium brands, see Chapter I), clocks, sewing machines, soap,^{8/} cotton cloth, and wristwatches.

2.16 Provincial price statistics provide striking evidence of the dispersion in price indices across the country, and the absence of a pattern. Cumulative price inflation was as little as 13% in rural Shandong during 1981-86; it was only slightly higher--at 19% in rural Shaanxi. At the other extreme, urban Heilongjiang and Zhejiang registered rates of 59% and 61% respectively. Correlation between adjacent years is also minimal which lessens the likelihood of province-specific factors behind the spread in rates. Geographic dispersion of price increases cannot be tied to characteristics such as remoteness or level of development. Gansu and Xinjiang have low cumulative inflation rates; Qinghai occupies the upper reaches with Beijing and Tianjin. The highest rates were registered by Shanghai, Shaanxi and Inner Mongolia. The coefficient of variation (CV) for urban as well as rural prices remains fairly stable through 1985 (except that rural price variation rose in 1984). It suggests that the pattern of cellular development was unchanged till the mid eighties. The CV for all prices drops in 1986, but it is hard to gauge from the statistics for a single year whether this represents a turn towards closer market integration or the spread of price reform (see Table 2.3 and Chart 2).

2.17 Some of this variation may have been introduced spuriously by a difference in commodities and in weights. The varying rates at which price reform was implemented across provinces (starting with Guangdong) is also a factor. However, pork prices (commercial and list) obtained from 32 cities throughout the country show wide dispersion. In February 1988, the cost of pork in the most expensive location was double that in the cheapest. It says something for market integration in China that the dearest pork was sold in Guangzhou, whereas in Changsha, the capital of neighboring Hunan, residents paid 54% less. Prices in Tianjin, already below the national average, rose by 0.2% in 1987,^{9/} Meanwhile, inhabitants of Shanghai had to cope with inflation of a 47.4% in pork prices. Chickens, beer, eggs, cake, tea, and apple prices all varied substantially in the selected cities (see Table 2.5 and Charts).

^{8/} Price of soap is controlled and it is an item that is currently in short supply. Many enterprises provide soap to workers as part of their in-kind payments.

^{9/} Differing degrees of liberalization also lie behind the observed variations. Their contribution is difficult to ascertain.

The seriousness of inflation in China is a matter of geographical location and a household taste for fresh fruit, vegetables and meat. While it has clearly been a nationwide phenomenon in the past 18 months, regional differences have been pronounced.

Table 2.5: PRICE DISPERSION FOR SELECTED PRODUCTS, DECEMBER 1987
(Beijing = 100)

	Beijing	Shenyang	Shanghai	Guangzhou	Chongqing	Xi'an
Pork	100.0	95.2	158.8	172.6	98.0	95.7
Chicken	100.0	108.5	95.8	135.3	101.0	102.2
Beer	100.0	78.2	80.9	102.9	110.3	103.4
Flower tea	100.0	163.6	116.9	127.4	73.8	100.0
Apple	100.0	78.3	98.1	141.8	112.5	82.8
Cake	100.0	131.1	100.0	421.9	149.7	151.9
Candy	100.0	99.9	86.5	91.8	100.0	111.4

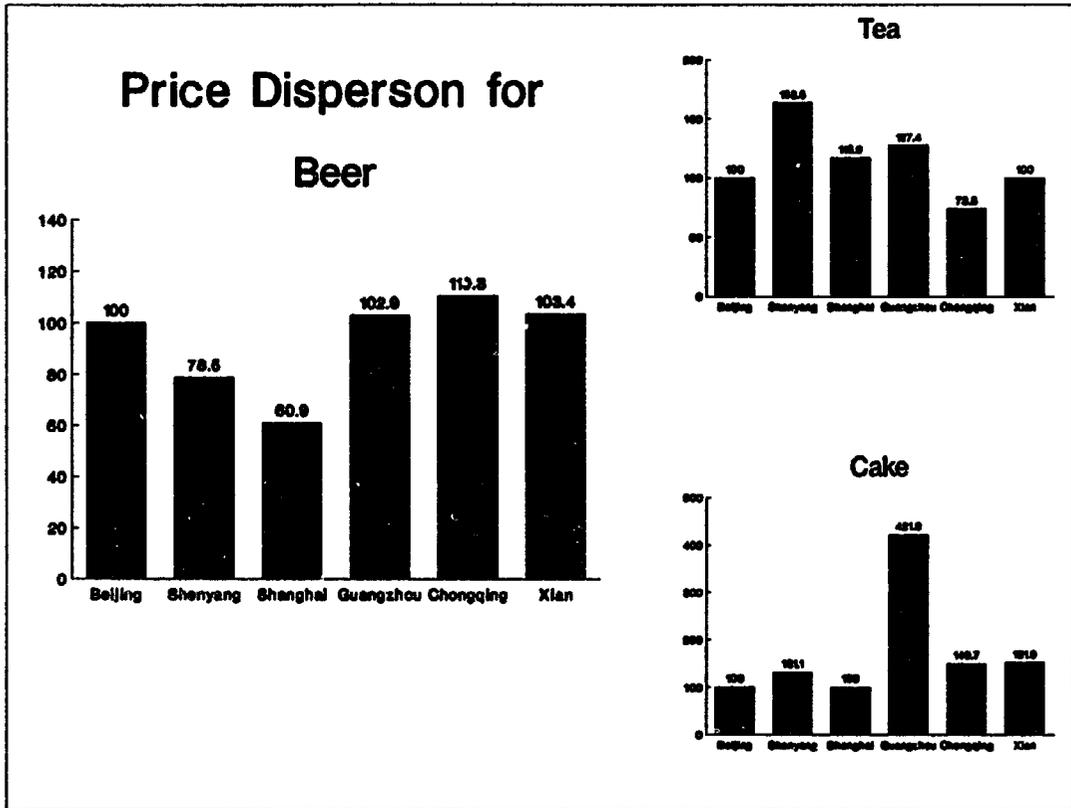
Source: Monthly Bulletin.

Recent Inflation and its Cost

2.18 The economy might have to endure the cost of moderate inflation (in the one digit range) over a period of a few years, to permit a realignment of relative prices for purposes of allocative efficiency. Higher rates would be problematic. Possibly half of the price increase during the period 1981-87 can be explained in terms of desirable adjustments, though this is by no means a robust estimate. The rest might be pure inflation.^{10/} There are three

^{10/} To separate the effects of price reform from pure inflation the following approach was adopted. If there were only two products, one of which increased in price from 100 to 108, while the other increased from 100 to 132, (giving an average price increase of 20%), it would be fair to say that 8 percentage points of this was unnecessary, since the new relative prices would have been attainable with the first good still at 100, and the second at 122. During the period 1981-87, cumulative inflation in the market price index was 58%. Relative prices of the fifteen product categories changed markedly over the period. The price of edible vegetable oil showed the smallest increase: 30%. This 30% is thus the inflation that could have been avoided. That leaves 28%--or less than two-fifths of the actual inflation 1981-87--to be attributed to the relative price changes. The remainder of the market price inflation did not contribute to adjusting relative prices. The technical deficiencies of this calculation as a measure of the contribution of the price reforms to inflation include: (a) the fact that some of the relative price changes may not have had their source in the price reforms. (b) The fact that the data used are not for individual products, but for product groups. The range of relative price changes for individual products was presumably somewhat higher than that for groups. (c) The fact that many producer prices are not included in the data series. "Note on the Chinese Inflation", by P. Honahan, World Bank, mimeo, August, 1988.

Chart 2.2: Price Dispersion for Beer, Tea and Cake



all holders of money balances who will be induced to economize because of the costs of holding money. A second is related to the distributional losses experienced by those on fixed incomes.^{11/} The third, which was referred to in Chapter I, arises from the deterioration in market signalling. A relatively stable price level overall best serves the ends of optimal resource allocation.

2.19 Research in the industrialized economies tends to be equivocal regarding the effects of inflation on income distribution. A strategy that tolerates inflation for the sake of rapid growth can lead to a positive trend in distribution, because of increased employment and income gains for the most disadvantaged.^{12/} Rural China has definitely become more prosperous even though the intraprovincial dispersion of incomes may have widened. Food subsidies for state employees partially protect the salaried worker and moonlighting, in a tightening urban economy, also buoys incomes. Factory workers are doing exceedingly well through wage drift, bonuses and benefits in kind. Although it is doubtful that a year of high inflation could have appreciably skewed income distribution, sample surveys periodically report the existence of sizable groups whose real incomes are falling,^{13/} especially government employees, teachers and pensioners on relatively fixed incomes.

2.20 Expectations have begun to assimilate recent price trends and in the third quarter of 1988 individuals attempted to move from money into goods. Nevertheless, the options for shifting are fairly restricted and if there is a deadweight loss, it is likely to be small.

2.21 It is the future of the price mechanism that is most seriously jeopardized by the economy's lurch towards accelerating inflation. A freeing of prices subject to downward inflexibility entails some inflation. The minimum inflation that is compatible with price adjustment on the scale envisaged in China is impossible to compute and international experience is not a helpful guide. Inflation in the 20% range may be excessive, courts the risk of further injurious price instability and is difficult to dampen because of resistance from expectations, that acquire an inertia of their own, and

^{11/} "The Importance of Controlling Inflation," by H. Vane, in Current Controversies in Economics, eds. H. Vane and T. Cuslin, Blackwell, 1987, pp. 83-88.

^{12/} Transfers from creditors to debtors during inflationary times also help flatten the distributional pyramid. Hard Heads Soft Hearts, by A. S. Blinder, Addison Wesley, 1987, pp. 54-55.

^{13/} For instance, a report by the State Bureau of Statistics released in mid-1988 indicates that in the first five months of the year, the urban population of 13 provinces suffered a decline in incomes as compared to the same period in 1987. "Inflation Bites Deep," China Trade Report, September 1988.

institutional adaptation to an inflationary regime.^{14/}

SECTION B: MONETARY TRENDS AND MANAGEMENT

2.22 Inflation in China has certain distinct systemic properties. Moving only a few indirect policy levers will not achieve durable results; if not accompanied by structural reforms, these actions could be injurious for growth; and they could cloud the future of the modernization program. A medium-term answer must be sought through industrial reform backed by political agreement. Growth with price stability will be difficult so long as these do not mesh with industrial actions. It would be unrealistic to assume that much progress in the policy areas discussed above can be made in the short term. Short term remedies to macro-imbalances therefore must rely on policy levers readily available. The most important of these are monetary policy, and administrative regulation of investment.

2.23 In pre-reform China, a simple financial system comprised of the People's Bank of China (PBC), along with a few specialized banks, served to implement the physical plan by managing a cash plan affecting households and a separate credit plan that encompassed all enterprise transactions. Between 1979 and 1984, some new intermediaries were established,^{15/} but the major financial changes coincided with the beginning of industrial reforms in 1984. Four developments can be listed.

- (a) The PBC was transformed into the Central Bank under the State Council in 1984 and its commercial banking operations were transferred to the Industrial and Commercial Bank of China (ICBC). A network of provincial branches came to serve as the relays for the PBC's monetary operations.
- (b) Rural credit cooperatives had begun springing up in the early eighties, but after 1984, growth of financial intermediaries increased sharply. A multitude of local banks, trust investment companies (TICs) and urban cooperatives appeared. Rural cooperatives multiplied manifold. In 1987, two new universal banks--the Bank of Communications and the CITIC Industrial Bank--were established.
- (c) Expanding household savings and a freer industrial environment gave rise to demand for new financial instruments. Treasury bonds had been around since 1981, but these were now joined by one year financial bonds issued by banks, commercial paper and a limited range of industrial securities. A beginning was made with interbank markets.

^{14/} "A Primer on Inflation," by A. Harberger, Journal of Money, Credit and Banking, November 1987. Four Latin countries: Argentina, Brazil, Uruguay and Chile which were unable to restrain inflation in the fifties are, with the exception of Chile, locked today into a worsening spiral.

^{15/} These were the Agricultural Bank of China, the China International Trust and Investment Company and the China Investment Bank.

- (d) Finally, the changed composition of aggregate savings made necessary, and the new financial channels facilitated, an intersectoral flow of savings. Rural savings that in earlier times would have been invested within the sector have begun pouring into urban industry.

2.24 In the space of four years, China has displaced a monobanking system managing the limited financial transactions of a planned economy, with the rudiments of financial institutions and instruments found in modern market economies. These developments have made possible a decentralization of enterprise financing, described in Chapter IV, but they have also created a wider financial arena for the scramble after resources and greatly complicated the management of monetary policy from Beijing. To the extent that provincial and local authorities, as well as enterprises, can manipulate the expansion of credit, they are in a position to capture a larger share of resources. Thus, the growth of money supply has come under pressure from a number of quarters.

2.25 First, the objective of rapid growth predisposes the central government towards a relatively expansive monetary policy that accommodates the demands of industry and agriculture (see Table 2.6). Second, provinces are now in a position to bring their newly gained political leverage to bear on the local branches of the PBC. These are given certain guidelines at the beginning of the year but also have discretion in extending temporary credit to meet local contingencies. While Beijing has the authority to enforce ceilings on credit, the new politics of decentralized China make it very difficult for the local representatives of the PBC to resist local demands and so far, the Center's preference has been to expand credit rather than court damaging confrontations. Third, now that enterprise working capital and a broad range of farm purchases are financed by credit, the growth of production has become closely tied to financial variables. Enterprise managers and farmers find they have the upper hand and can extract the financing they need by threatening a cut in output. Fourth, there are slippages of monetary control traceable to changing currency-deposit ratios and free reserves (see Table 2.9). Lastly, credit expansion has been affected, though only moderately, by the government's budgetary deficit. Lately, budgetary finance has become a more important source of reserve money creation, accounting for over half of reserve money growth in the second and third quarters of 1988 (see Table 2.8). The Center has financial instruments to combat slippages and has been willing to use them. However, each time monetary tightening begins pushing the economy into a downswing, the government has opened the monetary taps. Such wavering has weakened the credibility of stabilization policy. It is becoming obvious that the center is not prepared as yet to tolerate the political costs of a decline in growth. A look into the chronology of monetary actions and movements of the various indicators can highlight the above tendencies.

Table 2.6: GROWTH RATES OF MONETARY AGGREGATES

	Net domestic assets	Broad money (M3)	Currency
1978	11.7	9.5	8.5
1979	20.6	33.0	26.3
1980	37.3	32.9	29.1
1981	17.8	19.5	14.5
1982	7.9	13.1	10.9
1983	17.0	19.3	20.7
1984	44.6	41.2	49.4
1985	22.8	18.4	24.7
1986	32.8	29.6	23.3
1987	21.1	23.3	19.4

Sources: People's Bank of China, IMF.

2.26 Monetary growth since the late seventies has been through several cycles. An expansion of credit supported agricultural liberalization and higher farm prices during 1979/80. When demand pressures became too severe, the government tightened the money supply for three years. The next upsurge was in 1984/85 with the launching of industrial-financial reform. Signs of overheating led to a monetary squeeze in mid-1985, but within three quarters, the pain this caused forced a retreat and monetary growth climbed from 18% to over 30%. Alarm over price trends in 1987 again led to a resumption of controls in the second half of 1987, although restraint seems to have been tempered in the second quarter of 1988 in response to outcries from the enterprise sector (Table 2.7). A regime of tight money was once again instituted in the last quarter of 1988, but it immediately threatened the winter harvest and loans to agriculture, through the Agriculture Bank of China, were expanded in the final month of the year. A resumption of monetary restraint in the first two months of 1989, combined by a steady drain of cash from the banking system to the informal sector, soon placed intolerable pressures on state enterprises, and the loss of production this entailed led to some relaxation in the second quarter of 1989. What is most interesting about this period is the shortening of the cycles to as little as two months, the changing combination of instruments used and the sources of credit growth.

Table 2.7: CONTRIBUTIONS TO LIQUIDITY GROWTH

	1983	1984	1985	1986	1987
Money and quasi-money <u>a/</u>	19.3	41.2	18.4	29.6	23.3
Money <u>b/</u>	13.3	32.5	9.8	19.9	14.0
Currency in circulation	3.5	8.4	4.5	4.4	3.5
Household demand deposits	2.0	3.1	1.9	2.1	3.1
Enterprise deposits	6.0	22.7	2.4	12.0	6.6
Official institutions	1.8	-1.7	0.0	1.3	0.6
Quasi-money	6.0	8.7	9.6	9.7	9.4

Sources: People's Bank of China, IMF.

a/ Annual per cent increase

b/ Share of growth accounted for by components

Note: Money is defined as currency and demand deposits. Quasimoney includes all time deposits.

2.27 In 1985, the PBC used credit ceilings on lending by the specialized banks to exercise restraint, and temporary credit was tightly controlled. Credit ceilings were not reimposed in 1986; instead targets for central bank credit were the instrument of choice in mid-1986. Temporary credit extended by regional PBC branches to the specialized banks and other borrowers, up to a specified portion of the excess reserves they retained, was permitted. Instruments, such as reserve requirements, introduced in 1984, played a useful secondary role. These were set at 10% for all banks. The rate for PCBC was raised to 30% in late 1985 and maintained at that level until the first quarter of 1987. Credit restraint in the latter part of the year then induced the PBC to increase the redeposit ratio to 12% for all banks, raised further to 13% in September 1, 1988. Other measures to control money supply in the last quarter of 1987 included tightening of temporary credit, ceilings on credit to Township and Village Enterprises (TVEs), and a slight increase of interest on central bank credit. These succeeded in reducing monetary expansion to 23% for 1987 as a whole, whereas growth in the first three quarters had been around 30%.

2.28 Mandatory reserves were not effective because specialized banks have generally held excess reserves which amounted to almost 100% of regional reserves. Excess reserves are a symptom of an underdeveloped interbank market, political barriers to credit flows across provinces and the low interest rates on borrowing from the PBC. Serious attempts at rationing credit through interest rates were also eschewed through mid-1988. Interest on working capital was fixed at 7.92%; for fixed investment it could be as high as 12-14%.

2.29 In essence, direct controls on credit served as the principal vehicle of monetary policy prior to 1986, credit to the specialized banks has been used since. Reserve money growth was slowed continually from the third quarter of 1986 through the last quarter of 1987 (see Table 2.8), but at a high level. Several factors contributed to the sharp increase in the money multiplier: (i) a drawdown of excess reserves by the specialized banks; (ii) the reduction in PCBC reserve requirements from 30% to 10% in January 1987; and (iii) a fall in the currency/deposit ratio (see Table 2.9). In the first quarter of 1988, reserve money growth edged up again under the combined influence of higher lending to specialized banks to satisfy enterprise demand; the accumulation of net foreign assets from improvements in the current account; and larger than expected borrowing by the state to finance its expenditures.

**Table 2.8: CONTRIBUTION TO RESERVE MONEY GROWTH
(in %)**

	1986			1987				1988		
	II	III	IV	I	II	III	IV	I	II	III
Net foreign assets <u>a/</u>	-27.4	-6.7	-20.6	-9.0	12.7	11.7	31.0	26.5	13.9	7.2
Claims of spec. banks	142.7	106.0	84.0	72.0	75.0	52.6	22.0	53.1	50.2	58.0
Budget (net)	-18.3	9.0	44.6	36.7	42.9	28.8	55.4	21.4	62.1	53.4
Other items (net)	3.1	-8.3	-8.0	0.3	-30.6	6.9	-8.5	-1.0	-26.2	-16.5
Reserve money	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Memo item:										
Reserve money growth	18.9	26.6	23.2	19.0	14.2	12.5	12.9	19.1	22.8	27.3
Growth of money and quasi-money	24.2	28.1	28.9	33.2	30.6	31.6	24.2	25.6	28.4	25.5

Sources: PBC, IMF, World Bank estimates.

Table 2.9: MONETARY CONTROL RATIOS

	1986			1987				1988		
	II	III	IV	I	II	III	IV	I	II	III
Excess reserves as % of required reserves	106.0	95.8	98.7	106.0	107.9	88.9	78.7	61.8	57.6	32.0
Currency/deposit ratio	19.2	20.0	22.1	19.8	18.7	19.6	21.1	20.0	20.0	28.5
Money multiplier	2.41	2.43	2.39	2.69	2.75	2.85	2.68	2.84	2.88	2.80
Seasonally adjusted	2.37	2.42	2.44	2.69	2.71	2.83	2.68	2.84	2.84	2.79

Sources: PBC, IMF.

2.30 Four years is too short a period on which to base an assessment of monetary policy, but a number of points do emerge. Statistical tests, pairing time series for money with GDP growth and inflation, indicate that monetary increase precedes economic expansion. These findings support the view that investment demand--the motor force behind growth--has been made possible and validated by credit. In fact, the monetary mechanism has mediated real resource transfers, especially from households, to enterprises that have allowed the share of capital spending to rise at the expense of consumption. Not having access to consumer credit, households are at a disadvantage in the bid for resources. So long as the Government had a tight grip on the financial system, credit could be regulated with some firmness. Decentralization has intensified the demand for credit and given it a political thrust that Beijing is less able to resist. Meanwhile, financial reform has made slippages a factor to be reckoned with. The PBC can control credit if it wishes through the various means at its disposal, but the authorities have been unwilling to apply a credit squeeze with the persistence needed to reach the hard core of investment spending. As can be seen from Table 2.11, credit restrictions are felt most severely by the peripheral borrowers: collectives and TVEs. They are withdrawn when the main industrial borrowers begin to feel the pinch. The experience gained from episodes of tighter credit during 1988 and 1989 suggests, that the collectives and TVEs have been fairly successful in insulating themselves through informal financial arrangements, and it is the state enterprises that now bear the brunt of a credit squeeze. Financial disintermediation affecting the specialized banks further shortens the lag between PBC action and credit availability to the state sector. Thus, the real effects of credit stringency have begun to materialize within as little one or two months.

**Table 2.10: SHARE OF LOANS TO ENTERPRISES AND INDIVIDUALS
IN TOTAL LENDING
(in percent)**

	1983	1984	1985	1986	1987 Sept
Total loans	100.0	100.0	100.0	100.0	100.0
Industry	47.2	55.1	58.3	57.3	48.7
Working capital	27.6	42.8	44.0	41.1	35.2
Industrial enterprises	15.4	21.1	25.0	26.0	
Supply organizations	6.2	3.0	6.8	5.2	
Construction organizations	0.9	8.4	10.4	4.2	
Collectives/individuals	5.6	10.1	2.8	5.6	
Fixed investment	19.7	12.3	14.3	16.2	13.6
Commerce	40.8	21.8	33.4	23.8	26.0
Agriculture and rural industry	12.0	23.1	8.3	19.0	23.4

Note: The growth of total loans is set to equal one hundred, with the contribution of various sectors to total growth shown in percent. Sectors in which loans vary with total credit show a relatively constant share of total credit, while sectors in which growth of loans diverges from total credit growth exhibit stronger variations of contributions to credit growth.

Sources: People's Bank of China, IMF.

2.31 The central government has found that the monetary mechanism is a convenient device for regaining some of the resources surrendered through fiscal and enterprise reforms. About one third of the budget deficit has been financed through the growth in reserve money (see Table 3.5, Chapter III and Table 2.8). Loans to ailing state enterprises, many of which will not be repaid, also transfer resources to the state. Seigniorage, earned through the creation of base money, has grown in significance and in the past two years, the inflation tax has increased in importance.^{16/} Between 1980 and 1983, seigniorage averaged 1.4% of GDP. It was 2.7% p.a. of GDP over the past four years (see Table 2.12), mainly because of rapid GDP growth.

^{16/} Seigniorage refers to the resources obtained through the printing of money, whereas the inflation tax is the transfer of resources from holders of depreciating money balances during periods of inflation to the money issuing authority.

Table 2.11: SOURCES OF DOMESTIC CREDIT GROWTH

	1983	1984	1985	1986	1987
Net domestic assets	17.0	44.6	22.8	32.8	21.1
Loans to enterprises and individuals	20.4	50.2	29.0	39.0	25.8
Budget, net	0.5	3.1	-4.7	3.2	2.4
Other assets, net	-3.9	-8.7	-1.5	-9.4	-7.1

Sources: People's Bank of China, IMF.

Table 2.12: REVENUE FROM MONEY CREATION

	1980	1981	1982	1983	1984	1985	1986	1987
Seigniorage (% of GDP)	1.8	1.1	0.9	1.6	3.9	2.4	2.5	2.1
By Source (%)								
Total	100	100	100	100	100	100	100	100
Real growth	22	34	72	49	29	51	34	48
Financial deepening	66	54	19	44	61	12	46	0
Inflation tax	12	12	9	7	10	36	20	52

Sources: People's Bank of China and World Bank economic database. Tables.

Note: Seigniorage is the change in currency holdings during the year over GDP. The sources of seigniorage are calculated by computing the increase in currency necessary to keep real balances constant, accounting separately for real growth and inflation. The financial deepening element is calculated as the residual between total growth in currency and required growth to keep real balances constant.

2.32 In the late seventies, the Chinese economy was partially monetized and there was substantial room for furnishing household portfolios with financial assets. Cash holdings increased from 0.8 months of GDP in 1979 to 1.5 months of GDP in 1987. Money and quasi-money (M3) doubled from 4.5 months to 8-9 months over this period (see Table 2.13). A point of satiation may now have been passed and certain tests suggest that expansionary monetary policy by funneling resources into investment could be feeding an overhang of liquid balances, reflecting unsatisfied demand (see Chapter IV, Part B). The pattern of price changes in the recent past does not necessarily support such a hypothesis but the evidence from 1988 indicates that households are beginning to resist a further involuntary accumulation of cash balances. The velocity of circulation that has fallen for seven of the past eight years might be starting to level (see Table 2.14).

Table 2.13: MONEY DEMAND PARAMETERS
(In months of GDP)

	1979	1980	1981	1982	1983	1984	1985	1986	1987
Currency	0.8	1.0	1.0	1.0	1.1	1.4	1.4	1.6	1.5
Money and quasimoney	4.5	5.4	6.0	6.2	6.7	7.8	7.5	8.6	8.9

Sources: People's Bank of China, IMF.

Table 2.14: TREND IN VELOCITY

Year	Velocity (GDP over liquidity)
1980	-17.0
1981	-10.6
1982	-2.9
1983	-6.4
1984	-14.9
1985	3.8
1986	-12.8
1987	-2.5

Sources: PBC, IMF, World Bank Standard Tables.

2.33 In sum, monetary policy has given full rein to the investment impulse and mediated resource transfers. It has enabled the state to counter some of the revenue losses linked with decentralization. A review of monetary policy

shows that causation runs from credit supply to investment and further to GDP growth.^{17/}

Monetary Policy: Short- and Medium- Term

2.34 Attempts to restore price stability during the short-run must rely extensively on monetary controls buttressed, as indicated elsewhere in this Report, by administrative checks on state investment and a tightening of incomes policy. The decision by the monetary authorities in the last quarter of 1988 to (i) restrict lending by the PBC to the specialized banks; (ii) to curtail and closely monitor the extension of temporary credit by the branches of the PBC; (iii) to forbid the Trust and Investment (TICs) companies from making investment loans; (iv) to put a stop to interbank lending; and (v) to require a monthly accounting by the PBC's branch network, thereby ensuring stricter adherence to targets, should facilitate demand management if these measures can be enforced for a sufficient period of time.^{18/} As the excess reserves of the specialized banks have fallen to relatively low level (30% of required reserves in September 1988) slippages that blunted the efficacy of monetary actions in the recent past can be avoided. However, the use of higher reserve ratio is an instrument that can be used in case the others have insufficient effect.

^{17/} Sims-Granger tests establish lead and lag relationships between series. If a series A leads a series B, then A can statistically predict B, although it may not "cause" it in the economic sense. Using quarterly data from 1979 Q1 to 1986 QIII for broad money, the retail sales price index and growth of gross industrial output value, a series of tests were run to establish the "exogeneity" of the money supply vis-a-vis the others. A two-way "causation" seems to exist between money and inflation. This could suggest both a causal and an accommodating role for money in the inflationary process. On the basis of the shorter sample period of 1983 Q1 to 1988 Q1, there is some weak evidence that money Granger causes market prices, and stronger results that market prices cause money. In the latter test, the coefficients on market prices, however, were negative, suggesting that a reaction function of the PBC to developments in inflation was being picked up--monetary policy was tightened in 1985 and in late 1987 in response to rising inflation. The relationship between money and prices were much weaker when general retail prices rather than market prices were used. As far as growth is concerned, the causality tests are unambiguous: Growth is strongly influenced by monetary policy; monetary expansion leads, and allows firms to realize, e.g., their almost unlimited demand for investment. The effect of monetary policy on growth seems to be almost instantaneous, which would not be unexpected for an economy that is now mainly steered through changes in credit availability. Compare C. Sims, "Money, Income and Causality," American Economic Review, 1982, No. 62, pp. 540-552; and C. W. Granger, "Investigating Causal Relationships by Econometric Models and Cross-Spectral Methods," Econometrica, 1969, No. 37, pp. 424-438.

