

**RETURN TO
REPORTS DESK
WITHIN
ONE WEEK**

FILE COPY

RESTRICTED
Report No. SA-3

This report was prepared for use within the Bank and its affiliated organizations. They do not accept responsibility for its accuracy or completeness. The report may not be published nor may it be quoted as representing their views.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

ECONOMIC SITUATION AND
PROSPECTS OF
INDIA

April 18, 1969

South Asia Department

CURRENCY EQUIVALENTS

1 Indian Rupee	=	U. S. \$0. 13
1 U. S. Dollar	=	Rs. 7. 5
1 lakh	=	100 thousand
1 crore	=	10 million

The Indian financial year runs from
April 1 through March 31.

This report was prepared in
New Delhi by Mr. William M. Gilmartin,
Resident Representative; and Messrs.
Jean Baneth, Kenneth A. Bohr,
Basil G. Kavalsky, Wolf Ladejinsky,
Wilfred F. Owen, Robert Picciotto
and E. Bevan Waide.

TABLE OF CONTENTS

	<u>Page No.</u>
BASIC DATA	
SUMMARY AND CONCLUSIONS	i - vi
I. <u>INTRODUCTION</u>	1
The Recent Course of the Economy	1
II. <u>BACKGROUND</u>	3
The Difficult Growth Process	3
Changing Structure	3
Development Strategy: Plan and Practice	5
III. <u>OBJECTIVES</u>	11
The Planning Process	11
Development Directions	12
IV. <u>THE POPULATION PROBLEM</u>	14
Family Planning	14
V. <u>AGRICULTURE</u>	16
The New Technology	16
The Water Constraint	18
Seed	20
Fertilizer	21
Medium Term Prospects	22
Problem and Opportunities	23
The "Other" Cultivators	25
Farm Credit	26
Extension Service	27
Land Reform	29

VI.	<u>INDUSTRY, POWER AND TRANSPORT</u>	31
	Industry, Recent Trends	31
	Changing Motivations	31
	Further Industrial Prospects	32
	Industrial Policy	34
	Steel	35
	Fertilizer	38
	Power	41
	Transport	42
VII.	<u>INTERNAL RESOURCES</u>	44
	Current Problems	44
	Resource Prospects	49
VIII.	<u>FOREIGN TRADE AND ECONOMIC POLICY</u>	51
	Export Policy: Past and Present	51
	Export Policy before Devaluation	51
	Import Policy	55
	Trade Policy Issues	57
	Future Trade Policy Issues	59
IX.	<u>AID REQUIREMENTS</u>	60
	The Recent Past	60
	Investment Requirements	61
	Savings and the Resource Gap	62
	The Balance of Payments	63
	Gross Aid Requirements and the Transfer Problem	65

STATISTICAL APPENDIX (Tables 1 - 33)

STATISTICAL APPENDIX

1. Population
2. Employment

3. Gross Domestic Product by Sector of Origin
4. Growth in Per Capita Income
5. Estimates of Savings and Investment

6. Index Numbers of Agricultural Production
7. Production of Principal Crops
8. Net Availability of Cereals and Pulses
9. Production, Imports and Total Availability of Fertilizers
10. Use of other Agricultural Inputs

11. Percentage Changes of Index Numbers of Industrial Production
12. Production of Selected Industries

13. Wholesale Price Index
14. Relative Prices of Manufactures and Agricultural Commodities
15. Price Index of Selected Commodities
16. Factors Affecting Money Supply

Note on Public Finance Data

17. Consolidated Finances of Centre and State Governments
18. Central Government Finances
19. Current Expenditures - Centre and States
20. Tax Revenue - Centre and States
21. Economic Classification of the Central Government Finances
22. Plan Outlays by Sector
23. Investment in Public Sector Enterprises
24. Profitability of Public Enterprises 1965/66 and 1967/68

25. Balance of Payments Summary
26. Imports
27. Exports
28. Imports by Source
29. Exports by Destination
30. Exports of Principal Commodities by Quantity
31. Terms of Trade
32. Export Duties
33. Gold and Foreign Exchange Reserves

BASIC DATA

Area: 1,262,000 sq. miles

Population, 1968: 530 million (end yr. estimate)

Rate of growth, current estimate: 2.5% p.a.
1951 - 1961: 1.9% p.a.

Gross national product at market prices, 1967/68: Rs. 293 billion.

Rate of growth 1955/56 - 1967/68: 3.5% p.a.
at constant 1965/66: -5.2%
prices, 1966/67: 1.3%
1967/68: 8.5%

Per capita, 1967/68: US\$ 76

Gross domestic product at current prices, 1967/68: Rs. 296 billion.

Percentage breakdown:	Agriculture:	51
	Mining:	1
	Manufacturing:	18
	Commerce & transport:	15
	Government & other services:	15

Percent of GDP at market prices:

	<u>1961/62 - 1965/66</u>	<u>1966/67</u>	<u>1967/68</u>
Gross investment	18	17	16
Gross saving	15.6	13.8	13.4
Resource gap	2.4	3.2	2.6
Government (Centre & State) current revenues	12	13	11.5

<u>Money and credit:</u>	March 1968 (Last Friday)	1962/63 - 1966/67 Average Rate of Increase (%)
<u>Rs. billion</u>		
Total money supply	53.52	10.1
Net bank credit to gov't sector	42.52	8.0
Net bank credit to pvt. sector	14.48	18.6
	<u>1967/68 1/</u>	
Rate of increase in prices		
Consumer prices 2/:	- 2.8%	10.2
Wholesale prices:	- 0.3%	10.7
		Third Plan Period 1961/62 - 1965/66 <u>Annual Average</u>
<u>Public sector operations (Rs. billion):</u>	<u>1967/68 (est.)</u>	
Public sector plan outlay	22.46	17.26
Balance from current revenues plus surpluses of public enterprises	7.88	5.77
Domestic borrowings	4.62	6.58
Total external assistance to public sector	9.96	4.91
		1962/63 - 1967/68 <u>Annual Average</u>
<u>External public debt, excluding suppliers' credits (US \$ million):</u>	<u>1967/68</u>	
Total debt outstanding 3/	6,966	5,442
Total annual debt service	357	267
		1962/63 - 1967/68 Average Rate of Increase (%)
<u>Balance of Payments (US \$ million):</u>	<u>1967/68</u>	
Total exports	1,598	2.0
Total imports	2,632	2.1
Trade balance	- 1,034	-
	<u>1967/68</u>	1964/65 - 1966/67 <u>Annual Average</u>
Commodity concentration of exports 4/	40%	42.5%
Debt service ratio 5/	28%	22 %
Gross foreign exchange reserves 6/	\$718 million	\$608 million

IBRD AND IDA OPERATIONS (US \$ million)

A. <u>Past operations</u> ^{7/}	<u>Amount committed</u> ^{8/}	<u>Amount disbursed</u>
IBRD	1,007.2	886.6
IDA	<u>1,010.1</u>	<u>863.3</u>
Total	<u>2,017.3</u>	<u>1,749.9</u>

B. <u>Terms of IBRD/IDA operations</u> (January 1, 1961 - February 28, 1969)	<u>Weighted average</u>		
	<u>Rate of interest</u> (p.a.)	<u>Grace period</u> (years)	<u>Repayment period</u> (years)
	2.16	8.7	41.3

^{1/} December 1967 to December 1968.

^{2/} Working class consumer price index.

^{3/} Excludes unallocated portions of frame agreements for some rupee area and where known; these were included in previous reports.

^{4/} Jute, tea and cotton fabrics.

^{5/} Debt service does not include debt relief. Debt service payments for 1964/65 to 1966/67 include only part of service on suppliers' credits. Data for 1967/68 are believed to be more complete.

^{6/} At the end of fiscal years.

^{7/} As of February 1969.

^{8/} Net of cancellations, terminations and refundings.

SUMMARY AND CONCLUSIONS

1. India's economic situation has been much improved in the past year after the drought - recession - inflation period of 1966 and 1967. With two good harvests, food shortages have disappeared, industry has picked up, so have exports, and prices have been stabilized although at fairly low and static investment levels. It is not the purpose of this report, however, to chronicle the year-to-year course of the economy but rather to seek a better understanding of current economic development processes considered in a longer-term context. The picture which emerges is a mixed one. On the one hand, considerable difficulties remain, some of which appear, with hindsight, to have been avoidable. This, however, should not hide the very considerable progress that has taken place: the creation of a large and complex industrial structure; the basic foundations of accelerated agricultural growth; the development of the transport network; the progress of education and public health.

2. To claim an understanding of the Indian economy in any context may seem pretentious. 1/ Nevertheless, some attempt is made here to examine a few of what seem to be important elements in the longer run course of development, including their antecedents during the last 10 or 15 years (still hardly the long run in India), some of the problems and policy issues they create, and what they suggest in the way of promise and disappointment on the course of India's further economic development. Both the basic engines of Indian development, agricultural advancement and industrial expansion, would seem in rather fundamental but different ways to be going through a period of transition.

3. The transition taking place in agriculture as a result of recent research achievements in the technology of cereal cultivation, the rapid dissemination of this technology in the countryside along with the associated provision of necessary inputs and the willing adoption of technology

1/ Part of the problem of understanding is due, as often stated before to inadequate information about agricultural and industrial productions, commerce, foreign trade and payments and other basic aspects of the economy. Some official efforts have been made to produce more timely industrial production series and to improve foreign trade and payments data but so far without notable results. This is a difficult situation to explain, because it is certainly not due to a want of competent statisticians and economists, with which India is well provided. There is a great deal of uncoordinated data collection which is not particularly related to information priorities, not usefully organized and much of it not even tabulated. Statistical procedures in various aspects of agricultural production and of industry involve reporting channels with a vested interest in the results in some cases and in other cases complete indifference to the results. There is also a great deal of dispersion of interrelated data among agencies which encourages the hoarding of information for the power that may go with knowledge. The need seems to be a coordination of economic information according to problem oriented priorities with the backing of sufficient interest and authority at a high enough political level to ensure such coordination.

by "traditional" agriculture wherever circumstances are suitable are now fairly well known under the label of the "green revolution". Its untapped potentials are still very large. The major gains in cereal production so far have been in wheat, but difficulties encountered with some of the high yielding varieties of rice and other cereals in their field application seem to be on their way to solution. Threats of other bottlenecks, especially in the provision of adequate and reliable water and water control and in the domestic development of fertilizer still need to be dispelled by programs well coordinated with agricultural requirements. But the means are there and so is the momentum of farmer acceptance and farm pressure for continued advancement. Though with temporary interruptions from bad weather, agricultural development promises therefore to be a stronger force for progress of the Indian economy in the future than in the past. However, current development hardly touches the vast numbers of subsistence dry-farming cultivators and agricultural laborers. For them, hope may lie only in very long-run development.

4. While the transition in agriculture from the stagnation of the early and mid-1960's to the promise of the 1970's seems well along, important parts of industry appears still to have a slow hard course ahead in this period of consolidation and adjustment, following the dislocations which emerged during the rapid industrial expansion and structural change of the latter 1950's and the first half of the 1960's. Weaknesses in the industrialization effort are more evident now with hindsight, than when devised by Indian planners and commended by Indian and foreign observers, who recognized that a longer run alleviation of India's vast poverty and employment problems must require an accelerated development of industry. In the process, a capacity for heavy capital goods production was built up which, probably for some time to come, is excessive at prospective rates of economic growth.

5. This over-capacity situation came about because of the development design of the Second and Third Plans, with its emphasis on a rapid expansion of heavy industry, geared to ambitious expectations of long-run economic growth and import substitution. These expectations proved to be more than available resources could support without financial instability. To maintain the physical expansion pattern would have required a change also in the financial pattern of income, income distribution and saving. And this would probably have meant a politically unacceptable set of income and fiscal policies to induce and capture the necessary increase in savings. It was perhaps, therefore, inevitable that the physical expansion program had to give way. This was hastened by the adverse financial consequences of the drought of 1966 and 1967, but by that time the industrialization program was already on shaky foundations.

6. For the time being, the revival of industry will probably have to proceed without much prospect of high utilization of heavy industrial capacity. The capacity is too large to be taxed by the linkages between heavy capital goods and manufacturers of agricultural supplies and equipment, road transport, consumer goods and other currently more dynamic industries. Nor will exports make up the difference. If it were to be made up, a substantial increase would be necessary in capital goods demand from within the capital goods sector itself and from heavy material and equipment using areas of the

public sector. Such capital goods demands would have to come and be financed, directly or indirectly, from a larger increase in public investment than the Government seems likely for some time to be able to afford. However, as expansion continues in the more active parts of industry and as government efforts at resource mobilization allow for an increase in public investment during the next few years, an industrial momentum should begin to pick-up beyond that which seems likely in the immediate future. Present policies allowing greater freedom for industry to develop in accordance with market and profit inducements should improve the general financial position of industry, stimulate the expansion of the capacities and the linkages with heavy industry of consumer goods manufacture and other industrial lines which seem now to be relatively small in the Indian industrial structure and reinforce linkages with heavy industry. For the next year or two a rise in industrial production at the recent rate of 5 or 6 percent may be as much as can be expected. But allowing for a moderate but steady growth in many parts of industry and in governmental investment it should again be possible to reach the early nineteen sixties' industrial growth rates of 8 percent or even higher during the next several years.

7. Population growth at 2.5 percent or about 13 million a year lies like a tapeworm within the economy, consuming a major part of the gains from development. India's efforts in the forefront of family planning, including commitments to whatever the financial requirements of the effort may be, are well known. The effort has had its difficulties and set-backs. But all told, the family planning program to date represents a considerable achievement in building up a country-wide organization which has been successful in widespread extension of an awareness of the possibility of family planning, as well as adoption of contraceptive practices by numbers which are large in absolute terms, even though small in relation to the size of the Indian population problem. Here again, a transitional phase of development is in prospect. So far the limiting factors on the family planning program have been personnel, organization, approach and technique. These are still problems, but the technique and approach now appear good enough to justify further major expansion. This however, runs up against a new constraint - money. Until now it would have been difficult to push the program much faster for non-financial reasons, even though it is probably in continuing contact with only a small fraction of the married population of child-bearing age. Just the maintenance and qualitative improvement of the program on this scale will require a large increase in funds. For an extension of effective coverage to a considerably larger part of the target population, very substantial additional appropriations will be required. And this confronts the Government with a financial quandary in current financial circumstances. At best, it will still be well into the future before the family planning program can have a significant effect on population growth, and it is not a program suitable to crash methods, as has been learned by sad experience. So prospects are for further progress, but slow and with considerable financial difficulty, not to be easily resolved.

8. One more problem area of development which shows signs of a favorable change of course is exports. The export level was stagnant or sagging from 1964/65 until the past year. And the seriousness of the export problem can be measured by the wide gap of a billion dollars or more between exports

and payments for imports and debt service. As noted, 1968/69 brought a marked export improvement, not so much in the traditional lines as in manufactured goods on which any real longer run solution of the export problem will have to rely. Several factors have contributed to the improvement, especially the slack industrial activity with substantial capacity available for exports, as well as an official export drive including large financial incentives for manufactured goods, reduced duties on traditional exports and strong government pressure on potential exporters of manufactured goods. Overall exports increased over 10 percent last year but steel and engineering goods jumped by 70 percent and will soon constitute India's second largest category of exports after jute products.

9. It is far too soon and there are too many uncertainties and policy problems to become euphoric about export prospects. Perhaps the greatest uncertainty is about the kind of policy prescriptions to sustain a rapid growth of exports, once domestic markets improve, excess capacities are reduced, and the compulsions on manufacturers to seek export outlets diminish. It should still be possible to keep exports growing in these circumstances after the export experience currently being gained, but it will require adaptations of policy to changing circumstances, and greater concern for the efficiency of Indian industry than has been evident under the long standing emphasis on import substitution and absolute protection without counting the effects on costs of production.

10. One more difficulty of the present development situation, which cuts across the whole development problem and seems to be chronic rather than transitional is the severe shortage of development resources. For the time being it is more severe in the public sector than the private, but financial constraints would probably develop in the latter also at a fairly early stage of rapid industrial expansion. In the public sector, plan expenditures remained about constant during the last three years and sagged in real terms. This year's plan outlays may be somewhat larger but not by much.

11. In the nature of the Indian economy, it is difficult to reach a high level of public finance in relation to GNP. This has been aggravated in recent years by a number of factors: large requirements for non-development purposes including defense and debt service; a relative shift in income to agriculture which seems to enjoy a high degree of political immunity from taxation; the poor earning record of public undertakings which were major elements of economic growth in recent years but are of little comfort to the exchequer; limited responsiveness of the revenue system to income growth (which however is being improved); and within development outlays, probably unnecessarily large requirements for unfinished industrial projects, especially steel and to some extent engineering, which are a carry over from past commitments.

12. In these difficult fiscal circumstances there appear to be many fields where larger public investment than the Government can afford would be in the interest of longer-term development. Some of these are indicated in the report. There are undoubtedly others, especially in education, housing and other social services and in urban rehabilitation and improvement.

The absence of a discussion of these latter fields of Indian development, important as they are, is an unavoidable but glaring omission in this report.

13. This year's budget represents a considerable effort at fiscal improvement with additional taxation including a courageous move to tax some of the benefits of recent agricultural advances and changes toward a more progressive revenue system. Central provision for development is also increased in spite of a rise in defense and other non-development spending. And this is done in a fiscal context not likely to rock financial stability. Whether the States will also be able to increase their contribution to development remains, however, somewhat doubtful at this point, but there is reason to expect over the next several years a steady rise in public development spending.

14. Given the nature of India's financial circumstances the improvement will be slow. It would facilitate the process if some of the rising agricultural income could be tapped and if there is the opportunity for industry to expand in accordance with market and profit possibilities. It would also help development in both the short-run and especially in preparing the way for faster growth in the longer-run if foreign aid could be increased well beyond the greatly reduced net levels of the last two years. Recent gross non-food aid commitments have averaged about \$750 million a year, and at this level and after deducting debt service, the net transfer of resources to India through non-food aid would be only about \$200 million a year. Aid available from these reduced commitments and the aid pipe line, still allow a manageable exchange situation without severe tightening of import policy only because imports have remained low with low levels of investment and industrial activity. At current levels of exports and aid any marked upswing of the economy and associated import expansion would have to be restrained for foreign exchange reasons.

15. Larger net aid would provide both an increase in resources to expand investment and an easier exchange context in which expansion could take place. Foreign commitments of assistance to Indian development should be made, however, in recognition that effective aid will have to be considerably larger in gross terms than recent commitment levels because of rising debt service, and that there will be increasing difficulty in effecting the transfer of aid. Just to maintain last year's (1968/69) level of net aid this year (1969/70) will require gross aid disbursements of \$1,400 million including food aid, or about \$1,050 million of non-food aid. Commitments will, therefore, have to be stepped up to these levels in the near future if the current level of net aid disbursements is to be sustained in the future. If aid is, in addition, to help in reaching higher investment and import levels gross aid requirements could be reasonably expected to reach about \$1,600 million within the next few years. Increasing difficulty in effecting transfer of aid in this magnitude can be expected because of the likely declining importance, within aid requirement totals, of food aid, along with growing complications in transferring large magnitudes of gross aid on a country-tied and project-tied basis.

16. Perhaps in present aid circumstances it is unrealistic to assume larger aid flows in considering India's development prospects. Despite this and the other difficulties of domestic resources, industrial adjustments and export uncertainties, an annual growth in national output of 4 or 5 percent is a reasonable expectation for some time except in years of bad weather. The favorable agricultural outlook and present prospects for moderate industrial expansion should support growth at this level. Policies will also be needed to make the most of the agricultural opportunities; to encourage industrial adjustment, efficiency and resource generation; to promote further export expansion; and to expand the scope and effectiveness of the family planning program.

17. It may be difficult, however, in the medium term to reach still higher growth rates or even to sustain those which appear probable in the shorter run. Without larger foreign help, the prospects for an increase in the investment levels which would give more solid support for longer term growth are not very promising. Therefore, unless there is an unusual combination of fortunate circumstances and a high growth preoccupation of policy there is the chance of the development process running down after a while because of bottlenecks and production shortcomings that higher investment levels might have avoided.

I. INTRODUCTION

The Recent Course of the Economy

1. The Indian economy has fared much better this past year than in the drought afflicted and depressed years of 1966 and 1967. Harvests make all the difference for an economy that operates so near the subsistence margin, and food supplies have been comfortably above the margin after the all-time record harvests of 1967/68. The weather was favorable in most places. But improved farm practices, mainly in wheat cultivation, and provision of the seed, fertilizer and other inputs necessary to the adoption of these practices also contributed to the record harvests. The weather in 1968/69 has not been quite so good, but the crops are still expected to be near last year's record with perhaps a somewhat better supply position, since some of the 1967/68 crop went into rebuilding drought depleted stocks. With these developments, the national output increased in 1967/68 by about 9 percent in real terms, after a marked drop due to the drought in 1965/66, and virtual stagnation in 1966/67. In 1968/69 the combination of level production in agriculture and some expansion in industry suggests a growth in real GNP of about 2½-3 percent.

2. Favorable consequences have spread well beyond agriculture and food. Industrial production has finally picked up after nearly three years in the doldrums. This revival so far is hardly spectacular, having by-passed much of the capital goods sectors of industry for reasons subsequently discussed. Nevertheless, the increased manufacture of consumer goods, vehicles, and agricultural supplies and equipment has been enough to raise the index of industrial production by 5 or 6 percent in 1968 after hardly any gain in the preceding two years.

3. Exports also broke out of the sluggish pattern of the 1965-1967 period with a value increase of more than 10 percent. Most exports shared in the increase, with the important exception of jute products and tea, but it was particularly encouraging that there was a sharp rise in metals, engineering goods and other manufactures. The spurt in manufactured exports was a favorable by-product of the industrial slow-down, reflecting the efforts of industry to find alternative outlets to the domestic market. It can also be credited to the strong incentives and pressures of government export policy. The experience of increasing the sales of Indian metals and engineering goods abroad did dispel some of the gloom of recent years about export stagnation. On the other hand, euphoria is hardly justified after only one year's improvement and with a considerable variation in the conditions, motivations, and competitive capabilities for export among different industries and firms which are subsequently discussed.

4. Larger exports by about \$150 million and food import requirements which were smaller by about \$250 million also helped the balance of payments. Part of the improvement was offset by an increase in debt service by about \$75 million, and while the total payments deficit was reduced, it still remained at more than a billion dollars. Aid flows made up the difference and allowed for a small improvement in reserves after deducting a net repayment of \$78 million to the IMF and \$30 million to the IBRD. All this made the difficulties of managing the liberal import policy on a foreign exchange shoe-string a little easier for the time being. But it seemed likely to be

a short respite, considering the sharply reduced levels of new foreign aid commitments in the last two years, ^{1/} the mounting size of foreign debt service, and the fact that non-food imports have remained low in the last three years because of the slow industrial pace. There was not much import response to the industrial revival in 1968, but imports can be expected to increase if the industrial pick-up is sustained.

5. On the domestic financial front there was major improvement in the past year as national output and demand were brought into balance, and the price level was stabilized after 5 years of mounting prices. This was a considerable achievement in one year after five years of accelerating price increases which boosted the price level by about 65 percent. The stabilization was attributable, in considerable measure, to the improved food supply situation. But it also reflected a firm budgetary policy which succeeded in holding expenditure reasonably close to fiscal resources and in keeping monetary expansion in alignment with growth in output.

6. As with external transactions, the internal stabilization also meant balance at a low level of development. This was the third year in a row that development spending stayed more or less constant. In real terms, plan expenditure and public investment have fallen over the past three years. This situation reflects a number of constraints on the resources side - a lag in revenues behind the growth in national income and expenditure as well as in the past year, some decline in capital receipts for both domestic sources and foreign aid. In the previous two years there were also competing claims for additional expenditure due notably to drought relief and food subsidy measures, cost of living adjustments of salaries, and added debt service payments. In the past year the non-development spending was held steady but this left room for only a very modest increase for development. This year's budget (for 1969/70) does allow for some step-up in central financing of development but it is not clear that the States will be able to follow suit and for the public sector as a whole any increase is likely to be modest. As for the 1969/70 financial outlook generally, prospects are for another year of stability.

7. Financial stability with pinched development spending in these straitened circumstances is hardly an unmixed blessing. It represents realistic policy acceptance of the hard choices which have been required to restore a better internal supply-demand balance in circumstances of slow resource growth. Faced with the difficulties of the resource problem, subsequently discussed, the financial authorities have cut the coat according to the cloth. But it makes for a skimpy coat.

^{1/} New aid commitments (excluding PL 480 food aid and aid at \$70-80 million a year from the Eastern European Countries) dropped from about \$1,200 million in 1966/67 to an average of about \$730 million in the last two years. Meanwhile, debt service increased by about \$200 million to about \$520 million in 1968/69.

II. BACKGROUND

The Difficult Growth Process

8. Broadly, as indicated, the Indian economy is looking up; but it also has a mixed look with parts of agriculture and industry advancing and other parts lagging. The current financial stabilization after several inflationary years is not an unmixed achievement, representing as it does financial balance at a low level of development. Such a mixed economic picture is not unusual in India. It reflects the wide regional and functional variations of the economy, its loose integration, and the marked year-to-year fluctuations of important independent economic influences. The buffeting the economy takes from weather and crop variations is well known. Agriculture, which accounts for nearly half the value of national output has sustained a rise in output of 2.5 percent or more a year for two years in a row on only two occasions in the last 20 years. During the span of the Second and Third Plan periods (1956/57 - 1965/66) there was an absolute drop in agriculture in four of the ten years. Other spurts and lags stem from changes in foreign markets for Indian exports and uneven and uncertain flows of foreign financial assistance.

9. With the irregularity of these important independent influences on development, it is difficult for India to build a concerted cumulative momentum for sustained growth at an acceptable level. And this is an important explanation, along with the slow secular pace of agricultural growth during the last 15 years, for an average increase in real output for the economy as a whole of only 3.5 percent a year. This is hardly an impressive development record, especially in per capita terms with population growing at 2.5 percent a year. Furthermore the surface statistical appearance of the Indian economy has not changed very much after 15 years of development. Agriculture still contributes just about half the value of national output, as it did in 1950, and the share of manufacturing has remained at about 15 percent despite the emphasis of development policy on industrialization. The large majority of the population - probably almost as large a majority as in 1950 - still consists of subsistence farmers and farm laborers.

Changing Structure

10. Nevertheless, such statistical appearances are often deceiving, especially if one considers the important changes of major development significance which have taken place over the last decade or so within the components of the economy labelled "manufacturing" and "agriculture".

11. Within the manufacturing sector there has been a pronounced transformation of the industrial structure. The predominant manufactures in 1950 were traditional light industries like cotton textiles, jute manufactures and processed foods. Now the industrial pattern has become much more advanced, complex and capital intensive as a result of the rapid growth of manufactures of heavy investment goods and industrial materials in the last 10 years - things like steel and other metals, electrical and mechanical

equipment, fuels and chemicals, and transport equipment. In the early 1950's the food processing, cotton textile, other consumer goods and jute industries accounted for about two-thirds of the value of total manufacturing output. Capital goods, petroleum and chemicals were less than half that much. By 1965 the situation was nearly reversed with consumer goods and jute down to about a third of the total, while capital goods, petroleum and chemicals accounted for about half the total output and for about 70 percent of the total capital invested in industry. Furthermore, the larger price increases in agriculture than in industry in recent years tend to obscure the fact that in terms of physical output the growth of industry over the last decade or so has been more than twice that of agriculture.

12. India's industrial achievements in size and advanced structure since the 1950's may easily be lost sight of in the vastness and predominantly agricultural character of the economy as a whole. Actually, India has long had a large industrial sector by world standards. It probably ranks within the first 15 countries of the world, and at the top among developing countries, in total industrial production. With the industrial advances since the mid-1950's, and as a result of officially fostered concentration on import substitution, India now produces nearly all its manufactured requirements other than highly sophisticated and specialized kinds of equipment and components. Some indication of the changing character of industry in the direction of larger and more capital intensive plants is the more than doubling, between 1959 and 1965, of average capital per factory and per worker. All this should not, however, suggest that the transformation and functioning of the industrial sector has been smooth, efficient and according to plan. Such has not been the case, as subsequently discussed, and currently some of the most difficult aspects of the Indian development problem lie in the industrial sector.

13. In agriculture, the record is in some ways the reverse of that in industry with rather unimpressive gains over most of the period since the mid-1950's but with the recent emergence of an agricultural situation of great development promise. The statistical record of agriculture was one of growth at about 3 percent a year in the first half of the 1950's and less than 2.5 percent a year on the average since then. Yet again there have been qualitative agricultural changes taking place below the statistical surface - changes emanating from research into the adaptability of new technology to Indian conditions, additions to the agricultural infrastructure and improvements in agricultural incentives. The culmination of all this in the recent and spreading adoption by farmers of effective methods of high yielding grain cultivation - the so-called "green revolution" - has considerably brightened India's development horizon. So far, within the wide expanse of Indian agriculture, only a fairly narrow band of cultivators well situated with respect to water is in a position to make the most of this new technology. And even for these formidable obstacles can still be foreseen along the future course of agricultural development. Nevertheless, in terms of production, there is every prospect now of a very impressive record of additional agricultural output in the next decade.

14. Financially, India's record since 1950 has again been mixed in terms of mobilizing resources for development. There was outstanding progress during the early 1950's in increasing national savings from a net

figure of about 5 percent of net national product in 1950 to about twice this figure by the mid-1950's. Then it sagged but climbed back up to about 10 percent again at the beginning of the 1960's. There, however, the upward trend levelled off and more recently the saving rate has declined a little, partly because of increased current public expenditure - defense and other - in combination with sluggish public revenues, and partly because of sagging enterprise profits, especially during the prolonged recession of the last three years. Severe droughts and poor harvests of 1965 and 1966 played their part in all this by contributing to the unusual situation of 1965-1967 when there was both a general recession and rising costs because of mounting food and import prices. Profits suffered in turn and so did savings rates. Another contribution to the domestic saving difficulties of recent years has been the poor financial return from much of the heavy public investment in industry during the late 1950's and early 1960's. Finally, there is the unfortunate reality for Indian fiscal affairs and public saving possibilities, that with all the promise and achievement of the "green revolution", the income benefits flowing therefrom, even though mostly accruing to an already better-off small minority of the farm community, appear to enjoy substantial political immunity from additional taxation - though in the last Budget an attempt has been made to end this.

15. The external component of the financial picture has had few bright episodes since 1950. Except for brief spurts in the early 1950's and again in the early 1960's, exports have been sluggish on the whole, and the promising jump in non-traditional goods in 1968/69 is the first encouraging export advance since 1963/64. Meanwhile, despite all the import replacement effort imports have risen fairly steadily until the recent recession, and so has external debt service. This has meant an ever-widening payments deficit - now well over a billion dollars - and increasing dependence on foreign aid which went up substantially during the late 1950's and through the mid-1960's but which has recently dwindled and become quite uncertain.

16. Such then is the broad picture of the Indian economy at this point on its course of development - with agriculture, in its better situated parts, as the more dynamic and promising sector; with industry moving forward again in many lines, but in others sluggish and burdened by substantial unutilized capacity; and with finances strained to sustain even a sluggish investment pick-up, especially in the public sector, without inflation.

Development Strategy: Plan and Practice

17. This is a picture quite different from that foreseen for these latter years of the 1960's by the planners when they devised India's development strategy for the last half of the 1950's and the first half of the 1960's. That strategy envisaged heavy, capital-intensive, import replacing industrialization as the pace setter for development acceleration. The size of investment in this industrialization was moved up from its modest place in the First Plan period (1951-1956) to the center of the piece in the Second and Third Plan periods (1956-1966). A major effort at rapid industrialization was considered, both within the country and abroad, a legitimate strategy for India in the absence of promising alternatives for speeding up the slow pace of development and dealing with the country's vast and intractable

problems of unemployment and under-employment. Agriculture was certainly not neglected in this process, nor were other sectors of the economy. Perhaps agricultural growth could have been larger with larger allocations of resources - e.g., with more fertilizer imports, more provisions for research, and more rapid progress on irrigation programs. Nevertheless, until very recently the scope for advance in agriculture was limited by the limitations of known technology. Agricultural gains foregone because of the industrial reorientation of development strategy during the late 1950's and early 1960's were probably not of a size to invalidate the strategy, provided industrialization had gone as envisaged by the planners. Unfortunately, it did not go as envisaged. Industrial expansion did actually move forward rapidly during the Second and Third Plan periods. Between 1960-1965, the industrial production index increased at an average of 8 percent a year, and it was only in the last year of this period, 1965, when the rate of increase slackened. Structural changes taking place in the process are reflected in some of the rapid rates of annual increase in heavy industries like basic metals, 16 percent per year; machinery (non-electrical), 28 percent; electrical machinery, 21 percent; transport equipment, 21 percent; petroleum products, 11 percent; and chemicals, 11 percent.

