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India
Progress and Challenges in Economic Transition

May 24, 1993

Country Operations, Industry and Finance Division
India Country Department
South Asia Region

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CURRENCY

Currency	Rs/US$ Official	Rs/US$ Market[1]
Prior to June, 1966	4.76	
June 6, 1966 to mid-December 1971	7.50	
Mid-December 1971 to end-June 1972	7.28	
1971/72	7.44	
1972/73	7.71	
1973/74	7.79	
1974/75	7.98	
1975/76	8.65	
1976/77	8.94	
1977/78	8.56	
1978/79	8.21	
1979/80	8.08	
1980/81	7.89	
1981/82	8.93	
1982/83	9.63	
1983/84	10.31	
1984/85	11.89	
1985/86	12.24	
1986/87	12.79	
1987/88	12.97	
1988/89	14.48	
1989/90	16.66	
1990/91	17.95	
1991/92	24.52	
1992/93	26.41	30.65
February 1993	26.20	32.65
March 1993		31.53

Source: IMF, International Financial Statistics (IFS), line "rf.", and Reserve Bank Of India.

Note: The Indian fiscal year runs from April 1 through March 31.

[1] A dual exchange rate system was created in March 1992, with a free market for about 60 percent of foreign exchange transactions. The exchange rate was reunified at the beginning of March 1993 at the free market rate.

TITLE	:	INDIA: STABILIZING AND REFORMING THE ECONOMY			
COUNTRY	:	INDIA			
REGION	:	SOUTH ASIA			
SECTOR	:	COUNTRY ECONOMIC			
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ABSTRACT : The 1992/93 fiscal year marked the first full year of the comprehensive adjustment program initiated by the Government of India in mid-1991, and substantial further progress was made in stabilizing and reforming the Indian economy. Real GDP rose by about 4 percent, inflation fell to single-digit levels and foreign exchange reserves were increased to over US$6.7 billion (equivalent to 3.6 months of imports). A number of important policy measures have been adopted recently that are likely to improve economic performance and development prospects--in particular, a reunification of the exchange rate, further rationalization and reductions of customs tariffs, additional steps to liberalize the financial sector and foreign investment code, and a Union budget that provides for increased spending on social and rural sectors, while reducing further the overall fiscal deficit. The foregoing notwithstanding, the Indian authorities face a number of serious macroeconomic challenges--particularly in the areas of fiscal and balance of payments management. A large agenda of structural and sectoral reform remains as well--notably in the areas of taxation, trade and financial policies, and for the public enterprise, agricultural and social sectors.

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
BICP	Bureau of Industrial Costs and Prices
BIFR	Board for Industrial and Financial Reconstruction
BIS	Bank for International Settlements
BOT	Build-Operate-Transfer
CCI	Cotton Corporation of India
CCS	Cash Compensatory Scheme
CEM	Country Economic Memorandum
CHC	Community Health Care Center
CIS	Commonwealth of Independent States
CONCOR	Container Corporation
CRR	Cash Reserve Ratio
CSO	Central Statistical Organization
DFHI	Discount and Finance House of India
DOT	Department of Telecommunications
EC	European Community
EGF	Employment Generation Fund
EOU	Export-Oriented Unit
EXIM	Export-Import
EPZ	Export Processing Zone
FCBOD	Foreign Currency (Banks and Others) Deposit
FCI	Food Corporation of India
FCNR	Foreign Currency Non-Resident
FCON	Foreign Currency (Ordinary Non-Repatriable)
FDI	Foreign Direct Investment
FERA	Foreign Exchange Regulation Act (1973)
FSU	Former Soviet Union
GATT	General Agreement on Trade and Tariffs
GCH	General Currency Area
GNFS	Goods and Non-factor Services
GOI	Government of India
ha	Hectare
HDC	High Density Road Corridors
IA	Indian Airlines
IAS	Indian Administrative Service
IBRD	International Bank for Reconstruction and Development
ICDS	Integrated Child Development Services
ID	Irrigation Department
IDA	International Development Agency
IMF	International Monetary Fund
IR	Indian Railways
IRDP	Integrated Rural Development Programme
kWh	Kilowatt/hour
LERMS	Liberalized Exchange Rate Management System
LRMC	Long-Run Marginal Cost
MLT	Medium- and Long-Term

MODVAT	Modified Value Added Tax
MOF	Ministry of Finance
MOHFW	Ministry of Health and Family Welfare
MOST	Ministry of Surface Transport
MOU	Memorandum of Understanding
MW	Megawatt
NABARD	National Bank for Agricultural and Rural Development
NAFTA	North American Free Trade Agreement
NDDB	National Dairy Development Board
NGO	Non-Governmental Organization
NHA	National Highway Authority
NIPFP	National Institute of Public Finance and Policy
NRER	Non-Resident (External) Rupee
NRF	National Renewal Fund
NRGF	National Renewal Grant Fund
NRI	Non-Resident Indian
NSS	National Sample Survey
NTC	National Textile Corporation
O&M	Operation & Maintenance
ONGC	Oil and Natural Gas Corporation
PDS	Public Distribution System
PHC	Public Health Care Center
PSBR	Public Sector Borrowing Requirement
PSE	Public Sector Enterprise
PWD	Public Works Department
QR	Quantitative Restriction
RBI	Reserve Bank of India
REP	(Import) Replenishment License
RPA	Rupee Payments Area
RRB	Regional Rural Bank
SEB	State Electricity Board
SEBI	Securities and Exchange Board of India
SICA	Sick Industrial Companies Act
SIL	Special Import License
S&L	Savings and Loan Institution
SLR	Statutory Liquidity Ratio
UNDP	United Nations Development Program
UPE	Universal Primary Education
USAID	United States Agency for International Development
UT	Union Trust (Territory)
VAT	Value Added Tax
WPI	Wholesale Price Index

INDIA

COUNTRY ECONOMIC MEMORANDUM

PROGRESS AND CHALLENGES IN ECONOMIC TRANSITION

Table of Contents

Page No.

List of Tables, Figures and Boxes

Page No.

Boxes (cont.)

Acknowledgements

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ECONOMIC DEVELOPMENT DATA

GNP PER CAPITA IN 1990 US$350 /a

GROSS DOMESTIC PRODUCT IN 1991/92 /b and **ANNUAL RATE OF GROWTH (% 1980/81 Constant Prices)**

	US$ Bln.	%	60/61-64/65	65/66-69/70	70/71-74/75	75/76-79/80	80/81-84/85	85/86-89/90
GDP at Market Prices	245.15	100.00	5.1	3.0	2.1	3.6	5.6	6.1
Gross Domestic Investment	50.01	20.04	9.0	1.8	5.0	4.9	2.5	8.2
Gross National Saving	47.3	19.3	n.a.	-	-	-	1.1	7.4
Current Account Balance	-2.77	1.1	n.a.	-	-	-	-	-

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1981

	Value Added (at factor cost)		Labor Force c/		V.A. Per Worker	
	US$ Bln.	%	Mil.	%	US$	% of Nat. Average
Agriculture	58.9	38.0	172.7	70.6	341	53.9
Industry	40.1	25.9	31.6	12.9	1268	200.3
Services	55.9	36.1	40.3	16.5	1387	219.1
Total/Average	154.9	100.0	244.6	100.0	633	100.0

GOVERNMENT FINANCE

	General Government /d			Central Government		
	Rs. Bln.	% of GDP		Rs. Bln.	% of GDP	
	1990/91	1990/91	19? /86-1989/90	1991/92	1991/92	1985/86-1990/91
Revenue Receipts	1105.28	20.9	20.7	660.5	10.9	11.0
Revenue Expenditures	1229.20	23.2	23.8	823.1	13.5	13.8
Revenue Surplus/Deficit	-123.92	-2.3	-3.1	-162.6	-2.7	-2.8
Capital Expenditures /e	409.16	7.7	6.6	231.0	3.8	5.6
External Assistance (net) /f	33.40	0.6	0.7	n.a.	n.a.	n.a.

MONEY, CREDIT AND PRICES	70/71	75/76	80/81	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
	(Rs. Billion outstanding at end of period)										
Money and Quasi Money /g	109.9	224.8	557.7	1023.6	1193.9	1416.3	1642.8	2002.4	2309.5	2658.3	3150.8
Bank Credit to Government (net) /g	54.6	106.3	257.2	503.4	583.2	720.2	843.7	973.7	1180.9	1413.8	1582.9
Bank Credit to Commercial Sector /g	64.6	156.2	366.4	709.5	828.0	947.4	1074.9	1326.6	1517.0	1717.7	1910.7
	(Percentage or Index Numbers)										
Money and Quasi Money as % of GDP	27.3	30.3	41.0	44.2	45.6	48.5	49.4	50.7	51.3	50.2	52.4
Wholesale Price Index (1981/82=100)	-	-	-	120.1	125.4	132.7	143.6	154.3	165.7	182.7	207.6
Annual Percentage changes in:											
Wholesale Price Data	-	-	-	6.4	4.4	5.8	8.2	7.5	7.4	10.3	13.6
Bank Credit to Government (net) /g	15.0	22.7	28.5	23.9	15.9	23.5	17.1	15.4	21.3	19.7	12.0
Bank Credit to Commercial Sector /g	19.4	22.7	18.2	16.8	16.7	14.4	13.4	23.4	14.4	13.2	11.2

/a The per capita GNP estimate is based on the World Bank Atlas methodology. Other conversions to dollars in this table are at the prevailing average rate for the period covered.
/b Quick Estimates, Central Statistical Organization; Reserve Bank of India; and Bank staff estimates.
/c Total Labor Force and percentage breakdown from 1981 Census. Excludes data for Assam.
/d Transfers between Centre and States have been netted out.
/e All loans and advances to third parties have been netted out.
/f As recorded in the government budget.
/g Figures for 1991/92 are preliminary estimates from the Reserve Bank of India.

n.a. Not Available.

BALANCE OF PAYMENTS /a	1990/91	1991/92	1992/93/b
		(US$ million)	
Export of Goods	18491	18135	18400
Imports of Goods	25241	19726	22347
Trade Balance	-6750	-1591	-3947
Non Factor Services (net)	785	676	330
Resource Balance	-5965	-915	-3617
Interest Income (net)	-3744	-3786	-3804
Net Transfers /d	2021	2685	2200
Balance on Current Account	-7688	-2016	-5221
Direct Investment	112	200	390
Official Grant Aid (Net)	476	451	500
Net Medium & Long-term Capital	2765	4895	3203
Gross Disbursements	5169	7468	6126
Principal Repayments	2405	2573	2924
Non-Resident Deposits	786	-1622	296
All Other Items /e	566	694	219
Net IMF Credits	1214	780	1272
Change in Gross Reserves (- = increase)	1770	-3383	-659
Gross Reserves (end of year)/f	2338	5721	6380
Net Reserves (end of year) /g	-284	2270	n.a.

Fuel and Related Materials			
Imports (Petroleum)	6028	5365	6100
of which: Crude	3238	3196	n.a.
Products	2790	2169	n.a.

RATE (EXCHANGE

June 1966 to mid-December 1971	US$1.00 = Rs. 7.50
Mid-December 1971 to end-June 1972	US$1.00 = Rs. 7.2797
After end-June 1972	Floating Rate
Official rate February 27, 1993 /i	26.16
Free Market rate February 27, 1993/i	US$1.00 = Rs. 33.10
Spot rate April 16, 1993:	US$1.00 = Rs. 31.36

MERCHANDISE EXPORTS (AVERAGE 1987/88-1991/92 /c)	US$ mill	%
Tea	500	3.2%
Iron Ore	521	3.3%
Chemicals	1434	9.1%
Leather and Leather products	1151	7.3%
Textiles	1488	9.4%
Garments	1843	11.7%
Gems and Jewelry	2775	17.6%
Engineering Goods	1735	11.0%
Others	4353	27.5%
Total	15800	100.0%

EXTERNAL DEBT, MARCH 31, 1992	US$ Million
Outstanding and Disbursed	71008

DEBT SERVICE RATIO FOR 1991/92 /b /h 26%

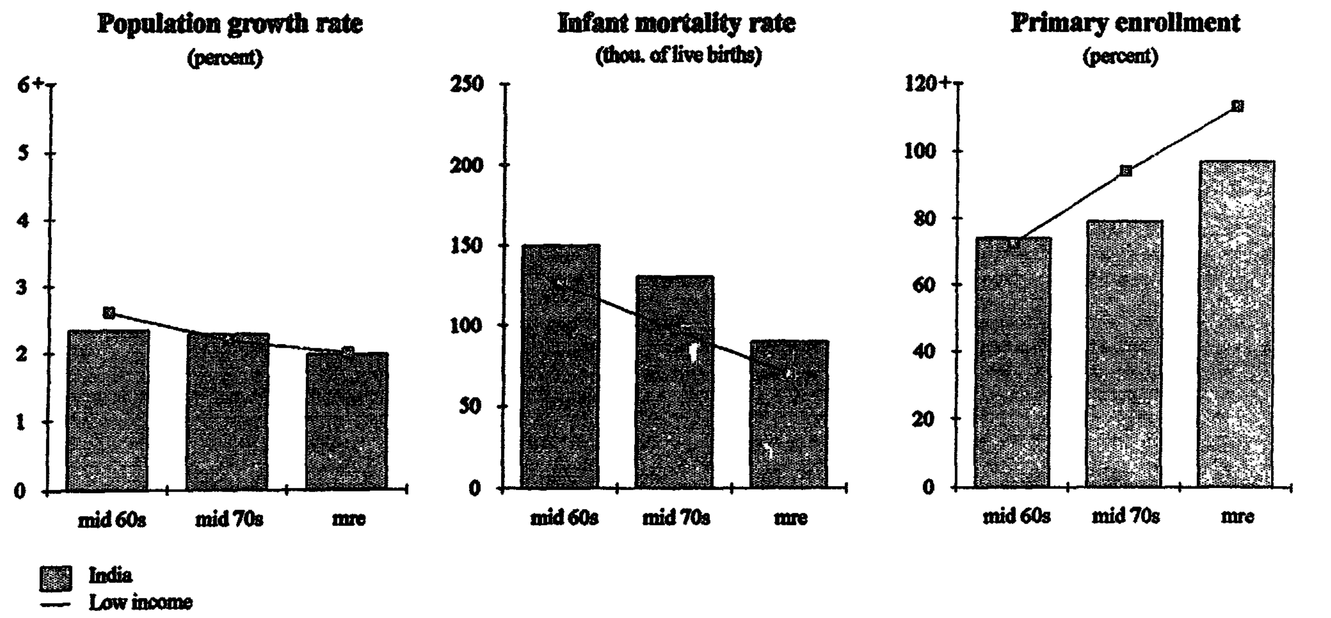
IBRD/IDA LENDING, MARCH 31, 1992	US$ Million	
	IBRD	IDA
Outstanding and Disbursed	8585	14203
Undisbursed	7364	4243
Outstanding including Undisbursed	15949	18446

/a Balance of Payments based on the new presentation adopted by the Government of India in 1992/93.
/b Estimated.
/c Net of crude oil and petroleum exports.
/d Figures given include workers' remittances but exclude official grant assistance which is included within official loans and grants, and non-resident deposits which are shown separately.
/e Includes short-term net capital inflow, changes in reserve valuation and other items.
/f Excluding gold.
/g Excluding net use of IMF credit.
/h As a percentage of total current receipts.
/i A dual exchange rate system was created in March 1992, with a free market for about 60 percent of foreign exchange transactions. The exchange rate was reunified at the free market rate in March 1993.

n.a. Not Available.

India: Priority Poverty Indicators

Indicator	*Unit of measure*	*25-30 years ago*	*15-20 years ago*	*Most recent estimate (mre)*	*Same region/income group* South Asia	*Low-income*	*Next higher income group*
POVERTY							
Upper poverty line	local curr.	..	..	1,296	..	..	..
Headcount index	% of pop.	..	43	25	..	..	..
Lower poverty line	local curr.	..	..	..	..	..	..
Headcount index	% of pop.	..	..	..	..	..	..
GNP per capita	US$	90	160	330	320	350	1,610
SHORT TERM INCOME INDICATORS							
Unskilled urban wages	local curr.	..	..	..	..	..	..
Unskilled rural wages	"	..	..	..	..	..	..
Rural terms of trade	"	..	84	94	..	..	..
Consumer price index	1987=100	19	45	144	..	..	..
Lower income	"	..	..	..	..	..	..
Food	"	..	..	147	..	..	..
Urban	"	..	..	..	..	..	..
Rural	"	..	..	..	..	..	..
SOCIAL INDICATORS							
Public expenditure on basic social services	% of GDP	..	..	..	..	..	..
Gross enrollment ratios							
Primary	% school age pop.	74	79	97	95	113	100
Male	"	89	94	109	106	122	106
Female	"	57	62	83	82	106	98
Mortality							
Infant mortality	thou. live births	150	130	90	92	70	40
Under 5 mortality	"	..	..	124	128	98	53
Immunization							
Measles	% age group	..	..	56	57	73	70
DPT	"	..	..	79	75	81	74
Child malnutrition (under-5)	"	..	..	49	..	..	..
Life expectancy							
Total	years	47	52	60	59	63	67
Females/males	ratio	0.97	0.98	1.01	1.01	0.95	1.08
Total fertility rate	births per woman	6.2	5.3	3.9	4.2	3.7	3.5
Maternal mortality rate	100,000 live births	..	..	..	..	..	..



India: Resources And Expenditures

Indicator	*Unit of measure*	*25-30 years ago*	*15-20 years ago*	*Most recent estimate (mre)*	*Same region/income group: South Asia*	*Same region/income group: Low-income*	*Next higher income group*
HUMAN RESOURCES							
Population (mre=1991)	millions	487	613	866	1,152	3,127	774
Age dependency ratio	ratio	0.78	0.77	0.70	0.73	0.66	0.71
Urban	% of pop.	18.8	21.3	27.0	26.0	40.1	53.9
Population growth rate	annual %	2.3	2.3	2.0	2.1	1.9	1.7
Urban	"	3.2	3.7	2.0	2.8	5.2	3.1
Labor force (15-64)	millions	207	243	329	420	1,448	302
Agriculture	% of labor force	73	71	..	..	..	..
Industry	"	12	13	..	..	..	..
Female	"	31	28	25	22	33	32
Female per 100 males							
Urban	number	..	88	..	..	..	..
Rural	"	..	94	..	..	..	..
NATURAL RESOURCES							
Area	thou. sq. km	3,288	3,288	3,287	5,133	38,828	23,990
Density	pop. per sq. km	148.0	187.0	253.0	215.0	77.0	31.0
Agricultural land	% of land area	59.6	60.8	60.9	58.9	47.4	41.8
Change in agricultural land	annual %	0.3	0.5	-0.1	0.0	0.0	0.0
Agricultural land under irrigation	%	15.0	18.6	23.2	26.2	13.7	12.6
Forests and woodland	thou. sq. km	612	656	667	809	9,197	5,396
Deforestation (net)	annual %	0.3	-0.2	-0.2	..	..	..
INCOME							
Household income							
Share of top 20% of households	% of income	49	49	..	..	..	..
Share of bottom 40% of households	"	17	16	..	..	..	..
Share of bottom 20% of households	"	7	6	..	..	..	..
EXPENDITURE							
Food	% of GDP	..	43.6	35.3	36.2	..	..
Staples	"	..	20.6	12.4	..	..	..
Meat, fish, milk, cheese, eggs	"	..	6.5	7.4	..	..	..
Cereal imports	thou. metric tonnes	7,878	7,669	447	5,596	36,008	44,418
Food aid in cereals	"	..	1,582	456	2,408	6,669	4,047
Food production per capita	1979-81=100	90	101	118	113	122	101
Fertilizer consumption	kg/ha	5.0	21.0	53.0	57.5	47.5	94.2
Share of agriculture in GDP	% of GDP	40.6	36.6	28.6	28.6	28.7	..
Housing	% of GDP	..	4.4	7.1	..	..	..
Average household size	persons per household	..	5	..	..	..	..
Urban	"	..	5	..	..	..	..
Fixed investment: housing	% of GDP	..	2.3	2.8	..	..	..
Fuel and power	% of GDP	..	2.4	2.3	..	..	..
Energy consumption per capita	kg of oil equiv.	100	131	231	207	350	1,249
Households with electricity							
Urban	% of households	..	..	..	..	..	..
Rural	"	..	..	..	..	..	..
Transport and communication	% of GDP	..	4.7	5.1	..	..	..
Fixed investment: transport equipment	"	..	1.4	2.3	..	..	..
Total road length	thou. km	..	1,215	..	..	..	..
INVESTMENT IN HUMAN CAPITAL							
Health							
Access to health care	% of pop.	..	..	..	..	..	..
Population per physician	persons	4,880	4,900	2,459	2,459	..	..
Population per nurse	"	6,500	3,710	..	..	..	..
Population per hospital bed	"	..	1,700	1,371	1,648	1,048	509
Access to safe water	% of pop.	..	31.0	73.0	70.3	70.6	..
Urban	"	..	80.0	82.0	76.5	79.3	..
Rural	"	..	18.0	69.0	66.9	62.8	..
Oral rehydyration therapy (under-5)	% of cases	..	..	13	18	32	..
Education							
Gross enrollment ratio							
Secondary	% of school-age pop.	27	26	44	39	44	56
Female	"	13	16	33	31	37	..
Pupil-teacher ratio: primary	pupils per teacher	42	42	61	59	39	25
Pupil-teacher ratio: secondary	"	22	21	23	23	20	..
Pupils reaching grade 4	% of cohort	..	51	..	..	..	..
Repeater rate: primary	% of total enroll	20	17	4	4	..	..
Illiteracy	% of pop. (age 15+)	..	..	52	54	39	..
Female	% of fem. (age 15+)	..	..	66	68	52	..
Newspaper circulation	per thou. pop.	13	15	..	..	..	..

Source: World Bank International Economics Department, April 1993

EXECUTIVE SUMMARY

Overview

1. The 1992/93 fiscal year marked the first full year of the comprehensive adjustment program initiated by the Government of India in mid-1991. The program envisages a decisive break with the development strategies of the past, and aims at the restoration of macroeconomic stability complemented by broad-based liberalization of the Indian economy. Substantial further progress was made in stabilizing and reforming the Indian economy in 1992/93 despite a major financial scandal and civil disturbances that strained the political consensus for reform and adversely affected economic activity. Real GDP growth rose from 1.2 percent in the previous year to about 4 percent; the inflation rate fell to about 7 percent (on an annual basis) from 14 percent in 1991/92; the deficit of the Central Government was reduced to 5.7 percent of GDP despite a major shortfall in revenues caused by the disturbances; foreign exchange reserves were increased by over US$1 billion to US$ 6.7 billion (equivalent to 3.6 months of imports); and significant steps were taken to increase the role of market forces in resource allocation and to open the economy to foreign trade, capital and technology. A number of important policy initiatives were announced at the end of the 1992/93 fiscal year--notably, a reunification of the exchange rate, plans for recapitalization of the nationalized banks, and a Union budget for 1993/94 that introduces further major reductions in customs tariff rates, and provides for increased spending on the social and rural sectors while reducing further the overall fiscal deficit. These improvements in policies and performance in 1992/93 have set the stage for a broadening and deepening of the adjustment process to expand its benefits and to ensure its sustainability in coming years.

2. A number of other developments, however, underscore the serious challenges facing the authorities in the management of India's transition to a more open and dynamic economy. The recovery in exports has been much slower than expected. Progress with tax reform has been constrained by the complexity of the tax revenue-sharing arrangements between the Center and the States, and by concerns about broadening the tax base. Actions to facilitate industrial restructuring and to deal expeditiously with the public enterprise sector and directed credit system have been delayed as well by political and social considerations. These same factors, along with fears of potentially adverse balance of payments developments, have precluded a bolder approach to trade reform.

3. As India moves into a third year of adjustment, the initiatives required to make the reforms sustainable are likely to prove technically and politically more challenging. The analysis presented in this Economic Memorandum suggests that five areas require special attention: (i) a vigorous and broad-based recovery in exports needs to be brought about through further reductions in import protection, a strengthening of export promotion schemes and continued flexible exchange rate management; (ii) fiscal adjustment needs to be continued at all levels of the public sector through a comprehensive reform of the tax system, structural expenditure reform measures and the adoption of measures that promote an orderly adjustment by public enterprises; (iii) reform of the financial system needs to be accelerated through restructuring and increased commercialization of the public sector banks, greater private sector participation, reductions in reserve requirements, reform of the directed credit system (including rural credit), and more flexible interest rate policies; (iv) sector policy reforms are required urgently to complement the ongoing trade reform and new industrial policy--most notably, in agriculture, energy and trade logistics; and (v) the quality of fiscal adjustment needs to be enhanced through expenditure re-allocations in favor of basic social services, investment and efficient operations and maintenance, complemented by efforts to improve cost recovery and to tap private initiative and capital. The Memorandum concludes also that, in view of the impressive adjustment efforts to date, the inevitable import needs of the restructuring effort and the uncertainties surrounding export prospects, the continued

strong support (including fast-disbursing assistance) of the international donor community will be important to help ensure India's successful transition to a more dynamic and internationally competitive economy.

Recent Progress in Macroeconomic Adjustment

4. Economic activity showed signs of recovery in several key sectors of the economy in 1992/93, and the GDP growth rate could turn out as high as 4 percent in real terms. This would be a considerable improvement over the 1.2 percent growth recorded in 1991/92. The recovery is largely attributable to a major rebound in agricultural production due to favorable rains, while many manufacturing industries still face recessionary demand conditions. Some slowing of manufacturing growth relative to performance during the 1980s was probably inevitable in view of the stabilization measures, but business sources cite also lingering uncertainties about the timing and extent of future reforms, particularly in the areas of trade, finance and labor policies, as reasons for the slow recovery. The widespread disturbances following the destruction of a mosque at the disputed Ayodhya site in early December 1992 disrupted production and marketing in many areas of the economy, and may have dampened investor confidence as well.

5. Largely as a result of the stabilization measures adopted over the past two years, domestic investment demand remained sluggish in 1992/93. However, a number of foreign companies increased their equity stakes in existing firms, and a large number of new foreign collaboration proposals were approved. The foreign equity participation proposed for the new projects totals about US$2 billion; several times the amount approved in recent years. Although the large number of approvals has not yet been translated into a significantly greater volume of foreign investment inflows, the prospect now exists for a steady increase in foreign investment flows in the coming years. All-in-all, it is expected that recent measures taken by the Government to lower domestic excise taxes and interest rates, and to provide greater clarity as to the future direction of relative prices will result in a gradual strengthening of private investment beginning in 1993/94. Of course, the recent cuts in excise duty rates will help to lower inflation and to stimulate aggregate demand only if firms pass on the bulk of the cuts to consumers. Further measures to reduce the cost of capital, such as lower capital goods import tariffs, and to strengthen public infrastructure facilities will be required as well.