^{18/} The number of senior examiners available to the PBC may be inadequate for the task ahead. Effective enforcement will require an increase in the pool of examiners.

2.35 The government has also begun experimenting with a more active interest rate policy to curb investment spending and stem the withdrawal of deposits (Table 2.15). A considerable debate has swirled around the effectiveness of interest rates, with some parties contending that the use of interest rates in China is compromised by: (a) the existence of soft budget constraints that would permit enterprises to deflect higher interest costs into demands for larger subsidies; (b) the increased debt servicing and subsidy financing burden which would force the government to seek recourse in an expansion of the money supply; and (c) sellers markets where many enterprises would be able to pass on interest costs in the form of higher prices.

Table 2.15: INTEREST RATE STRUCTURE

Type of Deposit or Loan	Interest Rates Pre-October 1988	Interest Rates ^{a/}	Interest Rates January 21, 1989	Term
A. Specialized banks				
Deposit				
Demand	2.88	2.88		--
Time	6.12	6.48	9.00	6-month
	7.20	8.64	11.34	1 year
		9.18	12.24	2 year
	8.28	9.72	13.14	3-year & over ^{b/}
Loans				
Working capital	7.92	9.00		--
Fixed asset				
	7.92	9.00		1 year
	8.64	9.90	11.34	1-3 year
	9.36	10.80		3-5 year
	10.08	13.32		5-10 year
	10.80	16.20		10-year & over
B. People's Bank				
Deposit requirement				
Fund	4.32	5.04		--
Excess reserves	5.76	6.48		--
Credit				
		6.84		Daily
		7.56		Quarterly
		8.28		Annual

Source: Ministry of Finance

^{a/} From October 1st, 1988.

^{b/} Linked to the retail price index

2.36 Enterprise reforms have gone some way towards hardening budget constraints for state, collective and township enterprises alike, although the TVE's are the ones most affected. To varying degrees, therefore, all enterprises are likely to react on the margin to steeper interest costs. Current expenses would undoubtedly increase with implications for subsidies financed through budgetary allocations, but at the same time many investment projects would appear less profitable, which would serve to diminish borrowing from banks as well as budgetary commitments to new ventures. As enterprises that raised funds prior to mid 1988 are permitted to deduct the principal from

pretax profits and enjoy substantial depreciation allowances, interest rates may have to be raised significantly for them to have a sizable effect on investment. Unfortunately a major increment does carry the risk of cost-push inflation as cost plus pricing rules are employed by most enterprises. 19/

19/ A simple estimation of the impact of a one percent increase in interest rates was done based on the following assumptions

(a) Working capital loan data are available by sector. Fixed investment loans is a summary category. They have been assigned to sectors according to value added in 1986; (b) Enterprises deposits also are a summary category. They are assigned to sectors in relation to the liabilities of the sector; (c) The costs of the sectors are final factor costs, which eliminates the necessity to use some input-output relationships to arrive at the final cost impact. Value added by sector is used for final factor costs; (d) It is assumed that one third of working capital loans are allocated working capital, and that one third of investment loans are budgetary loans.

Data are taken from the monetary survey 1986 (end year figures) and from the 1987 Statistical Yearbook. Results are summarized in the table below:

Increase in costs as a result of a 1% increase in interest rates if increase is for:

	(1) all loans only	(2) (1) excl. alloc. work. capital & budg. loans	(3) (1) and deposits	(4) (2) and deposits
Industry+Transport	0.8%	0.5%	0.5%	0.2%
Construction	0.9%	0.6%	0.5%	0.2%
Commerce	2.7%	1.8%	1.6%	0.7%

The table shows that the cost impact of a one percentage point increase in interest rates varies according to sector, and is most important, as one would expect, in the commerce sector. The estimation also brings out clearly the importance of increasing lending rates and deposit rates at the same time. For example, in industry, costs would increase by .8% as a result of a one percentage point increase in loan interest rates, whereas the increase would only be .5% if interest rates on deposits are increased at the same time. In the past, the Chinese authorities have tended to increase lending rates only, without corresponding changes for deposit rates. This tends to increase the cost push effect of interest rate policy. The smallest cost effect is obtained by increasing interest rates on loans excluding allocated working capital and budgetary loans, combined with raised interest rates for enterprise deposits. In this combination, the cost-push effect of interest rate policy would be quite small.

2.37 Aside from attempting to employ interest rates for the purposes of short-term demand reduction, the government might also aim for a step-by-step increase in the level of lending rates. Within a 2-3 year period it should be possible, with the minimum of disruption, to institute a rate structure and a system of interest management that allows the monetary authorities to use interest costs as a flexible tool for controlling demand. Both the manipulation of the money supply (through open market operations or repurchase agreements) 20/ and of interest rates would exert a more powerful influence on aggregate demand nationwide if mechanisms for transmitting the effects of PBC policies were better developed. China has made a beginning with an interbank market but interbank transactions are still at a very early stage. Similarly, financial markets exist on a provincial, or at best, a regional scale with the minimum of interlinkages. For both these reasons monetary policies initiated by the central authorities have uneven consequences and may influence demand with uncertain lags. Integrating financial markets and deepening interbank linkages could add to the forcefulness of monetary measures and over the medium term, diminish the reliance on direct credit controls. An efficiently functioning interbank market would, in addition, provide the PBC with information on pressures in the financial system and if it contains provisions for issuing bills, open another avenue for open market operations.

2.38 Fluctuations in the growth of the money supply that have been observed in the eighties can be destabilizing and in the future, demand management might aim to avoid such shocks. Improving the coordination between monetary and fiscal policies would certainly be helpful. A closer monitoring of likely developments in the real sector could also make it possible to defuse crises before they become too serious. The research on links between money and prices conducted in the industrial economies suggests that the relationship is variable. 21/ A fixed rule for monetary expansion is not an answer to problems of stability whether in the short or in the medium run. During the next few years when new institutions will be emerging and financial market ties proliferating, the PBC will have to conduct a stable monetary policy although not one that is bound by rigid rules. It should be tailored to the rapidly unfolding developments in real and financial sectors.

20/ Increased reliance on securities to finance the budgetary deficit and a willingness to pay "market" determined interest rates on government borrowing will facilitate the future use of open market operations. On the Korean experience in these areas see Korea: Managing an External Surplus, Monetary and Trade Issues, World Bank Report Nos. 7024-KQ, June 30, 1988, P30-31.

21/ On the theoretical and empirical findings that have undermined the simple recipes proposed by monetarist and new classical economics see Blinder, op. cit. 1987, pp. 78-80; "Lessons on the Monetary Policy from the 1980s," by B. Friedman, Journal of Economic Perspectives, Vol. 2, No. 3, Summer 1988; "Monetary Policy Lessons of Recent Inflation and Disinflation," by W. Poole, Journal of Economic Perspectives, Vol. 2, No. 3, Summer 1988; "Monetarist Views on Inflation", by V. Chick, in Perspectives on Inflation, ed. D. Heathfield, Longman, 1979; and Money and Inflation by F. Hahn, Blackwell, 1982.

2.39 The difficulties confronting the central monetary authorities in the efforts to contain credit expansion by the PBCs local branches and deflect the demands of local government agencies, have raised questions about the power and autonomy of the newly created central bank. China is not the first country to be faced with such questions. The role of the central bank in the effort to maintain price stability has been widely analyzed and it has sharpened the meaning and purpose of independence.

2.40 Among the developed market economies, central banks in the U.S., the Federal Republic of Germany and Switzerland are believed to enjoy the greatest degree of autonomy in a formal sense: they do not have to seek external approval for their budget; they are not subject to an external audit; their decisions are not reviewed by other bodies; and their directors/governors are appointed for extended periods and cannot be removed without cause. Independence in this legalistic sense does not mean that the central bank in any of these countries can embark upon policies that diverge markedly from those of the fiscal authorities. If there are differences these tend to be relatively narrow. For example, the show of independence by the Federal Reserve Bank of the U.S. in 1953, resulted in policies that did not overstep the zone of discretion agreeable to the Treasury. Throughout the tenures of Presidents Nixon, Ford and Carter, the Federal Reserve pursued a line very similar to that of the Council of Economic Advisers.^{22/} The tight monetary policy used to stem inflation had the backing of the President but this episode, which did at times generate tension between the Federal Reserve and the fiscal arm of the U.S. government, helps to refine the notion of autonomy.

2.41 The central bank can take a firmer line on inflation control and tilt government policy in this direction to the extent that it has the support of a large and powerful political constituency. In West Germany, for instance, the banks, large businesses and the labor unions are strongly committed to price stability and this strengthens the hand of the Bundesbank in its dealings with other government agencies over the course of macroeconomic policies. Likewise, the considerable influence which the Federal Reserve exercises within U.S. policymaking circles and on the Executive arises in large part from the support given by powerful interest groups led by the financial community.^{23/} Independence for the central bank does not imply the ability to conduct monetary policy that is at odds with the government's overall strategy. In these three countries, at least, such politically grounded autonomy permits the monetary authority to temper the demand for inflation

^{22/} "Central Banks and Inflation," by J.T. Woolley, in The Politics of Inflation and Economic Stagnation, eds, L.N. Lindberg and C.S. Maier, Brookings Institution, 1985, pp 321-6, 333-6. On the relations between the Federal Reserve Bank, the Treasury and the Executive Office, see Leadership at the Fed, by D.F. Kettl, Yale University Press, 1986, Chs. 3 and 4; and Greider Footnote 22.

^{23/} A lengthy account of the influence exerted by the U.S. financial community on the Federal Reserve as well as of the mechanics of monetary decisionmaking can be found in Secrets of the Temple, by W. Greider, Simon and Schuster, 1987.

emanating from other parts of the government.^{24/}

2.42 During recent years the "demand" for inflation in China has become very strong as the coastal provinces have attempted to annex resources so as to exploit fresh opportunities and make up for the ground lost in the seventies; as urban workers struggle to keep pace with rising rural incomes; and as the various levels of government attempt to obtain the funds to meet fiscal obligations. This demand for inflation driven by distributional concerns is not counterbalanced by the interests of a powerful financial community acting through the PBC. In the absence of such an interest group, the public demand for price stability is too amorphous. Even if the monetary authorities desired to tighten the money supply, their proposals lack a direct political validation and are drowned by competing demands. Similarly, the absence of tangible political support for stern monetary actions from the financial and business communities makes it harder to implement the directives of the central government.

2.43 The PBC could be extended a measure of formal autonomy as regards budgeting, audit and appointments, but it is doubtful that these alone will permit the agency to create a more meaningful role for itself in the sphere of stabilization policy. The PBC can acquire an independent voice when government agencies at all levels, financial entities and enterprises realize the costs of inflation and look towards the PBC to present their case. There are several major distributional issues to be resolved before that stage will be reached. Until then, the expedients proposed by the central government of appointing PBC branch managers directly drawing on personnel that do not belong to the particular province; slowing the expansion of reserve money; and closer monitoring by the headquarters, are moves in the right direction.

SECTION C: INCOMES POLICY

Labor Earnings

2.44 Over the past year, many Chinese economists have come to believe that ballooning consumption funds of enterprises are largely to blame for the accelerating inflation.^{25/} These have allegedly resulted in rising earnings of workers and a waste of resources on nonproductive assets. The so-called premature consumption of durables and higher quality food items by Chinese

^{24/} "The Demand for and Supply of Inflation," by R.J. Gordon, Journal of Law and Economics, vol. 18, December 1975.

^{25/} Consumption funds comprise the earnings of enterprises that are earmarked for wages, bonuses payments in kind and expenditure on services for workers. Other socialist countries have encountered similar problems. When Hungarian enterprises were granted greater autonomy in January 1985, wages surged, exceeding guidelines in 1985 and 1986. A tightening of wage regulations finally checked wage inflation in 1987.

households, that is believed to have triggered inflation, is traced to the uncontrolled diversion of enterprise income towards consumption.^{26/} The premature consumption hypothesis maintains that Chinese households have been unusually precocious in acquiring durables. Chinese urban households devote little more than 2% of their expenditure to housing and hence more of their earnings are diverted towards food and durables. The average urban household now has a suite of durables that outclasses the possessions of Japanese families in the sixties and of Korean ones in the late seventies. Consumption of meat, fruit and vegetables also seems to be running ahead of the East Asian comparators.

2.45 Before 1985, nearly 300 payment schemes were in use. Most state enterprise used a basic eight grade system but virtually each industry had introduced some variation, e.g., seven grades for the building industry, special subsidies for mine workers, etc. The majority of enterprises preferred a time rate plus bonus, although piece rates were also in use, conditions permitting. From 1985 an eleven standard system was installed nationwide. It attempted to improve incentives by widening wage differentials between senior and entry level workers, which had been narrowed to insignificance under the weight of egalitarian sentiments. Wages were raised and the setting of rates became more the discretion of enterprises and local authorities. The size of bonus and social funds was also decided by the management of the firm within bounds defined by its retained earnings, other commitments and broad guidelines handed down by supervisory agencies. As with so many other aspects of enterprise relations, bargaining came to determine the disposition of internal funds.

2.46 Wages had been rising at low to moderate rates between 1978 and 1983, averaging just over 6% p.a. with the fastest increase being at the very start of the reform movement in 1979/80 (see Table 2.15). Average per annum growth in labor productivity during this period was 4.5% and inflation averaged 2.4%. While a degree of correlation seems present between wages and prices, it is relatively faint and causation is uncertain. A more striking relationship emerges during 1984/85 when reforms lead to a sharp upswing in wages. For the 1978-87 period as a whole, money wages increased by 10% p.a. After adjusting for the rising cost of living, real wages grew by 4.8% p.a. or somewhat below the annual average change in productivity estimated at 6%. Real wage performance is, of course, much poorer when juxtaposed with the market price index (Table 2.17).

^{26/} "Consumption Expansion: A Grave Challenge to Reform and Development," by Xia Xiaoxun and Li Jun, in Reform in China, ed. B. L. Reynolds, M. E. Sharpe, 1987; and "The Choice of Household Consumption and National Economic Growth," by Economic Research Institute, CASS, Beijing, 1988.

Table 2.16: INDUSTRIAL WAGE AND PRODUCTIVITY INDICES

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Productivity index	100.0	103.4	107.3	106.7	111.4	120.6	133.2	151.3	158.8	175.3	201.4
Wage Index	100.0	109.5	124.7	126.1	129.8	134.3	160.6	188.4	219.6	240.1	-
Retail price index	100.0	102.0	108.1	110.7	112.8	114.5	117.7	128.1	135.8	145.7	172.6
Retail price index + Productivity index	100.0	105.4	115.4	117.4	124.2	135.2	151.0	179.3	194.6	222.4	274.0
Market price index	100.0	95.5	97.4	103.8	107.5	111.9	112.2	131.2	141.3	163.6	210.6
Market price index + Productivity index	100.0	98.9	104.7	110.5	118.9	132.5	145.5	182.5	200.1	238.9	311.9

Table 2.17: INDUSTRIAL WAGE AND PRODUCTIVITY GROWTH RATES

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Productivity	3.4	3.8	-0.6	4.4	8.3	10.5	13.5	5.0	10.4	14.8
Wage	9.5	13.9	1.1	3.0	3.5	19.5	17.3	16.6	9.3	-
Retail prices	2.0	6.0	2.4	1.9	1.5	2.8	8.8	6.0	7.3	18.5
Retail prices + Productivity	5.4	9.5	1.7	5.8	8.8	11.7	18.8	8.5	13.6	24.0
Market prices	-4.5	2.0	6.6	3.5	4.1	0.3	16.9	7.7	15.8	28.7
Market prices + Productivity	-1.1	5.9	5.6	7.6	11.5	9.8	25.4	9.7	19.4	30.5

Sources: For Productivity index:
Statistical Yearbook of China, 1988, p.219 and p.93 for 1975-86; China Statistics Monthly 1989 March from The University of Illinois, p.18 for 1987-88 (Statistical Year Book of 1988 does not give the gross value of industrial output for 1987 in 1980 prices).

For Price indices:
Statistical Yearbook 1988 p.692, p.700 and 0.5x4 for 1979-87 and China Statistics Monthly 1989 March from The University of Illinois, p.61 for 1988.

2.47 Unfortunately these statistics do not provide the full picture. Wages constitute one part of the total compensation, other elements of which have been increasing at a quicker pace. The retail price index may not be the most appropriate indicator for gauging cost pressures and the productivity index used is a fairly crude measure of labor productivity in industry.

2.48 A closer qualitative look at wage trends through sample surveys provides some additional pointers. Since the mid-eighties, the share of bonus payments in total earnings has inched upwards, according to one survey the share of the basic wage fell from 72% to 63% between 1983 and 1984. It may have dropped to 50% in 1988. From other sources it appears that 20% of industrial earnings may be derived from bonuses and the share in rising as they are the primary form of incentives.

2.49 Among the 17 enterprises visited by the mission in June 1988, five had instituted piece wage systems but all others used fixed wage plus bonus. Several claimed to be following a rule which allowed for a 0.7% growth of the wage and bonus fund for every 1% increase in total projects. The data provided did not bear this out. Actual wages grew faster than was allowed under the rule because enterprises felt the need to compensate workers for rising inflation. The average for 1988 was close to 1.2% for each 1% increase in prices. A number of the firms indicated that the total wage fund levels were decided annually by superior authorities. References were made to a greater dispersion of worker incomes but bonuses were still being distributed in an egalitarian manner. Machinery producers had experienced very little change in the share of wage costs, possibly because of improvements in technology. Food and textile industries faced a different situation--labor costs were rising faster than other items. In all instances, the effects of wages was greatly mitigated by the surprisingly small share of wages in total costs. The simple average of wages in total costs of the 9 consumer goods factories surveyed by the mission, increased from 3.7% in 1983 to 6.6% in 1987. There was a marked consistency among the different enterprises that were distributed across three widely separated cities.27/

2.50 With the worsening of inflationary pressures in the second half of 1988, wage earners began to demand higher wages and for the year as a whole, wage hikes were in the 25-27% range. In addition, enterprises are diverting a larger share of their retained profits towards social services and consumption. As retail prices have been rising at close to 27% p.a. (February 1988 to February 1989) such rates of growth in wages may not be excessive. The data to substantiate claims of earnings led demand pull inflation in 1988 as against the investment-led hypothesis is fragmentary, but it would appear that a price-wage spiral is beginning to take hold.28/ Investment cuts proposed by the government for 1989 could induce enterprises to shift surplus capital funds into consumption, resulting in higher spending on wage goods at a time when industrial growth might be slackening.

27/ The cities visited were Beijing, Chengdu and Guangzhou.

28/ Bonuses rose by 35%-40% in 1988.

2.51 The government has attempted to stem the growth of earnings by levying steep taxes on "excessive" bonus payments but wage drift and "off-the-books" leakage continues.^{29/} Under the decentralized system, the local authorities are often reluctant to enforce central guidelines. They would rather see enterprise earnings be distributed as bonuses than be transferred to the Center by way of taxes. Local authorities are inclined to wink at practices such as the distribution of management expenses to workers for consumption; the raising of prices so as to earn higher profits and thereby expand the wage base; and the use of production funds for the payment of bonuses. These covert payments are dwarfed into insignificance by transfer payments to state workers and staff that were equivalent to 85% of gross wages in 1983 and are believed to have risen since. Of special significance are compensatory stipends that have been used to offset changes in the cost of living. To quell dissatisfaction over increasing prices, a 10 yuan per month subsidy was allotted to each urban household in March 1988. Again the discretion is left with local authorities. Those areas where inflation is less acute, pay smaller amounts.^{30/}

2.52 Under conditions of downward price rigidity and wage push pressures, incomes policy can very effectively supplement monetary and fiscal actions. For instance, a tax based incomes policy (TIP) has certain attractions. ^{31/} The Government could impose a profits tax surcharge on 8000 of the largest enterprises in the country to be paid whenever the average increase in labor earnings exceeded the economy wide change in industrial productivity. This measure could be enforced by local tax inspectors who reside with each enterprise and keep a close watch on company accounts (see Chapter III). In this fashion, a substantial share of the GVIO would be covered by income restraint policies. Because the mechanisms for taxing bonuses are already present, such a move is in theory both feasible and enforceable.^{32/} Problems that have also bedevilled the collection of taxes on bonus payments might arise from three sources. First, after a generation when the wage structure was rigidly defined, Chinese workers, like their counterparts elsewhere in the world, are acutely sensitive to relativities. What a worker earns relative to

^{29/} "Consumption Expansion: A grave challenge to reform and development", by Xia Xiaoxun and Li Jun in B. Reynolds ed op. cit., 1987, p. 91.

^{30/} The base for monthly income grants to workers was raised from 20-30 yuan to 40 yuan in small cities; 45 in medium sized cities and 50 in Beijing, Tianjin, and Shanghai. "China to link price reform with change of wage system", China Daily, June 7, 1988

^{31/} "A TIP for MAP," by S. Weintraub, in Essays in Post-Keynesian Inflation, ed. by J.H. Gapsinski and C.E. Rockwood, Ballinger, 1979.

^{32/} Bonuses equal to four months salary are untaxed. An extra month's equivalent is taxed at 20%; an extra two months equivalent is subject to a 50% tax, and so on. A worker receiving bonuses worth more than eight months of his salary is, in theory, subject to a tax of 200% on the 4 plus months equivalent.

what others are earning is of the greatest importance. When the earnings of farmers, service sector employees and those engaged in production for the free market increase, industrial workers are determined to preserve their income ranking. This unleashes a round of adjustments consisting of wage adjustments, higher bonuses, wage drift and payment in kind calculated to restore relativities while sidestepping wage guidelines and penalties on excess bonus payments.

2.53 Second, after forty years under a stable socialist system, workers in the state and larger collective enterprises constitute a fairly cohesive interest group capable of pressing their demands on management and local government agencies alike. The latent political power of this group is considerable. They can resist attempts at containing their earnings unless it is clear that the government intends imposing a national wage and price freeze affecting all groups and thereby preventing the resource transfers that have ignited the current scramble to restore shares. A targeted, partial incomes policy poses serious difficulties in China as it has in Western countries where entrenched pressure groups are prepared to enter the political fray so as to preserve or increase their incomes.^{33/}

2.54 Finally, under the Chinese ownership structure and forms of enterprise management (see Chapter VII), managers have little incentive to resist the demands of workers, removing the first line of defense that free market economies, based on private ownership, maintain against the unchecked growth of wages.

2.55 Firmer wage guidelines from supervisory departments; and a more determined effort at collecting taxes on excess bonuses might very usefully complement the short term stabilization drive being spearheaded by reduced capital spending and tighter monetary policies. Changes in the system of ownership and the imposition of hard budget constraints is the appropriate direction for the future.

^{33/} See The Rise and Decline of Nations, by M. Olson, Yale University Press, 1982, Ch. 4.

III. FISCAL STRUCTURE AND POLICY

3.1 Fiscal issues are at the core of the reform effort. Revenue sharing between the center and the provinces; the nature of enterprise tax obligations; and Beijing's expenditure policies have shaped reform initiatives and in certain important respects constrain the Government's attempts at balancing economic goals. As management through planning and direct administrative controls is displaced by the realities of decentralization, the principal economic objectives--growth, price stability, resource balance--must be approached with the help of "indirect levers," but the analysis presented below suggests that fiscal tools may contribute little to demand management during the 1989-90 period. This is because of the limits imposed by the newly instituted contracting arrangements; the inexperience of the State Administration for Taxation, created on June 1st, 1988; and the current decentralized implementation of fiscal policy as well as the collection of revenues. Over the longer-term, however, exploiting the potential of fiscal tools will be vital for effective macro control and industrial development.

3.2 China's fiscal system was derived from a Soviet template. In earlier years, it was the fiscal calculus that helped maintain a balance between expenditures and the supply of goods. It ensured the operational feasibility of the Plan. The central government was also active in redistributing surplus revenues obtained from the richer coastal provinces to the relatively underdeveloped central and western regions. While allocation remained firmly in the hands of the central authorities, during this period, cycles of decentralization dispersed revenue gathering functions across a multitude of lower-level authorities, setting the stage for the intensive bargaining that characterizes Chinese fiscal relations in the eighties. To gauge the potential of indirect fiscal levers during the medium term, it is necessary to grasp how the Chinese brand of federalism has evolved, and how it influences revenue flows, as well as expenditure decisions. This chapter builds on the above discussion of the reform's fiscal dimensions in Chapter I. It describes how the system emerged; analyses its structure; examines the direction of fiscal policies; and on the basis of this investigation, advances a few recommendations.

Background on Fiscal Development

3.3 Until the early eighties China's central government directly collected less than a quarter of total revenues, although it was responsible for 50% of total expenditures. The remaining three fourths of the revenues were collected and remitted by the provinces. Local governments were assigned revenue targets by the center and judged by their record of collection. Their budgets were sanctioned by Beijing often after intense bilateral haggling. Actual spending was, of course, the preserve of agencies located in provincial and county tiers.

3.4 There were two weaknesses: first, penalties for overspending by local governments were nebulous. Beijing was ready to entertain subsidiary requests and occasionally accede to them, so long as the particular entity had met revenue goals. Second, an allotment of funds through negotiation led to uncertainty at the provincial level over future flows and much strategic maneuvering so as to ensure resources for long gestation projects (see Chapter IV, Section A).

3.5 One of the attractions of the reform effort, which commenced in the late seventies, was that it dispelled some of this uncertainty. Instead of requiring the repatriation of virtually all taxes collected, provinces agreed on their tax revenue obligations to the Center following a review of their planned budgets. This target was usually a modest mark-up over the previous year's transfer. This new approach was first experimented with in Jiangsu and subsequently adopted by 12 other provinces.^{1/} Eight provinces and autonomous regions lying on the western periphery of China, all with large minority, ethnic groups, remained dependent on Beijing for subsidies and development funding that substantially augmented locally generated resources. Guangdong and Fujian were given the most fiscal autonomy because they served as testing grounds for the "Open Door" policy. Beijing, Tianjin and Shanghai had to accept the most stringent terms, retaining only 25% of taxes collected and having to renegotiate yearly with the Center, whereas the other provinces enjoyed three-year programs. These major industrial cities, which profit from the sale of manufactures to all parts of China, resemble "giant sponges, soaking up revenues from the rest of the country which the center then squeezes out for its own coffers."^{2/}

3.6 As the new round of fiscal devolution proceeded, the central government was faced with a steep increase in expenditures. Adjustment of agricultural prices in 1979 raised payments to farmers and required wage subsidies to compensate urban dwellers. Subsidies increased from 11.4 billion yuan in 1978 to 19.6 billion yuan in 1979. (see Table 3.4). Reduced capital construction ate into the profits of heavy industry, an important source of revenues. Other industries also found their profits squeezed by the higher costs of raw materials. Finally, the Vietnam action in 1979-80 entailed a sizable budgetary drain. Defense spending went from 16.8 billion yuan in 1978 to an average of 21 billion yuan in the two succeeding years. These expenditures forced the central government to demand additional financial support from the provinces, going beyond the terms of earlier agreements. Borrowing from the provinces reached 7 billion yuan in 1981 and 4 billion yuan in 1982.

^{1/} From the fifties to the mid-seventies, the consolidated budget served as the vehicle for transferring resources from the rich provinces to the poorer ones. The technique used was differential rates of revenue sharing with the Center. Provinces collected two thirds of the revenue in 1965, but were responsible for 40% of the expenditures. This rose to 80% and 50% respectively in the seventies. While Shanghai and Liaoning kept between 10% and 20% of the revenue collected, provinces like Xinjiang, Yunnan and Anhui kept all the revenue and received subsidies as well. See Economic Growth and Income Distribution in the PRC, by N. Lardy, Cambridge University Press, 1978, and China: Socialist Economic Development, World Bank, 1983, Vols I-III.

^{2/} "New Light on Central-Provincial relations", by Audrey Donnithorne, Australian Journal of Chinese Affairs, No. 10, July 1983, p. 98.