18. In the process there were underutilized capacities created because of physical imbalances among inter-related industries and of technical and managerial difficulties. It is important in this connection, however, to note that much of the new capacity did not emerge until after the Third Plan period. Of the total public sector industrial investment in the Third Plan, more than 40 percent went into plants, almost all in steel, heavy machinery and heavy electrical equipment, which were still unfinished at the end of the Plan period. It was therefore toward the end of the period and subsequently that the serious maladjustments between capacity and demand became apparent as large new capacities emerged at a time when the resources necessary to sustain the expansion of demand were not forthcoming. Some of the resource difficulty can be blamed on bad luck. The burden of financing most of the industrial expansion and of additional demand from other sectors requiring heavy industrial goods (power, mining, transportation) fell largely on fiscal resources. The fiscal difficulty was aggravated as a result of the China hostilities in 1962 and the tensions culminating in the Pakistan hostilities of 1965. These led to increased defense spending which, although it benefited some industries, nevertheless diverted resources away from heavy investment.

19. There were heroic increases in taxation in the atmosphere of the war with China which more than covered the jump in defense requirements, and there was some rise in budgetary savings, available for development, over the Third Plan period. However, as during the Second Plan period, the development effort continued to depend increasingly on external assistance and deficit financing. During the First Plan period foreign assistance was equivalent to about 6 percent of total public and private investment, and budget deficits to about 10 percent. These ratios increased to about 16 percent and 14 percent respectively in the Second Plan, and were about 22 percent and 10 percent in the Third Plan. Although deficit financing was relatively smaller in the Third Plan than in the Second, the monetary consequences were greater because during the early years of the Second Plan period there was a large offsetting drawdown of foreign exchange reserves.

20. Along with the deficits and monetary expansion of the Third Plan, there was additional pressure on prices from the supply side with bad luck from the weather and crop conditions. Agricultural production remained more or less stationary during the first three years of the Third Plan and then, after only one favorable year in 1964, took a severe drop with the prolonged drought of 1965 and 1966. Prices, especially food prices, moved up at an accelerating rate. This had one important advantage of improving agricultural incentives, but by 1966 the rate of price increases was no longer considered tolerable. A halt was called to the continuing rise in development spending including spending on the main sources of demand for heavy industrial output - industry, transport, power and mining.

21. With this the steam went out of the rapid industrialization effort. No source of demand, other than rising government spending, had emerged on a scale to sustain it. Industrial production levelled off and larger excess capacities emerged in such heavy industries as metallurgy, structurals, machinery and electrical and transport equipment. Perhaps without the bad luck, the rapid heavy industrialization process might have gone on somewhat longer. But again with benefit of hindsight it can be seen that the financial foundations of the development effort were already shaky in the Second Plan period. So long as most of the burden of financing a substantial expansion of demand for heavy industrial output remained on the budget, the process was probably destined to become unmanageable even with better luck.

22. There were three other possible sources of demand from which some help on the demand problems might have come - from the producers of consumer goods, from exports, and from within the heavy and intermediate goods sectors themselves. However, there was not much place in the development strategy for manufacturers of consumer goods or exports as sources of demand for heavy industrial output. More was expected of rising inter-industrial demand based on internal generation of resources within the heavy and intermediate industrial sectors but the financial results were disappointing.

23. There was probably not a great deal that could have been expected at the time from the consumer goods areas of the economy especially preceding the recent technological opportunities opened in agriculture. Consumer manufactures in India do not originate very much demand, directly or indirectly, for heavy industrial output in spite of the vast size of the Indian consumer market in numbers of consumers and a rate of national consumption which is moderately high by international comparison. Large scale consumption is confined to a few commodities - food, textiles, beverages and tobacco - and the production of these does not require large investments in heavy capital equipment. The largest linkages with heavy industry are through the transportation system, although food and other consumer goods are not yet all that important in the total traffic. Neither has the production of consumer goods been an important source of savings, concentrated as it is in foodstuffs and textiles which are hardly noted for their contributions to capital accumulation in recent years. As for other kinds of consumer goods which might have stronger linkage with heavy industry like consumer durables and other metal and electrical products, these are very small in the Indian consumer pattern and have a much smaller share in total industrial output in India

than in other countries with large advanced industrial structures. Perhaps food production will become an important source of demand for heavy industry via agricultural equipment and chemicals, but this is a fairly recent development, has not yet gone very far, and was certainly not an important consideration in the Second and Third Plan industrialization strategy.

24. Neither was export development given a major place in the strategy; as for the particular products of the heavy industrialization effort, exports were not even envisaged. There was recognition in the Third Plan of the need for export growth. However, policy efforts to this end were largely oriented to the short run tactical problem of coping with the critical exchange difficulties encountered in the late 1950's and again in the mid-1960's rather than to establishing an export capability with promise of continuation for the longer run on an internationally competitive and profitable basis. As for the strategy to deal with the foreign exchange problem, reliance was placed almost entirely on import substitution supplemented for a time with foreign aid. And this had its contradictory aspects. Import substitution has been pursued without much concern for efficiency and cost. This did not of course mean import elimination and import requirements have risen until the recent recession period. But it did mean higher cost and a weakening of India's competitive position and, therefore, worked contrary to the rising need for export expansion including expansion of a wider variety of manufactures.

25. If there was little reliance on the consumer and export sectors for rising demand for heavy industrial output, the strategy did expect part of such demand to be financially supported from resources generated within the industrialization process itself. Here it was disappointed. There were a number of reasons for this. In the first place, much of the industrial investment was of a long-gestation character related to distant rather than early prospects of economic growth and demand. Hence there could be no expectation of early internal generation. One trouble was, however, that this category turned out to be larger than expected because of prolonged delays in industrial project execution and this contributed to the very large part of the public sector industrial investment in projects still uncompleted at the end of the Third Plan period.

26. In the second place, the financial record of a large part of the completed public sector industrial expansion has been poor. The record has been set forth in an official memorandum submitted with the 1969/70 budget. This shows that out of 55 operating public sector enterprises, accounting for Rs.32,000 million of investment, 24 had net losses after depreciation in 1967/68 of Rs.830 million which financially overshadowed the fact that there were net profits of Rs.480 million for 31 enterprises. The heavy losers in this record have been the heaviest industries accounting for nearly two-thirds of the total investment - Hindustan Steel Ltd. Heavy Engineering Corporation, Bharat Heavy Electricals Ltd., Mining and Allied Machinery Corporation.

27. Something more is said later on this lack of internal generation of resources within the industrialization process. Briefly, there have been a number of causes. Part of it is part of the vicious circle of poor financial returns because of the emergence of new capacity at a time when demand

growth was lagging and capacity was idle for want of more financial resources. The drought and recession of 1966/67 of course aggravated this demand-resource shortage. There were also a number of other elements to the problem - poor project planning, limitation of design capacity, technological difficulties, shortcomings of management and management technique, and labor troubles. There were also inefficiencies and adverse financial effects attributable to competing objectives of policy - e.g. location in the interest of backward regions, price ceilings on basic supplies, price regulation and quotas to protect favored sectors like handicrafts or small enterprises, etc. There were further complications in the nature of the approach to execution of the industrial plan. The industrialization effort was conceived in terms of achieving a framework of physically inter-related industrial capacities at a future time. The process by which particular industries would move toward their respective positions in the future framework was not, however, charted, nor could it have been with any sense of realism. The actual process could only proceed by approximation and adjustment. But this required a system of information and procedure which would signal quickly the emergence of maladjustments among inter-related industries and the divergence of the economic climate from expectation, and which would ensure appropriate and timely adjustments in the process. There was no such system, and so much of the effort proceeded by uncoordinated improvisation and haphazard adjustment. And this again was detrimental to the internal generation of saving within the industrialization process.

28. Much of the physical and financial difficulty encountered in the course of the industrial expansion can be looked upon as the cost of a strategy of "forced draft" industrialization which over-taxes managerial, technical and administrative capacities. This cost has turned out to be high, higher than foreseen or allowed for, and therefore a serious flaw in the development strategy.

29. Thus much of the financial burden of the development effort fell on the budget. The burden was sustained for a while through use of the sterling balances, rising levels of foreign aid, and expansionary deficits. But no program was devised to bring the pattern of income, income distribution, and saving in harmony with the pattern of production and investment. Income continued to go in large measure for current consumption goods (including government income for defense consumption), and the great bulk of private consumption was of a kind which required little in the way of heavy capital goods. Nor was the production of consumer goods allowed to be a favorable area of the economy for the generation of saving. This was of course quite out of phase with the investment program which was oriented toward future rather than current final demand and which depended on income and income distribution policies conducive to rising levels of saving. In these circumstances the Government was only able for a while to carry the financial load. Either the financial pattern had to be adjusted to the investment pattern or the investment pattern to the financial. It was perhaps inevitable that the investment pattern had to give. Even with better luck the fiscal burden could probably not have been supported very much longer than it was without a substantial and probably politically unacceptable shift in income and fiscal programs to induce and capture the saving necessary to finance demand for the added industrial capacity.

30. India's development performance since the mid-1950's is, thus, a story of both achievement and disappointment. On the one hand, difficult maladjustment between capacities and demand have emerged within industry; there is a serious shortage of internal resources for development as reflected in a modest and recently sagging rate of national saving and insufficient budget funds for much increase in public investment; and despite currently encouraging trends, the position of exports and of the balance of payments is still weak without much growth or growth prospect in the traditional exports and with high cost and with many obstacles still in the way of continued expansion of non-traditional manufactured exports. And very much in the foreground of problem areas is the steady accrual each year of about 13 million or 2½ percent in the population. On the other hand, the foundations of a sound population control program are now being laid; a vast industrial potential has been created; and major and extremely promising gains have at last been made in the technology and actual volume of food production.

III. OBJECTIVES

The Planning Process

31. The confines of available development resources continue to be as restrictive as they have been for the last few years. This year's budget (for 1969/70) will allow at best for only marginal increases in public outlays for development on a stable basis. And in present circumstances, it is difficult to foresee a considerably easier resource framework for development in the near future.

32. This is hardly a congenial atmosphere for the preparation of a new Fourth Five Year Plan for the period 1969/70 - 1973/74. The draft of this new Plan was still being finalized as this report was being written. Hence this discussion must be confined to the indications of current development strategy, financing and priorities as reflected in the recent Annual Plans, the Budget, and elsewhere. It is doubtful, however, that the new Fourth Plan when completed will diverge very much from recent patterns of policy or investment nor is it likely to introduce any significant new initiatives on the development front.

33. First, a word may be said about the place of planning in the context of current economic policy making. In general, the role of any plan with respect to policy is a combination of indicative, advisory and operational elements. The relative place of these elements in current Indian planning is quite different from the past. Plans in the past were conceived primarily as operational instruments to reach articulated perspective designs for the economy in both the medium and longer run. The present place of planning as reflected in the Approach to the Fourth Plan published last year by the Planning Commission, is more indicative of desirable guidelines for economic development, with specific operational targets for investment and output confined to programs of the Central Government and to a few areas of high priority extending into the private sector like steel, fertilizer, etc. For the rest of the private sector and for State programs, production and investment are presumably to be left to private decisions or to State and local determination - nudged perhaps in particular directions by official policy and by the transfer of central funds to the States and to private investment, but not steered from the Centre. Centralized longer-term planning appears therefore to have moved away from the front of the stage, and to be more of a backdrop for annual planning and annual budgeting. These have been the actual operational instruments of official development programs and policies in the last three years, and will probably so continue.

34. This shift of emphasis toward the indicative and advisory nature of planning is partly attributable to the severe and uncertain resource limitations and a consequent increase in the role of financial authority in the process of development decisions. It probably also reflects a changing point of view toward centralized planning because of wide and disappointing divergence between development as planned and as realized. Confidence is less evident in the possibility of development according to plan, with increasing

awareness of the many critical variables in the Indian development process which are unknown or which behave in an unknown or unpredictable way, or which are beyond the range and capacity of central direction. Finally, the place accorded central planning in the past has been eroded in the process of political and economic decentralization of authority in recent years. The political and economic authority of the States has been relatively enhanced in this process, including State influence over economic policies and the allocation of resources within their boundaries.

Development Directions

35. One may consider various manifestations of current development strategy and policy from the standpoint of what appear in present circumstances to be the most important elements of an appropriate effort to speed up development. Obviously there are many facets to a suitable strategy for developing an economy as large, complex and troubled as that of India. Some of the key elements should probably be:

- (1) In agriculture, to capitalize on the opportunities opened by the new technology for more efficient cultivation wherever the physical circumstances are favorable, and for the vast rural areas not so favored to concentrate research and institutional improvement on the development and application of techniques which will foster agricultural advances on a wider base than at present.
- (2) In industry, to continue the promotion of industrial growth as an essential for significant long-run inroads against India's poverty and employment problems. However patterns of industrialization require better balance than in the past among capital, intermediate and consumer manufactures, and between long and early maturing investments. They also require directions and conditions of industrial growth which will foster a much larger accumulation of investment resources from earnings within the industrialization process.
- (3) In population control, to continue the large family planning program and to expand it in size and improve it in effectiveness.
- (4) In the financing of development, to raise the inadequate level of domestic saving by policies of pricing and efficiency which will be conducive to a higher saving potential in the productive processes; by fiscal measures to raise public revenues and public savings through restraint in non-development expenditure, and through taxation and collection of revenue potentials (including those in agriculture) to the extent consistent with adequate production requirements and incentives; by increasing the responsiveness of revenue to income growth; and by encouragement of greater saving from individual income. Such measures can probably be really effective in raising the rate of national saving only in a more dynamic economic setting than India has experienced in the last few years.

- (5) In the balance of payments, by increasing foreign earnings through continued emphasis on facilities and incentives to increase both traditional and other kinds of exports, by exploitation of tourist potentialities, and encouragement of import substitution where possible but with greater concern for cost and efficiency than at present.
- (6) To build the infrastructure required not only to avoid bottlenecks to the expansion of production and trade but also to facilitate and motivate such growth.

These are rather general prescriptions, and they need more specific examination in the Indian context and against the background of India's past and recent development record, previously discussed.

36. Briefly, Indian development strategy and effort appears to be moving in these directions. It has already done so in the predominant emphasis of current policy on agricultural production, on exports and on family planning. And there are shifts taking place in industry toward greater freedom for the private sector to develop where led by markets and profits rather than government targets, and toward public industrial investment with less emphasis on long maturing heavy engineering and more on shorter term supply requirements. However, change in the public industrial effort is still encumbered by past commitments to slow maturing high cost projects. Import substitution remains an over-riding objective without much concern for cost. And all along the development front there are severe constraints because of financial shortages. Fiscal efforts are being made to mobilize more resources but gains are slow in a slow moving economic situation with competing financial claims, and there are other inhibitions - political obstacles to taxation in the dynamic areas of agriculture, and mixed motives in industrial policy which limit the resource generation potentials of industrial activity. The subsequent discussion deals with problems and prospects in some of the important areas of development - agriculture, industry, transportation and power - and considers also the nature of the domestic resource problem and the export and balance of payments situation and prospects including some assessment of foreign aid requirements.

IV. THE POPULATION PROBLEM

37. Between 1901 and 1921, the population of present day India increased at an average annual rate of less than 0.27 percent. Between 1921 and 1951 the average growth rate was about 1.2 percent, and India's second Five Year Plan, published in 1956, assumed that this rate would also prevail during the 1951-1960 period, and rise slowly thereafter. On this basis, the population was to reach 500 million in 1976. In the event, the decennial growth rate of the 1950's turned out to have been more than 21 percent (most of the faster growth presumably came in the latter part of the decade, and one can estimate that the growth rate reached 2.4 percent towards the latter part of the Second Plan period). The 500 million mark was passed in 1966. The present estimated growth rate of population is 2.5 percent per annum, or about ten times faster than in the first two decades of the century.

38. This acceleration of demographic growth has tremendous economic implications. Part of investment effort must always go into catering to the capital needs of incremental population. When the investment rate is high, or when there are large economies of scale in the utilization of capital goods or natural resources, (so that the incremental population needs relatively less capital than the average population) this may be a relatively light burden. But India was already overpopulated, and population growth drew with itself few economies of scale. Furthermore, only a small fraction of her National Income was available to be invested. As most of this investment had to go into providing capital to the incremental population, very little was left over to finance an increase in the per capita stock of capital and thus to promote the growth of per capita income, which grew less rapidly than expected. In these conditions, the rate of savings could have been raised only by preventing even an extremely modest increase in per capita consumption from taking place. This was simply not feasible within the Indian political framework, and in fact the rate of savings relative to national income showed no significant rise after 1956.

Family Planning

39. The realization that population growth was much faster than previously thought was not translated into any fundamental revision of strategy for the Third Plan. In principle, population control was since the beginning part of development policy, and in this respect India was second to none. However, the financial allocation for Family Planning, very small in the First Plan and amounting to Rs.50 million in the Second Plan, was still only Rs.270 million for the Third Plan, less than one third of one percent of the total financial provision for the Plan, and little more than half a rupee per annum per fertile couple. Furthermore, only about Rs.250 million were actually spent, of which Rs.119 million in 1965-66, the last year of the Plan.

40. Attitudes to population control underwent an almost revolutionary change towards 1965. This was precipitated by a combination of circumstances. Previous Indian studies and reflections on the population problem started maturing at about the same time as the new intra uterine contraceptive device

(IUCD) was developed abroad and presented with great fanfare as the ideal contraceptive tool for underdeveloped countries (a claim which proved to be somewhat exaggerated). At the same time, the acute food crisis was focusing attention on per capita food availabilities. Last, but by no means least, family planning was now becoming a matter of concern the world over, as witnessed by the sudden interest taken in the matter by various national and international bodies. In any case, the priority given to population control suddenly became real and great. Expenditure on family planning equalled that of the previous four years in 1965/66, and increased threefold in the next three years, to Rs.370 million in 1968/69.

41. All told, the program has been reasonably successful. While the IUCD failed to respond to the exaggerated hopes placed in it - partly because of a somewhat uncautious crash program approach, pursued upon foreign advice - voluntary sterilization has had unparalleled success in India. About 1.5 million sterilizations, both male and female, were performed in 1967 and about 1.8 million in 1968. An imaginative program for the subsidized distribution of condoms through the retail outlets of mass consumption goods has also been undertaken. However, as has been highlighted by the findings of the recent second United Nations population mission, population growth is a problem which can be tackled only through a long term and very costly effort. The effective population control program is so recent, and its beginnings were so small, that until about last year, financial resources probably did not constitute a major constraint on its expansion; there would have been human and administrative obstacles to increasing it more rapidly. However, the program has now reached a level where its costs are comparable to those of other major programs, and it is now subject to the constraints arising out of the overall resource shortage. 1/

42. Yet the costs of meeting the population problem are high. India's population is divided into 14 major and dozens of minor language groups, and thousands of fully endogamous communities. Four fifths of it are dispersed in more than half a million villages, most of which are not connected to any all-weather road. To bring the message and the means of population control effectively to all these people within the next five years would require an enormous effort for which financing is nowhere in sight. Present thinking is to extend all too elementary facilities, which may effectively reach only about one third of the population within the next five years. Even this has been estimated to require about Rs. 3.75 billion - 15 times the amount spent on family planning during the Third Plan period and almost double the annual rate of expenditures on the program in 1968/69. But for the financial limitations, the program could expand much faster than this, though possibly not quite fast enough to cover the whole population before the end of five years. However, all the families covered by the program would not immediately and effectively limit births to two or three. Furthermore, death rates - in particular infant mortality rates - must continue to fall; there is a partly causal interrelationship between these two aspects of demographic

1/ In 1968/69, Plan expenditure on population control was equal to about 14 percent of Plan expenditure on agriculture.

transformation. 1/ Therefore, even if this enormous population control effort could be made, its short-run impact on population growth might be relatively small. As we have noted in our previous reports, however successful and efficient India's population control effort, it cannot be expected substantially to decelerate population growth in the near future. Of course, this is not an argument for reducing the scale of the effort. Without an effective effort to bring it under control, population growth would still tend to accelerate. Furthermore, there are few areas where effort brings immediate fruit; had the revolutionary expansion of the program been undertaken in 1960 rather than 1965, we might now have been on the threshold of getting much more tangible results.

V. AGRICULTURE

43. India's total farm output grew by about 3 percent per year during the period 1950-68, somewhat above the average rate of population growth during the period but, as already noted, substantially below the development needs of the economy. Progress was halting and unsteady, with significant declines in foodgrains output one year out of every four throughout the period. With more than three-fourths of India's farmland rainfed, the amount, distribution and timeliness of the monsoons have been and remain the main determinants of annual farm output. Thus, agricultural production gains during the early and mid-1960's were negligible, largely on account of poor weather, culminating in the catastrophic droughts of 1965/66 and 1966/67, the worst in 60 years of recorded weather history. The droughts had far-reaching consequences. By dramatizing the vulnerability of an agricultural economy increasingly constrained by land scarcity and traditional technologies, major policy changes were brought about. Allocations to agriculture for supply of fertilizer and other modern farm inputs were stepped up. Groundwater utilization under private management recorded impressive gains. Large seed imports were arranged and the spread of new productive foodgrains varieties was speeded up. Favorable farm prices put steam behind the new strategy, vindicating the policy assumption that Indian cultivators are responsive to incentives and eager adopters of profitable technologies. In North India, the production impact of the new policies was spectacular under the impetus of the new wheat technology. And with the promise of additional research breakthroughs in paddy and other cereal crops, the prospects for accelerated and broader based agricultural progress are good.

The New Technology

44. Like many other countries of Asia, India has only begun to tap the enormous potential of modern plant breeding research. Some new crop varieties have been evolved to exploit the opportunities afforded by India's

1/ In that the number of births would not tend to decline unless it is clear that a large majority of children survive to adulthood.

tropical and subtropical location, large untapped water resources and abundant labor. Their net production impact has so far been limited to favorable areas. But little doubt remains that a deep qualitative change in agriculture has begun and that significant groundwork has been laid for more rapid production gains in the near future.

45. The most dramatic breakthrough so far has occurred in wheat, the second most important cereal in India, following the release of two dwarf Mexican varieties in 1965. About 14 million acres, 40 percent of the total wheat area, is irrigated. The new wheats, which covered over six million acres in 1967-68 should have covered 12 million acres in 1968-69 and are likely to spread over the rest of the irrigated acreage next year. The rapid spread of the new wheat technology is partly due to the adaptability of the Mexican dwarfs to India's environment and the facility of water control during the dry rabi season, when wheat is grown. It is also explained by favorable prices and the availability of good farm entrepreneurship in North India, particularly Punjab and western Uttar Pradesh. Even more significant has been the release of a continuous stream of new high yielding selections, some of which have the amber color and cooking qualities prized by the Indian consumers.

46. Paddy is the main cereal crop, occupying about 30 percent of the foodgrains area or about 91 million acres of which about 34 million acres are irrigated. In contrast to wheat, the new paddy technology has had a relatively slow start and offers little prospect of dramatic production gains for at least two years. In 1967-68, less than 12 percent of the irrigated paddy land was sown to the new imported varieties and their further spread was encountering resistance in many areas. With assured water, good drainage and suitable agronomy, imported varieties such as TN1, IR8 and IR5 are able to yield twice or three times as much as the best local paddy varieties. But they suffer from high susceptibility to virus and bacterial diseases, particularly under the wet conditions which prevail in India during the main paddy growing season. In addition, they have poor grain and milling characteristics and are, therefore, marketed at a discount. These defects, combined with unfavorable paddy prices in some major rice surplus districts, have so far stood in the way of a major rice production breakthrough. A number of new dwarf paddy varieties with shorter durations, the ability to respond to high fertilizer applications and better grain quality are now being evolved. Already, two new indigenous varieties representing substantial progress over the imported dwarfs have been released. However, additional varietal improvements may be required and an agronomy suited to the new varieties needs to be evolved for the widely variable ecologies under which paddy is grown.

47. High yielding hybrid varieties of maize have been available since 1963. Other hybrids and new composite varieties (the seeds of which do not require replacement every year) have been released since. All these varieties perform outstandingly only in well irrigated and drained conditions, available on a small fraction of the total maize acreage. By contrast, the new high yielding sorghum and millet varieties have been found to yield better than traditional varieties even under drought conditions. Their capacity to absorb fertilizer under such conditions, is however, limited and, hence the net benefits of the new technology to low rainfall areas,

while not insignificant, cannot be expected to be very great. In 1967/68, about 4 million acres is estimated to have come under hybrid maize, sorghum and pearl millet cultivation - about 5 percent of the total area under these crops. Continuous expansion of the acreage under hybrid coarse grains raise problems of disease resistance, insect attack and improved agronomy, calling for stepped up research and extension efforts in the years ahead. Moreover, there is considerable scope for further varietal improvement work on barley, pulses and various millets which, together, account for about a fourth of the total foodgrains acreage.

48. In sum, there is little doubt that substantial yield can be expected to flow from the new foodgrains technology. Recent developments have confirmed that the Indian farmer is eager to take advantage of profitable innovations. It must, however, be emphasized that the "green revolution" is dependent on continuous and adequately supported breeding and research programs, on the use of improved practices of all kinds, including availability of quality seed, fertilizer, pesticides, machinery and suitable water delivery systems and, last but not least, on adequate production incentives for farmers, large and small.

The Water Constraint

49. In 1965, the new agricultural strategy was launched on two basic premises (a) that agricultural progress was being held back, not by the backwardness of the farmer, but by the paucity of profitable innovations and the shortage of modern inputs, and (b) that large production gains could be had by concentrating quality seed, fertilizer and other scarce inputs in relatively small water assured areas. The first principle has stood well the test of experience. The second, not so well. With the exception of North India, lack of adequate water control has turned out to be an important obstacle to the penetration and spread of the new technology. The task of defining water assured areas, estimating their capacity to absorb new inputs and gearing up the rural administration to market large quantities of inputs has turned out to be extremely difficult.

50. The proportion of the cropped area enjoying adequate water control may also have been overestimated. The fact is that, in poor weather years, most of the new agricultural innovations are unprofitable or involve considerable risk over a large proportion of the area classified as irrigated, as well as on the rainfed land. Much irrigated land is vulnerable to rainfall fluctuations, being served by small works with inadequate storage, or else by extensive canal systems deliberately designed for drought protection and field-to-field irrigation and, hence, unable to deliver sufficient and timely water to farmers located at the tail-end of the distributaries. The risk of too little water is compounded by that of too much water when, as is often the case, drainage facilities are poor.

51. The paradox of India's water situation is that agricultural development outlays have long emphasized irrigation. Since independence, the gross area irrigated has gone up by an impressive 34 million acres. However, as already noted, the irrigation assets created were of varying quality. Furthermore, the productivity of the new irrigated areas had, until recently,

been limited by available technologies and had to compensate for the decreasing quantities and quality of dry lands coming under the plough - another burden imposed by India's unchecked population growth. In fact, the proportion of irrigated land to the total cropped acreage remained virtually constant (about 20 percent) from the beginning of the twentieth century till the early sixties when India began to run out of uncultivated arable land. By the end of 1968/69, it had gone up to 22 percent and with the projected increase in area irrigated during the Fourth Plan, it is expected to reach about 25 percent by 1973/74 which would give India about 108 million irrigated acres. This would still leave about 90 million acres capable of being irrigated in the future.

52. The water resource development task requires massive investments. The total cost of major and medium surface irrigation projects initiated since the early fifties is Rs. 26,500 million (US \$ 3.5 billion equivalent) for an irrigation potential of about 46 million acres. However, only about Rs. 16,000 million (US \$ 2.1 billion) has been spent so far and the resulting irrigation potential so far utilized is less than 20 million acres. In other words, less than 45 percent of the irrigation potential of the projects is being used, against expenditures amounting to almost 60 percent of the total investment cost. The traditional emphasis of Indian irrigation policy on large-scale projects with long gestation, the dispersion of available resources on many projects because of competing regional interests, the use of labor-intensive construction techniques (probably justified by the low opportunity cost of labor) and, finally, the usually small provisions for field channel construction and supporting agricultural services account for the lag between costs incurred and benefits realized.

53. In order to reduce this lag, top priority has been given to the completion of continuing irrigation projects and very few major or medium irrigation schemes have been initiated since 1965. The policy is motivated by shortage of investment funds and, hence, indirectly by a policy of water charges which does not fully cover depreciation and interest costs. If continued for long the corollary of the policy may be an eventual slowdown in the benefits realized from irrigation investment at a time when water will almost certainly be more limiting to agricultural progress than it is now.

54. More disturbing for the years immediately ahead are the limited objectives set for water use research, land shaping, field channel construction, land consolidation and supporting agricultural and marketing services in the command areas of major and medium irrigation schemes. Whereas additional irrigation potential of about 13 million acres is expected to be built up during the next five years, over and above some 46 million acres of existing irrigation from major and medium surface schemes (on which the irrigation water is far from being efficiently used) comprehensive area development work is unlikely to be undertaken over more than 20 percent of the increased irrigated acreage over the next five years. Admittedly, resource limitations, deficiencies of past water research work and the scarcity of personnel trained in soil and water management restrict the pace at which effective land and water development work can proceed. Yet, the conclusion seems inescapable that a vastly more ambitious public effort should be planned to improve water utilization on existing projects.

55. In sum, whereas the importance of irrigation to smooth out production cycles and diminish inter-regional disparities has long been appreciated by India's policy makers, the crucial role of assured and timely water as input to a highly productive agriculture has not, hence, the public institutions governing the design of irrigation works and the use of irrigation water are not yet fully adapted to the needs of India's new agricultural technology. In many areas, knowledge of the aquifer resources is slight and exploration programs need strengthening. The task of basin-wide investment oriented studies has barely begun. More adaptive research in well design and technology is needed. The private drilling trade requires guidance and encouragement. Finally, coordination between irrigation and agricultural departments is poor at the local level. Fortunately, with the rising returns of water control investment, farmer-based pressures for more assured irrigation have risen sharply and policies to meet this mounting demand have begun to be framed.

56. For example, improved coordination among public and private agencies has been achieved on comprehensive area development schemes sponsored by the Agricultural Refinance Corporation (ARC). By mid-1968, ARC had sanctioned land development schemes in about 25 ayacuts (commands) involving 1.6 million acres. Similar schemes emphasizing improved water management on the farm, have been initiated in Mysore, Punjab and Uttar Pradesh and a few more may be undertaken over the next few years. Policies designed to encourage private investment in minor irrigation have also been significant. Better farm prices, more productive grain varieties and increased fertilizer availabilities have created a booming demand for wells, tubewells and pumpsets, fortunately matched by rising domestic production of electric motors, diesel engines, pumps and steel tubing. In many States, installation of wells, tubewells and pumpsets, within the command of major and medium schemes, has received official encouragement and additional credit for minor irrigation development has been made available through the Land Mortgage Banks. Lending programs sponsored by ARC have emphasized selective, compact area development and have ensured technical and economic assessments of the schemes. Considerable expansion of such programs is warranted.

Seed

57. In the field of seed production and distribution, as in irrigation, India's rural administration and its infrastructure are being reshaped to translate technological breakthroughs into rapid production gains. The National Seeds Corporation, set up in 1963, and now a dominant factor of India's growing seed industry, has made considerable progress although it needs further strengthening on the marketing side. A new seed production venture involving the UP Agricultural University, neighboring progressive farmers and the National Seeds Corporation is another departure from the institutional patterns of the past. Yet, the arrangements for certified seed production and distribution (still mostly run by government departments) are often scattered in small inefficient farms, and rarely equipped with proper processing or storage facilities. Arrangements for breeder stock quality control and foundation seed stock production are also weak. With

few exceptions, State-level mechanisms to enforce the Seed Act are not available. Finally, the private seed industry needs increased encouragement and support.

Fertilizer

58. More timely water together with better seed, and increased cropping intensities have been the major engines of agricultural growth since 1965. These innovations share a common feature - they absorb large amounts of inorganic fertilizers. Furthermore, they are closely inter-related. Without assured water, most of the new cereal varieties involve too much risk. A number of them are profitable mainly because they open up multiple cropping opportunities. This, in turn, usually calls for dry season irrigation. In short, programs to promote irrigation, high yielding crop varieties and multiple cropping patterns are mutually reinforcing and, as noted above, the urge to combine them with fertilizer distribution programs, in a single "package", is the central feature of the new agricultural strategy. As this strategy is further deployed, the same factors which influenced fertilizer consumption since 1965 will continue to be relevant.