6. The Government's efforts to control inflation were highly successful during 1992/93. By the end of 1992/93, the inflation rate (as measured by the wholesale price index) had declined to an annual rate of 7 percent--from 13.6 percent at the end of the previous year. This rapid deceleration was achieved despite large increases in a number of administered prices in the second half of the year, notably those for fertilizer and petroleum products. Both tightened financial policies and a number of supply-side factors were instrumental in lowering inflation. In particular, the strong recovery of the agricultural sector, combined with foodgrain imports and measures to strengthen the Public Distribution System, contributed to a sharp deceleration in the inflation rate of basic foodstuffs. As a result, consumer price inflation is projected to decline by even more than that of wholesale prices--which should bolster popular support for the adjustment program.

7. Progress with fiscal adjustment in 1992/93 was slower than anticipated, and recent estimates indicate that the Central Government may have overshot its 1992/93 budget deficit target (5 percent of GDP) by as much as 0.7 percent of GDP. To a large extent, this outcome reflects the major shortfall in tax revenues caused by the disturbances. There was a significant shortfall in asset sales as well--which

underscores the dangers of relying on disinvestment proceeds as a source of government revenues. On the expenditure side, the Government exceeded several of its recurrent expenditure targets, particularly those for subsidies and transfers to State governments. Defense and capital spending, on the other hand, declined more or less as budgeted--although infrastructure investment suffered disproportionately. Despite the larger-than-anticipated deficit, the Government's net financing from the Reserve Bank of India (RBI) increased by less than 5 percent in 1992/93--which should help with control of inflation in the coming year. The financial position of many State governments deteriorated in 1992/93, however, and the Central Government was compelled to forego planned cuts in its assistance to the States. Greater attention will have to be paid to the finances of the State governments if the process of fiscal adjustment in India is to be sustainable.

8. Against this background, the 1993/94 Union budget provides for a further reduction of the Central fiscal deficit to 4.7 percent of GDP despite the adoption of a number of measures to lower production costs and stimulate demand that will probably reduce net Government revenues in real terms. The budget aims at achieving a small primary (non-interest) surplus, and net Government financing from the banking system is expected to grow by only 3 percent. The 1993/94 budget marks a departure from recent budgets in giving a greater weight to growth than to fiscal deficit reduction. The main elements of the 1993/94 budget are: (i) broad reductions in customs tariff rates--the maximum tariff rate was reduced from 110% to 85% (and lower in some cases) and the general capital goods rate was reduced from 55 percent to 35 percent, with even lower rates for exporters and the power sector; (ii) reductions in and partial rationalization of central excise duties, especially for consumer goods industries; (iii) a sizable cut in overall Government expenditure in real terms--particularly on subsidies and on transfers to the State governments--and continued restraint in defense spending; and (iv) large increases in spending on social and rural development.

9. There are, however, a few aspects of the 1993/94 budget that raise questions about its contribution to sustainable fiscal adjustment. In particular, limited progress was made in tax reform. As a result, the tariff and excise duty cuts proposed for 1993/94 are expected to lower the overall tax to GDP ratio. The decline in the tax-GDP ratio is not sustainable and needs to be reversed. Similarly, a large proportion of the targeted expenditure reduction is to be achieved through a further cut in capital spending--which has already been severely constrained in earlier years. In view of the need for increased spending on social and infrastructure sectors, and for additional excise and tariff rate reductions in coming years, structural measures are required to broaden the tax base and to contain recurrent expenditures and enhance cost recovery (see paras. 13 and 26 respectively).

10. On the external front, the beneficial effects of the policy measures taken since July 1991 were reflected in a gradual improvement in <u>export performance</u> during 1992/93. Merchandise export earnings rose by about 2 percent in dollar terms compared to a 2 percent decline during the previous year. The continued decline in exports to the former Soviet Union and the recent disturbances prevented a more robust recovery of exports in 1992/93. Exports to the general currency area rose by about 10.5 percent. Exports to the rupee payments area declined by a further 64 percent, and now account for about 3 percent of exports, as compared to almost 20 percent in 1989/90. Thus, India's vulnerability in this area has been virtually eliminated. Similarly, the deleterious impact of the disturbances on export logistics were reflected in a sharp deceleration of the export growth rate in the last four months of the year. However, even allowing for these special factors, the rate of export growth achieved in 1992/93 falls short of what is needed to strengthen India's balance of payments position. It is anticipated that with the reunification of the exchange rate, export growth in 1993/94 should strengthen considerably. Further reductions in

trade protection, streamlining of export promotion schemes, improved export infrastructure and continued flexible management of the exchange rate will be required as well.

11. Merchandise imports grew rapidly during 1992/93, reflecting the removal of the special import restrictions in April 1992, the major liberalization of quantitative restrictions on intermediate and capital goods, and higher oil imports necessitated by falling domestic production. As a result, the trade deficit is estimated to have risen from US$1.6 billion in 1991/92 to about US$3.9 billion. The invisibles balance worsened, in part due to the dampening effect on tourism receipts of the disturbances following the Ayodhya incident. Taken together, these developments resulted in a deficit on the external current account of about US$5 billion (2.1 percent of GDP). On the financing side, net aid flows (including fast disbursing assistance) fell well short of the amounts projected in last year's Economic Memorandum, in large part due to continued difficulties with project disbursements. However, large inflows from non-resident Indians (US$ 1.1 billion) and from a number of foreign commercial banks (US$1 billion) to support their banking operations in India allowed foreign exchange reserves to be increased by US$1 billion to about US$6.7 billion (equivalent to 3.6 months of imports). In view of the comfortable foreign reserves position, the stock of short term bank debt was reduced by some US$800 million. Further efforts will be required in the coming years to strengthen fundamentally India's external capital account (see para. 48).

Managing the Transition

12. The Eighth Five Year Plan, 1992-97, which provides a broad statement of the Government's approach to adjustment, envisages a steady reduction in the fiscal deficit over the next four years, coupled with annual output growth of about 5-6 percent beginning in 1993/94 and maintenance of a low rate of inflation. Another key goal is to reduce substantially India's dependence on foreign borrowing over the medium term through rapid export growth. To achieve these ends, the Eighth Plan calls for a reorientation of investment incentives towards the traded goods sectors; high levels of capacity utilization; and major improvements in efficiency through increased domestic and international competition and enhanced access to foreign capital and technology. Finally, the Government is to reorient its expenditures away from areas where it competes inefficiently with the private sector to areas where the two are complementary; such as in the development of India's human resources and infrastructure. Given these objectives, the following areas require particular attention in the near term in order to enhance the prospects for a successful transition.

13. Strengthening the tax system. The Government's medium term objectives for tax reform are: (i) to reduce the reliance on indirect taxes by increasing direct taxation--this requires an income tax applied to a broad range of incomes and benefits, which would be closely coordinated with the corporate tax; (ii) to establish a national value added tax (VAT) levied on a wide range of goods and services with a minimum of differentiation between rates; (iii) to limit excise taxes to a few traditionally highly-taxed commodities, such as petroleum, tobacco and alcoholic beverages; and (iv) to improve compliance through more extensive use of withholding at source, presumptive taxation and the imposition of minimum taxes.

14. A number of steps were taken in the 1992/93 and 1993/94 Union budgets, including: (i) measures to rationalize the personal income tax and corporate income tax systems, while broadening the bases on which they are applied; and (ii) reductions in customs and excise duty rates, with a

consolidation of the auxiliary and basic duties and a narrowing of the overall duty structures. These measures--which introduce several of the principal recommendations of the Chelliah Committee on Tax Reforms--imply clear improvements in the transparency of the overall tax system, as well as a broadening of the personal income tax base. Nonetheless, a number of key issues are still to be addressed. In particular, implementation of a national VAT system will take some time. Consequently, greater efforts are required to broaden further the base for domestic taxation, and to improve administration and compliance. These steps may need to be coupled with some form of transitional arrangement whereby the proportion of domestic taxes transferred by the Center to the States could be reduced, in order to ease the burden of tariff reductions on the Central Government's finances.

15. Consolidating trade liberalization. The Government recognizes that further trade reforms are needed to provide an impetus to exports and output growth, and is committed to achieving a fundamental liberalization of India's trade regime within the next four years. Its principal objectives are to: (i) lower the average tariff rate to no more than 25 percent; (ii) eliminate quantitative restrictions on imports--except those pertaining to environmental and security considerations; and (iii) promote rapid and broad-based export growth.

16. Despite the considerable progress made since 1991/92 in reducing tariff rates and quantitative restrictions on intermediate and capital goods, the pace of reform with respect to liberalization of consumer goods has been constrained by concerns over the potentially adverse balance of payments implications and by fears of adverse socio-political reactions. However, the competitiveness of many consumption goods produced in India has been improved substantially by the large real exchange rate adjustments over the past two years (about 30 percent since March 1991). Thus, it is unlikely that there would be a surge in overall import demand that could not be accommodated through prudent financial policies and continued flexible management of the exchange rate. In view of the desirability of signalling the Government's commitment to reducing protection for the economy as a whole, consideration should be given to initiating decisive reforms in this area in the near term. More generally, the constraints on external financing and the desirability of avoiding large and potentially destabilizing exchange rate adjustments underscore the importance of promoting a vigorous recovery in exports over the next year or two through rationalization of the remaining export restrictions and streamlining of the various schemes that provide inputs to exporters at international prices.

17. The Government's goals for tariff reduction are likely to have a large fiscal impact. Preliminary estimates indicate that an average tariff rate of 25 percent in 1996/97 would result in foregone customs revenues equivalent to about 15 percent of net Central Government tax revenues. The Government faces a serious challenge to compensate for a revenue loss of this magnitude; therefore, tariff reform needs to be pursued in parallel with a comprehensive tax reform along the lines proposed by the Chelliah Committee. In the near term, however, the imposition of a minimum tariff, elimination of some exemptions and normal growth in imports should provide room for further tariff cuts.

18. Accelerating financial sector reform. The Government is committed to a fundamental strengthening of India's financial system through improvements in the prudential and regulatory environment, and increased flexibility in financial policies and markets--including greater participation by the private sector. In April 1992, the RBI introduced new prudential and capital adequacy guidelines for the commercial banks. The Government realizes that a proper recognition of the extent of loan impairment in banks' balance sheets is needed, together with a viable financing package to fill any net-worth deficiency. The 1993/94 budget provides for an initial infusion of Rs 57 billion for the nationalized banks in the form of an issue of new Government bonds. This is expected to result in a

marginal increase in the Government's interest payments in the future. The Government has announced that it will introduce the necessary legislative changes to enable the nationalized banks to mobilize private equity from the capital markets in 1993/94, while preserving the majority ownership of the Government. The decision to allow banks to tap private equity, along with the new guidelines for entry of private banks announced in January 1993, provides an important beginning to market orientation of the banking system. Other steps being taken to strengthen the financial system include measures to improve loan collections--notably, the establishment of Special Tribunals with jurisdiction over bank claims arising from large defaulted credits--and the establishment of a new supervisory board under the aegis of the RBI.

19. Steps are being taken also to liberalize financial policies. The Reserve Bank eliminated the 10 percent incremental cash reserve ratio (CRR) in April 1992 and reduced the average statutory liquidity ratio (SLR)--the minimum percentage of deposits that banks must hold in Central and State government securities--from 38.5 percent to 37.75 percent over the course of the year. In April 1993, the RBI cut the base CRR from 15 percent to 14 percent, and announced that the SLR would be reduced further by one percentage point to 36.75 percent in four stages during 1993/94. The Government's medium term target is to reduce the SLR to no more than 25 percent by 1996/97, and the CRR to 10 percent. Thus far, the pace at which the SLR is being reduced appears too slow to meet the authorities' medium term target. In view of the need to strengthen the profitability of the commercial banks, and to free resources for the private sector, a much faster pace of SLR reduction would be desirable. This would help also to increase the fiscal discipline being imposed on the States. It would be desirable to aim for a faster pace of reduction and a lower final level for the cash reserve ratio as well, in order to make the CRR a more useful instrument of monetary policy. More generally, the transition to a market-based system for funding government debt and conducting monetary policy requires further progress in interest rate deregulation, and the development of broad and active primary and secondary markets for dated government securities.

20. The sequence in which interest rate deregulation is carried out is critical. To minimize the risk of higher real interest rates, and to stimulate development of the government securities market, a pragmatic strategy for interest rate liberalization would be to begin by freeing interest rates on government securities. As the government securities market develops and deepens, its interest rate would gradually gain acceptance as the benchmark rate for the banking system. The early elimination of the minimum lending rate for banks would also be desirable. The ceiling on bank deposits should be eliminated last in order to avoid distress lending by the banks during the transition period.

21. A final issue that needs to be addressed in the process of further financial sector reform is that of priority sector credit. Recent adjustments in the minimum lending rate for commercial credit have effectively reduced the overall interest rate subsidy to recipients of directed credit. Nonetheless, the current interest rate regime precludes the possibility of profits on many priority sector loans and contributes to the general decapitalization of financial intermediaries. The reform strategy would need to combine measures to eliminate the subsidy with a better targeting of eligible borrowers. As the supply of loanable funds available to the banks increases with the lowering of the SLR and CRR, alternative mechanisms will have to be devised that respond to the requirements of creditworthy borrowers yet minimize the adverse incentive problem inherent in the present directed-cum-subsidized allocation system.

22. Restructuring the public enterprise sector. India's public sector enterprises (PSEs) occupy a central position in the economy and absorb a significant amount of budgetary resources. As such, a major improvement in their performance is required to enhance the prospects for structural reform and growth, and to strengthen fiscal adjustment. The reform strategy adopted by the Government for the

public sector enterprises involves a range of measures: (i) the number of industries reserved for the public sector has been reduced from eighteen to seven; (ii) all loss-making PSEs are to be referred to the Board for Industrial and Financial Reconstruction (BIFR) for restructuring or closure; (iii) selected PSEs, particularly those in competitive-market areas, will be fully or partially divested; (iv) budgetary support for non-infrastructure PSEs will be phased out by the end of 1994/95; and (v) a number of privileges granted to PSEs, including purchase preferences, will be eliminated in order to increase competitive pressures.

23. Some progress has been made on this agenda since 1991/92. Overall budgetary support for public enterprises has been trimmed, with only the transport and energy sectors protected from these cuts. Non-Plan support for sick PSEs has been reduced and commercially viable PSEs are being encouraged to seek funds in the capital markets. Over Rs 30 billion of Government equity in 31 PSEs was sold to public financial institutions in 1991/92. During 1992/93, a further Rs 19 billion worth of shares in PSEs was sold to mutual funds and the private sector, representing up to 25 percent of equity in some units. The number of loss-making PSEs referred to the BIFR has now reached 150. The most wide-ranging restructuring plan to date has been formulated for the National Textile Corporation (NTC). The NTC plan calls for closure of uneconomic units; retrenchment of about 70,000 workers with appropriate provisions for compensation; retraining and redeployment; divestiture of some units; and a modernization program for the remaining units. In February 1992, the Government established a new social safety net instrument, the National Renewal Fund (NRF), to provide compensation and transitional support to displaced employees. It plans to create a permanent unemployment insurance fund, financed by contributions from employers and employees. The Government succeeded in attracting foreign assistance totalling US$900 million (including a US$500 million IDA Credit) in support of the NRF and other safety net operations during 1992/93.

24. Despite the foregoing measures, overall progress in rationalizing India's public enterprise sector has been modest, and the reform efforts in this area need to be intensified. The ongoing adjustments in trade and industrial policies, as well as the reductions in budgetary assistance, are likely to increase the financial difficulties already facing many PSEs. Without a comprehensive plan to allow for an orderly adjustment, the financial distress of these entities will be exacerbated--placing further stress on the rest of the economy, particularly the financial sector. Under such circumstances, social and political resistance could grow rapidly, resulting in possible stagnation or reversal of the reform process.

25. Four areas require prompt attention. First, a more pro-active approach is needed to enlist private sector funds and technology for the development of industries that have been reserved traditionally for the public sector. This is particularly urgent in the oil and gas sector so as to stem the growing dependence on imports of hydrocarbons, and should include private development of existing fields. Such a restructuring of the hydrocarbon sector would need to be supported by a realignment of producer prices (crude as well as refinery inputs and products) to reflect world market prices. Second, the weak investor response to the more recent auction rounds for PSE equity signals the need for a bolder approach to disinvestment. Specifically, interest in PSEs in potentially competitive industries, such as fertilizers and general commerce, has been limited due to the Government's desire to retain majority ownership. A more strategic approach to PSE disinvestment is called for, including outright sale of units that have no significant social obligation. Thus far, direct participation by the private sector in disinvestment proceedings has been limited, and needs to be encouraged through more flexible auction arrangements and allowing foreign investor participation. Recognizing the need to take stock of the experience with PSE disinvestment, the Government established a Committee on Disinvestment of Public Sector Undertakings (the Rangarajan Committee). The Rangarajan Committee has recently submitted its report

for consideration by the Government as it charts out future strategy in this area. Third, it is important that a program to deal expeditiously with the sick PSEs be adopted in the near term, in order to allow for timely disposal of assets and compensation of affected workers. Possible measures would include an increase in the number of benches at the BIFR, and granting the BIFR powers of liquidation under an amendment to the Company Act as recommended by the Inter-Ministerial Working Group on Industrial Restructuring. Finally, the operational and financial autonomy of PSEs to be retained in government hands needs to be increased--including greater flexibility to set prices and wages, to adjust workforces and to borrow from domestic capital markets.

26. Reorienting public expenditures. The Eighth Plan envisages a fundamental reorientation of the public sector in the Indian economy during the next few years. Specifically, the Plan calls for: the withdrawal of government from areas where no public purpose is served by its involvement; a shift to a commercial footing for public enterprises; a greater focus of public investment on essential infrastructure; and increased spending for social development. The Plan advocates promoting popular participation and strengthening local bodies and non-governmental organizations. The main elements of fiscal strategy outlined in the Plan include: (i) containment of administrative expenditure; (ii) continued reductions in the share of defense spending in GDP; (iii) cutbacks in fertilizer and to a lesser extent food subsidies; (iv) phasing out of budgetary support to commercially-oriented public enterprises; (v) higher user charges for public utilities; and (vi) additional revenue mobilization efforts.

27. Relative to recent Plans, total outlays for the social sectors are expected to increase significantly--largely through increased spending for education. However, the Plan envisages only a modest increase in the expenditure share of agriculture and rural development programs. Spending on transport (excluding railways) is expected to grow substantially in the Eighth Plan period, while spending on energy and industry is projected to decline--allowing for an increased private sector role in these areas. Many of these reallocations have been reflected to some extent in the 1992/93 and 1993/94 Union budgets. However, concrete reassessment of the future role of both Central and State governments in a number of key areas is still at an early stage.

28. In view of the resource stringencies facing the public sector, strengthening the role of the public sector in the social, agriculture and infrastructure sectors will require: (i) intra-sectoral expenditure re-allocations to focus more on providing basic services (particularly to the most disadvantaged and vulnerable groups in the society); (ii) a more programmatic approach to such expenditures, involving a more effective mix of staff, facilities and materials; (iii) a reorientation of public expenditures from subsidies to augmenting, improving and adequately maintaining the infrastructure for economic development; (iv) improving incentives for greater cost recovery for publicly provided goods and services--particularly from those able to pay; and (v) tapping private capital and initiative wherever possible--especially in the provision of infrastructure and tertiary social services. Expenditure reforms along these lines will create a solid foundation on which the Central and State governments can build, once the ongoing fiscal adjustments have created the necessary flexibility for increased budgetary expenditures in the priority areas noted above.

29. The key role of expenditures by the State governments in areas such as agriculture and the social sectors indicates that particular attention will have to be given to strengthening their finances during the transition. Reform priorities for the States include: (i) control over the wage bill, through an effective hiring freeze, attrition-based reductions in employment, redeployment of surplus staff, curbs in wage increases, and elimination or postponement of certain parts of the benefits package; (ii) increased cost recovery rates--especially in electric power and irrigation, where cost recovery rates are presently very

low and where the private benefits of subsidization are high and to a large extent accrue to non-poor persons; (iii) greater emphasis on efficient operations and maintenance (O&M), particularly in irrigation, roads, and key social sectors; and (iv) a comprehensive review of the portfolio of unfinished State public investment projects to weed out those of low priority, those whose prospects for early completion are poor, and those whose function and/or technology has become obsolete.

30. The Central government has a role to play in improving State finances as well. Specific options for Central action include: (i) rationalizing the number of Centrally sponsored schemes, with a view to focusing on a relatively small number of substantial, sector-oriented programs with more flexibility for States in the use of funds, within broad parameters and performance-related conditions; (ii) adjusting the terms and State-wise allocations of funds for Centrally-Sponsored Schemes to favor more strongly the poorer States and focus on anti-poverty objectives, while at the same time providing incentives for resource mobilization at the State level; and (iii) setting a good example for the States in expenditure management--for example by taking concrete actions to reduce the rate of growth of the Central Government wage bill, or by strengthening expenditure controls in Union Territories, which are directly subordinate to the Central Government.

31. The above options are in the nature of short-term measures that can be taken even in the absence of changes in the broader framework of Center-State relationships. Indeed, since 1991/92, the Center has adopted a number of measures to tighten the linkage between fiscal management by State governments and their access to Central assistance. In the medium- to longer-term, changes in the parameters governing Center-State fiscal relations would need to be considered. The appropriate vehicle for such changes is the recently constituted Tenth Finance Commission whose recommendations, covering the period 1995/96-1999/2000, will be available in November 1993. In addition to the re-examination of the magnitudes and modalities of Center-State revenue sharing and transfers, the Commission's terms of reference include ways to: strengthen resource mobilization by States and reduce their fiscal deficit; improve maintenance of capital assets; and ensure reasonable returns on investments in irrigation, power and other State public undertakings. In the longer run, more general reforms in Center-State fiscal relations, many of which would require legislative or Constitutional change, will probably have to be considered.

32. <u>Enhancing human resources development</u>. The Government recognizes that social sector adjustment is a high priority both to protect the poor and other disadvantaged groups during the transition, and to lay the foundation for accelerated development of India's human resources over the longer term. Its strategy includes: greater government attention to raising the level of human capital in India, through the creation of an enabling environment for the private sector and through its own efforts; increased resources for key social programs--especially those that benefit the poor; greater emphasis on the quality of social program outcomes; and improvements in the efficiency of social programs. The Government has indicated that it will re-examine the financing patterns for programs to ensure that: resources are available when needed; there is a sufficient level of expenditure on operations and maintenance to make programs effective and efficient; public subsidies are targeted on those most in need of them; and, that costs are recovered from those able to pay--particularly for tertiary education and higher level health care.

33. Some progress is being made with this agenda. In 1992/93, cuts that were made in budgetary funding for important social programs in the early stages of the adjustment process were restored. In conjunction with the development of a Program to Strengthen the Safety Net, the Government announced a number of policy measures to deal with many of the points in the preceding paragraph. In terms of

the funding of operations and maintenance, for example, the Government is enhancing the funding for the provision of drugs for primary health care and is revamping Operation Blackboard to assure greater availability of teaching materials in primary schools. It is increasing the norms for food supplementation under the Integrated Child Development Services (ICDS) program. To improve targeting, the Government is focusing the expansion of ICDS on 180 districts in which infant and maternal mortality are the highest. The Government is expanding its food subsidy program, the Public Distribution System (PDS), into targeted priority areas, and States are taking measures to reduce the participation in the PDS of better-off groups. Primary health care expansion is being focused on 90 districts in which maternal mortality rates are highest. Many of the ideas outlined in the preceding paragraph are incorporated in the revised National Policy on Education (1992) and in the associated Programme of Action adopted in August 1992. The Government is implementing a new national primary school development program that gives priority to districts where female literacy rates are below the national average or where "total literacy" campaigns have generated an unmet demand for education. The Center's plan allocations for higher education are to be held constant in nominal terms.

34. To increase cost recovery, the Government has increased the fees at some of India's elite institutions of higher learning. For example, fees at Indian Institutes of Technologies have been increased from Rs. 385 to Rs. 1,000 per year, and at the Management Institutes they have risen to about Rs 6,000 per year. In addition, a major study of financing is being carried out by the Universities Grants Commission; new endowments have been set up at State educational institutions; tax concessions offered to those who donate to institutions of higher learning; and fees raised for foreign students. Steps to raise cost recovery at some Government operated tertiary hospitals have been taken as well. Greater attention is being given to improving the quality, efficiency and effectiveness of key programs. The Government has begun to implement an Action Plan for Revamping the Family Welfare Program. It has already carried out major reviews of endemic disease control programs and cataract blindness and has begun to implement enhanced programs for leprosy and blindness. Plans are being drawn up for similar investments to combat malaria and tuberculosis. Finally, the 1993/94 Union budget includes a substantial increase in Central funding for primary education, endemic disease control programs and the ICDS.

35. The measures being taken by the Government are timely, important, and represent a departure from previous approaches that have made limited progress in developing India's human resources. However, the funds available to accomplish the Government's goals for human resource development are likely to remain limited during the next few years. Consequently, measures to improve the overall effectiveness and efficiency of public expenditures need to be at the heart of the reform effort in the social sectors during the transition. Determined action in the following areas will be crucial: expenditure re-allocations to focus on high priority programs and needs--notably, primary education (especially for young girls), raising the nutritional status of children under the age of three and of pregnant and lactating women, and improving basic health (immuno-preventable disease, diarrheal disease and respiratory infections for children, and malaria, maternal health--including family planning--respiratory infections, tuberculosis and AIDS for adults); enhancing cost-recovery; and increasing the role of the private sector in the provision of social services. Given the large volume of unmet social needs, and the low coverage rates of programs to address them, it is unlikely that India can meet its priority human resource development needs over the medium term by continuing to provide only 3 percent of GDP from public funds for the social services. Accomplishing the reforms noted above would create a more favorable environment for productive use of public funds in the future when government spending will have to be increased to ensure satisfactory coverage for those unable to pay for them in the private sector and to meet gaps that the private sector (including voluntary groups) will be unable or unwilling to fill.

36. <u>Initiating reform in agriculture</u>. India's agricultural sector (broadly defined to include forestry, fisheries and irrigation) accounts for about one-third of domestic production, employs the bulk of the labor force and harbors about 80 percent of the country's poor. Thus, bringing about an acceleration of agricultural growth is one of the principal challenges facing the Indian authorities in their efforts to expand output and employment, and to alleviate poverty. Large public investments in irrigation infrastructure and research, coupled with land reform to give ownership of land to the landless and the introduction of high-yielding seed varieties and expanded use of fertilizer, have resulted in some notable achievements over the past thirty years--including virtual self-sufficiency in rice, wheat, coarse grains, sugar and edible oils, and the eradication of famine.