3.7 To stabilize the flow of revenue, the Government embarked on another round of tax reforms in 1983. The most sweeping change, completed by 1985, was the displacement of enterprise profit remittances that supplied 90% of all revenue, by profits, adjustment and indirect taxes. Remitted profits were reduced to 5% of total government revenue, the remainder being obtained from tax payments. A profit tax of 55% was levied on medium and large enterprises. Smaller collectives and household firms paid lower rates averaging 40%. An adjustment tax negotiated annually with the larger enterprises, was instituted to smooth anomalies arising from price controls and rationing of both raw materials and final products. Profit retention combined with direct taxes was the first and most important step on the road towards enterprise autonomy. Such taxation proved unworkable, however, as local bodies were unwilling to enforce the rules handed down by the center. Within a year or two, it had been superseded by contracting arrangement with individual enterprises, spanning from one to five years. By 1988, over 80% of state enterprises were covered by the contract responsibility system.

Fiscal Structure

3.8 Before the advent of the profits levy, much of the tax revenue was derived from the indirect consolidated industrial and commercial tax (CICT). It has, since 1984, been replaced by: (i) a VAT; (ii) a product tax; (iii) a business tax levied on sales receipts or operating revenues of commercial enterprises; and (iv) a construction tax surcharge on the above three. Tax rates range from 3% to 66%. The product tax falls on 400 commodities, the VAT now covers all but three industrial subsectors. Experimental use is being made of a 10% tax on extrabudgetary expenses to contain capital construction; taxes on fixed assets and circulating capital; surcharges on inventories; and a user tax on crude oil to encourage the substitution by coal.^{3/}

3.9 With the introduction of the new tax regime in 1985 there was a sudden leap in taxes from profits (from 5% of revenues to 30%), a more restrained increase in revenues from indirect levies (see Tables 3.1-3.2). The wave of imports in 1984/85 raised earnings from import duties (by 1% of GNP). Control over imports and some trimming of rates lowered the share in more recent years. Similarly, losses inflicted by price adjustments on state enterprises plus generous terms agreed under the management responsibility system have eroded revenues from the enterprise sector.^{4/} Negotiated

^{3/} "The evolution of the tax system in the PRC" by A.J. Easson and L. Jinyan, Stanford Journal of International Law, Vol. 23, Summer, 1987.

^{4/} Other factors were lower tax rates on manufactured goods and the VAT. Recent trends in China's national finance and taxation system, "China Newsletter, No. 72, 1987.

manipulation of the product tax by local authorities explains the downward trend between 1985 and 1988. Extrabudgetary revenue from local surcharges on the general sales tax, rental income, user charges for parks and health facilities plus an assortment of fees, have emerged as a significant and gradually increasing source of funds for local authorities. Available statistics indicate that the rate of growth between 1982 and 1986 was about 6% p.a. with the amount collected being equal to 3.1% of GNP. It is estimated to have risen by 17% in 1987 and is projected to increase 10% in 1988 which is faster than the growth in tax revenues.

Table 3.1: STRUCTURE OF CONSOLIDATED GOVERNMENT REVENUE, 1978-87 /a
(In percent of total revenue)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 Budget
Tax revenue	42.2	42.6	43.5	45.5	49.6	54.5	58.2	95.8	92.0	90.4	91.6
Tax on income and profits	6.9	6.1	5.7	5.5	5.8	7.4	8.4	32.4	35.4	33.8	33.1
Enterprises	(4.4)	(3.6)	(3.4)	(3.2)	(3.4)	(3.8)	(5.1)	(30.6)	(33.5)	(31.9)	(31.5)
Agriculture	(2.5)	(2.3)	(2.1)	(2.0)	(2.1)	(2.1)	(1.9)	(1.8)	(1.8)	(1.9)	(1.6)
Other	(--)	(0.2)	(0.2)	(0.3)	(0.3)	(1.5)	(1.4)	(--)	(--)	(--)	(--)
Taxes on goods and services	32.9	34.4	35.2	38.1	39.4	35.7	37.0	42.2	43.0	42.9	45.5
Of which: Product tax								(26.0)	(22.4)	(21.0)	(19.9)
VAT								(6.5)	(9.5)	(9.8)	(12.3)
Business tax								(9.2)	(10.7)	(11.8)	(13.0)
Taxes on international trade	2.4	2.1	2.6	3.9	3.3	3.4	5.6	9.0	6.2	5.7	5.6
Other taxes	--	--	--	0.1	1.0	8.0	7.2	12.3	7.4	8.0	7.5
Nontax revenue	57.8	57.4	56.5	54.5	50.4	45.5	41.8	4.2	8.0	9.6	8.3
Of which: Profit remittances	(55.6)	(54.6)	(53.4)	(52.2)	(47.3)	(41.8)	(37.4)	(1.9)	(1.7)	(1.6)	(1.7)
Total revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

/a Budgets of the central, provincial and local authorities are consolidated into a single state budget. Excluded are the accounts of state enterprises and extrabudgetary funds. See Table 3.2. Totals may not add up to sum of components because of rounding.

Source: Ministry of Finance.

Table 3.2: DEVELOPMENTS IN GOVERNMENT REVENUE, 1978-88 /a
(In percent of GNP)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 Budget
Total revenue	34.0	32.1	30.4	29.9	28.0	28.3	27.1	27.5	26.0	23.2	20.3
Taxes on income and profits	2.3	2.0	1.7	1.6	1.6	2.1	2.3	3.9	9.2	6.4	7.2
Profit tax	(1.5)	(1.1)	(1.0)	(1.0)	(0.9)	(2.1)	(1.4)	(8.4)	(8.8)	(6.0)	(6.9)
Agricultural tax	(0.8)	(0.7)	(0.6)	(0.6)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.4)	(0.4)
Other	(--)	(0.1)	(--)	(--)	(0.1)	(0.4)	(0.4)	(--)	(--)	(--)	(--)
Taxes on goods and services	11.2	11.0	10.7	10.8	11.1	10.1	10.0	11.6	11.2	10.0	8.8
Of which: Product tax								(7.2)	(5.8)	(4.9)	(3.8)
VAT								(1.8)	(2.5)	(2.3)	(2.3)
Business tax								(2.5)	(2.8)	(2.7)	(2.5)
Taxes on international trade	0.8	0.7	0.8	1.2	0.9	1.0	1.5	2.5	1.6	1.3	1.2
Other taxes	--	--	--	--	0.3	2.3	2.0	3.4	1.9	3.3	1.3
Nontax revenue	19.7	18.4	17.2	16.3	14.1	12.9	11.3	1.1	2.1	2.2	1.6
Of which: Profit remittances	(18.9)	(17.5)	(16.4)	(15.6)	(13.3)	(11.8)	(10.1)	(0.5)	(0.4)	(0.4)	(0.3)
Memorandum items:											
Revenue from enterprises	20.4	18.6	17.4	16.6	14.2	12.9	11.5	8.9	9.2	7.6	7.2
Profit tax	(1.5)	(1.1)	(1.0)	(1.0)	(0.9)	(1.1)	(1.4)	(8.4)	(8.8)	(7.4)	(6.9)
Profit remittances	(18.9)	(17.5)	(16.4)	(15.6)	(13.3)	(11.8)	(10.1)	(0.5)	(0.4)	(0.4)	(0.3)
Extrabudgetary receipts					2.5	2.9	2.9	3.3	3.1	3.6	

/a Totals may not add up to sum of components because of rounding.

Source: Ministry of Finance.

Table 3.3: STRUCTURE OF GOVERNMENT EXPENDITURE, 1978-88 /a
(In percent of total expenditure)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 Budget
Total expenditure and net lending	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Current expenditure	56.5	58.7	67.7	74.2	76.3	74.8	71.2	72.3	71.3	73.3	74.4
Administrative	4.0	3.9	4.6	4.9	5.5	6.0	7.1	6.2	6.4	6.4	5.9
Defense	13.7	15.2	13.3	11.6	11.9	10.5	9.3	8.8	7.7	7.5	7.0
Culture, education, health	9.2	9.0	10.7	11.8	13.3	13.2	13.6	13.6	14.5	14.4	14.7
Economic services	14.6	12.7	13.1	11.6	11.9	11.1	10.5	9.6	9.5	9.1	9.1
Subsidies	9.3	13.8	18.7	25.6	25.1	25.1	21.1	21.8	21.5	23.8	25.1
Daily necessities)	(6.4)	(10.9)	(16.4)	(21.1)	(20.2)	(20.3)	(16.2)	(13.5)	(9.2)	(10.4)	(11.7)
Agricultural inputs)				(1.5)	(1.4)	(0.8)	(0.5)	(0.6)			
Enterprise losses	(2.9)	(2.4)	(2.8)	(2.9)	(3.5)	(6.1)	(4.4)	(7.7)	(12.3)	(13.3)	(13.3)
Other	5.6	4.6	7.3	8.7	8.6	8.9	9.6	12.8	11.7	12.1	12.5
Developmental expenditure	43.5	41.3	32.3	25.8	23.7	25.2	28.8	27.7	28.7	26.7	25.6

/a Totals may not add up to sum of components because of rounding.

Source: Ministry of Finance.

3.10 As an indicator of decentralization, Table 3.2 is quite telling. In the space of 11 years, the share of GDP captured by the tax system (including remittance of profits) has swung from 34% of GNP to a little under a fifth. The 12% of GNP surrendered by Beijing has won provincial support for reforms and bolstered enterprise autonomy, two pillars of the reform. The central government remains in overall fiscal command but it must now balance its revenue requirements against the interests of reform.

3.11 Revenues can be surrendered only if expenditure needs are curtailed. From Tables 3.3 and 3.4, it is apparent that a balancing of claims on the central authorities with its available resources has been partially achieved through two mechanisms. One has been the transfer of a portion of development spending to enterprises. The second is a substantial reduction in the share of defense spending in GNP. Current expenditures as a percentage of GNP were about the same in 1978 and 1987--19% of GNP. However, defense spending had fallen from 4.6% of GNP to 1.9% and development spending (which probably embraces some expenditures that should be classified as defense-related) sank from 14.7% to 6.9%. As a share of the budget, education and health have risen in prominence and administrative costs show a marginal increase. The item that has grown most swiftly is subsidies and it has been largely responsible for raising current expenditures from 56.5% of total spending in 1978 to 74% in 1988. At first, food subsidies led the way--for production as well as consumption. Since 1985, subsidies for state enterprises forced into difficulties by price changes have also climbed. Each now accounts for about 3% of GDP. The 1987 budget allocated 70 billion yuan for subsidies, or 24% of the total expenditure.

Table 3.4: DEVELOPMENTS IN GOVERNMENT EXPENDITURE, 1978-88 /a
(In percent of GNP)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 Budget
Total expenditure and net lending	33.8	37.3	33.7	31.2	29.4	30.0	28.7	28.0	28.0	25.6	24.3
Current expenditure	19.1	21.9	22.8	23.1	22.4	22.5	20.4	20.3	20.0	18.9	18.1
Administrative	1.4	1.4	1.5	1.5	1.6	1.8	2.0	1.7	1.8	1.6	1.4
Defense	4.6	5.7	4.5	3.6	3.6	3.1	2.7	2.3	2.1	1.9	1.7
Culture, education, health	3.1	3.4	3.6	3.7	3.9	4.0	3.9	3.8	4.1	3.7	3.6
Economic services	4.9	4.7	4.4	3.6	3.5	3.3	3.0	2.7	2.7	2.4	2.2
Subsidies	3.1	5.0	6.3	8.0	7.4	7.6	6.1	6.1	6.0	6.1	6.1
Daily necessities)	(2.2)	(4.1)	(5.5)	(6.6)	(5.9)	(5.5)	(4.7)	(3.8)	(2.6)	(2.7)	(2.9)
Agricultural inputs)				(0.5)	(0.4)	(0.2)	(0.1)	(0.1)			
Enterprise losses	(1.0)	(0.9)	(0.9)	(0.9)	(1.0)	(1.6)	(1.3)	(2.2)	(3.4)	(3.4)	(3.2)
Other	1.9	1.7	2.5	2.7	2.5	2.7	2.8	3.6	3.3	3.1	3.0
Developmental expenditure	14.7	15.4	10.9	8.1	7.0	7.5	8.3	7.7	8.0	6.9	6.2

/a Totals may not add up to sum of components because of rounding.

Source: Ministry of Finance.

Table 3.5: BUDGET DEFICIT AND ITS FINANCING, 1979-88

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 b/ Budget	1988 Actual
(In billions of yuan)											
Revenue	126.3	131.6	138.6	141.2	159.4	183.5	228.3	244.3	256.9	274.4	291.4
Expenditure	146.9	148.2	144.4	148.3	169.0	193.9	232.4	262.2	283.3	305.0	315.6
Deficit	-20.6	-14.6	-6.8	-7.1	-9.6	-10.6	-4.1	-17.9	-26.4	-30.6	-34.2
Financing	20.6	14.6	5.8	7.1	9.6	10.5	4.1	17.9	26.4	30.6	
Domestic	17.0	12.4	2.6	7.3	9.5	8.7	4.0	12.8	20.2	22.3	
PBC	(17.0)	(12.4)	(-2.3)	(2.9)	(4.3)	(4.5)	(-2.1)	(7.1)	(14.9)	(0.0)	
Nonbank	(--)	(--)	(4.9)	(4.4)	(4.2)	(4.2)	(6.1)	(5.5)	(5.2)	(22.3)	
Foreign	3.6	2.2	3.2	-0.2	1.1	1.8	0.1	5.3	6.3	8.3	
(In percent of GNP) /a											
Revenue	32.1	30.4	29.9	28.0	28.3	27.1	27.5	26.0	23.3	19.0	20.2
Expenditure	37.3	38.7	31.2	29.4	30.0	28.7	27.5	26.0	27.9	25.6	22.7
Deficit	-5.2	-3.3	-1.3	-1.4	-1.7	-1.6	-0.6	-1.9	-2.4	-2.1	-2.5
Financing	5.2	3.3	1.3	1.4	1.7	1.6	0.6	1.9	2.4	2.2	
Domestic	4.3	2.9	0.6	1.5	1.5	1.3	0.5	1.3	1.8	1.5	
PBC	(4.3)	(2.9)	(-0.5)	(0.6)	(0.8)	(0.7)	(-0.2)	(0.7)	(1.4)	(0.0)	
Nonbank	(--)	(--)	(1.1)	(0.9)	(0.7)	(0.6)	(0.7)	(0.6)	(0.5)	(1.5)	
Foreign	0.9	0.4	0.7	-0.1	0.2	0.3	0.1	0.6	0.6	0.6	
(As percent of total deficit) /a											
Domestic	82.5	84.9	44.8	102.8	88.5	82.9	97.6	70.4	76.5	72.9	
PBC	(82.5)	(84.9)	(-39.7)	(40.8)	(44.8)	(42.9)	(-51.2)	(39.7)	(56.4)	(0.0)	
Nonbank	(--)	(--)	(84.5)	(62.0)	(43.8)	(40.0)	(148.8)	(30.7)	(19.7)	(72.9)	
Foreign	17.5	15.1	55.2	-2.8	11.5	17.1	2.4	29.6	23.9	27.1	

/a Totals may not add up to sum of components because of rounding.

/b Revised.

Source: Ministry of Finance, IMF

Fiscal Reforms and Budgetary Dynamics

3.12 Defense Spending. Through the prism of fiscal trends, the reform unfolds as follows. A critical factor is the weakening claims of the military and of defense infrastructure in general. By demobilizing a million men (half of whom were absorbed by the People's Armed Police) and reducing defense-related capital construction, China freed resources for productive sectors as well as consumption. By some accounts, between 2% and 6% of GNP was available each year for redistribution after 1980. Initially, this financed an improved terms of trade for agriculture without burdening the other sectors or compromising other state activities. By the mid-eighties, continuing defense-related savings became available to defray some of the transitional costs of industrial reforms.

3.13 Development expenditures could also be reduced in the mid-eighties to support the reform drive because the principal justification for a major effort at capital construction--the building through fiscal redistribution of the infrastructure in the strategic western region of China--was much less pressing.

3.14 However, political developments beyond China's borders did not spark economic reform in China. The genesis must be sought in the economic vision of China's leadership. Fiscal reforms have freed resources, promoted decentralization and curbed the interventionism of the central bureaucracy. It is impossible to conceive of meaningful change without a redefining of fiscal shares and responsibilities. There is at the same time a less desirable side to this which has attracted increasing notice as economic turbulence has mounted in 1988.

3.15 Budgetary Balance. Two features of the budgetary arithmetic require attention. First, revenue buoyancy has slipped below unity (0.71 for total revenue between 1978-88, with the decline being particularly steep following industrial and tax reforms in 1985-86) so that in the face of robust growth, the share of GDP accruing through taxes to the government continues to decline. Second, the development of an integrated national economy rests upon investment in infrastructure and in a variety of services. Some of these financial responsibilities have devolved onto the provinces but more slowly than was anticipated. Meanwhile, subsidies for the various groups that must be partially sheltered from the redistributive forces unleashed by the reform, maintain the pressure on current expenditures. These subsidies declined until 1985 helping to narrow the budget deficit to 0.5% of GNP but a reversal of this trend has resulted in a widening gap with the budgeted deficit for 1988 equal to 2.5% of GNP. About one fourth of the deficit was financed through foreign loans during 1987-88 as against 11.5% in 1983 (0.2% of GNP in 1983 about 0.6% of GNP in 1987-88). Borrowing from the PBC, which increases the flow of high-powered money, covered 45% of the deficit in 1983 rising to 56% in 1987. In 1988 such borrowing was entirely superseded by bonds placed with the specialized banks. As a share of the GNP, it has fluctuated between -0.2% and 1.4% during 1983-87 (see Table 3.5).

3.16 A deficit of between 2% and 3% is relatively modest, given the low levels of national debt, large private savings and very high rates of GDP growth. However, a number of factors must be weighed. First, is the trend. As a proportion of GNP, the deficit has been approximately stable during 1986-88. A further drop in the tax/GNP ratio without a commensurate reduction in subsidies could result in a widening of the gap as could housing reforms that are not designed from the outset to be self-financing. Second, there are the government's unfunded liabilities, in particular loans to ailing enterprises made by the banks that might ultimately have to be paid off through the budget. These were probably equivalent to 3% of the GNP in 1987. Third, budget deficits are of different types some being less injurious than others. China's budget deficit has characteristics similar to the Japanese budgetary situation 5/ in the first half of the eighties in that much of the excess spending is on public sector capital assets that yield high returns. A quarter or more of public spending has been for purposes of development. On average over 7% of GNP has been devoted to such purposes. China does not run a deficit on the current account. Instead much of the borrowing is funnelled into infrastructure building that relieves critical bottlenecks to growth.

3.17 Fifth, the high rates of unanticipated inflation during the past eighteen months has lowered the real value of all outstanding debt and at least in an accounting sense (as much of the debt is held by public institutions), has lessened future debt servicing obligations. 6/ Finally, the financial market in China is at an embryonic stage with considerable scope for expansion. This improves the prospects for placing government bills and bonds with less risk of crowding out other borrowers.

3.18 The problem, if there is one, is not so much with the level of the deficit but with the trend. If tax elasticity is not revived, the Central Government will gradually lose the development initiative that comes from full command over a large fiscal pool. It will have difficulty launching the planned housing reforms that may initially impose an extra burden on the state exchequer, although eventually, they would be financed through separate levies

5/ Public savings in Japan through the government budget, are discussed in "A closer look at savings rates in the U.S. and Japan," by M.J. Boskin and J.M. Roberts in Government Policy towards Industry in the U.S. and Japan, ed. J.B. Shoven, Cambridge University Press, 1988.

6/ New approaches to public debt accounting and the calculation of the true debt burden are described in "How to make sense of the deficit," by R. Eisner and P.J. Pieper, Public Interest, No. 78, Winter, 1985; "Concepts and Measures of Federal Deficits and Debt and their Impact on Economic Activity," by M.J. Boskin, in The Economics of Public Debt, eds. K.J. Arrow and M.J. Boskin, St. Martin's Press, 1988, and "A Guide to Public Sector Debt and Deficits," by W. H. Buiter, Economic Policy, No. 4, 1987.

and market-determined rental charges. ^{7/} Further, a widening budget deficit could complicate stabilization efforts. As long as inflation remains a threat, a trend towards fiscal balance is a desirable objective. The investment cuts announced for 1989 will help in this regard, but to the extent that they impinge upon the building of infrastructure and the modernization of the services sector there is a cost in terms of progress.

3.19 Center-Province Fiscal Relations. Recent trends that appear to have reaffirmed centralism and steadily enlarge the center's revenue share would go against the grain of reforms. Further, a tradition of provincial independence and fiscal policy by bargaining is firmly entrenched. Both of these considerations obscure the road ahead. Under the circumstances, the best approach is to analyze the dynamics of tax relations a little more closely and to seek guidance from international experience.

3.20 It was inevitable that decentralization would give rise to a family of problems. One that was referred to above relates to revenue growth. The method chosen for fixing the tax obligations of provinces in the majority of cases establishes 1987 as the base and from an assessment of trends in revenue over the past few years arrives at a tax quota which the local government is obligated to meet. Any amount over the quota is retained by the local authorities. A shortfall must be made good by drawing upon accumulated funds. Under this arrangement, adopted by 10 provinces, the revenue base is projected to increase by 4-5% per annum over the duration of the contract period.^{8/} It did not anticipate the recent high rates of inflation and does not contain an indexing clause. Another type of arrangement negotiated with three of the

^{7/} Housing reform entails a 1.5 yuan per square meter increase in the rent. To defray this additional cost, individuals are being issued coupons equivalent to 25% of their salary. Those who are not living in a house of their own or who are in a dwelling that is of below average size can obtain reimbursement for their unused coupons. This has to be covered through the budget. As more housing is sold to the public, the State's fiscal obligation will diminish.

^{8/} Several other variants have been negotiated. Before 1985, Shanghai retained 10% of its revenue earnings. In that year, it was raised to 24%. The agreement reached with the central government in 1988 commits the city to transferring Yuan 10.5 billion each year during 1988-92. Shanghai would, of course, retain all revenues above this amount. Income in 1986 was Yuan 16.5 billion and it may have declined slightly in 1987. Under the terms of the new contract a reversal of the downward trend in Shanghai's revenues might be managed. The contract with Guangdong Province sets the amount of revenue to be transmitted in 1987 augmented by 9 percent each year. The contract with the city of Chongqing stipulates that during 1988-90, the city will transfer to the Province of Sichuan and the Central Government each the amount of revenue remitted in 1987 augmented by 4 percent a year. Lastly, the municipality of Guangzhou is subject to a contract which stipulates a progressive growth rate to the amounts that are transferred to the provincial authorities. As in the other cases the city retains any surplus.

richer provinces and municipalities requires a division of the above quota revenues between center and province with the latter retaining between 25% and 30%.

3.21 Under these arrangements, which extend over 3-5 years, the base year remains fixed and the increments tend to be less than the nominal growth of GNP. This limits the responsiveness of revenues and reduce the central governments share of the taxes collected. Up to a point, this is consistent with the leadership's desire to streamline the central bureaucracy and reorient its administrative functions towards a plane more appropriate for market socialism. Eventually, the revenue share must be stabilized in order to ensure that the central government can maintain the flexibility of fiscal policy and continue performing the functions--from income redistribution to the upgrading of infrastructure--that secure future growth and welfare.

3.22 Bargaining between Center and provinces to determine the allocation of revenues has been woven into fiscal life, but in the prereform period, the rules were clearer: the Center allocated funds transferred to it by lower-level authorities. The new balance of fiscal power weakens Beijing's hand--so far, its need for funds runs ahead of contractually agreed revenues, especially in view of the high rates of inflation; and the provinces have greater fiscal autonomy under the terms of the reform. Depending on their negotiating position vis-a-vis the Central Government and the length of the tax contract, each province is subject to conflicting incentives as regards the harvesting of revenues. If it cannot deflect the government's demands, a province may wish to underutilize its tax-raising capability while extracting resources from enterprises through less visible channels.^{9/} Similarly, towards the end of a contract cycle, when a

^{9/} Enterprises remain subject to various kinds of exactions by local government officials and some enterprise data from Jiangsu suggests that these may have partly offset reductions in taxes, thereby maintaining the fiscal pressure on firms. Such requests are extremely difficult for an enterprise to resist, since it has limited legal protection against requests from, for example, the mayor, who is in some sense the superior and "owner" of the enterprise. Thus enterprise resources are effectively socialized either through the allocation of various municipal expenses to the enterprise (tanpai), or through requests for the enterprise to provide manpower or materials to assist in assorted projects (canzhu). Some attempts to quantify these phenomena may be made on the basis of critical comments in the Chinese press. In a number of cases, exactions on the enterprise equal to 10-15% of profits have been noted, and the governor of Jiangsu reported that in some cities in her province 64% of retained profits were appropriated in this manner. Many of these exactions are for "good causes": supporting schools and urban public utilities, raising money for energy development, etc., so the problem is not generally one of corruption or misuse of funds, but rather that enterprise incentives are highly distorted by the unpredictable nature of these extralegal levies on enterprise income. It is not clear how widespread this practice is. However, it is sufficiently important to deserve special reference in the newly promulgated enterprise law, which specifically protects the enterprise against exactions. "Center-Provincial Relations in the PRC Since the Death of Mao: Financial and Political Dimensions," by P. Ferdinand, University of Warwick, Working Paper No. 47, December 1987.

province is preparing for a fresh round of talks, there is an incentive in limiting the revenue take so as to obtain the most favorable tax-sharing agreement. Finally, the government is bound by its stabilization policy goals to be conservative in its assumption regarding the increase in prices. As contracts are unindexed the growth of revenues in real terms falls short of requirements.

3.23 Between 1982 and 1986 the proportion of taxes collected directly by the Central Government rose from 23% of the total to 40% which is almost equal to its share of expenditures. This has improved the Government's fiscal position. But in order to effectively discharge its redistributive function, it remains dependent upon a handful of provinces and cities to provide additional revenues needed by those parts of the country that rely on central grants to balance the books. Over 40% of all revenues are raised from just five provinces and there is a huge variance in expenditure-collection ratios, ranging from 400% in Qinghai to 12% in Shanghai (see Table 3.6). As most center-local contracts are only in their second year it is difficult to judge conclusively the satisfactoriness of this approach, but it is likely that a recalibration of the sharing arrangements as well as the central government's role may be required when the contracts are renegotiated in the early nineties, if not before.^{10/}

Table 3.6: CHANGING FISCAL IMPORTANCE OF THE CENTRAL AND SUBNATIONAL GOVERNMENT SECTORS
(in percent)

	1982	1983	1984	1985	1986
Central Government Share of:					
Collections (% of total)	23.0	29.8	34.9	37.0	40.5
Expenditures (% of total)	49.9	49.6	47.8	43.3	41.3
Expenditure-Collection Ratio:					
Center	222.8	172.5	141.0	115.7	104.9
Subnational	66.7	74.1	82.7	88.9	101.8
Ratio of Collections to GDP:					
Provincial Government	17.1	15.6	14.4	14.1	14.1
Central Government	5.1	6.6	7.8	8.3	9.7

Source: Ministry of Finance.

Note: The figures refer to centrally (and locally) collected revenues, by each level of government, before grants and revenue transfers.

^{10/} Some new approaches to center-local relations are discussed in the Bank's Report on Tax Policies.

3.24 Tax Reforms and Enterprises. One of the principal aims of reform in socialist countries has been to transfer resources and initiative to enterprises so that they can serve as the loci of progress. In actual fact, this has proven difficult: power tends to become lodged in provincial and local bureaucracies as in Yugoslavia or was never meaningfully transferred from ministries as happened in Hungary.^{11/} Strong provincial bureaucracies, by partially intercepting the discretionary authority handed down by Beijing, have profited from the new fiscal realities. The environment of bargaining is disadvantageous for enterprises which are pitted against supervisory agencies deploying extensive powers. Enterprise earnings must be tapped to satisfy the revenue needs of province and locality alike, hence local finance bureaus are reluctant to sever the close fiscal ties with individual firms and allow them meaningful autonomy in managing their resources.^{12/} A rationalization of the tax system on the basis of uniform-enterprise levies collected by the Central Government, as is the case in market economies, could serve to neutralize province-level interception of fiscal controls which only perpetuates bargaining and even raises it to new heights of intensity.