59. Given India's low level of fertilizer use (less than 5 kg. per cropped acre) and the considerable scope for crop yield increases, farm consumption of chemical fertilizers reflects not only the adequacy of fertilizer supply actions, but also, the effectiveness of complementary agricultural programs which influence fertilizer demand. Throughout the Third Five Year Plan there were widespread fertilizer shortages and, hence, fertilizer supply policies were the main determinants of fertilizer use. Under the new agricultural strategy, however, fertilizer supplies were rapidly stepped-up through additional domestic production, increased provisions of foreign exchange for imports and liberalization of fertilizer marketing. By mid-1968 a turning point had been reached: fertilizer stocks began to build up, though not necessarily to excessive levels.

60. Available data suggest that, after taking account of likely stock expansion, fertilizer consumption stepped up from about 15 percent per annum gross rate for the period of 1955-65 to about 30 percent thereafter. However, this reflects the combined impact of a greater capacity to absorb fertilizer through introduction of the new foodgrain varieties and of a backlog demand for fertilizers built up over several years of restrictive fertilizer supply policies. A similar combination of factors is not likely to recur over the next five years. Indeed, with a growing fertilizer consumption base, sustained growth of fertilizer consumption at the tune of 20 - 25 percent annually over the next five years will call for rapid institutional change in the field of fertilizer credit and distribution.

61. Roughly speaking, we estimate that every additional acre of gross irrigated land sown to foodgrains gives rise to an immediate increase in demand for fertilizer nutrients of about 30 kg./acre. Similarly, the introduction of a high yielding crop variety is estimated to boost demand by an extra 25 kg./acre on the average. With the fertilizer consumption on traditional varieties around 5 - 10 kg./acre, this adds up to an average application of about 60 - 65 kg./acre on high yielding varieties. Of course, as

seed quality, water control, agronomic practices and fertilizer distribution systems improve, fertilizer absorption capacity should rise gradually. For example, a realistic expectation might be for average fertilizer usage on irrigated high yielding varieties to approximate 80 - 85 kg./acre by 1973/74. On this basis, after taking account of likely expansion in multiple cropping, an increase of the foodgrains irrigated area at the rate of 3 million acres a year and of high yielding varieties program coverage at the rate of 5.5 million acres annually (as tentatively proposed for the next five years) would mean a total foodgrains demand for fertilizers of about 4 million tons by 1973/74. This would be consistent with a growth in fertilizer usage by foodgrains of about 23 percent a year. A higher growth in total fertilizer consumption would reflect a more than proportionate increase in fertilizer usage by commercial crops.

Medium Term Prospects

62. For the next year or two, the major thrust of growth will continue to come from Punjab, Haryana and western Uttar Pradesh as the amber colored dwarf wheats go on replacing traditional and red wheat varieties on irrigated land. Thereafter, the wheat revolution is likely to taper off. Indeed, a sharp slowdown cannot be ruled out given the close race between research scientists and new strains of wheat rust, on the one hand, and delays in implementing expanded schemes of applied wheat research, on the other hand. In any case, it will be increasingly difficult for the North to sustain into the seventies as rapid a growth rate as enjoyed since the mid-sixties, for this will require adoption of increasingly complex multiple cropping technologies, much heavier fertilization, more plant protection measures and, at the same time, as noted below, a skillful shift of farm resources to commercial crops and livestock products.

63. Such a development process, if it is mastered, will call for increasingly sophisticated farm production and marketing techniques and, hence, will require high incentives to management. Beyond the all-important price policy problem, this has major implications for the future pattern of land use: it will strengthen the trend of land consolidation into larger farm units and encourage the accelerated adoption of labor-saving technologies. This is evident from the fact that demand for tractors and farm equipment is already far in excess of available supplies throughout the wheat belt, reflecting the crucial importance of timely farm operations at higher yield levels and the difficulties involved in meeting high peaks of farming activity through labor intensive methods.

64. One distinctive feature of agricultural growth in the North is a lessening dependence on weather through expansion of private groundwater utilization. The short-term benefits of such development are large. However, unbridled private exploitation of groundwater is fraught with considerable long-run costs when the groundwater table is allowed to fall continuously. An important task of public policy is to provide an appropriate framework for private investment in groundwater utilization throughout the Indo-Gangetic plains. This requires more detailed knowledge of the groundwater aquifer and its recharge.

65. Agriculture in the West is more dependent on rainfall. Given the breakthroughs in plant breeding with respect to maize, millets and sorghums, the prospects for agriculture in Gujarat, Maharashtra and Madhya Pradesh are promising although research schemes for jowar and bajra require additional support. In any case, with the recent drop in coarse grain prices from their high drought levels, the production focus may increasingly shift to commercial crops and the expansion of dairy activity. For all these endeavours, expansion of irrigation facilities has considerable priority.

66. Growth prospects are less certain in the South and the East. There, irrigation is not, strictly speaking, the limiting factor except in the sense of assured and timely water supplies and adequate drainage systems. Some thirty million acres of irrigated paddy fields in the South and the East await suitable dwarf paddy varieties and the dissemination of agronomic and water management practices without which "miracle" crops cannot be grown. Fortunately, as already noted, India is operating a large-scale and well-coordinated research effort on paddy. Once a new generation of suitable high yielding paddy varieties is developed, area by area, the limiting factor may be institutional, involving problems of seed production and distribution and of extension education. In the major rice deltas of Madras and Andhra Pradesh, where cropping intensities are already high, the water constraint may also be felt unless substantial investments in irrigation system renovation and improved water delivery systems are undertaken soon.

67. For the country as a whole, then, foodgrains output prospects are promising. Poor statistics and the erratic influence of weather preclude a quantitative diagnosis of recent trends. Yet, overwhelming qualitative evidence points to an acceleration of agricultural progress. Looking ahead, and taking account of likely plant breeding breakthroughs, foodgrains output should grow at a compound annual rate of 4 - 5 percent over the next few years. The upper bound of this growth range may not be reached from next year onwards without considerable luck on weather. This would imply a rate of institutional evolution in research, extension, input distribution and water administration which seems beyond realistic expectation, in the light of recent experience. In fact, even the gradual gearing up of the foodgrains economy from the present growth rate of 3 or 3 1/2 percent to 5 percent and more (yielding an average annual compound growth rate over the next five years of 4 to 4.5 percent) will require difficult institutional innovations and a firm commitment to support the growing dynamism of the sector with adequate resources of inputs and skilled manpower. Such a growth is nevertheless feasible and, if achieved, would make a considerable contribution to the economy as a whole: it would allow the gradual decline of foodgrains imports to negligible levels by 1973 and the build-up of sizeable public stocks of grain (about 5 - 6 million tons) without undue inflationary pressures on the food front.

Problems and Opportunities

68. Success in moving the foodgrains sector towards self-sufficiency will of course not spell the end of India's agricultural problem. Indeed, the break with past trends will itself generate a new set of problems (and priorities) some of which have already become apparent. First, there will

be more strain on the existing marketing system. With the sharp increase in market arrivals at harvest time (such as witnessed last year in the North) more storage on the farm and at the markets will be required in surplus areas to avoid post-harvest price slumps. Marketing intelligence systems will also need to be improved and the Food Corporation of India will have to operate more and more as a complement rather than as a substitute to the private foodgrains trade. With the advent of short duration varieties harvested during the wet season, there will be a rising demand for threshers, driers and other such equipment. Finally, as scarcity conditions fade, the movement restrictions still imposed by the food zones, and compulsory procurement practices which still hinder the foodgrains trade, will become increasingly cumbersome and more and more costly in terms of the foregone benefits of regional specialization.

69. To the extent that foodgrains production and marketing problems are successfully handled, there will be mounting pressures to shift resources to other food crops (such as fruits and vegetables) industrial material crops and livestock products (particularly dairy). This will open the way for still more intensive and productive farming. It should be noted that from 1950 to 1965, the output of industrial raw material crops grew faster than foodgrains production. However, with the exception of cotton, these production gains were largely based on the release of land devoted to foodgrains - a shift made possible by increased foodgrains yield. More land is likely to become available for commercial and fodder crops as the foodgrains "revolution" proceeds further - particularly where multiple cropping patterns incorporating food and non-food crops become feasible e.g. cotton or groundnut after a short-duration paddy crop in the irrigated tracts of the South. Despite this prospect, the main potential for higher commercial crop production lies in the scope for yield increases and the path to such progress is essentially the same as for the foodgrains - involving problem-oriented research, more water, better seeds, increased fertilizer utilization and adequate plant protection measures.

70. In the case of jute, India's leading export, the shortage of high quality fiber could be met through a number of coordinated public actions aimed at stabilizing jute prices relative to paddy, making minor irrigation facilities available to jute farmers, promoting private investment in improved retting facilities and stepping up the supply of quality seed, fertilizers and plant protection materials within favorable areas of Eastern India. In the case of cotton, quality problems also exist: the supply of long staple fiber lags far behind demand. This requires expanded cultivation of existing medium and long staple varieties and intensification of research on extra long staple varieties. In the case of oilseeds, some promising new crop varieties have been developed (groundnut, castor and mustard) and, as for cotton, there is scope for increased yields through improved supplies of good seed, fertilizer and plant protection materials.

71. A common feature of these and other commercial crops is their regional concentration. This feature and the availability of commercial marketing channels offer promising opportunities for extending the "package" approach to commercial crop development, particularly where marketing channels can be used for distributing modern inputs and disseminating new

production techniques. There are similar opportunities in the livestock field where improved cattle breeding programs, provision of feed, promotion of fodder cultivation and disease control services need to be stepped up and linked to dairy marketing programs, especially in the milksheds of major urban centers.

72. Whether India is at the threshold of a self-sustaining process of agricultural development, or whether it is merely enjoying the boost of a non-recurring research breakthrough, ultimately depends on the country's institutional capacity to respond adroitly to the new challenges thrown up by its farmers. Agricultural universities combining research, extension and education functions (eight have already been established) are powerful instruments which can help handle this task. The entry of commercial banks in the field of agricultural lending and, generally, the expanded role of institutional finance in the agricultural sector is also a promising development. The national coordinated research schemes of the Indian Council of Agricultural Research and the emerging use of audio-visual techniques in farmers' education programs represent additional breakthroughs. Other promising arrangements - and some ominous shortcomings in the seed and water fields - have already been noted. On the whole, India has made a good start on the ambitious voyage which started in 1965, when the new agricultural strategy was launched.

The "Other" Cultivators

73. Without in the least minimizing the technological advances taking place in agriculture and the importance of a substantial increase in food supplies coming from a small group of efficient farmers, it must be recognized that the present conception of the technological revolution in Indian agriculture encompasses a very small part of the rural population - perhaps 10 percent or at most say 15 percent in the course of time.

74. As indicated, the elements of the new technology include not only improved seed and fertilizer, but also adequate water and water control. The latter severely circumscribes the area suitable for the technological breakthrough. This may be supplemented as the areas of major irrigation works are extended, as private and public well programs proceed, and perhaps as further development takes place in short-season varieties which can be fitted into the more dependable part of the rain-fall season and are less vulnerable to late arrival of rains, or early termination, or excess in late season. But at best, the water constraint will probably exclude 80 percent, perhaps more, of the Indian cultivated area from the improved farming techniques as now conceived.

75. There is another constraint cutting across the water limitation, which is the size and resources of the individual farm. Smallholders in regions of assured water can adopt the improved methods and are doing so with conspicuous improvement in their situations in many cases. But many of them need, in addition, institutional help to provide wells or extend credit for wells, fertilizer, seed, etc. Or they may need more of an incentive than is likely to be left after additional yields are shared with landowners. Furthermore, in entirely rainfed agriculture the water problem is a more

serious barrier to the use of improved methods by the small cultivator without resources than it is for larger better-off farms because the small cultivator can ill-afford the risks of buying the inputs of the new technology in an uncertain weather context. This is the tenuous situation of the small paddy grower who depends on the monsoon. There is even less promise for the dry farming smallholder. For him farm technology as it now stands, holds no promise of any significant improvement in productivity.

76. So, there is a kind of trichotomy developing in rural India in association with changing agricultural technology: (1) the larger better-situated farmers with the capabilities and means to improve their cultivation as fast as technological developments permit; (2) the smaller, less well-off farmers who are nevertheless physically situated vis-a-vis surface or groundwater, to take advantage of the new technology but who need financial and other institutional help to make the most of their opportunities; and (3) the largest group of all, the small cultivators outside the favored water regions and mostly living and practicing dry farming in the wide low rainfall expanse of Central India. Still another very large rural category, also beyond much promise from the changing patterns of cultivation are the landless farm laborers. For some of these there may be an increase for a while in peak seasonal labor requirements and higher wages, but it is difficult to see how this can be a lasting improvement considering the overwhelming numbers of rural workers compared with additional work requirements, and trends, already pronounced, towards mechanization not only to reduce labor and avoid wage demands but also to meet the more exacting cultivation timetable of the new technology.

77. For the third category of cultivators noted above, possibilities for improvement in productivity will have to depend on the outcome of research efforts to find dry farming techniques which are higher yielding. The Government plans a greater research effort in this direction, and it is an effort which deserves a large measure of support in view of the great number of rural Indians who depend on its outcome and applicability. Meanwhile institutional improvements to provide a somewhat better lot for these rural people would be helpful but difficult with the present tight resources. Helpful programs for the farm laborers are also difficult to devise, except perhaps worthwhile labor intensive public works programs in the rural areas, for which financial provision is again hardly likely to be substantial.

78. The group which can be helped substantially is the second category, the small farmers who are in a position, with institutional help, to participate in the benefits of the "green revolution".

79. Farm Credit: Credit is one of their requirements. It has been commonly accepted in India in the past that the credit needs of the farmers can best be promoted through credit cooperatives, but 65 years of their existence have shown that the hopes reposed in them as the mainstay of institutional credit and as an answer to private money-lending have been exaggerated. What makes the cooperatives topical again is that their current difficulties are more conspicuous and troublesome when new and promising stirrings in agriculture call for an efficient system of the distribution and utilization of credit.

80. Judged in quantitative terms, the credit cooperatives have made much progress in recent years. Between 1951 and 1967 their share in total credit has increased from 3 to 25 percent, and at a moderate interest rate of 9 to 10 percent per year; membership, from 5 to 26 million; number of cooperatives from 100,000 to 191,000 and loans advanced from Rs.230 million to Rs.4,780 million in 1967/68. They are a landmark in the countryside and it couldn't do without them. Looked at qualitatively, they are not, by and large, effectively operating institutions because, and barring exceptions, they are inefficient and financially weak, depending upon constant pump-priming by the government; good leadership is exceptional and vested interests are much in evidence; the percentage of overdues to total outstanding loans is higher than ever before; the production-oriented loan policies are in serious difficulties and very important is the fact that the concentration of cooperative credit in the hands of the well-to-do farmers has deprived many small farmers and tenants of access to loans. And these are the very group of farmers who were supposed to have benefited most from cooperative credit. Not all of the causes for this state of affairs are of the cooperatives' making, but whatever they may be, the conclusion drawn is that only a small fraction of the 191,000 primary cooperative societies could be deemed to be successful in any sense of the term.

81. Despite these shortcomings, the advance of the "green revolution" is bound to generate a large increase in institutional credit needs. According to one estimate, "in 1970/71 the total cooperative short-term loans are envisaged in the order of Rs.6,500 to Rs.7,000 million, as against Rs.3,000 million in 1965/66". ^{1/} This includes Rs.2,700 million for fertilizer alone. Faced with this prospect, and accepting the performance of the credit cooperatives as it is, the Government of India has taken several steps to create additional sources of rural credit by greatly expanding the role and resources of the Agricultural Refinance Corporation and the numerous Land Development Banks throughout the country, and by pressures on the private commercial banks to divert some of their resources to the agricultural sector. These institutional developments are expected to provide substantial additional farm resources channeled both through the cooperatives and parallel with them and also to areas where the cooperatives are absent or poorly developed.

82. On balance and in principle, the Government move in increasing and expanding the institutional channels of farm credit is a promising one, both for the additional credit this might generate as well as for what it might do in the way of competition to improve the cooperatives as more efficient purveyors of institutional credit.

83. Extension service : India's recent agricultural progress holds out much promise for greater productivity yet to come. The successful farmers who compete for inputs do not have to be told any longer that the latter and productivity go together. But the same farmers, not to speak of those still married to traditional farming, also face the problems of more efficient

^{1/} Report of the Fertilizer Credit Committee of the Fertilizer Association of India, 1968, p.222.

investments and practices as the technology grows in sophistication. The high yielding varieties involve more than mere substitution of one kind of seed for another. Their successful exploitation requires changes in nearly all components of production technology, and the decisions of the farmers - what to accept and what to reject - will increasingly depend upon a continuous process of research and tested innovation and well-functioning extension service. The point made here is that the future growth of rural development is hampered by the kind of extension service now in existence.

84. The extension service, sixteen years old and 70,000 agents strong, is the core of the Community Development Program. The aim of the program was to change the outlook of the rural people by determining their "felt needs", and meeting those needs through a great variety of projects touching almost every aspect of rural life, and administrative arrangements for their implementation. Extension has been successful in creating awareness among farmers of the possibilities for betterment, and in facilitating loans, subsidies and distribution of inputs. On the other hand, its effect on agricultural productivity has been essentially peripheral and falls short of anticipation. This is not surprising. The village level workers or extension agents are multi-purpose generalists, each with a dozen or more jobs, agriculture being only one of them. As underpaid and incentiveless extension agents, their direct technical assistance to the farmer is limited by their lack of experience and inadequate training. If, agriculturally speaking, the role of an agent was so circumscribed prior to the "green revolution", not much more can be expected of him when a new agricultural technology is in the picture and must be further developed. The important role extension can play in this regard is not debatable, but its attainment would have to be predicated on fewer but better agents with specialized knowledge, reasonably well paid and with assured career advancement, devoting themselves only to agricultural matters. Under such conditions, the multi-purpose tradition might come to an end, the slogan of the Community Development Program that an extension agent must be "100 percent agricultural" at last become a reality, and a new and vital input be added to further the advance of rural development.

85. The changes envisaged here will not come easily; they will be time-consuming when they do come. But there is another source leading to the same end - the Agricultural University as centers of research, training and dissemination of agricultural knowledge. India has eight such institutions and the two highly successful ones are Punjab Agricultural University (at Ludhiana) and U.P. Agricultural University (at Pantnagar). The upsurge of agricultural productivity in the Punjab, for example, is at least partly a result of the effort made at the University. It is the State's sole center of agricultural research and extension educational work among the farmers. The reliance of the farmers is not on the village level workers, but on the specialists of the University who are closely tied in with district agricultural officers as spokesmen, interpreters and activators of research results attained. Aside from these activities and the training of farm experts, the University is directly involved in the training of a large number of farmers through a variety of schemes, something the extension service with all its massive and widespread network has never been able to achieve. The same can

be said of the U.P. University. They demonstrate that they can be authentic pilots of rural change, and if agricultural productivity is to keep on rising, agricultural policy can do no less than strengthen the less successful ones and create new ones.

86. As part of a program to shift the "upper strata" of the small farm sector to a more productive base, the Government of India is now considering a program which would aim over the next five years to cover on a selective basis, in 20 districts, one million farm families out of an estimated 40 million. In doing this, it would first identify the problems of the small but potentially productive farmers, and, along with it, ensure the availability of requisite inputs, credit and technical services. Assuming a sufficient supply of inputs, the successful implementation of this task would depend upon the molding of a great many difficult attitudes and institutional factors. Therefore, the outcome could not be predicted with any degree of accuracy. But three factors stand out in favor of such a program; the emerging recognition that any strategy for agricultural development must take into account the rehabilitation of uneconomic holdings capable of becoming much more productive; that the new technology is applicable on many of the small holdings; and that a segment of the small farm sector is being placed on the agenda of the country's priorities. All these are significant in their recognition that the problems of Indian agriculture seem far beyond the achievement of more rapid expansion of agricultural production through greatly improved efficiency among a relatively small number of favorably situated farmers.

87. Land Reform: The agrarian reforms of India enacted since Independence have much to their credit. They abolished the Zamindari system, ^{1/} which at one time covered 40 percent of the cultivated land of India. Not all the 20 million cultivators affected by its abolition benefited equally, but it cleared a good deal of the ground for the reconstruction of Indian agriculture. In the "ryotwari" areas, where owner-proprietorship prevailed, the reforms have enabled some 3 million tenants and share-croppers to become owners of 7 million acres of land, while here and there attempting to protect the interests of those who continue to work somebody else's land. The other side of the coin is that many of the projected reforms following the disestablishment of the Zamindari have remained incomplete.

88. The crux of it all, and the main source of Indian reform troubles, is that by and large the legislative enactments do not provide the tenants and the share-croppers with security of tenure, or the right to remain on the land undisturbed for a definite period. This denied, much else falls by the wayside, especially the enforcement of the rent provisions. Eviction of tenants on the ground of what is in effect an anti-reform provision - the

^{1/} The system was a by-product of the early British rule under which a zamindar or intermediary was given the right to collect land taxes and undertook to pay the British administration a fixed revenue. In return, he was not only permitted to keep a portion of the revenue but was also recognized as the proprietor of the revenue-bearing land.

right of land resumption for self-cultivation - is typical of the reform period throughout and is stimulated by the attractive earning potentials of the new technology. In Maharashtra alone the owners have filed 369,000 applications for self-resumption; in Mysore 77,000, and to this must be added tens of thousands of similar requests in other States. With the exception of Kerala, the trend has been to satisfy the applicants. The so-called "voluntary surrenders" of land by the tenants have served the same end. The yearly shifting of tenants from plot to plot lest they claim certain rights under the reforms is just another illustration of tenant insecurity. Where eviction is not taking place, the tenants or sharecroppers are not recorded as cultivators of specific pieces of land, seldom receive receipts for rent payment or share of the produce, have no standing in the court of law, are granted only small loans, if any, by the credit cooperatives, and pay exorbitant charges for seed and other services rendered by the owners. Their incentive to improve the land is nominal, and it is understandable why only few of them apply the new package of inputs to any effective degree and why insecurity of tenure restricts agricultural growth.

89. Given the absence of the right to remain on the land undisturbed, the paucity of records accepted by the courts that a tenant is indeed a tenant of a particular owner and the increasing pressure on the land - there can be no effective enforcement of rents even if it were attempted. Legislation for rent control has been enacted in every State, the maximum being one-fourth of the crop in most instances, higher in very few States, and as low as one-sixth of the crop in some. This is as generous on paper as it is inapplicable in practice.

90. Ceiling provisions, limiting the size of holdings in order to create a pool of land for redistribution among the landless, have been promulgated in all States. In practice, they fared no better than security of tenure and rental provisions, and the painless circumvention of ceilings is widespread. It is in line with this attitude that the sum total of land declared surplus is no more than two million acres, out of which only a million has been distributed. It was never anticipated that this measure would yield results comparable to those of Japan or Taiwan, but the outcome is altogether below the original expectations.

91. The new technological changes furnish the means for greater productivity on many small holdings as on big ones, whether owned or tenanted, provided, however, the tenant is secure in rights and has access to inputs and other services. On the negative side, the agricultural strategy, as indicated, is inadvertently helping to weaken the tenant's already precarious hold on that land with potentials for high yielding cultivation by stimulating land resumption by the owners. The explanation is not far to seek. On land suited to the high yielding practices farming is becoming a profitable business and this is an incentive for owners, who formerly did not care to cultivate land, to resume land by evicting tenants.

92. Even if the eviction trend were not being stepped up on the ground of "self-cultivation", the position of the tenants after nearly two decades of reform remains insecure and calls once again for a re-definition of the

pertinent provisions, a minimum of half-measures and, of course, enforcement without quotation marks. This being said, it must also be said that the reform prospects for some time to come are not promising - not if the past experience of most States in enacting and implementing reforms is a guide to the future.

VI. INDUSTRY, POWER AND TRANSPORT

Industry - Recent Trends

93. The recent course of manufacturing development in India may be divided into three periods: (1) the first half of the 1960 decade (the Third Plan period) when the annual rate of growth of industrial production averaged about 8 percent, although sagging toward the end of the period, and when rapid change was taking place in the industrial structure with a relatively rapid build-up of metallurgy and heavy engineering capacity; (2) the three year period from early 1965 to early 1968 when production leveled off or declined because of adverse demand conditions stemming from slackening public investment and the two-year drought; and (3) the past year which has witnessed a moderate revival over a fairly wide range of consumer goods including consumer durables, vehicles, chemicals and some machinery, but without marked improvement in steel and other metals, heavy machinery and heavy electrical equipment. The extended stagnation of the second period and the modest revival so far in the third period suggest that this has been more than just an industrial recession; rather it was a set-back involving inter-industrial and capacity-demand dislocations which may inhibit rapid growth in the heavy industrial sector for some time.

94. The period since 1965 has been a difficult one for large parts of Indian industry, not only because of slack demand but also because large new capacities were emerging at the same time. Added to this were rising costs, stemming from food price and then wage increases and from devaluation, which in circumstances of surplus capacity and lagging demand, could not be passed along in industrial price increases. Labor difficulties, arising out of the recession and rising price situation and political developments, added to the troubles of industry, especially in the industrialized Eastern region. All this contributed to the poor financial return from most of the large public industrial investments of the last decade. It is also reflected in a marked decline in private corporate profits in the last three years.

Changing Motivations

95. There were however benefits in adversity for industry generally. Circumstances of industrial growth in the late 1950's and early 1960's had not been conducive to industrial initiative, cost consciousness, or efficiency. Investment decisions in the private as well as public sector were guided by official plan targets, complete protection from foreign competition was ensured, and internal competition was restricted by the industrial and import licensing system and by general scarcity relative to demand which virtually assured profitable sales for licence holders. This situation has

changed considerably in the last three years. The combination of the recession and more liberal import and industrial licensing policies have removed the sellers' market and increased domestic competition in a wide range of commodities. For the first time firms have had to undertake aggressive marketing to meet buyers' requirements, and to make independent production and investment decisions without relying on the implicit guarantee of a government license. Such developments have put a premium on cost-watching and managerial efficiency, and in most important industries the more efficient firms have moved ahead relatively. The change in import licensing from quotas by firms to full requirements 1/ for priority industries (covering most of manufacturing) intensified the competition among domestic firms. Similarly control over expansion was partially liberalized to allow for product diversification (up to 25 percent of output) and expansion beyond license limitations (up to 25 percent of additional output is allowed), the latter with the proviso of no significant additional exchange requirements. Some important industries were exempted from the industrial licensing requirements altogether. Overall, however the control mechanism still functions over the licensing of most large new investments, over export obligations of new industrial licensees as well as selected existing firms, and over import licensing motivated by both exchange allocation and protection. There has also been substantial decontrol of industrial prices but in practice extensive official influence is maintained over a wide area.

96. Broadly, then, the revival of the industrial sector is taking place on a basis of greater domestic competition and policies conducive to more aggressive market-oriented policies than in the past. This is not to say, however, that all Indian industry is becoming competitive in international terms, even under the pressures of recession. This cannot be established in quantitative terms for lack of data and because of conceptual problems of international comparison. Nevertheless protection requirements, export incentive requirements and interviews with a fairly wide range of industries suggest continuation of an internationally high cost industrial structure, despite the shift from seller to buyer markets of the last two or three years.

Further Industrial Prospects

97. The recent industrial revival is, as noted, at a fairly modest rate without much response as yet in machinery, equipment and metals, and with still substantial excess capacities over a broad range of industry, although in certain branches such as fertilizer, petrochemicals, etc. demand exceeds existing capacity and new investment is taking place. Overall, however, the pick-up is going forward so far without commensurate additional investment in new capacity and hence there is not the acceleration of industrial demand that usually develops in the course of an industrial revival.

1/ Full requirements, that is, of materials, components and equipment which are unavailable in India. No imports are permitted if requirements are physically obtainable in India even though at a higher cost.

Data are not available on which to base a definite conclusion about whether such an acceleration of industrial activity is likely in the next year or so. Circumstances suggest doubts, however, that a much more rapid expansion will develop soon. The industries where it is possible to foresee an expansion creating a substantial increase in demand for heavy industrial output are relatively few, mainly in the Bokaro steel project, agricultural tractors and equipment, perhaps road transport, oil refining, and fertilizer and other chemical plants. In the public sector, which has been accounting for about 60 percent of total industrial investment during and since the Third Plan period, the outlays are almost all on continuing projects with the only substantial increase in 1969/70 that for the Bokaro steel plant and smaller increases for fertilizer, other metals and minerals. Increases in road and other public works may also have some industrial stimulation effect. Railways and power supplies, two big sources of industrial demand, are, however, on a level investment course and no upswing appears in sight for the next few years. In total the increase in Central Government expenditure of a kind which may give a boost to more rapid industrial growth appears likely to be moderate in terms of its total impact on an industrial structure as large as that of India. 1/

98. It seems unlikely, however, that industrial development can proceed very rapidly on this basis alone unless supplemented at the same time by a substantial increase in public investment. Data are not adequate for any very precise analysis of the Indian industrial structure, but they do suggest, as does observation, that the great bulk of total private income is spent on a few items like food, textiles and clothing, beverages and tobacco, fuel and light, soap and medicine. The remainder of consumer goods requiring more capital intensive equipment or industrial raw materials are far less important in relation to total industry than in more industrialized countries and even in other developing countries with large industrial sectors like Argentina, Brazil and Mexico.

99. In the whole industrial structure the only really important consumer items are food processing and textiles (perhaps 25 percent of recent industrial production). These, however, are industries with linkages to agriculture rather than to the heavier intermediate and capital goods sectors which probably make up about half the value of total industrial production. Furthermore, the textile industry as a whole has a poor financial record and does not yet appear, in the absence of major policy changes, to be a very promising area for accumulation of capital to finance investment demand. More industrially demanding kinds of consumer goods have negligible significance in the whole industrial picture.

1/ This is meant only as a judgment about prospects and not to suggest that public investment expenditure should be motivated by its pump priming effects on the economy, irrespective of project and monetary consideration. Such a sole motivation would obviously be unfortunate. It hardly needs emphasis, however, that there is a need to undertake substantially more public investment on a sound basis, if sufficient resources become available.

100. Perhaps more promising for further industrial growth is the direct and indirect influences of private investment expansion, stimulated by agro-industrial demands, likely growth in road transport and chemicals, special steel products, other metallurgy and construction supplies and equipment. In some of these, like agro-industrials, other chemicals and vehicles, demand is picking up and even taxing capacity in some areas. In others, however, despite the recent pick-up there are still large surplus capacities. Considering this capacity situation, the impact from the private sector investment demand on general industrial growth seems likely to build up at a rather moderate rate for the next two years or so. This is nevertheless an important key to an acceleration of Indian industrial development. Its expansion will pick up momentum and require new capacities as physical bottlenecks emerge and this in turn will have spread effects on other parts of industry and in other sectors.

101. The point is that for the time being and in the near future the effect of growth in private sector investment on the rest of the economy is likely to be limited. For more buoyant industrial expansion there is the complementary need for a more substantial rise in public investment, not in industry necessarily but in lines where industrial supplies will be required. This double-barrelled kind of investment expansion by both the private and public sectors will probably be able to support in due course the sustained 8 to 10 percent annual industrial growth rate envisaged in the Planning Commission's Approach to the Fourth Plan. Unfortunately, for resource reasons subsequently discussed, the necessary kind of investment build up will take time. It is sometimes contended that with substantial surplus capacity a rapid industrial expansion should be easy. But this overlooks the fact that a large part of this surplus is in the investment goods industries and that it takes a high investment rate, including the necessary wherewithal, to use large investment goods capacities. For the next year or two a 5 or 6 percent annual industrial growth pattern seems more likely with a probable subsequent increase to higher rates on the expectation of improving financial scope for larger investment through fiscal means, through greater industrial generation of resources and perhaps with a more favorable aid situation.

Industrial Policy

102. The wherewithal to achieve the necessary step-up in investment is a most important part of the further development efforts, as has been well demonstrated in the past. Public financing problems in this respect are discussed subsequently, but it will probably become a problem also for private industry as it expands. It is encouraging in this respect, as indicated, that policy is now fairly permissive in the pursuit of private profits, even into the consumer sectors. Except for food, clothing and other necessities, consumer goods were looked upon in the past rather as necessary minimal accompaniments of the growth process to be tolerated. The role which profits and resource generation in this area might play in the growth process, including taxation of profits on consumer goods as a way of taxing consumption one step removed, was not given much consideration. This is of greater interest now as reflected in more liberal expansion policies in this area and as reflected in the recent budget emphasis on development of the consumer

sectors. There remains, however, still the orientation toward essential supply rather than resource generation in much of current policy, especially in import licensing policy. And profitability generally, which would seem to require particular attention in current development strategy, is still diluted in official development objectives, by competing objectives which are laudable in themselves but likely to inhibit the improvement of corporate saving and a more comfortable resource situation. Such competing objectives include import substitution at high cost, location of industry and rate setting for transport and utilities in the interest of backward regional development, other motives for rate setting below cost in transport, utilities, irrigation and other public commercial activities, employment as opposed to technological advance (especially in the inefficient areas of the textile industry), special inducements for small-scale industry, and dispersion of ownership and control.