37. These successes have created new challenges for the agricultural sector. Escalating expenditures on a broad array of subsidies, and low rates of cost recovery have crowded out public expenditures on efficient operations and maintenance, and new investments. Population growth has increased pressures on natural resources--land, water, soil and forests. Private investment in the sector has declined since the early 1980s and recent evidence suggests that yields of some traditional crops are declining as well. Foodgrain production in 1991/92 registered a 1.5 percent decline despite the relatively good monsoon. These recent developments, and the limited availability of new uncultivated lands, pose serious challenges to the country's ability to sustain its hard-won self-sufficiency in basic foods, while improving the economic performance of the sector through diversification and commercialization of farming enterprises and exports. Moreover, despite increasing public expenditures on rural employment programs and on input subsidies for smaller farmers, India's rural poor have not benefitted from growth to the extent that had been hoped. Rural people still earn only half of the country's average per capita income.

38. Bold reforms are essential as India's agriculture approaches the next century. Constitutionally, agriculture falls under the purview of the State governments. Yet, the Center sets the broad directions of policy and must take the lead in reform. The Ministry of Agriculture has completed a draft Agricultural Policy Resolution that is under consideration by the Government. Reform measures in the following areas need to be accorded priority in the near term: (i) reallocating public expenditures in the sector from subsidies to investment; (ii) improving the structure of production incentives through a removal of domestic market impediments and a greater integration with world markets; (iii) rationalizing price support and stocking policies, along with a reorganization of the food subsidy system to target better the poor; (iv) generating and disseminating new technologies, especially for non-traditional crops, diversified farming systems and post-harvest activities; (v) strengthening the management and performance of the irrigation subsector; (vi) rehabilitating forests and protecting non-renewable resources; and (vii) comprehensive reform of the rural credit system in line with the broader ongoing reforms of the overall financial sector.

39. Viewed as a whole, the Government's agricultural policy would need to aim at a thorough transformation of the sector based on the most advanced technologies, freely operating markets and an increased reliance on the private sector at all levels of production, processing and marketing. A program of bold reforms organized around these objectives could be expected to yield important benefits in both the short and long term. The reforms would contribute considerably to the alleviation of rural poverty by creating additional employment, both on the land and in nearby agro-processing, marketing and tertiary activities. Increased rural employment would, in turn, discourage rural-urban migration and encroachment on marginal lands.

Promoting Supportive Infrastructure

40. The Government recognizes that severe infrastructure bottlenecks could inhibit the ongoing economic reforms. Consequently, its new development strategy attaches a heightened importance to the development of efficient infrastructure services. Financial pressures, inadequate and poor quality service, technological change and the need to integrate the Indian economy into the world trade system indicate that the areas most urgently in need of new reform initiatives are telecommunications, electric power, and transport. Since much of the analytical groundwork has been completed in these subsectors, it should be possible to make rapid progress with reform in the near future.

41. Telecommunications differs from the other subsectors in that its finances are reasonably sound. The reform movement is being driven by inadequate, low-quality service at prices unrelated to demand or costs. Since the potential market is very large, scale economies could be achieved by several providers and the introduction of competition (public and private sector) is both feasible and desirable. This would solve the problem of low quality and coverage as well as the problems of technology transfer and investment funds. Opening the telecommunication market to private and foreign investment and operation under government utility regulation would be the route to rapidly expanding coverage and enhanced quality. This is by far the "easiest" of the infrastructure subsectors to reform, and would have a high pay-off in terms of increasing exports, foreign investment and domestic commerce.

42. Electric Power is faced with a massive financial crisis that has combined with inadequate output to threaten the growth of the economy. Unlike the telecommunication monopoly which is unified and centralized, the electric power system is separated between Central and State government entities that are pursuing different objectives and have differing degrees of responsibility and authority. The desire to subsidize pump-irrigated agriculture at the State level has led to unmetered and nearly free electric power to farmers who have no incentive to use it efficiently and whose failure to pay cost-based charges leads to unsuccessful attempts at cross subsidizing. The financial difficulties of the State Electricity Boards (SEBs), most of which can no longer pay for power delivered, has shifted part of the financial crisis to the generators of electricity. As long as this situation obtains private capital for generation and subsequent sale to the SEBs will not be forthcoming. There is a strong case for universal metering and cost-based, volume-based user charges for all users under an independent public utilities regulatory authority.

43. Transport reform revolves around the severely congested high density corridors (HDC) of the road and rail systems. Each of these systems comprises roughly 20,000 km of parallel road and rail links between the major urban areas and failure to expand capacity and improve services in these two core networks will, as in the case of electric power, have serious consequences for the expansion of private and public sector industrial activity. The railroad problem emanates from declining service quality for freight traffic and subsidizing passenger and meter gauge operations. The road problem emanates from a completely inadequate budget allocation combined with State Public Works Departments (PWDs) that have limited incentives to construct durable roads. Commercial behavior and incentives in the railroad should be promoted through a phased reduction in budgetary assistance. For roads, the hoped-for Build-Operate-Transfer initiatives are unlikely to be sufficient to make a difference. Fuel taxes temporarily ear-marked for HDC construction and a toll expressway initiative under a National Highway Authority--relying on modern procurement and contract management processes that by-pass the constraints under which the PWDs are operating--could make an urgently needed contribution towards improving the current situation.

44. In sum, the themes for promoting faster development of India's infrastructure sector are competition, commercialization and independent government regulation, coupled with pricing and cost recovery reforms to enhance financial viability and to promote efficient operations and maintenance. In each subsector, a serious effort is required to emphasize the flow of adequately priced services to all potential users, public and private, rather than government-directed subsidies and physical expansion of infrastructure system capacity. Concerted effort is now being made to bring necessary reforms to the power and telecommunications subsectors, and some initiatives have been adopted in the area of transport. This is an emphasis and phasing broadly consistent with international experience.

External Adjustment and Financing Requirements

45. During the period 1990-92, a number of external factors--notably, the Gulf crisis and collapse of the former Soviet Union--imparted large shocks to India's external sector. Although the prospect now exists for a steady improvement in the external environment, the outlook for India's external adjustment remains subject to considerable uncertainty. Despite the improvements in the policy framework, export performance is still well short of what is needed to strengthen fundamentally India's external creditworthiness, and only limited progress has been made in strengthening the capital account of the balance of payments. In view of the large bulge in debt repayments beginning in 1994/95, and the likely import needs of the restructuring effort, export growth of about 15 percent per annum in dollar terms will be required over the next few years. The achievement of this level of export performance is critical to the medium term prospects of the Indian economy and must be accorded the highest priority in national economic management.

46. Future export growth will depend on progress in broadening the export base. In 1992/93, over 40 percent of merchandise exports was accounted for by textiles, garments, gems and jewelry. Exports of these items depend heavily on external factors--such as the recovery of growth in key industrial markets and successful conclusion of the Uruguay Round of the GATT--about which there is considerable uncertainty. This uncertainty underscores the importance of the recent steps taken to reverse the long-standing bias against agricultural and other non-traditional exports imparted by high trade and industrial protection, and the concentration of export incentives on existing manufactured exports. These steps need to be complemented by further liberalization of export controls and import tariffs, as well as by measures to improve the design and functioning of export promotion schemes, such as the duty-free import schemes for exporters. Steps to decontrol exports of agricultural items should be accompanied by domestic pricing and procurement reforms in order to facilitate a rapid and efficient supply response. Export promotion requires also greater attention to supportive infrastructure services, especially in the Export Processing Zones (EPZs). In the context of the latter, consideration should be given to private sector participation in the management of the EPZs. Such public-private collaborations have been extremely successful in countries such as China. Finally, continued flexibility in exchange rate policy will be important.

47. Import demand is likely to be heavily conditioned by the exact path and pace of further trade liberalization, as well as by developments in India's energy sector and in international oil markets. Domestic oil production has been declining in recent years, and development of alternative energy sources such as natural gas and coal lag behind their potential. This situation has arisen in the face of rapid growth in energy consumption as a result of widespread subsidization of energy products--notably electric power. Addressing this fundamental weakness in India's balance of payments requires measures to attract

private investment in the sector and to contain demand growth through appropriate adjustments in the pricing of energy products. Given the uncertainties concerning future export performance, the downside risks for India's external adjustment are considerable and continued prudence in demand management policies will be required.

48. The task of balance of payments management is complicated further by various weaknesses in India's external financial structure--including, low rates of aid utilization, a large share of relatively short-term and potentially volatile debt, and a relatively small reliance on non-debt financing. Traditional forms of finance, both official and private, are likely to remain constrained over the next few years. Thus, the primary objectives of external debt management policies must continue to be those stressed in the last Economic Memorandum, namely: (i) a substantial increase in the utilization of committed official assistance; and (ii) strengthening India's external financial structure through a greater reliance on non-debt capital and limited, judicious recourse to commercial borrowings.

49. Some steps have been taken recently in both areas. The Government has adopted a number of measures to speed up the utilization of remaining undisbursed balances, including: the introduction of Central advances to the States for externally-assisted projects; 100 percent pass-through to the States of all disbursements under such projects; and, very recently, allowing Central public enterprises to borrow directly from multilateral and bilateral agencies. These efforts have had some success and should be intensified. In particular, lengthy procurement processes and problems with civil works contractors continue to contribute to slow project start-up and implementation. Greater attention needs to be paid to project design as well. As noted in last year's Memorandum, donors can help further by increasing the concessional component of the assistance that they provide, untying aid to the maximum possible extent, facilitating cofinancing arrangements, re-evaluating designs of pipeline projects to facilitate implementation and disbursements, insuring that project savings resulting from depreciation of the rupee are channeled back into the Indian economy, and emphasizing disbursement performance in designing new project starts.

50. Progress has been made also in designing a new strategy for external financing from commercial sources. An overall ceiling has been set on external commercial borrowing, and much greater emphasis is to be placed on the use of suppliers credits supported by official export credit agencies. Short-term debt will no longer be used to protect foreign exchange reserves, and a minimum maturity of five years has been established for all new commercial borrowings. More generally, future external resource mobilization from private sources is expected to rely much more on longer-term instruments placed through world capital markets and on direct and portfolio investment flows. Careful coordination of interest rate and exchange rate policies will be important.

51. Notwithstanding these efforts, the financing of India's external current account deficits and reserve build-up over the next few years will continue to depend heavily on exceptional official assistance. Project disbursements can rise only gradually (in part due to continuing exchange rate-related cost savings), while repayments of official creditor debt will increase rapidly. Consequently, a significant proportion of official assistance over the next three to four years will need to be provided through fast-disbursing operations. Thereafter, it is anticipated that the current account adjustments, increasing volume of private foreign investment, strengthening of the project disbursement pipeline and normalization of India's access to private credit would eliminate the need for such exceptional financing.

52. In view of the larger-than-anticipated accumulation of foreign exchange reserves in 1992/93 (which, in part, reflects the one-time transfer of funds by foreign commercial banks), the amount of exceptional official assistance required in 1993/94 is estimated at about US$1.8 billion, roughly US$700 million less than projected last year. Assuming the timely adoption by the authorities of programs in the key reform areas noted above, exceptional financing for 1993/94 from the World Bank and the ADB, plus the last tranche of the IMF Stand-By Arrangement, is estimated at US$1.3 billion. This implies a need for additional fast-disbursing assistance from bilateral sources of US$500 million. It is recommended that donors maintain their overall pledge amounts at last year's level (i.e., US$7.2 billion), and that the fast-disbursing component from bilateral donors (including the EC) be US$500 million. This level of overall assistance is warranted in view of India's continued need for official development assistance, and is necessary to strengthen the project lending pipeline over the medium term. Despite the reduced exceptional financing need in 1993/94 (which is predicated on the assumption of a substantial improvement in export performance), India's balance of payments over the next few years will remain fragile due to the temporary bulge in scheduled repayments (including large IMF repurchases in 1994-96). Strong export growth, prudent demand management policies and a viable financing package--including further recourse to IMF credit--will be required throughout the transition period.

CHAPTER 1: RECENT PROGRESS IN ADJUSTMENT

A. Introduction

1.1 Faced with a general financial crisis in mid-1991, the Government of India began a series of far-reaching economic reforms that has attracted substantial support from both multilateral and bilateral donors.[1/] The fiscal year 1992/93 marked the first full year of adjustment, and significant further progress was made in stabilizing and reforming the economy. Key developments in 1992/93 included:

- A recovery of GDP growth from 1.2 percent in 1991/92 to about 3.5-4 percent--paced by a significant rebound in agriculture due to favorable monsoon rains.
- A substantial decline in inflation from an annual rate of 14 percent at the end of March 1992 to about 7 percent in March 1993--despite large increases in various administered prices.
- A further increase in foreign exchange reserves from US$5.7 billion at the end of March 1992 to over US$6.7 billion at end-March 1993.
- A Union budget for 1993/94 that provides for increased spending for social and rural development, as well as a carefully targeted package of fiscal incentives to stimulate investment and exports--all within the context of a further reduction in the fiscal deficit.
- A re-unification of the exchange rate at the free market rate at the beginning of March 1993.
- Further improvements in the import-export policy framework through lower import tariffs, streamlining of export administration and the creation of a window for imports of selected consumer goods for exporters.
- An expansion of the number of areas eligible for automatic approval of foreign investment proposals and/or foreign majority ownership.
- Announcement of new guidelines for the entry of private banks and plans for the recapitalization of the nationalized commercial banks involving a mix of new government bonds and private equity.

1.2 Despite these improvements in economic performance and policies, other developments in 1992/93--notably, a gradual recovery in exports and private investment demand, continued difficulties in aid utilization and an outbreak of civil disturbances--underscore the serious challenges facing the Indian authorities in the management of the transition to a more open, dynamic economy. The following Sections of this Chapter review in greater detail the progress made in macroeconomic performance and structural adjustment during the past year; focusing on the extent to which recent developments advance the attainment of the Government's medium term objectives. The rest of the Memorandum deals with selected areas where further action is needed in the near term. Chapter 2 examines options for enhancing India's prospects for rapid growth with financial stability during the transition period through selected reforms of policies and institutions governing taxation, trade, finance and agriculture. Chapter 3 outlines

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[1/] The progress made during the first nine months and the remaining policy agenda in several key areas of the economy were the main topics of the Bank's 1992 Economic Memorandum for India. See India: Stabilizing and Reforming the Economy. May 18, 1992. IBRD Report No. 10489-IN.

ways in which the sustainability and benefits of the ongoing fiscal adjustment can be improved through selected public expenditure reforms, while Chapter 4 assesses the scope for promoting faster development of India's core infrastructure sectors to support the economic reform process.

B. Macroeconomic Performance

Growth and Investment

1.3 Output growth. There was evidence of incipient recovery in several major sectors of the economy in 1992/93, and the overall GDP growth rate could turn out as high as 4 percent. This would be a considerable improvement over the 1.2 percent recorded in 1991/92 (see Table 1.1).[2]

1.4 Preliminary data for 1992/93 indicate real growth in the industrial sector of about 3.8 percent. However, the output of many manufacturing industries remains depressed.[3] Some slowing of manufacturing growth was probably inevitable in view of the stabilization measures, but business groups cite also lingering uncertainties about the timing and extent of future reforms, particularly in the areas of trade, finance and labor policies, as reasons for the slow recovery. The widespread disturbances following the destruction of a mosque at the disputed Ayodhya site in early December 1992 disrupted production and marketing in many areas of the economy as well. Transport of raw materials and export shipments was delayed throughout India, which was particularly damaging for winter export items such as foodstuffs, garments and leather.

Table 1.1 Recent Growth Performance
(Data are in percentage points)

	1980-90	1990/91	1991/92	1992/93
Real GDP Growth Rates: /a				
Agriculture	2.9	4.8	-1.4	4.2
Industry	6.8	6.9	-0.1	3.8
Manufacturing	7.2	7.5	-2.3	3.5
Services, Etc.	6.6	4.2	4.3	4.2
Public Administration & Defence	8.0	0.4	0.3	n.a.
GDP at Factor Cost	5.4	5.2	1.2	4.0

/a Data are in Indian fiscal years. Thus, 1980-90 refers to the period 1980/81 to 1989/90.

Source: Staff estimates based on data from the Central Statistical Organization.

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[2] Estimates of real GDP growth in 1991/92 have been revised downwards recently from 2.5 percent to 1.2 percent, largely as a result of weaker than expected performances by the manufacturing and agricultural sectors.

[3] At the end of October 1992, the manufacturing production index stood barely 1 percent higher than in October 1990.

1.5 The modest recovery in industrial activity is likely to be strongly reinforced by a significant rebound in agricultural output due to highly favorable monsoon rains. Although overall rainfall in 1991 was normal, its temporal and spatial spread was erratic. As a result, production of most crops, particularly foodgrains, declined. Agricultural GDP growth in 1992/93 is estimated at 4.2 percent, compared to a decline of 1.4 percent in 1991/92. Much of the growth in 1992/93 is due to unusually high oilseeds production. Food-grain output is expected to reach 180.3 million tonnes--an improvement of over 13 million tonnes over the previous year's performance. Despite this handsome recovery in 1992/93, foodgrain production in India is constrained by the continued excessive dependence upon weather conditions--which calls for a fresh look at the irrigation system and increased attention to dryland farming--and by distribution controls and deficient production incentives (see para. 2.55). Nonetheless, the relatively strong overall performance of agriculture in 1992/93 should help to bolster aggregate demand and industrial activity in 1993/94.

1.6 Investment. A large number of important steps taken in 1991/92 to improve the climate for private investment--including the abolition of restrictive industrial licensing for most sectors and the liberalization of the foreign investment code. These measures were successful in mitigating the contractionary effects of the stabilization measures on private investment demand, and private fixed investment expenditures declined by only 2.6 percent in real terms during 1991/92. Public sector fixed investment fell by 4.1 percent. However, there was a major depletion of inventories due to the import compression measures, and gross domestic investment as a whole declined by 15 percent in real terms during 1991/92. The available evidence suggests that private investment demand remained subdued in 1992/93. Over the months of August-November 1992 the Government received 1,415 Industrial Entrepreneurs' Memoranda (required for new capital investment projects in sectors still subject to licensing), compared with 2,564 over the same months of 1991 (when the system was introduced). Imports of capital goods, which fell by over 27 percent in dollar terms during 1991/92, were only 8 percent higher in 1992/93, despite the virtual elimination of quantitative constraints and substantial reductions in import duties. Moreover, it appears that the massive recourse to the capital market witnessed during 1992 was motivated largely by the desire to rearrange corporate balance sheets and convert debt to equity rather than to expand productive assets.

1.7 There are a number of special factors, such as the major financial scandal revealed in April 1992 and the disturbances following the Ayodhya incident, that worked to dampen economic activity and investor confidence during 1992/93. Moreover, there was a sharp increase in real lending rates--from roughly 5 percent in March 1992 to about 9-10 percent since December 1992. In view of the large accumulation of corporate debt during the 1980s--over 70% of the funds raised by the corporate sector during the 1980s was in the form of debt--much of the new credit extended to the commercial sector in 1992/93 probably went into debt servicing.[4]

1.8 In many respects, however, the gradual recovery in private investment in India is very much in line with the recent experience of other economies under adjustment. Typically, where the adjustment effort has been preceded by a period of rapid aggregate demand growth--as in the case of India--private investment has taken several years to recover (see Box 1.1). The delay in private investor response is frequently related to the uncertainty surrounding the evolution of key incentive variables during the early

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[4] Evidence of such "distress" borrowing is provided by the steady decline in the ratio of investment to new commercial borrowing--from 46 percent in 1988/89 to less than 28 percent in 1991/92.

phases of the reform process and inconsistencies in financial policies that lead to high real interest rates.[5]

Box 1.1 Patterns of Investment under Adjustment

Many countries which undertook decisive measures to stabilize and restructure their economies during the 1980s have witnessed a very slow recovery in aggregate private investment. Since a central element of the adjustment strategy has been typically to increase the role of the private sector in the economy, this delayed private sector response is cause for concern. Cross-country analysis of this phenomenon suggests that there are some predictable patterns to investment behavior under adjustment. Based on an examination of the adjustment experience of Bolivia, Chile, Ghana, Mexico and Thailand during the 1980s, Solimano (1992) identifies three stages of private investment behavior under adjustment.

In countries where the period of adjustment was preceded by a phase of generally expansionary demand conditions, the initial stage is typically characterized by a sharp contraction in investment expenditures as restrictive demand management policies are instituted to correct fiscal and external imbalances, and to contain inflation. This period of contraction typically lasts about two years. The second phase, which lasts from three to five years, or longer, is characterized by stagnation as demand management policies continue to give priority to stabilization and structural reforms are gradually introduced. In countries with a history of restrictive trade and investment policies and/or major policy reversals, the transitional costs are usually viewed as being especially high, and investors are slower to undertake large-scale, irreversible investments. The final phase is characterized by a more or less sustained increase in private investment, with foreign direct investment often playing a significant role.

1.9 Clearly, the evolution of private investment in any given country will depend on the specific complex of macroeconomic and structural problems that needs to be addressed, the pace and sequencing of different policy measures and the availability of external finance. Many countries in the 1980s adopted their adjustment programs in the midst of extremely severe financial crises that took several years to resolve. After two years of adjustment, India is much better placed in this respect, and it is expected that the measures being taken by the Government to stimulate investment demand, and to indicate the future direction of relative prices, will result in a progressive strengthening of private investment over the next few years.

Controlling Inflation

1.10 Given the low tolerance of the Indian polity for inflation, bringing about a rapid and durable reduction in the rate of price inflation is one of the principal objectives of the Government's stabilization program.[6] Prompt action to tighten credit conditions helped to slow the pace of price inflation from

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[5] See also Chhibber, Dailami and Shafik (eds.). 1992. Reviving Private Investment in Developing Countries.

[6] This pronounced aversion to inflation stems from the relative paucity of inflation-adjustment mechanisms in the Indian economy, which implies that even moderate inflation (by developing country standards) results in significant erosion of the real incomes of large segments of the population. Conversely, the experience of several countries in Europe and Latin America indicates that the development of such mechanisms ultimately makes inflation harder to control.

an annual rate of 17 percent (as measured by the wholesale price index) in August 1991 to 13.6 percent by end-March 1992. The inflation rate continued its gradual decline throughout 1992/93, despite large increases in a number of administered prices in the second half of the year, notably a 44 percent increase in fertilizer prices and increases in petroleum product prices averaging 18 percent. Since early January 1993, the WPI inflation rate has hovered around 7 percent and, for the year as a whole, is estimated at about 10 percent.

1.11 A number of supply-side factors were particularly important in the successful effort to contain inflation in 1992/93. The strong recovery of the agricultural sector, combined with foodgrain imports and measures to strengthen the Public Distribution System (PDS) and to extend its geographic coverage, contributed to a sharp decline in the inflation rate of the primary product price index--from an annual rate of 15 percent in March 1992 to barely 1 percent in January 1993. The existence of considerable unutilized industrial capacity also dampened price pressures. As a result, consumer price inflation, which was running at 14 percent at the start of the year, is projected to decline by even more than that of wholesale prices--which should bolster popular support for the adjustment program.

1.12 The contribution of monetary policy to controlling inflation in 1992/93 was greater than in recent years. During the early part of the year, there was a large accumulation of foreign exchange reserves that the Reserve Bank of India (RBI) was unable to sterilize adequately. This contributed to a substantially faster pace of money growth than that targeted by the authorities--19 percent through September 1992. However, in the second half of the year, steps were taken to slow the rate of monetary expansion and, for the 1992/93 fiscal year as a whole, broad money increased by about 14.6 percent.

1.13 One worrisome aspect of the inflation story in 1992/93 was the persistence of double-digit growth of industrial prices through much of the year. To some extent, this reflects discrete adjustments in administered prices, such as petroleum product prices and electricity tariffs. Nevertheless, in view of the rapid expansion of liquidity in the recent past and the need for further price and subsidy adjustments, continued prudence in monetary policy will be essential to maintaining a low rate of inflation. Recent actions by the Government to lower excise taxes on a large number of items should also help to relieve price pressures in 1993/94 (see para. 1.19). This will, of course, only happen if the bulk of the excise tax cuts is passed on to consumers. A large pass-through of this tax relief would be helpful to stimulating aggregate demand as well.

Fiscal Adjustment

1.14 Recent adjustments in Central government finances. The Government recognizes that India's public sector imbalances had reached unsustainable levels over the course of the 1980s, and a central goal of the adjustment program is to lower the weight of the public sector's financing burden on the rest of the economy, and to create greater flexibility in public expenditure decisions by reducing the share of interest payments. The gross deficit of the Central Government was cut from 8.4 percent of GDP in 1990/91 to 6 percent in 1991/92, resulting in a sharp fall in the primary (non-interest) fiscal deficit from 4.4 percent of GDP in 1990/91 to 1.6 percent (see Table 1.2). However, roughly half of this deficit reduction was achieved through cutbacks in capital spending that could erode longer-term growth prospects, while much of the remainder consisted of special revenue measures (such as disinvestment of government equity in public enterprises) that do not contribute much to longer-term fiscal consolidation. The Government recognizes that greater attention needs to be paid to the quality of its fiscal adjustment--in terms of its sustainability and its implications for longer run development. To this end, the 1992/93 budget targeted a further reduction in the central budget deficit to 5 percent of GDP, to be achieved through roughly equal reductions in recurrent expenditures--particularly subsidies--and capital spending.

1.15 Recent estimates of the fiscal outcome for 1992/93 indicate that the Government may have overshot the budget's fiscal deficit target by as much as 0.7 percent of GDP. To a large extent, this reflects a major shortfall in tax revenue due to the effects of the disturbances in the latter part of the fiscal year. During the period April-November 1992, revenues from the four major taxes (corporate, personal income, excises and customs) outstripped budget estimates by a wide margin thanks to the improved buoyancy of direct taxes stemming from measures adopted in March 1992 to broaden the base and improve tax administration--tax collections were over 26 percent higher than during the corresponding period of 1991. Collection rates fell precipitously during the final four months of the fiscal year, and collections for 1992/93 as a whole were only 10 percent higher than in 1991/92. There was a significant shortfall in revenues from asset sales also (see para. 1.41). These developments underscore the need to broaden the tax base in India, as well as the dangers of relying on public enterprise disinvestment proceeds for Government revenue.

1.16 On the expenditure side, the Government exceeded several of its revenue expenditure targets (particularly those for subsidies and for transfers to State governments).[7] Defense and capital spending, on the other hand, fell more or less as budgeted--although infrastructure investment suffered disproportionately. Despite the larger-than-anticipated deficit, net RBI financing to the Government increased by only 4.6 percent, which should help with control of inflation in the coming year.

1.17 The pattern of fiscal adjustment in India over the past two years bears some important similarities and differences to that witnessed in other countries that have undertaken comprehensive programs of financial and structural adjustment (see Box 1.2). Like other countries facing serious macroeconomic imbalances in recent years, India has been able to reduce its central government fiscal deficit substantially. However, unlike countries that undertook intensive adjustment programs, the bulk of fiscal adjustment in India so far has occurred on the expenditure side. This is understandable given the already relatively high tax/GDP ratio and the inflexibility of the narrowly-based tax structure in India. As in other countries, capital expenditure has suffered disproportionately in India.