3.25 Prior to the industrial reforms in 1984, enterprises were permitted, initially, to retain incentive funds drawn from profits upon completion of planned tasks, thereby reinstating the basics of a Soviet-style system. After some experiments, profit-sharing ratios were established but because the volume of accounting profits was very large, these ratios were typically quite low, frequently less than 20%. Such systems led to a dispersion in marginal rates, with more profitable factories subject to lower taxes. As a result, new systems were devised which increased marginal retention ratios. These fell into two categories. The first, exemplified by so-called "tax for profit" approach, attempted to raise marginal retention ratios by reclassifying accounting profits into several more rational categories, which were then to be taxed away. It envisioned a system of product taxes, resource and capital taxes, and income taxes, though an additional "adjustment tax" was still required to tax away remaining profit differentials in a few large, highly profitable enterprises. This system directly addressed the artificial nature of accounting profits, and began a process of fundamental financial reform that might have culminated in a set of uniform regulations for all enterprises. Unfortunately, it was largely abandoned during 1986/87.

^{11/} As noted in the Report on the Work of the Government, 1986, prepared by then Premier Zhao Ziyang, the powers delegated to state-run enterprises "have been held up at the intermediate levels in some localities and departments." As a result, "enterprise behavior cannot meet the requirements of ... overall policy ... nor ... respond to market changes promptly and rationally." See also Chapter IV.

^{12/} Although tax rates are determined by the Central Government, fiscal policy at the grass roots is managed by the local Finance Bureau and implemented by the local Tax Bureau that generally takes its cues from the Finance Bureau. A tax inspector resides in each of the bigger state enterprises and is responsible for calculating the taxes due. Hence the authorities are able to keep a very close watch on the principal taxpayers, enjoy full access to accounting information and can easily exert fiscal pressures on enterprises if they so choose.

3.26 Since 1987, the alternate approach to raising marginal retention ratios (which had always existed alongside the "tax for profit" system) has dominated enterprise financial systems (see para. 3.7 above). This approach, which might be labeled the "profit contract" system, essentially calls for the establishment for one or several years (usually 3-5 years) of a profit (or tax) delivery obligation. Additional profit earned above this delivery figure is either retained entirely by the enterprise, or else retained at a very high marginal ratio, 60-80% or more (the average tax rate on above quota profits in 1988 was about 18%.) As with center-local revenue contracts, the base year remains unchanged and the rate of increase is fixed in nominal terms.

3.27 In essence, this is a system of lump-sum taxation (in real terms). The amount of the tax is based implicitly on the level of accounting profits in base year, with perhaps some additional factors included as part of the bargaining process. The Chinese system has evolved in this direction for the same reason that economists find that lump-sum taxes are the simplest, nondistortionary method of taxation. Once they are fixed, they have no effect on further decision-making. Recognizing that the essential feature of this system is one of lump-sum taxation also helps isolate an inherent defect. In any system where recurring lump-sum taxes are employed, the units taxed will discover the basis on which the tax is levied and will take steps to alter that dimension of their behavior. Lump-sum taxes that are fixed once for eternity would of course eliminate that problem, but it is extremely unlikely that Chinese enterprises accept the concept of unchanged lump-sum taxes as being anywhere near credible. They expect that tax burdens will be adjusted in the future, and current activities will influence the adjustment. As a result, behavior will change as enterprises attempt to influence that adjustment process, and the taxation system loses its nondistortionary character.

3.28 The difference between profit contracting and a true lump-sum tax system becomes transparent when the setting of profit delivery obligations is examined. It appears that profit deliveries are frequently calculated after the enterprise has developed a future investment plan in consultation with supervisory agencies. After projected growth of profits is calculated, deliveries are determined at a level that will just allow enterprises to implement the proposals. This investment program is then included in the contract as part of the enterprise's obligation.^{13/} Hence, even in its initial determination, profit contracts are manipulable by enterprises as part of the ongoing bargaining process with superiors. It would be unreasonable for enterprises to expect that bargaining process to cease after delivery obligations have been established.

3.29 Even if enterprises were all operating on their efficiency frontiers, fixed lump-sum taxes would lack credibility because of the presumption that the government's role would remain fixed in a rapidly growing economy. In addition, many firms are aware that some of the variations in accounting

^{13/} Note that this can also be interpreted as a measure to increase the bargaining power of the superiors/managers coalition against the workers.

profits can be ascribed to egregious differences in efficiency caused by external conditions. Very large profits can be realized if certain supplies or complementary investments are made, and it must be difficult (and far from optimal) to assume that their tax rates will not be raised when such external conditions are modified. Similarly, because such anomalies will not disappear in the future, the reverse process will also occur. Chinese enterprises cannot possibly accept lump-sum taxation as a credible long-term reality. These problems become more severe as the end of the contract term is reached, and the determination of the next set of contracts, which would typically begin in 1990-92, commences. Tax evasion is on the increase. A check conducted in 1987-88, under the auspices of the State Council, uncovered fiscal fraud amounting to yuan 10 billion (1.8% of budgetary income).^{14/} Further confirmation comes from a CASS study which suggests that 70-80% of all enterprises were engaged in some form of avoidance.^{15/} In the late 1980s, enterprises will have an incentive to reduce growth rates of profitability, in order to be in a position to bargain for lower delivery contracts in the next round. It is unlikely, therefore, that the profit contract system will prove to be an adequate answer to long-term fiscal requirements.

Theory and International Practice of Fiscal Policy

3.30 The direction taken by fiscal reforms has been determined by political calculations, the country's administrative framework and by the gathering forces of decentralization (see Chapter I and above). Tax measures have also to allow for the distorted prices that are a legacy of the planned economy. Because tax and price changes cannot be synchronized given the vastness of the transformation entailed, a measure of discretion on the fiscal side is almost inevitable during the transition to a market-based economy. Some avoidable mistakes have been made, but the question requiring an answer is the following: Does the theory of public finance as it has been translated into fiscal policy in other countries offer better solutions to the ones being enacted by China?

3.31 The criteria for judging a tax system are fourfold: simplicity; success at enhancing efficiency; the promotion of equity; and administrative convenience. In applying these criteria both developed and developing countries are forced to make compromises so that what actually takes shape is often far removed from the textbook ideal. During the past decade a slowing of growth in the Western countries has led to an upsurge of interest in tax reform as well as a change in priorities based on advances in fiscal thinking, ideological drift and learning from experience. The trend of recent tax legislation in the OECD countries is towards lower rates for direct taxes to maximize incentives, base broadening to preserve elasticity, and in the EEC, a

^{14/} See also, "La Reforme de L'administration Chinoise et Ses Limites," by J-P Cabestan, Revue Tiers Monde, October-December 1986, regarding tax evasion in 1985. An XHNA report in 1988 provides additional corroboration. Some 50% of enterprises and 80% of individual entrepreneurs had evaded taxes. Local authorities had exceeded their statutory rights and contravened tax laws by formulating their own provisions. Many unauthorized tax deductions had also been allowed. "Quarterly Chronicle and Documentation," China Quarterly, March 1989, No. 117, p. 192.

^{15/} See Economic Research, No. 6, 1987.

coordination of VATs to lessen distortions, together with modifications of the rate structure. Attempts at simplifying taxes have generally yielded poor results and most studies show that neither investment nor savings responds significantly over the medium term to tax incentives.^{16/}

3.32 Rates on direct taxes are being cut and the rate pyramid is becoming flatter for a number of reasons. First, a neutral tax system with broad brackets least distorts resource allocation at the margin. Second, the irrepressibility of inflation has forced governments to attend to the problem of bracket creep. Third, after 40 years of social security, in the industrialized economies income redistribution is much less of a concern; instead, governments are more inclined to seek growth and believe that deregulated markets along with lower income taxes will bring forth the entrepreneurial spirit.

3.33 Cross country experience for the period 1979-82 indicates that the Tax-GDP ratio rises with per capita income and urbanization. The relationship is particularly strong in the case of direct taxes with high income elasticity. From a sample of 86 countries those with per capita incomes of less than \$350 (in 1981 prices) collected only 2.7% of GDP (20% of tax revenue) from income taxes, whereas countries with per capita incomes of \$1700 or more obtained 8% of GDP (36% of tax revenue) from direct taxes. So long as countries are heavily dependent on indirect tax at low and intermediate income ranges, revenue elasticity is likely to be modest, but improves once the tax structure changes in line with higher incomes, urbanization and administrative capability.^{17/} Few countries have been able to satisfy the canons of simplicity. On the contrary, income taxes in the developing world are frequently of the complex schedular variety. Administration remains a nightmare because of the problems attendant upon defining, measuring and assessing of incomes and of tax payments. Typically tax systems have tended to be weakly progressive at best and they have done little to reduce income inequality. This echoes the experience of developed countries where the net result of credits and exemptions is to push the tax structure towards proportionality.^{18/}

3.34 The more advanced among the LDCs have introduced VATs. It has proven to be an elastic source of revenue when it is treated as a major tax; high

16/ World Tax Reform: A Progress Report, ed. by J. A. Pechman, Brookings Institution, 1988.

17/ "Quantitative characteristics of the Tax Systems of Developing Countries," by V. Tanzi in The Taxation for Developing Countries, eds. D. Newberry and N. Stern, Oxford University Press, 1987, pp. 222-226.

18/ Government Finance in Developing Countries, by Richard Goode, Brookings, 1974; and "Taxation and Income Distribution," by L. de Wulf, in Comparative Tax Studies, ed. S. Cnossen, North Holland, 1983. A recent survey of countries can be found in the World Development Report 1988, World Bank, 1988, Ch. 4.

rates are applied; it is supported by a computerized tax administration with adequate procedures for cross-checking; and when recording practices along with the use of cash registers is widespread.^{19/} A VAT is least cumbersome administratively when it has a single rate, but multiple rates are virtually the norm and seemingly ineradicable. Indonesia is the sole example of a country with a single rated VAT. Korea and Taiwan (China) started with a single rate but now have three. At the other extreme is Belgium with seven rates. Some recent thinking on indirect taxation emphasizes selective taxes on goods and services, that use differentiated rates. Clearly the criteria for determining the rate structure is far from straightforward.^{20/}

3.35 Empirical analysis of the effects of taxation on investment and saving--has yielded mixed results. Studies on developing countries have failed to uncover a convincing relationship between taxes and savings.^{21/} There is more evidence of a correlation between savings and growth, but the direction of causality is uncertain. In the realm of theory and simulation exercises the link between taxes on the one hand and savings and investment on the other is direct as well as firm. For instance, a shift from a progressive to a proportional tax can increase capital formation; a consumption tax should raise savings.^{22/} Empirical verification suggests that a change in effective tax rates affects investment through the cost of capital. Residential investment is more responsive than spending on plant and equipment. Tax incentives for investment, by discriminating between new capital and that of earlier vintages, can also bring about transfers from the older generation to the young, thereby promoting capital outlay.^{23/}

3.36 Tax concessions seem unable to modify saving behavior marginally over the longer term, because investment must equal domestic savings even in open

^{19/} See The Value Added Tax: Lessons from Europe, by H.J. Aaron, Brookings Institution, 1981; "Administrative and compliance issues unique to VAT: Lessons from two periods of British Experience," by C. Sanford and M. Godwin, DRD discussion paper, 192, World Bank, 1986; "Criteria for Choice among types of VAT," by C.S. Shoup; DRD discussion paper, World Bank, 1986.

^{20/} "A new look at indirect taxation in developing countries", by R.M. Bird, World Development, Vol. 15, No. 9, 1987.

^{21/} "Fiscal incentives for firms in some developing countries: survey and critique," by S.M.S. Shah and J.F.J. Toye, in J.F.J. Toye, ed. Taxation and Economic Development, Frank Cass, 1978.

^{22/} Dynamic Fiscal Policy, by A.J. Auerbach and L. J. Kotlikoff, Cambridge University Press, 1987, p. 112.

^{23/} Auerbach and Kotlikoff, op. cit., 1987, Chapter IX; Tax Incentives and Economic Growth, by B.P. Bosworth, Brookings Institution, 1984, p. 183; and U.S. Taxes and Tax Policy, by D.G. Davies, Cambridge, University Press, 1986, pp. 138- 145.

economies. This makes the link between tax incentives and capital accumulation rather tenuous.^{24/}

3.37 Fiscal decentralization throughout the world has been guided by similar forces: (i) administrative-scale economies; (ii) the efficacy of centrally determined solutions to the problems of market failure and inequality; (iii) the principal-agent tension; and (iv) the informational advantages of local bodies over central agencies in raising revenues and allocating funds. The logic of the first two points towards a complete centralization of the fiscal function. The fourth highlights the advantages of full decentralization, while the third underlines the difficulties seeding the middle ground where most fiscal systems must make a living. Whenever one individual depends upon another's action, an agency relationship is forged. The one who acts is the agent whereas the affected party is the principal. The agency relationship is problematic because the principal can rarely monitor the agent's activities or have complete access to his information set. Inducement and enforcement then become necessary.^{25/}

3.38 Extreme centralization is impracticable even in pure, socialist economies. The shortage of information would gravely compromise fiscal policy and administrative economies are vitiated by other dysfunctions linked to large centralized bureaucracies. Hence, a division of labor between central agencies that can take national interest into account (as well as accommodate externalities) and local bodies that are the repositories of detailed knowledge on the microeconomy, is inevitable. Center-local fiscal relations almost inevitably degenerate into a game where the center attempts to divine the exact revenue potential of the locality and fathom the scale of expenditure needs. The province in its turn attempts to distort the size of its resource base and extract the maximum resources from the national administration. Both parties are caught in a web of mutual dependence. Subordinate units are heavily dependent upon the center for funds, services and an overall policy framework. Within the limits of self-interest, they will accede to the center's demands. Meanwhile, the central government is inhibited from pressing too far with its own fiscal goals by the sheer cost of tight

^{24/} The Structure and reform of the U.S. Tax System, by A. Ando, M.E. Blume and I. Friend, MIT Press, 1985, p. 70; and B.P. Bosworth, op. cit., 1984, p. 125.

^{25/} For a discussion of the principal-agent problem, see "Principals and Agents: An Overview," by J. W. Pratt and R. J. Zeckhauser in Principals and Agents: The Structure of Business, eds. J. W. Pratt and R. J. Zeckhauser, Harvard Business School Press, 1985.

controls, detailed monitoring and of penalties liberally applied.^{26/}

3.39 Models of principal-agent relations offer highly complex solutions to the problem posed by this intertwined association. Such complexity is almost never met with in any real-life sharing arrangements. There is a sizable expense in specifying very complex contracts that can offset the informational asymmetries between principal and agent. Stating, understanding and verifying the terms of a contract can each be costly. Simple contracts are the most cost-efficient.^{27/} They are especially attractive when monitoring is a serious bottleneck because of staff shortages; when indication of performance evaluation for complex contracts cannot be specified with much concreteness; and where the performance itself is subject to numerous historical and other circumstances that are beyond the control of either party. Viewed in this light the type of contracts negotiated by the Chinese government with local authorities as well as enterprises have their attractions. Staff in the central tax administration is limited and inexperienced, the channels for rapidly assembling fiscal information have yet to be developed; and the transition from a socialist economy to a market oriented one raises a host of issues which are most easily tackled within the arrangements now in effect. Early in the next decade when the State Administration for Taxation is better equipped to monitor the country's highly dispersed fiscal operations and the industrial transition has been partially completed, it will be time to introduce a new fiscal regime.

Fiscal Policy for the Transition

3.40 When the results of China's recent fiscal initiatives are examined in the mirror of international experience, a number of points emerge.

Tax Structure

- (a) Although it is not overly helpful to think of tax effort in normative terms, China is still respectably placed compared to other countries in low and middle income groups. There has been slippage in recent years as the country has shifted towards a tax structure dominated by supply-side concerns relying more upon

^{26/} This summarizes some of the points made in recent surveys of the literature on fiscal federalism. "The Assessment Decentralization and the economics of local government," by D. Helm and S. Smith, Oxford Review of Economic Policy, Vol. 3, No. 2, 1987; "Fiscal Federalism in the U.K.", by G.A. Hughes, Oxford Review of Economic Policy, Vol 3, No. 2, 1987; and "Decentralization as an incentive scheme," by P. Salmon, Oxford Review of Economic Policy, Vol. 3, No. 2, 1987. A very useful review of local government financing in developing countries can be found in the World Development Report, 1988, World Bank, 1988, Ch. 7.

^{27/} "The Economies of Agency," by K. J. Arrow, in J. W. Pratt and R. J. Zeckhauser, eds. op. cit., 1985.

unindexed enterprise tax contracts and indirect taxes with lower elasticities. Any further erosion of the revenue base could, in the face of relatively incompressible expenditure commitments, lead to a widening of the budget deficit. It would also limit the flexibility of fiscal policy. The government's decision, announced in December 1988, to aim for a tax/GNP ratio of 28% over the longer-term sounds the right note.

- (b) Currently three taxes--enterprise, turnover and VAT--yield three fourths of the revenue. In the interest of tax elasticity, China should move from income type VAT to a consumption based VAT with a rate that averages 15%.^{28/} Narrowing the scope for discretionary negotiations of enterprise tax obligations that reduce effective tax rates to well below the statutory 55% level would enhance the revenue from this source. Finally, there is considerable room for administrative improvements. The State Tax Administration, created in June 1, 1988 with a quasi ministerial status, has a staff of 345 relatively inexperienced employees, who are tasked with making the central government's tax policy, and monitoring some 2,600 county tax bureaus and 32 million taxpayers. Training is the first priority but looking ahead, the center might strive after a greater centralized control over tax collection and the implementing of fiscal policies, something that is currently in the hands of local officials responsible to county and municipal authorities.
- (c) While a more neutral tax regime is a desirable objective and one that many industrial countries have been striving after, China has first to iron out the major price distortions and settle the many issues relating to the autonomy of enterprises as well as the nature of their capital structure. A differentiated tax regime may be best suited for the medium term as it provides a rough and ready way of accommodating transitional difficulties, but taxes must be fixed and not subject to ad hoc discretionary changes. A fiscal system anchored to a few, broad based taxes could serve as a target for the longer run.
- (d) Simplicity is a worthy goal but apparently unapproachable. Countries with a few taxes usually have impenetrable tax laws that provide endless opportunity for legal conflict, evasion and tax bargaining. It is difficult to assert that the formal structure of taxation in China is overly complex by international standards and very little in the corpus of fiscal experience to suggest that a reform of this structure could somehow diminish complexity. However, the tailored contract responsibility arrangements, by injecting myriad variations does render the system somewhat opaque and it is this aspect of taxation that should be abandoned in the early 1990s once contracts signed in recent years have run their course.

^{28/} See Revenue Mobilization and Tax Policies in China, World Bank, 1989.

Center-Local Relations

- (e) Unindexed tax contracting as practiced in China with its low marginal tax rates provides enterprises with a strong incentive for profitable expansion. Provinces are motivated to squeeze more revenue out of their tax base because they can keep the surplus. The Government obtains a clearer sense of the revenue potential. In actual fact, there is evasion by enterprises and concealment by the provinces who are suspicious of the Center's intentions. It will require some ingenuity to develop a better system, which is also simple, so long as the current pattern of relationships continues to prevail. Research on the principal-agent problem suggests that a periodically negotiated (indexed) contract, where the principal asks for a fixed share and leaves all the remainder with the agent, is optimal as there is no dilution of incentives and the principal has transferred all the risks to the agent. Where agents are risk-averse, this is not feasible, but in the rapidly growing Chinese economy, provinces and counties are willing to shoulder risks.

Beijing has opted for growth by permitting the richer and more industrialized coastal provinces to retain more of the resources that were, in the past, redistributed through the fiscal system to other parts of the country. This is apparent from the contracts negotiated with the eastern provinces, coastal development strategy enunciated in 1988 (see Chapter VIII), and the diminished fiscal interventionism signaled by the decline in resources annexed by the center. This is all a matter of deliberate choice and not inadvertence. The Center cannot, therefore, chafe over the loss of fiscal resources, instead it must work towards cooperative arrangements with the provinces that will make possible a coordinated fiscal strategy, subject revenue sharing to the discipline of universal rules, make allowances for inflation and minimize the principal-agent problem.

Budgetary Balance and Stabilization Policy

- (f) As stated in para 3.17, a judgment on the budget deficit, rested on the nature of the Government borrowing. If, as is the case, the funds are being invested in productive assets that will generate revenue and remove critical bottlenecks, the immediate goals for stabilization policy should be to prevent the deficit from widening and to facilitate non-inflationary financing through the domestic bond market. A narrowing of the budget deficit might be desirable over the medium run as one strand of a stabilization strategy. It is not a pressing concern on other grounds. A budget deficit will not lead to ballooning of the debt/GNP ratio even when it is entirely financed by domestic debt so long as interest rates remain below the growth rate of national income in nominal terms. Further, under these conditions, the rate at which a budget deficit pushes debt/GDP ratios towards an asymptote is quite slow. Table 3.7 gives rough indications of debt/GDP ratios for various

levels of budget deficit, interest rates and growth rates.^{29/}

TABLE 8.7: SIMULATION OF BUDGET DEFICITS AT VARIOUS RATES OF INFLATION, REAL GROWTH AND INTEREST RATES*

Scenario	Deficit/ GDP	Real Growth	Inflation	Nominal Interest Rate	Interest GDP	Debt GDP	Interest Revenues
Base case	3	7	10	18	2.2%	6.9%	3.6%
High Growth- Low deficit	3	10	15	18	2.0%	11.1%	4.5%
High inflation High deficit	5	7	15	18	3.9%	21.7%	5.0%
High inflation negative real interest rates	5	7	15	12	2.6%	21.7%	10.9%

* Calculations are based on E.D. Domar [1946], "Capital Expansion, Rate of Growth, and Employment", *Econometrica*, 137-147. Values given are for the steady state after all adjustments have taken place. Critical is the assumption of sustained growth rates of 7% over the longer term; lower real growth rates would translate into significant increases of the debt burden. Debt financing is assumed domestic, or foreign with a constant real exchange rate.

(g) Stabilizing revenues shares, initially through administrative measures that lessen evasion, and injecting predictability into revenue flows makes sound fiscal sense.^{30/} Fiscal balancing could begin with expenditures and, over time, be extended to revenue-augmenting measures. The major candidates for immediate attention are subsidies for foodstuffs and to the loss-making state enterprises. These absorb 6% of GNP and a quarter of the budget. The government's objective should be to trim them and the numerous tax exemptions for enterprises. Progress on fiscal issues also calls for the continuing relaxation of price controls. If instead the approach taken is to try and raise taxes in the near term so as to finance subsidies, it would affect the decentralizing effort and expectations formed by recently instituted contracting arrangements. It could also perpetuate, possibly even expand, the system of subsidies.

^{29/} Details are in "Rising Public Sector Indebtedness: Some More Unpleasant Arithmetic," by J. A. Bispham, in *Private Saving and Public Debt*, eds. M. J. Boskin, J. S. Flemming and S. Gorini, Blackwell, 1987. See Footnote 29.

^{30/} Fiscal reform is the subject of a forthcoming study by the World Bank. See footnote 28.

- (h) The changes proposed above would increase the effectiveness of fiscal policy as an instrument for stabilizing demand particularly the management of investment spending by enterprises. Steps taken to eliminate the deductability of loan principal from pretax profits on all new lending after mid 1988 should also discourage excessive borrowing by firms. Beyond this tax policy may not have a significant role in regulating capital expenditure over the short term. As regards savings, the government is in a position to reverse the decline in public savings by controlling current outlay. But at this juncture using fiscal instruments to influence savings elsewhere in the economy may not be called for.

3.41 Tax contracting should give way to revenue-raising techniques commonly employed in other countries, but the fiscal regime evolved over the past four years could serve, with marginal improvements, until the economy has absorbed some major reforms in store for the price system and industry.

IV. INVESTMENT BEHAVIOR AND DOMESTIC RESOURCE AVAILABILITY

4.1 China achieved resource equilibrium in 1987, two years after having confronted the largest ever current account deficit in its recent history. This realigning of savings with investment was done with hardly any change in capital spending or diminution of growth. At one level, the speed of adjustment shows the economy is responsive to corrective measures. At another it merely confirms the extent to which China remains insulated from the rest of the world. In an economy where both capital and trade accounts are closed, savings must, out of arithmetical necessity, equal investment. As long as capital flows are tightly regulated and slippages through imports are minimal, capital accumulation over a fairly broad range has to be financed from domestic sources.

4.2 The first section of this chapter deals with the structure of investment; its management by central and local authorities; and with some of the factors responsible for the high rates of spending on capital which have been responsible for demand pressures over the last few years. An analysis of savings behavior is the topic analyzed in the second section with particular attention given to future tendencies which has a direct bearing on demand management strategy. While China did achieve resource equilibrium during 1987-88, its stability is still open to question both because of continuing investment hunger and the possibility that the current high savings rate may contain a significant element of forced savings that could result in future demand shocks.

SECTION A: INVESTMENT

Investment Pattern

4.3 Prior to the start of the reform era in 1978, the ratio of investment to GDP exceeded 30% only during the years of the Great Leap. It averaged 29.2% p.a. in the first half of the seventies and 29.9% between 1975 and 1977. The average for the first three years of the reform rose to 34.5%, but thereafter, the government succeeded in its intention of dampening investment so that more resources could be spared for consumption. With the second round of reforms in 1984, the urge to build capital once again took over and rose to nearly 39% by 1985 (see Table 4.1). It has remained close to that level since in defiance of planners' preferences.^{1/}

^{1/} "Changes in Chinese Industry since 1978" by R.M. Field, China Quarterly, No. 100, December 1984, pp 48-9, and China: The Changing Structure of Industry, by R.M. Field, in China's economy looks towards the year 2000, Vol. 1, Papers submitted to the U.S. Congress, May 21, 1986, p. 507. However, see the qualifications concerning national accounts in Chapter I, Macroeconomics.

**Table 4.1: GROSS DOMESTIC INVESTMENT (GDI) AS PERCENT OF GDP
(Current Prices)**

<u>Year</u>	<u>GDI</u>
1970-74	29.2
1975-77	29.9
1978-80	34.5
1981-83	29.3
1984	32.2
1985	36.8
1986	38.8
1987	37.6
1988	39.0/ <u>a</u>

Source: World Bank economic database
a estimate

4.4 In the period extending from 1958 to 1975, China closely adhered to socialist precepts and emphasized productive investment over spending on housing or infrastructure.^{2/} Creation of industrial capacity claimed between 80% and 85% of total outlay. Such spending dropped closer to 70% after the start of the Four Modernizations Campaign and has been well below 60% throughout the eighties with the level inching lower as housing and social needs enlarge their claims and make up for the neglect in earlier years (Chapter I). Changes are also apparent in the sectoral distribution of expenditure on capital construction as well as in the sources of funding.

4.5 Agriculture is the biggest loser. The demise of the commune organization and uncertainty over the nature of usufruct rights have brought about a dramatic reduction in outlay on irrigation facilities, land improvement and rural roads. A similar trend is visible in heavy industry although the decline has been less steep. Broadly speaking, the share of light industry has been relatively stable. Investment in energy and transport dipped after 1978 as conflicting incentives pulled resources into other areas but these sectors are once again receiving the sustained government attention they deserve. The biggest winner is housing which now absorbs over a fifth of all the resources (see Table 4.2) expended on capital construction.

^{2/} Japan and S. Korea also invested sparingly in housing construction and this left more resources for directly productive activity. However, there is little evidence that investment housing and urban infrastructure raises the ICOR. The European experience is equivocal. Some countries which devoted a high percentage of capital to housing (Italy and Denmark) had low ICORs. "Notes on Japan's Economic Growth" by S. Kuznets in Economic Growth, ed. by L. Klein and K. Ohkawa, Irwin, 1968, p. 413.

**Table 4.2: PERCENT SHARE OF TOTAL CAPITAL CONSTRUCTION INVESTMENT
by State-owned Units**

Year	Agriculture	Industry		Energy	Transport + Communication
		Light	Heavy		
1979	10.6	5.8	48.7	22.9	13.6
1980	9.3	9.1	40.2	20.7	11.2
1981	6.6	9.8	39.0	21.4	9.1
1982	6.1	8.4	38.5	18.4	10.3
1983	6.0	6.5	41.0	21.5	13.1
1984	5.0	5.7	40.8	22.3	14.6
1985	3.4	5.9	35.7	19.0	15.9
1986	3.0	7.0	38.2	22.5	15.4
1987	3.1	7.4	43.5	24.5	14.1

Source: Statistical Yearbook 1988, p.503

Note: By excluding investment in technical transformation and capital spending by nonstate bodies, this table tends to exaggerate somewhat the shift in distribution.