103. The particular problems of financial difficulty and inefficiency in the publicly owned steel and heavy engineering industries were noted by the Government in a statement to Parliament presented at the time of this year's budget. The adverse financial record of many of the public industries was described, along with a comprehensive program for improvement involving more diversified production, better coordination, more delegation of authority and responsibility to company personnel, upgrading of remuneration of company officials, greater care in their selection, longer official tenures, a variety of improvements in management procedures including planning, costing, data systems, financial management and pricing, and an effort to achieve better labor/management relations. The statement on this subject is being distributed to the Consortium.

104. Aside from these public industry difficulties, stemming from planning, capacity, technology, management, labor, etc., further comment may be made on two other aspects of public industrial expansion and policy. One of these is the extent to which the Government is "locked-in" to particular directions and amounts of further industrial expansion by past commitment to uncompleted long gestation projects. This is of particular relevance to the further development of the steel industry. The other is the lack of a clearly formulated and Government approved program in all its ramifications to meet the mounting requirements for fertilizer.

Steel

105. Steel expansion is by far the largest industrial program undertaken by the Indian government. Public steel investments have accumulated to nearly Rs.13,000 million, over one-third of all investment in public industry. The Government is now in the midst of building the large Bokaro steel plant in Bihar with a first stage capacity of 1.7 million tons of ingot steel and a second stage reaching 4 million. Much of the installation and cost of the 4 million ton capacity has been incorporated in the first stage. The first stage will require about Rs. 7,000 million of which Rs.2,000 million has been spent and another Rs.1,700 million is budgeted for this year. Requirements beyond the first stage to reach the 4 million ton capacity are estimated at Rs.3,300 million or a total of Rs.10,300 million. This is an expensive project even at the per ton cost of the 4 million

capacity. There is the double financial burden currently in the overall high cost and the large part of the total concentrated in the first stage. The background of the Indian steel situation is described briefly below.

106. In the mid-1950's the steel industry consisted basically of two private sector plants with a capacity of about 2 million tons of steel ingots. Steel strategy was to set up three additional public sector mills simultaneously, each with built-in capacity for expansion and therefore with high initial capital costs. This approach took a long run view of steel development and minimized the importance of the full use of capital at any point in time. It included also a Rs.2,000 million investment in a new public industry 1/ to produce steel making equipment. The private sector plants were also to be expanded. Work was started with foreign financial and technical assistance on the three steel mills at Bhilai in Madhya Pradesh (USSR assisted), Durgapur in West Bengal (UK assisted) and Rourkela in Orissa (Germany assisted) in the mid-1950's. Each was designed for an initial capacity of one million ingot tons. The first steel was produced around 1960; in 1961 the first round of expansion was started. Production of one million tons of ingots was reached in 1963 at Bhilai and a year or so later for the other plants. With expansion, the output of Bhilai has subsequently increased, that of the other two plants has declined, both absolutely and in relation to their expanded capacity. Shortly after the expansion got underway, the fourth and much larger plant was sanctioned at Bokaro. External assistance was slow to be arranged, but was finally agreed, again with the USSR, and construction began in earnest in 1965.

107. In the early 1960's when the first round of expansions was started and Bokaro was planned, the requirements for finished steel were estimated at about 7 million tons by 1965/66, and at about 12 million tons by 1970/71. These demand projections guided the planning of capacity, in total and for particular products - rails, structurals, flats, etc. Growth of the economy, as indicated, never came up to plan projections, and neither did steel requirements. The demand expected by 1965/66 has not been reached to this day. Domestic consumption of finished steel has remained under 5 million tons compared with the capacity of the three completed and expanded government mills and other private mills of about 6.5 million tons. A recent private research study 2/ estimates that the level originally forecast for 1965/66 is likely to be finally reached by 1970/71 - but this may still be a bit optimistic.

108. This has had several effects. There is large excess capacity for certain products - mainly rails and structurals - in excess of expected domestic demand for many years to come. Some of this has been exported, but full capacity is not expected to be achieved in this way. Nor is diversification an adequate remedy and this will require additional investment. Another adjustment has been an increasing sale of pig iron and semi finished

1/ The Heavy Engineering Corporation at Ranchi in Bihar.

2/ By the National Council of Applied Economic Research (NCAER), Long Term Projections for Iron and Steel, November 1968.

steel, in particular exports of these products. But this leaves substantial investment unutilized. It is probable that some rail and structural capacity will remain excess even when the demand reaches 7 million tons or even more. On the other hand flat products have been continuously in short supply so those mills with substantial flat capacity have not been adversely affected. Substantial imports of flat and plate products are now necessary, and the N.C.A.E.R. forecast is that by 1970/71 the deficit on capacity for plates will be 450,000 tons and for flat products 700,000 tons.

109. Bokaro is a flat product mill. It is needed therefore to meet the expected requirements for flat products in its first phase including plates up to 10mm thick. For plates of over 10mm a separate plate mill project has been proposed. It has not yet been decided where it will be located and several possibilities are being considered including Bokaro and other public and private sector plants. Bokaro has been controversial since its inception. The Bokaro proposal was reviewed by a U.S. steel mission in the early 1960's but U.S. assistance for the project was not forthcoming. In the subsequent India-USSR agreement, the USSR undertook to supply designs, some equipment and technical assistance; much of the equipment would be manufactured by the Heavy Engineering Corporation which had been built with Russian and Czech assistance.

110. The Russian design for Bokaro has been criticised for being extremely expensive. There have been attempts at redesign to reduce cost but no substantial reductions seem to have been possible. One reason for the high cost is the planned installation of high capacity slabbing and rolling mills, far larger than the steel making requirements of the first stage of only 1.7 million tons, thus inflating the investment cost per ton of the first stage far above the other public sector mills which are not themselves distinguished by low unit capital costs. It is also argued that the plant may become obsolete quickly. The converters for steel making are smaller than is now the current practice in the more advanced steel mills of Western Europe and there is a body of opinion in the industry that looks to the elimination of massive blooming and slabbing mills in the near future by the development of continuous casting processes at much lower capital costs. On the other hand the Russian designs are simple and rugged and may be better suited to Indian conditions. The performance of Bhilai, built with Russian assistance has generally been the best of the first three government mills.

111. Because of its cost Bokaro will dominate the investment program for the next three or four years. This year it will represent about 17 percent of Central Government economic investment. Soviet aid will meet about 30 percent of this year's Bokaro cost. With this project fixed there is not much room to manoeuvre within a steel program. Some investment is required to replace damaged equipment and remove inadequacies in present plants. An expansion is underway at Bhilai and a new plate mill is proposed. Other heavy industrial fields of public investment have been scaled back to make room for increasing outlays on fertilizer plants, but Bokaro remains a very large lump in the development budget.

112. The financial losses of public steel industry are incurred under a pricing system where ex-works prices for many items, except flat products,

are lower than domestic prices in the U.S., the U.K. and Australia. They are however somewhat higher than Continental export prices f.o.b. as reported in the London Metal Bulletin and also higher than Japanese prices. Besides the ex-works price the Indian consumer pays a heavy excise duty, an average transport charge, and a cess to finance a subsidy for steel fabricators so that delivered prices seem 30 to 50 percent higher than ex-works prices. Some of this differential is offset for exporters of engineering products by government subsidy.

Fertilizer

113. India's commitment in 1965 to make the most of the agricultural opportunities provided by the high yielding technology included commitment to supply the vastly increased quantities of fertilizer expected to be needed. In recognition of the unmanageable foreign exchange burden this would entail if all the fertilizer were to be imported, it was decided to seek self-sufficiency in fertilizer production. The size of the self-sufficiency effort was clearly seen to be beyond the capacities of either the public or private sectors alone and both were to be relied upon in the expansion of production. In the meantime and for as long as necessary, the Government undertook to provide the foreign exchange for as much fertilizer imports as was necessary to meet demand and it continues to fulfil this undertaking. Actually fertilizer consumption has not increased as rapidly as expected. Consumption of nitrogen has more than doubled since 1965 to about 1.2 million 1/ tons in 1968/69, but this is about half a million tons less than the requirements forecast made in 1965. Shortfalls in the consumption of phosphate and potash fertilizers from earlier consumption projections have been proportionately larger.

114. Production of nitrogen in 1968/69 was about 550,000 tons or more than double the production of 1965/66. It was also behind the most recent official production targets but only by about 100,000 tons. It was of course far below consumption levels, the difference being met by over 600,000 tons of imports. Nominal capacity of nitrogen manufacture has reached a million tons, although the realistic capability of this capacity is at present considerably less. A number of plants are new and have not yet been brought up to full capacity operation. Various technical and operational difficulties have also interfered with more effective use of existing capacity although such difficulties have been substantially reduced in the past year.

115. Nitrogen capacity now under construction in seven plants including two major expansions, and two additional projects firmly committed (including one major expansion) 2/ amounts to a total capacity definitely in prospect of about 1.7 million tons of nitrogen. These, in addition to the 11 plants already in operation will bring the total number of nitrogen plants to 17

1/ Mission estimate; government estimate is higher by about 200,000 tons.

2/ The project of the Indian Farmers Fertilizer Cooperative and the expansion of the public sector Trombay project.

of which 11 are in the public sector, 3 are in private, 2 are mixed public-private with private management, and one is a cooperative operation. With reasonable optimism all but four of these can be expected to be in production by 1970/71 and all of them by 1972/73; their production can perhaps be expected to reach close to 1.2 million tons in 1970/71, about 2.0 million in 1972/73 and about 2.2 million in 1973/74.

116. This however will be far below the consumption requirements that can be expected in the early and mid-1970's, even after a substantial downward adjustment of previous official consumption forecasts in the light of more recent experience. The estimate here is that consumption of nitrogen will reach about 1.75 million tons in 1970/71 and about 3 million tons in 1973/74. This will exceed the production that can be expected from plants now definitely in prospect by 500-600 thousand tons of nitrogen in 1970/71 and by something near 800 thousand tons in 1973/74. Deficits for phosphate, similarly calculated on firmly committed capacity, would remain about 350 thousand tons in 1970/71 and 550 thousand in 1973/74. Deficits on phosphate and potash fertilizers are less important foreign exchange issues because phosphate raw materials are just about as costly as the finished product, 1/ and potash has to be imported in any case. Nitrogen fertilizer is therefore the real issue as far as import substitution is concerned. If the deficit between nitrogen capacity now existing or definitely committed and prospective consumption requirements were not reduced, imports in 1973/74 would still be about as high as at present, requiring probably \$130 or \$140 million of foreign exchange. This would bring the total fertilizer import bill by that time (excluding possible domestic production of phosphatic raw materials) to about \$400 million compared with the 1968/69 level of about \$265 million.

117. It now appears too late, and in any case would probably be inadvisable as indicated below, to fill the nitrogen deficit entirely by the mid-1970's. Production in 1973/74 will have to depend very largely on plants already in operation and definitely committed. However, it should still be possible with an expeditious program of additional nitrogen capacity beyond that now committed, to reduce the nitrogen deficit in 1973/74 by perhaps another 300,000 tons and by still more in subsequent years.

118. There are now as many as 14 different nitrogen and mixed fertilizer plant proposals in various stages of consideration in addition to those counted above as already under construction or definitely committed. Nine of these are private proposals and five are in the public sector. Seven of the private proposals have been approved in principle by the Government but only one of them - the Birla-US Steel project at Goa - has reached the stage where detailed approval of production plans and financing arrangements is expected soon. 2/ Another of the seven - the Dharamsi-Moraji project in

1/ There are, however, encouraging discoveries within India of phosphate raw materials, which are noted below, and which may considerably alter the foreign exchange outlook concerning phosphatic fertilizer.

2/ This agreement was signed on March 28, 1969.

Bombay - has also been approved except for issues arising over proposed terms for importing ammonia from Kuwait. Of the two unapproved private projects, one - a proposed plant at Mithapur by the Tata organization - has been prepared in technical and financial detail but has been awaiting a decision on its application for Government approval for well over a year. This project, if approved, and perhaps 2 or 3 of the private plants approved in principle could be expected to be started within the coming year and to start producing in 1972 or 1973 if approved in detail fairly soon. The other private proposals are not likely to move ahead that soon and some are fairly tenuous and unlikely ever to be undertaken. The new public sector plants have been launched at the rate of two a year - those at Barauni and Namrup (a large expansion) having been started in the past year. This pattern will presumably continue with the substantial expansion of the present plant at Trombay and possibly an expansion at Nangal, to be started during 1969/70.

119. There are, however, a variety of problems involved in the further expansion of nitrogen capacity as well as in the effective utilization of existing capacity which remain to be resolved. In the first place, there is need to relate fertilizer production plans to the likely course of agricultural progress, taking account of all requirements for such progress including not only fertilizer but also water, seed, credit, etc. The relative place of imports and domestic production in the future program also needs to be decided. Complete self sufficiency would seem to be a questionable aim since there is some case for reliance on imports for "peak" demand, that is for insulating domestic producers from some of the impact of the year-to-year fluctuations in demand that are bound to occur from weather variations alone. As of now there seems to be no clear view of the future role of imports nor is a system of information in preparation which would signal consumption demands, stock positions, regional and local market conditions, etc.

120. The management requirements are also formidable and the way they can be met in the planning, construction and efficient operation of the large number of existing and additional plants has not been devised. It would seem that economy in the use of scarce management capability would be served by a larger role of private management in the program than has been the case thus far. Yet the place of private plants in the expansion seems to be quite uncertain and as indicated, a matter of prolonged delay and indecision.

121. Another important uncertainty lies in the fertilizer marketing arrangements. The past system of a fertilizer pool operated by the Central and State Governments was perhaps suited to conditions of scarcity but not to circumstances where emphasis is needed on sales promotion and efficient distribution. Responsibility for marketing is therefore being shifted to the producers who must, for the most part, build up marketing organizations. Planning in this area, including the physical installation and the organization required as well as the place of restrictive State policies in the marketing process, has not gone very far.

122. Finally and again concerning imports, guidelines are needed for a desirable import pattern among finished fertilizers, intermediate, and raw

materials so as to minimize the use of scarce resources over time. There is a general policy of diversifying process requirements and feedstocks which could perhaps be carried further. The area of greatest promise seems likely, however, to be in the substitution of domestic liquid and gaseous hydrocarbons, rock phosphate and sulphur for imports. Recent discovery of high grade phosphates, probably in large volume, in Rajasthan is a most encouraging development. Establishment of the place of these deposits in the fertilizer program would seem to be of the greatest urgency since they have promise of far greater foreign exchange saving per unit of investment than other aspects of domestic production of finished fertilizer. Similar urgency would seem indicated for oil exploration in the promising off-shore areas near Bombay; this obviously not only for fertilizer reasons, but general energy and feedstock requirements. A number of alternative approaches to this exploration have been proposed and considered at length but without as yet a clear decision.

123. For all these reasons there would seem to be need for the continued examination of the fertilizer problem in all its many ramifications with the aim of making the program for further development of the industry more realistic and comprehensive.

Power

124. The present state of the power program illustrates a situation common to a number of important industrial sectors. Past forecasts of requirements have been quite wide of the mark as the economy failed to develop as expected. Forecasts of future requirements are uncertain. Capacity in most regions is adequate to meet present demands, and the area of greatest current importance is achieving greater efficiency in the operation of the system. As in other fields, the planning for power has been based on targets which have had to be successively scaled down. The peak load in 1967/68 was only 65 percent of the level projected for that year in 1965. The current projection for 1970/71 is 70 percent of the level for that year projected in 1963. On the basis of recent performance this is likely to be an overestimate, because both the pace of extension of the distribution network and the relatively slow growth of industrial production are likely to constrain the future growth of power demand. An important effect of these changes has been to reduce the expected market for the heavy electrical equipment plants built in the public sector to supply generating equipment for the industry. The investment of over Rs.2,000 million in these plants has a poor prospect for full utilization in the near future.

125. Most of the requirements for new generating capacity for the next five years will come from schemes already under construction or expansions of existing schemes. The Working Group on Power for the new Fourth Plan has estimated that the all-India peak load will reach 18.5 million KW by 1973/74. Since the peak in 1967/68 was 8 million KW this implies an average growth of 14 percent a year. The rate would be somewhat lower if unsatisfied demand, now existing in some regions, were taken into account. The rate for the previous six years was 12 percent. Although it may be argued that 1967/68 is a poor choice for a base year, the rate would nevertheless seem to be quite rapid.

126. The present installed capacity in both public utilities and industrial plants is estimated at 14.5 million KW. It is currently planned to expand this to 22 million KW by 1973/74. This would be an average rate of expansion of 9 percent per year over the five year period. There is some doubt whether this will be sufficient to satisfy the expected peak load growth rate of 14 percent a year, even assuming that a considerable improvement in the efficiency of capacity utilization is possible during the next few years. On the other hand, the load forecasts may prove to be too high. On balance, there is no reason to assume that current assessments of required growth in generating capacity will be more than adequate. About half the generating equipment required will be imported and about half will be manufactured in India. This is not a measure, however, of external dependence but reflects forthcoming delivery of orders placed abroad in the past for projects still under construction.

127. At present with some local exceptions the problem of power in India is not the shortage of capacity. The problems that deserve the most attention are those related to the more efficient operation of the investments that have already been made, together with more transmission and distribution including provision for agricultural requirements and more effective planning of new investments. There is also the problem of the State Electricity Boards achieving financial viability along the lines laid down by the Venkataraman Committee of 1964 which has been accepted as an official objective of the Government, as well as a condition of an IBRD power transmission loan of 1965. The Boards have so far been unable to fulfil the rate of return target originally agreed to, partly because of interstate competition in power rates for industry. Revised targets indicate it will be 1973 before any substantial fulfillment of goals is possible. It is urgent that the Boards be able to finance a greater part of their investment programs.

128. Among the measures required to improve efficiency is the organization of effective regional grid systems for the transmission and exchange of power between states and markets. This involves strengthening and improvement of transmission systems and setting up regional load despatching stations. Regional Boards have already been set up but are not yet fully functioning. Another immediate concern is the financial viability of rural electrification. This is a problem because rural distribution lines can be expensive in relation to the numbers and spread of connections, and rural demands tend to have a low load factor. Yet it is not at all clear that rural electrification has to be subsidized in view of the substantial agricultural returns made possible by electrically driven tubewells and pumps. Careful planning of rural power connections is needed to reduce costs by selection of remunerative areas and by spreading the loads, improving the layout of distribution systems and concentrating the number of connections.

Transport

129. Transport requirements are high in the wide expanse of India. They have been met reasonably well in rail transport and more recently in aviation. The road system, however, is grossly inadequate. Transport has therefore been one of the fields of heaviest public investment, and continues to be,

but recently with a welcome relative shift in the pattern of development from railway to road. Compared with the Third Plan division of railway/road investment of 75/25, the more recent ratio of the last three Annual Plans have been about 60/40 and further changes in the same direction are contemplated. Allowing for private investment in road transport the relative shift would be much larger. The railways were one of the fields where expansion of capacity went beyond demand requirements during the Third Plan period and this has facilitated the recent shift in emphasis to roads. The change is reflected not only in a relative increase in road investment but also in policy efforts to encourage road transport, or at least to reduce some of the impositions and restrictions on truck and bus traffic. Here, however, much of the problem is at the State and local levels and there is still a long way to go in better tax treatment of road transport which will not be easy in the face of State and local financial difficulties.

130. Despite the comfortable capacity position of the railways at the moment, the capital works requirements are still high - about Rs.2,500 million, including depreciation, in the current year and probably as much or more in the next few years. This is well below the comparable annual expenditure of the Third Plan period in money terms and still further below in real terms. Some of this will be for future traffic requirements but much of the additional rail capacity is incidental to an emphasis on modernization, and replacement of over-age equipment. These are needed, along with a review of rail tariffs, to improve the efficiency and financial return of the railways, especially on bulk traffic which is steadily increasing in its share of total traffic and will undoubtedly continue to do so. In this context, it may be desirable to review the policy of uniform railhead prices for some bulk commodities, which may be imposing avoidable pressures on the transport system.

131. Road traffic has been increasing at a much faster rate than on the railway and is expected to continue to do so. Goods traffic on the roads at present is only about a quarter of total rail and road traffic but has increased by about 20 percent since 1965 whereas rail traffic has increased by only about 4 percent in this period. Both figures are of course depressed by the recession conditions of the last few years. Surfaced road kilometers in this period have increased by about 10 percent to just over 300,000 kilometers. The main emphasis of road investment has been and will probably continue to be the modernization of the National Highway system by filling in missing road and bridge links and increasing the ratio of two lane to one lane distances (now about 1 to 2), and the extension and improvement of state, district and rural access roads serving market routes and input deliveries where requirements seem most urgent to facilitate the expansion programs in agriculture. Much of the latter is being carried out by the States and will probably require a clearer articulation of likely agricultural development areas at the State level and close coordination between road and agricultural development.

132. Other important needs in the transport field are tied up with the requirements for improving India's foreign exchange position. These include port developments to facilitate iron ore exports, additional Indian shipping capacity (especially bulk carriers and tankers), and facilities to promote

tourism. Civil aviation is also an important area of necessary development for foreign exchange reasons in the international field (and also domestically from a tourist standpoint) as well as to relieve the strain and intensive use of equipment in the domestic air transport system. For the international field two "jumbo jets" have been ordered and others are likely to be needed in the near future. Domestically efficient middle distance planes are needed, but there seems to be difficulty in reaching order decisions because of the conflicting consideration of maximum operational efficiency on the one hand and large foreign exchange requirements and financing arrangements on the other.

133. But for resource limitations, there would appear to be justification for substantially larger expansion programs in most transport fields except railways. Among the important areas of transport need beyond recent provision are market and access roads in rural areas, urban transport services, transport to facilitate urban dispersal, a larger and better telecommunication system, expansion and administrative improvement of ports, and some limited access highways (as toll roads) on congested routes in the heavily industrialized hinterlands of Bombay and Calcutta.

VII. INTERNAL RESOURCES

Current Problems

134. India's difficulties in meeting the resource requirements of development have been emphasized in the previous discussions. There is of course the poverty of the country which inhibits saving, although total gross saving, apparently about 13 to 15 percent of GNP in recent years, is not particularly low on the scale of developing countries. What is low on this scale is public revenues (Centre and State) in relation to GNP - about 12 percent for tax revenue in recent years, and about 15 percent of GNP if non-tax revenue is also included. Yet much the greater part of the total investment burden of the economy - about 60 percent in the Third Plan and a similar share in recent years - is in the public sector. Since the middle 1950's public investment has increased from about 4 percent of the national income to about 8 percent.

135. The low tax revenue relative to national income is not for want of high tax rates, but rather because of the poor revenue potentials of the economy. However, the agricultural sector, which contributes about half the national product, pays relatively little direct tax. Except in the case of plantations, income tax is not levied on agriculturalists, and the yield from the major direct tax on the sector, land revenue, has fallen from 10.2 percent of total tax revenues in 1955/6 to 2.9 percent in 1967/8. The other side of this coin is the relatively low proportion of corporate income in total national income and, therefore, the low share of corporate taxation and corporate savings in the totals. It is also an axiom of development finance that those countries in which foreign trade is large relative to national product are better placed for raising revenue, and India is in a

poor position in this respect with a total import and export trade equal to only about 10 percent of GNP.

136. There is also the difficulty that public revenue is not very responsive to increases in national income. During the first half of the 1960's GNP at current prices moved considerably ahead of the national growth in revenue at 1960/61 rates of taxation and in more recent years (1965/66 to 1968/69) national income has run far beyond revenue; while income increased by nearly 40 percent, Central Government total revenue went up by only about 20 percent after changes in tax rates and by only about 5 percent at the 1965/66 rates. This was not, of course, a favorable revenue period; it included two years of drought, a prolonged recession with earnings additionally squeezed by the cost push of rising food prices and devaluation. And in addition, with slack import demand and sagging markets for traditional exports, customs revenue has fallen. With the improvement of the economy in the last two years, however, the only substantial tax revenue response has been from excise revenue. And excise response has been limited because of the large element of specific, as opposed to ad valorem taxation, in the excise structure during a period of rising prices.

137. There are major obstacles standing in the way of an adequate response from public revenues, as the economy improves. One is the relative shift in income to agriculture that has taken place in recent years as a result of the improvement in the terms of trade of agriculture vis-a-vis the rest of the economy and also as a result of the higher agricultural production of the last two years, due to weather and technology factors, while prices continued to be maintained by official procurement. Agriculture, as indicated, represents an area of income expansion with entrenched political resistance to higher taxation. Some States have managed to increase irrigation rates, and the Central Government has now come forward, despite strong political opposition, with proposals for excises on fertilizer and on electric pumps, as well as for a limited wealth tax to be imposed in 1970/71 on agricultural assets. These central proposals are, as expected, encountering heavy political weather and it remains to be seen how far it will be possible to go on capturing some of the substantial gains being realized, mostly among the better off farmers, from additional inputs and from appreciation of land values.

138. A second important growth area of the economy which has been a serious fiscal disappointment is, as previously indicated, the complex of Government enterprises. These include the various industrial enterprises, the State Electricity Boards, the Railways and the Posts and Telegraphs. While the last two of these have generally met their statutory commitment to pay dividends to Government revenues at a rate varying from 4 to 6 percent of total capital employed, this does not hold true for the industrial enterprises and electricity authorities. Some public sector industrial operations are showing satisfactory profits, but these are far outweighed by losses in other operations. In 1967/68, for example, the net loss was Rs. 340 million on a total investment of over Rs. 33,000 million, of which the losses of Hindustan Steel alone accounted for Rs. 380 million. The State Electricity Boards suffered a net loss of Rs. 40 million in 1966/67 on a total capital base of over Rs. 21,000 million, and their internal resource generation was able to meet only 10 percent of their investment needs in that year.

139. In the context of public sector industries, one must recall the discussion, in preceding sections, of the tenuousness of the links between the capital goods sector and consumption sectors. To review the argument briefly, Indian development strategy involved the creation of new capital goods producing capacity which, in a bid to cut short the development process, was not mainly geared to providing the capital goods directly needed to expand the production of consumer goods, but rather to "make machines to make the machines needed for further development". This capital goods producing sector was to grow rapidly, feeding essentially on its own demands. But the sector intended to be the most dynamic from both the production and demand standpoints could not be expected to generate within itself the resources to support the demand - to live, so to speak, by taking in intra-sectoral washing.

140. Most of the profits of the investment sector must be based on its sales to the investment sector itself, and are therefore part of its costs. This has an important bearing on the issue of the profitability of enterprises in the capital goods sector, in particular the profitability of the huge public sector firms. If their real operative efficiency were increased, this would reduce the real costs of investment and thus reduce, possibly to a large extent, the real resources needed to finance it. Thus the tenuousness of the investment sector's links with the rest of the economy, the fact that it is by far the principal purchaser of its own products, means that normal profits cannot finance its operations; it needs financial transfers from outside, and the major source of these transfers must be an entity committed to the long-term growth of the sector, without any expectation of soon using its products directly: the Government. There is no quick and easy way out of this. It is true that the new economic strategy involves the widening of channels between the investment and consumption sectors, notably through agro-oriented industrial investment; in time, this should allow more investment to be financed indirectly by the consumer. But these new channels are opening slowly and from a very narrow base. They will not really provide an adequate substitute to large-scale Government demand and financing for a long time to come.

141. Another serious difficulty is the unsatisfactory performance of State Governments in raising additional resources. The past pattern of resource transfers from the Centre to the States seems to have acted as a real disincentive to the raising of additional resources by the State Governments. It was decided last year to relate transfers for Plan expenditures to certain fixed criteria (population, tax effort, etc.) which is a major step forward, but current transfers are still essentially determined on the basis of the gap between the State Government's current expenditure needs and its own revenues. Thus additional State taxation may in the long run reduce receipts from the Centre. In the past three years, the Central Government has also tolerated that the States run up very large overdrafts, which the Centre has then refinanced through short-term loans. These arrangements do not encourage the raising of new resources at the State level.

142. Another sagging area of budget support is foreign aid, including PL 480 aid, which reached a peak of Rs.8,800 million (net of repayments) in 1967/68 and has since dropped to about Rs.7,000 million last year (1968/69)

and an expected Rs.6,400 million this year (1969/70). 1/ PL 480 assistance has fallen by half since the 1966/67 peak, and will presumably disappear, except in poor harvest periods, over the next few years, thus adding to budget financing problems.

143. The other side of the development financing problem of the Government is the rising claims of other expenditure requirements. Defense, which increased as a share of expenditure from about 11 percent before the China War to about 19 percent after, was subsequently reduced to about 15 percent in 1966/67. Its share has remained about constant since then, while its level rose by 16 percent in two years. Between 1965/66 and 1967/68, all non-developmental expenditures increased by 32 percent while development expenditures rose by only 10 percent in money value and actually fell in real terms. The pinch on development spending may be seen in the following trends:

1/ The PL 480 transactions included in the figures comprise both new agreements and the loans made out of counterpart funds (though in a presentation of net aid many of the latter cancel themselves out). Mainly for these reasons, the net aid figures given above are not fully consistent with those derived from the balance of payments, though the order of magnitude and trends in them are very much the same.

Consolidated Transactions of the Central,
State and Territorial Governments (Rs. billions)

	1965/66		1966/67		1967/68		1968/69		Percent Increase 1965/66 to 1967/68
	Rs.	%	Rs.	%	Rs.	%	Budget 1/ Estimate	%	
Financing									
Revenue	38.28	68.3	42.02	68.4	44.67	68.9	48.83	73.5	28
Capital Receipts									
Internal	7.84	14.0	7.23	15.1	7.37	11.4	5.90	8.9	-25
External (Net)	6.62	11.8	7.85	12.8	9.55	14.7	8.61	13.0	30
Deficit	<u>3.31</u>	<u>5.9</u>	<u>2.26</u>	<u>3.7</u>	<u>3.22</u>	<u>5.0</u>	<u>3.13</u>	<u>4.7</u>	- 5
Total Financing	56.05	100	59.36	100	64.81	100	66.47	100	19
Expenditures									
Non-Development									
Defense	8.85	15.8	9.09	15.3	9.70	15.0	10.15	15.3	15
Interest	4.22	7.5	5.25	8.8	6.03	9.3	6.67	10.0	58
Other	<u>8.19</u>	<u>14.6</u>	<u>10.86</u>	<u>18.4</u>	<u>12.63</u>	<u>19.5</u>	<u>11.34</u>	<u>17.1</u>	38
Total Non-Development	21.26	37.9	25.20	42.5	28.36	43.8	28.16	42.4	32
Development	<u>34.79</u>	<u>62.1</u>	<u>34.16</u>	<u>57.5</u>	<u>36.45</u>	<u>56.2</u>	<u>38.31</u>	<u>57.6</u>	10
Total Expenditure	56.05	100	59.36	100	64.81	100	66.47	100	19

1/ Revised estimates of the Central Government for 1968/69 indicate the figures here are too high for external capital receipts, "other" non-development expenditures and the deficit, and somewhat low for defense.

144. The new Central Government budget for 1969/70 represents a considerable effort to make some larger provision for central expenditure on development. The means are more taxation, and restraint on non-development spending in total even though defense and interest provisions are higher by about 5 percent and 8 percent respectively. The reductions in outlay are on capital account - mainly in capital transfers to the States and in Government loans and advances. It remains to be seen how the State provisions for development will be affected by the lower level of overall transfers from the Central Government. Such transfers cover half or more of total State expenditures. The State budgets are not yet all available but those which are add to large deficits, indicating that the States will not also be able to increase their outlays on development without either a larger State tax effort than now seems likely or overdrafts on the Reserve Bank. Such overdrafts would have to be covered from additional central transfers and could thereby push the central deficit higher than Rs.2,500 million budgeted (assuming other accounts running more or less according to estimate).