1.18 Another important difference between fiscal adjustment in India and that in other intensively adjusting countries is the relatively small contribution made thus far by cuts in subsidies and other transfers--17 percent of the reduction in non-interest expenditure achieved in India between 1990/91 and 1992/93, compared to 42 percent for the intensive adjusters. The contribution of reduced expenditures on subsidies in India is expected to increase substantially in coming years with the phasing out of the Cash Compensatory Scheme (for exporters) and rural loan waiver, and the rationalization of the fertilizer subsidy (see para. 3.22). Finally, it is worth noting that interest expenditures increased significantly for the intensive adjusters--raising questions as to the adequacy of the pace of fiscal adjustment in these countries. The Government of India's interest expenditures have already risen by 1 percent of GDP since 1989/90 due to the effects of the exchange rate adjustments and the shift towards market-based domestic finance. Further increases are likely to be triggered by the planned recapitalization of the nationalized banks and exchange rate unification (see paras. 1.48 and 1.69, respectively). Nevertheless, the real stock of Government debt should decline steadily over the next few years as fiscal adjustment progresses. This would eventually translate into a lower interest burden, and increase greatly the scope for restructuring the Government's expenditures.

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[7] There were significant, unprogrammed expenditures for law and order as well.

Table 1.2: Recent Adjustments in Central Government Finances
(Percent of GDP)

	1989/90	1990/91	1991/92	1992/93 (Budget)	1992/93 (Estimate)	1993/94 (Budget)
Fiscal Deficit	8.4	8.4	6.0	5.0	5.7	4.7
Total receipts	12.1	11.5	12.3	12.3	11.8	12.1
Tax revenue (net) /a	8.4	8.1	8.2	8.2	7.7	8.0
Non-tax receipts /b	3.7	3.4	3.7	3.7	3.8	3.7
PSE disinvestment	0.0	0.0	0.4	0.5	0.3	0.4
Total expenditure	20.5	19.8	18.3	17.3	17.5	16.8
Capital expenditure	6.3	6.0	4.8	4.3	4.2	3.9
Plan	3.6	3.1	2.6	2.3	2.3	2.2
Non-plan	2.7	2.9	2.2	1.9	1.9	1.6
Revenue expenditure	14.1	13.8	13.5	13.0	13.3	13.0
Plan	2.7	2.4	2.5	2.7	2.7	3.1
Non-plan	11.5	11.5	11.0	10.3	10.6	9.9
Memo Items						
Primary deficit	4.5	4.4	1.6	0.4	1.0	-0.2
Interest payments	3.9	4.1	4.4	4.6	4.7	4.9
Non-interest expenditure	16.6	15.8	14.1	12.6	12.8	12.0
Defense	3.2	2.9	2.7	2.5	2.5	2.5
Subsidies	2.3	2.3	2.0	1.5	1.8	1.1
Flows to States & UTs	4.1	4.4	4.1	3.7	4.0	3.5
Direct capital expenditure	4.6	4.1	3.3	3.0	3.0	3.4
Other	2.4	2.1	1.9	1.9	2.0	2.0

Notes: a/ Net of revenues transferred to State governments.
b/ Includes grants and loan recoveries.

Sources: Ministry of Finance and staff estimates.

Box 1.2: Structural Adjustment and Public Expenditure -- International Experience

Many developing countries adopted comprehensive adjustment programs during the 1980s. Public expenditure developments in a sample of 29 such countries have been analyzed in a recent World Bank paper, "The Third Report on Adjustment Lending: Private and Public Resources for Growth". The sample was divided into one group of sixteen countries undergoing intensive adjustment, reflected in a series of World Bank structural adjustment loans, and a group of thirteen other countries. Budgetary developments in the two sets of countries are summarized in the table below.

Budget items (% of GDP)	Intensively adjusting countries 1981-85	1986-90	Other countries 1981-85	1986-90
Total expenditure	23.4	22.9	25.2	23.5
Non-interest expenditure	20.3	18.4	23.9	21.7
Total revenue	18.2	20.3	21.7	21.4
Budget deficit	5.2	2.6	3.5	2.1
Primary deficit	2.1	-1.9	2.2	0.3
PSBR	6.7	3.2	6.1	5.1
Capital expenditure	3.9	3.4	5.1	4.2
Interest	3.2	4.5	2.0	2.5
Wages	5.8	5.5	7.2	6.7
Other goods and services	4.3	4.0	5.9	5.8
Subsidies & Transfers	6.4	5.6	4.9	4.4
Memorandum item: defense	2.7	2.3	4.5	4.0

Most countries were able to reduce their budget deficits substantially through varying combinations of revenue mobilization and expenditure control. For most countries, a rising interest burden, reflecting the build-up of debt from past deficits, mandated sharp cuts in non-interest expenditure, even in the intensively adjusting countries where, on average, total expenditure did not fall by much.

Capital expenditure typically declined as a share of GDP--although to some extent this represented a weeding out of unsound investment projects and rationalization of public investment programs. Expenditure on operations and maintenance--Other goods and services--also fell marginally. Although some progress was made in containing government employment growth, it has generally proven difficult to effect large reductions in government employment or the wage bill. A large part of the burden of fiscal adjustment fell on transfers and subsidies.

Spending on the social sectors typically increased in real terms. However, there is evidence to suggest that spending on salaries and other staff costs increased disproportionately. Moreover, there have been few cases of a successful reallocation of social sector spending in favor of primary education and health services. Expenditure on transport and other forms of economic infrastructure suffered somewhat on average. Defense spending also declined somewhat, both as a share of GDP and total non-interest budgetary expenditure.

All in all, developing countries for the most part achieved substantial fiscal adjustment during the 1980s. But it is far from clear whether the composition of government expenditures improved in most cases.

1.19 The 1993/94 Union budget. Against this background, the 1993/94 budget provides for a further reduction of the fiscal deficit to 4.7 percent of GDP despite the adoption of a number of reform measures, to lower production costs and stimulate demand, that will variously reduce net revenues and increase government expenditures. Importantly, the budget aims at achieving a small primary surplus, thereby stabilizing the weight of the Government's debt in the economy. The main elements of fiscal policy contained in the 1993/94 budget are:

- Broad reductions in customs tariff rates--maximum tariff rates were reduced from 110% to 85% (and lower in some cases), and the projects and general machinery rate was reduced from 55 percent to 35 percent, with larger cuts for exporters and the power sector. The estimated cost to the budget is Rs. 33 billion (or 0.4 percent of GDP).

- Reductions in and partial rationalization of central excise duties, especially for consumer goods industries such as automobiles, electronics and other consumer durable goods, which are estimated to cost a further Rs. 14 billion in foregone revenues (0.2 percent of GDP).

- A five year tax holiday for investments in the power sector, in backward states, and in electronic hardware and software parks.

- A number of important changes in the composition of Government expenditures--with higher spending planned for rural programs, education, health and a number of infrastructure sectors--in the context of slower overall expenditure growth.

- A further squeeze on transfers to State governments.

1.20 The mix of fiscal adjustment measures planned for 1993/94 is better than in previous years in a number of important respects. Total expenditure is budgeted to decline by about 0.7 percent of GDP, despite major increases in spending on social and rural development and higher debt service payments stemming from the reunification of the exchange rate. Nearly half of the reduction in total non-interest expenditure is to be accounted for by cuts in subsidies (mainly the fertilizer subsidy). Defense spending, which has been reduced from 3.2 percent of GDP in 1989/90 to 2.5 percent in 1992/93, is to decline marginally in real terms. Finally, the changes proposed in the customs and excise regimes constitute an important step towards rationalizing the indirect tax system.

1.21 There are, however, a few aspects of the 1993/94 budget that raise questions about its contribution to sustainable fiscal adjustment. The tariff and excise duty rate cuts being introduced for 1993/94 are expected to result in a reduction in the tax/GDP ratio.[8] The lower tax/GDP ratio is not sustainable, and will have to be reversed. About a third of the expenditure reduction budgeted for 1993/94 is to come from lower investment spending, which has already been constrained excessively. Measures to improve fundamentally Government saving performance must be accorded high priority in the near term. This will require determined actions to broaden the tax base and to contain recurrent expenditures.

1.22 The Government recognizes the need for more comprehensive tax reform. The final report of the Chelliah Committee on Tax Reform was submitted in January 1993. However, most of its principal recommendations were not incorporated in the 1993/94 budget due to concerns over potential revenue losses and an unwillingness to broaden the tax base at this point in time. As a first step, the Government has requested the National Institute for Public Finance and Policy to examine possible designs for a national VAT system. Other measures to broaden the tax base--such as greater use of presumptive taxation and the inclusion of more services under the VAT regime--are being considered as

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[8] Allowing for the effects of the disturbances in 1992/93, the tax/GDP ratio is expected to decline by at least 0.2 percent of GDP in 1993/94 relative to 1992/93.

well (see para 2.7). In view of the inevitable lags in implementation, the Government needs to introduce the necessary policy and institutional reforms at the earliest possible opportunity.

1.23 A number of expenditure measures are required also to strengthen government saving. Desirable steps would include: price increases and improved targeting to reduce subsidies; elimination of budgetary support to loss-making public sector enterprises (PSEs); phasing out of investments in non-infrastructure PSEs; more vigorous action to contain the government wage bill; and continued restraint in defense spending. Other reforms are needed to improve the composition, effectiveness and efficiency of government spending. For instance, much of the benefit from the large spending increases envisaged for rural development programs in 1993/94 could be lost without complementary reforms in program design and administration.[9/]

1.24 Recent adjustments in State finances.[10/] The consolidated fiscal deficit of India's twenty-five State governments fell from 3.4 percent of GDP in 1990/91 to an estimated 3.3 percent in 1991/92, reflecting a reduction in net financial transfers from the Central Government.[11/] The burden of this modest adjustment was softened further by the fact that untied or "block" grants were increased sharply in real terms, while grants and loans targeted at specific purposes were reduced. The net result was an extremely lopsided pattern of adjustment by the States in 1991/92. Recurrent expenditures increased by 0.5 percent of GDP, while capital expenditures fell by 0.2 percent of GDP (see Table 1.3). Investment projects and vertical programs in the social sectors, including family welfare and rural water supply programs, came under particularly severe financial pressures, with States spending monies and not being reimbursed by the Center in some cases. Although States' own revenues rose as a share of GDP, all of the increase was accounted for by non-tax revenues, which raises questions about the adequacy and sustainability of the resource mobilization effort at the State level.

1.25 The 1992/93 Union budget placed a much bigger share of the burden of fiscal adjustment on the States. Specifically, net transfers from the Center to the States were to decline by an amount equivalent to 0.5 percent of GDP, with increased protection being given to targeted transfers. In the event, the 1992/93 Revised Estimates for the Central Government show that there was only a 0.1 percent of GDP reduction in the Center's net financial support to the States, indicating little or no change in the consolidated deficit of the States in 1992/93. The 1993/94 Union budget provides for a reduction in net transfers equal to 0.6 percent of GDP. Other things being equal, the States' deficit would have to fall by roughly this amount. The ability of the States to effect such a large adjustment in 1993/94 is open to question. Some options for improving the fiscal performance of the State governments over the medium term are examined in Chapter 3 (see para. 3.33).

[9/] See "Chapter 5: Economic Reform and India's Poor" in India: Stabilizing and Reforming the Economy. The World Bank, 1992.

[10/] Revised Estimates of State governments' finances in 1992/93 will not be available for several months. In the past, Budget Estimates at the State level have been unreliable indicators of subsequent outcomes. The analysis that follows is based on a combination of data from the 1992/93 Revised Estimates for the Union Government and the 1992/93 Budget Estimates for the States.

[11/] Net transfers are defined as transfers of shared taxes, new lending and grants less debt service payments to the Central Government. The net transfer from the Center to the States declined from 6.1 percent of GDP in 1990/91 to an estimated 5.9 percent in 1991/92.

Table 1.3: Recent Adjustments in State Governments' Finances
(Percent of GDP)

	1989/90	1990/91	1991/92 (Estimate)	1992/93 (Budget)
Gross fiscal deficit	2.9	3.4	3.3	3.2
Total receipts	13.0	12.7	13.2	12.7
States' own revenue	7.7	7.5	7.7	7.5
States' taxes	5.7	5.8	5.8	5.7
Nontax revenue	2.0	1.7	1.9	1.8
Receipts from Center	5.3	5.2	5.4	5.2
Share in Central taxes	2.9	2.7	2.8	2.9
Central government grants	2.4	2.5	2.6	2.3
Recovery of loans	0.2	0.3	0.3	0.2
Total expenditure	16.1	16.3	16.7	16.1
Capital expenditure	2.8	2.8	2.7	2.7
Revenue expenditure	13.3	13.5	14.0	13.5
Memorandum Items				
Expenditure Composition:				
Social services	5.7	5.6	5.6	5.3
Economic services	5.9	6.0	6.2	5.8
Other	4.6	4.7	4.9	5.1

Source: Staff estimates based on data from RBI Bulletins and Ministry of Finance.

External Adjustment[12]

1.26 **Balance of payments**. Merchandise imports grew rapidly in 1992/93 following the removal of the special import restrictions in April 1992 and the large reductions in quantitative restrictions on intermediate and capital goods imports. The trade deficit rose from US$1.6 billion in 1991/92 to about US$3.9 billion (see Table 1.4). The invisibles balance worsened also, in part due to the dampening effect on tourism receipts of the disturbances following the Ayodhya incident and a strike by Indian Airlines pilots during the peak season. These developments resulted in an estimated deficit on the external current

[12] The Indian authorities have adopted recently a new presentation of the balance of payments that allows for a correct treatment of various debt service payments that were previously captured under the heading of "Non Customs Imports". The new presentation results in a lower current account deficit, offset by a correspondingly smaller net inflow on the capital account.

account of about US$5 billion (2.1 percent of GDP)--compared to a deficit of US$2.0 billion (0.8 percent of GDP) in 1991/92. On the financing side, net aid flows (including fast disbursing assistance) fell short of the amounts projected in last year's Economic Memorandum by about US$0.9 billion. However, net inflows of about US$1.1 billion from Non-resident Indians (NRIs) and US$1 billion to improve the provisioning and liquidity position of a number of foreign banks allowed foreign exchange reserves to be increased from US$5.7 billion at end-March 1992 to about US$6.7 billion (equivalent to 3.6 months of imports) at end-March 1993.

1.27 Export performance. The beneficial effects of the policy measures taken since July 1991 were reflected in a gradual improvement in export performance during 1992/93. For the year as a whole, merchandise export earnings rose by about 2 percent in dollar terms compared to a 2 percent decline during the previous year. To a large extent, a more robust recovery of exports in 1992/93 was prevented by the continuing decline in export to the rupee payments area (RPA) and by the recent Ayodhya-related disturbances. Exports to the general currency area (GCA) rose by about 10.5 percent. Exports to the RPA declined by a further 64 percent and now account for about 3 percent of exports, as compared to almost 20 percent in 1989/90. Thus, India's vulnerability in this area has been virtually eliminated. The negative impact of the disturbances was evident in the sharp deceleration in GCA export growth after November 1992--GCA exports increased by over 13 percent in dollar terms during the period April-November 1992, and by 6 percent in the last four months of the year. Significant gains were achieved in exports of engineering goods (23 percent), and textiles and garments (22 percent). However, exports of most agricultural products declined--reflecting the continued erosion of RPA trade.

1.28 Despite this encouraging start, the rate of export growth achieved in 1992/93 falls well short of what is needed to strengthen fundamentally India's balance of payments position. The export performance in 1992/93 is disappointing also when viewed against international experience with trade liberalization--which suggests that the short-term effects of trade liberalization on exports are usually very large. A recent World Bank study of 31 liberalization episodes in developing countries reveals that the average, real export growth rate increased from about 4 percent in the year of liberalization to an annual rate of 12 percent in the following two years.[13/] Against this must be set the special circumstances of India's trade with the RPA and the deleterious effects on export logistics of the recent disturbances.

[13/] See Michael Michaely et al. 1991. Liberalizing Foreign Trade: Lessons of Experience in the Developing World.

Table 1.4 Balance of Payments /a
(millions of US$)

	1990/91	1991/92	1992/93 /b
Exports, fob	18491	18135	18400
o/w General Currency Area	15080	16071	17760
Rupee Payments Area	3063	1768	640
Imports, cif	25241	19726	22347
o/w Crude Oil & Petroleum	6028	5365	6100
Trade Balance	-6750	-1591	-3947
Nonfactor Services (net)	785	676	330
Net Investment Income	-3744	-3786	-3614
Private Transfers (net)	2021	2685	2200
Current Account Balance	-7688	-2016	-5031
Capital Account	4704	4619	4787
Direct and Portfolio Investment	112	200	390
Net Aid	2927	3470	2557
Loans	2451	3019	2057
Disbursements	3655	4455	3664
Amortization	1205	1436	1607
Grants	476	451	500
Commercial Borrowing (net) /c	1983	2135	812
Private Non-guaranteed (net)	-104	39	34
Non-resident Indian Capital /d	786	3	1090
Bilateral Arrangements	-1000	-1228	-96
Net use of IMF Credit	1214	780	1272
Change in Gross Reserves	1770	-3383	-1028
Memorandum Items:			
Current Account/GDP (percent)	-2.6	-0.8	-2.1
Gross Foreign Exchange Reserves	2338	5721	6749
in months of imports	1.1	3.5	3.6

a/ Balance of payments based on the revised presentation adopted by Government of India in 1993.
b/ Preliminary estimates.
c/ Includes short term debt and valuation changes.
d/ Net flows in respect of non-resident Indian holdings of repatriable bank deposits and bonds.

Sources: Government of India, Reserve Bank of India, Ministry of Commerce and staff estimates.

1.29 The indifferent performance of exports in 1992/93 may be attributable in part to the fact that, despite the recent changes, export incentives have increased only modestly relative to those for import-substitution. A rough decomposition of the wholesale price index into exportables and importables indicates that, despite more rapid growth in the price of exportables than of importables during the past two years, the relative price of exportables is still below that which obtained in 1985/86.[14] Although the profitability of export production has increased substantially relative to that of non-traded goods, there is clearly a need for further reductions in import protection in order to reduce the implicit taxation of export activities.[15] The tariff changes proposed in the 1993/94 budget represent an important step in this direction.

1.30 A further possible reason for the modest export recovery could be that exporters were unable to offset the penalty imposed by the dual exchange rate system through greater use of Advance Licenses due to administrative bottlenecks involved with that scheme.[16] The amount of Advance Licenses issued actually declined relative to the flow of manufactured exports in 1992/93. This is surprising since the dual exchange rate system provided a greater incentive for exporters to use Advance Licenses than before. Nonetheless, with the unification of the exchange rate, export growth should strengthen significantly in 1993/94 and beyond.

1.31 Import demand. Merchandise imports rose by over 13 percent in dollar terms in 1992/93, compared to the 19 percent contraction witnessed in 1991/92. Intermediate products accounted for much of this increase. In particular, the bill for oil and petroleum products in 1992/93 was US$6.1 billion--compared to US$5.5 billion projected at the start of the year--due to lower than anticipated domestic oil production. This continues a worrisome trend of declining domestic supply that began in 1990/91. Both demand-side and supply-side measures will be required in the near future if India's energy requirements are not to compromise future balance of payments management or growth (see para. 2.79). Non-oil merchandise import growth was paced by bulk imports such as fertilizers and cereals, as the Government sought to replenish its stocks and counter speculative hoarding. In keeping with the depressed level of industrial investment, machinery and project imports rose by only 8 percent; confirming the overall impression that the surge in imports during 1992/93 reflects a process of re-stocking rather than one of restructuring.

1.32 External financing. Overall, India's external financing requirements were broadly in line with the projections contained in last year's Economic Memorandum. However, the financing pattern was quite different from that outlined in the last Memorandum. Although the anticipated drawings of US$1.6 billion under the IMF's Standby Arrangement were made as programmed, fast disbursing assistance from bilateral donors and multilateral banks totalled US$858 million--compared to the US$1.4 billion projected at the start of the year. Disbursements of official project assistance were some US$400

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[14] Taking 1985/86 as the base of 100, the ratio of the exportables price index to that of importables stood at 97 as at end-March 1992 and at 98 as at end-December 1992. Exportables are defined to include Primary Food items, Minerals, Textiles and Clothing. Importables are defined as Non-Food Primary items, Manufactured Food items, Fuel, Chemicals, Metals and Machinery. The trade-orientation was determined on the basis of India's export and import performance over the past three years.

[15] The domestic export price deflator rose by 47 percent between 1989/90 and 1991/92, compared to a 25 percent increase in the overall GDP deflator.

[16] Advance Licenses allowed exporters to purchase duty-free imports at the 60:40 composite exchange rate that they received for their export earnings.

million lower than projected as well--reflecting continued problems in project implementation.[17] Finally, net foreign direct investment was slightly lower also than projected. These shortfalls were essentially made up by special inflows totalling about US$1 billion from a number of foreign commercial banks to support their banking operations in India.

1.33 Outflows under the individual NRI deposit schemes, which totalled US$1.6 billion in 1991/92, continued in during the first half of 1992/93--albeit at a significantly slower pace. In the second half of the year, NRI flows turned positive and, allowing for non-repatriated interest earnings, there was a net financing contribution of almost US$1.1 billion from these deposits in 1992/93. The large NRI and bank capital inflows allowed foreign reserves to be increased by over US$1 billion in 1992/93. At the end of March 1993 gross foreign exchange reserves stood at over US$ 6.7 billion--about US$600 million higher than our projections of a year ago. In view of the comfortable reserve position, the stock of short term debt was reduced by US$800 million in 1992/93.

1.34 Another encouraging development was the considerable interest shown by foreign investors. There were successful launches of Euro-Market Global Depository Receipts by two private Indian firms for a total of US$250 million. Nine other firms have received similar approval to tap the international markets. However, there has been little further movement due to the dampening effects of the financial scandal and recent disturbances on investor confidence. A number of companies with significant foreign ownership increased their foreign equity stakes in 1992/93, and a large number of new foreign collaboration proposals were approved. The foreign equity participation proposed for the new projects totals about US$2 billion--several times the amount approved in recent years--a significant share of which comes from non-resident Indians. Although the large number of approvals has not yet been translated into a significantly greater volume of foreign investment inflows, nor additional capital formation, the prospect now exists for a steady increase in foreign investment flows in the coming years.

1.35 In summary, some progress was made in strengthening India's external capital account during 1992/93. Nevertheless, many of the structural weaknesses created during the 1980s remain--notably the continued low rate of aid utilization. In view of the bulge in debt service obligations during the mid-to-latter 1990s, the efforts of the authorities in this critical area need to be intensified (see para. 2.81).

1.36 Rupee-Rouble trade and debt. An important start was made in 1992/93 to resuscitating India's moribund bilateral trade arrangements with the former Soviet Union (FSU), which during the 1980s was India's second-largest trade partner after the United States. New economic protocols have been signed with the Russian Federation (which accounted for about 70 percent of Indo-FSU trade in the 1980s), Ukraine (15 percent of Indo-FSU trade), Kyrghyzstan, Turkmenistan and Uzbekistan. Future trade imbalances between India and these countries are to be settled in hard currency. To the extent that the lack of a suitable payments arrangement was responsible for the collapse of trade with these countries, exports should recover some of their lost ground in the coming years.

1.37 The new agreements allowed also for a resolution of the issue of the valuation of India's debt to the FSU, which was incurred largely on account of military imports. The face value of India's debt was reduced from US$13 billion to about US$11 billion. Of this amount, about US$4.1 billion is to be serviced on highly concessional terms--zero interest and 45 years amortization. The remaining US$7

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[17] Both the Government and donors have focused considerable attention on India's problem of low rates of aid utilization over the past two years with only limited success. The issue is discussed further in para. 2.82.

billion is to be paid over 12 years at 2.4 percent annual interest. The servicing burden is estimated at about US$850 million over the next few years. These payments are to be effected through rupee credits against which Russia can import Indian goods.

C. Structural Reforms

1.38 The Government's new development strategy aims at reducing substantially its intervention, both direct and indirect, in economic decision-making. This effort includes a re-examination and re-orientation of the role of government and major public expenditures, as well as a scaling back of the size of the public enterprise sector; elimination of a wide range of regulatory controls, including most industrial licensing requirements; a reversal of the excessive government involvement in financial intermediation and credit allocation; and a decisive shift away from an inward-oriented, import-substituting trade regime toward policies that reap the full benefits of closer integration with the world economy. The Government's approach to reform involves the establishment of high level committees to formulate medium term programs for reform in key areas of the economy such as the financial sector and tax system. To enhance ownership of the adjustment program, and to facilitate its percolation to the grass-roots administrative level, it has created also a number of inter-ministerial and ministerial working groups to consider changes in the legal and regulatory environment that would complement the changes in economic policy. A number of important steps were taken towards the Government's medium term goals for structural reform in 1992/93.

Public Enterprise Sector Reforms

1.39 India's public sector enterprises (PSEs) occupy a central position in the economy. The roughly 1,000 Central and State PSEs account for about 17 percent of GDP and about 23 percent of employment in the organized sector. Most PSEs suffer from chronic problems of inefficiency and have become a significant drain on both Central and State budgets--for instance, over 40 percent of Central PSEs incurred cash losses in 1989/90. Moreover, since PSEs dominate key basic industries--notably, power, oil, steel and fertilizers--their inefficiency has been translated into high costs for the economy as a whole, thus hindering international competitiveness and export development. As such, a significant improvement in the performance of India's PSEs is required to enhance the prospects for structural reform and growth, and to strengthen fiscal adjustment.

1.40 The reform strategy adopted by the Government for the public sector enterprises involves a range of measures: (i) the number of industries reserved for the public sector has been reduced from eighteen to seven; (ii) all loss-making PSEs are to be restructured or closed; (iii) selected PSEs, particularly those in competitive-market areas, will be fully or partially divested; (iv) budgetary support for non-infrastructure PSEs will be phased out by the end of 1994/95; and (v) a number of privileges granted to PSEs, including purchase preferences, will be eliminated in order to increase competitive pressures.

1.41 Some progress has been made on this agenda since 1991/92. Budgetary support for public enterprises has been reduced, with only the energy and transport sectors protected from these cuts.[18] Non-Plan support for sick PSEs has been virtually eliminated as of the end of the 1992/93 fiscal year and

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[18] Excluding Indian Railways, which is being encouraged to place its operations on a more commercial basis, and to seek funds from the market.

commercially viable PSEs are being encouraged to seek funds in the capital markets. Over Rs 30 billion of Government equity in 31 PSEs was sold to public financial institutions in 1991/92. During 1992/93, a further Rs 19 billion worth of shares in PSEs was sold to mutual funds and the private sector, representing up to 25 percent of equity in some units.