4.6 A significant, and given the intent of the reforms, expected shift in the orientation of investment has occurred. Having spent the first three decades concentrating on heavy industry, the Government is now giving greater attention to infrastructure needs. Economic units are using their newly gained freedom to remedy the scarcity of housing and research on township and village enterprises (TVEs) suggests that more resources are trickling into light industry in anticipation of rising consumer demand.^{3/}

4.7 Two important shifts can be identified: (i) there has been a large increase in the share of investment in GDP, although rising construction and land costs impart an upward bias, investment is now claiming more resources than at any time in the past and the rate has few parallels in other countries;^{4/} (ii) agricultural investment has plummeted as the short planning horizons of households have displaced the larger, community-wide goals of communes (see Chapter V).

4.8 Some balancing of investment was inevitable once liberalization ended the narrow preoccupation with industry and with productive investment. While the change in composition is a healthy development, and enables the economy to correct deficiencies in areas such as housing, the increasing autonomy now enjoyed by provincial and lower level authorities as well as enterprises, has generated fierce competition for resources between these parties and the

^{3/} Development of the township and village enterprises is described in China's Rural Industry: structure, development and reform, ed. by W. A. Byrd and Lin Qingsong, World Bank, mimeo, 1988.

^{4/} The capital good deflator might also be guilty of exaggerating investment magnitudes in the national accounts.

central government. The larger role given to the banking sector has introduced new complications. Investment decision-making has become diffused without market discipline acting to repress capital spending. Neither banks nor enterprises are sufficiently bound by hard budget constraints. To understand better the depth of the problem, it is necessary to take a closer look at the interplay of conflicting concerns. There is an irresistible dynamic here that makes the current stage of the reforms a macroeconomically unstable one. In essence, control over investment has two purposes - to allocate capital more efficiently and reduce the pressures emanating from excess demand for resources. Centralized management could ensure that important projects were implemented but suffered from the drawback that Beijing does not know what is best for the localities outside of a few priority areas. It also generates disincentive effects associated with central commands that lower efficiency.

4.9 Under a decentralized system the problem is how to induce the localities to use their funds effectively and with more restraint. This is complicated by the presence of two kinds of local authorities.

(a) enterprises: for them investment control involves the two elements--a hard budget constraint and prices that reflect scarcities (including the price of capital). Without these, markets cannot act to restrain investment.

(b) local governments: to the extent that they resemble industrial conglomerates, the direction of reform is the same as for enterprises. But local governments must also provide social infrastructure which is not subjected to the discipline of profitability criteria. Further, hard budget constraints on localities could lead to a highly inequitable and generally inappropriate distribution of social services.

Investment Planning and Management by the Central Government

4.10 The central government remains a major locus of industrial decision-making but its role has diminished. Under the earlier administered economic system, it had a near monopoly over enterprise profits and over investment decisions. The transfer of enterprise revenues into the government budget was the most important component of the fiscal system, funding not only industrial investment, but also the whole range of governmental functions. Moreover, through its direct control over revenues and investment outlays, the government had adequate instruments to control macroeconomic magnitudes, at least when those instruments were used properly. Economic reform has led to a relinquishing of the government's monopoly over both enterprise revenues and industrial investment. The number of actors has multiplied and the government is faced with the need to develop an investment policy consistent with the transitional reform environment.

4.11 Centralized material allocation is withering. Both the number of materials centrally allocated and the proportion of the most important materials controlled by central planners declined (see Table 4.3). Compulsory allocation was carried out for well over 100 goods in the early 1980s. Theoretically 256 goods were included under central allocation authority, but

in fact most machinery products were not centrally allocated after 1980. The material supply bureau allocated only 27 materials for 1985, and this had fallen to 20 materials by 1987.^{5/} In addition, a smaller proportion of total output of these products is now under direct central government control. This is most clearly evident among ordinary producers goods whose distribution is divided between the central government and lower level units:

Table 4.8: PROPORTION OF TOTAL OUTPUT UNDER CENTRAL ALLOCATION

	Finished Steel	Coal	Lumber	Cement
1979	80%	54%	81%	86%
1980	74%	58%	81%	85%
1985	60%	51%	81%	19%
1987	47%	--	26%	16%

Source: Figures for 1979 and 1980 are from Christine Wong, "Material Allocation and Decentralization", E. Perry and C. Wong, eds., Political Economy of Reform in Post-Mao China, p. 282; Harvard University Press, 1988; for 1985, Ma Lu, Economic Research on Materials, 1987:6, p. 18; 1987 from Plan Report, Worker's Daily, February 24, 1988, p. 2.

These figures may exaggerate the extent to which the central government has withdrawn from the picture. Typically, the materials under the state's control represent the bulk of the output of large-scale modern factories which are themselves subject to central directives or ministerial influence. Because of the higher technological level of these factories, centrally allocated output tends to be of a superior quality. This is most obvious in the case of cement, where the quality grades needed for structural components are nearly all allocated by the central or provincial governments.

4.12 Moreover, a substantial portion of the materials falling outside of central purview are in fact managed by local governments. No adequate measures of this component of the economy is available, but some recently published figures provide an indication.^{6/} Between 50 and 80% of most important consumer goods are sold directly by enterprises. Of the commodities

^{5/} American Economists Study Team to the People's Republic of China, "Record of Meetings," New York: NCUSCR, processed, 1985, p. 48, has a list of the 27 materials allocated for 1985; Ma Lu, "Materials Circulation Should Implement Sector by Sector Management," Economic Research on Materials 1987:6, p. 18; Liu Guoguang, "Several Problems of China's Economic System Reform," public lecture, Ann Arbor, MI, September 15, 1987.

^{6/} China Statistics Monthly, March 1988 (Chicago: China Statistics Archive), pp. 40-46, gives proportions of various types of output marketed directly by enterprises. Local allocation can therefore be derived as a residual.

in Table 4.3, 22.5% of domestic steel output is marketed by enterprises; when account is taken of imports, it would seem that of total steel supplies, 47% are centrally allocated; 36% locally allocated; and 17% sold directly by enterprises. For coal the proportions would be central 50%; local 30%; enterprise 20%; for cement, central 16%; local 32%; enterprise 52%. Virtually no crude petroleum is marketed directly by enterprises, and electricity from the major power grids is universally allocated by local governments, although occasional supplements may be available from small-scale power sources. Because energy, and especially electricity, is frequently considered to be a binding constraint on China's industrial production, such control provides substantial economic power. Thus, a partial withdrawal of the central government from the allocative process does not automatically expand the scope of the market.

4.13 There is a tension between the Government's desire to reduce the extent of materials allocation and its need to direct materials into its own priority investment program. A crucial decision in this respect was made in 1987, when there arose a critical problem related to the availability of finished steel (both prices and inventories kept climbing, while supplies became increasingly difficult to locate.) Rather than recentralize control, the Government decided to sell a million tons of centrally allocated steel on the free market, in order to stabilize prices, while simultaneously liberalizing conditions for import of finished steel. While this made the State's priority investment program more difficult, it cleared the way for further reforms in the material supply system.^{7/}

4.14 Just as the ambit of the material supply plan has been reduced, so also the volume of enterprise revenues that are drawn into the consolidated budget have been cut. While in 1977, the Government absorbed 100% of state enterprise profits, by 1987 the figure had declined to only 58%. In 1986, when the government claimed 60% of profits for the budget, 14% of profits went "to the enterprise," that is, to enterprise-funded productive investment, while 22% went "to the workers", funding bonus payments and collective welfare facilities.^{8/}

4.15 Clearly, the diminution in the government's resources implies a corresponding reduction in its responsibilities in the realm of investment. A redefinition of Center's investment policy has resulted both from the increased sophistication of planners and from severe limitations that have appeared in the government's attempts to do too much. Growing awareness that Chinese development is being pinched by serious bottlenecks has directed

7/ China Infrastructure Construction, 1987: 6, pp. 6, 7, 14. These articles specify that in 1987, total centrally allocated finished steel declined by over 4 (million metric tons), and that allocation to capital construction declined from 6.29 MMT to 5 MMT, of which 2.07 MMT went to keypoint construction projects, resulting in a 42% decrease in the allocation of steel per yuan of non-priority central government projects (see Chapter VI for a review of the steel industry).

8/ State enterprises retained 48.9 billion yuan, or 42% of total profits in 1987. China Daily, February 25, 1988; Cf. Liu Guoguang, loc. cit. Presumably the remaining 4% went to repay bank loans.

investment into the fields of energy and transportation. Increasingly, government economists are arguing not only that investment should be concentrated in a few crucial sectors, but that state investment should be limited to public utilities, infrastructure, national defense, aerospace, high technology sectors and a few key projects elsewhere that hold out the promise of demonstration effects.^{9/}

4.16 The government has been pushed in the same direction by the difficulty it has experienced in completing a broad investment program under conditions of restricted resources. Thus, the Sixth Five Year Plan (1981-85) called for the completion of 400 large and medium scale projects, but only 235 (58.7%) of these were actually placed in production.^{10/} This result is quite remarkable, because the Sixth Plan was not drawn up until 1982-83, and most targets were set at extremely moderate levels. In fact, aggregate investment flows exceeded the planned figure by over 20%, and national income was also well over the plan. Yet in spite of this result, only a little more than half of the large investment projects were completed on schedule. There is substantial mismatch between the central government's ambitions regarding development policy and the capabilities that its direct control of resources permits.

4.17 This is also apparent from alternative measures of the degree to which investment is centralized. In 1981, 40% of fixed investment in state-run units was funded through the budgetary system. Allowing for the investment and some budgetary revenues by local bodies, and for funds that were managed by central ministries, these figures implied direct central government financial control of some 40-50% of capital spending. When investment in that year is disaggregated into spending on projects under central authority and those under local government supervision, 45% of the expenditures were on central government projects, so that financial resources and direct authority were roughly equal. Since then, central government financing has declined substantially while its authority has remained roughly constant. Funding through the budgetary system accounted for 24% of state investment in 1985 and only 22% in 1986, while foreign capital accounted for 5% of investment. Both bank lending and retained funds increased to make up the rest. Yet almost exactly the same proportion of total investment went for central government projects as in 1980: 44% in 1985 and 49% in 1986.^{11/} As the government's financial resources have declined, the Center has resorted to

^{9/} Zhou Daojiong, China Finance, 1988:2, p. 13.

^{10/} Hu Changlin, "When will the system of allocating blocks of investment and loans to functional departments be reformed?" China Infrastructure Construction, 1986:12, pp. 7-8. Perhaps some of this can be attributed to the late and hasty development of the Sixth Plan. But to some extent the problem has continued in recent years: In 1987, 63 out of 74 planned large and medium projects were placed in production, or 55% of the planned figure, ibid., 1988:3, pp. 41-2.

^{11/} Allowing for some assumptions needed to make the calculations, the differences between 1985 and 1986 are not significant. Data from 1987 Statistical Yearbook, pp. 473-74; Statistics on Fixed Assets Investment in China, 1950-85, pp. 59, 64, 218-19.

drawing in "matching funds" from localities to help finance their projects, and has relied upon bank loans (ultimately, the savings of households) to complete the financing of those projects. The central government's control over the economic system as a whole has been used to supplement its narrowed revenue base. The Government's declining financial control over investment is also apparent in aggregate statistics. Its share of fixed asset investment fell from 70% in 1981 to 63% in 1987. The most significant change over these years in financing patterns was the switch from budgetary grant to bank loans. In 1981, budgetary grants financed 28% of total fixed investment, and bank loans 18%. By 1987, investment financed through the budget had dropped to 13%, while bank loans had expanded its share to 23% (see Table 4.4). Investment funded by foreign capital and retained earnings/extrabudgetary funds recorded slight increases, accounting for 5% and 59% of total investment.

Table 4.4: FINANCING OF DOMESTIC FIXED INVESTMENT

	1981	1982	1983	1984	1985	1986	1987
Fixed Asset Investment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
State fixed investment	69.5%	68.7%	66.6%	64.7%	66.1%	66.5%	59.1%
Financing of fixed asset investment							
Budget	28.1%	22.7%	23.7%	23.0%	16.0%	14.6%	13.1%
Bank Loans	12.7%	14.3%	12.3%	14.1%	20.1%	21.1%	23.0%
Foreign	3.7%	4.9%	4.7%	3.9%	3.6%	4.4%	4.6%
Retained Earnings and extrabudgetary funds	55.5%	56.1%	59.4%	59.1%	60.3%	59.9%	59.2%

Source: Statistical Yearbook of China, 1988, p. 559.

4.18 Problems in meeting the targets for the Sixth Plan indicated that the ability of the central government to absorb resources from the rest of the economy to support its investment program did not remove all the hurdles in the path of implementation. In response, the Center has cut down on the number of projects, and raised the priority assigned to them through a plan for "rational time-table projects with guaranteed supply". In essence, these projects are simply planned by the central government to the level of specificity expected in a centrally planned system, but which ceased to characterize Chinese planning after the Cultural Revolution. These projects are accorded generalized priority, and their construction plans are broken down into annual stages which are carefully monitored by the State Planning Commission. Moreover, for about half of these projects, the State Material Supply Bureau assures the delivery of materials (except for a few local construction materials). This reinstitutes detailed supply planning for one small section of the economy.

Table 4.5: CENTRAL GOVERNMENT PRIORITY INVESTMENT

Year	Number of Projects	Investment (B. yuan)	Percent of Total Capital Construction	Percent of Net Material Product (NMP)
1982	50	6.30	11.8%	1.47%
1983	70	9.41	9.9%	1.97%
1984	123	15.90	13.4%	2.79%
1985	169	19.83	18.5%	2.64%
1986	190	27.99	23.8%	3.37%
1987	206	36.19	27.3%	3.95%

Source: 1986 Economic Almanac, p. V-12; China Infrastructure Construction 1986:5, p. 25 (list of 1986 projects); 1987:7, pp. 9-10 (Incomp. list of 1987 projects) and 1988:2, p. 8.

The importance of this program whose course is shown in Table 4.5, goes beyond that indicated purely by financial statistics because these projects obtain priority access to materials. This means first of all that such projects are carried out more smoothly than ordinary projects; and second, that they are paying lower prices for the materials they use, so that the effective degree of concentration of resources is actually greater than the purely financial statistics indicate.

4.19 In recent years, the priority accorded this component of the investment plan has succeeded in achieving a relatively high degree of plan fulfillment. In 1987, the priority projects received aggregate investment equal to 109% of the plan through a redistribution of centrally controlled resources while the overall capital construction plan was only 95.5% fulfilled, implying that the plan for non-priority projects was only 90.5% fulfilled.^{12/}

4.20 The concentration of central government investment on a smaller number of priority items reflects the salience of a few crucial sectors. There are 180 extra-large investment projects (value over 500 million yuan) in the Seventh Five Year Plan, and nearly all these are simultaneously priority projects in the above sense. These 180 projects account for three-fourths of the total value of large and medium projects incorporated in that plan (though not necessarily three-fourths of investment in any given year). Of these projects, 86 (48%) are energy; 38 (21%) are transportation; and 41 (22%) are raw material development.^{13/} A combination of pressures is thus refocusing the central government investment plan. In spite of the attention given to these priority sectors, it is striking that the overall composition of investment has not changed dramatically. Investment in energy and

^{12/} China Infrastructure Construction, 1988:2, pp. 8-9.

^{13/} Bei He, "The over 500 million yuan projects during the Seventh Plan", China Infrastructure Construction, 1986: 11, pp. 48-49.

transportation was at a peak in 1978 before the initiation of reform. Energy investment as a proportion of total state fixed investment reached a low point in 1982, and since then has climbed to approximately the 1978 level (22-23% of investment), while transportation investment displayed a similar pattern, declining until 1981, but recovering since to 13-14% of investment. The intense central government emphasis on energy and transportation has been necessary simply to offset the pressures reshaping decentralized investment. Under the Seventh Five-Year Plan, these two sectors were to absorb close to 50% of state capital investment (transport 15.2%; Energy 34.1%, of which electric power accounts two thirds). However, it is clear that once again the expansion in both sectors has been outpaced by overall economic growth and that shortages are increasing. To take an example, the highest growth rate registered for power was about 9%, but shortages can be eliminated by the turn of the century only if power production increases at a rate two percentage points above GDP growth.

4.21 Clearly, the central government strategy for mobilizing dispersed resources behind a centrally designed program of energy and transport development is part of a solution to the pressing problem of shortages. As such, it will play a crucial role in providing the resources for sustained growth now and in the future. At the same time, this strategy is a second-best (as the lag in energy investment brings out), short-run alternative to more fundamental long-run reforms. Increasing the relative price of energy and transport are an obvious, and long recognized, elements of the reform effort. Recent studies carried out in collaboration with the World Bank show that the needed adjustments in the structure and level of coal and electric power prices can be introduced independently of comprehensive price reforms.^{14/} They could be implemented over a few years so that their effects on inflation would be minimal and borrowing would be reduced from 80% to 50% of total expenditures. The current policy of the central government, discussed below, results in complex bargaining relations with the local governments, rather than confronting them with more rational costs and opportunities for their own investments. It may inhibit the development of decentralized decision mechanisms that combine better planning with market-based decision-making. A modest re-centralization of finances, bringing financial capabilities in line with central government ambitions, combined with greater freedom in the use of decentralized finances (requiring more rational prices), would be a preferable long-run approach.^{15/}

^{14/} East China Power Pricing Study, World Bank, Report No. CHA-6993, February 1988.

^{15/} Another step on the road to decentralization has been taken recently. The State Planning Commission has delegated some of the decision-making on central government projects to six newly created companies. They specialize in energy, communications, raw materials, agriculture, forestry and manufactured goods. Major national projects will be directed by the center, lesser ones left to these companies and market forces. The companies have the legal rights to set up joint ventures or wholly owned firms and issue bonds. "State set to decentralize control over investment," China Daily, August 2, 1988.

Investment Imperatives of Local Governments

4.22 Local government objectives are to enhance their revenue base and to develop an investment strategy that will foster growth. Both can be met by developing profitable industries. The existing fiscal system divides all enterprises into central and local categories, with the relations of subordination determining who the initial claimant on enterprise tax and profit revenues happens to be. Provinces (and lower units) are then classified as surplus or deficit units and surplus units share a fixed proportion of their revenues with the central government. The basic source of local government revenues is thus the profit of its own enterprises. However, local government "revenue" should be interpreted in a broad fashion. When local industries expand, local governments have more effective resources under their control even aside from budgetary revenues. This is so because local governments can call on "their" enterprises to provide extra-budgetary funds, manpower, and material when needed (see Chapter III). Compulsory "exactions" on the enterprise are illegal, but encouragement of voluntary contributions is permissible. Hence the revenue enhancing objective of local governments sometimes involves allowing local enterprises to expand and retain, at least initially, their profits.

4.23 This fiscal system in combination with the enterprise financial system shapes local government incentives. The large flow of accounting profits ^{16/} acts exactly like any form of scarcity rents. Local governments can increase revenue by creating new enterprises, even when they add nothing to national production, so long as the new enterprise diverts rents away from other localities. Moreover, since indirect taxes are collected at the point of production, rather than the point of sale, localities can further increase revenue by erecting barriers to the import of commodities from other localities (see Chapter VIII on the barriers to interprovincial trade). Powerful incentives are created for local investment, beyond what a calculation based on economy-wide scarcity prices would support. These incentives are especially compelling when raw material supplies are underpriced, and processing capacity gives a claim on those raw materials. For example, localities that produce cotton have a special incentive to develop textile industries, even if the efficiency of those factories is low, because this gives them a stronger argument for retaining the raw material and reaping the accounting profits earned at the processing stage. This problem has been repeatedly observed in China, and is significant at the present time. At the end of 1986, 24 million spindles had been added to the textile industry nationwide compared to 1984, increasing raw material processing capacity by 50%, and another 2 million spindles were still under construction. This particular example is related to the laxness of investment control that characterized late 1984 and early 1985, but the principle it exemplifies has general validity.

^{16/} The term accounting profits refers to the artificially augmented earnings that arise because of price controls and central allocation of inputs.

Investment Control and Financing

4.24 Capital spending is difficult to control in China because the benefits which decision-makers at each level can extract from making new investments substantially exceeds the financing costs, while the system of quantitative controls in place does not provide an adequate disincentive. Two fifths of fixed investment is financed through retained funds.^{17/} State-owned enterprises are now being drawn to consider investments other than in their own facilities, including investment in raw materials producing enterprises in exchange for guaranteed supplies (see Chapter VII). In general, however, the opportunity cost to the firm of internal reinvestment is small (interest on enterprise bank deposits is low). Reforms have shifted a majority of budgetary grants into repayable interest-bearing loans, and bank lending, of course, carries an interest charge.

4.25 A sizable proportion of investment is now financed through bank loans at rates that enhance the attractions of investment loans. These are insufficiently costly to restrain investment demand. Real lending rates remain negative even after the round of adjustments introduced in the latter part of 1988 (see Chapter II). Second, repayment provisions continue to be lax. For instance, during 1985 all budgetary grants were shifted to a repayable basis, but 40% of projects applied for, and ultimately received, exemption. This was not entirely unreasonable, since a significant portion of capital construction (but not 40%) goes to projects that do not earn revenue, such as schools and hospitals. As a result, in 1986, the government restricted repayable capital construction funding to about 60% of total capital construction, but in early 1987 there were already enough tentatively approved exemptions from repayment that less than 50% of 1986 capital construction would ultimately be on a repayable basis.^{18/} Needless to say, widespread exemption from payback provisions means that the program cannot serve to ration the supply of funds to projects with high economic returns: it appears that only around one-third of total fixed investment funds will be repaid. Moreover, provisions of the financial system are altered to ease repayment conditions for all kinds of loans ex post.

4.26 The return on investment is influenced by several factors. Because the real cost of funds is generally below the real marginal physical product of capital, appropriately discounted for risk, it spurs demand. This alone would create the need for additional quantitative restraints to ration the availability of funds. Other forces at work are: (a) the "expansion drive" created by incentives to build bureaucratic-industrial power bases, combined with weak or non-existent penalties for failure; (b) the opportunities

^{17/} Technically, the category is zichou zijin, or "independently raised funds". While this includes a small amount of borrowing in the form of stock of bond issues, the vast majority consists of retained depreciation allowances and profits.

^{18/} Li Xiwen, "A retrospective examination of putting budgetary allocations on a repayable basis, China Infrastructure Construction", 1987:, 2, p.18.

available to local decision-makers to appropriate rents by expanding local production of items with high accounting profits. It should also be noted that (c) political leaders have the ability to intervene personally to secure the approval of "prestige" projects in which they have a personal interest. Finally, (d) there are the incentives generated by the commitment procedures for resources. First, there is an initial commitment to begin an investment project that will typically extend over more than one period (year). While some resources are expended during the first period, they account for a small share of the total. Second, regardless of the outlay envisioned on all investment projects, resources are earmarked for each period and these generate a flow of current spending that influences macroeconomic conditions. Thus by initiating a project a locality can draw in additional resources in the future, either directly or through access to rationed entitlements. This creates an additional incentive to expand investment for each individual decision-maker.

4.27 Given the large number of production enterprises and the rapidly changing nature of the economy, Chinese policy-makers recognize that across the board quotas on fixed investment would be clumsy and overly restrictive. They have, therefore, divided fixed investment into three categories, the control of which differ substantially in degree of stringency. Those categories are (a) capital construction; (b) renovation and replacement; and (c) "other" investment, which can be defined as "excluded investment." This division is made on the basis of two separate principles: projects with a major construction component should be controlled more tightly; renovation and replacement investment is less closely monitored because it includes a smaller construction component and is generally carried out at existing enterprises; while excluded investments are exempt from control either because they fund energy development (fully 50% of these are depreciation funds from the petroleum industry), or because they involve purchases of small-scale machinery in excess supply.

4.28 In practice, however, these distinctions are difficult to enforce. Historically, renovation and replacement investment was simply the name given to investments funded by retained depreciation allowances. In most cases such spending created new capacity, and while the construction component is proportionately less than in capital construction, it is still substantial. Indeed, in recent years some 5-7% of total renovation and replacement investment has gone to completely new projects not even connected to existing enterprises.^{19/} A far larger sum has gone for expansion projects that are indistinguishable from capital construction investment, except that the work is done at the site of existing factories. Instead, because renovation and replacement investment is screened less carefully than capital construction, enterprises have strong incentives to "package" projects in such a way that they appear to be renovation and replacement investment: this often involves breaking a larger project down into smaller parts, and obtaining approval for each component on the ground that they appear to be renovation and replacement investment: or obtaining approval for each component on the ground that it contained less

^{19/} China Infrastructure Construction 1988:1, p. 35.

than the permitted amount of construction.^{20/} In this way, the separation of fixed investment into categories tends to channel investment demand into less than optimal size construction projects with artificially extended construction periods. Moreover, this seems unavoidable, so long as capital is rationed by non-price means. Excluded investment which covers the depreciation funds of the petroleum industry does not give rise to problems. When the excluded list was expanded to include school buildings, however, there was a rapid expansion of the number of "joint-use" school buildings under construction. Quantitative restraints, because they are not comprehensive, tend generally to channel investment demand into different, and frequently less desirable, forms.

4.29 Another failing associated with quantitative restraints is the insufficient funding of individual projects.^{21/} The central government sets overall quotas for fixed investments which are then disaggregated into broad functional divisions and regions. These quotas include both finances and, for capital construction, a basic allocation steel, cement, and lumber in a fixed ratio to the financial allocation.^{22/} Planning authorities in charge of functional divisions and region then subdivide quotas among enterprises and/or smaller administrative divisions. There is a natural tendency for these intermediate authorities to provide some level of funding for all current investment projects though it is likely to fall short of desired levels. In the first place, the intermediate authorities face bureaucratic pressures from their constituents to protect individual projects. By preserving current projects, intermediate authorities also establish a claim on future blocks of investment funding and materials.

4.30 As indicated in para. 4.17, the central government has been placed in a situation where it purposely underfunds priority projects, and seeks local participation to balance the books. As a one-way process, this is quite reasonable: localities that benefit should contribute. The general principle of initiating projects in order to stake a claim to resources from another source (whether those resources are direct or via the implicit value of ration levels) works in the other direction as well. Localities seek to initiate "good" projects in order to strengthen the case of investment quotas. Localities also seek to underfund central government priority projects in favor of their own projects: as long as they can get away with this, the central government will ultimately ensure that the priority projects are

^{20/} See also "Investment: Initial Changes in the Mechanism and Preliminary Ideas about Reform", Zhang Shaojie, et. al., in Reform in China, ed., Bruce L. Reynolds, Sharpe, 1987. This article discusses the greatly increased spending by enterprises on non-productive social assets financed from extra budgetary funds.

^{21/} Hence the concern expressed in Chapter I over a reliance on administrative controls over investment as a device for managing aggregate demand over the longer term.

^{22/} This procedure, called the qie kuai system, has obvious inefficiencies in that materials are assigned generically on the basis of cost, rather than specifically according to project needs (except for central government priority projects).

completed (perhaps through ordering bank loans), while local governments cannot reliably supplement funding for their own projects.^{23/} A commitment of resources, by placing claims on future resources, lowers the apparent cost of the initial resource commitment and increases demand for investment in any period.

4.31 Such a dynamic can be particularly disruptive when the process of screening project submissions is extremely weak. While the central planning apparatus must approve large-scale investments, approval for small-scale investment projects is thoroughly decentralized, with province, municipality, and county (as well as some functional industrial bureaux) all having authority to start projects. During certain periods, such as 1982 to early 1984, the central government has been able to impose a general cap on project initiation. It was lifted during the spell of liberalization, in late 1984-1985. The result was that the number of projects under construction increased by 27% between 1984 and 1985, and the budgeted volume of all projects increased by over 20%. This created problems of excess commitment of resources in both senses of the word: excess current investment and a rapid expansion in the scale of the total commitment to investment projects. A similar surge occurred in 1987-8 magnifying the problem of demand management described in Chapter I.