145. It remains uncertain whether it will be possible this year, even with the central tax effort, to achieve a higher public development outlay - Centre and State - and still keep within the budgeted overall deficit. There is probably some scope this year for a moderately larger deficit than the Rs.2,500 million of the budget without serious price disturbance. However, on balance, any increase in the overall public sector developments this year will probably not be very large, as can be seen from the following table:

Development Expenditure of Centre
(Rs. Million)

	<u>Revised Estimate 1968/69</u>	<u>Budget Estimate 1969/70</u>
Direct development expenditures	8,576	10,493
Plan assistance to States and Union territories	8,031	7,684
Plan loans and advances to Public Sector undertakings (excluding transfers to offset operating deficits)	<u>2,556</u>	<u>2,244</u>
	19,163	20,421
Including transfers to offset operating deficits	19,563	20,421

Resource Prospects

146. If the States can be persuaded to follow suit with a larger development financing effort, it should be possible during the next several years to build up a cumulative increase in public resources for development which will have over time a cumulative reinforcing effect on growth of the economy and growth in public revenue. This is likely to require, however, not only increased taxation and a more income-responsive revenue system along lines put forward in this year's central budget, but also greater mobilization of resources from other potential revenue sources. At the State level this will require more taxation on the dynamic areas of agriculture and rates which will increase the earnings from irrigation and electric power. There are also indications of greater possibility for mobilizing rural saving for investment purposes and for increasing the institutional flow of small savings. Land appreciation, not only resulting from higher agricultural yields but from favorable location in other respects, should be another revenue source. And at the Central level there are potentials, aside from further taxation, in the rate structures of the railways and telecommunication and in profit oriented pricing and efficiency measures in other government undertakings. There is acute awareness of the need for improving the financial position of government industrial enterprises and measures are being taken to this end. But it is likely to be a hard slow process.

147. The whole resource problem will, of course, be easier to manage in a context of faster economic growth. Here the public sector position is one of both cause and effect. There are substantial additional public development requirements, the execution of which will in turn boost general levels of economic activity and this will contribute to larger public revenues. But there is also an intermediate step in this process which involves concern for accumulation of resources for development in the private sector as well as the public. At present, financial resources do not appear to be a significant constraint on private development in either agriculture or industry. On the industrial side, the problem is one of incentives to expand (with important exceptions in the agro-industry and consumer fields) rather than finance. However, any substantial surge of private investment would also run into a financial pinch. It seems likely therefore that both private and public investment will have to move in tandem at a moderately rising pace for the next two or three years until resource generation in both areas builds up to allow for substantially higher levels of investment.

148. The prescription for facilitating this process in the private sector would seem to be, not the impracticable proposals for lower tax rates which are regularly advocated, but greater freedom to pursue lucrative lines of production in the interest of greater profitability and therefore a larger capability for both contributions to public revenue and private accumulation for investment. Although the control systems in private industry have been considerably relaxed, those remaining still rely on criteria of "essentiality" which continue to emphasize physical supplies for capital goods production and for "essential" consumer goods, and give insufficient consideration to the need for greater earning and saving capacities which should be a criteria of priority even for lines of production which may be deemed otherwise "non essential". It would seem to be in this direction that India will be able to increase the low level of corporate saving which in other countries with large industrial sectors is the mainstay of industrial resource mobilization.

149. In the long run, increased attention must also be paid to the mobilization of potential private personal savings. This is most seriously apparent in the agricultural sector where there is much high and rising income exempt from direct taxation. At the same time, the agricultural sector gets a flow of institutional credit which is almost entirely financed out of funds raised outside the sector by Government and semi-public institutions. More funds should be mobilized in the agricultural sector itself through the further development of savings institutions. Also relevant is the inadequate performance of the co-operatives, Land Development Banks and State government lending agencies in ensuring collection of loan repayments and interest. An important issue of more general relevance is the relatively low level of interest rates maintained by financial institutions. In the past, these rates have failed to reflect the opportunity cost of capital (especially in the context of the past few years' price rises), and also failed to channel adequate funds towards financial institutions, away from more traditional outlets for savings and from consumption. And perhaps an even more general, but also even longer term, problem is the need to develop a better integrated and larger financial market.

VIII. FOREIGN TRADE AND ECONOMIC POLICY

150. One of the fundamental assumptions of Indian development strategy was that "if industrialization is to be rapid enough, the country must aim at developing basic industries and industries which make machines to make the machines needed for further development". 1/ Most of the increased range of goods required to sustain the industrialization process, which in turn needed a wide range of inputs, were expected to be produced locally at an early stage. This necessarily led to considerable dispersion of effort into many projects in widespread fields, often much smaller than the efficient scale of operations. Even the few very large projects in the public sector spread out to a wide variety of products, and, despite their large sizes, often operated on small scales.

151. It is difficult to find fault with India's basic strategic decision to industrialize; nor can one doubt that the country's natural and human resource endowments made it desirable that the industrialization process should extend in depth, and should lay heavy emphasis on the production of basic industrial materials and capital goods. In view of the required rapid and profound structural transformation of the economy, it was impossible altogether to avoid the occurrence of high cost inefficient developments. But the unavoidable problems were heightened and exacerbated by the low priority given to exports, by the consequent need to rely on domestic supplies for too wide a category of goods, and by the indiscriminate character of protective policies. 2/

Export Policy: Past and Present

152. Export Policy before Devaluation: In the First and Second Plans, the export of the products of India's new industrialization was not even envisaged; and the prospects for improving primary exports were viewed with pessimism. Policy was closely geared to these views. None of the new industrial projects was intended to be export-oriented, even partly or temporarily. Fiscal policy discriminated against exports rather than in their favor. These measures bore fruit: no export growth occurred between 1950 and 1960.

153. The Third Plan reflected a more ambitious and realistic thinking. It recognized that "one of the main drawbacks in the past has been that the program for exports has not been regarded as an integral part of the country's development effort under the Five Year Plans." Henceforth, "the highest

1/ Second Five Year Plan, p.25.

2/ The autarchic principle called for very strong reliance on the "material balances" techniques in planning; the use of these techniques, which allow no room for comparative cost considerations, in turn reinforced the autarchic tendencies.

possible priority has to be given to exports". The Plan rather modestly aimed at Rs.37,000 million (\$7,770 million) exports over the five year period. In the event, making appropriate corrections for changes in statistical coverage, exports realized during the Plan period fell short of the target by about \$220 million; 1/ between 1960/61 and 1965/66, the average annual rate of growth, corrected for the change in statistical coverage, was less than 4 percent. In contrast, world exports grew at an annual rate of 7.5 percent between 1960 and 1965, and those of underdeveloped countries by 5.5 percent. In 1964/65, world exports rose by 8 percent and those of underdeveloped countries by almost 10 percent, but India's export growth fell to less than 3 percent. In 1965/66, Indian exports actually declined.

154. The relative success of export performance in the Third Plan period is closely related to changes in economic policy. However, many of the views guiding export policy were only suited to the very short run. Fairly large incentives were given to selected commodities to allow them to be exported more or less regardless of differences between domestic and export prices. Thus, comparative advantages were to be neutralized. The proclaimed long run aim was that "each and every industry should become self-financing and self-supporting in respect of its import requirements gradually". 2/

155. For engineering goods, and to a more limited extent, for textiles, the main incentives took the form of additional entitlements to scarce imports. It was quite easy (though not always legal) to transfer these entitlements or the actual imports at a good price, though it was often more advantageous to use them in the exporter's own business. The real values of the entitlements varied sharply from industry to industry, and over time; their actual values at any one time can only be guessed at. Whatever the precise number, there can be little doubt that the average value of incentives given to non-traditional industrial exports was, by early 1966, very high indeed. The extreme value may have been as high as 200 percent. Incidentally, a major defect of the system was that the Government was trying to implement a policy of extreme and refined selectivity with a tool of whose impact it had only a hazy knowledge.

156. Towards primary products (including such traditional quasi-primary exports as jute and coir manufactures) export policy had little broad conception beyond trying to offset the impact of rising domestic prices and costs through ad hoc subsidies. These attempts were limited by the general assumption that elasticities of supply and demand were low, and that there was no point in improving the returns to exporters. When occasional surpluses were identified (somewhat arbitrarily, of necessity), they could be exported, with the help of a specially tailored subsidy. When domestic prices started rising in earnest, around 1962/63, mainly export-oriented

1/ From 1961/62 onwards, Goan exports were included, and also exports by parcel post and overland trade with Nepal. The total of these additions is estimated to have amounted to \$90 million annually.

2/ Ministry of Commerce, Report 1965/66, p.33.

commodities found themselves at a disadvantage, for their prices continued to depend on those prevailing abroad, and as long as domestic and foreign prices were not out of line, no export subsidy was given. Therefore, supply suffered. In 1965 a more general incentive scheme was introduced under the name of tax credit certificate; but its effective rates, ranging from 4 to 30 percent, did not even offset the recent rise in domestic prices, let alone provide enough impetus to exports most of which had already been stagnating for a decade. Thus, the private sector had little incentive for efforts to remove supply bottlenecks. Government effort to do so was also limited even where there was such export opportunity as that provided by India's rich iron ore reserves.

157. In June 1966 the rupee was devalued by 36.5 percent (i.e. rupee value of foreign exchange was raised by 57.5 percent). However, the devaluation was accompanied by the suppression of all previous incentives and the imposition of export taxes on a wide range of goods. The effective exchange rate offered to exports of new manufactures in most cases actually deteriorated. For traditional exports, there was an improvement relative to the immediate pre-devaluation situation, but in the case of several of the most important ones, including jute goods, tea and pepper, it was only marginal. Taking into account the 20 percent rise in wholesale prices since the introduction of the Tax Credit Certificate Scheme for a majority of exports the devaluation did not result in a more favorable comparison of domestic and foreign prices than in early 1965, when the deceleration of export growth was already well under way. On the export side, the point of the devaluation was more a partial rationalization of incentives provided to exports of manufactures than a measure to provide additional assistance.

158. Reacting to precipitous falls in exports, the Government repeatedly lowered most export duties on primary and quasi-primary products. In the case of tea and jute goods these adjustments did not prevent India's relative and absolute positions from further deteriorating, to the point where some of the ground lost to other suppliers and to substitutes may never be recovered. Other primary exports recovered in 1968/69, to about the level reached in 1964/65. However, if tea and jute goods are included, primary exports are likely to have fallen short of their 1964/65 record by about \$100 million. The limited extent of the recovery, in the much improved overall agricultural situation, may be partly due to the general difficulty of regaining ground once lost, and partly to the fact that duties continue to be levied on many primary exports. 1/

159. A few months after devaluation, it was decided to give cash incentives to selected engineering exports. These were revised several times; after the latest major revision, in March 1968, they had a median rate of 15-20 percent, and a top rate of about 30 percent. Furthermore, iron and steel, and more recently, certain chemicals were provided to exporters at "international" prices (about 25 percent below domestic prices for most categories of steel). Exporters of manufactures and particularly engineering

1/ See Appendix Table 32.

goods are again allowed to import specified ratios of the value of their exports from sources of their choice. This privilege is highly priced, 1/ as part of these imports can often be used to produce for the home market; even when the requirements for domestic production are licensed on the basis of needs, allocations are largely from tied aid, and the availability of inputs from sources of the producers' choice provides valuable flexibility. On the other hand, the indigenous angle restrictions are applied to the export replenishment scheme also, though less strictly than in the licensing for domestic production; and in some instances this may have resulted in valuable export possibilities not being exploited as vigorously as would be desirable. For cotton textiles, which had also suffered from the demise of the previous incentive scheme, new schemes were also introduced. Thus, after the last series of major changes in the incentive system, in March 1968, the effective export rate was more favorable than it had been in early 1966 for most goods.

160. In the prevailing conditions of recession, there were considerable surpluses of iron, steel and engineering goods which could be rapidly oriented towards the export market. In 1968/69, there was a 10 percent rise in overall exports, though this carried them only about 3 percent above the 1964/65 peak. 2/ The rise in steel and engineering exports was particularly spectacular; with a 40 percent increase in one year, the value of steel exports exceeded \$100 million, while the value of engineering exports leapt up by more than 100 percent to about \$90 million. Cotton textile 3/ exports increased by about 25 percent to about \$120 million, which is still below their previous peak (the \$130 million mark having been passed in 1965/66, and several times before that). Iron, steel and engineering exports taken together will soon constitute the second largest category of Indian exports, immediately after jute goods, before even an old staple such as tea. Such a fast rise in new types of exports has not occurred without difficulties in such widespread fields as transportation - Indian ports were not equipped for handling bulky export items - credit and credit insurance, quality control, after sales service, etc. - in addition to the difficulties of administering complex interwoven subsidy and rebate schemes. That these very real difficulties were effectively surmounted is an impressive record.

161. More can still be done to promote primary and quasi primary exports, or new variations on them, such as jute cloth for carpet backing instead of sacking, and marine products in the form of deep-frozen prawn rather than

1/ Replenishment imports are subject to indigenous angle restrictions but they do not seem to be taken into account in relative import content calculations. (See para. 162, et seq.) In addition, there is widespread concern that import policy may become more restrictive in future, further increasing the value of import entitlements and justifying present efforts to earn them.

2/ These are preliminary estimates, based on nine months' trade data.

3/ Including yarn.

dried fish. Nevertheless, it has long been clear that a major impetus for export growth had to come from industrial goods and it has now been demonstrated that these exports are capable of providing such an impetus. It has also been shown that when prices are competitive - which for a long time may have to mean lower than those of well established competitors - the world appears quite ready to absorb Indian supplies. The fact that in this respect the closure of the Suez canal was of considerable benefit at just the right moment does not reduce the impact of the demonstration, though in other circumstances India would have had to make an even greater price effort.

162. It remains to be seen whether the recent upswing in exports constitutes only a short-run gain, or whether it is the beginning of sustained growth. It is relevant to note that 1968 was a particularly good year for world exports, and especially for those of underdeveloped countries - though for the first time, India's performance was well above the average. The real question is whether present export policy is likely to promote long-term growth. Export and import policies are closely inter-related in many ways, and the attempt to answer this question can only follow the rapid examination of import policy in the next section.

Import Policy

163. In the early Plans, Indian development strategy leaned in the direction of autarchy. All commodities required by the economy were to be produced domestically at the earliest possible date. Imports were to supply only what was physically impossible to produce. No mechanism was provided for taking into account cost considerations in promoting this so-called "import substitution" process. When around 1960 import substitution was discovered to be a lengthier process than first thought, export policy was revised; but import policy was not.

164. Administrative physical controls were the essential tool of import policy. Ever since the early years of planning, imports were in principle banned if domestic production was sufficient to meet domestic demand, regardless of price. Most often the policy was applied quite strictly. It was implemented through procedures of "indigenous angle clearance", i.e., the determination, to the controllers' satisfaction, that adequate indigenous supplies were not available. To counter the tendency to rely on imported components and semi-manufactures, administrative pressures were used to reduce the import content" of domestic production. 1/ In addition to indigenous angle import bans, for many firms the ratio of authorized imports of components and semi-manufactures relative to final production was reduced by administrative decision, from time to time, in some cases according to a pre-set schedule. Administrative procedures were particularly strict in the

1/ The definition of "import content" for this purpose, includes only components and semi-manufactures directly imported by the producers. Raw material imports, and imports by the firm's domestic suppliers, are not included.

three or four years preceding the devaluation of the rupee, when domestic and foreign prices were completely out of line, and permission to import anything at all was sure guarantee of a high profit.

165. Prior to devaluation of the rupee in June, 1966, the Government made still another use of import controls. In addition to the qualitative controls, imports were further restricted by administrative decisions. In the case of capital goods the restrictions were governed by ad hoc considerations, the most important being apparently related to the availability of particular types of foreign loans. Imports of current production goods were restricted to some fractions of the imports notionally required for full capacity utilization, the fraction being in principle the same for all firms of a given sector, independently from their relative efficiency.

166. Soon after devaluation, which greatly eased the pressure of import demand, and which was followed by a large non-project aid commitment by the Aid-India Consortium, this last type of control was liberalized. Firms in 59 priority industries - accounting for the major part of industrial production - were allowed to import their full requirements of current inputs without quantitative restrictions. However, the import allocation mechanisms had to be retained. A large proportion of imports are financed by non-project aid of differing types and desirabilities, and by inconvertible bilateral trade accounts with East European countries. The controllers continue to decide which funds are to be used for specific imports in the light of costs in supplying countries, and the relative priorities of would-be importers. The qualitative restrictions: indigenous angle clearance and indigenous content requirements, (as well as the ban on imports of finished consumption goods) were never removed, and, indeed, were progressively tightened. 1/ The quantitative relaxation still endures, though the requirement that the imports be actually needed for production has been made more stringent, so as to prevent speculative buildups of inventories and the length of licensing procedures appears to have occasionally reflected the Government's expectations about the availability of foreign exchange, and the erratic flow of foreign aid.

167. The qualitative import restrictions have borne considerable benefits. They have helped to give Indian industry a width and depth of development unique among underdeveloped countries, with the possible exception of China. India now produces an impressive range of modern industrial goods, in most cases with little import of components and semi-manufactures. Nevertheless, import policy has had serious defects. The quantitative restrictions applied before devaluation prevented any competition as the market

1/ The difference between pure quantitative restrictions and restrictions based on indigenous angle and import content considerations may not be immediately apparent but it is nevertheless crucial. The former put an absolute ceiling on each firm's imports, so as to allow the same rate of capacity utilization for all firms of each sector. The latter limit the ratio of imports to production, but place no absolute ceiling on each firm's imports provided its production increases proportionately.

share of each firm was effectively fixed by the controls. This particular effect has been eliminated, and competition increased in the last three years. 1/ This virtual absence of competition between domestic firms has reinforced the effects of the absolute protection from imports without regard for cost considerations, and promoted the growth of a relatively high cost industrial structure. This is not a matter of Indian prices being higher than foreign prices; that depends on the exchange rate used for the comparison. The point is that as all domestic production is fully protected from imports, the price system provides no indication as to what it would be more advantageous for India to produce. Overall resources being strictly limited, the growth of any higher cost or less advantageous firm or industry necessarily means that the growth of a lower cost or more advantageous one must be foregone.

Trade Policy Issues

168. The Government now recognizes the need "to remove certain structural disadvantages which Indian industry has developed because it was more or less wholly oriented towards import substitution ..." 2/ But these new principles have not yet been fully translated into policy measures. The decision to devalue the rupee, in June 1966, already represented a significant new departure. At the time, the decision was much attacked, though largely in emotional rather than economic terms. On the import side - given the slight downward revision of import duties which accompanies it - the devaluation caused a roughly 45 percent increase in landed import prices. The benefits of the measure were immediate, in terms of the much reduced irrationality of the import substitution process, and a sufficient reduction of the pressures on the control system to allow substantial liberalization of imports over a vast front (helped, it is true, by increased commitment of non-project aid and an industrial recession). As seen above, the measures accompanying the devaluation much reduced its impact on exports, and it was fully felt only when incentives to non-traditional exports were reinstated. This was followed by the 1968/69 boom in those exports; it is difficult to imagine that anything like this could have occurred without the devaluation. This increase in the average level of incentives and the substantial liberalization of production imports are substantial advances towards translating the new principles in concrete policy terms.

169. On the side of imports, the partial liberalization which followed the devaluation already represents a very substantial advance. The difficulty of further steps is enhanced by the acute shortage of foreign exchange, the uncertainties regarding future aid availabilities and the prevalence of protectionist sentiments. Hence the need for caution and gradualism. It should nevertheless be possible to prevent further investment in excessively

1/ However, there have been of late indications that the mechanisms for collusion - which did not exist because they were not needed prior to import liberalization - are now being put in place.

2/ Government of India, Economic Survey, 1968-69, para. 6.

uneconomic activities by announcing that such investment will receive only a specified level of protection through customs duties. To apply gradual pressure on existing firms, indigenous angle bans might be replaced by quasi-prohibitive duties which could be gradually reduced to the level of normal protective duties according to a pre-set schedule. Of course, this would require a reworking of the customs tariff into a rational instrument of protection. There are today very few protective duties in the Indian Customs Tariff; industry prefers to secure protection through import controls. While the wider use of protective duties would result in some increase in the average incidence of import duties on dutiable imports above the present level of 35 to 40 percent, it would in fact represent a reduction of the effective protection granted by tariffs and import restrictions taken together.

170. It may well be that, if such a policy is implemented, the overall level of imports would tend to rise above the tolerable level. If so, the shaving off of the absurdly high peaks of protection could be accompanied by some rise in the basic cost of imports, for instance through an increase in the basic customs duty - at present a duty is levied at the minimum rate of 27.5 percent on practically all imports, including raw materials. This would, of course, leave untouched the problem of the unequal desirability of diverse inconvertible aid and bilateral clearing funds. This problem arises only for funds which are not to be used for bulk purchases (non-project aid used for financing the bulk import of commodities such as fertilizer or cotton creates no allocation problem), which are usable for non-project imports, and which, through a combination of their relative abundance and the desirability of the goods they can finance, are less readily utilized by importers than other funds. There is no elegant solution to this problem and some administrative allocation would have to be retained. However, this does not preclude the substitution of tariffs to administrative controls for other purposes.

171. The problems of import and export policy are interrelated. As long as the import substitution policy results in a vast array of ratios of domestic to foreign prices, rational export policy is difficult, and there appears to be no good alternative to trying to compensate for the distortions created by import policy and for other adverse domestic cost factors, without actually correcting them. Within these limits, an attempt has been made to encourage the expansion of engineering and steel exports. Subsidies have been provided to them on a large front, to take account of cost disadvantages and also, inter alia, of the need to sell initially at prices lower than those of established suppliers. These subsidies provide more stable encouragement than the predevaluation schemes, and the divergence between extreme rates has also been reduced. Action towards primary exports was much less, but even in this field there appears to be increasing realization that taxation which discriminates against exports is bound to harm them. Increasing attention also seems to be paid to the possibilities of industrial exports and the case for export incentives outside the engineering sector.

172. The withdrawal of protection from the most extremely profitable or extremely inefficient internally oriented operations would by itself increase the relative attraction of the export market. Nevertheless, the new import

policy should also be reflected in a parallel continued improvement of export policy. The purpose of the reform should be the same as on the import side: to promote concentration on the comparatively most advantageous fields, instead of promoting the spread of export efforts into too many directions, at the cost of relative neglect of the most rewarding ones.

Future Trade and Trade Policy

173. In 1968/69, the most rapid growth of exports took place in those industrial fields where there was considerable excess capacity: coated electric cables, mild steel pipes, and structural steel are the best cases in point. Most of these exports also received above average incentives. When investment demand picks up, some of the slack in capacity will be taken up, and the scope for further rapid growth will be limited unless incentives are further raised. But if the divergence in the values of incentives increased, the irrationality of the system would be enhanced, and the export effort would become even more dispersed and therefore less productive. The instability and uncertainty to some extent inherent in this system would also slow down export growth, notably by artificially increasing the risks of purposefully export-oriented investment. Movement towards more uniform incentives would be preferable but might not be forthcoming. These uncertainties to some extent still cloud export prospects in the long run.

174. Many specific efforts are also required to ensure that the growth potential of the traditional exports and of new variations on them is fully exploited. An end to tax discrimination through export taxes against these exports would seem to be a prerequisite to success in this field, along with efforts by the Government and others to develop key supplies and markets. These efforts must be large, but also well directed. This presupposes a continuing preoccupation with easing the limitations of amount and quality in export supplies, continued improvement in the Government's knowledge of export supply and market problems, and the provision of an institutional framework for gathering accurate and timely information on export supplies and markets, and for taking and implementing decisions based on this.

175. Policy also has a big role to play in improving the general environment of export operations. Much improvement was wrought in many fields in the past two years. In particular, credit facilities have improved; a great joint effort was made by Government and industry to solve specific shipping problems; the procedures for obtaining foreign exchange for travel and marketing abroad have been greatly smoothed; a fairly successful effort is being made to streamline procedures for the payment of rebates and subsidies. Of course, further effort is necessary in all these fields, and in many others, but the Government appears responsive to the manifest needs of exporters.

176. In the short run, even without major policy change, a fairly good export expansion can be expected in 1969/70. With the moderate recovery in investment that is the best that can be hoped for, engineering and steel exports should record another increase. It should be possible to expand

somewhat a great many primary exports. As the relative importance of carpet backing is increasing, jute goods exports should at least hold their own; and there may well be some recovery in tea exports. Overall, given a measure of luck and a few minimal adaptations of policy, it should be possible for exports to increase in 1969/70 to about \$1,870 million. However, new situations, and especially an approach to fuller capacity utilization as domestic demands increase, will require continuing adaptations of policy to sustain the marked improvement of this past year and the prospect of further improvements in the next year or two.

177. The level of imports depends more on export earnings and aid receipts than on import policy. What the import policy outlined above is designed to achieve is obviously not a higher level of imports purely for its own sake. Rather, it should achieve a rationalization of the division of tasks between domestic production and imports, thus reducing the cost of progress, increasing the efficiency of Indian industry, and contributing to the feasibility of the desired export growth. With appropriate adaptation of import and export policy and effort as circumstances require, the continuation of export growth at around the Government's target of 7 percent a year on the average should be feasible.

IX. AID REQUIREMENTS

The Recent Past

178. Great uncertainties continue to surround balance of payments forecasts even in the very short run. Thus, statistics now available indicate values of exports and imports in 1967/68 respectively 2 percent and 5 percent lower than the values given in our last report, issued one month after the end of that year. Our export forecast for 1968/69 is likely to be within three percent of actual exports, but our import forecast was probably excessive by about 18 percent. On the side of food imports, this was due to unforeseeable delays in the signing of loan agreements, and the U.S. dock strike; for non-food imports, we projected into the future what we thought was occurring in 1967/68. It now appears that, far from rising by about 7 percent, non-food imports remained almost constant in 1968/69 at the 1967/68 level, which itself was about 5 percent lower than we had thought. Thus, despite a considerable shortfall of aid disbursements from the levels thought to be required, and an actual fall in overall net aid receipts from above \$1 billion in 1967/68 to only about \$600 million in 1968/69 1/ the balance of payments remained manageable. 2/

1/ Net of debt service and repayments to the IMF and IBRD.

2/ The uncertainty about future trends is enhanced by that surrounding past data. Imports, in particular, are underestimated in Indian trade statistics, though we do not know quite to what extent, nor how the error affects particular commodity groups, nor whether the extent of underestimation is fairly stable.

179. This, however, does not mean that India required as little aid as she received. This low aid level was sufficient only because the revival of the economy was quite modest, investment continued to sag, and major industrial sectors remained depressed. Overall investment fell in absolute value; in relation to national income, net investment was at its lowest level in more than a decade. In real terms, the absolute value of per capita investment was about the same last year as ten years earlier; therefore, it is not too surprising, nor particularly gratifying, that India could manage with a net aid inflow of about \$600 million - very close to the net aid received ten years ago.

180. With hindsight, one might say that there was room for a somewhat more expansionary policy, which could have been financed by accelerated drawing on the aid pipeline and a lesser improvement in the reserves position. However, given the Government's limited knowledge of the immediate balance of payments situation, a considerably more expansionary policy would have been prudent only if the following year's aid had been assured, which it was not. Therefore it was sound policy to minimize the risk of having to apply fiscal, monetary and licensing restrictions brutally in the near future. The conclusion to be drawn from the 1968/69 events is not that India needs less aid than was previously thought necessary, but that development aid is required for development; if there is just a little development, a little aid may do; if there is just a little aid, a little development must do.

Investment Requirements

181. There is now a fair chance that, with reasonably good weather, agricultural production would grow at an average rate of 4 to 4.5 percent in the next few years. By catering to the requirements of agriculture, to consumer demand, and to exports, industrial production should be capable of growing at, say, 5-6 percent, thus allowing for National Income growth at 4 to 5 percent annually. For a few years, none of this would depend on more than a moderate step-up in investment; the major impetus would come from technological change; some increase in public investment along with private investment in fast maturing projects, combined with the new capacity brought into being by old projects reaching completion, and the existence of widespread excess capacity, should give a sufficient capital base to the expansion process in the short run.

182. However, if this newly found buoyancy is to be sustained beyond two or three years, and carried forward, it must acquire a larger capital base. We cannot evaluate the precise volume and distribution of these capital needs. Yet it is clear that agriculture will require increased facilities for irrigation, power distribution, feeder roads, storage and marketing facilities, etc. Increased investment will also be needed in industries catering to the demands of agriculture, of exports, and of the consumer; and in basic overhead facilities, such as electric power, transportation, education, population control and the bare beginnings of an effort to tackle India's gigantic urban problems. And one cannot even think of tackling, but one must certainly bear in mind, the capital needs of the huge flow of

people into India's enormous pool of unemployed - fed not only by population growth but also - and perhaps increasingly - by technical progress and social change.

183. We are not able to make more than a broad judgement about the magnitude of the effort required. Yet it appears that investment needed for the sustenance of income growth at about 5 percent would require a substantial step-up of both private and public investment from their current low rates. A 10 percent annual increase of total net investment from its present level could probably be considered a minimal requirement; if production grows as forecast, this would raise the ratio of investment to NNP to only about 12 percent in 1973/74. Even if this were done, the investment for the next five years would be, in real terms, only about one third more than investment realized during the Third Plan period; in real terms per capita, only about 10 percent more.

Savings and the Resource Gap

184. If income were to grow at an average rate of 5 percent, the chances for a successful resource mobilization effort would be much brighter than for a long time in the past, when growth was slow or non-existent. Nevertheless, with population growing at 2.5 percent, the latitude left to policy in this respect is limited. Within a liberal society, it is obviously impractical to prevent per capita consumption from rising with income. Development must yield tangible fruits if sufficient efforts and enthusiasm are to be devoted to it. The best that can be hoped for is to keep per capita consumption from rising quite as fast as income. There are several factors limiting a possible rise in the rate of savings, in addition to the potent desire to emulate higher standards both in private and public consumption. Among them, the new agricultural orientation of the development process, and the leading role of foodgrains, imply a fairly rapid growth of consumption. Furthermore, it seems that taxation will have to rely heavily on excise duties, and the returns from these can grow rapidly only if consumption is allowed to grow. More generally, it is often argued that the reorientation of the development process towards agriculture and light industries should increase the resource base and allow India to improve substantially upon the marginal savings performance of the past 10 years. The argument is valid, but it becomes absurd if pushed too far: only growing consumption can provide the basis for fast growth of agriculture and light industries.

185. Even with good income growth, there is simply no possibility for domestic savings to finance the required fairly steep rise in investment, even if they are supplemented by the current levels of net aid. Yet a shortfall of realizations from these truly minimal investment requirements is bound to depress income growth below the roughly 5 percent rate which could otherwise be sustained. This, in turn, would not simply delay the time when certain goals are reached; it may well put these goals beyond reach altogether. With population pressing hard upon income growth, a difference of one point in the growth of income may well mean all the difference between increasing the rate of savings, and thus permitting income ultimately to outpace the growth of population, and failing to do so.

186. One would like to have a firm estimate of the shortfall of feasible savings from investment needs. Unfortunately, we really know little even about past savings and investment trends, let alone future investment and resources. Yet, even with the low, falling, and evidently very inadequate investment levels of 1968/69, the economy absorbed more than \$600 million net aid. However one looks at the data, and whatever reasonable allowance one makes for conceivable uncertainties and possible lucky developments, one cannot see the rise in domestic savings catching up with investment needs in the near future. For a more solid basis of sustained economic growth there seems to be no alternative to a fairly steep rise of net aid from the particularly depressed 1968/69 level to levels perhaps still below, but closer to the actual net aid receipts of past years - say a figure not far below \$1 billion within two or three years. In later years, it is conceivable that additional sources of domestic finance, which cannot now be foreseen, might appear - for instance, if income growth is faster than can now be reasonably expected. However, it must be quite clear that the aid required for a satisfactory growth pattern to be established and sustained is most unlikely to fall below this suggested level of about one billion dollars - indeed, it is more likely to rise further.

187. While net aid should be resumed at levels closer to the recent past if income growth is to be sustained for the present the rather gloomy uncertainty surrounding aid obliges the Government to act with a great deal of prudence. As seen above the 1969/70 Budget is unlikely to give a major stimulus to the economy. Any increase in investment in basic overhead facilities and heavy industry is likely to remain small. Nevertheless, with further investment in foodgrain stocks and the contemplated modest increase in public investment, along with continued good demand for agro-oriented capital, some revival of consumption-oriented investment, and the further revival of economic activity, income and saving may be enough for the time being to keep the saving/investment gap and the balance of payments deficit (allowing for further export growth) from getting much larger. Thus, in 1969/70 it may again be possible to manage with net aid at about the 1968/69 level, say around \$650 million. This, however, is a vicious circle; so long as more resources are not clearly in sight, the Government cannot prudently aim at a much higher investment level; so long as the level of investment remains low, immediate aid requirements remain low too. If this were recognized and an increased level of aid were committed, preferably early in the year, this would open the way to somewhat easier fiscal and monetary policies in the interest of additional investment, thereby allowing for a greater development effort than presently contemplated and justifying net aid requirements at more than the 1968/69 level. But such a step-up would be desirable only within the context of an expected further step-up the following years; and, given the unavoidable disbursement delays, this requires the build-up of a larger aid pipeline in 1969/70 to establish the basis for more buoyant financial and development policies in 1970/71.