1.42 A central element in the Government's program for PSE reform is the recent amendment of legislation relating to the Sick Industrial Companies Act (SICA), which now makes it possible for sick public enterprises to be referred to the Board for Industrial and Financial Reconstruction (BIFR), a quasi-judicial body empowered to oversee the closure/rehabilitation of nonviable enterprises. The number of loss-making (Central and State) PSEs referred to the BIFR has now reached 150. The most wide-ranging restructuring plan to date has been formulated for the National Textile Corporation (NTC). The NTC plan calls for closure of uneconomic units; retrenchment of about 70,000 workers with appropriate provisions for compensation; retraining and redeployment; divestiture of some units; and a modernization program for the remaining units. The process of PSE restructuring is not expected to involve new financial commitments by the Government, and will be based on liquidation or rehabilitation of PSEs on the basis of negotiations with workers' representatives or private takeovers, including by the workers themselves. To facilitate such plans, the Government will consider writing off certain loans and sanctioning other financial restructuring measures.

1.43 The Government recognizes that the reform process will result in some increase in structural unemployment. In February 1992, it established a new social safety net instrument, the National Renewal Fund (NRF), to provide compensation and transitional support to displaced employees. The NRF has two constituent windows. The National Renewal Grant Fund (NRGF) is designed to act as the safety net for industrial labor and to provide payments for Voluntary Retirement Schemes by PSEs; compensate workers in both the public and private sectors affected by closure or labor rationalization under rehabilitation schemes recommended by the BIFR; and compensate workers affected by the closure of private sector units already under liquidation orders recommended by State governments. The Employment Generation Fund (EGF) would provide grant funds for services such as counselling, retraining or redeployment of affected workers, and for approved employment generation schemes. The Government plans to create a permanent unemployment insurance fund, financed by contributions from employers and employees. It has succeeded already in attracting foreign assistance totalling US$900 million in support of the NRF and other safety net operations--including a fast-disbursing IDA credit for US$500 million.

1.44 Despite the foregoing measures, overall progress in rationalizing India's public enterprise sector has been slow, and the Government's efforts in this area need to be intensified.[19] The ongoing adjustments in trade and industrial policies, as well as the reductions in access to budgetary assistance, are likely to increase the financial difficulties already facing many PSEs. Without a comprehensive plan to allow for an orderly adjustment, the financial distress of these entities is likely to spread to other sectors of the economy, notably the financial sector. Social and political resistance could grow rapidly, resulting in possible stagnation or reversal of the reform process.

1.45 Four areas require prompt attention. First, a more pro-active approach is needed to enlist private funds and technology for the development of industries that have been traditionally reserved for the public sector. This is particularly urgent in the oil and gas sector so as to stem the growing dependence on imports of hydrocarbons. Thus far, the Government has not opened existing fields to

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[19] Last year's Economic Memorandum devoted an entire Chapter (Chapter 4) to the reform agenda for India's public sector enterprises.

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[16] Advance Licenses allowed exporters to purchase duty-free imports at the 60:40 composite exchange rate that they received for their export earnings.

and adopted, with some modification, the Basle Committee risk-based capital adequacy framework. Commercial banks that attain the new capital adequacy norms are now free to set up new branch offices and to rationalize their existing branch network. The new norms imply that banks will have to make large provisions for bad and doubtful loans in their portfolios. The Government recognizes that a viable financing package to fill any net-worth deficiency is needed. Current estimates place this net-worth deficiency at Rs. 100 billion. The 1993/94 budget provides for an initial infusion of Rs. 57 billion in the form of new Government bonds, with the remainder to be provided for in the next two budgets. The incremental interest burden to the Government of this new debt is expected to average about 0.2 percent of GDP per annum in coming years.[23/]

1.49 In addition to the new requirements for loan loss provisions, the RBI has stipulated guidelines whereby banks are to meet international risk-based capital standards over the next three years. Indian banks with overseas branches must meet the 8 percent standard by March 1994. Other banks are expected to meet that standard by March 1996, and all banks were required to meet an interim 4 percent risk-based capital level by the end of March 1993. Core capital, i.e., equity, has to be raised to at least one half of the above ratios. The Government has announced recently that it will introduce the necessary legislative changes to enable banks to mobilize private equity from the capital markets in 1993/94, while preserving its majority ownership.

1.50 The decision to allow banks to tap private equity is an important beginning to market orientation of the nationalized banks, and complements the new guidelines for entry of private banks announced in January 1993. The guidelines provide for new private banks to be incorporated as public limited companies under the Companies Act, and for their shares to be listed on the stock exchange. Minimum capital has been set at Rs 1 billion (about US$30 million), and new banks will have to comply with all prudential norms--including the 8 percent capital adequacy ratio--from the outset. The new banks will have three years to meet the priority sector lending targets. Taken together, these measures constitute an important step in the process of financial reform by signalling the commitment of the authorities to a healthy and competitive financial system.

1.51 Steps are being taken also to improve loan collections, including the establishment of Special Tribunals with jurisdiction over bark claims arising from large defaulted credits. Portfolio restructuring and recapitalization efforts are to be accompanied by measures to improve management, strengthen supervisory practices, and foster competition through entry of new private sector banks. To modernize supervisory practices, a new supervisory body (the Board of Financial Supervision) has been established under the aegis of the RBI.

1.52 The new guidelines represent a major improvement over old practices and standards. However, there are a number of areas for further improvement. Key remaining concerns relate to the treatment of cash credit facilities, rescheduling of loans, and provisioning requirements for substandard loan categories. A substantial share of outstanding bank loans in India are in the form of cash credits where new loans and the rollover of existing loans can allow troubled borrowers to avoid arrears. The new RBI guidelines focus principally on whether loans are in arrears and pay insufficient attention to the underlying financial condition of borrowers. All rescheduled or renegotiated loans are to be classified substandard and subject to a 10 percent loss provision. In many instances rescheduling may hide more serious underlying problems that warrant a doubtful or loss classification. Consequently, the underlying

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[23/] This incremental interest burden reflects the estimated impact on market rates of placing an additional Rs. 100-140 billion (about 1.4-2.0 percent of 1992/93 GDP) of new Government bonds over the next three years.

creditworthiness of borrowers should provide also a basis for adverse classifications. Finally, a strengthening of laws to expedite debt recovery and rationalization of laws governing mortgages are required as well.

1.53 Liberalizing financial policies and markets. With a view to increasing the availability of funds to the private sector, the Reserve Bank eliminated the incremental 10 percent Cash Reserve Ratio (CRR) in April 1992 and reduced the average statutory liquidity ratio (SLR)--the minimum percentage of deposits that banks must hold in government securities--from 38.5 percent to 37.75 percent over the course of the year. In an effort to increase the effectiveness of the CRR as an instrument of monetary policy, the RBI reduced the portion of eligible cash balances on which it pays interest--specifically, the portion related to net deposits maintained after March 23, 1990.[24] This move represents a further squeeze on the profitability of commercial banks.

1.54 Interest rate policy was liberalized somewhat over the course of 1992/93. Coupon rates on long-dated government securities were raised by a cumulative 1.5 percentage points to 12.75-13 percent in 1992/93 to stimulate development of the government securities market. The minimum lending rate for non-priority commercial bank credit was reduced by 2 percentage points in 1992 to 18 percent and the ceiling on deposit rates by one percentage point to 12 percent. However, commercial banks have been slow to adjust to the changes in administered rates. Lending rates averaged about 21 percent in December 1992, about the same as in March of that year when inflation was running some five percentage points higher. Banks have tended to hold their deposit rates at the permitted maximum as well. In view of these developments, the 1993/94 budget announced a one percentage point reduction in both the minimum lending rate for non-priority credit and the ceiling on deposit rates. The recent adjustments serve to reduce further the interest rate subsidy to recipients of directed credit. In April 1993, the RBI cut the base CRR from 15 percent to 14 percent, and announced that the SLR would be reduced further by one percentage point to 36.75 percent in four stages during 1993/94.

1.55 The measures taken so far to strengthen and deregulate the banking system are extremely significant. However, the pace of reform in a number of key areas needs to accelerated in order to enhance the role of the financial system in the adjustment process. For instance, the pace at which the SLR is being reduced appears too slow in view of the need to strengthen the profitability of the commercial banks and to free resources for the private sector. These issues are discussed further in Chapter 2 (see para. 2.34).

1.56 Deregulating capital markets. Important liberalization measures have been initiated in the capital markets as well; including decontrol of corporate capital issues, empowerment of the Securities and Exchange Board of India (SEBI) to function as an independent regulatory body, and reform of taxation of income from capital. The RBI recently announced guidelines permitting registered foreign institutional investors to hold up to 5 percent of the shares of an Indian company, with a cap on total foreign portfolio investment of 24 percent for individual companies. These limits are not applicable to joint ventures, where majority ownership is allowed. The dividend income tax rate has been fixed at 20 percent for foreign institutional investors, and the long-term and short-term capital gains taxes have been reduced from 40 percent to 10 percent and 30 percent respectively. Finally, foreign institutional investors will be allowed to repatriate freely the principal, capital gains, dividends and any compensation received from sale of shares at market rates of exchange.

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[24] The interest paid on these incremental balances had been reduced earlier from 8 percent in March 1990, to 5 percent in October 1991 and to 3 percent in May 1992.

1.57 The Government plans to adopt further reform measures to enhance the role of India's capital markets in funding investment, attracting foreign portfolio capital, and facilitating divestiture. A comprehensive plan is under development, which will: (i) enhance investor protection by strengthening the powers and capabilities of SEBI for enforcement of securities regulations, and streamlining procedures for sale, transfer, and registration of securities; and (ii) modernize the settlement and trading mechanisms through the establishment of an electronic clearing system and a central depository system. A high-level committee has been established to review the functioning of the insurance industry.

Investment and Trade Policies

1.58 Liberalizing domestic markets. Five additional industries (including automobiles, electronic goods and other consumer durables) were approved for delicensing, and a number of important administered prices (notably those of sugar, coal, kerosene and liquified gas) and rail fares and freight charges have been made subject to much more flexible arrangements. A new National Mineral Policy that opens to private investors virtually all mining sectors--with the exception of coal, oil and uranium, which fall under a different regime--has been introduced in the Parliament.

1.59 Limited progress has been made, however, in facilitating exit or restructuring by firms. The Government is still to unveil its long-promised policy for industrial restructuring and, as noted above, has not adopted yet a plan to deal expeditiously with the sick public enterprises. To some extent, the delays reflect the Government's commitment to a consensual approach involving all sides. To this end, it has constituted a Special Tripartite Committee to examine the effects of the new Industrial Policy (1991) on labor and related issues. The Government's basic objective is to suitably modify laws that hinder the adjustment of the work force in the organized sector (including the Industrial Disputes Act and the Company Act) and that limit private firms' ability to liquidate assets (most importantly the Urban Land Act). It is expected that amendments to existing laws and regulations will, after consultation with the trade unions and employees, be presented to Parliament within the year. The National Renewal Fund is to be strengthened to serve as a short-term social safety net for displaced workers, and the proposed unemployment insurance fund will serve as a more comprehensive and permanent safety net.

1.60 Promoting foreign investment. Significant reforms were introduced in the area of foreign investment policies in 1992/93. The authorities expanded the list of industries open to automatic approval to include trading houses and other export-oriented services. The new Mineral Policy unveiled in March 1993 raises the ceiling for foreign equity participation to 50 percent, with majority foreign ownership to be allowed on a case-by-case basis. A number of steps were taken to encourage the flow of foreign direct investment. The Foreign Investment Promotion Board was established as a high-level, one-stop agency in order to streamline approval procedures and India joined the Multilateral Investment Guarantee Agency. In March 1993, a number of policy changes were codified in an Amendment to the Foreign Exchange Regulation Act (FERA) that controls the activities of foreign-owned businesses and individuals in India.[25/]

1.61 The most important changes under the FERA amendment are: elimination of the requirement that dividend transfers be balanced by export earnings (except for consumer goods industries); removal of restrictions on domestic borrowing and acquisition of interest in domestic firms except in the case of

[25/] Many of the changes included in the Amendment were already in effect as a result of RBI notifications. However, the passage of the Amendment by the Indian Parliament is likely to provide considerably greater comfort to foreign investors.

agriculture and plantation activities; elimination of restrictions on establishment of places of business and acquisition and holding of immovable property; removal of restrictions on the use of foreign trademarks; and, finally, elimination of restrictions on employment of foreign nationals in India.

1.62 Despite the recent progress, India's foreign investment policies remain less welcoming than those of many other industrializing countries. A key issue is the limited list of industries open to automatic approval. Indian industries not open to automatic approval of majority foreign ownership include electronics, textiles, and consumer durables.[26] The restrictions apparently reflect the Government's desire to coordinate the liberalization of the foreign investment code with further reductions in trade protection. However, since a clear statement of the medium term targets for trade liberalization has now been provided in the Eighth Plan (see para. 2.20), there is less need for concern about misdirected investments. The authorities need to give serious consideration to broadening substantially the areas open to automatic approval.

1.63 There are a number of other ways in which India's policies towards FDI could be strengthened. In particular, further action to streamline bureaucratic procedures could enhance significantly the flow of foreign investment. For instance, China has a highly decentralized investment approval process that has built up an impressive record of approvals, particularly in special economic zones and coastal cities. In recent years, these approvals have been translated into annual FDI inflows of US$2-US$3 billion. In addition, new investment projects often require changes in other aspects of public policy and procedures in India that have not yet been enacted. For example, about US$70 million in foreign investment for electronics enterprises in the "Hardware Technology Parks", expected ultimately to generate annual exports of US$100 million, has been delayed for months because the authorities have been unable to implement the single-point clearance procedures for customs and excise collection.

1.64 Many countries provide specialized facilities for FDI through industrial parks or economic zones. India already has similar vehicles in place for attracting export-oriented FDI--the Export Processing Zones (EPZs), which enjoy duty-free imports. However, India's EPZs have not been successful so far largely because of poor infrastructure. The availability of high quality infrastructure is consistently cited as one of the most important factors for FDI, and improving export infrastructure in India should be a priority. Given the financial constraints facing the Government, private sector participation needs to be encouraged--something that has been done successfully in parts of China.

1.65 A final aspect of India's investment climate that needs to be reviewed is the tax code. India's corporate tax rate of 65 percent for foreign firms is significantly higher than that in countries such as China (33 percent), Indonesia (35 percent), Mexico (35 percent), Turkey (30-46 percent) and Poland (40 percent). Taxation of dividends is also higher in India than in any of these other countries, some of whom do not even tax dividends. The high posted tax rates in India are offset to some extent by tax incentives for exports, and investments in selected sectors and regions. Moreover, India is a signatory to about 40 bilateral tax treaties that provide for significantly lower rates of withholding for dividends, interest, royalties, technical fees and capital gains. However, many of these concessional rates are bound up in a variety of clauses--for instance, minimum shareholding requirements. International experience indicates that special tax incentives and agreements are no substitute for a moderate and broadly based tax rate.

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[26] FDI applications approved in the period August 1991-August 1992 were concentrated in seven industries: basic metals (20 percent); chemicals (17 percent); textiles (13 percent); prepared foodstuffs (12 percent); non-metallic mineral products (9 percent); electrical and non-electrical machinery (13 percent). With the exception of textiles, all are on the "automatic approval" list.

1.66 Import liberalization. The special import compression measures adopted during the 1991 crisis were abolished in April 1992, and the import control regime was simplified through the establishment of a single, drastically reduced, negative list--freeing imports of almost all raw materials and most capital goods. As a result, less than one-half of domestic manufacturing (mainly in the consumer goods sector) is now protected by QRs, compared with some 90 percent prior to July 1991. The maximum import tariff rate was reduced from 150 percent to 110 percent, with tariffs for most capital goods reduced to 55 percent or less, and the advance license structure that gives exporters access to duty-free imports was also simplified and liberalized. A host of restrictions on the resale of imports, local content requirements, and permissible exports were removed as well.

1.67 The Government's principal objectives for trade reform over the medium term have been outlined clearly in the Eighth Five Year Plan. In the context of the 1993/94 budget, it announced a further reduction in the maximum import tariff rate to 85 percent (and lower in some cases)--with a maximum of 35 percent on most capital goods and lower rates for exporters and investors in the power sector. The basic and the auxiliary customs duties were unified, and the number of end-user exemptions was reduced significantly. The tariff levied on consumer goods that enter the country as "general baggage" was reduced from 255 percent to 150 percent--complementing a recent decision to allow each international passenger to bring in up to US$5,000-worth of consumer goods.

1.68 Despite these significant changes, India's trade regime remains much more restrictive than those of its competitors. Tariff levels remain relatively high, and imports of consumer goods are essentially banned with the exception of "baggage imports" and a narrow window of selected consumption imports for exporters established in October 1992. These new channels for consumer goods imports are unlikely to provide the stimulus to greater domestic efficiency that is required. The 150 percent tariff rate on baggage imports is well above the black market premium for smuggled consumption goods imports, while the restrictiveness of the list of permissible imports under the export window has limited the demand--only US$300 million of such imports were recorded in 1992/93. Some of the issues and options for further trade liberalization are discussed in Chapter 2 (see para. 2.20).

1.69 Fostering export growth. As a transitional measure to facilitate the trade liberalization, a dual exchange rate system (the Liberalized Exchange Rate Management System or LERMS) was introduced at the time of the 1992/93 Budget, with a market exchange rate for all but a few payments transactions (mainly imports of certain petroleum products and fertilizers). Under the LERMS, all current account receipts were converted into rupees at a ratio of 60 percent at the market-determined exchange rate and 40 percent at the official rate announced by the RBI. The spread between the free market and official exchange rates remained remarkably stable during the latter half of 1992/93--averaging about 18 percent. In view of the desirability of eliminating the implicit tax on foreign exchange earnings implied by the LERMs, the RBI unified the two exchange rates in March 1993 at the market exchange rate. The unification of the exchange rate involves a 7 percent devaluation for exporters--which should help to stimulate future export growth. The shift to a market-determined exchange rate provides also an important signal of the authorities commitment to financial stability and market-based mechanisms for macroeconomic management. In this context, careful attention will have to be paid to coordinating domestic and external financial policies in order to avoid excessive volatility of the exchange rate or balance of payments.

1.70 The April 1993 Export-Import Policy statement reduced the number of items subject to export restrictions from 296 to 215. The recently decontrolled items include a variety of agro-based items--such as raw silk and wheat products--and mineral products--notably, iron ore and pig iron. Other recent measures to improve export incentives have included: (i) a lowering of capital goods tariffs for exporters to 15-25 percent; (ii) the requirement that commercial banks raise the volume of credit to the export sector to 10 percent of their total lending; (iii) a reduction in interest rates on export credit; and (iv) the introduction of a marketable Special Import License for exporters, against which items on a specified list of consumer goods can be imported

1.71 An important aspect of the recent measures taken to promote exports is the shift from specific incentives towards more general measures, such as the adjustment of the exchange rate and improved access to credit. In general, the improvement in export profitability has been greatest for items with low import content--such as agricultural products--and items that were not particularly favored under the former regime of export incentives--i.e., had low or no cash compensatory, replenishment license and duty drawback rates. This augurs well for a broadening of the export base in coming years.

1.72 Broadening the export base will depend also on the elimination of administrative restrictions on key items such metals, minerals, leather, finished leather products and agricultural items--including rice and cotton. In view of the urgent need to boost export growth, the Government needs to rationalize further its export control schemes and effect complementary domestic reforms. Further simplification of the various duty-free import schemes for exporters will also be important. A significant proportion of the import requirements of exporters of manufactures, excluding gems and jewelry, still attract some form of duty and complaints of long delays and bureaucratic complexities are still far-too-common. While some improvements have been made recently for Advance Licenses through more streamlined procedures, the duty drawback can still take up to one year. Specific ways in which India's export promotion schemes could be improved are discussed in Chapter 2 (see para. 2.31).

D. Summary

1.73 Significant further progress was made in stabilizing and reforming the Indian economy in 1992/93. In particular, real GDP rose by about 4 percent, inflation fell to single-digit levels and foreign exchange reserves were increased to over US$6.7 billion (equivalent to 3.6 months of imports). A number of important policy measures have been adopted recently that are likely to improve economic performance and development prospects--in particular, a reunification of the exchange rate, further rationalization and reductions of customs tariffs, additional steps to liberalize the financial sector and foreign investment code, and a Union budget that provides for increased spending on social and rural sectors, while reducing further the overall fiscal deficit. The foregoing notwithstanding, the Indian authorities face a number of serious macroeconomic challenges--particularly in the areas of fiscal and balance of payments management. A large agenda of structural and sectoral reform remains as well--notably in the areas of taxation, trade and financial policies, and for the public enterprise and agricultural sectors.

CHAPTER 2: ISSUES IN THE MANAGEMENT OF THE TRANSITION

A. Adjustment and Growth in the Transition

2.1 The Eighth Five Year Plan (1992-97), which was released in August 1992, provides a comprehensive statement of the medium term objectives of the Indian authorities, and of the broad framework that will guide policy decisions over the next four years. The Plan envisages a steady reduction in the fiscal and external current account deficits, coupled with annual output growth of about 5-6 percent beginning in 1993/94. Another key goal is the maintenance of a low rate of inflation. A reorientation of investment incentives towards the traded goods sectors, high levels of capacity utilization, and substantial improvements in efficiency are to be pursued in order to achieve these objectives. Further reforms in the areas of taxation, trade and investment policies, and the financial sector are seen as important in this context. Monetary and fiscal policies designed to promote price stability are to be emphasized as well. Finally, the composition of public investment is to be shifted away from areas where it competes inefficiently with the private sector to those where the two are complementary--such as infrastructure and social development.[1/]

2.2 Despite the many important improvements in economic policies and performance over the past two years, and the broad consensus regarding the general direction of economic policy, there are a number of areas where more forceful action is needed if sustainable progress is to be made towards the Government's medium term objectives. Progress with tax reform has been slowed by concerns about broadening the tax base, and by the complexity of the tax revenue-sharing arrangements between the Center and the States. Actions to facilitate industrial restructuring and to deal expeditiously with the public enterprise sector have been delayed also by political and social considerations. These same factors, along with fears of potentially adverse balance of payments developments, have precluded clear-cut action to liberalize consumer goods imports.

2.3 The Government faces a major task to broaden the reform process in a way that is congruent with the ongoing adjustments in financial policies and trade and industrial reforms. Although the recent measures adopted in these areas have improved the terms of trade for India's agricultural sector, the Government has yet to adopt a program of comprehensive reforms to address the problems of this key sector--in part, because agriculture is a subject that falls largely under the purview of the State governments. The financial pressures being generated by the ongoing macroeconomic adjustments have raised questions about the efficiency of public expenditures in the social sectors and the effectiveness of such expenditures, particularly in raising the human capital status of the most vulnerable groups in the society. Finally, there is growing evidence that the severe bottlenecks in many of India's core infrastructure subsectors could inhibit the pace and sustainability of economic reform, and limit the distribution of its benefits.

2.4 The experience of other countries with adjustment indicates that, as India moves into a third year of adjustment, the initiatives required to maintain the momentum of reform are likely to prove technically and politically more challenging. The rest of this Chapter examines some of the key issues in the management of India's transition to a more open and dynamic economy. Challenges for further reform of the tax and trade regimes are examined in Sections B and C respectively. Section D discusses issues and options for accelerating reform in the financial sector. Themes for initial reform in the

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[1/] See Eighth Five Year Plan, 1992-97, Volume 1, Objectives, Perspectives, Macro-Dimensions, Policy Framework and Resources. Planning Commission, New Delhi. 1992.

agricultural sector are discussed in Section E. Section F concludes with an overall assessment of India's prospects for successfully managing the transition. The final two chapters of the Economic Memorandum deal with key elements of the broader agenda for sectoral reform. Chapter 3 outlines a general strategy for improving the quality and sustainability of India's public expenditures--with a particular focus on the social sectors. Policies and prospects for promoting the development of supportive infrastructure are discussed in Chapter 4.

B. Strengthening the Tax System

Background

2.5 India's Constitution assigns most of the major taxes to the Central Government--including taxes on personal and corporate income, national excise duties, and customs duties (see Table 2.1). The tax instruments available to State governments include sales and local excise taxes, property taxes, and stamp duty. The Constitution mandates that Central revenues raised through the taxation of non-agricultural personal income be shared with the States. Union excise duty collections may be shared with the States at the discretion of the Parliament. The exact dimensions of the revenue-sharing arrangements are decided by the President based on the recommendations of quinquennial Finance Commissions. Currently, 85 percent of personal income tax revenue and 45 percent of excise duty collections are transferred by the Center to the States.

2.6 All told, India's tax effort is somewhat better than that of other low-income countries--the tax to GDP ratio in India was about 16.9 percent in the second half of the 1980s, compared to 15.1 percent of GDP in Indonesia and 14.1 percent in Pakistan. Nevertheless, in common with a number of other developing countries, India's tax system suffers from a variety of structural problems. It has (i) a narrow base and high marginal tax rates; (ii) an excessive dependence on indirect taxes--levied at high and widely dispersed rates, particularly on international trade; (iii) a plethora of exemptions and other deductions, which distort incentives and encourage evasion; and (iv) acute problems of administration and compliance--only an estimated 35 percent of legally taxable income is disclosed to the tax authorities, reflecting the considerable complexity of the various tax codes, and a weak and outdated information system.[2]

[2] See the Interim Report of the Tax Reforms Committee, Government of India, 1991.

Table 2.1: Composition of Central and State Government Tax Revenue
(Percent of Total Tax Revenues)

	1990 - 1993
Total Tax Revenues	100.0
Central Government:	
Gross Tax Revenue	66.0
Direct Taxes	16.1
Corporation Tax	7.2
Income Tax	6.6
Other Taxes	2.3
Indirect Taxes	49.9
Excise Duties	27.6
Customs Duties	22.3
State Governments	
Gross Tax Revenue	34.0
Direct Taxes	4.7
Income Taxes	0.6
Land Revenue	0.7
Stamps, etc.	2.4
Real Property Tax	2.6
Indirect Taxes	30.6
Sales Tax	20.3
State Excises	5.2
Vehicle Taxes	1.8
Electricity Duties	1.3
Transport Taxes	1.1
Other Taxes	0.8
Memorandum Items:	
Transfers from Center to States	16.9%
Excise	12.0%
Income	4.9%
Net Central Tax Revenue	49.1%
Net State Tax Revenue	50.9%

Sources: Union budget documents, GOI; and RBI Bulletin, September 1992.

The Government's Agenda for Reform

2.7 The Government recognizes these various deficiencies and has committed itself to a fundamental restructuring of India's tax system. In August 1991, it appointed a Tax Reforms Committee (the Chelliah Committee) to formulate a medium term program of tax reforms. The Chelliah Committee issued an Interim Report in December 1991. The Final Report was issued in two parts: Part I, dealing with direct taxes was issued in August 1992; and Part II, which deals with indirect taxes, was released in January 1993. The principal objectives for tax reform set out in the Report are the following:

- An ability to derive a larger fraction of total revenue from direct taxes while removing the burden of these taxes from low income households.
- Reduced reliance on tariff revenue within the group of indirect taxes.
- A steady evolution towards broader based direct and indirect taxes applied at lower and more uniform marginal tax rates--excluding excise taxes on sumptuary items such as alcohol and tobacco products.
- An improved revenue sharing system between the Center and the States that will facilitate the formation of a common internal market.
- Creation of a capacity to increase tax effort without raising significantly marginal tax rates.