4.32 In the past three years these problems have begun interacting with an inflationary environment. Underfunding worsens during the course of the planning period as costs increase. Decision-makers at all levels find themselves in charge of numerous half-finished investment projects that require additional financing. This creates the illusion that the short-run return to investment is exceptionally high (a little more investment will cause a whole project to be completed, and so the marginal return is especially great), and puts enormous pressure on the banking authorities, in particular, to extend credit. Central authorities are forced to launch campaigns to decommission investment projects, and to vet construction projects under construction, most recently in 1988. Paradoxically, these campaigns which have recurred since 1979 simply create the expectation of further fluctuations in investment allotments, and make it especially advantageous to maintain numerous projects. The agent that can save his project while others are being cut, receives a bigger share of the total in later periods. Last but not least, this process ties up a larger portion of society's resources in incompleting construction projects. Some of the relevant data is summarized in Table 4.6. Although there are methodological problems afflicting the comparability of data, it is very probable that in China a larger proportion of output is tied up in uncompleted construction even than in the Soviet Union, where uncompleted construction generally amounts to 70-85% of annual investment flows.^{24/}

^{23/} Huang Kai, loc. cit.

^{24/} Mark Harrison, "Investment Mobilization and Capacity Completion in the Chinese and Soviet Economies," Economics of Planning 19:2 (1985), p. 65.

Table 4.6: UNCOMPLETED CONSTRUCTION

Year	Uncompleted construction as percent of capital const.	Implied stock (billion yuan)	As percent of NMP
1980	118	66	17.9
1981	137	61	15.5
1982	118	66	15.5
1983	121	72	15.2
1984	113	84	14.9
1985	104	111	15.6
1986	99	117	15.0

Source: The Handbook of Infrastructure Construction Work, p. 358; China Economic Almanac 1986, V-14; 1987, V-12.

4.33 In principle, strict discipline exerted through the banking system could counter-act these incentives to expand investment. Indeed the independence and professionalism of the Chinese banking system have increased significantly in recent years and the measures proposed in the fall of 1988 should strengthen the controls exercised by the central authorities over credit expansion (see Chapter II). Yet it is likely that the influence exerted by local government officials over the allocation of investible resources will not be easily curbed.

4.34 First, given the rudimentary development of the Chinese legal system, the power of local officials is not carefully delimited (see Chapter VIII). While People's Bank of China regulations of January 1985 state that local governments do not have the right to issue orders to local bank branches, there is no system for enforcing this principle on local governments which are, after all, outside the PBC system. Thus, extra-legal compulsion is a part of the influence wielded by local governments.^{25/} Second, local

^{25/} For example, in mid-1985, the deputy mayor of Xi'an summoned local bank officials to his office, and informed them that in spite of credit restraints he needed an additional 9 million in loans to complete the city's investment program. The meeting was not to be adjourned until the money was found. It is not recorded how long the meeting lasted, but in the end he got his money. See "Party and government leaders in some regions compel banks to make loans," China Finance, 1985: 9, p. 7. Excess credit expansion by banks to meet enterprise demands is also a problem in Yugoslavia, but the banking system's inability to resist pressure from borrowers has different roots. Yugoslavia's branch and associated banks are founded and managed by representatives of self-managed enterprises. Bank assets are comprised of enterprise deposits as well as those of central and foreign banks. Most of a bank's resources are invested in firms to which it is tied. The bank cannot extricate itself from this relationship, buy out the enterprise or merge with another bank. In many instances, the inavailability of loans means that workers are not paid and this results in pressure on banks that can become irresistible. "Yugoslavia bankers edge towards reform," Financial Times, September 11, 1988.

officials exert considerable direct authority over banks, especially through personnel decisions, while appointments must be approved by local government personnel bureaus. Local government control over infrastructural investment (housing and office space) and allocation of electricity also gives them bargaining power. Thus, it is difficult for local banks to remain indifferent to the needs of local government.

4.35 Third, and probably more important than these coercive and semi-coercive factors in the long-term is the collaborative relationship between local governments and banks, the ultimate intent of which is to accelerate local economic development. Local governments routinely instruct banks on the priorities to be followed in loan disbursements (this is necessary because price distortions make profitability a poor guide) and encourage transfers of funds among specialized banks in order to fund priority projects. The whole function of local banks is to contribute to a program that in the final analysis is shaped primarily by the local government. Not surprisingly, local banks accept the leadership of local authorities, attempt to remain on good terms with them, and are influenced by their priorities.^{26/} In this situation the pressure that local governments feel to expand investment is naturally manifested in pressure on credit restraints which tend thereby to become somewhat too flexible. Only when the central government attaches extreme urgency to contractionary measures do credit constraints "harden" somewhat.

4.36 For the purposes of short-term stabilization, the administrative measures proposed by the government to reduce investment by 50 billion yuan in 1989 (see Chapter I, para. 1.58) constitute the most efficacious way of curbing capital expenditures. But to prevent a future recurrence of investment surges reform will have to be pursued on a broader front. From the above analysis it is apparent that nearly every aspect of the Chinese investment management system combines to make investment control difficult. The low cost of funds, the fact that commitment of resources lays a claim to additional social resources, and the collaboration of different bureaucracies on the objective of output growth--all these factors tend to swell aggregate investment and lead to macroeconomic problems. Since there is no single root cause of weak investment control, only continued cumulative reforms, raising prices (especially interest rates), hardening budget and credit constraints, and fostering economic independence and accountability can lead to control of aggregate investment. For this process to begin, it is essential that the central government demonstrate a sustained, credible commitment to controlling and improving the quality of investment over the long run.

SECTION B: SAVINGS

Structure and Trends

4.37 Guiding investment along a descending curve towards desirable long run trend rates might require the insistent pressure from reforms spanning a few years. During this period, balancing resources calls for savings behavior

^{26/} See Gordon White and S. Bowles, "Toward a Capital Market? Recent Reforms in the Chinese Banking System," University of Sussex, Institute for Development Studies, Discussion Paper, 1986, pp. 26, 42, 46, 53, 64, for some candid comments by local bank officials.

comparable to what has been observed in the recent past. If savings decrease, they should do so gradually. This would assure growth unruffled by resource disequilibrium. It would also help the cause of price stability by eliminating problems from demand spikes each time a layer of controls is stripped away.

4.38 As stated at the beginning of the Chapter, the resource gap can be determined, within a margin of slippage, by increasing the severity of exchange and trade controls. There are disadvantages in regulating savings behavior to serve the needs of investment. Successful liberalization must allow for a flow of impulses in both directions: investment should influence resource mobilization but by the same token, consumption preferences must also be allowed to exert a pull. If consumption is treated as a residual to be manipulated for the sake of balance of payments equilibrium, the investment hunger of the Chinese economy will not be subdued. Reforms that are unable to satisfy consumption desires will erode incentives projected by liberalization and result in a withdrawal of effort. The litmus test of a meaningful reform is the extent to which commandism in the ultimate sense of allocating resources between accumulation and consumer outlay, is displaced by some degree of individual discretion over decisions to consume and to invest.

4.39 Assuming that increasing discretion is intrinsic to the reform effort, the voluntariness of observed savings is the highest concern for BOP equilibrium and price stability in a market directed economic milieu. Can Chinese savings remain close to the extraordinary heights to which they have risen or are they to a significant extent forced savings that will melt, the moment household consumption opportunities are enlarged?

4.40 For ten years prior to the commencing of reforms, savings ranged between 29% and 31% of GDP. Household savings were a tiny percentage of this. Government and enterprises approximately divided the total between them. Through much of sixties and seventies, China remained a net exporter of capital. Gross savings climbed in 1978, pushed in large part by the spurt in accumulation. Thereafter, the higher prices paid to farmers, urban subsidies to compensate for price adjustment plus the partial liberalization of consumer choices stimulated consumption and returned saving rates to pre-reform levels by 1981. It should be noted that during this period the government also deliberately restrained investment to make room for more consumer spending.

4.41 The savings rate has risen in every year since although forecasts for 1988 point to a flattening of the curve. Fiscal reform and a change in the status of the individual household brought about by the introduction of free markets and the responsibility system in the rural sectors, have radically altered the mix of savings. By surrendering control over a major chunk of enterprise profits, the state has severely reduced its revenues as a proportion of GDP and its role as a saver. Budgetary savings fell from 15.4% of GDP in 1978 to 7.6% in 1980. After oscillating during 1981-85 they plunged again in 1986-87 to 4.3% (see Table 4.7).

4.42 Enterprise savings have also weakened under the combined pressures of increased spending on benefits for staff as well as reduced profitability for firms whose cost curves have been elevated by higher raw material prices.

These have drifted down from 19% to about 16%. Households are clearly the frontrunners in the savings race. They have much more than offset the decline in shares of government as well as enterprises. In 1987, household savings accounted for 17% of GDP as against 1% in 1978 (see Table 4.7). It is the Chinese household that has borne that brunt of adjustment; that finances government deficits and whose thrifty habits helped keep inflationary pressures at bay between 1984 and 1987. While government and enterprise savings are jointly larger, they are also more predictable. Household savings on the other hand could contain an element of volatility and it is their future behavior that is of interest from the angle of macroeconomic policy.

Table 4.7: COMPOSITION OF SAVINGS, 1978-87
(Percent of GDP and of total savings)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Domestic Savings as % of GDP	35.5	33.7	30.9	29.5	31.1	31.0	32.9	34.5	35.9	37.6
Household savings	1.2	3.2	4.5	3.67	7.8	10.2	14.8	13.8	16.1	17.2
Budgetary savings	15.4	10.3	7.6	6.9	5.6	5.9	6.7	7.2	6.1	4.3
Enterprises and other	18.9	20.2	18.8	19.0	17.7	14.9	11.4	13.4	13.7	16.0
Total savings	100	100	100	100	100	100	100	100	100	100
Household savings	3.3	9.5	14.7	12.1	25.0	32.9	44.9	40.1	44.8	45.8
Budgetary savings	43.5	30.6	24.6	23.3	18.0	18.9	20.4	21.0	17.0	11.5
Enterprises and other	53.2	59.9	60.7	64.6	57.1	48.1	34.7	38.9	38.2	42.6

Source: World Bank and IMF staff estimates

Note: Data starting with 1982 are not comparable to previous years. After 1981 household savings incorporate direct household savings, which are shown, due to data limitations, under enterprises and others in earlier years. Gross domestic savings have been calculated by adding gross domestic investment and the balance on external trade in goods and services. Household savings are calculated by adding the change in savings deposits, 85% of the change in currency in circulation, subscription to treasury and other bonds, and direct household investment. Borrowing by households, which is negligible, is not taken into account. Budgetary savings are defined as the current account surplus of the state budget. Enterprises and other savings are calculated as residual, comprising mainly state- and collectively owned enterprises and extrabudgetary operations of local governments.

Household Saving Behavior

4.43 Analyses of savings behavior in market economies concentrate on the family life cycle. The pattern of spending is influenced by specific epochs - family formation, child rearing and old age. Income, meanwhile follows a trajectory that is determined by periods of training, the waxing and waning of productivity at work, and retirement. Cycle theories postulate that households plan their consumption with reference to the profile of earnings and outlay over the duration of the family's existence, with specific attention given to bequests for heirs. The so-called permanent income hypothesis, whose compass is narrower assumes that households form long term expectations regarding income streams and adapt spending decisions to these flows. Random shocks are treated as transitory: a dip in income is offset by

drawing upon accumulated wealth whereas, earnings in excess of the permanent income is put into savings or other long lived assets. In essence, the permanent income is the annuity value of lifetime wealth.

4.44 As both the life cycle and the permanent income hypotheses separate current consumption from current income and peg household spending to a measure of wealth, there is little difference between the two when it comes to specifying equations and testing. The principal variables acting on current savings are the households savings in the past, lagged income and changes in income.27/

4.45+ Rigorous testing of the various savings hypothesis is a problem because the aggregate post-reform data series are short, sample survey data is still rather scanty and it is unlikely that long-term behavioral patterns have had time to jell. Nevertheless, a number of attempts were made to verify propositions regarding both voluntary and involuntary savings behavior using aggregate as well as sample survey data. Tests with aggregate time series suggest that economic actors are decomposing income streams into permanent and transitory components with their savings propensities being motivated by the size of the transitory share. From the estimated parameters it appears that the marginal propensities to save from permanent income range between 31% and 35% while they vary from 54% to 63% for income treated as transitory.28/

4.46 Rural expenditure surveys for 28 provinces conducted during 1983-85 provide another avenue for apprehending the savings behavior of households directly rather than through the screen of aggregate time series. These reinforce the impressions presented above. Marginal savings propensities from temporary income are significantly higher than the rate for permanent income. The small number of years covered by the surveys weakens faith in the results but clearly the trend is in the direction that has been plotted by research in

27/ A discussion of methodological issues underlying the various theories of savings as well as similarities at the level of equation form is contained in Growth Distribution and Prices, by S.A. Marglin, Harvard University Press, 1984, chs. 17 and 18. According to F. Modigliani, the father of the life cycle hypothesis "Variations in growth rates are the major cause of differences in saving rates among countries. One of the implications of the life cycle theory suggests that--the growth process itself generates savings" --"The Key to Saving is Growth, not Thrift," F. Modigliani, Challenge, Vol. 30, No. 2, May-June 1987, p. 26.

28/ Similar results regarding the propensities to save out of transitory income as well as the stability of savings have been obtained by Qian Yingyi, "Urban and Rural Household Saving in China," September, 1988 in IMF Staff Papers. A marked change in the savings behavior of households starting in 1978 is revealed by the "switching regressions" procedure. Both rates of saving and the accumulation of financial assets rose as can be seen from Table 2.10.

developed and developing countries worldwide.^{29/} Rapidly rising incomes stimulate savings either because of life cycle reasons; or because people are making distinctions between the permanence of income streams; or possibly because consumption habits lag behind changes in earnings. Cultural forces are an additional variable that may reinforce the desire to save.^{30/} For example, households saving performance in the industrializing East Asian countries clearly outclasses that of NICs in other parts of the world. The hand of culture might be behind the ratios displayed in Tables 4.8 and 4.9. China is very much the outlier, towering over its geographical neighbors as well. In China's case, frugality may have been influenced by recent history. Nearly four decades of egalitarianism has left its marks on notions of status, display, conspicuous consumption and ostentatious living. Aside from having fewer options, Chinese consumers might be notably more conservative.

^{29/} Tests of the permanent income and other hypotheses using Japanese data are to be found in, Personal savings and consumption in Postwar Japan, by T. Mizoguchi, Kinokuniya Bookstore, 1970. Household savings behavior in Japan is believed to be influenced by the scale of bonus payments. This thesis and the permanent income-life cycle concepts underlying it, have been challenged by Ishikawa and Ueda who maintain that households treat bonuses as a buffer income quite separate from their normal earnings. They apply a discretionary rule which in most years involves saving about half the bonus. Their tests indicate that the effect of bonuses on savings is statistically significant. The channeling of high household savings into investment through the stock market, financial intermediaries and pension funds is as important as the savings propensities in supporting Japanese growth. "The bonus payments system and Japanese personal savings rate," by T. Ishikawa and K. Ueda, in The Economic Analysis of the Japanese Firm, ed M. Aoki, North-Holland, 1984. A recent paper by Hayashi also rejects the life cycle hypothesis and leans towards an infinite horizon optimal growth model which explains high Japanese household savings in terms of low initial wealth, and a high bequest motive induced by a strong desire to ensure the future standard of living of children. See "Why is Japan's Saving Rate so Apparently High," F. Hayashi, NBER, Macroeconomics Annual, 1986, MIT Press, 1986.

^{30/} This has been noted in the case of Taiwan, see "The Economic Development of the ROC on Taiwan, 1965-81" by R.H. Myers, in Models of Development, ed. L.J. Lau, ICS Press, 1986.

Table 4.8: GROSS DOMESTIC SAVINGS, SELECTED COUNTRIES, 1965-88
(in percent of GDP)

	1965	1978	1980	1988
Asia				
India	14	10	20	21
Indonesia	8	23	23	24
Thailand	21	22	23	25
Philippines	15	24	25	19
Malaysia	24	31	26	32
Korea	7	22	22	35
Hong Kong	29	28	24	27
Singapore	10	29	33	40
Japan	33	38	31	32
Centrally Planned Economies				
Hungary	25	34	29	25
Poland	NA	NA	28	30
Others				
Brazil	27	22	21	24
Mexico	21	20	27	27
Turkey	13	17	14	22

Source: World Tables, and World Development Report, various years.

Table 4.9: HOUSEHOLD SAVINGS RATES
(in percent of disposable income)

United States (1976-82)	8.1
F. R. Germany (1976-81)	12.9
Belgium (1976-81)	16.1
Japan (1976-82)	21.2
Korea (1965-81)	7.6
Taiwan Province (1965-81)	17.6
China (1981-87)	23.0

4.47 The above tests are based on the assumption of voluntariness. Private savings are being accumulated at the discretion of households which means that savings rates are likely to remain stable even if there is a further liberalization of consumption opportunities. It has been argued, sometimes on just impressionistic grounds, that a part of the increase in savings is involuntary, that is, shortages are inducing people to accumulate idle balances. The withdrawal of savings balances by the public during August 1988 and the rush to purchase consumer durables was viewed in some quarters as evidence that there was a savings overhang and that it posed a real threat to macroeconomic stability. As most liquid savings are held in the form of deposits or currency much attention has been focussed on the movements of these two magnitudes with savings overhang frequently being conflated with the monetary overhang that is associated with repressed inflation.

4.48 To analyze the issues, an econometric monetary model of the Chinese economy was developed. Households' holdings of money balances are explained in a money demand equation by real income and expected inflation. Inflationary expectations are estimated as first differences, improved through the use of the forecast error of the previous period. The ratio of currency in circulation over the nominal value of retail sales is used as a proxy for the "true" rate of inflation. When currency holdings increase faster than retail sales this is defined as an increase in "true" inflation, or the development of a monetary overhang.^{31/}

4.49 The model was estimated with quarterly data from 1979 QI to 1986 QIII. The econometric results indicate that a monetary overhang may have been an important factor in post-reform China. At the end of 1986, the true price index was estimated to be 87% higher than the official price index, compared to a common base of 1979. Of course, the results have to be interpreted with caution. As well as indicating a monetary overhang, the results could be taken to indicate that the official inflation index is a poor indicator of the price increases people actually face. Market prices rose by an annual 4.6% during the estimation period, while the estimated "true" rate of inflation was an annual 8.1%. This suggests that the accumulation of financial assets (whose levels are fairly high in China as compared with other countries see Table 4.13) during the period under review cannot be explained by market prices alone, and that some money balances could indeed be characterized as "overhang", especially since financial deepening is unlikely to account fully for the remaining residual.

4.50 The question of involuntariness can be tackled by following the elasticity of such savings with respect to GDP. It is lowest in 1985, a year during which import liberalization permitted a major influx of imported consumer goods. Household savings also dipped by 1% of GDP in 1985. This may have been a one-time move on the part of individuals to acquire foreign durables as the growth of savings resumed in 1986/87 (see Table 4.10). However, the upward ascent did coincide with the closing of the trade account and continuing high levels of investment.

^{31/} See A. Feltenstein, D. Lebow and S. Van Wijnbergen, "Savings, commodity market rationing and the real rate of interest in China", World Bank, DRD discussion paper 1987, DRD243

Table 4.10: GROWTH OF FINANCIAL SAVINGS VERSUS GDP GROWTH

	1979	1980	1981	1982	1983	1984	1985	1986	1987
GDP growth	11.1	10.4	6.8	9.8	11.7	20.2	22.9	12.9	20.4
Household financial savings growth	30.1	37.0	22.7	21.4	29.1	42.4	31.0	33.4	34.8
Memo item: Growth of RCCa/ deposits	NA	49.2	44.9	34.5	40.2	36.9	28.9	35.6	31.6

a/ Rural Credit Cooperatives

Source: World Bank and IMF staff estimates.

4.51 On a micro-economic level, a savings overhang means that people (a) cannot buy some goods at all and therefore have to hold (financial) assets and/or (b) cannot buy some goods at below market prices and prefer to queue instead of paying the higher (black) market price. Both types of rationing occur in China. Certain high quality consumer goods cannot be imported into China in unlimited quantities, and people who want to buy these items are rationed. Some people prefer to queue for domestically produced goods instead of paying the higher market price, e.g. for color TVs. It should be made clear that this kind of rationing is different from many other centrally planned economies, in that Chinese consumers have the option to spend their money balances for other goods--there is no "forced savings" or "cash inflation" in China. The combination of rationing of some goods with price controls means, however, that peoples savings behavior will be different with these policies than it would be without. Rationing means that on average stocks of financial assets are likely to be higher than they would be in a policy regime without rationing features.

4.52 The consumption spree that erupted in August 1988 was probably sparked by repeated signals from the government that price reform would lead to higher prices and that China may have to tolerate double digit inflation until the adjustments had been completed and absorbed by the system. Consumers responded in a rational manner by advancing their purchases of goods that they expected would become dearer in the near future. When the government began to worry over the steepening inflationary spiral and firmly committed itself to stabilization measures, deposits began flowing back and the pace of consumption slackened. People want to hold a certain amount of financial assets for every given combination of policy regime, financial returns and expectations. If no changes are anticipated in these variables, they will not change their asset holdings. To avoid sudden decumulation in the level of peoples' desired asset holdings and the resulting inflationary upsurge, it is desirable that the expected return on financial assets should be increased in line with inflation. Nominal interest rates are the main instrument to stabilize financial asset holdings give inflationary expectations.^{32/} Events in the second half of 1988 have also underscored the dangers of freeing

^{32/} The increase and partial indexing of deposit rates in October 1988 constitutes an important step. See Chapter II, Table 2. 15).

consumer prices under conditions of excess demand that are being accommodated by monetary policy. Until such time as demand stability has been achieved, it may be desirable to proceed first with the adjustment of producer prices (see para. 4.21 above).

The Stability of Savings

4.53 A formal analysis of household savings data is inevitably somewhat inconclusive given the narrow sampling period and evidence of regime shifts in saving behavior. Very probably, an increased supply of preferred consumer goods and services, whether domestic or foreign, would lessen marginal savings propensities, but savings rates are likely to remain high and fairly stable. An entire range of forces released by the reform effort and by economic trends will help to ensure this.

4.54 Individuals save for purposes of retirement, for precautionary reasons, for bequests during and at the end of their lives, and to finance the purchase of durables or to defray the expense of certain familial commitments.^{33/} In pre-reform China, the commune or workplace provided services and security, lessening the need for precautionary balances or saving to finance retirement; consumer goods were scarce; aside from a house, a family could not lay claim to other property; and in any case, the juxtaposition of financial and physical plans minimized the household's savable surplus. On the eve of the reform, households asset portfolios were meager. There was a powerful latent demand for wealth assets and for portfolio diversification. Since the late seventies, rural inhabitants have been spurred to save because:

- (a) Incomes have increased tremendously as a result of the higher prices earned by farm products (see Table 4.11 showing the improvement in rural-urban terms of trade), rising production, and the change in the

Table 4.11: RURAL-URBAN TERMS OF TRADE
(1978 = 100.0)

	Purchasing price of farm and side- line products	Retail prices of industrial goods in rural areas	Terms of trade rural-urban
1979	122.1	100.1	122.0
1981	138.5	101.9	135.9
1983	147.8	104.6	141.4
1985	166.9	111.3	150.0
1986	177.6	114.8	154.6

Source: Statistical Yearbook of China, 1987.

^{33/} "Savings Behavior and its Implications for Domestic Resource Mobilization: The Case of the Republic of Korea" by Shahid Yusuf and R. Kyle Peters World Bank Staff Working Papers No. 628, 1984.

mix of commodities produced. Further, a large number of younger households will be entering their years of highest savings. 34/

- (b) Now that communes no longer provide services and social security provisions have receded, risks loom larger and the need for precautionary savings has emerged.
- (c) A weakening of the social support network, together with the intense pressure for smaller families, makes saving for retirement a matter of concern. In the future, elderly couples may have to fend for themselves, not having numerous married sons to look after their needs.
- (d) Prior to the reform the state limited peasants rights to build their own homes in rural areas and virtually prohibited private housing in urban areas. Expenditure on housing and the acquisition of durables is freely allowed and acts as a strong inducement. Close to half of rural savings finds its way into housing.35/ Once this demand has been filled, the share of savings allocated for this purpose might diminish. If a private housing market is permitted in the urban areas, it might prompt townspeople to increase their levels of accumulation.
- (e) The legal system now sanctions bequests. Houses, other assets and eventually the usufruct rights to land can be passed on to heirs (see Chapter IX). As in the industrial countries, this is a potent stimulus.36/
- (f) The profitability of small-scale manufacturing offers a new set of incentives for accumulating. There is encouragement from local authorities and supplementary financing available through banks and credit cooperatives.

34/ Between 1978 and 1987, net income of farmers rose 250% to 463 yuan per annum and that of urban residents increased 140% to 916 yuan. The cumulative increase in the retail price index over this period was 46% while the index for daily necessities climbed 56 points. In real terms farmers real incomes were 180%. "Net Income up 250% for farmers," China Daily, January 2, 1989.

35/ The Japanese experience, provides an interesting parallel. "Saving and Investment", by Kazuo Sato, in The Political Economy of Japan, Vol. 1, eds K. Yamamura and Y. Yasuba, Stanford University Press, 1987, pp 156-165.

36/ A survey underlining the importance of the bequest motive in savings behavior is provided by L.J. Kotlikoff, "Intergenerational Transfers and Savings," Journal of Economic Perspectives, Vol. 2, No. 2, Spring 1988. See also Hayashi, Footnote 29 on the importance of the bequest motive for the savings behavior of Japanese households.

- (g) Finally, certain cultural practices, e.g., the dowry system that had been on the retreat under high socialism, have a new lease on life and provide other motives for saving.

4.55 These are some of the reasons which explain why rural households spend just 74% of their earnings. Many of these incentives are likely to persist, although as savings portfolios are expanded to nearer equilibrium levels, marginal saving propensities are bound to diminish (see Table 4.12). Urban rates of saving are appreciably lower^{37/} --about 3.5% of incomes--because the system of workplace-linked social security is largely intact and the perception of risk is much weaker; there is, as yet, very limited scope for investment in housing as it remains the preserve of the state and of enterprises; and the opportunities for spending on consumer items are more numerous. Recent surveys indicate that slightly over a fifth of saving is to finance purchases of durables; supporting children and paying for marriages accounts for 31% apiece; and the balance of 9% is for retirement.

Table 4.12: HOUSEHOLD SAVINGS RATE IN CHINA, 1978-87

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Household savings rate										
Urban	NA	NA	NA	0.3	4.8	3.8	7.9	1.8	3.5	3.5
Rural	15.9	20.8	21.9	23.0	28.8	28.7	32.0	30.1	27.9	26.4
Of which housing	17%	23%	31%	36%	31%	31%	28%	33%	43%	47%
Urban marginal savings rate	NA	NA	NA	NA	61.2	-11.1	34.4	-46.3	11.8	3.5
Rural marginal savings rate	NA	45.6	27.6	29.2	45.3	41.8	54.0	14.2	-3.1	10.3

Source: State Statistical Yearbook, various years, and Statistical Survey of China, 1988 (in Chinese).

Note: Urban savings rates may be underestimated since until recently they have been based on a survey of staff and workers of state enterprises. The quantity of urban savings deposits (after allowing for some rural savings that find their way into urban savings deposits) suggests that savings rates must be higher and/or there are considerable amounts of unreported income. Rural savings rates are somewhat overestimated, because they include transfer payments in reported savings. Based on provincial data on transfer payments, rural savings rates may be 5 to 6 percentage points lower than reported by the Statistical Yearbook.

^{37/} Urban and rural savings rates differ probably by less than indicated by the statistics, because remittances, gifts, etc. are not reported for rural households. Based on data from Hubei province, it is estimated that published data overstate the rural savings rate by 5-6 percentage points.

4.56 Impending reforms of land and housing markets permitting individual ownership and raising rental charges will influence urban savings. As returns on education and scientific skills rise with the freeing of labor markets, parents will undoubtedly save more to finance the training of their children--the so-called bequests during lifetime. Finally, a centralizing of social security, which enhances labor mobility but at the same time increases the chances of transitional unemployment, will encourage individuals to make allowances for the costs of joblessness.^{38/} Depending, of course, on the tailoring of unemployment compensation.