The Balance of Payments

188. Exports: It has been said elsewhere that with still further policy and promotion efforts beyond those so far pursued exports may rise in accordance with the official objectives of about 7 percent per annum; if so, they

would reach almost \$2.5 billion by 1973/74. In any case, in 1969/70, a fairly good increase in exports, say to about \$1,870 million or \$100 million or so more than the probable 1968/69 level, is likely to be achieved.

189. Food Imports: The assumption that Net National Product could increase at an average annual rate of 5 percent would presuppose agricultural production growing by about 4.5 percent annually. If this is achieved, within the next five years India should no longer be a net importer of foodgrains. She should therefore no longer be able to use food aid. Food aid accounted for about one-third of gross aid receipts in the past few years. Its decrease will place a relatively heavy burden on other forms of aid. However, in 1969/70, partly because of the mechanics of delayed shipments, foodgrain imports are likely to rise marginally to about \$400 million, of which about \$280 million would be aid financed.

190. Non-food Imports: Leaving aside invisibles, the net aid figures given above must be transferred to India in the form of a trade deficit. Imports should therefore rise to about \$2,520 million in 1969/70 - of which about \$2,120 non-food imports as against about \$2,020 million in 1968/69. The contemplated step-up in investment, however mild, combined with further increases in the consumption of industrial goods, are extremely likely to raise the level of imports by this much even if the present tight import restrictions are fully maintained. The import level indicated by the resources gap calculations looks reasonable, though certainly not overabundant, from the point of view of import content, in a slightly more active development context.

191. In the longer run, the course of imports will of course depend on foreign exchange availability - that is, on exports and on aid. If exports actually grow at an annual rate of 7 percent, and if India receives an amount of net aid commensurate with the requirements of development-generating investment - say, close to the levels of net aid receipts of recent years - overall imports would have to rise faster than production. If, furthermore, agricultural strategy is successful and the need for food imports diminishes, the transfer of these amounts of net aid would involve a steep rise in non-food imports. This could happen only if - in response to improvements in the quantity and quality of aid, and to the better export performance - restrictions on imports were gradually relaxed. Such a relaxation would have to be wrought by purposeful policies; it would not occur automatically with the easing of the foreign exchange shortage, because the restrictions are motivated not only by the latter but also by strong protectionist sentiment both in Government and in industry. However, even without such relaxation, really fast growth in investment would by itself lead to fast import growth; and incremental consumer demand will turn to industrial goods whose non-food content is by definition heavier than that of foodgrains. Inasmuch as export growth will come largely from industry, exports will also have a heavier import content. Thus, not very much will in fact remain for badly needed structural changes, for a shift away from import substitution at all cost, towards areas of production which hold greater comparative advantages. Still, these higher net aid levels would allow - and in order to be capable of being transferred, would require - some easing of import restrictions,

some beginnings to be made towards rationalizing the structure of Indian industry. This should reinforce the impact of the higher path of investment in sustaining relatively fast income growth.

192. Invisibles and Debt Service: Debt Service will continue to be the largest element of invisibles; it is estimated at \$548 million in 1969/70 and \$560 million in 1970/71. If new aid is given on very favorable terms, debt service may rise to \$610 - \$650 million by 1973/74, depending on the level of new aid. One may perhaps hope that other capital and invisibles (including errors and omissions, private capital movements, receipts from tourism and transportation, etc.) will gradually improve - though we really know very little about them.

Gross Aid Requirements and the Transfer Problem

193. The Short Run: In 1969/70, if net aid is to be about the same as in 1968/69 - say about \$650 million, given debt service obligations, repayments to the IMF and the final withdrawal of the IBRD special deposit, there will be need for gross aid disbursements of about \$1,350 million; perhaps slightly more if a larger step up in aid in the following year appears likely and it is therefore desirable to move on a smoother path towards a higher import level. Out of these amounts, about \$280 million could be food aid, and about \$1,120 million would have to be non-food aid.

194. About \$400 million can be expected to be disbursed out of past project aid commitments. Already committed non-project aid available for disbursement at the beginning of 1969/70 amounted to more than \$800 million, of which about \$450 million should be disbursed without difficulty in the course of the year. About \$35 million should be available as non-food PL 480. This leaves about \$230 million to be disbursed out of new aid in the current year. This should be feasible without much difficulty, provided debt relief is again given for \$100 million, and a significant portion of other new aid is still of the non-project type, and commitments are made early in the year.

195. However, the future step-up of gross aid disbursements must be prepared, bearing in mind that it is likely to coincide with a fall in food aid needs; in 1970/71, gross disbursements of non-food aid should amount to about \$1,100 million. In order for such a disbursement level to be feasible, commitments in the previous year would have to be at least as high too. Thus roughly \$1,100 million non-food aid commitments are required in 1969/70, in preparation for stepped-up disbursements in the following year, in contrast to about \$700 million committed in 1967/68 and \$900 million committed in 1968/69 (in all cases including non-food PL 480). Unless commitments are stepped-up in this way - and in a usable form - policies must remain geared to low investment, low aid need paths. This would be a consequence, not a justification of the low aid level.

196. The Long Run: We have been looking at aid needs in terms of the foreign capital inflow India needs to complement domestic savings and export earnings in order to finance the desirable levels of investment debt service

BALANCE OF PAYMENTS SUMMARY

	<u>1966/67</u> Actuals	<u>1967/68</u> Actuals	<u>1968/69</u> Prelim. estimate	<u>1969/70</u> Forecast	<u>1970/71</u> Projection <u>5/</u>
Imports	2771	2632	2460	2520	2750
of which: Foodgrains	868	691	380	400	320
Others	1903	1941	2020	2120	2430
Exports	1542	1598	1770	1875	2000
Trade balance	-1229	-1034	- 630	- 645	- 750
Capital and Invisibles <u>1/</u> (Excl. aid & debt service)	- 18	- 79	+ 42	- 20	- 15
Debt Service <u>2/</u>	- 365	- 444	- 518	- 548	- 560
IBRD Special Deposit	-	45	- 30	- 15	-
Net IMF	130	+ 33	- 78	- 169)	0 <u>6/</u>
Change in Reserves	- 12	- 81	- 50	-)	
Gross Aid	1494	1560	1264	1397	1325
of which: Food Aid	538	447	229	280	220
Project Aid <u>3/</u>	497	380	410	400)
Non-project aid (Incl. debt relief)	424	657	593	682 <u>4/</u>)	1105
Non-food PL <u>480</u>	35	76	32	35)	

1/ Including Errors and Omissions.

2/ Does not take into account debt relief, which is included with non-project aid.

3/ Breakdown between project and non-project aid is to some extent arbitrary.

4/ Obtained as a residual. The Government estimates that \$455 million can be disbursed out of already committed non-project aid, including \$15 million debt relief from IBRD.

5/ As discussed in the text, the steep rise in non-food imports projected for this year depends upon substantial policy changes by aid givers (involving higher new aid commitments under more usable forms) and by India (involving appropriate changes in investment and import policies). Failing these, restrictive domestic policies would presumably keep imports and aid requirements at sustainable levels. It is also assumed that proper policies will be followed to allow export growth at about 7 percent.

6/ Not taking into account the scheduled repayment of \$200 million to the IMF.

N.B. Trade figures are obtained from Customs data, and debt service and aid figures from the Ministry of Finance. No adjustment is made for the likely underestimation of Government imports in the Customs data. This presentation of the Balance of Payments is consistent with that used in our last report but it differs materially from the Balance of Payments prepared by the Reserve Bank, and also from the Adjusted Balance of Payments presented by the Government in the Economic Survey.

and exports. For any aid to be effective, it must be transferred to India in a usable form. The mere commitment of loans is not enough. Yet at present a large part of aid is subject to conditions which greatly limit its usability. Unless disbursement conditions are adapted to India's needs, they may effectively prevent a rise - and might even force a fall - in aid disbursements, whatever level of new aid is nominally committed.

197. If net aid recovers to the level of recent years and is stabilized for some time at, say, around \$1 billion annually, with the projected rise in debt service gross aid disbursements would have to rise to an annual level of about \$1.6 billion within the next five years - and this may well become wholly non-food aid. Presumably India will be able to rely for some of this on the USSR and other Eastern European countries and hopefully at levels closer to past professions of assistance rather than the \$70 - \$80 million a year of project aid that has actually materialized. Even if the relative import content of exports and consumption is prevented from rising throughout the period - which is both unlikely and undesirable - only about \$2.3 billion imports would be available for the direct and indirect import content of investment. A very high proportion of this would have to consist of raw materials, spares and components required by India's own capital goods industries; there will also have to be many small items of equipment needed for small-scale investment projects and balancing schemes. Clearly, it would be impossible even to approach the required disbursement level if aid were to finance only, or mostly, the import of finished capital goods or the direct import content of large projects.

198. India is not alone in having problems of this sort; but the problem is particularly acute in her case. The overall import content of Indian investment is relatively low, as is indeed the overall import content of the economy. Furthermore, Indian development was based on the establishment of capital goods industries - on the whole, for good reasons, though greater specialization, involving both exports and imports of equipment would undoubtedly have been preferable and, hopefully, is under way. Now and in the future, however, the need for importing finished equipment is very low in proportion to total resource needs. Furthermore, even if the desired and necessary step-up in investment is realized, there would be little room for major new projects in the next few years, since a large part of investment at its present low level is taken up with the continuation of projects and programs already underway.

199. In the past, the problem of transferring aid to India was greatly facilitated by the fact that a very large element in the available aid was a commodity of which India needed huge amounts: foodgrains. Though this is a consumption good, aid financed imports of it nevertheless do provide the Government, and the country, with real resources which can be used to finance investment. However, if India's agricultural strategy is successful there will be decreasing room for this type of aid.

200. If India's needs for huge and growing aid are to be effectively satisfied, all possible aid mechanisms must be actively used. There is certainly some room for project aid; but projects must be looked for actively,

and the foreign financing arranged before projects are actually started in order to minimize problems for foreign participation which may be difficult to resolve after execution is underway. These foreign involvements at an early planning stage would help to expedite speed of disbursement. *Ceteris paribus*, a large pipeline of project aid helps to achieve higher future disbursements; but it must be recognized that project aid is slower disbursing than non-project aid and therefore a given project aid commitment will mean a lower level of disbursement in the immediately following time period than the same amount of non-project aid commitment. Much emphasis should also be placed on project aid extending to the financing of local procurement. Even this would meet with the difficulty of few major project starts in the near future; but it might be easier to get involved in the financing of ongoing projects if procurement were not tied to specific sources.

201. Furthermore, even under optimistic assumptions on export growth and on the terms of future aid, debt service at the end of the period would still absorb more than 25 percent of export receipts. To consider the matter from a different angle, gross aid would finance almost half of India's import bill. To the extent that this is limited to commodity-tied aid in any form, it may become increasingly difficult to use completely, both because of administrative problems and because of the need to meet a large part of import requirements for such goods as petroleum and other raw material from countries which do not give aid. Financing the local costs of investment would ease this difficulty, but it would still be desirable to include a substantial measure of debt relief and non-project aid within the gross aid amount. Unless such a many-sided, flexible approach is followed, the commitment even of high gross aid levels would remain symbolic, because difficulties of utilization inherent in the very process of development, and particularly acute in India, especially in the coming years, would prevent the effective transfer of the desired aid.

TABLE 1
POPULATION ^{1/}

<u>Population (millions):</u>	
1951 (census) (March 1)	361
1961 (census) (March 1)	439
1962	453
1963	464
1964	475
1965	487
1966	499
1967	512
1968	524
 <u>Growth in Population (average annual rate):</u>	
1951 - 1961	+2.0%
Current estimate	+2.5%

^{1/} 1951 and 1961 population based on census data; 1962 - 1968 population estimated at mid-calendar year.

Source: Government of India (Register General), and mission estimates.

TABLE 2

EMPLOYMENT IN THE PUBLIC AND PRIVATE SECTORS

(in thousands)

<u>As of end March</u>		<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u> ^{1/}
Agriculture ^{2/} Forestry and Fishing	Public	180	174	182	203	209	226	232	246
	Private	670	740	740	720	890	900	870	850
Mining and Quarrying	Public	129	145	160	157	161	160	176	174
	Private	550	480	520	500	490	510	480	430
Manufacturing	Public	369	421	509	581	635	670	695	731
	Private	3020	3050	3270	3420	3610	3860	3750	3710
Construction ^{3/}	Public	603	641	662	715	740	766	763	755
	Private	240	180	180	170	190	250	220	150
Utilities	Public	224	234	244	264	291	303	337	346
	Private	40	40	40	40	40	40	40	50
Trade and Commerce	Public	94	109	120	133	143	155	166	177
	Private	160	190	190	200	220	330	350	350
Transport, Communication, Storage	Public	1724	1797	1886	1937	2044	2094	2115	2137
	Private	80	120	140	110	110	120	120	100
Services	Public	3727	3896	4190	4464	4734	5004	5150	5236
	Private	280	360	370	430	480	800	850	880
TOTALS	Public	7050	7414	7953	8454	8957	9378	9634	9802
	Private	5040	5160	5450	5590	6030	6810	6680	6520

^{1/} Provisional.^{2/} Plantations etc., only.^{3/} Coverage incomplete.

Coverage: Public sector data are believed to be fairly comprehensive, covering Central, State and Local Governments and public enterprises. Private sector data are for non-agricultural enterprises employing 25 persons or more. Private sector data from 1966 onward are not strictly comparable, however, because coverage was extended to firms employing 10-24 workers "on a voluntary basis".

Source: Ministry of Finance

TABLE 3

GROSS DOMESTIC PRODUCT BY SECTOR OF ORIGIN
(Rs Crores)

	At Current Prices					At 1960-61 Prices				
	60-61	64-65	65-66	66-67	67-68	60-61	64-65	65-66	66-67	67-68
1. Agriculture	6,716	10,099	9,689	11,606	14,746	6,716	7,450	6,329	6,317	7,476
2. Forestry & logging	176	263	290	320	348	176	204	222	223	222
3. Fishing	82	115	132	145	158	82	96	98	100	98
Subtotal	6,974	10,477	10,111	12,071	15,252	6,974	7,750	6,644	6,640	7,796
4. Mining & quarrying	153	221	253	273	306	153	195	221	232	235
5. Large-scale manufacturing	1,186	1,941	2,103	2,325	2,367	1,186	1,770	1,809	1,822	1,803
6. Small-scale manufacturing	805	1,213	1,256	1,356	1,493	805	1,033	1,015	1,028	1,076
7. Construction	640	932	1,026	1,097	1,197	640	777	777	756	762
8. Electricity, gas & water supply	86	160	187	220	252	86	146	161	175	198
Subtotal	2,870	4,467	4,825	5,271	5,615	2,870	3,921	3,983	4,013	4,074
9. Transport & Communication										
9.1 railways	302	419	464	496	504	302	366	394	400	413
9.2 communication	66	107	118	144	148	66	95	102	107	113
9.3 transport by other means	326	508	543	615	668	326	430	443	468	497
10. Trade, storage, hotels & restaurants	1,335	2,117	2,285	2,702	3,093	1,335	1,717	1,723	1,757	1,804
Subtotal	2,029	3,151	3,410	3,957	4,413	2,029	2,608	2,662	2,732	2,827
11. Banking & insurance	161	292	338	358	406	161	214	218	213	216
12. Real estate & ownership of dwellings	589	808	855	914	966	589	657	670	689	708
13. Public administration and defense	538	891	996	1,109	1,195	538	832	886	954	960
14. Other services	921	1,258	1,399	1,574	1,760	921	1,081	1,125	1,166	1,210
Subtotal	2,209	3,249	3,588	3,955	4,327	2,209	2,784	2,899	3,022	3,094
15. Gross Domestic Product	14,082	21,344	21,934	25,254	29,607	14,082	17,063	16,188	16,407	17,791
16. External transactions	(-)72	(-)148	(-)163	(-)255	(-)265	(-)72	(-)144	(-)151	(-)160	(-)159
17. Gross National Product	14,010	21,196	21,771	24,999	29,342	14,010	16,919	16,037	16,247	17,632

Source: Tentative estimates prepared by Central Statistical Organization.

TABLE 4

GROWTH IN PER CAPITA INCOME
(1960/61 prices) (Rs. Crores)

	<u>GNP</u>	<u>% Change</u>	<u>Population (est.) (millions; mid- fiscal year)</u>	<u>GNP Rs. per capita</u>
1960/1	14,010	n.a.	436	321
1961/2	14,582	+ 4.1	446	327
1962/3	14,950	+ 2.5	456	328
1963/4	15,792	+ 5.6	467	338
1964/5	16,919	+ 7.1	478	354
1965/6	16,037	- 5.2	490	327
1966/7	16,247	+ 1.3	502	324
1967/8	17,632	+ 8.5	514	343
1968/9 (est.)	18,161	+ 3.0	527	345

Source: Central Statistical Organization

TABLE 5

ESTIMATES OF SAVINGS AND INVESTMENT
(Rs Crores)

	<u>1960/1</u>	<u>1961/2</u>	<u>1962/3</u>	<u>1963/4</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>
GNP at current prices	14,010	14,879	15,832	18,114	21,196	21,771	24,999	29,342
Depreciation	740	810	930	990	1,100	1,200	1,330	1,570
NNP at current prices	13,270	14,069	14,902	17,124	20,096	20,571	23,669	27,772
Indirect taxes net of subsidies	950	1,080	1,270	1,570	1,780	2,010	2,210	2,480
NNP at market prices	14,220	15,149	16,172	18,694	21,876	22,581	25,879	30,252
A. Savings	<u>1,208</u>	<u>1,394</u>	<u>1,626</u>	<u>1,903</u>	<u>2,178</u>	<u>2,480</u>	<u>2,157</u>	<u>2,408</u>
Government	239	349	411	535	536	632	405	307
Corporate	107	110	131	140	72	87	105	100
Individual financial	436	519	556	691	743	930	825	901
Individual physical	426	416	528	537	827	831	822	1,100
Savings as % of NNP	<u>8.5</u>	<u>9.2</u>	<u>10.0</u>	<u>10.2</u>	<u>10.0</u>	<u>11.0</u>	<u>8.4</u>	<u>7.9</u>
Government	1.7	2.3	2.5	2.9	2.5	2.8	1.6	1.0
Corporate	.7	.7	.8	.7	.3	.4	.4	.3
Individual financial	3.1	3.4	3.4	3.7	3.4	4.1	3.2	3.0
Individual physical	3.0	2.8	3.3	2.9	3.8	3.7	3.2	3.6
B. Current Account balance (deficit +)	+392	+306	+354	+347	+452	+490	+813	+804
Current Account deficit as % of NNP	2.8	2.0	2.2	1.8	2.0	2.2	3.1	2.7
C. Investment (net)	<u>1,600</u>	<u>1,700</u>	<u>1,980</u>	<u>2,250</u>	<u>2,630</u>	<u>2,970</u>	<u>2,970</u>	<u>3,212</u>
Public	790	960	1,170	1,440	1,700	1,910	1,920	1,890
Private	810	740	810	810	930	1,060	1,050	1,322
Investment (net) as % of NNP	<u>11.3</u>	<u>11.2</u>	<u>12.2</u>	<u>12.0</u>	<u>12.0</u>	<u>13.2</u>	<u>11.5</u>	<u>10.6</u>
Public	5.6	6.3	7.2	7.7	7.8	8.5	7.4	6.2
Private	5.7	4.9	5.0	4.3	4.2	4.7	4.1	4.4

N.B. These savings and investment estimates were evolved independently (the former by the Reserve Bank of India, the latter by the Planning Commission), and they are subject to a considerable margin of error. This explains why the difference between savings and investment, as shown in this table, is not consistent with Balance of Payments data.

TABLE 6

INDEX NUMBERS OF AGRICULTURAL PRODUCTION
(Agricultural year 1949-50 = 100)

<u>Groups/Commodities</u>	<u>Weights</u>	<u>1950-51</u>	<u>1955-56</u>	<u>1960-61</u>	<u>1961-62</u>	<u>1962-63</u>	<u>1963-64</u>	<u>1964-65^{1/}</u>	<u>1965-66^{1/}</u>	<u>1966-67^{1/}</u>	<u>1967-68^{2/}</u>
<u>Foodgrains</u>	<u>66.9</u>	<u>90.5</u>	<u>115.3</u>	<u>137.1</u>	<u>140.3</u>	<u>133.6</u>	<u>136.5</u>	<u>150.2</u>	<u>120.9</u>	<u>123.8</u>	<u>159.9</u>
a) Cereals	58.3	90.3	114.9	138.3	143.1	135.9	141.4	153.7	124.2	129.5	165.1
Rice	35.3	87.0	114.2	137.7	142.4	132.6	147.0	155.1	121.8	120.9	150.4
Wheat	8.5	101.1	131.3	162.8	178.8	159.6	145.9	182.1	154.5	168.8	245.5
Inferior Cereals	14.5	89.8	107.0	125.4	123.9	130.0	125.1	133.6	112.1	127.3	153.6
b) Pulses	8.6	91.7	118.4	129.0	121.5	117.9	102.9	126.3	98.4	85.3	125.0
of which: Gram	3.7	98.0	138.9	160.4	148.5	137.6	115.5	148.5	108.0	93.0	155.1
<u>Non-Foodgrains</u>	<u>33.1</u>	<u>105.9</u>	<u>119.9</u>	<u>152.6</u>	<u>153.9</u>	<u>151.6</u>	<u>156.5</u>	<u>175.4</u>	<u>156.4</u>	<u>148.5</u>	<u>165.7</u>
a) Oilseeds	9.9	98.5	108.6	134.0	140.0	142.6	134.5	164.9	125.4	125.7	159.6
of which:											
Groundnuts	5.7	101.4	112.4	142.1	147.5	149.4	156.3	178.3	128.1	133.6	176.6
Rapeseed and Mustard	2.0	94.6	105.8	165.7	165.6	160.3	112.5	180.5	157.0	151.1	182.4
b) Fibers	4.5	108.6	149.7	176.0	187.5	193.0	206.0	207.9	168.8	181.6	203.9
Cotton	2.8	110.7	153.9	202.1	174.9	199.8	208.6	217.6	183.0	191.1	213.1
Jute	1.4	106.3	135.8	125.3	192.7	165.0	184.3	182.4	135.5	162.4	193.1
Mesta	0.3	100.0	174.7	168.8	280.8	260.7	283.7	236.8	192.3	182.6	169.0
c) Plantation Crops	3.6	104.0	113.2	129.2	140.1	138.6	140.4	151.4	151.2	158.0	155.1
Tea	3.3	103.8	107.2	120.9	133.4	130.5	130.4	140.2	137.9	141.5	144.0
Coffee	0.2	112.3	196.1	246.4	230.4	237.7	255.5	269.0 ^{3/}	281.6 ^{3/}	345.1 ^{3/}	251.3 ^{3/}
Rubber	0.1	93.8	146.1	167.0	180.0	209.4	239.0	286.0	328.5 ^{3/}	328.5 ^{3/}	328.5 ^{3/}
d) Miscellaneous	15.1	110.3	120.1	163.4	156.3	148.2	160.0	178.4	174.3	151.4	160.8
of which: Sugarcane	8.7	113.7	119.8	183.9	173.5	152.5	172.6	200.2	201.3	158.1	165.7
Tobacco	1.9	97.3	112.9	114.3	126.2	129.3	136.4	131.0	112.8	133.9	130.3
<u>All Commodities</u>	<u>100.0</u>	<u>95.6</u>	<u>116.8</u>	<u>142.2</u>	<u>144.8</u>	<u>139.6</u>	<u>143.1</u>	<u>158.5</u>	<u>132.7</u>	<u>132.0</u>	<u>161.8</u>

^{1/} Partially revised estimates.

^{2/} "Final" estimates.

^{3/} Based on provisional estimates.

TABLE 7

PRODUCTION OF PRINCIPAL CROPS 1/

	Unit	1949/50	1950/51	1955/56	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68
<u>Foodgrains</u>	Million tons	60.65	54.92	69.22	82.02	82.71	80.15	80.64	89.00	72.03	74.23	95.59
a) Cereals	"	50.63	45.74	57.53	69.31	70.95	68.62	70.57	76.56	62.23	65.88	83.35
Rice	"	25.11	22.07	28.67	34.57	35.66	33.22	37.00	39.03	30.66	30.44	37.86
Wheat	"	6.76	6.83	8.87	11.00	12.07	10.78	9.85	12.29	10.42	11.39	16.57
Jowar	"	6.96	6.25	6.73	9.81	8.03	9.75	9.20	9.75	7.53	9.22	10.11
Bajra	"	3.19	2.67	3.46	3.28	3.65	3.96	3.88	4.45	3.66	4.47	5.13
Other Cereals	"	8.61	7.92	9.80	10.65	11.54	10.91	10.64	11.04	9.96	10.36	13.68
b) Pulses	"	10.02	9.18	11.69	12.70	11.76	11.53	10.07	12.44	9.80	8.35	12.24
of which: Gram	"	3.90	3.82	5.41	6.25	5.79	5.36	4.50	5.79	4.21	3.62	6.04
<u>Non-Foodgrains</u>												
a) Oilseed 2/	"	5.16	5.09	5.63	6.98	7.28	7.39	7.13	8.46	6.35	6.43	8.24
of which: Groundnuts	"	3.39	3.43	3.81	4.81	4.99	5.06	5.30	5.89	4.23	4.41	5.83
Rapeseed and Mustard	"	0.81	0.77	0.86	1.35	1.35	1.30	0.92	1.47	1.28	1.23	1.48
b) Sugarcane (in terms of gur) 3/	"	6.09	6.92	7.29	11.20	10.56	9.29	10.52	12.03	12.10	9.50	9.96
c) Cotton (lint)	Million bales 4/	2.62	2.90	4.03	5.29	4.58	5.23	5.43	5.66	4.76	4.97	5.56
d) Jute	"	3.30	3.51	4.48	4.13	6.36	5.44	6.08	6.02	4.47	5.36	6.37
e) Mesta	"	0.67	0.67	1.17	1.13	1.86	1.74	1.90	1.58	1.29	1.22	1.13

1/ Figures for 1949/50 to 1959/60 are adjusted with 1960/61 Fully Revised Estimate as base. Figures up to 1963/64 are Fully Revised Estimates, those for 1964/65 to 1966/67 are Partially Revised Estimates and those for 1967/68 are "Final" Estimates of Production.

2/ Include groundnuts, rapeseed and mustard, sesamum, linseed and castorseed.

3/ Adjusted on the basis of 1961/62 (Fully Revised) data.

4/ Bale = 180 kgs.

Source: Ministry of Finance, Economic Survey 1968/69.

TABLE 8

NET AVAILABILITY OF CEREALS AND PULSES

Year Ending June	Cereals (Million tons)			Net Availability	Pulses (Million tons)	Net Availability per Person per Day (In grams)		
	Production	Net Imports	Withdrawals (-) from Govt. Stocks		Net Availability	Cereals	Pulses	Total
1956	50.34	1.44	(-)0.60	52.38	10.23	359.8	70.3	430.1
1957	52.68	3.65	(+)0.86	55.47	10.61	374.5	71.6	446.1
1958	49.36	3.22	(-)0.27	52.85	8.84	349.5	58.5	408.0
1959	57.30	3.87	(+)0.49	60.68	11.55	392.7	74.8	467.5
1960	56.77	5.14	(+)1.40	60.51	10.34	382.1	65.3	447.4
1961	60.65	3.50	(-)0.17	64.32	11.11	398.1	68.7	466.8
1962	62.08	3.64	(-)0.36	66.08	10.29	399.3	62.2	461.5
1963	60.04	4.56	(-)0.02	64.62	10.09	381.3	59.5	440.8
1964	61.75	6.27	(-)1.24	69.26	8.81	398.0	50.6	448.6
1965 *	66.99	7.46	(+)1.06	73.39	10.88	412.9	61.2	474.1
1966 *	54.45	10.36	(+)0.14	64.67	8.57	355.1	47.1	402.2
1967 *	57.65	8.67	(-)0.24	66.56	7.31	356.7	39.2	395.9
1968 *	72.93	5.65	(+)1.71	76.87	10.71	400.8	55.8	456.6

* Provisional.

- Notes: 1. Net production has been taken as 87.5% of the gross production, 12.5% being provided for feed, seed requirements and wastage.
2. Figures in respect of change in stocks with traders and producers over a year are not known. The estimates of net availability given above should not therefore be taken to be strictly equivalent to consumption.
3. Net Availability = Net Production + Net Imports + Change in Government Stocks.

Source: Ministry of Finance, Economic Survey 1968/69.

TABLE 9

PRODUCTION, IMPORTS AND TOTAL AVAILABILITY OF FERTILIZERS
(In thousands of nutrient tons)

	Nitrogenous Fertilizers (N)			Phosphatic Fertilizers (P ₂ O ₅)			Potassic Fertilizers (K ₂ O)
	Produc- tion	Imports	Availa- bility	Produc- tion	Imports 5/	Availa- bility	Imports 2/
1951-52	11 1/	29	40	16 1/	-	16	8 1/
1952-53	46 I/	43	89	14 I/	-	14	3 I/
1953-54	67 I/	17	84	14 I/	1 1/	15	9 I/
1954-55	71 I/	21	92	23 I/	-	23	17
1955-56	82 I/	54	136	19 I/	-	19	11
1956-57	82 1/	56	138	18 1/	-	18	11
1957-58	80	111	191	32	-	32	13
1958-59	82	99	181	36	2	38	22
1959-60	84	164	248	48	9	57	34
1960-61	101	119	220	61	-	61	23
1961-62	152	142	294	72	-	72	32
1962-63	183	252	435	88	10	98	40
1963-64	222	226	448	126	12	138	64
1964-65	237	214	451	133	12	145	57 3/
1965-66	232	309	541	123	12	135	94 3/
1966-67	308	630	938	151	150	301	143 3/
1967-68	367	868	1235	200	349	549	279
1968-69 ^{4/}	550	1000	1550	225	135	360	214

1/ Figures relate to calendar years. The rest are on a fiscal year basis.

2/ There is no local production of potassic fertilizers yet.

3/ July-June basis, as imports were made by the S.T.C.

4/ Estimate

5/ Imports made for Central Fertilizer Pool.

Source: Ministry of Finance Economic Survey, 1968-69.

Note: "Availability" is not necessarily equivalent to consumption, because of distribution losses and stock changes. There was a marked increase in stocks during 1968.

TABLE 10
USE OF OTHER AGRICULTURAL INPUTS

	<u>1966/67</u>	<u>1967/68</u>	<u>1968/69</u> (est.)	
I. High Yielding Varieties (m.acres)	<u>4.7</u>	<u>15.8</u>	<u>22.8</u>	
Paddy	2.2	4.5	5.0	
Maize	0.5	0.7	1.3	
Jowar	0.5	2.4	3.2	
Bajra	0.1	1.1	1.8	
Wheat	1.3	7.1	11.5	
II. Plant Protection (m.acres)	60.0	90.0	135.0	
III. Increase in Tractor Stock ('000)	11.4	15.0	19.0	88.0
IV. Increase in Minor Irrigation				
Area (m.acres)	1.5	1.7	1.8	47.0 ^{1/}
Open wells ('000)	186.1	197.0	212.6	5706.6
Private tubewells ('000)	34.2	47.3	75.8	270.5
State tubewells ('000)	0.9	1.0	1.6	15.8
Pumpsets ('000)	<u>197.3</u>	<u>248.2</u>	<u>246.3</u>	<u>1671.2</u>
of which: Electric	137.3	183.5	185.9	1020.9
Diesel	60.0	64.7	60.4	650.3

^{1/} An additional 43 million acres are irrigated by major and medium irrigation schemes so that the total irrigated acreage is about 90 million acres.

Note: These data, particularly acreage data, are indicative rather than precise magnitudes.