2.8 The Chelliah Report recommends a medium-term strategy for reform based on the following elements: (i) a reduction in the dependence on taxes on international trade in favor of direct taxes and progress toward a full-fledged value added tax (VAT); (ii) rationalization of the excise duty rate structure through a reduction in the number and dispersion of rates; (iii) broadening of the income tax base by extending the coverage and by eliminating widespread deductions, exemptions, and concessions; and (iv) a strengthening of tax administration through simplification of the tax codes, and streamlined and more effective procedures for assessment and payment.

2.9 The principal recommendations in the area of direct taxation include: (i) further extensions of the personal income tax base to cover, among others, fringe benefits and allowances and to increase sharply the number of taxpayers; (ii) a phased reduction in the corporate tax rate to levels commensurate with the highest personal income tax rate (i.e., from 51.75 percent to 40 percent by 1994/95), together with the abolition of a number of exemptions and special incentives; and (iii) measures to improve tax administration and compliance, including greater use of withholding and presumptive taxation.

2.10 The Chelliah Report recommends further that average import tariffs be brought down to internationally comparable levels (about 25 percent by March 1996), with a primary emphasis on reducing tariff rates on capital and intermediate goods, eliminating exemptions, and relying on tariff protection rather than quantitative restrictions for consumer goods. The reform program would need also to: reduce the dispersion of tariffs; simplify the rate schedule by combining the basic and auxiliary tariffs (a measure adopted in the 1993/94 Union budget) and by converting most specific duties into **ad-valorem** equivalents; and remove all exemptions and concessions, except those pertaining to exports. These tariff reductions will likely involve tax revenue losses, which would have to be offset by greater revenue mobilization from domestic taxation--particularly indirect taxation. Rapid progress toward the establishment of a full VAT will be critical in this regard. More precisely, prompt steps are required to bring about: a sizeable extension of the base of excise taxes to include most manufactures, construction, and substantial parts of the services sector; a sharp reduction in the number of excise tax rates; and an expansion of the present MODVAT credit system to include all major inputs, in particular capital goods.

2.11 In addition, the Government would be expected to improve the harmonization between the tax structures of the Central and State Governments. The proposed tax reforms would present a large revenue windfall to the States since the revenue losses from lower customs duties would be borne entirely by the Center, while any additional revenues from personal income taxes or excises would have to be shared with the States (see Box 2.1). In view of this imbalance in the burden of tax reform, the Chelliah Report recommends that the Central and State governments move away from sharing specific taxes--which, in any case, creates an incentive for the Center to concentrate its efforts on taxes that are not shared--to a more general formula that provides for a fixed proportion of the Center's total tax revenues to be transferred to the States.

Box 2.1: Reducing the Reliance on Tariff Revenues

A key objective of the Government's tariff/tax reform program is to reduce the average tariff rate to 25 percent by 1996/97, from about 53 percent in 1992/93. This is likely to result in substantial revenue losses for the Center. In constant 1992/93 rupees, the targeted tariff reduction would imply a revenue loss of about Rs 68.2 billion, which would have to be compensated by an increase in direct tax yields and other indirect taxes. On the direct tax side, the bulk of the revenue increase, if not the entire amount would have to come from personal taxes. Allowing for a 12 percent surtax, the corporate tax rate now stands at 50.4 percent, a relatively high rate by international standards, and is likely to be reduced. On the personal tax front, measures are either in place, such as the new presumptive income taxes, or have been recommended, such as the taxation of fringe benefits, which will increase tax yields. The revenue impact of these measures is unknown. However, it would be surprising, given the acknowledged existing weaknesses in tax administration, if personal income tax yields could be expanded by more than a third by 1996/97. If this expansion were realized, it would generate an additional Rs 10.5 billion. However, the Central Government would be legally obligated to allocate 85 percent of this increase to the States, leaving it with a net yield of only Rs 1.6 billion.

The inescapable conclusion is that almost all of the revenue replenishment will have to come from higher indirect tax yields, in particular the take from excise duties. Union excise duties are estimated to be Rs 325 billion in 1992/93. If Rs 66.6 billion (68.2 - 1.6) additional excise revenues have to be raised for the Central Government coffers, total excise revenues must be increased by Rs 121.1 billion since 45 percent of that extra amount must be shared with the States. This represents a 37 percent increase in real excise collections in 4 years. It is doubtful whether sufficient room exists between the size of the current and potential base to enable such a revenue hike to be realized in four years. Raising excise duty rates is even less likely to succeed.

What emerges from this numerical analysis is the conclusion that the current revenue sharing formula between the Center and the States acts as a critical constraint on the ability of the Central government to move to a more desirable revenue composition and provides an enormous revenue windfall for the States. The Chelliah Report on Tax Reform recommends that, since about 24 percent of Central government revenue now flows through to the States, it would be preferable to encase this "fact" in a new revenue-sharing agreement. If, for example, States automatically received 25 percent of all Central level tax proceeds, then of Rs 10.5 billion of new personal income tax collections, Rs 2.6 billion would be transferred to the states leaving Rs 7.9 billion at the Center. To achieve the balance of the revenue replacement from excises, Rs 80.4 billion ((68.2 - 7.9)/0.75) would have to be raised, representing an expansion in current collection levels of 25 percent over a four-year interval (roughly a 6 percent annual rate of real revenue growth). This is a more reasonable requirement for tax reform.

Reform Measures in the 1992/93 and 1993/94 Union Budgets

2.12 The Government has embraced the tax reform philosophy put forward by the Chelliah Committee, and a number of steps were taken in the 1992/93 and 1993/94 Union budgets. The principal measures that have been adopted include: measures to rationalize the personal income tax and corporate income tax systems, while broadening the bases on which they are applied; and reductions in customs and excise duty rates, with a consolidation of the auxiliary and basic duties and a narrowing of the overall duty structures (see Table 2.2).

Table 2.2: Key Tax Reforms in 1992/93 and 1993/94 Union Budgets

Personal Income and Wealth Taxes

- Flattening of the rate structure for the personal income tax to three brackets, 20, 30 and 40 percent--with the top rate lowered from 50 percent.
- Elimination of several savings deductions that, along with the exemption of interest income and relatively low taxation of equity income, conferred a net tax subsidy on savings.
- Introduction of a presumptive (lump sum) tax for small traders and transport operators, and income attribution ("clubbing") rules to prevent income splitting.
- Better targeting of the wealth tax to discourage investment in unproductive/luxury assets--this is also a way of taxing the income-in-kind yielded by these assets.

Corporate Income Tax

- Indexation of the cost basis for calculating capital gains and a new, uniform capital gains tax rate of 20 percent for non-corporate assessees and 40 percent for companies.
- Long-term and short-term capital gains tax rates of 10 percent and 30 percent respectively for portfolio investments by foreign institutional investors.
- Rationalized depreciation allowances under the corporate income tax--a uniform 25 percent declining balance rate is now allowed on all plant and machinery purchases.
- More neutral treatment of partnerships by taxing net partnership income at the 40 percent corporate rate.
- Exemption from the special interest tax on banks for interest income from export credit.
- Five year tax holiday for investments in power, industrially-backward States, electronic hardware and software parks.

Customs Duties

- Reductions in maximum tariff rates from 150 percent in 1991/92 to 85 percent or less--excluding consumer goods imports for which the maximum tariff was reduced from 255 percent to 150 percent--with a maximum tariff rate of 35 percent for most capital goods.
- Consolidation of the auxiliary and basic duties, with an overall narrowing of the duty structure.

Excise Duties

- Rationalization of the excise duty system --including a merger of the basic duty with the special surcharge.
- Increased exemptions and reduced rates for a wide range of consumption goods, for machinery entering into agriculture and fishing, and for most inputs to the textiles and housing industries.
- Uniform ad valorem duties to replace specific duties on major non-ferrous metals.
- Elimination of the higher notional credit for small-scale producers.

Remaining Issues and Priorities in the Near Term

2.13 The measures adopted thus far--which imply clear improvements in the transparency of the overall tax system, as well as a broadening of the personal income tax base--represent important steps in the process of tax reform in India. However, a number of issues are still to be addressed. In particular, the cuts in customs and excise duty rates in 1992/93 and 1993/94 budgets resulted in significant revenue losses (see Table 2.3). In light of the need for both further tariff and fiscal deficit reductions, priority must be given to enhancing domestic tax revenues through more strenuous collection efforts and a broadening of the tax base.

Table 2.3: Revenue Impact of Recent Tax Reforms
(Rs billion)

	Center	States
1992/93 Budget		
Excise Duties	-11.5	-10.6
Customs Duties	-20.2	...
Direct Taxes	+3.6	+4.4
Net Revenue Effect	-28.1	-6.2
Percent of GDP	- 0.4	-0.09
1993/94 Budget		
Excise Duties	-7.1	-5.4
Customs Duties	-32.7	...
Net Revenue Effect	-39.8	-5.4
Percent of GDP	- 0.51	-0.07

Source: Union budget documents, Government of India.

2.14 However, revenue enhancement cannot be pursued at the expense of further simplification and rationalization of the domestic tax structure, which are required to improve efficiency and competitiveness. Moreover, in industries such as textiles, where both final products and inputs are imported, tariff reform must be coordinated with excise duty reform. In short, domestic tax reform will have to proceed along a broad front, as outlined below.

2.15 Domestic excise taxes. The Government has requested the National Institute for Public Finance and Policy to examine possible designs for a national VAT system. However, implementing a full VAT is likely to be a long and difficult process. It is essential that ways be found to broaden the MODVAT base during the transition. The following steps need to be considered: (i) replacement of more specific rates with ad valorem rates, coupled with a move to a three-tier structure--with rates ranging from 10 and 20 percent; (ii) an increase in the coverage of MODVAT to include most manufactured goods, and extension of MODVAT input credit to all productive inputs, including most capital goods and

(iii) inclusion of more services in the MODVAT base--as a first step, the Chelliah Committee recommends a separate services tax on advertising, insurance and stock broker services, and residential services such as telephones.

2.16 Corporate income tax. There has been relatively little reform of the corporate income tax regime to date--largely as a result of concerns over potential revenue losses. However, given the need to stimulate private investment, serious consideration needs to be given to eliminating the corporate surcharge on domestic companies and reducing the tax rates on dividends, interest and royalties for foreign corporations.[3/] The extension of MODVAT credit for the excise duty on machinery needs to be considered as well. Agricultural source income needs to be included in the corporate base as well.

2.17 Personal income tax. Measures that need to be considered in the area of personal income tax include: (i) inclusion of the value of fringe benefits in taxable income especially for housing and concessional loans for non-salaried assessees; (ii) inclusion of agricultural source income--above some fixed amount--in the personal income base; (iii) adoption of a presumptive income tax for small businesses whose turnover places them beyond the reach of the current lump sum tax on small business; and (iv) discontinuation of the recent practice of introducing new deductions and exemptions--such as those cooperatives--just as others are being removed, since they create new opportunities for tax evasion and work against base broadening.

2.18 Transitional revenue sharing arrangements. As noted above, the current revenue-sharing arrangement between the Center and the States makes the former's fiscal adjustment much more difficult. Given the urgency of continued fiscal deficit reduction, consideration needs to be given to some sort of transitional arrangement to ease the burden of the Center's revenue adjustment. For instance, new excises that are levied by the Center could be exempted from the revenue sharing arrangement. Alternatively, the Center could commit itself to transfer to the States a certain proportion of GDP, which would allow it to keep any additional revenues stemming from a broadening of the tax base and improved tax administration. Over the medium term, however, progress towards a national VAT will require a thorough re-examination of the division of revenue and expenditure responsibilities between the Central Government and the States. These issues are being examined by the recently constituted 10th Finance Commission.

Overall Assessment

2.19 The Government attaches considerable importance to the reform of India's tax system. The Chelliah Committee on Tax Reforms has provided a comprehensive blueprint for reform, which has been endorsed by the Government. Measures adopted in the context of the last two Union budgets have introduced many of the recommendations of the Chelliah Committee, and have brought notable improvements to India's tax system. However, a considerable reform agenda remains. Further progress with reform of both customs and excises will inevitably result in revenue losses in the near term. Consequently, attention must be given to broadening the base for domestic taxation, and improving administration and compliance. Consideration needs to be given to some form of transitional revenue-sharing arrangement between the Center and the States, in order to ease the burden of tariff reductions on the Central Government. Over the medium term, the whole issue of the expenditure and revenue responsibilities of the Center and States will have to be re-examined (see para. 3.33).

[3/] As noted in Chapter 1, India has signed a large number of tax treaties that provide for a variety of concessional rates of withholding. It would be desirable if the system could be simplified through the adoption of a common structure with moderate rates.

C. Consolidating Trade Liberalization

Overview

2.20 The Government has indicated that further trade reforms are required to provide an impetus to output growth and exports, and is committed to achieving a substantial liberalization of India's trade regime within the next four years. Its principal objectives, as outlined in the documents of the Eighth Development Plan, are: (i) to lower the average tariff rate to no more than 25 percent; (ii) to eliminate quantitative restrictions on imports--except those pertaining to environmental and security concerns; and (iii) to promote rapid and broad-based export growth.

2.21 The recent major reforms in tariff protection and quantitative restrictions over the past two years are expected to yield significant improvements in the competitiveness of the Indian economy. Nonetheless, despite the recent progress, the pace of trade liberalization in a few areas--especially consumer goods imports liberalization and removal of export controls--has been less rapid than would have been desirable largely due to concerns over potentially negative balance of payments and fiscal implications, and adverse socio-political reaction to the implied costs of industrial restructuring and adjustments in agricultural prices. The trade-off is between rapid liberalization in order to maintain the momentum of reform on the one hand, and the risk of too rapid a pace leading to economic and political disruptions and, potentially, reversal of the reforms. The danger of a graduated pace is that it could delay the recovery in exports and private investment, and allow more time for political pressures to be brought to bear against liberalization. This appears to be the greater risk in the present Indian context. The impact of trade liberalization on export performance is invariably positive (see Box 2.2). Failures to contain the balance of payments during episodes of trade liberalization in other countries have been related largely to inconsistent demand management policies or prolonged periods of widespread rationing prior to liberalization. In view of the considerable real exchange rate adjustment in India over the past two years (about 30 percent since April 1991), and the progress made in reducing the fiscal deficit, it is unlikely that further liberalization would result in a surge of imports that could not be accommodated through prudent demand-management and continued flexible exchange rate policies.[4/] Some specific approaches to the sequencing and pace of future trade reform are outlined below.

Future Trade Reforms

2.22 Tariff reform. Notwithstanding the significant tariff reductions over the last two years, tariff levels and duty collection rates remain very high in India and need to be reduced progressively to at least the 25 percent average indicated in the Eighth Plan. Indeed, the current average tariff rate in India is higher than those that prevailed in countries such as Turkey, Mexico and Indonesia before they implemented their trade reforms--Indonesia, 29 percent in 1985; Mexico, 24 percent in 1985; and Turkey, 39 percent in 1983 (see Table 2.4 below). Another notable feature of the tariff structure in India is the large share of customs revenues derived from items with the highest tariff rates. In 1992/93, the single largest share of revenues, 30 percent, was from imports that carried the maximum tariff of 110 percent. The tariff cuts proposed in the 1993/94 Union Budget are estimated to cost the exchequer Rs. 33 billion (0.4 percent of GDP) in foregone revenues.[5/] These figures indicate that the fiscal impact of tariff reduction (in terms of revenues foregone) is likely to be greatest in the initial stages.

[4/] This conclusion is supported by formal tests for accumulated excess demand in the Indian economy. See Otoo, Samuel and Hong Wei. 1993. "Testing for Evidence of Repressed Inflation in India".

[5/] This calculation assumes no changes in the exchange rate or in the volume of dutiable imports.

Box 2.2: Trade Liberalization and Export Performance

Despite obvious differences in economic structure and initial macroeconomic conditions, some interesting insights can be drawn from the trade liberalization experiences of Indonesia, Mexico and Turkey during the 1980s. Each country started with a rather high level of protection with widespread quantitative restrictions and high tariffs. In each case, trade liberalization was accompanied by a significant real devaluation, and in all three countries structural reforms proceeded on a broad front; combining trade reform, investment deregulation, privatization and reduction of public sector imbalances.

As a consequence of the trade liberalizations, all three countries increased their integration with the world economy. Imports and exports as a share of real GDP increased from 43 percent to 52 percent in Indonesia (1985-90), from 30 percent to 44 percent in Mexico (1986-90), and from 37 percent to 47 percent in Turkey (1984-89). In all cases, a significant proportion of the increased trade share was accounted for by non-traditional exports.

In all three countries, there was a strong and rapid reaction of exports to import liberalization. Following the trade reforms in Turkey at the end of 1983 and beginning of 1984, merchandise exports grew by 12 percent in volume terms during the period 1984-89. After the 1985 trade liberalization, the volume of Indonesia's manufactured exports increased by about 24 percent on average during the period 1986-90, while Mexico's manufactured exports increased by 16 percent per year between 1986 and 1990.

The trade policy reforms adopted by these countries succeeded in broadening significantly the export base, and allowed for gradual import competition from abroad to stimulate increases in economic efficiency. Prior to the trade reforms all three countries depended heavily on primary exports. Crude oil and oil products constituted about 70 percent of merchandise exports in Indonesia and Mexico in 1982 and 1984 respectively, and Turkey's primary exports accounted for about 65 percent of merchandise exports in 1980. A significant restructuring away from primary exports and toward manufactured exports occurred in all three countries, with manufactured exports as a share of merchandise exports more than doubling in the three to five years following liberalization compared to the year preceding the trade reform.

2.23 Customs revenues accounted for an estimated 44 percent of net Central Government tax revenues in 1992/93 (about 3.5 percent of GDP). Preliminary estimates indicate that an average tariff rate of 25 percent in 1996/97 would result in customs revenues equivalent to about 2.7 percent of GDP.[6/] As noted in the previous Section, this revenue loss implies that further tariff reform in India needs to be pursued in parallel with a comprehensive tax reform along the lines proposed by the Chelliah Committee.

2.24 A final striking feature of the Indian trade regime is the large volume of imports that attract no customs duty--in 1992/93 these made up 27 percent of merchandise imports (excluding those on Advance Licenses for exporters). In addition, the myriad of exemptions associated with each tariff

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[6/] Precise estimates of the revenue loss from tariff reform are difficult to obtain given the inherent uncertainty as to: the price elasticity of import demand as tariffs are reduced; the extent of demand for consumer goods imports as these are liberalized; and the extent of real exchange rate depreciation that might occur over this period.

phase of tariff reform. For instance, it is estimated that a 10 percent minimum tariff in 1992/93 would have yielded additional tariff revenues of about Rs 6.2 billion (roughly 0.1 percent of GDP).

Table 2.4: Tariffs and Collection Rates /a
(in percent)

	Maximum Tariff	Average Tariff	Collections /b
India	85 (1993)	47 (1993)	30 (1993)
Indonesia	60 (1991)	10 (1990)	5 (1989)
Korea	30 (1985)	9 (1992)	6 (1990)
Mexico	20 (1990)	10 (1990)	5 (1990)
Philippines	50 (1992)	17 (1992)	10 (1992)
Thailand	60 (1985)	19 (1985)	13 (1985)
Turkey	50 (1989)	17 (1989)	13 (1989)

Notes: /a The figures within the parentheses indicate the applicable years.
/b Tariff revenues as a proportion of value of imports.

Source: Staff estimates.

2.25 The Chelliah Committee Report on Tax Reforms has recommended a broad tariff structure containing eight duty slabs--ranging from zero percent for basic foodstuffs such as cereals to 50 percent for finished products. Moreover, the Eighth Plan indicates that the Government intends to pursue early and more substantial reductions in tariffs on capital goods imports. The rationale for this approach is to minimize incentives for deferment of private investment created by expectations of future tariff reductions. However, this approach is likely to increase distortions in domestic incentives by raising protection for final goods industries, and underscores the need for bolder action with respect to consumer goods liberalization.

2.26 Removal of Quantitative Restrictions on Imports. As the process of trade reform progresses, the remaining quantitative restrictions on intermediate and capital goods imports will have to be eliminated, and action taken to liberalize consumer goods imports. With the re-unification of the exchange rate, the cost of subsidizing "bulk" imports--such as petroleum products and fertilizer--which were imported at the lower, official exchange rate is likely to prove prohibitive. Consequently, it is expected that more "canalized" imports will be decontrolled in the coming years.[7] Removal of import restrictions on second-hand capital goods would be needed as well, since this would allow access to levels of technology that, while not at the forefront of the international frontier, would be competitive in the Indian setting. This measure would enable India to improve its competitiveness in industries that the newly-industrialized countries are vacating as they move up the technology curve.

[7] Indeed, the 1993/94 Union budget makes no provision to compensate the canalizing agencies for the loss of this subsidy.

restrictions on second-hand capital goods would be needed as well, since this would allow access to levels of technology that, while not at the forefront of the international frontier, would be competitive in the Indian setting. This measure would enable India to improve its competitiveness in industries that the newly-industrialized countries are vacating as they move up the technology curve.

2.27 The more difficult issue is the liberalization of consumer goods imports. As noted above, the authorities are concerned about possible complications for balance of payments management. There are also political economy considerations that cannot be ignored--as in other developing countries, consumer goods imports tend to be associated with conspicuous consumption by the wealthy. While a major liberalization of consumer goods imports may not be feasible, it is critical that the process be initiated as soon as possible. It is equally important that the initial measures adopted constitute a clear and credible signal of the authorities commitment to rationalizing protection for the economy as a whole, so that domestic economic agents begin to adjust in the right direction.

2.28 Several options are available for such an approach. One option would be to initiate a conversion of quantitative restrictions into tariffs followed by reduction of these tariffs. Another would be to auction quotas for consumption imports. A third option would involve a gradual expansion of the quota ceiling. In general, tariff-based approaches are preferable to quotas as they are more transparent, allow adjustment of the quantity of imports to price and cost signals, and provide revenues to the government rather than rents to the license recipients. The difficulty arises over the determination of the level of these tariffs. This is especially complicated in the case of India where consumer goods imports have been effectively banned for several decades. In view of the desirability of avoiding policy reversals, error on either side could create problems. The principal risk in having tariffs set too low is a surge in imports that would not be financeable and/or would imply politically unacceptable costs to domestic industry. On the other hand, the risk of setting tariffs too high is that trade could be more restricted in the long run if it proves difficult subsequently to reduce these tariffs.

2.29 The option that the Indian authorities have adopted recently involves a reduction in the tariff rate applicable to so-called "baggage imports" (up to US$5,000 per passenger) from 255 percent to 150 percent and a "special import license" (SIL) scheme, which allocates licenses to exporters for imports from a narrow list of consumer goods. The amount of the license is set in proportion to the recipient's foreign exchange earnings, and the proportions are differentiated according to the type of exporter. The scheme has several positive features. First, the licenses are transferable, which allows for some transparency--the premium commanded by these licenses provides a potentially useful indication of the tariff equivalent of quantitative restrictions. This information could be useful if the Government decides to pursue the tariffication approach at a later stage.[8] Second, by linking imports to export receipts, the SIL scheme contains the balance of payments impact of liberalization. Finally, and most importantly, the direct linkage to export incentives renders it a more politically acceptable form of consumer goods liberalization.

2.30 Despite these attractions, the SIL scheme could be strengthened in a number of ways. First, the list of permissible imports needs to be expanded to include all consumer goods, with the exception of a small negative list. Second, the licenses could be issued against a uniform share of export earnings, rather than the differentiated shares as at present. Finally, it would be desirable to announce a

[8] The value of this information depends on the comprehensiveness of the list of permissible imports and, as such, is limited by the restrictiveness of the current list.

medium-term program whereby the proportion of foreign exchange earnings available for this purpose would be increased progressively. The objective would be to bring the premium on the SILs down to zero over a period of 4 to 5 years, with a view to shifting completely to tariff protection.

2.31 Strengthening export promotion schemes. Rapid export growth in India requires continued flexible management of the exchange rate and further decontrol of export restrictions. Measures to achieve the latter would need to be accompanied by domestic pricing and procurement reforms in order to facilitate a rapid and efficient supply response (see para. 2.65). In view of the continuing high level of import protection in the Indian economy, export promotion schemes are required as well to counter the disincentive effects of excessive input costs and the profitability of production for the domestic market during the transition. A number of schemes are already in place, including duty-free import schemes; duty concessions on capital goods imports; income tax relief for exporters; and interest rate subsidies on pre- and post-shipment finance. There is considerable scope for strengthening the workings of the duty-free import schemes for exporters, which include the Duty Exemption Scheme (which provides exporters access to duty-free imported inputs), the Duty Drawback Scheme (which reimburses exporters for indirect taxes paid on their inputs), the Export Processing Zones (EPZs) and the 100 percent Export Oriented Units (EOUs).

2.32 Since 1991, a number of improvements have been made in administrative arrangements for accessing duty-free imported inputs for direct exporters through the Duty Exemption Scheme. However, the procedures for indirect exporters are so complicated that few avail themselves of this facility. Indirect exporters are therefore at a disadvantage vis-a-vis foreign suppliers, which results in a lower domestic value-added content of Indian exports. In addition, despite the progress made in the April 1993 Export Import Policy in simplifying procedures for obtaining duty-free imported inputs, much remains to be done to streamline the paper work involved. Changes have been made recently to the Duty Drawback Scheme as well, in an effort to expedite processing of indirect duty rebates, which in some instances had taken over a year in the past. The impact of these policy changes, however, remains to be seen.

2.33 Finally, India's EPZs and EOUs have not been very effective in export promotion, largely as a result of excessive administrative hurdles and, in the case of EPZs, poor infrastructure services. Exports from EPZs/EOUs account for only 5 percent of Indian exports. Proposals to streamline/simplify the administration and policy framework of the EPZs and the EOUs are currently being examined. Private sector participation in the management of the EPZs is under consideration as well. Such public-private partnerships have been extremely successful in countries such as China, and could be particularly important to improving infrastructure services.

D. Accelerating Financial Sector Reform

2.34 Despite the important reform measures taken since July 1991, India's financial system still faces a number of fundamental problems. Due to past loan losses and restrictive regulation, most of India's nationalized commercial banks will have to be recapitalized and/or restructured by the Government in the near future to restore their financial health on a sustainable basis. At the same time, the structural adjustment underway will put additional stress on the already weak financial institutions as the profitability of firms that flourished under the previous regime comes under increasing pressure. The experience of a number of countries over the past two decades indicates clearly that a delay in dealing with the problems of the financial system in India would tend to frustrate stabilization efforts while creating incentives for wasting resources needed for economic recovery (see Box 2.3). In the present

Indian setting, three issues are particularly crucial to the management of the transition: (i) restoring financial health to the banking system; (ii) liberalizing financial policies; and (iii) development of a broad market for government securities.