4.57 It is difficult to forecast the nature of the interaction between savings rates and inflation. The European experience points to a rise in savings in the event of a brief unanticipated burst of inflation, as people attempt to rebuild real balances and are discouraged by the higher prices of goods.^{39/} The government also benefits from inflation tax that can be used to augment budgetary savings. Higher rates of saving during 1985-87 may have been, in part, a response to rising prices. Continuing inflation can lead to a reversal of such behavior with people decumulating money balances so as to acquire goods, a phenomenon observable in mid-1988. Over the longer term, there are few theoretical grounds for believing that inflation will influence the trade-off between current and future consumption. There may, however, be a reshuffling of portfolios as long as financial instruments are unindexed. More housing and durables might be preferred to money balances. As it is, nearly 42% of savings flows into housing. This percentage could rise. In 1987, broad money as a percentage of GDP equalled 74% as against 55% in 1983 (see Table 4.13). Few countries have rates as high as this.

^{38/} "The Economics of Saving; A survey of recent contributions", by M. King, in Frontiers of Economics, eds. K.J. Arrow and H. Honkapohja, Blackwell, 1985, p. 264.

^{39/} See Personal Savings Behavior and the Rate of Inflation, by D. Howard, Review of Economics and Statistics, November 1978; "Inflation and the Savings Rate Across Countries," A. Thirlwall, January 1979; and Economics and Consumer Behavior, A. Deaton and J. Muellbauer, Cambridge University Press, 1982.

Table 4.13: FINANCIAL ASSET HOLDINGS OF SELECTED COUNTRIES
(percent of GDP, 1986)

	Broad liquidity	Currency
Asia		
India	51	9.7
Indonesia	29	5.5
Thailand	67	6.5
Philippines	22	4.7
Malaysia	136	10.0
Korea	45	4.2
Singapore	94	13.3
Japan	170	7.9
Centrally Planned Economies		
Hungary	51	12.0
Poland	43	9.0
Yugoslavia	51	4.6
Others		
Brazil	33	1.7
Mexico	30	3.9
Turkey	33	4.0
China (1983)	55	9.4
(1987)	74	12.9

Source: World Tables, and PBC and Standard Tables for China.

4.58 By controlling the supply of consumer goods and using monetary policy to levy an inflation tax on holders of liquid balances, the government can mobilize the level of resources needed to finance high rates of investment. The problem with forced savings is that it quickly saps the desire to work. Productivity suffers. Ultimately growth is pulled down. Savings propensities in China are strong. If GNP increases by 7-8% p.a. households savings should remain at respectable levels with some help from (a) financial policies that ensure positive interest rates and a longer menu of assets; (b) housing reforms that open avenues to ownership in urban areas; and (c) a reform of the urban labor market that promotes flexibility and denies a significant proportion of the labor force access to the iron pot. For budgetary savings to be maintained, a different fiscal strategy may be required which is discussed in Chapter III. Lastly, worries over the behavior of enterprises can only be convincingly dispelled if they are subjected to the full discipline of competitive markets and rational prices. The current, partially decentralized milieu, by giving free rein to bargaining, political pressures and parochial interests, generates fear of instability. China is not facing a problem of savings shortage. The problem is one of excess investment, accommodated by monetary policy. Success at draining some of the excess investment demand through a combination of policies is the key to further liberalization that is untroubled by inflation or balance of payments deficits.

V. INDUSTRY, AGRICULTURE AND LONGER TERM REFORM

5.1 China, unlike many other countries confronted with spiralling prices, can restore stability without a significant sacrifice of growth, but sustaining such performance will require not just the macro policy initiatives described in earlier chapters but the continuation of reforms aimed at the productive sectors. There are a number of reasons why the current difficulties should not deter the authorities from tackling the reform issues that have been temporarily deferred by inflationary pressures.^{1/} First, with growth in GDP exceeding 11%, demand management for the purposes of inflation control need not be overly constrained by the threat of stagnation or the fear that the economy might lose its forward momentum. Investment that is over 39% of GDP could safely be scaled down so as to take the edge off demand pressures. It is when inflation is combined with low rates of growth that stabilization policy becomes a difficult exercise.

5.2 Second, the economy is at a point of resource equilibrium which makes it possible to use trade policy more aggressively for the purposes of stabilization. In other words, the pressure on domestic resources can be eased somewhat, by increasing imports or moderating the export drive. This can be done without China encountering external financing difficulties which have hamstrung other countries who are forced to stabilize in the face of debt servicing constraints. The debt service ratio in 1988 is estimated to be 9.7% and is projected to remain below 11% through the early 1990s. In addition, official reserves were equal to 5.3 months of imports in 1988.

5.3 Third, an extended period of price stability and public fear of economic chaos have instilled attitudes that would powerfully support attempts at curbing inflation. Any determined government efforts to contain inflation are likely to be backed by the expectations of wage earners and producers for whom price movements during recent months must appear to be an aberration. It is significant that the buying spree that erupted during the third quarter of this year quickly came to an end once the authorities made it clear that they intended to bring inflation under control through the coordinated use of monetary, interest rate and expenditure policies.

5.4 Fourth, China possesses an extensive apparatus for monitoring prices, wages and the spending decisions of most industrial units. Decentralization might have dispersed the powers of monitoring and control but the apparatus to ensure that changes in prices and wages conform to certain guidelines remains in existence. Many market economies that have sought to escape from an inflationary spiral have relied on short-term price and wage ceilings. But enforcement has always posed major problems. In China, the means of applying such policies are far better developed, and can still be used effectively. A rigid indexation of wages to the consumer price index that seriously complicates stabilization in some of the Latin American economies, is also absent in China. Payments made to workers to compensate for the rising costs of living are subject to government discretion and are not automatic.

^{1/} As noted in Chapter I too sharp an application of the brakes on investment, monetary expansion and consumer spending could throttle growth much more than might be desirable.

5.5 Fifth, what is true of prices and wages is also true of a wide range of investment decisions. While enterprises now have greater discretion on spending matters, the larger firms that do the bulk of capital construction and upgrading investment are closely supervised by ministries, industrial bureaus and corporations. Once again, the capacity to regulate investment spending for the purposes of demand reduction, in a highly discriminating fashion, is far in advance of other countries.

5.6 Sixth, there is abundant slack in the urban labor market as well as product markets. In countries experiencing high growth, where the rates of unemployment decline to extremely low levels, this tends to introduce significant cost push pressures into the inflation process. From the evidence at hand, it is difficult to infer that the wages and bonuses paid by Chinese enterprises are being driven by labor scarcities, although it is undoubtedly the case that certain skills are in short supply.^{2/} It is widely reported that industrial capacity is underutilized,^{3/} because of energy constraints. To the extent that these can be eased, supplies of consumer and other goods can be augmented substantially without much additional investment.

5.7 Finally, the size of the government budget deficit and the nature of its financing, frequently an important cause of inflation in other countries, are not major sources of price pressures. Although recent trends in government finances are worrisome, the size of the deficit does not compare with what is customary in inflation prone economies.

5.8 There are good reasons for optimism regarding the success of stabilization policy in the short-term. However, as noted in earlier chapters, the return to a sustainable, non-inflationary growth path depends on the skill with which a range of measures affecting the two principal productive sectors--industry and agriculture--are implemented. As the Report devotes Volume II to industrial structure and policy, Section A gives a brief summary of the foremost issues. A more detailed and self-contained treatment of agriculture (not discussed elsewhere in the Report) is presented in Section B.

SECTION A: INDUSTRY

5.9 A victory over inflation that weakened the country's development prospects would be a questionable achievement. The spread of markets since the early eighties has improved efficiency and stimulated economic expansion and the potential for further gains in productivity is very large (see Chapter I). But the market system is still relatively backward. Competitive pressures and the threat of failure that could temper the behavior of

2/ Migration from the rural areas which swells the "floating population" in the cities acts as a safety value as the new comers are prepared to accept jobs that urban residents are unprepared to do.

3/ Between 25% and 30% of industrial capacity lies idle, with all parts of the country suffering about equally from the energy shortage.

enterprises and discourage imprudent capital spending are quite weak.^{4/} Further, the price mechanism has yet to be fully exploited. It could reinforce the effects of indirect levers of macro management and it could appreciably diminish the stresses on the economy's resource base by improving allocative efficiency. But in its current state it cannot deliver on the promise. While a majority of prices are now influenced to varying degrees by the market, the extent to which they reflect true scarcity values is uncertain and awaits a reform more extensive than has been conducted thus far. Postponement of price adjustments forced upon the authorities by inflation would result in a tapering of price trends but it is not beneficial from the viewpoint of the proposed economic transformation. A resurgence of administrative measures for the purposes of demand management has its drawbacks. Unless these are quickly dispensed with once their work is done, they could interfere with the series of industrial initiatives in motion since the mid eighties.

5.10 Industrial efficiency and dynamism also calls for a series of structural and institutional changes. Among the major structural changes is an integration of somewhat insulated provincial subeconomies into a unified market offering the advantages of size and competition (Chapter VIII). A second structural change has to do with the emergence of firms that can operate nationwide, enjoy economies of scale as well as scope and enter into mutually rewarding relationships with smaller subcontractors throughout the country (see Chapters VI and IX).

5.11 Among the pressing institutional reforms that are only partially complete the four that require sustained attention are: (i) the status and authority of enterprise managers (Chapter VII); (ii) the accumulation of human capital within firms (Chapter VII); (iii) the current obligation of enterprises to their employees and their eventual displacement by new contractual relations; and (iv) issues pertaining to enterprise ownership which affect autonomy, as well as the nature of budget constraints.

5.12 All of these need to be tackled within the context of a long run industrial strategy that is provincially coordinated and in tune with macroeconomic exigencies. The experience of both the NICs and some of the advanced industrial economies such as Japan, France and Germany suggest that a properly orchestrated industrial policy can yield rich dividends. Not piecemeal reform but an integrated industrial effort could be equally beneficial for China. Volume II of the Report represents a first cut at providing a framework for the elements of an industrial strategy listed above. To illustrate various points and indicate possible directions for industrial change, it draws upon the experience of a number of subsectors (see Chapter VI

^{4/} In Shenyang a newly introduced system whereby enterprises can displace workers if alternative jobs can be created for them made it possible to transfer 67,000 redundant workers in 1988. The enforcement of the Bankruptcy Law since November 1988 together with experimental social security rules is likely to result in even greater fluidity in the enterprise sector once it is extended to other parts of the country. "The Iron Bowl Cracks", Far Eastern Economic Review, January 19, 1989, p. 63.

and The Future of Three Chinese Manufacturing Industries, by S. Yusuf, P. Dittus and R. Schwartz, World Bank, mimeo June, 1989). A few of the main points presented in Volume II are summarized below.

5.13 **Structure.** Industrial structure comes first. Chinese industry is relatively dispersed with all but a few provinces having a fairly diversified industrial base. In addition, subsectoral concentration ratios tend to be quite low. No doubt this is a reflection of many decades of decentralized, province-oriented, development. It is very different from the pattern to be found in other large countries. A broad industrial base is advantageous for the individual provinces. But agglomeration economies have been sacrificed and the distribution of industry is not necessarily guided by regional comparative advantage. The trend in the leading industrial countries seems to be in the direction of large, horizontally integrated companies that forge subcontracting links with smaller specialized producers of components and intermediate products. Large firms are able to exploit economies in assembly, research and marketing to name a few, and their association with smaller producers, provides flexibility and high quality components. This arrangement has led to important gains in productivity. In China, however, the average state or collective enterprise is not large by international standards and is vertically integrated. It has not gone very far towards developing symbiotic relationships with smaller subcontractors. Horizontal associations are multiplying and eventually they will alter the shape of industry, but many such marriages are administratively arranged and not the result of market forces.

5.14 Both the geographical pattern of industrialization and the size distribution of enterprises may need continuing attention in the interests of efficiency and dynamism. However, changes will be slow to occur so long as the various provinces continue protecting their industries and do not jointly endorse a strategy that enhances industrial mobility. Industrial restructuring requires, of course, that there be a significant increase in interprovincial capital transfers; it means that a variety of financial intermediaries should support new industrial firms; and it calls for a dismantling of administrative barriers to the entry and exit of industrial enterprises.

5.15 An unfreezing of the industrial structure that promotes mobility, and removes some of the barriers to entry should help to dissolve the existing networks and arrangements which stand in the way of market competition. Out of such competition should come not only the efficiency that will benefit growth but also the discipline that can aid the quest for stability.

5.16 **Inter-Provincial Trade.** Large domestic markets can provide a great boost for industrialization and the achievement of scale economies. China has the potential but the internal market is fragmented - which is reflected in the structure of industry. Unless steps are taken to fuse the provincial and regional submarkets into a single national market, the contribution made by industrial restructuring or relocation would be relatively insignificant. In the U.S. such fusing was the result of legislation which eliminated barriers to internal trade, the emergence of large national firms and the expansion of the transport system. It is likely that all of these will be required in China as well, starting with a firm political agreement on what industrial modernity entails. In a sense, this understanding would take its place alongside a similar consensus on macroeconomic management.

5.17 **Marketing.** Competition does not occur in a vacuum but depends on an infrastructure of marketing services that disseminate information, bring buyers and sellers together, assist in distribution and so on. In modern economies, marketing is crucial to the success of firms and in an important way determines the intensity of competition. It is in the effectiveness of its marketing network that the U.S. scores over other industrial countries.

5.18 The weakness of marketing, financial, repair, design and a host of other services^{5/} is a brake on industrial efficiency; it influences adversely, the pattern of industrial location; and during 1988, marketing imperfections might have exaggerated price fluctuations. It should definitely be viewed as an integral part of an industrial strategy.^{6/}

5.19 **Transport.** China's current rail network is intensely utilized and the productivity levels are impressive. But the railways are overburdened with bulk commodities and long distance passenger traffic. They can do little to support the movement of other goods that is needed. At the rates projected for growth of the various modes, transport will remain a bottleneck standing in the way of industrial developments. Unless, of course, its declining share of investable resources is reversed and the potential of all modes is fully tapped. This seems to be a matter of priority.

5.20 **Human Resources.** How much industrial relocation is desirable from the standpoint of comparative advantage and optimal location depends among other things on the availability of skilled workers and the mobility of the workforce. If the interior provinces continue to lag in skill development, in a more fluid and competitive environment they would tend to lose industry to the coastal regions. Beyond this, the higher the quality of skills, the greater the productivity gains for the nation as a whole.

5.21 In relation to its level of industrialization and its modernizing goals, China is investing too little in the teaching of skills. One of the reasons given for the great advances made by some of China's East Asian neighbors is the trainability of their workforce, which has facilitated the absorption of new technology. Trainability is the product of a sound basic education and a work environment that encourages people to seek and master new skills. China lags in both areas: basic schooling requires attention; while wage incentives and job grading within factories are such that the acquisition of new skills offers little attraction.

^{5/} The weakness of service industries in socialist economies have been widely noted. See The Distorted World of Soviet-Type Economies, by J. Winiecki, University of Pittsburgh Press, 1988, Ch. 3; an "Facing the Unavoidable Evil," Economist, July 23, 1988, p. 57.

^{6/} The contribution that services can make to industrial efficiency and the nature of sectoral interactions are described in "Exploiting the Manufacturing-Services Interface," by J.B. Quinn, J.J. Barnch and P.C. Paquette, Sloan Management Review, Summer, 1988.

5.22 A skilled workforce must be complemented by professional management.^{7/} The powerful, competitive and technologically dynamic firms China needs will only germinate in a suitable policy environment, but to grow and flourish they need expert management. Good management is not just a matter of negotiating capabilities, engineering knowledge or good political sense although these are not unimportant. The ability to formulate an overarching strategy and then deploy the combination of entrepreneurial and organizational skills to obtain the desired results, may be more important. Enterprise surveys that have made possible a limited acquaintance with the world of the Chinese enterprise manager suggest that the average enterprise chief is situated too far down the hierarchical pyramid to command much strategic vision or enjoy sufficient entrepreneurial freedom; he lacks the support of adequate middle management resources to flesh out organizational purpose; and he may be frequently distracted by the many demands placed upon him by supervisory agencies and his own work force (see Chapter VII). As long as senior managerial positions do not gain in power and status, enterprises will lack the capacity to respond effectively to the government's industrial policies and move China closer to market socialism.

5.23 Industrial Vision. To win widespread provincial support for an industrial strategy along these lines and to motivate enterprises as well as their supervising organs, the central government must project an inspiring vision of the industrial future. Restructuring is not equitable: there will be gainers and losers. But provinces can be made to cooperate if the vision is sufficiently appealing. In Japan, for example, MITI's carefully researched, long term vision of industrial destiny influenced Japanese decisionmakers in all walks of the economy. The government-instigated, informal, consultative process also played a vital role by providing feedback and starting a flow of information that energized inter industry linkages. Both a vision and a continuing dialogue are part and parcel of the overall strategy (Chapter IX).

SECTION B: AGRICULTURE

Trends during 1978-86

5.24 A part of the macroeconomic tension that can be observed in China springs from the trends in consumer food preferences and farm production since the mid-80s. As observed in chapter I, high growth led by capital spending, and adjustment during 1985-87 was achieved through measures which required switching as well as a cut in the consumption share. The switching effect has had significant consequences for agriculture and the prices of foodstuffs. Chinese consumers have been induced by higher incomes to enrich their carbohydrate intensive diet with quantities of pork, eggs, vegetables, sugar and aquatic products; substitute fine grains for sorghum and millet; increase their intake of wheat at the expense of rice--both as table food and indirectly, through animal products; and, increasingly, to demand prepared foods and other agriculturally derived manufactures. This trend in consumption will continue (see Table 5.1). In parts of the country, demand has

^{7/} Achievements in the sphere of management education in China and the deficiencies that remain are examined in Management in Post-Mao China, by J.Y. Battat, UMI Research Press, 1986, Ch. 4.

outstripped supplies with free market prices climbing at alarming rates. As the average household allocates over half its budget to food, price instability of daily items has aroused consternation. To staunch inflationary pressures from this quarter supplies of desired commodities must be increased. This could pose difficulties.

Table 5.1: CURRENT AND PROJECTED PER CAPITA FOOD CONSUMPTION
(kg/year and kcal/day)

Commodity	Current: 1982-84		Future: 2000	
	kg/year	kcal/day	kg/year	kcal/day
Cereals	264.1	1,769	253.7	1,775
Rice	145.9	980	148.9	1,000
Wheat	76.7	560	81.5	595
Sugars	5.8	56	11.8	114
Vegetables	69.6	43	100.4	62
Fruits	12.5	10	32.2	25
Fish	6.4	11	12.8	22
Meat & Offals	16.2	140	27.6	236
Dairy	2.6	7	12.8	32
Total		2,525		2,746

Note: Current figures from FAO average food balance sheet for 1982-84.

5.25 China has made the best of a limited and shrinking endowment of arable land. By any reasonable standard, agriculture performed creditably prior to 1978, spectacularly in the 1978-86 period. Cultivated ^{8/} acreage fell from 112 million ha in 1957 to 103.6 million ha in 1965. It then declining gradually from 96.85 million ha in 1985 to 95.89 ha in 1987. Gross agricultural output rose by 2.3% p.a. between 1959 and 1978, at over 4% p.a. from the mid-sixties to the start of the reform era. Increasing yields were obtained through the application of fertilizer and manure to high yielding, dwarf varieties of grain, introduced from the early sixties (Table 5.2). In nutrient tons, the use of fertilizer rose from 1.94 million tons in 1965 to 10.86 million tons in 1979 and 19.99 million tons in 1987.

Table 5.2: AGRICULTURAL INDICATORS

Year	Sown Acreage million ha	Grain output million tons	Irrigated area %	Rice yield tons/ha	Fertilizer application kg/ha
1957	157	195	17.4	2.69	2.37
1965	148	194	23.1	2.94	13.55
1979	148	332	30.4	4.24	73.35
1984	144	407	30.8	5.37	120.63
1986	144	391	30.7	5.35	133.88
1987	145	405	30.6	5.42	137.92

Source: Statistical Yearbook of China, 1987

^{8/} Cultivated land is arable land under cultivation. The sown area (see Table 5. 2) is higher due to multiple cropping. Satellite mapping has been indicating for sometime that the area under cultivation is being under-estimated with as many as 25-30 million hectares that are in use not being reported.

5.26 Although production rose at a healthy pace before 1980, biological, mechanical and human inputs unassisted by efforts to increase economic efficiency, accounted for the bulk of the increase.^{9/} Under the commune system, incentives were meager and resources frequently misused. Some of the attempts at expanding acreage, controlling water supply and maximizing the grain harvest were wasteful and ecologically harmful. With the wide spread introduction of the production responsibility system at the farm level after 1978, the rural economy shifted to a higher gear. The demise of People's Communes, the spontaneous growth of new marketing channels outside of the State sector, improved relative prices of agricultural products and official tolerance--later encouragement--for a general commercialization of rural economic activity had a profound effect on the tempo of agricultural production. Gross agricultural output rose by 6.1% p.a. from 1978 until 1986. ^{10/} Farmers began diversifying their crop mix and the prevalence of purely subsistence agriculture receded substantially. Decomposing this increase by source is a difficult exercise but recent work suggests that much of it is traceable to the incentives provided by higher prices and freedom to use resources of land, labor, capital and fertilizer as the farmer saw fit.^{11/} Whereas in 1978, 5% of farm and sideline products were sold at market prices, 2% at negotiated prices, and 84% at list price, by 1984, only 34% was disposed of at list price, an additional 34% at above quota list prices and the balance at negotiated and market prices.^{12/} Increased use of fertilizer and a favorable ratio of fertilizer to grain prices also had a role but it was clearly secondary to the above factors.

Emerging bottlenecks

5.27 A perceptible slackening in agriculture growth since 1985 indicated that the x-efficiency backlog and the immediate gains from erasing most of the administrative controls on agriculture had been exhausted. By then, a host of problems pushed into the background by the performance of the early eighties were beginning to demand attention. Some of these have grown larger in the closing years of the decade. They make the 450 million ton grain target by 1990 impossible to achieve before the mid-1990s (production in 1988 was 394 million tons), underscore a need for substantial investments in production, handling and distribution infrastructure, and enhance the attractiveness of imports as means for alleviating supply bottlenecks.

^{9/} See Rural Development in China, by D. Perkins and S. Yusuf, Johns Hopkins Press, 1984, p. 68, Table 4-11.

^{10/} "China: Trends in the Value of Agricultural Output 1978-86", by R.M. Field, mimeo, April 27, 1988, Washington D.C.

^{11/} "The Impact of China's Economic Reforms on agricultural productivity Growth," by J. McMillan, J. Whalley and Li Jing Zhu, mimeo, March 1988; and "Some Initial Results of China's New Agricultural Policies", B. Stavis, World Development, Vol. 13, No. 12, 1985, p. 1301.

^{12/} Field op cit., 1988.

5.28 Reforms transferred production responsibility to individual peasant households without clearly affirming the nature of their leasehold rights or the mechanisms for maintaining services as well as facilities that had been the responsibility of communes. Peasants took to "mining" their land resources commencing a cycle of exhaustion and erosion.^{13/} Irrigation facilities suffered neglect and although individuals prospered, the financing of local infrastructure languished with the decline in the commune's administrative powers.^{14/} The blight gradually spread to education and health services. An urban bias in State investment further squeezed the supply of investment that^{15/} could have replenished rural capital--physical and human--apart from husbanding the fertility of land. Agriculture's share of total state capital construction investment fell from 11% in the late 70s to 3% in 1986.

5.29 Irrigated acreage declined marginally, as for a time did mechanical cultivation.^{16/} Forestry, watershed management and the activity of soil conservation that could not attract sufficient resources suffered. In addition, lapses with regard to routine maintenance and programmed obsolescence of equipment has had unfortunate results. Some of China's water control facilities are compromised by poor design and the use of substandard materials and equipment. Some need to be rebuilt.^{17/} Other must be re-equipped or have their farm distribution networks redesigned to service the requirements of vegetables, fruits, fodders, other cash and industrial crops whose cultivation is spreading rapidly in the irrigated, grain producing areas. Out of a total of 6.18 million tractors, a fifth are grossly outmoded and swallow an extra half million tons of scarce diesel along with some 500 million yuan in repair expenses.^{18/}

^{13/} Compounding this problem is the loss of some 6 million hectares of good quality land, principally around cities to the spread of urbanization and the growth of rural industry.

^{14/} "Quarterly Chronicle and Documentation", China Quarterly, No. 113, 1988, p. 156.

^{15/} The urban bias of government investment is counterbalanced by the low taxes levied on agriculture and favorable terms of trade since 1979. On the matter of urban bias see "Economic reforms in the PRC", by D. Gale Johnson, Economic Development and Cultural Change, Vol. 35, No. 3, April, Supplement, 1988.

^{16/} At first the break up of the communes led to a decline in the use of machinery. But as in Japan, Taiwan, and S. Korea, prospering farmers have invested extensively in small scale machinery. The farm machinery stock passed the 300 million h.p. mark in 1986, a 2.4 fold increase over 1978. By 1987, mechanical seeding and harvesting had bettered the prereform average. Unfortunately, the mechanization of small farms also diminishes the utilization rate of equipment. "Agricultural Performance in 1986 and Prospects for 1987", by Etsuzo Onoue, China Newsletter, No. 67, 1987.

^{17/} "Letter from Mashan" by R. Delfs, Far Eastern Economic Review, June 23, 1988, p. 90.

^{18/} "Old Gear Encumbers Farm Mechanization" China Daily, May 6, 1988.

5.30 Since 1985, the agricultural supply situation has been plagued by uncertainty. By abolishing mandatory state procurement in 1985 and purchasing foodstuffs either through contract or from the market, the state dramatically liberalized the rules of the game. Coming on the heels of the 1984 grain glut when the government was forced by budget and storage constraints to renege on purchase commitments, this has modified farmers' expectations. Producers realize that the system's absorptive capacity for grain and other foodstuffs is not unlimited.^{19/} Nearly 50% of all fruit and vegetables are subject to some spoilage before they are marketed, with outright loss approaching 40% through State-owned channels, and a still high 20% through commercial channels. Widespread microbial and physical damage to fruit and vegetables is reported and losses rise because only 5-10% of horticultural products are processed as against 90% in the US. Warehouses to store surplus grain; the means of bulk transport to distant places; drying and milling facilities; cold chains and refrigerated transport; the essential marketing and associated financial services; all these are insufficiently developed to supply China's affluent urban consumers even when it is physically possible to grow the foodstuffs desired. The wide dispersion of free market prices for food items merely underscores the extent of market fragmentation in China (see Table 5.3 and Chapter II, Part A).

Table 5.3: FRESH VEGETABLE MIXED AVERAGE RETAIL PRICES IN MAJOR CITIES, CHINA, MAY 1985 TO FEBRUARY 1988 (Fen/Kg)

	Mean	As % of Mean		Coefficient of
		Maximum	Minimum	Variation
November 1985	11.9	239%	36%	55.4
November 1986	26.6	244%	31%	54.1
November 1987	40.0	226%	39%	66.4

Source: The data are for 12 major cities: Beijing, Tianjin, Shenyang, Nanjing, Harbin, Shanghai, Wuhan, Guangzhou, Zhongqing, Xian, Jinan, Kunming. *Monthly Bulletin of Statistics, China*. Data are not available for all cities for every month.

5.31 Following the State's withdrawal from guaranteed grain procurement, grain production declined as farmers cut back and further diversified. Overall agricultural growth also declined during 1985 and 1986 to a still respectable 3.4-3.5% p.a., but began to accelerate again in 1987, to 4.7%. The 1985 pronouncements also embodied tacit recognition that the structure of agricultural production is changing, from a grain-based and largely administered system to one in which commercial cropping, animal husbandry, aquaculture and marine products are rapidly assuming greater importance. By 1986, for example, the contribution of livestock, fisheries and forestry products to the gross value of agricultural output amounted to 38%--as against 28% in 1980.

^{19/} See "Agricultural Planning and Pricing in the Post-Mao Period" by T. Sicular, *China Quarterly*, pp. 692-4, December, 1988.

5.32 The cumulative relaxation of agricultural production, pricing and marketing controls since 1978 has triggered a variety of concerns, some of which seem misdirected. Increases in per capita incomes and emerging consumer demands for a greater variety of agricultural products, of higher quality, and with reduced seasonal scarcity, have given rise to new kinds of demands that are stretching the capacity of China's hard-pressed farmers. Abetted by transportation and distribution bottlenecks that fragment the national market, the shortages that have appeared in urban areas--where one fifth of the population effectively expends 50% of China's disposable household income--can be attributed squarely to an outpacing of the capacity of agriculture to respond quickly to more sophisticated consumer preferences. Urban residents are seeking higher quality grains, vegetables and meat, available through commercial channels, and are prepared to pay market prices for them.