TABLE 11

PERCENTAGE CHANGES IN INDEX NUMBERS OF INDUSTRIAL PRODUCTION
(Base 1960 = 100)

	<u>Weight</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u> (Jan-Sep)
I. Mining and quarrying	9.72	+ 5.4	+ 9.5	+ 6.9	- 3.1	+10.5	+ 4.1	- 0.9	+ 4.9
of which:									
Coal	6.71	+ 6.6	+ 9.8	+ 8.7	- 4.4	+ 8.6	+ 1.5	+ 0.9	+ 2.5
Iron ore	0.59	+14.9	+ 9.0	+11.7	- 0.1	+13.5	+17.1	- 4.4	+ 7.0
II. Manufacturing	84.91	+ 9.1	+ 9.5	+ 8.0	+ 9.5	+ 6.8	+ 0.1	- 2.6	+ 4.7
(a) Consumer Goods	52.78	+ 7.1	+ 2.0	+ 1.6	+ 6.8	+ 4.2	+ 4.1	- 5.4	+ 5.9
of which:									
Food	12.09	+ 8.6	+ 1.5	- 1.5	+ 8.9	+ 3.9	+ 3.5	-12.2	- 3.0
Tea	5.12	+11.6	- 3.0	- 0.1	+ 8.9	- 1.9	+ 2.5	+ 1.8	-10.4
Vanaspatti	1.09	+ 0.4	+ 9.0	+ 5.8	- 6.5	+18.8	-15.8	+ 9.6	+21.3
Sugar	5.58	+10.0	- 1.7	-17.5	+13.7	+23.0	+ 4.1	-35.3	+ 3.7
Cotton cloth	9.39	+ 0.3	- 2.1	- 2.4	+ 5.3	- 0.9	- 7.1	- 3.0	+11.2
Matches	0.50	- 2.9	- 6.0	- 5.9	+ 1.4	+27.3	-14.5	- 6.7	+ 2.1
Radio receivers	0.61	+21.6	+ 5.2	+21.8	+15.1	+23.4	+22.2	+19.8	+55.7
Motor cycles and scooters	0.11	+44.8	- 5.1	+ 7.4	+36.5	+23.8	+ 8.9	+18.4	+23.9
Bicycles	0.51	- 0.1	+ 6.4	+ 4.4	+18.4	+11.6	+ 8.5	+ 2.0	+ 5.2
(b) Intermediate Goods	35.23	+ 8.6	+10.8	+12.4	+ 5.8	+ 5.4	- 0.8	+ 1.7	+ 6.3
of which:									
Cotton yarn	11.78	+ 8.4	+ 0.8	+ 3.6	+ 8.0	- 1.1	- 3.0	- 0.5	+ 8.6
Jute manufactures	3.97	-10.9	+24.4	- 7.2	- 3.1	+ 4.5	-16.5	+ 3.7	- 3.6
Tyres & tubes	1.48	+14.2	+ 9.0	+14.1	+ 9.3	+11.8	+ 0.3	+ 6.5	+14.8
Basic industrial chemicals	2.20	+13.9	+13.4	+ 9.1	+18.8	+ 8.4	+ 6.8	+ 6.8	+ 7.5
Fertilisers	0.46	+38.9	+20.8	+33.4	+ 7.9	+ 4.5	+ 7.1	+26.5	+25.3
Petroleum refinery products	1.34	+ 6.0	+ 8.1	+16.1	+10.2	+ 6.9	+24.9	+19.6	+11.0
Electric cables & wires	0.68	+ 4.2	+26.5	+14.6	+18.7	+15.4	- 1.0	+ 5.3	- 7.9
Cement	1.17	+ 5.1	+ 4.2	+ 8.9	+ 3.5	+ 9.2	+ 4.6	+ 2.1	+ 3.5
Basic metals	7.38	+18.7	+20.5	+20.1	+ 5.2	+ 3.2	+ 3.6	- 4.4	+ 5.9
Paper and paper products	1.61	+ 5.8	+ 3.4	+19.0	+ 5.5	+ 7.1	8.8	+ 4.4	+11.4
(c) Capital Goods	10.98	+17.1	+28.4	+10.3	+20.7	+ 8.9	- 4.6	-11.7	+ 3.9
of which:									
Diesel engines (Vehicular)	0.10	- 7.2	-14.8	+ 8.1	- 8.9	+ 5.4	-19.0	-53.2	-29.4
Diesel engines (Stationary)	0.14	+ 5.4	- 4.1	+30.3	+26.3	+25.6	+21.5	+ 7.4	- 1.9
Industrial machinery	0.98	+11.0	+15.0	+15.0	+ 7.5	- 2.9	-23.7	+ 7.4	+17.6
Power transformers	0.38	+40.2	+28.4	+13.9	+26.0	+30.3	+11.1	+ 9.6	-13.2
Electric motors	0.27	+19.3	+19.0	+20.4	+10.6	+29.5	+16.7	+ 4.4	- 8.8
Railroad equipment	3.59	+26.2	+46.0	+10.1	+19.8	+ 5.1	-29.4	-21.0	- 4.1
III. Electricity generated	5.37	+16.3	+12.4	+15.5	+15.0	+10.0	+ 8.9	+11.0	+16.0
IV. All industries	100.00	+ 9.1	+ 9.7	+ 8.3	+ 8.6	+ 7.2	+ 1.0	- 0.5	+ 5.6

Source: Ministry of Finance, Economic Survey 1968/69

TABLE 12

Page 1 of 2

PRODUCTION OF SELECTED INDUSTRIES

	Unit	1950/51	1955/56	1960/61	1965/66	1966/67	1967/68	April-September	
								1967/68	1968/69
<u>Mining</u>									
Coal	Million tons	32.8	39.0	55.5	70.3	70.9	71.9	35.4	35.9
Iron Ore 2/	"	3.0	4.3	11.0	18.1	19.3	19.0	9.4	10.2
<u>Metallurgical Industries</u>									
Pig-iron	Million tons	1.69	1.95	4.31	7.09	7.01	6.91	3.39	3.41
Steel Ingots	"	1.47	1.73	3.42	6.53	6.61	6.31	3.13	3.07
Finished Steel	"	1.04	1.30	2.39	4.51	4.43	4.00	1.96	2.11
Steel Castings	'000 tons	-	15	34	57	53	51	27	23
Aluminum (virgin metal)	"	4.0	7.4	18.3	62.1	72.9	100.4	45.5	58.9
Copper (virgin metal)	"	7.1	7.6	8.5	9.4	9.1	9.3	4.6	4.5
<u>Mechanical Engineering Industries</u>									
Machine Tools	Million rupees	3	8	70	294	354	283	141	119
Cotton Textile Machinery	"	n.a.	40	104	216	154	115	65	56
Sugar Mill Machinery	"	-	2	44	77	94	84	47	56
Cement Machinery	"	-	4	6	49	64	79	34	37
Railway Wagons	'000	2.9	15.3	8.2	23.5	15.0	11.9	5.6	6.3
Automobiles (total)	"	16.5	25.3	55.0	70.7	75.2	67.9	30.1	37.2
Commercial Vehicles	"	8.6	9.9	28.4	35.3	35.6	29.4	12.3	15.8
Passenger Cars, etc.	"	7.9	15.4	26.6	35.4	39.6	38.5	17.8	21.4
Motorcycles and Scooters	"	-	0.9	19.4	40.7	47.8	57.0	28.2	33.8
Power-driven Pumps	"	35	37	109	244	311	269	148	133
Diesel Engines (stationary)	"	5.5	10.4	44.7	93.1	112.2	113.0	55.9	55.9
Bicycles	"	99	513	1,071	1,574	1,719	1,673	842	943
Sewing Machines	"	33	111	303	430	400	367	177	214
<u>Electrical Engineering Industries</u>									
Power Transformers	'000 k.v.a.	179	625	1,413	4,458	4,949	5,313	2,602	2,036
Electric Motors	'000 h.p.	99	272	728	1,753	2,095	2,029	1,024	927
Electric Fans	'000	199	287	1,059	1,358	1,364	1,372	698	743
Radio Receivers	"	54	102	282	606	761	931	411	676
Aluminum Conductors	'000 tons	1.7	9.4	23.6	40.6	52.9	72.6	35.1	25.4
Bare Copper Conductors	"	5.0	8.7	10.1	3.1	1.7	0.7	0.3	0.5

- Continued -

Table 12
Page 2 of 2

	Unit	1950/51	1955/56	1960/61	1965/66	1966/67	1967/68	April-September	
								1967/68	1968/69
<u>Chemical and Allied Industries</u>									
Nitrogenous Fertilizers	'000 tons of N	9	80	101	232	308	367	152	234
Phosphatic Fertilizers	'000 tons of P ₂ O ₅	9	12	53	123	145	195	87	107
Sulphuric Acid	'000 tons	101	167	368	662	702	846	388	461
Soda Ash	"	45	82	152	331	348	370	173	200
Caustic Soda	"	12	36	101	218	233	275	123	149
Paper and Paperboard	"	116	190	350	558	580	628	310	318
Rubber Tires and Tubes	Millions	n.a.	13.2	27.2	41.7	45.9	45.9	24.4	22.8
Cement	Million tons	2.73	4.67	7.97	10.82	11.07	11.5	5.6	5.7
Refractories	'000 tons	237	293	567	695	730	750	375	319
Refined Petroleum Products	Million tons	0.2	3.4	5.8	9.4	11.9	13.7	6.7	7.6
<u>Textile Industries</u>									
Jute Textiles	'000 tons	837	1,071	1,097	1,302	1,117	1,156	582	555
Cotton Yarn	Million kgs	534	744	801	907	902	926	458	484
Cotton Cloth	Million meters	4,215	6,260	6,738	7,440	7,304	7,509	3,655	4,053
Rayon Yarn	'000 tons	2.1	13.5	43.8	75.6	80.6	92.2	46.9	51.1
Art Silk Fabrics	Million meters	287	331	544	878	862	911	416	474
Woolen/Worsted Yarn	Million kgs	8.7	9.8	13.0	17.0	16.9	16.8	8.2	9.3
Woolen/Worsted Fabrics(wearable)	Million meters	6.1	6.8	8.4	9.2	9.5	9.2	4.3	5.5
<u>Food Industries</u>									
Sugar	'000 tons	1,134	1,890	3,029	3,510 ^{1/}	2,147 ^{1/}	2,249 ^{1/}	143	174
Tea	Million kgs	277	299	320	373	372	383	264	262
Coffee	'000 tons	21.0	29.0	54.1	62.1	71.0	72.6	40.1	28.3
Vanaspati	"	170	280	340	401	366	422	185	220
<u>Electricity Generated</u>	Billion k.w.h.	5.3	8.8	17.0	32.0	35.0	39.4	19.0	22.0

^{1/} Provisional.

^{2/} Excludes output in Goa.

Source: Ministry of Finance, Economic Survey 1968/69

TABLE 13

WHOLESALE PRICE INDEX
(1952-53 = 100)

	Agricul- tural Commodities	Food Articles		Liquor and Tobacco	Fuel, Power, Light & Lubricants	Industrial Raw Materials	Manufactures			All Commodities
		Total	Foodgrains				Total	Inter- mediate Products	Finished Products	
Weights	46.1	50.4	23.5	2.1	3.0	15.5	29.0	4.1	24.9	100.0
Average of Weeks										
1955-56	88	87	73	81	95	99	100	100	100	92.5
1960-61	124	120	102	110	120	145	124	131	123	124.9
1961-62	123	120	100	100	122	143	127	139	125	125.1
1962-63	123	126	106	101	124	136	129	140	127	127.9
1963-64	132	137	116	120	139	140	131	140	130	135.3
1964-65	156	160	144	131	145	163	137	152	135	152.7
1965-66	169	169	150	137	153	189	149	172	145	165.1
1966-67	199	200	178	130	170	229	163	204	156	191.3
1967-68	221	242	223	137	184	220	166	212	158	212.6
Last Week of										
December 1965	176	172	154	136	155	199	152	178	148	169.1
December 1966	203	206	188	130	174	232	166	212	158	196.2
December 1967	217	234	211	139	188	217	164	205	157	207.8
December 1968	216	216	191	259	193	233	172	205	167	206.3

Source: Ministry of Finance, Economic Survey 1968/69.

TABLE 11

RELATIVE PRICES OF MANUFACTURES AND AGRICULTURAL COMMODITIES
(1952-53 = 100)

<u>Average of Months</u>	<u>General Index of Wholesale Prices</u>	<u>Prices of Finished Manufactured Products as % of Prices of Agricultural Commodities</u>
1955/56	92.5	113.2
1960/61	124.9	99.2
1961/62	125.1	101.4
1962/63	127.9	130.1
1963/64	135.3	98.6
1964/65	152.7	86.5
1965/66	165.1	85.9
1966/67	191.3	78.4
1967/68	212.6	71.5
1968/69 (est.)	210.0	75.0

Source: Ministry of Finance, Economic Survey 1968/69

TABLE 15

PRICE INDEX OF SELECTED COMMODITIES
(1952-53 = 100)

	Rice	Wheat	Edible Oils	Raw Cotton	Raw Jute	Cotton Yarn	Pig Iron	Alumi- nium	Mill Cloth	Jute Manufac- tures	Iron & Steel Manufactures	Chemicals
Weights	11.29	5.34	4.69	3.16	2.32	1.54	0.08	0.08	6.96	3.65	1.10	2.03
Average of Weeks												
1955-56	78	72	85	97	117	95	117	96	107	96	119	92
1960-61	108	90	150	112	210	128	164	142	132	131	148	104
1961-62	105	91	156	109	178	128	177	138	131	122	152	111
1962-63	111	90	152	113	147	134	183	148	132	111	160	116
1963-64	125	99	151	119	148	137	189	139	132	100	163	118
1964-65	134	130	200	126	164	139	210	151	135	114	171	121
1965-66	141	138	234	129	219	139	232	185	137	146	185	128
1966-67	173	158	304	139	266	156	262	197	146	152	192	144
1967-68	206	202	285	159	211	171	278	202	154	130	212	150
Last Week of												
December 1965	147	140	252	131	253	138	262	184	138	154	187	130
December 1966	175	173	303	148	265	164	262	197	150	148	195	149
December 1967	190	192	270	177	208	170	279	197	154	126	214	150
December 1968	190	188	255	176	349	170	309	197	159	180	226	156

Source: Ministry of Finance, Economic Survey 1968/69.

TABLE 16

FACTORS AFFECTING MONEY SUPPLY
(Rs. Crores)

	<u>1960/61</u>	<u>1961/62</u>	<u>1962/63</u>	<u>1963/64</u>	<u>1964/65</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>	<u>Dec. 1968</u>
<u>Money Supply</u> ^{1/}	<u>2,869</u>	<u>3,046</u>	<u>3,310</u>	<u>3,752</u>	<u>4,080</u>	<u>4,529</u>	<u>4,949</u>	<u>5,352</u>	<u>5,382</u>
of which: Currency	2,098	2,201	2,379	2,606	2,769	3,034	3,197	3,376	3,385
Deposits	771	845	931	1,146	1,311	1,495	1,752	1,976	1,997
<u>Percentage Increase</u>	7.5	6.2	8.7	13.4	8.7	11.0	9.3	8.1	5.5 ^{2/}
<u>Annual Variation</u>	+ 199	+ 177	+ 264	+ 442	+ 328	+ 449	+ 420	+ 401	+ 281 ^{2/}
of which:									
Net Bank credit to Government Sector	- 17	+ 203	+ 202	+ 242	+ 207	+ 467	+ 218	+ 226	+ 186 ^{2/}
Net Bank credit to Private Sector	+ 253	+ 37	+ 172	+ 217	+ 117	+ 100	+ 205	+ 192	+ 148 ^{2/}
Net Foreign Exchange Assets of Banks	- 63	- 57	- 43	+ 35	- 19	- 24	+ 75	+ 17	+ 75 ^{2/}
Other	+ 26	- 6	- 67	- 52	+ 23	- 94	- 81	- 34	- 28 ^{2/}

^{1/} As of last Friday of period.

^{2/} Change over preceding 12 months.

Source: Reserve Bank of India.

Note on Public Finance Data

The four main sources of data on public finances are firstly, the Central Government Budget and Accounts together with the States' Budgets, secondly, the Economic Classification of the Central Government Budget, thirdly, the Economic Survey and lastly, the Reserve Bank's Report on Currency and Finance. The last is the best available presentation of Consolidated Center and States' data and is thus used for tables 17, 19 and 20. Table 18, in which the 1969/70 Budget is presented, is however taken directly from the Central Government Accounts since reclassified data on the 1969/70 Budget are available only after a lag of several months. Table 21 is taken directly from the "Economic Classification". Differences between the data in the various tables are due basically to different classifications and to the netting out of various internal transactions.

TABLE 17

CONSOLIDATED FINANCES OF CENTRE AND STATE GOVERNMENTS

(In Rs. Crores)

	1955/6	1960/1	1961/2	1962/3	1963/4	1964/5	1965/6	1966/7	1967/8 Revised Estimate	1968/9 Budget	Growth: (% p.a) from 1960/1 to 1967/8
	ACCOUNTS										
A. TAX REVENUE	767	1355	1538	1855	2313	2585	2903	3240	3405	3665	14.1
Centre	484	909	1053	1285	1633	1821	2061	2307	2362	2524	14.6
State	283	446	485	570	680	764	842	933	1043	1141	12.9
B. NON-TAX REVENUE	202	252	289	568	670	730	769	769	891	949	19.8
Centre	52	89	92	299	353	403	384	353	387	398	23.4
State	150	163	197	269	317	327	385	416	504	551	17.5
C. TOTAL REVENUE	969	1607	1827	2423	2983	3315	3672	4009	4296	4614	15.1
Centre	536	998	1145	1584	1986	2224	2445	2660	2749	2922	15.6
State	433	609	682	839	997	1091	1227	1349	1547	1692	14.2
D. NON-DEVELOPMENT CURRENT EXPENDITURE	559	726	913	1381	1749	1878	2075	2393	2597	2735	20.0
Centre	311	366	521	908	1253	1321	1438	1598	1707	1839	24.6
State	248	360	392	473	496	557	637	795	890	896	13.8
E. DEVELOPMENT CURRENT EXPENDITURE	420	806	836	906	970	1113	1318	1446	1638	1758	10.7
Centre	82	236	176	186	172	200	215	233	272	298	2.1
State	338	570	660	720	798	913	1103	1213	1366	1460	13.3
F. TOTAL CURRENT EXPENDITURE	979	1532	1749	2287	2719	2991	3393	3838	4235	4493	15.6
Centre	393	602	697	1094	1425	1521	1653	1831	1979	2137	18.5
State	586	930	1052	1193	1294	1470	1740	2008	2256	2356	13.5
G. CURRENT SURPLUS (C-F)	-10	75	78	136	264	324	279	170	61	121	
Centre	143	396	448	490	561	703	792	829	770	785	
State	-153	-321	-370	-354	-297	-379	-513	-659	-709	-664	
H. CAPITAL RECEIPTS	376	1267	1072	1311	1444	1792	1825	2361	2350	2123	9.2
Centre	256	1032	823	1059	1202	1429	1332	2055	1851	1552	8.7
State	120	235	249	252	242	363	493	306	499	571	11.4
I. TOTAL FINANCING AVAILABLE (G-H)	366	1342	1150	1447	1708	2116	2104	2531	2411	2244	8.7
Centre	399	1428	1271	1549	1763	2132	2124	2884	2621	2337	9.1
State	-33	-86	-121	-102	-55	-16	-20	-353	-210	-93	
J. CAPITAL OUTLAY	326	724	756	967	1177	1347	1266	1654	1353	1203	9.3
Centre	127	406	436	612	814	946	776	1296	887	761	11.8
State	199	318	320	355	363	401	490	358	466	442	5.6
K. DEBT REPAYMENTS	88	169	240	274	299	327	274	411	549	572	18.3
Centre	73	129	205	229	241	274	236	346	445	435	19.4
State	15	40	35	45	58	53	38	65	104	137	14.6
L. LOANS AND ADVANCES	106	301	258	292	397	545	818	806	915	852	17.2
Centre	9	121	79	88	83	181	298	364	457	480	21.0
State	97	180	179	204	314	364	520	442	458	372	14.3
M. TOTAL CAPITAL DISBURSEMENTS (J+K+L)	520	1194	1254	1533	1873	2219	2358	2871	2817	2627	13.1
Centre	209	656	720	929	1138	1401	1310	2006	1789	1676	15.4
State	311	538	534	604	735	818	1048	865	1028	951	7.6
N. OVERALL DEFICIT (I-M)	-154	+148	-104	-86	-165	-103	-254	-340	-406	-383	
Surplus of Centre	190	772	551	620	625	731	814	878	832	661	
Deficit of States	-344	-624	-655	-706	-790	-834	-1068	-1218	-1238	-1044	
O. NET TRANSFERS FROM CENTRE TO STATE	340	595	641	757	818	888	1012	1237	1126	942	9.5
N-0. Centre Surplus less transport	-150	-177	-90	-137	-193	-157	-198	-359	-294	-281	
State deficit plus transport	-4	-29	-14	+51	+28	+54	-56	+19	-112	-102	
OVERALL DEFICIT	-154	+148	-104	-86	-165	-103	-254	-340	-406	-383	

Source: Reserve Bank of India, Report on Currency and Finance 1967/68

TABLE 18
CENTRAL GOVERNMENT FINANCES
(Rs Crores)

	<u>1965/6</u>	<u>1966/7</u> Accounts	<u>1967/8</u>	<u>1968/9</u> Budget	<u>1968/9</u> Revised	<u>1969/70</u> Budget
<u>REVENUE</u>						
Tax Revenue	1781	1930	1932	2083	1995	2196
Non-tax revenue	<u>563</u>	<u>570</u>	<u>653</u>	<u>677</u>	<u>754</u>	<u>804</u>
Total	2344	2500	2585	2760	2749	3000
<u>CURRENT EXPENDITURE</u>						
Developmental	239	279	306	349	334	380
Defense	762	798	862	895	944	986
Other	700	789	839	907	930	998
Grants to States	<u>324</u>	<u>406</u>	<u>474</u>	<u>478</u>	<u>537</u>	<u>596</u>
Total	2025	2272	2481	2629	2745	2960
<u>SURPLUS ON CURRENT ACCOUNT</u>	319	2228	104	131	4	40
<u>CAPITAL RECEIPTS</u>						
Internal Sources (net)	789	1126	1026	809	1158	1047
External sources (net)	<u>615</u>	<u>702</u>	<u>695</u>	<u>850</u>	<u>639</u>	<u>683</u>
Total	1404	1828	1721	1659	1797	1730
<u>TOTAL FINANCING AVAILABLE</u>	1723	2056	1825	1790	1801	1770
<u>CAPITAL DISBURSEMENTS</u>						
Capital Outlay	657	909	634	737	530	765
Assistance to States	868	966	925	881	937	798
Other loans	<u>371</u>	<u>476</u>	<u>472</u>	<u>461</u>	<u>594</u>	<u>457</u>
Total	1896	2351	2031	2079	2061	2020
<u>OVERALL DEFICIT</u>	173	295	206	289	260	250

Source: Ministry of Finance

TABLE 19

CURRENT EXPENDITURES - CENTRE AND STATES
(Rs. Crores)

	1955/56	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68 (Revised)	1968/69 (Budget)	Annual Average Growth (%) 1966/67-1967/68
<u>Central Government</u>											
A. Development	82	196 ^{1/}	176	186	172	200	215	233	272	298	9.12 ^{2/}
<u>B. Non-Development</u>											
(a) Tax Collection	13	22	21	23	24	26	30	32	36	40	7.3
(b) Civil Administration	34	59	59	75	78	82	95	123	137	140	12.8
(c) Defense	172	248	290	425	704	693	762	798	857	894	19.4
(d) Debt Service	43	77	83	245	278	316	371	463	508	550	30.9
(e) Other	49	- 1 ^{1/}	68	140	169	204	180	182	169	215	16.22 ^{2/}
Sub-Total	311	602 ^{1/}	521	908	1,253	1,321	1,438	1,598	1,707	1,839	21.92 ^{2/}
C. Grants to States	48	224	215	220	234	286	348	413	479	458	11.5
(A+B+C) Total	441	826	912	1,314	1,659	1,807	2,001	2,244	2,458	2,595	16.9
<u>State Governments</u>											
<u>D. Development</u>											
(a) Education	104	196	234	251	279	319	373	420	501	537	11.4
(b) Public Health	47	81	94	107	117	129	149	171	206	225	14.3
(c) Agriculture	39	66	76	85	99	122	156	178	196	198	16.8
(d) Irrigation	24	31	35	40	46	50	66	68	80	85	14.5
(e) Electricity	8	5	3	2	4	4	4	5	8	9	-
(f) Rural and Community Development	27	52	58	62	65	74	86	75	71	72	4.6
(g) Civil Works	68	68	84	89	89	100	136	157	138	147	10.6
(h) Industry	4	22	24	26	27	28	29	22	28	29	3.5
(i) Other	17	49	52	58	72	87	104	117	139	158	16.1
Sub-Total	338	570	660	720	798	913	1,103	1,213	1,367	1,460	13.3
<u>E. Non-Development</u>											
(a) Tax Collection	46	66	62	59	64	72	81	92	105	112	6.9
(b) Civil Administration	122	167	185	202	210	235	273	295	321	358	9.8
(c) Famine	17	22	23	16	16	16	17	78	86	21	-
(d) Debt Service	1	26	31	84	79	92	115	170	187	214	32.5
(e) Other	62	79	91	112	127	142	151	160	191	191	13.4
Sub-Total	248	360	392	473	496	557	637	795	890	896	13.8
F. Interest Payments to Centre	18	58	69	68	119	115	152	186	213	241	26.2
Total	266	418	461	541	615	672	789	981	1,103	1,137	14.8
G. Total State (D+E+F)	604	988	1,121	1,261	1,413	1,585	1,892	2,194	2,470	2,597	14.0
H. Total Centre and State (Net) (A+B+D+E)	979	1,532	1,749	2,287	2,719	2,991	3,393	3,839	4,235	4,493	15.6

^{1/} Separate figures not available.

^{2/} 1967/68 over 1961/62.

Source: Reserve Bank of India, Report on Currency and Finance, 1967/68.

TABLE 20

TAX REVENUE - CENTRE AND STATES
(Rs. Crores)

	1955/56	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68 (Revised)	1968/69 (Budget)	Average Annual Growth (%) 1967/68 over 1960/61
<u>Central Tax Revenues</u>											
Income Tax	132	167	165	186	259	267	272	309	300	320	8.7
Corporation Tax	37	111	157	221	274	314	305	329	320	320	16.3
Customs Duties	167	170	212	246	335	397	539	585	523	539	17.4
Excise Duties	445	416	489	599	729	802	898	1,034	1,164	1,286	15.8
Other	5	45	30	33	36	41	47	50	55	59	2.9
A. Total:	484	909	1,053	1,285	1,633	1,821	2,061	2,307	2,362	2,524	14.6
Less: State's Share of:											
Income Tax	55	87	94	95	119	124	123	137	174	156	10.5
Excise Duties	16	75	80	125	136	127	146	231	235	274	17.7
Other	2	17	4	4	4	7	7	5	7	7	-
Sub-Total:	73	179	178	224	259	258	276	373	416	437	12.8
B. Tax Revenue Retained by Centre	411	730	875	1,061	2,374	1,563	1,785	1,934	1,946	2,087	15.0
<u>State Tax Revenues</u>											
Land Revenue	78	97	95	120	123	120	112	90	99	109	0.3
Stamps and Registration	29	43	47	52	61	69	74	81	88	93	10.8
State Excise	45	53	59	63	73	85	96	109	124	138	12.9
Sales Tax	82	159	181	209	268	318	368	443	503	561	17.9
Motor Vehicles Tax	16	34	38	46	57	59	64	69	78	83	12.6
Entertainment Tax	7	13	15	18	23	25	29	35	37	41	16.1
Electricity Duty	6	13	15	19	27	33	35	43	48	52	20.5
Other	20	34	35	43	48	55	64	63	66	64	9.9
C. Total:	283	446	485	570	680	764	842	933	1,043	1,141	12.9
Add State's Share of:											
Central Taxes	73	179	178	224	259	258	276	373	416	437	12.8
D. Tax Revenue Retained by States	356	625	663	794	939	1,022	1,118	1,306	1,459	1,578	12.9
TOTAL STATE AND CENTRE (B+D) or (A+C)	767	1,355	1,538	1,855	2,313	2,585	2,903	3,240	3,405	3,665	14.1

Source: Report on Currency and Finance, Reserve Bank of India, 1967/68.

TABLE 21

ECONOMIC CLASSIFICATION OF THE
CENTRAL GOVERNMENT FINANCES

(Rs. Crores)

	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68 (Revised)	1968-69 (Budget)
A. REVENUE	<u>926.8</u>	<u>1115.1</u>	<u>1331.4</u>	<u>1716.5</u>	<u>1872.0</u>	<u>2215.9</u>	<u>2367.8</u>	<u>2429.5</u>	<u>2599.6</u>
Tax Receipts	729.1	874.0	1060.0	1372.8	1561.9	1782.6	1930.5	1943.5	2084.4
Income from property and enterprises	165.3	200.5	209.1	273.2	261.7	373.6	368.4	411.3	439.2
Fees and misc. receipts	32.4	40.6	62.3	70.5	48.4	59.7	68.9	74.7	76.0
B. CURRENT EXPENDITURE	<u>859.5</u>	<u>934.9</u>	<u>1193.1</u>	<u>1570.5</u>	<u>1677.5</u>	<u>1862.9</u>	<u>2266.0</u>	<u>2432.8</u>	<u>2424.9</u>
Consumption expenditure	433.0	477.8	660.2	1002.8	1006.1	1109.1	1212.1	1300.6	1359.0
Transfer payments ^{1/}	426.5	457.1	532.9	567.7	671.4	753.8	1053.9	1132.2	1065.9
C. SAVINGS ON CURRENT ACCOUNT (A-B)	<u>67.3</u>	<u>180.2</u>	<u>138.3</u>	<u>146.0</u>	<u>194.5</u>	<u>353.0</u>	<u>101.8</u>	<u>-3.3</u>	<u>174.7</u>
+ Retained profits and depreciation provision of railways, posts, etc.	100.1	117.1	143.3	168.9	145.6	156.9	139.6	111.8	170.5
= <u>Gross Savings</u>	<u>167.4</u>	<u>297.3</u>	<u>281.6</u>	<u>314.9</u>	<u>340.1</u>	<u>509.9</u>	<u>241.4</u>	<u>108.5</u>	<u>345.2</u>
+ Capital Transfers	38.8	40.0	78.9	85.2	140.4	79.5	105.4	68.6	25.0
+ Loan Repayments ^{2/}	121.0	197.2	169.9	213.2	293.0	373.1	416.1	490.4	544.5
D. TOTAL SAVINGS RECEIPTS	<u>327.2</u>	<u>534.5</u>	<u>530.4</u>	<u>613.3</u>	<u>771.0</u>	<u>962.5</u>	<u>762.9</u>	<u>667.5</u>	<u>914.7</u>
E. CAPITAL EXPENDITURE	<u>1073.1</u>	<u>1307.2</u>	<u>1568.9</u>	<u>1867.2</u>	<u>2069.2</u>	<u>2384.6</u>	<u>2537.3</u>	<u>2642.8</u>	<u>2722.6</u>
<u>Direct investment</u>	<u>307.4</u>	<u>343.1</u>	<u>432.1</u>	<u>551.8</u>	<u>597.7</u>	<u>520.4</u>	<u>500.2</u>	<u>529.4</u>	<u>633.1</u>
Gross fixed capital formation	302.0	331.4	424.9	498.7	551.3	549.1	506.5	513.7	522.4
Increase in inventories	5.4	11.7	7.2	53.1	46.4	-28.7	-6.3	15.7	110.7
<u>Indirect investment</u> ^{3/}	<u>638.7</u>	<u>761.2</u>	<u>907.3</u>	<u>1084.3</u>	<u>1213.7</u>	<u>1610.3</u>	<u>1680.4</u>	<u>1783.0</u>	<u>1703.3</u>
Capital transfers	68.7	74.0	90.7	97.0	107.3	131.9	141.7	144.8	144.6
Investment in shares	76.9	85.4	141.4	169.3	154.9	139.9	129.9	158.6	196.9
Loans for capital formation	426.2	474.8	536.9	725.8	843.0	1031.5	1039.1	950.5	988.3
Other loans	60.7	120.5	128.7	81.3	118.4	227.9	372.6	404.7	308.5
Other	6.2	6.5	9.6	10.9	-9.9	79.1	8.9	10.6	12.7
Amortization of foreign debt	17.6	65.1	46.9	55.1	68.8	80.5	162.1	184.9	194.5
Long Term rupee debt	109.4	137.8	182.6	176.0	189.0	173.4	182.8	259.3	244.0
F. OVERALL DEFICIT	<u>745.9</u>	<u>772.7</u>	<u>1038.5</u>	<u>1253.9</u>	<u>1298.2</u>	<u>1422.1</u>	<u>1774.4</u>	<u>1975.3</u>	<u>1807.9</u>
Financed by:									
Market borrowings	196.3	206.0	286.6	376.4	298.7	283.9	273.5	351.9	300.5
Foreign debt PL480	290.3	108.8	127.8	153.6	168.8	213.1	347.3	366.0	269.0
Other	183.9	261.3	287.2	362.8	416.4	482.4	516.1	720.0	775.0
Small Savings	108.3	86.9	75.8	128.3	127.4	151.2	118.1	109.8	119.8
Other unfunded debt	43.2	39.1	43.3	80.1	91.0	90.5	74.8	101.0	34.5
National Defense Fund	-	-	41.4	-7.2	1.0	-	-	-	-
Other debt	39.0	-47.4	-16.7	-10.3	20.4	-25.4	2.2	26.1	18.3
G. BUDGETARY DEFICIT	<u>-115.1</u>	<u>118.0</u>	<u>159.7</u>	<u>170.4</u>	<u>174.5</u>	<u>226.4</u>	<u>437.4</u>	<u>300.5</u>	<u>290.8</u>
Treasury bills	-139.6	122.2	178.1	160.9	114.2	271.9	499.8	245.5	291.5
<u>Change in Cash Balances</u>	<u>24.5</u>	<u>-4.2</u>	<u>-18.4</u>	<u>9.5</u>	<u>60.3</u>	<u>-45.5</u>	<u>-62.4</u>	<u>55.0</u>	<u>-0.7</u>

1/ Mainly subsidies, interest payments and grants to States.