Box 2.3: Economic Consequences of Financial Distress

Weakened by large losses, many financial institutions in developing countries have become less able to carry out their intermediation function. Their diminished capacity to improve the allocation of resources has contributed to slow growth and has undermined some countries' attempts at structural adjustment. Where governments have chosen to delay the restructuring of troubled firms and intermediaries, the high recurrent costs of assistance have compromised efforts to tighten monetary and fiscal policies and in some cases have led to further macroeconomic instability.

Resource misallocation. The rising proportion of nonperforming loans has limited the volume of credit that banks can extend to new clients. Moreover, credit allocation has often become perverse, with banks extending more rather than fewer loans to their least solvent clients, especially to large borrowers. New loans to troubled firms might have been justified if the loans had been used to restructure the ailing enterprises or if the firms had not been insolvent but merely illiquid. But much new lending has simply financed the servicing of prior loans or prolonged the lives of nonviable firms. By channeling additional funds to borrowers unable to make profitable use of the resources already at their disposal, lenders have delayed the process of adjustment.

Macroeconomic consequences of financial distress. The financial distress of recent years has contributed to macroeconomic instability, particularly in the highly indebted countries. The weakness of firms and financial institutions has made it difficult for many governments to tighten monetary or fiscal policy without making matters worse for ailing banks. Thus, even as many countries were attempting to redress macroeconomic imbalances through fiscal and monetary restraint, the need to assist troubled banks and their borrowers compromised the governments' efforts. Subsidies to state-owned financial institutions in the Philippines, for example,were equivalent to 3.4 percent of GNP in 1986, which made it difficult for the government to reduce its budget deficit.

Many governments have aided banks by transferring to the central bank the foreign exchange risk on banks' foreign currency liabilities. The central bank exchanged liabilities denominated in domestic currency for liabilities denominated in foreign currency. Later, depreciations of the domestic currency resulted in valuation losses for the central bank. These losses had an indirect expansionary effect because banks were required to pay the central bank less than the amount needed to buy the foreign exchange to cover their obligations. To buy the necessary foreign exchange, the central bank then had to print money. In some countries the difference between what the central bank paid on foreign obligations and what it received from banks and governments has accounted for a large share of monetary expansion. The central banks of Costa Rica, Ecuador, and Yugoslavia had losses that sometimes exceeded the amount of new credit extended by the domestic banking system.

A handful of countries (Argentina, Bolivia, and Yugoslavia among them) tried to alleviate financial distress by lowering interest rates. Lower deposit rates, however, contributed to inflation and capital flight by encouraging holders of wealth to turn away from domestic financial assets toward goods or foreign financial assets. The process of disintermediation and the declining demand for domestic financial assets compounded banks' difficulties, and the declining demand for money also amplified the inflationary effects of excessive money creation.

Source: World Development Report, 1989: Financial Systems and Development

Restoring Financial Health to the Banking System

2.35 The recent experience of other countries suggests that the budgetary cost of restoring financial health to an impaired financial system can be managed in a number of ways (see Box 2.4). In the present Indian setting, restoring financial health to the banking system on a durable basis requires: (i) a proper recognition of the extent of loan impairment in banks' balance sheets, along with the development of a viable financing package to fill any net-worth deficiency associated with the write-off of losses as well as problem loans; (ii) improved loan collections; (iii) restructuring and increased commercial orientation of the most troubled banks; and (iv) recapitalizing banks to meet the RBI's new capital adequacy norms of 8 percent of risk-weighed assets by March 1996.

Box 2.4: Costs of Restoring Financial Health

At the time of intervention the economic costs of financial distress have already been incurred in the form of poor past investments and slower growth in output. Restructuring has no economic cost. On the contrary, it brings an economic gain in that the economy may once again enjoy the benefits of a well-functioning financial system. The budgetary cost of restructuring consists of the Government's cash outlays, which are a transfer from taxpayers to the creditors of insolvent banks.

This cost has depended on the extent to which the banks' losses exceeded their capital. In the United States, for example, the expected cost of dealing with the remaining insolvent S&Ls is equivalent to approximately 2 percent of GNP, and in Spain the estimated losses of banks were equivalent to 16.8 percent of GNP. In some developing countries banks' losses as a percentage of GDP have been even larger. The cost of paying off depositors has been one reason most governments have chosen to close small banks and rehabilitate the bigger ones.

To make insolvent intermediaries solvent again, Governments took over bad assets. In some cases they acquired bank liabilities at the same time; in others they replaced the bad assets with good ones. The authorities in the Philippines chose the first approach; they drastically shrank the balance sheets of the two largest banks by assuming 76 percent of their assets and a corresponding share of their liabilities. The second solution was more common, however; governments bought bad assets in exchange for long-term government securities, and the interest on the securities was then used by banks to pay interest on deposits. This method was used, for example, in Chile. Buying the bad assets for cash would have been too large a fiscal outlay and might have added to inflation by expanding the money supply.

Over time, restructuring costs are bearable, even for a country in which the bad assets acquired by the authorities amount to as much as 20 percent of GNP. In such a case, if the real interest rate paid on government bonds is 5 percent, the annual real cost to taxpayers will be 1 percent of GDP. And the figure may exaggerate the additional cost to the taxpayer. In most cases the government has already been paying some form of subsidy to help banks cover their losses. Furthermore, it may be able to realize something on the nonperforming assets.

Source: World Development Report, 1989: Financial Systems and Development.

2.36 Recognition of loan losses. India's nationalized commercial banks have incurred substantial loan losses that, for the most part, have not been reflected in past income statements nor in current balance sheets. A proper recognition of the extent of loan impairment in banks' balance sheets is underway, together with the development of a financing package to fill the existing net-worth deficiency. Preliminary estimates from the RBI, based on the banks' 1991/92 balance sheets, suggest that a provisioning requirement of about Rs. 100 billion (about 1.4 percent of 1992/93 GDP) is required if losses are charged off, reserves averaging 50 percent are set up against doubtful loans and reserves of

10 percent are applied against substandard loans.[9] The 1993/94 Union budget provides for an initial infusion of Rs. 57 billion in the form of new Government bonds. Priority needs to be given to the stronger banks, particularly those with overseas branches. These securities should be linked to the 364 Treasury Bill rate so as mitigate the interest rate risk that commercial banks would otherwise be exposed to as their large holdings of government securities are marked to market.

2.37 Improving loan collections. A concerted and successful effort to collect on non-performing loans could materially reduce the cost of bank restructuring and improve resource allocation by transferring certain assets to more productive use. To maximize the returns from non-performing loans, simultaneous efforts have to be made to establish appropriate incentive mechanisms for improved collections, implementation of legal reforms and streamlining of administrative procedures. Generally speaking, it is easier to devise such incentive systems if government assistance is combined with privatization. In this context, the Government's decision to allow commercial banks to approach the market for equity capital is a major step. Legal reforms could also increase the magnitude of loan collections and at the same time reduce the time involved in such efforts. The Government has presented to Parliament the necessary legislation to allow for the establishment of Special Tribunals in large cites, with jurisdiction over bank claims arising from large defaulted credits. A strengthening of laws to expedite debt recovery will be required as well. Finally, it is important that systems be established that deal with smaller loans expeditiously and avoid overwhelming banks and regulators with excessive paper work.

2.38 Restructuring and recapitalization. There are several options for dealing with the most insolvent banks. Where closure is indicated, the most pragmatic solution would probably be to merge them with stronger banks, giving management of the acquiring bank considerable flexibility to consolidate offices and to pare existing staff where warranted. This is broadly the approach being pursued currently by the authorities.

2.39 In addition to filling the gap created by the need to provision for past losses, the authorities are committed to a policy whereby banks meet international risk-based capital standards. Indian banks with overseas branches are to meet the new standard by March 1994. Other banks are to meet that standard by March 1996. Aggregate balance sheet data suggest that risk-weighted assets are about half the value of total assets of the commercial banks. Thus, attaining the mandated 8 percent risk-based capital level would require capital of about 4 percent of assets, assuming the current level of bank capital is zero. The additional capital would have to come from banks' own resources in the form of retained earnings and reserve revaluation, and from private equity participation. Promoting private sector participation will require greater management autonomy and progress in reform of industrial relations, since the banking industry is one of the most heavily unionized in the country. Given the magnitude of the funds required, it would probably take several years for the private sector to meet the capital needs of even the stronger banks. To help ensure that the RBI's capital adequacy guidelines for banks with

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[9] The banks' provisioning needs will increase as the new regulations for income accrual and loan loss provisioning are phased in over the next three years. Additional provisioning will also be needed to "mark to market" the banks' large holdings of government securities. As from the 1992/93 accounting year, banks are required to mark to market a minimum 30 percent of their approved securities. The capital loss stemming from this will be about Rs. 20 to 37 billion depending on prevailing interest rates on government securities.

overseas branches are met by March 1994, priority needs to be given to these banks in the allocation of budgetary funds.

Liberalizing Financial Policies

2.40 In the prevailing environment of high mandatory reserve requirements, directed credit schemes and high cost of capital, the costs of entry to the commercial banking industry in India are relatively high. Banks need to earn a return of about 20 percent on their commercial lending business in order to cover their marginal costs alone--abstracting from taxes and loan losses. In order to ensure the efficient and competitive functioning of the banking system, the Government needs to: (i) reduce substantially its recourse to bank credit through statutory reserve requirements; (ii) deregulate lending and deposit rates; (iii) reduce the scope and subsidy element of directed credit; and (iv) move to a market-based system of monetary management and control, and funding of government debt.

2.41 Reducing reserve requirements. An early priority must be further reductions in the statutory liquidity and reserve requirements. In 1992/93, SLR collections met about 17 percent of the Central Government's internal financing requirements and absorbed about 38 percent of banks' deposits. In April 1993, the RBI announced that the SLR would be reduced to 36.75 percent in four stages during 1993/94. This is a smaller reduction than that implied by the decline in the Government's overall financing requirements, and apparently reflects a desire to compensate for reduced collections under the various Small Savings Schemes that allow Central and State governments to tap household savings directly. In view of the Government's target for an average SLR of no more than 25 percent by 1996/97, this pace of SLR reduction appears too slow. Considering the need to strengthen the profitability of the commercial banks, and to free resources for the private sector, a much faster pace of SLR reduction would be desirable. This would help also to increase the fiscal discipline being imposed on the States.

2.42 The usefulness of the cash reserve requirement (CRR) as an instrument of monetary policy has been blunted by the need for the RBI to pay interest on a sizable portion of these reserves.[10/] As a result, the RBI has had to resort to other instruments to control money and credit supply--including quantitative credit controls and the minimum lending rate--that have restricted the competitiveness of the commercial banks. The Government's goal is to reduce the CRR progressively from 15 percent at present to 10 percent by 1996/97--in line with the projected reductions in the monetized portion of the fiscal deficit. To this end, the RBI announced a one percentage point cut in the CRR to 14 percent in April 1993. In parallel with the reductions in the CRR, the Government intends to place greater reliance on open market operations for liquidity and monetary policy management. A faster pace of CRR reduction and a lower final level would be desirable in order to make the CRR a more useful instrument of monetary policy. However, the transition to a market-based system for funding Government debt and conducting monetary policy requires further interest rate deregulation and development of a broad and active primary and secondary markets for dated Government securities.

2.43 Deregulating interest rates. Commercial banks' term deposit interest rates (with the exception of certificates of deposit) and minimum lending interest rates are still administratively determined by the RBI. The minimum lending rate is used by the RBI to signal its intentions with respect to the overall

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[10/] The latter feature has made the CRR essentially indistinguishable from other forms of government debt, with the exception that the RBI provides its servicing.

direction of interest rate policy. However, the minimum lending rate impedes competition in the lending market. The Government recognizes the need for further interest rate deregulation. Its key concern is to sequence the deregulation of interest rates in such a manner as not to jeopardize the fragile financial position of banks during the transition period when substantial past losses have to be recognized and provisioned for.

2.44 A pragmatic strategy for interest rate liberalization would be to begin by freeing interest rates on government securities. As the government securities market develops and deepens, its interest rate would gradually gain acceptance as the benchmark rate for the financial system. The sequence in which the maximum deposit rate and minimum lending rate are removed is important. If the maximum deposit rate is removed first, competition among banks would probably lead to higher deposit rates. With the minimum lending rate still in force, commercial bank profitability would come under pressure. To the extent inter-bank competition permitted, bank lending rates would rise as well. This would dampen investment demand, and could reduce the pool of creditworthy borrowers, since such entities would inevitably shift to alternative funding sources. A better sequencing alternative would be to remove the minimum lending rate before the maximum deposit rate. Better bank customers would then be in a position to bargain for lower interest rates. While this sequence would tend to reduce commercial bank profitability as well, banks could reduce their deposit rates. The central point is that this sequencing would keep banks from engaging in "distress" lending strategies to cover a high deposit rate structure, and is more likely to generate lower interest rates.

2.45 A final issue is the need for improved coordination between interest rate policies and exchange rate policies in the transition period. During the 1980s, large, persistent differentials between real domestic interest rates and those prevailing abroad resulted in capital flight and adverse speculation against the Reserve Bank. With the growing openness of the economy to trade and capital flows, and greater role of market forces in the determination of the exchange rate, the potential for destabilizing capital movements will increase. Consequently, particular care needs to be exercised in the setting of domestic interest rates so as not to generate excessive volatility in the exchange rate or balance of payments.

2.46 Rationalizing priority sector lending. Currently at least 40 percent of commercial bank lending must go to priority sectors, with half of this lending at subsidized interest rates. The uniform lending targets and concessional rates have resulted in strains on the profitability of the banks and other financial institutions involved in such lending. While there have been some adjustments and simplification of the priority sector lending rate structure since 1987, the current interest rate regime precludes the possibility of profits on much of the priority sector lending and contributes to the lack of discretionary lending autonomy. The prime issue, however, is the lack of credit discipline, reflected in high loan overdues and defaults. For instance, overdues in the rural credit portfolio of the commercial banks are currently estimated at about 50 percent of total payments of principal and interest. Reasons for overdues and defaults are varied, but lack of bank autonomy and pervasive political interference have been important contributory factors. Such interference is perhaps best exemplified by the 1989 loan waiver scheme, which has exacerbated the general psychology of non-repayment and is expected to cost the Central exchequer a total of about Rs. 48 billion.[11/]

[11/] An incidental benefit of the waiver scheme was the partial cleansing of bad debts in bank portfolios.

2.47 The increasing use of the rural credit system to serve poverty alleviation objectives through the Integrated Rural Development Programme (IRDP) needs re-examination. IRDP overdues are particularly high and truly productive investments often sadly low. Political interference in the Programme and the use of proxy-applicants by the influential and wealthy are ubiquitous, largely defeating its poverty alleviation objective. Finally, institutional and policy reforms are required to improve resource mobilization by grassroots institutions such as the regional rural banks (RRBs). These institutions have had little incentive to do so in the past due to their access to concessional refinance from apex agencies such as the National Bank for Agricultural and Rural Development (NABARD).

2.48 The reform strategy in this area will have to combine measures to eliminate the subsidy with a better targeting of eligible borrowers. As the supply of loanable funds available to the banks increases with the lowering of the SLR and CRR, alternative mechanisms will have to be devised that respond to the requirements of creditworthy borrowers yet minimize the adverse incentive problem inherent in the present directed-cum-subsidized allocation system. Some alternative mechanisms that have been successful in other countries include rediscount facilities, as in Colombia, and credit auctions, as in Bolivia and Chile. In the specific case of rural credit, there are a number of interesting programs in other developing countries (such as the Grameen Bank in Bangladesh, the Badan Kredit Kecamatan in Indonesia and the Bank for Agriculture and Agriculture Cooperatives in Thailand) that could provide useful insights for reform in the Indian context.[12/] More generally, increased autonomy will have to be pursued within the context of a program to strengthen the financial infrastructure and capital base of the specialized financial institutions engaged in this lending.

<u>Developing the Government Securities Market</u>

2.49 Development of a broad and active market for dated government securities, that allows secondary trading as well as an orderly absorption of new issues, is a prerequisite for effecting the transition to a market-based system of funding government debt and for the conduct of monetary policy through open market operations. The government securities market in India consists of two main segments, the T-bill market and the dated (i.e., long-term) securities market. A number of specific issues need to be dealt with in both segments of the market.

2.50 <u>The T-bill market</u>. In April 1992, RBI introduced fortnightly auctioning of 364-day T-bills. The auction is open to all commercial banks, large institutional investors like insurance companies and registered provident funds, and other, non-bank, financial institutions. While the RBI does not participate directly as a purchaser in these auctions, the <u>volume of the auction is not preannounced</u> either, giving the RBI the option of adjusting the supply to arrive at its "managed" rate. The RBI is concerned that if it were to preannounce the auction quantity it might not be able to meet its funding targets without substantial increases in the yields. However, the RBI's current practice of managing both supply and yields is not sustainable. The overwhelming bulk of the demand for T-bills stems from the SLR requirements of the banks, and the Discount and Finance House of India--the RBI-owned securities dealer--is the only active market maker. The DFHI has been obliged to maintain a bid-offer yield spread of 50 basis points on 364-day T-bills; about five times as large as the typical spread in the interbank market.

[12/] See Dailami, Mansoor and Sumeet Thakur. 1993. "Perspectives on Priority Sector Lending and the Development of Alternative Mechanisms in India".

2.51 A variety of measures are required to resolve these problems. The RBI could announce a fixed quantity as in the United States, a minimum quantity as in France, or a quantity range. Such a move, however, would need to be accompanied by complementary measures to strengthen the RBI's expertise in several areas--including conducting open market operations and forecasting short term liquidity in the market. There needs to be a gradual weaning away from the current reliance on SLR requirements as a means of assuring funding. Currently, the low volatility of primary market rates implies that potential market-makers in the secondary market have very little incentive to do so, and illiquid secondary markets characterized by inordinately high bid-offer spreads inevitably emerge. An alternative would be to set up a network of well-capitalized, primary dealers who would be required to bid for a minimum quantity in the auction. The RBI could facilitate this by restricting the auctions to primary dealers, and requiring other investors to meet their needs in the secondary markets. Once again, complementary steps would be required to strengthen the RBI's dealer network supervision capabilities, and to rationalize settlement procedures in the government securities market.

2.52 The dated securities' market. The mechanics of the dated securities auction are identical to those of the T-bill auctions with three exceptions: (i) the RBI does not follow a published calendar; (ii) the auction quantity is preannounced; and (iii) in the case of bonds issued by the Government of India and its agencies, the RBI participates directly in the auction. In addition, the RBI maintains a 13.5 percent ceiling on coupons of 15-year Government of India securities and a 13.5 percent rate on 10-year State government securities. The secondary market for dated securities, always very illiquid, has almost ceased to exist due to the ban on repurchase ("repo") transactions in dated securities imposed in the wake of the recent securities scandal.

2.53 In light of the above, faster development of the dated securities market will probably require further liberalization of both primary and secondary markets. Specifically, the RBI needs to adopt a fixed schedule of auctions, and should consider refraining from participation in the primary market. The ceiling on the auction coupon rate needs to be removed as well. Since inflation is currently under control, these measures would probably lead to a narrowing of the high yield differentials prevailing at present. The current ban on repo transactions needs to be reconsidered as well. In free capital markets, repo transactions not only provide a means of financing long and short positions but establish a vital link between the T-bill and dated-securities markets.

2.54 A final issue that needs to be addressed is market-funding of State governments. At present the RBI places all State government securities (which are eligible for SLR holdings) at the same fixed rate. The RBI is concerned that freeing up the market would result in different States being funded at different costs according to their credit rating. This problem could be addressed by setting up a separate financial entity that would be collectively owned by the States. This entity would issue "bundled" State securities, thus ensuring that the market gets the average risk of States and prices it accordingly.

E. Initiating Reform in Agriculture

Challenges for Reform

2.55 India's agricultural sector (broadly defined to include forestry, fisheries and irrigation) accounts for about one-third of domestic production, employs the bulk of the labor force and harbors about 80 percent of the country's poor. Thus, bringing about an acceleration of agricultural growth is one of the principal challenges facing the Indian authorities in their efforts to expand output and employment, and to alleviate poverty. For some thirty years, the primary objectives of public policy in this sector have been the achievement of self-sufficiency in basic foods, low and stable food prices and improved opportunities for the poorer classes to participate in the growth process. Large public investments in irrigation infrastructure and research, coupled with land reform to give ownership of land to the landless and the introduction of high-yielding seed varieties and expanded use of fertilizer, have resulted in some notable achievements--including self-sufficiency in rice, wheat, coarse grains, sugar and, recently, edible oils and the eradication of famine.

2.56 These successes have created new challenges for the agricultural sector. Escalating expenditures on a broad array of subsidies, and low rates of cost recovery have crowded out public expenditures on efficient operations and maintenance, and new investments. Population growth has increased pressures on natural resources--land, water, soil and forests. Private investment in the sector has declined since the early 1980s and recent evidence suggests that yields of some traditional crops are declining as well. Foodgrain production in 1991/92 registered a 1.5 percent decline despite the relatively good monsoon. These recent developments, coupled with the limited availability of new uncultivated lands, pose serious challenges to the country's ability to sustain its hard-won self-sufficiency in basic foods, while improving the economic performance of the sector through diversification and commercialization of farming enterprises and exports. Moreover, despite increasing public expenditures on rural employment programs and on input subsidies for smaller farmers, India's rural poor have not benefitted from growth to the extent that had been hoped. Rural people still earn only half of the country's average per capita income.

2.57 Constitutionally, agriculture falls under the purview of the State governments. Yet, the Center sets the broad directions of policy and must take the lead in reform. The Ministry of Agriculture has prepared a draft Agricultural Policy Resolution that is under consideration by the Indian authorities. Measures in the following areas need to receive priority in the near term: (i) reallocating public expenditures in the sector from subsidies to investment; (ii) improving the structure of production incentives through a removal of domestic market impediments and a greater integration with world markets; (iii) rationalizing price support and stocking policies, along with a reorganization of the food subsidy system to target better the poor; (iv) generating and disseminating new technologies, especially for non-traditional crops, diversified farming systems and post-harvest activities; (v) strengthening the management and performance of the irrigation subsector; and (vi) rehabilitating forests and protecting non-renewable resources.

2.58 Expanded rural road and electric power networks will be required, as will the completion of unfinished public irrigation systems. More efficient use of land and water needs to be encouraged by ensuring that farmers who are willing and able to adopt modern practices have better access to these resources and modern technologies. Finally, a comprehensive program of reform for the rural credit system (including the cooperatives, Integrated Rural Development Programme and NABARD) needs to be pursued in line with reforms of the overall financial sector (see para. 2.46). Without such reform of the rural credit system, the financial viability of the system and its contribution to growth and poverty alleviation will remain very much in question.

2.59 A program of bold reforms organized around the objectives noted above could be expected to yield important benefits in both the short and long term. The reforms would contribute considerably to the alleviation of rural poverty by creating additional employment, both on the land and in nearby agro-processing, marketing and tertiary activities. Increased rural employment would, in turn, discourage rural-urban migration and encroachment on marginal lands.

Initial Reform Themes

2.60 The above reform issues can be grouped under the themes of efficiency and sustainable growth. These themes are used below to develop an initial agenda for reform of India's agricultural sector--with an emphasis on measures to increase the participation of the poor and the private sector in the development of India's agriculture.

2.61 Rationalizing agricultural subsidies.[13/] By far the largest subsidies and price distortions in Indian agriculture are for fertilizers, surface irrigation and electric power. It is estimated that the explicit and implicit subsidies related to these key inputs reach less than 20 percent of the farming community, and are restricted largely to the more fortunate farmers cultivating under irrigation. Most Indian farmers who cultivate in the rainfed areas receive little or no subsidy. Rapidly growing expenditures on these and other subsidies have become a major drain on Central and State budgets, and have diverted resources from long-term investments and efficient operation and maintenance (O&M) of existing assets.

2.62 These subsidies are important determinants of the crops and technologies selected by farmers. Field reports from States where fertilizer use is particularly prevalent indicate that indiscriminate use is adversely affecting soils and polluting groundwater. On the other hand, in poorer States where heavier use of fertilizer would be in order, the absence of complimentary inputs like reliable irrigation and location-specific high-yielding grain varieties limits demand for chemical fertilizers. Charges (cost recovery) for surface irrigation water are usually less than 10 percent of the full financial costs, or 20-30 percent of proper O&M costs. The maximum rural power tariff in the country is 50 paisa per kWh, compared to the long-run marginal cost of over 150 paisa/kWh. Some States have a zero user charge for rural power. In many irrigated areas, present cropping patterns and technologies would not be financially viable if water or power were priced at their full financial or economic costs. In many groundwater irrigated areas, excessive pumping is causing the water table to decline and the quality of water is deteriorating.

2.63 These trends are not sustainable--financially or physically--and a phased elimination of the fertilizer subsidy and measures to improve cost recovery in irrigation and power must become key elements of future public policy in these areas. A number of steps have been taken recently, but much

[13/] Issues related to reform of the rural credit system are discussed in Section D above. Fiscal aspects of subsidies for fertilizers, irrigation and power are examined in greater detail in Chapter 3 in the context of a discussion of public expenditure reform. The food subsidies and the Public Distribution System are examined also in Chapter 3. Subsectoral reform issues related to subsidies and cost recovery for canal irrigation water and power are discussed in Chapter 4.

more needs to be done--see paras. 3.19 (fertilizer), 4.20 (power) and 4.33 (irrigation). Some of the considerable savings realizable through reductions in expenditures on the fertilizer subsidy and improved cost recovery rates could be utilized for completion of unfinished irrigation schemes and for proper funding of O&M expenditures. It will be important to link the increased charges for water and power, and the reduction of explicit subsidies, to increases in the prices of outputs (see below). Only then will the increased costs be acceptable to a critical mass of farmers.

2.64 Finally, direct poverty alleviation expenditures by both Central and State governments in the agriculture sector need to be re-examined. In 1991/92, the Central Government spent Rs 10.7 billion (0.2 percent of GDP) on 189 Centrally Sponsored Schemes. The schemes are intended to subsidize the adoption by smaller farmers of improved technologies by providing them with seeds, fertilizers and pesticides. However, large numbers of better-off farmers have been among the beneficiaries. Similarly, the IRDP, which absorbed 30 percent of the refinancing resources of the NABARD in 1991/92, is intended to subsidize employment and capital formation for the rural poor. But here again, many of the beneficiaries have not been poor. Both programs, and similar operations like the "Food for Work" and "Grants-in-Aid" programs, need to be reviewed thoroughly, with a view to improving their effectiveness in meeting the Government's objectives and to targeting better the intended beneficiaries.