5.33 In the years ahead, China's agriculture and commerce bureaucracies will have to embrace a wider range of issues. Being ever price sensitive, they would do well to focus on the requisites for supply expansion of higher valued crops and animal feeds. This will require a reordering of the priority given to grains; greater reliance on grain imports to accommodate further diversion of sown area into non-grain crops; and modernization of the seeds production and animal breeding industries. Such a reorientation will also require less rigid control over the production, importation and distribution of chemical inputs and farm machinery. It will call for regionally tailored policies to reduce land fragmentation as well as public investments in the rehabilitation and maintenance of irrigation, transport and marketing infrastructure. State-owned banks and autonomous financial service organizations will need to be more responsive. There is also room for a considerable upgrading and reorientation of research, extension and plant/animal protection services to accelerate the absorption of new technology.

5.34 Marketing, pricing and investment policies will encourage productivity and a diversification of agriculture, but there are some physical constraints which must also be tackled. Some of the constraints are regional, induced by near explosive off-farm development in the coastal regions where a severe shortage of agricultural labor has developed, and where restrictions on inter-regional migration continue to prevail. During 1984-86, the number of specialized agricultural households in Jiangsu decreased by a third and the numbers of livestock producers was halved. Pork supplies that were depressed during 1986-87 because of low procurement prices and the rising cost of feedgrain are beginning to recover in 1988, but the problem of bottlenecks persists: holding pens, cold storage, transport and distribution facilities.^{20/} Some 330 million head of swine in China produced just 18 million tons after a year's fattening. In the U.S., 6 million tons is obtained from 57 million hogs over a 6-month cycle. Improved genetic stock, rearing practices and feed grain availability could expand output swiftly but farmers with an eye to the

^{20/} Hunan Province had 70,000 tons of frozen pork in mid-1988 but could find only 28 railcars instead of the 120 needed to ship it to Beijing, Wuhan and Tianjin. Similarly, Sichuan had 100,000 tons without any means of exporting it to areas where demand was acute. "China's Pork Squeeze", Asian Wall Street Journal, July 14, 1988.

infrastructure of distribution may be slow to respond.^{21/}

5.35 Growth in the output of vegetables is also hampered by the state of the infrastructure. Land around cities where much of the vegetables are grown, is becoming expensive so the acreage response is somewhat depressed. Nevertheless, as can be seen from Table 5.4, the cultivated area did increase by between 8-12% during 1985-86 and as productivity rises this should modulate price movements. An integrated national market with an effective cold chain (see The Future of Three Chinese Manufacturing Industries, by S. Yusuf, P. Dittus and R. Schwartz, World Bank, mimeo, June, 1989 and Chapter VIII) is the longer term solution as China's bustling cities can no longer rely on their peri-urban fringes to produce an adequate quantity of vegetables.^{22/}

Table 5.4: LAND UNDER VEGETABLES
(1000 ha)

	1985	1986	% increase
Total	4,753.3	5,304.1	11
of which: Beijing	54.3	58.1	7
Tianjin	37.7	44.3	17
Jiangsu	276.6	311.9	13
Hunan	294.9	308.5	4
Guangdong	344.5	396.9	15
Sichuan	478.5	526.0	10
Shanghai	64.3	70.9	10

Source: Agriculture Yearbook of China, 1986 and 1987.

5.36 The effective production and use of fertilizer also requires attention. Nearly 138 kg of fertilizer were applied to each sown hectare in 1987 and rates of usage have grown by 9.7% p.a. during 1981-84 and 6.7% p.a. over the period 1984-86. Demand continues to run ahead of supplies and the

^{21/} The native black pig is an efficient convertor of low quality feed into fatty meat, whereas consumers are now seeking lean pork. A solution for the problem of pork supplies requires a move towards crossbreeds or hybrids involving leaner white pigs, and the use of high protein feeds to ensure adequate weight gain. "China: The Livestock Sector", World Bank Country Study, July, 1987, pp. 80-81; "Putting Meat on Every Table", by R. Freese, China Business Review, Jan-Feb 1988, pp. 17-21; on cattle see, "Beefing Up China's Cows," K.S. Russel, China Business Review, Jan-Feb 1988, pp. 23-24.

^{22/} Only Chinese cabbage, ordinary cabbage and root crops can be stored for any length of time. Canning is expensive and consumers do not have much taste for dried or pickled vegetables. "The Economics of Municipal vegetable supply in China" by T. Wiens, in Vegetable Farming Systems in China, eds. D.L. Plucknett and H.L. Beemar, Jr, Westview Pren, 1978, P.287. Chilling and freezing techniques in current use are outmoded and result in a shrinkage and deterioration of products. It is with the adoption of modern cold storage technology that large scale interregional trade will become a reality. "China: The Livestock Sector," World Bank Country Study, July 1987, pp. 97-8.

potential for raising yields through greater application is not yet exhausted. Three-quarters of China's soils are deficient in phosphate, especially the North China Plain. Grain, vegetables and tubers would all benefit from bigger doses of this nutrient. Production of nitrogen and phosphate fertilizer has stagnated for the past three years as many small inefficient facilities producing poor-quality, aqueous ammonium bicarbonate have been closed and the funds to invest in modern facilities or to purchase imports have been scarce. Weaknesses of the system for distributing and transporting impinge on fertilizers just as they do on other agricultural products.

Food Production Strategy

5.37 Direct consumption of grain will be declining in the years to come. Indirect consumption through the demand for meat will take its place. Urban expenditure elasticities point to rising shares of higher quality foods in the diet.^{23/} A growth rate for gross agricultural output averaging between 4-1/2% and 5-1/2% p.a. (comprising subsectoral growth rates of, for example, 2-1/2% for crops, 5-1/2% for animal products and forestry and 6% for fishery) from now to the mid-1990s appears to be feasible. ^{24/} These rates of growth would be consistent with non-agricultural growth of between 7 and 8-1/2% a year and with total national output growth of between 6-1/2% and 8%.

5.38 The Government's long-held grain production target of 400kg per capita appears technically achievable by the mid-1990s in terms of the implied requirements for land, use of other inputs and rate of technological progress. More than 70% of incremental whole grain production (i.e. excluding grain processing by-products) will be destined for use as livestock feed which will enable the Government's current targets for meat and fish consumption per capita in the year 2000 to be substantially achieved by 1995. It is less certain, however, that the dairy consumption targets will also be realized unless supplies of protein-rich feed can be boosted. Recent projections by the World Bank suggest that some sacrifice of incremental food grain for direct human consumption (in order to provide additional feed grain for livestock production) can only be avoided by ensuring strong productivity growth in terms of animal product yields per hectare of feed grain (and by allowing price increases to restrain demand). Otherwise, land for seed grain might have to be rationed or exports of feed grain restricted by quota. ^{25/} With regard to the overall quality of the Chinese diet in 1995, Government targets for average per capita food energy and protein intake appear

^{23/} See "Household Expenditure Patterns in Tianjin, 1982 and 1984", by Teh-wei Hu, Jushan Bai and Shuzhong Shi, China Quarterly, No. 110, June 1987.

^{24/} See Martin C. Evans, "Rural Sector Performance Outlook", Working Paper No. 2, prepared for Rural Sector Adjustment Loan (RSAL) Loan Implementation Volume (June 1988).

^{25/} The projection model confirms the existence of a feed grain supply constraint by consistently projecting faster growth in the supply and demand for animal products (and faster overall agricultural growth) when these are computed without direct reference to feed availability than when animal product supply and demand are explicitly linked to feed supplies.

achievable though fat consumption might still be below target. However, most international nutritionists consider the Chinese fat intake standards to be unnecessarily high.

Future Policy Initiatives

5.39 Cycles of stop-go are the bane of socialist economies that attempt to steer a course between central planning and market direction. Dismantling some of the controls on enterprises and financial institutions leads to a spiralling of capital spending and removes a few of the restraints on payments to workers. These generate strong demand pressures. Unfortunately, supplies are slow to respond for a variety of reasons. Improvements in factor productivity that could offset the strain on the economy's resource base are slow to materialize gradually because of piecemeal price reform that greatly dilutes the benefits from allocative efficiency. Once inflation gathers momentum, price reform is frequently put on hold and distortions again begin to accumulate. Second residual controls on investment by the various ministries interfere with the restructuring of output so that gluts and shortages are unnecessarily prolonged. Third, the lack of encouragement given to services acts as a brake on the efficiency of the other sectors and prevents them from realizing their full potential. Finally, the difficulty in coming to grips with ownership questions results in uncertainty for farmers, the absence of meaningful autonomy for enterprises and the inability of the authorities to impose hard budget constraints on firms that would inculcate rational spending patterns.26/

5.40 China is now faced with all these problems, but unlike some of the other socialist countries can deal with them from a position of macroeconomic strength. It is clear that far-reaching price reforms cannot be introduced in the short run. But if they are combined, in significant doses, with the industrial policies described above (and in Volume II) as well as the macroeconomic measures detailed in Chapters II-IV, China might be able to complete the transitional phase without a recurrence of stop-go cycles. The proposals regarding the future organizational shape of Chinese enterprises sketched in Chapter VI, Footnote 17 and Chapter VII, attempt to delineate a path towards competitive strength in a market oriented environment, where supervisory agencies define the ground rules but then leave the participants largely to their own devices.27/

26/ One current view on the issue of property rights is sketched in "Property Rights could Solve many Reform Snags," China Daily, January 12, 1989.

27/ The microeconomics of enterprise reform is the subject of several recent studies by the World Bank see China: State Enterprise Management and Organization, Reform Issues and Options, September 11, 1987 and Enterprise Management Reform: Issues and Options, World Bank, October 1988, mimeo. It is receiving continuing attention through a number of ongoing projects as well.

5.41 At the margin China can and should fulfil its agricultural requirements through the international market^{28/} but a large part of the domestic demand for grain, meat, vegetables, fruit industrial raw materials and fertilizers must be met from domestic sources. With the impetus arising from the production responsibility system now largely spent, reaching the 450 million ton grain target by the mid 1990s, while satisfying the changing expectations of China's increasingly affluent consumers and the needs of the industrial sector, calls for a many pronged agricultural strategy. Price policies will have to be designed to both encourage production of certain items while moderating the demand for others. For instance, prices may have to be used so as to contain the consumption of meat.^{29/} Pricing rules will also determine the efficiency with which inputs are used. Another range of policies will have a decisive effect on productivity by improving technology, raising the quality of land and restoring land augmenting infrastructure. These are matters that will be covered by the Bank's studies on Grain Issues, on Agricultural Pricing and the Yellow River Basin.

^{28/} According to one recent estimate, if changes in consumer welfare, producer surplus, and government revenue are summed, food self-sufficiency by 1995 would result in an annual loss equal to 2% of GNP. "The Economics of food Self-Sufficiency in China," by Y. Yang and R. Tyers, World Development, Vol. 17, No. 2, pp. 243-4.

^{29/} The state has raised contract procurement prices in each year since 1986 to stimulate lagging grain output, but the results have so far fallen short of the desired goals. See T. Sicular, of cit. Footnote 14.

ANNEX

A CHRONOLOGY OF ECONOMIC REFORMS, 1979-88

Reforms were first introduced, and have progressed farthest, in the rural areas. Decentralization of production and investment decisions to individual households, combined with the assignment of leasehold rights over land, and a significant increase in procurement prices in 1979, stimulated agricultural production and induced farmers to cultivate higher value crops. Rising rural incomes fueled the demand for industrial products and services, and led to rapid growth of rural industry and expanding employment opportunities in transport, commerce, and other rural service activities. By 1984, the so-called "production responsibility system" covered virtually all rural households, and was extended to state farms.

The efficiency gains from the first round of rural reforms were virtually exhausted by the mid-eighties. In the years that followed, agricultural growth stabilized slightly above three percent, in line with its longer term potential, but a lack of investment in rural infrastructure, which had declined rapidly with the dissolution of rural collective organizations, threatened future productivity. In order to increase incentives for investment, lease terms were extended from 15 to 30 years in 1984, and mandatory state purchases of grain were replaced by voluntary contracts. Land use rights became transferable in 1988 following an amendment of the constitution.

The rapid growth of agriculture, and especially, side-line production and rural industry, would not have been possible without supporting supply-side measures. The diversification of distribution channels, and the appearance of free markets and individual shops after 1979, allowed rural households to reap the full benefits from sideline production, especially after 1985, when procurement prices for nonstaple farm products were freed. The increased availability of credit for rural enterprises, together with the right to set prices freely, was decisive in triggering unprecedented growth of rural industry since 1984.

Economic reforms in industrial sectors progressed more slowly and faced greater difficulties. The principles of rural and urban reform were similar, with emphasis on decentralized decision-making, increased use of material incentives to motivate workers and managers, and greater reliance on market forces, to guide decisions. In part because of the complexity and interrelatedness of urban reforms, changes have been introduced more gradually and in a piecemeal fashion, and reform is far from complete.

Industrial reforms started in 1979/80. Instead of remitting all profits to the state, selected state-owned enterprises were allowed to retain a small share. In addition, they were given some operational autonomy for above-quota production. By the close of 1980, 6,600 state-owned enterprises accounting for 70% of SOE profits had instituted a profit retention system. Internal management organization and incentives, however, were hardly changed by this light touch of the reforming hand.

In 1981/82, the "economic responsibility system" was introduced specifying profit remittance targets (determined in a tough bargaining process) and high marginal retention rates for above-target profits, up to 100%. The system greatly sharpened incentives, but at the cost of widely varying tax rates, and yearly bargaining over targets. Tax reform in 1983/84 led to a switch from profit remittances by state enterprises to income taxation. The tax rate for profits was set to 55%, while adjustment taxes were used to adjust the tax burden for "objective factors" like different capital intensity or state-set prices. While the reforms did not lead to uniform regulations for all enterprises, it was a decisive step in the right direction.

In the following years, a desire to push growth to its limit by maximizing incentives to enterprises, induced reformers to adopt the contract management responsibility system (CMRS) and other responsibility systems, with low marginal tax rates on profits in excess of targeted levels. The incentive to produce was strengthened in 1984 by wage reform, linking workers pay to profits and other performance indicators. The CMRS combines two strands of thought which have been central to the reforms process. First, it provides strong material incentives in the form of high marginal retention rights. It tries to mitigate bargaining problems by specifying multi-year targets, usually 3-5 years. Second, it makes full use of the 1984 reforms, which greatly strengthen the operational autonomy of state enterprises, including a stronger position for factory managers, who in effect sign the contract. Increased flexibility of prices since 1984, reduced scope of state-fixed prices and an enlarged share of floating and market-determined prices, have added to the benefits enterprises derive from above-quota production, which can be sold freely.

Industrial reforms have been supported by a significant restructuring of the banking sector. Before the reforms, the budget mobilized savings and the government decided directly on investment projects. Since 1979, resource mobilization is increasingly the province of the banking system, and enterprises have had more say over investment decisions. Important progress was made in 1984, with the establishment of the Peoples' Bank of China as the Central Bank. Its commercial banking activities were transferred to the Industrial and Commercial Bank of China. Specialized banks were subjected to redeposit requirements, interest rates are now used as tools of monetary policy, and strict credit ceilings were gradually replaced after 1986 by a kind of monetary base control.

The financial sector has developed rapidly. In 1985, the barriers to competition between specialized banks were reduced. Numerous rural and urban credit unions have sprung up, and local investment and trust companies were established all over the country. Embryonic financial markets have envolved since 1985, with the issuance of shares and bonds on a local level. Interbank transaction were introduced 1986 in an attempt to tear down the walls between the specialized banks, but so far have developed rather hesitantly. Two new banks, the Bank of Communications and the CITIC Industrial Bank were established in 1987 and promise to add some competitive salt to a still cosy system of established long-term relationships between specialized banks and their customers.

The open door policy China instituted in 1978/79 has several elements. A central goal was to attract direct foreign investment, for which four Special Economic Zones were established in 1980, and another 14 coastal cities opened in 1984, providing special investment incentives. As in other areas, decentralization of decision-making and individual responsibility for profits and losses were underlying ideas in reforming the trade sector. Widespread establishment of foreign trade corporations was allowed after 1979. In 1984, foreign trade corporations started to act as foreign trade agents for enterprises, working on commissions and passing on international prices and exchange rate risks to end-users and original suppliers. They also gained increasing responsibilities for profits and losses.

Partly as the result of the reforms in 1984, and partly because of declining macroeconomic control, unprecedented current account deficits emerged in 1985, which led to a tightening of the licensing system, and increasing coverage in the year after. Overseas sales have been encouraged by paying exporters domestically higher prices for foreign exchange through a multiple exchange rate system. At first, this was done through the state-determined internal settlements rate (1981 to 1985). From 1986 onwards, joint ventures could trade their retained foreign exchange in foreign exchange adjustment centers, where the price is determined by the forces of supply and demand, and is significantly higher than the official exchange rate. For key export sectors, foreign exchange retention rates have been increased to 70% in 1988, and Chinese enterprises have been allowed to use these markets.

CHINA: CHRONOLOGY OF MAJOR ECONOMIC REFORMS, 1979-88

TIMING

REFORM MEASURES

SECTOR: Agriculture

- 1979 Introduction of the "production responsibility system":
Remuneration according to output, greater autonomy in production
and financial decisions leading to improved material incentives.
- Sideline activities encouraged
- Procurement prices increased by 20 to 25 percent.
- 1984 Extension of production responsibility to state farms. Virtually
all rural households under a decentralized form of responsibility
system.
- Lease terms extended to 15-30 years to provide incentives for
investment in agriculture.
- 1985 Mandatory state purchases of grain abolished and replaced with
annual contracts and open market purchases. Procurement prices for
farm products other than grains (e.g. vegetables, fruits, meat,
poultry) liberalized.
- 1988 Amendment of constitution to legalize transfer of land use rights.

SECTOR: Industry

- 1979/80 Experimentation with profit retention system in state-owned
enterprises instead of 100% profit remittance, along with increased
operational autonomy (mainly for above-quota production). By end
1980, 6,600 SOEs accounting for 70% of SOE profits had instituted a
profit-retention system.
- 1981/82 Gradual introduction of the "economic responsibility system", with
profit remittance targets and high above-target retention rates (up
to 100%), based on ad-hoc negotiations and adjusted yearly.
- 1983 Introduction of the labor contract system, used more widely after
1986
- 1983/84 Gradual move from a profit remittance system to a profit taxation
system for state-owned enterprises.

TIMING REFORM MEASURES

1984 Announced "Provisional Regulation on Expansion of Self- Management Powers in State-Run Enterprises."

- Greater autonomy in operational decisions after fulfillment of plan targets.
- Enterprises in certain industries allowed to sell above-plan output freely.
- Above-plan industrial output could be sold at prices within range of 20 percent above or below state-prescribed prices.
- Increased authority given to factory managers.
- Reduction in the scope of mandatory planning by 50 percent to 60 goods in 1985.

Formal authority given to rural localities to develop non-agricultural activities under different forms of ownership.

1985 Draft bankruptcy law, put into trial practice in three industrial cities.

1985-87 Gradual move towards "contract management responsibility system" (contracts specify amount of profits and taxes to be turned over for multi-year period, determined by negotiations; marginal profits taxed at low rates or not at all) and other responsibility systems, less emphasis on principle of uniform profit taxation.

1987 Removal of limits on size of TVEs.

1988 Amendment of constitution providing for formal rights to operate privately-owned enterprises.

SECTOR: Commerce

1979 Diversification of distribution channels: free markets and individual shops supplement the state and collective sectors.

1984 Streamlined regulation pertaining to individual trade in rural areas (formalities required, scope of operations, tax obligations, rights).

75% of all small state-owned commercial and service enterprises contracted or sold to collectives and individuals.

Issuing regulation governing contracts for purchasing and marketing of industrial and agricultural products; greater choice for enterprises over supply channels.

Experimentation with the merging of several levels of wholesale trade to create streamlined supply network, integrating urban and rural markets.

TIMING REFORM MEASURES

1985 Number of goods subject to national rationing reduced from 73 in 1978 to about 6.

Number of raw material subject to centralized state allocation reduced from 256 in 1984 to 65; number of consumer goods distributed under state control reduced from 180 to 20.

SECTOR: Employment, Wages and Prices

1984 Greater linkage between workers' pay and enterprise performance (profits, taxes).

Abolition of ceilings on bonuses and introduced progressive tax on enterprises' bonus payments (payable by the enterprise).

In construction and mining industries, total wage bill of enterprise determined by value of output.

Privately-owned small-scale businesses permitted.

Township and village enterprises allowed to set prices freely.

Plan to reform price system in "Decision Regarding Reforms in the Economic System", announced.

Greater pricing flexibility allowed for quality, regional and seasonal factors; reduced scope of state-fixed prices and enlarged that for floating and market-determined prices.

1985 Introduction of new wage system for government employees, linking wages to job content, seniority, and performance.

Extension of 1984 wage reform in construction and mining industries to 10 percent of all state industrial enterprises.

1985/86 Subsidies for meat, poultry, eggs, aquatic products and vegetables substantially reduced in most urban areas.

Prices for nonstaple foods decontrolled.

1988 Increase of state food shop prices for pork, vegetables, sugar and eggs by as much as 60 percent, with compensating income subsidy of about 10 percent (April).

TIMING REFORM MEASURES

SECTOR: Public Finance

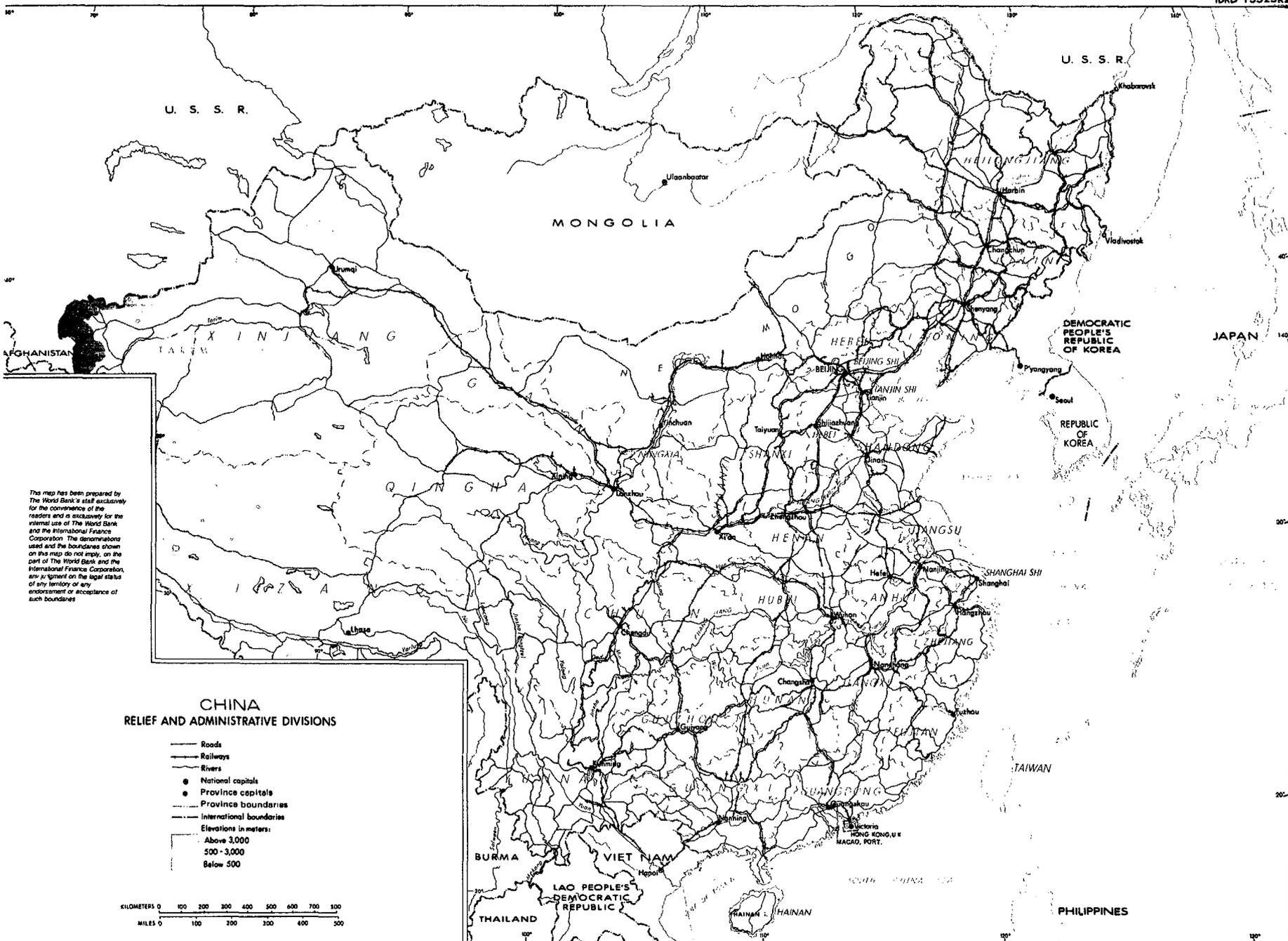
- 1979/80 Move to greater financial autonomy for local governments by giving them larger share of revenues ("eating out of separate kitchens").
- 1981 Introduction of treasury bonds.
- 1983/84 Tax reform undertaken to improve incentive structure for enterprises:
- Changed profit transfers from state enterprises to income taxation.
 - Increased depreciation rates.
 - Consolidated the industrial and commercial tax, and divided into product tax, value-added tax, business tax and urban maintenance and construction tax.
 - Offered tax concession to joint venture in Special Economic Zones.
 - Introduced new taxes mainly as economic levers, e.g. construction tax and tax on extrabudgetary funds (1983), tax on wages and wage bonuses (1984).
- 1985 Budgetary appropriations for capital construction replaced by loans.
- Introduction of new structure of fiscal relations between central and local governments; local governments given greater financial autonomy and larger share of revenues.

SECTOR: Banking System and External Finance

- 1979 Reestablishment of the Agricultural Bank of China; creation of the China International Trust and Investment Company (CITIC).
- 1980- Increase in financial intermediation through the banking system; bank credit progressively substituted for budgetary grants in financing working capital and fixed investment.
- Greater use of interest rates as monetary policy tool.

TIMING	REFORM MEASURES
1984	<p>Establishment of the People's Bank of China as separate Central Bank. Commercial banking activities transferred to the newly established Industrial and Commercial Bank of China. Introduction of redeposit requirements for specialized banks.</p> <p>Specialized banks given greater autonomy in operations.</p>
1985	<p>Foreign bank branches authorized to operate in selected areas.</p> <p>Banks issue financial bonds (kind of one-year certificate of deposit), share and bond issues by enterprises.</p> <p>Barriers to competition between specialized banks reduced and gradual move towards "universal banks" initiated.</p> <p>Establishment of local Trust and Investment Companies.</p> <p>Foreign borrowing needs approval by the State Administration for Foreign Exchange Control (SAEC).</p>
1986	<p>Bank branches in five cities given greater operational autonomy and responsibility for their profits and losses on an experimental basis.</p> <p>Introduction of interbank transactions.</p> <p>SAEC to monitor external debt.</p>
1987	<p>Establishment of the Bank of Communications and the CITIC Industrial Bank.</p>
SECTOR: <u>External Trade</u>	
1980	<p>Establishment of the four Special Economic Zones to attract direct foreign investment.</p>
1981	<p>Introduction of the internal settlement rate (depreciated foreign exchange rate for internal settlements).</p>
1984	<p>Trade system reformed to separate policy and administrative functions from direct conduct of foreign trade.</p> <ul style="list-style-type: none">- Greater operational authority given to foreign trade corporations.- Some trade corporation allowed to conduct foreign trade as agent for enterprises, working on commissions and passing on international prices and exchange rate risk to end-users and original suppliers.

TIMING	REFORM MEASURES
	14 coastal cities opened for direct foreign investment with incentives similar to the Special Economic Zones.
	Provinces granted right to retain 25% of their foreign exchange earnings.
1985	Abolition of internal settlement exchange rate.
	Enterprises allowed to retain 12.5% of their foreign exchange earnings.
1986	Foreign exchange adjustment centers established (local foreign exchange markets for trade of forex between joint venture enterprises at market determined rates).
1986/87	Increase of items under import licencing to 46. Command plan for imports reduced to cover only seven key raw materials.
1988	Increased foreign exchange retention for key export sectors to 70%; allowed local firms to trade foreign exchange at market determined prices at foreign



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