2/ Mainly from State Governments.

3/ Mainly grants or loans for capital formation by State Governments and Government enterprises.

Source: Ministry of Finance: Economic Classification of the Central Government Budget, 1968/69

TABLE 22

PLAN OUTLAYS BY SECTOR
(Rs. Lakhs)

	<u>1961-62</u>	<u>1962-63</u>	<u>1963-64</u>	<u>1964-65</u>	<u>1965-66</u>	<u>Third Plan Total</u>	<u>1966-67</u>	<u>1967-68^{1/}</u>	<u>1968-69^{2/}</u>
1. Agricultural Programs	8,370 (7.42)	10,112 (7.30)	13,336 (7.80)	17,561 (8.86)	23,104 (10.08)	72,483 (8.52)	25,387 (11.88)	28,487 (12.71)	27,024 (11.56)
2. Cooperation	938 (0.83)	1,354 (0.98)	1,852 (1.08)	1,748 (0.88)	1,662 (0.73)	7,554 (0.89)	3,352 (1.57)	3,633 (1.62)	3,381 (1.45)
3. Community Development and Panchayats	5,500 (4.88)	5,885 (4.24)	5,584 (3.27)	5,900 (2.97)	5,977 (2.61)	28,846 (3.40)	4,000 (1.87)	3,369 (1.50)	2,373 (1.02)
4. Irrigation and Flood Control	10,600 (9.40)	11,454 (8.27)	12,049 (7.05)	14,912 (7.53)	17,459 (7.62)	66,474 (7.82)	14,399 (6.74)	14,716 (6.62)	15,469 (6.62)
5. Power	13,948 (12.37)	18,241 (13.16)	25,705 (15.45)	30,603 (15.45)	36,293 (15.84)	124,790 (14.69)	40,365 (18.88)	40,056 (17.86)	33,880 (14.49)
6. Large and Medium Industries	19,298 (17.11)	25,413 (18.34)	34,068 (19.93)	23,804 (12.03)	35,394 (15.44)	137,977 (16.24)	37,266 (17.44)	52,085	53,933
7. Mineral Development	194 (0.17)	180 (0.13)	234 (0.14)	14,017 (7.07)	13,744 (6.00)	28,369 (3.34)	14,179 (6.63)		
8. Village and Small Industries	3,759 (3.33)	3,976 (2.87)	4,315 (2.52)	4,799 (2.42)	5,308 (2.32)	22,157 (2.61)	4,376 (2.05)	4,494 (2.01)	4,441 (1.77)
9. Railways	17,564 (15.57)	24,901 (17.97)	30,190 (17.66)	31,424 (15.87)	28,474 (12.43)	132,553 (15.60)	19,868 (9.30)	18,225 (8.13)	17,200 (7.36)
10. Other Transport and Communications	12,086 (10.72)	12,555 (9.06)	15,783 (9.23)	19,196 (9.69)	18,999 (8.29)	78,619 (9.25)	22,500 (10.52)	24,184 (10.79)	25,416 (10.87)
11. Education and Scientific Research	7,771 (6.89)	10,019 (7.23)	12,300 (7.20)	16,113 (8.12)	19,771 (8.62)	65,974 (7.76)	10,176 (4.77)	13,202 (5.89)	14,349 (6.14)
12. Health & Family Planning	5,443 (4.83)	6,490 (4.68)	6,397 (3.74)	7,574 (3.82)	9,746 (4.25)	35,650 (4.20)	8,456 (3.96)	11,080 (4.94)	12,261 (5.25)
13. Other Social Service	5,959 (5.28)	6,541 (4.72)	7,084 (4.15)	8,792 (4.44)	10,806 (4.72)	39,182 (4.61)	7,805 (3.65)	8,543 (3.81)	8,131 (3.48)
14. Miscellaneous	1,364 (1.20)	1,459 (1.05)	2,032 (1.19)	1,739 (0.86)	2,404 (1.05)	8,998 (1.06)	1,594 (0.74)	2,125 (0.95)	16,185 ^{3/} (6.92)
15. Grand Total	112,794 (100.00)	138,580 (100.00)	170,929 (100.00)	198,182 (100.00)	229,141 (100.00)	849,626 (100.00)	213,723 (100.00)	224,199 (100.00)	233,743 (100.00)

1/ Provisional.

2/ Plan provision.

3/ Includes Rs. 14,000 lakhs investment in "Buffer Stocks."

Source: Ministry of Finance, Economic Survey, 1968/69.

Note: Figures in brackets are percentages. This table includes all plan outlays by Centre, State and local governments, the bulk of which are investment expenditures. Excluded are certain non-plan investment expenditures.

TABLE 23
INVESTMENT IN PUBLIC SECTOR ENTERPRISES ^{1/}
 (Rs. Crores)

	1962/63	1965/66	1966/67	1967/68	1968/69 Estimate	1969/70 Budget	Cumulative gross Investment as on March 31, 1968 ^{4/}
Hindustan Steel Ltd. (HSL)	49	75	68	55	54	31	1083
Bokaro Steel Ltd. ^{6/}	-	20	18	55	110	170	93
Heavy Engineering Corp. (HEC)	38	2	44	26	27	9	211
Neyveli Lignite Corp.	19	16	14	16	6	4	175
Indian Oil Corp.	20 ^{2/}	44	13	12	12	20	154
National Coal Development Corp.	11	23	26	13	18	17	167
Oil and Natural Gas Commission ^{5/}	22	(23)	40	45	60	58	168
Fertilizer Corporation of India (FCI)	8	13	21	14	26	51	137
Bharat Heavy Electricals)	15	23	42	32	23	14	143
Heavy Electricals (India) Ltd. (HEL))	1	18	14	10	8	4	104
Hindustan Aeronautics	1	13	14	18	(15)	(15)	160
Other Undertakings ^{3/}	<u>91</u>	<u>108</u>	<u>112</u>	<u>196</u>	<u>157</u>	<u>147</u>	<u>831</u>
TOTAL	274	378	426	492	516	540	3333

^{1/} Includes all equity investments and loans (including aid) that pass through the Central Budget; other sources such as internally generated funds (if any) financed less than 4% of the capital stock of these enterprises, as of March 1967.

^{2/} Indian Refineries Ltd.

^{3/} Residual.

^{4/} The eleven enterprises named account for 78% of total gross investment in central public sector undertakings.

^{5/} Includes some developmental expenditures.

^{6/} It may be noted that Bokaro Steel Ltd., will become second only to HSL, in terms of cumulative investment, during 1969/70.

Source: The first four columns and the last column are from annual reports of the Bureau of Public Enterprises, Ministry of Finance. Column 5 and 6 are from the Annual Plan for 1968/69, and Budget sources.

TABLE 24

PROFITABILITY OF PUBLIC ENTERPRISES ^{1/} 1965/66 AND 1967/68

(Rs. Crores)

<u>Profits</u>	<u>1965/66</u>	<u>1967/68</u>	<u>Losses</u>	<u>1965/66</u>	<u>1967/68</u>
Oil and Natural Gas Commission	1.4	12.8	Hindustan Steel Ltd.	(1.7) ^{2/}	38.0
India Oil Corp.	1.0	11.0	Heavy Engineering Corp.	*	13.0
Shipping Corporation of India	1.8	5.5	Neyveli Lignite Corp.	0	6.1
Air India	1.6	2.5	Heavy Electricals Ltd.	5.7	5.6
Bharat Electronics	0.7	2.1	Mining & Allied Machinery Corp.	*	5.4
Fertilizer Corporation of India	0.3	1.8	Bharat Heavy Electricals Ltd.	*	5.2
Indian Telephone Industries	1.1	1.6	Hindustan Photo Films Co.	*	1.5
State Trading Corporation	1.6	1.6	Inland Water Transport	n.a.	2.0
Hindustan Aeronautics	1.2	1.3			
Bharat Earthmovers	0.3	1.1			
Minerals & Metals Trading Corp.	1.1	1.1			
Cochin Refinery	*	1.2			
Others	<u>3.8</u>	<u>4.7</u>	Others	<u>2.2</u>	<u>5.0</u>
TOTAL	<u>17.6</u> ^{3/}	<u>48.3</u>		<u>7.9</u>	<u>81.8</u>
(Overall profit/loss)	<u>+ 9.7</u>				<u>-33.5</u>

* Not in operation

^{1/} Covers industrial and commercial enterprises coming under the Bureau of Public Enterprises. Excluded, for example, are the Railways and their manufacturing establishments, and State Government Enterprises.

^{2/} Profit.

^{3/} Includes HSL profit.

Source: 1965/66 data from Bureau of Public Enterprises; 1967/68 data from the "Economic Times" March 4, 1969. Profits are net of depreciation, interest payments and taxes where applicable.

TABLE 25

BALANCE OF PAYMENTS SUMMARY
(US \$ million)

	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69 Preliminary	1969/70 Forecast	1970/71 Projection ^{5/}
1. Imports	2,292	2,376	2,568	2,833	2,958	2,771	2,632	2,400	2,520	2,750
of which: Foodgrains	246	303	378	592	676	868	691	380	400	320
Others	2,046	2,073	2,190	2,241	2,282	1,903	1,941	2,020	2,120	2,430
2. Exports	1,387	1,439	1,666	1,714	1,692	1,542	1,598	1,770	1,875	2,000
3. Trade Balance	-905	-937	-902	-1,119	-1,266	-1,229	-1,034	-610	-645	-750
4. Debt Service ^{1/}	-191	-182	-209	-255	-315	-365	-444	-518	-548	-560
5. Other Capital and Invisibles ^{2/}	249	156	-55	-263	-3	-18	-79	42	-20	-15
6. IBRD Special Deposit	-	-	-	-	-	-	45	-30	-15	0 ^{6/}
7. Net IMF	123	25	-50	-	62	130	33	-78	-169	
8. Change in Reserves (- = increase)	+13	+5	-23	+118	-101	-12	-81	-50	-	
9. Gross Aid Disbursements	711	933	1,239	1,519	1,623	1,494	1,560	1,264	1,397	1,325
of which: Food Aid	144	227	300	446	476	538	447	229	280	220
Project Aid ^{3/}	262	383	548	701	684	497	380	410	400	
Non-Project Aid ^{3/}	257	292	301	352	421	424	657	593	684	
(including debt relief)										
Non-Food PL 480	48	31	90	20	42	35	76	32	35	1,105

1/ Does not take into account debt relief which is included in non-project aid disbursements. Debt service payments from 1961/62 to 1966/67 include only part of service on suppliers' credits.

2/ Includes errors and omissions.

3/ Breakdown between project and non-project aid is to some extent arbitrary.

4/ Obtained as a residual. The Government estimates that \$450 million can be disbursed out of non-project aid that has already been committed.

5/ As discussed in the text, the steep size in non-food imports projected for this year depends upon substantial policy changes by aid givers (involving higher new aid commitments under more usable forms) and by India (involving appropriate changes in investment and import policies). Failing these, restrictive domestic policies would presumably keep imports and aid requirements at sustainable levels. It is also assumed that proper policies will be followed to allow export growth at about 7 percent.

6/ Not taking into account the scheduled repayment of \$200 million to the IMF.

N.B. Trade figures are obtained from Customs Data, and debt service and aid figures from the Ministry of Finance. No adjustment is made for the likely underestimation of Government imports in the Customs Data. This presentation of the Balance of Payments is consistent with that used in our last report but it differs materially from the Balance of Payments prepared by the Reserve Bank, and also from the Adjusted Balance of Payments presented by the Government in the Economic Survey.

TABLE 26

IMPORTS

(In \$ millions)

Commodity	1960/61	1964/65	1965/66	1966/67	1967/68	1967/68 Apr.-Sept.	1968/69 Apr.-Sept.
Cereals	380.9	592.4	676.3	867.8	690.3	363.9	267.0
Cashew Nuts	20.1		31.6	30.7	33.5	11.6	13.6
Raw Wool	21.9		10.8	15.7	15.7	10.8	7.5
Raw Cotton	171.7	121.8	97.0	75.3	111.3	78.9	86.5
Raw Jute	16.0	15.3	11.7	27.5	2.4	2.1	0.1
Petroleum and Lubricants	145.4	144.0	143.3	84.1	99.7	42.6	66.2
Fertilizers and Materials	31.2		108.5	166.5	272.9	109.7	151.2
Chemical Products	156.6		136.4	128.6	144.8	79.8	77.0
Paper and Paper Boards	25.5	27.7	28.1	28.9	23.5	12.7	14.4
Iron and Steel	257.3	220.5	205.7	130.5	141.6	81.6	60.7
Non-ferrous Metals	99.3	122.8	144.4	114.2	118.2	74.2	60.1
Manufactures of Metals	48.1	35.7	38.1	23.1	18.8	10.1	9.3
Non-electrical Machinery	427.2		700.8	544.0	447.9	218.5	254.0
Electrical Machinery	120.2		184.4	141.2	111.9	60.5	60.2
Transport Equipment	152.1	154.4	148.1	82.9	101.8	47.5	46.1
Others	319.8		292.7	309.5	296.9	151.6	103.6
Total	2,393.3	2,832.9	2,957.9	2,770.5	2,631.7	1,356.1	1,277.5

Source: Director General of Commercial Intelligence and Statistics.

TABLE 27

EXPORTS

(In \$ millions)

	1960/61	1964/65	1965/66	1966/67	1967/68	1967/68 Apr.-Sept.	1968/69 Apr.-Sept.
Jute Manufactures	283.8	353.3	384.0	332.6	312.1	163.4	141.0
Tea	259.5	261.8	241.2	211.1	240.2	96.5	111.4
Cotton Fabrics	120.8	121.0	116.0	84.9	87.1	41.1	45.6
Iron Ore	35.7	78.5	88.4	93.6	99.7	38.0	51.1
Oil Cakes	30.0	83.5	72.7	66.7	60.7	26.7	32.4
Leather and Leather Manufactures	52.4	57.4	59.8	82.8	71.3	36.9	47.2
Cashew Kernels	39.7	61.0	57.5	60.7	57.3	28.4	44.1
Tobacco	33.1	51.2	41.1	30.0	47.5	31.9	33.3
Engineering Goods	17.9	30.1	35.5	30.7	43.6	18.4	41.6
Coffee	15.2	28.2	27.2	21.1	24.3	17.3	18.9
Mica	21.3	20.4	23.7	18.9	20.0	9.7	9.3
Sugar	5.1	37.7	22.0	21.5	21.2	11.1	2.7
Black Pepper	17.9	14.2	23.3	16.9	17.5	6.9	5.3
Manganese Ore	29.5	27.6	22.7	18.9	14.8	7.1	8.7
Hides and Skins	19.9	19.0	20.7	22.0	10.1	7.2	2.9
Raw Cotton	18.3	22.2	20.4	15.7	19.7	10.8	8.5
Mineral, Fuel, Lubricants	15.6	25.7	19.6	16.9	12.3	6.1	8.9
Iron and Steel	11.6	9.2	17.0	31.6	69.2	31.6	49.9
Chemical and Allied Products	7.2	14.6	17.4	14.5	15.9	6.4	11.5
Fish and Fish Preparations	9.7	14.2	14.3	23.3	24.0	11.5	12.3
Art Silk Fabrics	6.7	13.7	10.3	4.5	1.9	0.8	2.4
Footwear	6.5	8.8	11.0	11.7	12.3	4.0	3.3
Vegetable Oils	26.5	21.7	13.5	8.8	10.3	3.7	14.8
Others	302.5	339.2	333.2	302.2	305.0	147.6	189.3
Total	1,386.4	1,714.2	1,692.5	1,541.6	1,598.0	763.1	896.4

Source : Director General of Commercial Intelligence and Statistics.

TABLE 28

IMPORTS BY SOURCE

(Rs. millions)

<u>Regions/Countries</u>	<u>1951/52</u>	<u>1955/56</u>	<u>1960/61</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>
<u>U.S.A.</u>	2949 (30.4)	893	3276 (28.7)	5253	7829 (37.7)	7715 (39.1)
<u>Canada</u>	194 (2.0)	68	199 (1.7)	305	922 (4.4)	978 (5.0)
<u>West Europe</u>	2841 (29.3)	3252	4478 (39.3)	3894	5144 (24.8)	4625 (23.4)
<u>U.K.</u>	1708 (17.6)	1727	2127 (18.7)	1491	1655 (8.0)	1579 (8.0)
<u>European Common Market</u>	834	1189	1959	2049	2983 (14.4)	2519 (12.8)
of which: Belgium	129	121	152	115	245	165
France	112	155	211	176	351	326
West Germany	289 (3.0)	603	1225 (10.7)	1369	1628 (7.8)	1432 (7.3)
Italy	181	165	260	192	415	341
Netherlands	123	141	105	197	346	255
<u>Other West Europe</u>	299 (3.1)	336	347 (3.0)	353	506 (2.4)	527 (2.6)
of which: Sweden	75	79	119	106	141	184
Switzerland	100	121	104	145	181	134
Irish Republic	neg	neg	neg	neg	neg	neg
<u>Asia and Oceania</u>	2782 (28.7)	1749	2067 (18.1)	2313	3563 (17.1)	3269 (16.6)
<u>ECAFE</u>	2514 (25.9)	1409	1793 (15.7)	2154	3391 (16.3)	2872 (14.6)
of which: Australia	176	135	178	241	590	650
Burma	235	96	137	94	402	92
Ceylon	56	94	41	40	27	33
Malaysia	42	45	135	128	124	93
New Zealand	21	25	15	20	10	14
Indonesia	32	15	36	22	1	1
Iran	289	144	296	341	305	329
China	159	44	26	-	-	-
Pakistan	875	271	140	57	14	21
Thailand	116	5	7	289	519	246
Japan	255 (2.6)	334	608 (5.3)	792	1074 (5.2)	1069 (8.5)
<u>Rest of Asia and Oceania</u>	268 (2.8)	341	274 (2.4)	159	172 (0.3)	397 (2.0)
of which: Aden	9	21	20	8	2	6
Bahrein	109	82	50	20	1	2
Kuwait	1	43	1	neg	32	79
Saudi Arabia	100	152	142	87	61	228
<u>Africa</u>	831 (8.6)	707	707 (6.2)	558	860 (4.1)	946 (4.8)
of which: Egypt	405	231	164	200	203	268
Kenya	186	219	124	46	59	79
Nigeria	-	5	5	2	4	7
Rhodesia	6	6	136	18	neg	neg
Sudan	143	127	94	57	174	117
<u>Soviet Bloc</u>	51 (0.5)	109	443 (3.9)	1560	2301 (11.1)	2030 (10.3)
of which: USSR	14	62	159	825	1138	958
Czechoslovakia	28	29	88	212	335	273
East Germany	neg	4	33	130	209	216
Poland	3	4	44	137	179	237
<u>Latin America</u>	51 (0.5)	37	18 (0.2)	34	164 (0.8)	161 (0.8)
of which: Argentina	16	neg	1	3	2	20
Cuba	neg	7	1	-	-	-
TOTAL WORLD	9,700	6,788	11,397	13,941	20,783	19,724

(Figures in brackets are percentages)

TABLE 29

EXPORTS BY DESTINATION

(Rs. million)

<u>Regions/Countries</u>	<u>1951/52</u>	<u>1955/56</u>	<u>1960/61</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>
<u>U.S.A.</u>	1324 (18.1)	871	1025 (15.5)	1478	2190 (19.0)	2062 (17.3)
<u>Canada</u>	163 (2.2)	140	176 (2.7)	203	310 (2.7)	298 (2.5)
<u>West Europe</u>	2559 (34.9)	2380	2398 (36.3)	2200	3134 (27.2)	3409 (28.6)
<u>U.K.</u>	1897 (25.9)	1662	1725 (26.1)	1464	2020 (17.5)	2284 (19.1)
<u>European Common Market</u>	451 (6.2)	560	518 (7.8)	553	887 (7.7)	884 (7.4)
of which: Belgium	84	90	53	95	176	207
France	114	71	88	112	182	154
West Germany	94	149	199	182	259	217
Italy	80	96	93	85	153	177
Netherlands	79	154	85	79	118	129
<u>Other West Europe</u>	211 (2.9)	158	155 (2.3)	183	227 (2.0)	241 (2.0)
of which: Sweden	26	16	15	17	30	34
Switzerland	21	10	14	36	43	58
Irish Republic	65	58	50	43	51	62
<u>Asia and Oceania</u>	2252 (30.7)	1774	1657 (25.1)	1876	2802 (24.3)	3139 (26.3)
<u>ECAFE</u>	2052 (28.0)	1514	1423 (21.5)	1586	2415 (20.9)	2701 (22.6)
of which: Australia	476	248	224	175	261	280
Burma	198	125	66	36	37	38
Ceylon	168	205	184	129	185	148
Malaysia	38	44	60	123	105	69
New Zealand	79	46	74	66	86	63
Indonesia	45	117	31	8	11	59
Iran	42	52	54	60	103	142
China	71	65	53	neg	neg	neg
Pakistan	453	84	103	49	neg	neg
Thailand	88	32	32	16	43	84
Japan	148 (2.0)	302	353 (5.3)	570	1073 (9.3)	1357 (11.4)
<u>Rest of Asia and Oceania</u>	200 (2.7)	261	233 (3.5)	289	387 (3.4)	438 (3.7)
of which: Aden	63	63	54	59	59	52
Bahrein	14	23	23	16	27	26
Kuwait	38	35	34	49	73	117
Saudi Arabia	19	61	33	40	46	59
<u>Africa</u>	506 (6.9)	494	490 (7.4)	619	714 (6.2)	700 (5.9)
of which: Egypt	65	96	134	271	250	215
Kenya	88	61	49	49	73	60
Nigeria	71	82	57	40	46	38
Sudan	77	56	95	82	146	207
<u>Soviet Bloc</u>	88 (1.2)	53	496 (7.5)	1566	2257 (19.6)	2246 (18.8)
of which: USSR	69	33	288	930	1234	1205
Czechoslovakia	13	13	73	158	286	292
East Germany	neg	neg	33	137	194	203
Poland	3	3	39	91	135	220
Yugoslavia	3	3	33	113	189	116
<u>Latin America</u>	479 (6.5)	218	166 (2.5)	104	122 (1.1)	74 (0.6)
of which: Argentina	177	111	45	42	20	6
Cuba	114	45	73	3	neg	neg
<u>TOTAL WORLD</u>	7329	5963	6602	8096	11529	11928

(Figures in brackets are percentages)

TABLE 30

EXPORTS OF PRINCIPAL COMMODITIES

(In physical units)

<u>Commodity</u>	<u>Unit of Quantity</u>	<u>1960/61</u>	<u>1964/65</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>	<u>1967/68 Apr.-Sept.</u>	<u>1968/69 Apr.-Sept.</u>
Jute Manufactures	'000 tons	799	960	900	736	753	394	354
Tea	mil. kgs.	199	212	197	170	203	79	99
Cotton Fabrics (mill-made)	mil.sq.mtrs.	602	495	513	402	425	194	223
Iron Ore	mil. tons	3	11	12	13	14	5	7
Oil Cakes	'000 tons	433	975	829	822	746	328	419
Cashew Kernels	mil. kgs.	44	56	51	50	51	26	35
Tobacco	mil. kgs.	47	79	57	39	57	36	40
Coffee	mil. kgs.	20	31	26	26	34	23	23
Mica	mil. kgs.	28	31	43	19	23	13	11
Sugar	'000 tons	56	271	251	354	228	141	61
Black Pepper	mil. kgs.	17	17	26	22	25	10	8
Manganese Ore	'000 tons	1,166	1,552	1,245	1,186	1,047	481	603
Raw Cotton	'000 tons	33	47	36	33	45	25	16
Fish and Fish Products	mil. kgs.	20	20	15	20	20	9	11
Art Silk Fabrics	mil.mtrs.	27	57	45	25	6	2	10
Footwear	mil.pairs	5	8	10	12	11	3	4
Vegetable Oils	mil.kgs.	63	45	25	14	17	5	35
Total ^{1/}	-	100	132	124	119	122	-	-

^{1/} Volume Index 1960/61 = 100.

Source: Director General of Commercial Intelligence and Statistics.

TABLE 31
TERMS OF TRADE
 (1958 = 100)

<u>Year</u>	<u>Exports</u>		<u>Imports</u>		<u>Terms of Trade</u>
	<u>Quantity</u>	<u>Average Unit Value</u>	<u>Quantity</u>	<u>Average Unit Value</u>	
1960/61	100	110	128	96	115
1961/62	105	109	121	98	111
1962/63	112	106	131	94	113
1963/64	126	105	135	97	108
1964/65	132	107	146	99	108
1965/66	124	113	154	104	109
1966/67	119	169	149	153	110
1967/68	122	169	166	136	124

The value indices from 1966/67 onwards reflect devaluation.

Source: Department of Commercial Intelligence and Statistics.

EXPORT DUTIES

	<u>As on June 6, 1966</u>	<u>As on Nov. 1, 1968</u>	<u>As on April 1, 1969</u>
<u>Jute Manufactures</u>			
(a) Hessians other than carpet backing and jute specialities (per ton)	Rs. 900	Rs. 500	Rs. 200
(b) Carpet backing (per ton)	900	600	600
(c) Jute canvas, jute webbings, jute tarpaulin cloth and manufactures thereof (per ton)	900	500	500
(d) Jute specialities	900	Nil	Nil
(e) Sacking (cloth, bags, twist, yarn, rope and twine) (per ton)	600	250	150
(f) Cotton bagging (per ton)	600	200	Nil
(g) All other descriptions of jute manufactures falling under sub-item (iii) to item 2 to the Second Schedule to the Indian Tariff Act, 1934 (per ton)	600	250	150
<u>Tea</u>			
(a) Tea other than package tea covered by (b) and (c) below	Rs. 2 per kg.	20% reduced by 35 paise per kg. or its. 2.65 per kg. whichever is less	15% reduced by 55 paise per kg., or Rs. 1.70 per kg., whichever is less
(b) Tea in consumer pack, packed in metal container the aggregate weight not exceeding one kilo	Rs. 2 per kg.	10% or Rs. 2.76 per kilo whichever is less	Nil
(c) Tea in consumer pack, packed in container other than of metal, the aggregate weight not exceeding one kilo	Rs. 2 per kg.	15% or Rs. 2.76 per kg. whichever is less	5 percent or Rs. 1.70 per kg. whichever is less
<u>Coffee</u>	Rs. 0.50 per kg.	50 paise per kg.	50 paise per kg.
<u>Black Pepper</u>			
(a) Light black pepper	Rs. 1.25 per kg.	90 paise per kg.	90 paise per kg.
(b) Pinhead black pepper	Rs. 1.25 per kg.	50 paise per kg.	50 paise per kg.
(c) Others	Rs. 1.25 per kg.	1.25 paise per kg.	1.25 paise per kg.
<u>Tobacco (unmanufactured)</u>	75 paise per kg.	20 percent per kg.	20 percent per kg.
<u>Haw Wool</u>	Rs. 1 per kg.	10 percent	Nil
<u>Raw Cotton</u>	Rs. 1 per kg.	10 percent	10 percent
(a) Bengal Deshi (per ton)	Rs. 1,000	Rs. 700	Rs. 700
(b) Linters	Rs. 1,000	25 percent	25 percent
(c) Assam Comilla/yellow pickings/Zoda cotton pickings and sweepings (per ton)	Rs. 1,000	Rs. 550	Rs. 550
<u>Cotton Waste</u>			
(a) Cotton waste other than soft cotton waste	30 paise per kg.	40 percent	40 percent
(b) Soft cotton waste	30 paise per kg.	25 percent	25 percent
<u>Mica, (except micanite)</u>	50 paise per kg.	40 percent	40 percent
Mica, loose splittings	50 paise per kg.	40 percent	20 percent
<u>Processed Mica</u>	50 paise per kg.	20 percent	20 percent
<u>Hides, skins and leather, tanned and untanned all sorts but not including snake skins and manufactures of leather</u>	15 percent	10 percent	10 percent

continued/..

Table 32
Page 2 of 2

	As on June 6, 1966	As on Nov. 1, 1968	As on April 1, 1969
<u>Snake Skins</u>	15 percent	25 percent	25 percent
<u>Coirs and coir manufactures</u>			
(a) Coir yarn	10 percent	15 percent	15 percent
(b) Coir manufactures	10 percent	Nil	Nil
<u>Groundnut oil cake and groundnut meal (both deoiled) (per ton)</u>	Rs. 125	Rs. 125	Rs. 125
<u>Manganese Ore</u>			
(a) More than 48 percent of manganese (per ton)	Rs. 20	Rs. 20	Rs. 20
(b) 10 percent or more and up to 48 percent of manganese (per ton)	Rs. 20	Rs. 12.50	Rs. 12.50
(c) Less than 10 percent of manganese (per ton)	Rs. 10	Rs. 7	Rs. 7
<u>Manganese Dioxide</u>	20 percent	20 percent	20 percent
<u>Lumpy Iron Ore</u>			
(a) 63 percent iron content and above (per ton)	Rs. 10	Rs. 10.50	Rs. 10.50
(b) 60 to 63 percent iron content (per ton)	Rs. 10	Rs. 6	Rs. 6
(c) 58 to 60 percent iron content (per ton)	Rs. 10	Rs. 5	Rs. 5
(d) Less than 58 percent iron content (per ton)	Rs. 10	Rs. 4	Rs. 4
<u>Iron Ore (Fines)</u>			
(a) More than 62 percent iron content (per ton)	Rs. 5	Rs. 4	Rs. 4
(b) Other (per ton)	Rs. 5	Rs. 3	Rs. 3
<u>Sillimanite</u>	20 percent	20 percent	20 percent
<u>Steatite (Talc)</u>	20 percent	20 percent	20 percent
<u>Kyanite (per ton)</u>	Rs. 40	Rs. 40	Rs. 40
<u>Chrome Concentrates (per ton)</u>	Rs. 15	Rs. 15	Rs. 15

Note: Some of the duties were quite frequently readjusted between June 1966 and the present time. The rates prevailing in November are given here because the Government has calculated the rough ad valorem incidents of the schedule effective at that date. These are as follows:

Messians other than carpet backing and Jute specialities (per ton)	22.2%
Carpet backing (per ton)	15.5%
Sacking (cloth, bags, twist, yarn, rope and twine) (per ton)	14.2%
Cotton bagging (per ton)	16%
Tea, other than package tea	15.8%
Coffee	7.9%
Black Pepper: Light black pepper	32%
Pinhead black pepper	
Others	
Raw Cotton: Bengal Deshi (per ton)	22%
Assam Comilla/yellow pickings/Boda cotton pickings and sweepings	12%
Manganese Ore: More than 48 percent of manganese	11%
10% or more and up to 48 percent of manganese	8 to 40%
Lumpy Iron Ore: 63 percent iron content and above	14.61%
60 to 63 percent iron content	13.7%

Tons are metric tons.

TABLE 33

GOLD AND FOREIGN EXCHANGE RESERVES
(in millions of dollars)

End of Period	Reserve Bank of India ^{1/}	Government	Total Official Reserves	Changes in official reserves over previous period	Commercial Banks
1951	1,387	56	1,943	-	30
1955	1,791	76	1,866	-77	34
1956	1,360	75	1,435	-431	42
1960	566	104	670	-765	42
1961	763	102	665	-5	41
1962	450	62	512	-153	50
1963	469	138	607	+95	47
1964	447	51	498	-109	63
1965	460	139	599	+101	45
1966	515	93	608	+9	99
1967	590	72	662	+54	70
1968 Mar.	633	81	718	+56	31
June	662	58	729	+ 2	20
Sept.	683	71	754	+34	25
Dec.	627	55	682	-72	NA
1969 Mar.	NA	NA	768	+86	NA

^{1/} Includes \$247 million in gold through 1964, \$281 million in 1965, and \$243 million thereafter.

Source: International Financial Statistics.