2.65 Liberalizing domestic markets. Zoning and internal trade and production regulations currently impede the functioning of domestic markets. Reforms need to consider elimination of: (i) all State restrictions on the movement of farm outputs, particularly movement of rice and wheat from Haryana, Punjab and Uttar Pradesh; (ii) octroi charges; and (iii) levy prices for items such as rice and sugar (this measure would likely increase average prices received by farmers). Consideration needs to be given also to alleviating trade restrictions, compulsory acquisition of crops, production controls and other constraints imposed by public sector monopolies and commodity-specific boards, e.g., the Cotton Corporation of India (CCI), the National Dairy Development Board (NDDB) and the Ministry of Textiles.

2.66 Many of the existing agro-industry regulations have served as disincentives to private investment in agro-processing and marketing. Beyond the regulations, the Center and State governments have established parastatal and cooperative processing units. These public sector units have been supported by concessional credit and have not had to adhere to certain restrictions, such as inventory controls, that have been applied to the private sector. In addition, they have often priced their services at levels below those at which the private sector can be financially viable. Reforms need to consider elimination of: (i) remaining licensing regulations; (ii) controls, including selective credit controls, over inventories and stocks; (iii) reservation regulations for the small-scale sector, e.g., for oilseeds crushing, rice milling, bakeries and poultry feed; (iv) price controls for, e.g., cotton ginning and edible oil processing; and (v) preferential access of cooperatives to subsidized credit. Constraints imposed by the Essential Commodities Acts need to be reviewed and recommendations made for liberalization.

2.67 Liberalizing external trade. The underlying goal of export and import reforms should be to link agricultural prices in India to those in World markets. There is considerable evidence that India has a comparative cost advantage in the production of a variety of agricultural commodities, yet most are discriminated against--limiting their production and export potential. The removal of export controls on disprotected commodities is likely to result in some increase in their domestic market prices. Mitigating the impact of such price adjustments on the poor, and on the food subsidy bill, will require an intensification of the Government's efforts to target better its food subsidy program (see para. 3.26). Export reforms need to consider elimination of: (i) export licensing and minimum prices (e.g., rice, silk, pulses and edible oils); (ii) all canalization (onions, butter, ghee and other dairy products); and (c) special permits (e.g., basmati rice, cotton, wheat and sugar).

2.68 Similarly, import reform would require a phased removal of administrative restrictions. Apart from oilseeds, it is unlikely that these measures would lead to further falls in domestic prices, including prices of farm inputs, beyond those resulting from the 1991 trade liberalization.[14/] An important advantage of further liberalization, however, would be to make available better quality inputs and equipment, incorporating modern technologies not presently available in India. Import reforms need to consider elimination of: (i) import licensing for seeds, pesticides and farm machinery, and associated inventory and other marketing controls; (ii) restrictions on foreign investment in agricultural input industries; (iii) canalization of urea fertilizer imports and replacement with tariffs (to be tapered down as domestic manufacturers modernize their plants); and (iv) retention prices for urea fertilizer plants. Reforms need to consider complete deregulation of fertilizer prices, and further reduction of tariffs and excise duties on synthetic fibers and yarn--to encourage their use as exports of cotton are increased.

2.69 Improving land use. Although land use and rights to land are politically sensitive issues in India, future growth of agricultural output and employment will depend on more intensive production on existing cultivated lands. A number of States have permitted limited leasing of land, which has resulted in a consolidation and expansion in the size of units as farmers adapt to the new opportunities. Such measures need to be encouraged. Central and State governments could encourage consolidation of fragmented lands, and permit leasing and sales of land within substantially increased land ceilings. In particular, special provisions for leasing and higher land ceilings need to be introduced to encourage establishment of agro-industries by the private sector. Central and State governments need to consider instituting long-term leases of degraded public lands for commercial forestry. The leases or concessions, which would likely cover tracts of 25,000 ha or more, need to be auctioned to the private sector. The contracts, which need to be renewable, could include provisions whereby present encroachers on the lands would have rights to employment and other participatory benefits deriving from the forestry investments.

2.70 Promoting agricultural research and extension. Until recently agricultural research in India has focussed on the improvement of seeds, disease control and farm production practices for traditional grain crops, particularly rice and wheat. The Eighth Plan provides for a threefold increase in the amount of public funds for such research. It is important that the bulk of this new effort be directed to non-traditional crops such as fruits, vegetables and tree crops, and to livestock, integrated farming systems, agro-processing and marketing. They embody the main opportunities for intensification, accelerated growth, and increased employment and equity in agriculture well into the twenty-first century. Incentives need to be improved for participation of the private sector in agricultural research--both through in-house research and through contracting out.

[14/]Research has shown that much of India does not have a comparative cost advantage in the production of oilseeds, yet import restrictions provide protection as part of an import substitution policy for edible oils.

F. Prospects for Adjustment and Financing

Growth and Internal Balance

2.71 To an extent not previously true in India, economic growth depends on the buoyancy and efficiency of private investment. The securities scandal revealed in April 1992 and the civil disorders following the Ayodhya affair in December 1992 inevitably set back the recovery in investor confidence, and many business interests and potential investors have come to attach considerable importance to maintenance of the momentum of reform. In this context, the 1993/94 Budget, which aims at a sensitive balance between the needs of macroeconomic adjustment and structural reforms, represents a watershed in the management of India's transition to a more open and dynamic economy.

2.72 Within a framework of continued fiscal deficit reduction, the budget provides a carefully targeted package of incentives to: (i) strengthen export performance; (ii) stimulate industrial demand; (iii) reduce the cost of capital goods; and (iv) improve the flow of credit to the private sector (see para. 1.19). The proposed measures should help to strengthen major aspects of economic performance in 1993/94 and beyond. Nevertheless, a considerable agenda for macroeconomic and structural adjustment remains. Measures with a high payoff in terms of fiscal stability, growth and exports must be given priority in the next 1-2 years. Broad-based reforms of policies and institutions governing tax, trade and the financial sector, as well as an unveiling of the long-promised policy for industrial restructuring and bold initiatives the agriculture sector will be critical.

2.73 Table 2.5 contains key indicators of the simulated performance of the Indian economy for the period 1993-97 under a scenario of continued adjustment. The simulations assume a gradual recovery of both private and public investment and a substantial improvement in the efficiency of such investments. As a result, GDP growth would be expected to strengthen progressively to about 6 percent in 1996/97. The importance of these efficiency gains--and correspondingly the importance of the ongoing reforms in product and factor markets--to India's growth prospects cannot be overemphasized. Alternative simulations (not shown here) indicate that without significant increases in overall productivity, the Government's targets for fiscal and external adjustment over the next several years are likely to result in much lower growth and higher inflation than India experienced during the latter 1980s.

2.74 The recovery in investment demand will depend critically on progress in reducing real interest rates since the restructuring and expansion plans of both public and private sectors are currently hampered by the interest burden of past borrowing. In turn, lower real interest rates will depend on the progress made in fiscal adjustment and on the availability of external capital. The key to fiscal adjustment is to reduce the stock of Government debt as a proportion of GDP, thereby freeing resources for the private sector through reductions in the statutory liquidity ratio (SLR) and cash reserve ratio (CRR). In this context, non-interest public expenditures would have to be cut further in the near term, but should recover as interest expenditures decline. Overall, domestic resource mobilization would be expected to increase only modestly in real terms--with increased collections from direct taxes and domestic excises compensating for lower customs revenues and a phasing out of the Government's disinvestment program. Taken together, these developments should result in a steady reduction in the deficit of the consolidated non-financial public sector over the next four-five years, which would be reflected in gradual declines in the ratio of domestic public debt to GDP and the interest payments burden of the public sector.

Table 2.5: Selected Indicators of Performance, 1992-98
(Data are in Percentage Points) a/

	Estimated	Simulated				
	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Real GDP Growth (factor cost)	4.0	4.5	5.0	5.5	5.9	6.0
Domestic Investment/GDP	23.2	23.5	24.3	24.8	25.1	25.4
Private	15.0	15.4	16.0	16.5	16.7	17.0
Public	8.2	8.1	8.3	8.3	8.4	8.4
National Saving/GDP	21.1	21.8	23.0	23.8	24.3	24.7
Private	20.4	20.2	20.7	21.0	21.1	21.3
Public	0.7	1.6	2.3	2.8	3.2	3.4
Public Sector Deficit/GDP b/	7.5	6.5	6.0	5.5	5.2	5.0
Public Domestic Debt/GDP	62	61	60	58	57	56
ICOR c/	4.3	5.2	5.1	5.1	4.0	3.8
Domestic Inflation d/	10.1	7.5	6.5	6.0	5.5	5.0
Real Export Growth	-1.0	13.0	12.0	10.0	9.0	8.5
Real Import Growth	9.0	8.0	8.0	7.5	7.5	7.5
External Current Account/GDP	-2.1	-1.7	-1.3	-0.9	-0.8	-0.7
Foreign Exchange Reserves (US$ billions)	6.7	6.7	7.6	8.5	9.9	10.9
in Months of Imports	3.6	3.3	3.3	3.4	3.6	3.6
External Debt Service Ratio e/	27	26	28	29	31 f/	24
External Debt (US$ billions) g/	76	80	84	86	89	91
External Debt/Export	293	270	249	231	215	200
External Debt/GDP	31	32	32	31	30	29

Notes: a/ Except where otherwise indicated.
b/ Investment-Saving gap of the consolidated non-financial public sector.
c/ Five year moving average.
d/ GDP deflator.
e/ As a proportion of current receipts.
f/ Reflects maturation of US$1.6 billion in Indian Development Bonds.
g/ Excluding debt to the FSU and other military debt.

Source: Staff estimates.

2.75 Promoting the recovery in private investment will require also that particular attention be paid to the following five issues that were stressed in last year's Economic Memorandum: (i) reductions in tariff rates to ensure that producers have access to inputs and capital goods at internationally competitive prices; (ii) deregulation of private investment, including removal of production and price controls in the agriculture sector, and a more pro-active stance with respect to private participation in industries that have been traditionally reserved for the public sector, such as oil and gas; (iii) alleviation of constraints to firms ability to liquidate assets and retrench or lay off workers; (iv) promotion of foreign investment through a further streamlining of approval procedures and provision of supportive infrastructure services; and (v) financial sector reforms to assure the availability of funds to the private sector at reasonable interest rates.

2.76 It is anticipated that further reductions in the monetized portion of the fiscal deficit and development of the government securities market would allow for a significant improvement in the Reserve Bank's control over monetary aggregates. As a result, inflation should decline steadily despite short-term cost-push pressures from further reforms of the complex system of subsidies, administered prices, and indirect taxes.

External Adjustment

2.77 Achieving external balance. India's prospects for external adjustment are subject to considerable uncertainty. The stock of external debt is estimated at almost US$76 billion (31 percent of GDP) as of end-March 1993, and its servicing burden will constrain policy choices throughout the 1990s. Specifically, over the next five years, 1993-98, scheduled repayments of debt will average almost US$6 billion per year--peaking at over US$8 billion in 1996/97.[15/] The magnitude of these repayment obligations mandates that the external current account deficit be reduced substantially over the next few years. In view of the bulge in debt repayments beginning in 1994/95, much of this adjustment would have to be effected within the next two-three years. The indicators of external performance contained in the second panel of Table 2.5 show that the current account deficit would be expected to decline from an estimated 2.1 percent of GDP in 1992/93 to about 1 percent by 1995/96. The simulations embody the assumption that this adjustment would be achieved largely through more rapid export growth, averaging about 15 percent in dollar terms. This level of export performance is critical to the medium-term prospects of the Indian economy and must be accorded the highest priority in national economic management.

2.78 Future export performance will depend on considerable further progress in broadening the export base. In 1992/93, over 50 percent of merchandise exports was concentrated in textiles and garments, gems and jewelry, and chemical products. While the latter sector, along with engineering goods, electronics and computer software, have a large growth potential, exports of textiles, garments, gems and jewelry (which together accounted for about 40 percent of exports) depend heavily on external factors about which there is considerable uncertainty (see Box 2.5). This uncertainty underscores the importance of the recent steps taken to reverse the long-standing bias against agricultural and other non-traditional exports imparted by high trade and industrial protection, and the concentration of export incentives on existing manufactured exports.[16/] These steps need to be complemented by further

[15/] This compares with total repayments of about $3.6 billion in 1992/93.

[16/] Taken in conjunction with agricultural policies that stressed self-sufficiency in an autarkic model of development, this bias resulted in a steady decline in the share of primary goods in India's export trade--from 40 percent in 1980/81 to about 21 percent in recent years.

liberalization of export controls and import tariffs, as well as measures to improve the design and functioning of export promotion schemes, such as the duty-free import schemes for exporters. Measures to decontrol exports of agricultural items would need to be accompanied by domestic pricing and procurement reforms in order to facilitate a rapid and efficient supply response. Export promotion requires greater attention to supportive infrastructure services as well, especially in the Export Processing Zones (EPZs). Finally, continued flexibility in exchange rate policy will be important.

Box 2.5: The External Environment

During the period 1990-92, a number of external factors--notably the Gulf Crisis and collapse of the Soviet Union--imparted significant shocks to India's external sector. Sluggish demand conditions in the major industrial economies also dampened export performance. At the present juncture, however, the outlook for the external environment over the next few years is reasonably bright. There is growing evidence of economic recovery in major markets such as the United States and European Community, and, what is even more encouraging, growing penetration of these markets by Indian exports--during the period April-November 1992, Indian exports to the United States increased by over 21 percent in U.S. dollar terms, while exports to the European Community grew by almost 14 percent. Also on the positive side, international oil prices have declined to roughly the levels prevailing prior to the Gulf Crisis, and are projected to soften further in coming years as the vast fuel resources of the CIS countries are tapped.

International interest rates are also currently at historically low levels, with the benchmark Libor at about half its average level during the latter 1980s. Although less than 50 percent of India's debt is at variable rates, each percentage point decline in international interest rates reduces the interest burden by about $ 250 million. For instance, if interest rates over the past two years had remained at the levels prevailing in 1990/91, India's interest service obligations in 1992/93 would have been higher by about $ 1 billion. Low international interest rates could have also an indirect positive effect on India's external balances. Specifically, low international interest rates increase the attractiveness of investments in the "emerging markets" in developing economies, and should encourage portfolio investments in countries like India--particularly from country funds and institutional investors.

Despite the overall promising external outlook, there is considerable uncertainty regarding the prospects for some of the India's export sectors. Rapid growth of India's textiles exports in the coming years will depend on the outcome of the Uruguay Round of trade talks under the GATT and the speed with which the Multifibres Arrangement (MFA)--which has regulated world textile and clothing trade for over 20 years--is phased out. On the positive side, the creation of a single EC market, and the substitution of EC quotas for the current individual country quotas, is expected to have a favorable impact on India's exports since the elimination of the EC's internal frontiers will allow Indian exporters to respond to market demand in a more flexible and efficient manner. Indeed, in December 1992, the European Community raised India's textiles and garments export quotas for 1993 in a new bilateral agreement under the provisions of the MFA. Conversely, the adoption of the North American Free Trade Agreement (NAFTA) could have a negative impact on Indian exports since US textile producers stand to gain easier access to cheaper labor sources in Mexico. On balance, however, a study of the effects of the NAFTA on South Asian exports by Safadi and Yeats (1992) concludes that the potential trade gains from a successful completion of the Uruguay Round are many times larger than the potential losses from the NAFTA.

Gems and jewelry exports are highly dependent also on external factors, particularly the level of economic activity in industrial countries. Future growth of India's gems and jewelry exports is likely to be constrained by the slow recovery of growth forecast for the developed countries that are the major importers of India's exports, as well as by the likelihood that Russia will soon become a major supplier to these same markets. Other recent entrants, like China and Thailand, are making significant inroads into this lucrative market, producing better quality products with the help of more advanced tools and modern techniques.

2.79 Import demand is likely to be heavily conditioned by the exact path and pace of further trade liberalization, as well as by developments in India's energy sector and international oil markets. Domestic oil production has been declining since 1989/90, resulting in rapid import growth. This situation has arisen primarily as a result of difficulties in managing appropriately the key Bombay High field, slow development of proven reserves, and weak demand-side policies. The Government recognizes the threat posed by India's growing vulnerability to oil imports. The 1993/94 Budget doubled the Plan outlay for the oil and gas industry, and reduced the industry's capital goods import tariff from 30 percent to 25 percent. The Oil and Natural Gas Commission is currently implementing several projects to slow the decline of oil output and to realize additional gas supplies. However, even if these projects are implemented successfully, the rapid growth in energy demand is likely to result in further increases in imports. To contain this increase, a variety of measures are required to encourage greater efficiency in the use of oil products, and to accelerate production from existing fields and recent discoveries through greater private sector participation (see para. 1.45).

2.80 Under the adjustment scenario outlined above, the external debt to GDP ratio would be expected to stabilize in 1994/95. The debt service ratio would rise to a peak of about 31 percent in 1996/97, but should decline rapidly thereafter. Given the uncertainties concerning future export performance, the downside risks for India's external adjustment are considerable. The simulations suggest that foreign exchange reserves in 1996/97 would provide cover for barely 70 percent of India's debt service obligations in that year--compared to over 90 percent in 1992/93. The Indian economy will remain vulnerable to external shocks as well. Simulations of the effect of a modest, one-time increase in the international price of oil in 1996/97 indicate an increase in India's oil bill of US$3.5 billion--abstracting from demand-side adjustments--equivalent to 40 percent of the projected level of foreign exchange reserves.[17/] Consequently, the prospect of renewed external payments pressures must be a source of continuing concern to the authorities, and underscores the need for prudent demand management policies, vigorous export promotion and a viable medium-term financing plan (see para. 2.86).

Strengthening External Debt Management

2.81 The task of balance of payments management is complicated by various weaknesses in India's external financial structure, including: slow aid utilization; a continued heavy dependence on potentially volatile short-term and non-resident Indian debt; and a relatively low level of foreign exchange reserves. Thus, the primary objectives of external debt management policies must continue to be those stressed in the last Economic Memorandum, namely: (i) a substantial increase in the utilization of committed official assistance; and (ii) strengthening India's external financial structure through a carefully sequenced liberalization of the external capital account--with a greater reliance on non-debt capital and a limited recourse to commercial borrowings.

2.82 Aid Utilization. Slow utilization of India's external aid commitments continues to be a serious problem. A major review of the World Bank portfolio was undertaken jointly by the Government and the Bank in late 1991, resulting in the cancellation of balances that can no longer be utilized (arising largely from cost savings due to the unanticipated real depreciation of the rupee) amounting to more than US$800 million for IBRD and US$650 million for IDA. The canceled IDA balances were recommitted

17/ The shock is defined as a 33 percent increase in the nominal dollar price of oil.

to India in support of its adjustment program through a Structural Adjustment Loan/Credit in 1991 and a Social Safety Nets Adjustment Credit in 1992. A follow-up exercise is presently underway that is expected to result in further cancellations of about US$1.2 billion IBRD (including cancellations already completed during 1992) and US$400 million IDA, reflecting additional exchange rate related savings as well as implementation problems encountered in specific projects or project components. Assuming the timely availability of suitable reform programs for external support, the IDA funds are likely to be recommitted to India through fast-disbursing operations.

2.83 Complementary efforts have been made to speed up the utilization of remaining undisbursed balances, through measures such as the introduction of Central advances to the states for externally assisted, state-implemented projects and 100 percent pass-through to the states of all foreign aid disbursements under such projects. However, these efforts have had limited success as the rate of aid utilization has shown little improvement over the last year. Budgetary stringency appears to be the primary cause of the decline, especially at the State level where project implementation has been slowed by unavailability of local funding. In addition, lengthy procurement processes and problems with civil works contractors continue to contribute to slow project start-up and implementation. Efforts to reduce these delays have concentrated on seeking to have bidding documents approved earlier in the project cycle, reducing the number of Government approvals needed to award contracts and introducing more effective supervision of civil works contracts by independent engineers. Very recently, the Government has announced its decision to allow for direct borrowing by Central public sector enterprises from multilateral and bilateral agencies, rather than having such borrowing go through the Central budget. This should help expedite disbursements. More needs to be done in a number of areas--especially to reduce the lengthy periods often required for bid evaluation and finalization of contract awards, to assure the availability of local funds for priority investments and to improve project design. As noted in last year's Memorandum, official donors can help further by increasing the concessional component of the assistance that they provide, untying aid to the maximum possible extent, facilitating cofinancing arrangements, re-evaluating designs of pipeline projects to facilitate implementation and disbursements, insuring that project savings resulting from depreciation of the rupee are channeled back into the Indian economy, and emphasizing disbursement performance in designing new project starts.

2.84 Capital Account Liberalization. The Government's evolving strategy for commercial borrowing envisages some major changes from recent practice. Short term debt will no longer be used to protect foreign exchange reserves, and much greater emphasis will be given to the use of suppliers credits supported by official export credit agencies. A high level Committee on Debt Management has been constituted to review and monitor the magnitudes, composition and allocation of external borrowing. Commercial borrowings are to be restricted to meeting the foreign exchange cost of capital investment, and priority is to be given to the needs of infrastructure, export-oriented and import substitution units and medium sized/small scale units. In view of the need to strengthen the maturity structure of external debt, a minimum final maturity of five years will be required of all new borrowings.

2.85 Future external resource mobilization from private sources needs to aim at a broadening of the resource base, and rely much more on longer-term instruments placed through world capital markets and on direct and portfolio investment flows. Another priority should be to prevent further expansion of free RBI exchange guarantees, which have become a burden on the finances of the Reserve Bank, and thereby compromise the credibility of monetary and exchange rate policy. The recent sustained depreciation of the rupee has led to the accumulation of huge capital losses by the RBI in respect of the exchange rate guarantees that it provides to external borrowing by the rest of the banking system. For instance, the RBI's 1992 Annual Report revealed that exchange guarantee-related losses in respect of foreign currency deposits held with commercial banks in India by non-resident Indians totalled $3.4 billion during 1990-92. Since 1991, the RBI has made special provisions for these exchange guarantee losses. Alleviating this burden for the Reserve Bank should be one of the principal objectives of the evolving external debt borrowing strategy. More generally, there needs to be a fundamental strengthening of the RBI's monitoring of the foreign borrowing activities of both private and public sector entities. The recent exercise to reconcile the debt statistics maintained by the Central Government and the Reserve Bank is an important step in this context, as is the RBI's ongoing survey of foreign assets and liabilities.

External Financing Plan: 1993/94-1997/98

2.86 Notwithstanding these efforts, the financing of India's external current account deficits and reserve build-up over the next three to four years will continue to depend heavily on exceptional official assistance. Project disbursements can rise only gradually (in part due to continuing exchange rate related cost savings) while repayments of official creditor debt will increase significantly during the next few years. Consequently, a substantial proportion of official assistance over the next three to four years will need to be provided through fast-disbursing operations. Thereafter, it is anticipated that the current account adjustments, increasing volume of private foreign investment, strengthening of the project disbursement pipeline and normalization of India's access to private credit would eliminate the need for such exceptional assistance (see Table 2.6).[18] The share of exceptional financing accounted for by the multilateral banks would be expected to increase significantly in the coming years as the process of reform in India is expanded and deepened. This would allow for some moderation in India's recourse to IMF credit in order to conserve headroom for potential balance of payments difficulties in the latter 1990s.

2.87 In view of the larger-than-anticipated accumulation of foreign exchange reserves in 1992/93 (which reflects, in part, the one-time transfer of funds by foreign commercial banks to support their operations in India), the amount of exceptional official assistance required in 1993/94 is estimated at about US$1.8 billion, roughly US$700 million less than projected last year. Assuming the timely adoption by the authorities of programs in the key reform areas noted above, exceptional financing for 1993/94 from the World Bank and the ADB, plus the last tranche of the IMF Stand-By Arrangement, is estimated at about US$1.3 billion. This implies a need for additional fast-disbursing assistance from bilateral sources of US$500 million. It is recommended that donors maintain their overall pledge amounts at last year's level (i.e., US$7.2 billion), and that the fast-disbursing component from bilateral donors (including the EC) be US$500 million. This level of overall assistance is warranted in view of India's continued need for official development assistance, and is necessary to strengthen the project lending pipeline over the medium term. Despite the reduced exceptional financing need in 1993/94, and sizable current account adjustments envisaged in the next few years, India's balance of payments will remain fragile due to the magnitude of scheduled repayments during 1994-97 (including large IMF repurchases). Strong export growth, prudent demand management policies and a viable financing package--including further recourse to IMF credit--will be required throughout the transition period.

[18] The large increase in private credit inflows shown for 1996/97 reflects an assumed rollover of the $1.6 billion in Indian Development Bonds issued in 1991/92.

Table 2.6: External Financing Requirements
(US$ millions)

	Estimated		Projected				
	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Current Account Deficit	2,016	5,031	4,323	3,427	2,617	2,316	2,237
MLT Debt Repayments	2,573	2,924	3,472	4,089	4,912	7,313	5,649
IMF Repayments	460	326	132	1,104	1,429	736	540
Increase in Gross Reserves	3,384	1,027	0	851	900	1,400	1,000
Total Financing Requirement:	8,433	9,307	7,927	9,471	9,858	11,766	9,426
Financing Sources:	5,818	6,851	6,137	6,971	7,559	9,466	9,426
Official Grants	451	500	500	500	500	500	500
Portfolio and Direct Investment	200	390	600	750	1,000	1,250	1,375
Bilateral Loans /a	1,079	973	1,050	1,180	1,400	1,600	1,750
Multilateral Loans	2,001	1,833	1,879	2,000	2,200	2,400	2,600
Private and Other Credit /b	2,087	3,155	2,108	2,541	2,549	3,716/c	3,201
Exceptional Financing	2,615	2,456	1,790	2,500	2,300	2,300	0
IMF	1,240	1,598	..	..	..	..	0
IBRD/IDA	455	455	..	..	..	..	0
ADB	320	149	..	..	..	..	0
Bilaterals /d	600	254	..	..	..	..	0
Memorandum Item:							
Current Account/GDP (%)	-0.8	-2.1	-1.7	-1.3	-0.9	-0.8	-0.7

/a Includes suppliers' credit from official agencies.
/b Includes bilateral balance with former Soviet Union.
/c Includes assumed rollover of US$1.6 billion in Indian Development Bonds.
/d Including the European Community.

Sources: GOI data and Staff estimates and projections.

CHAPTER 3: SELECTED ISSUES IN PUBLIC EXPENDITURE REFORM

A. Background

3.1 The public sector has played a lead role in India's development and occupies a very important position in the economy (see Table 3.1).[1] Its accomplishments include a sizable base of infrastructure and heavy industry, an extensive network of government agencies to provide relief against drought and other natural disasters, and some success in alleviating poverty and in providing social services to the population.

3.2 Nonetheless, India's public sector faces a number of serious issues, and a key objective of the Government's adjustment program is to reduce the weight of the public sector in the economy while strengthening its role in areas such as human resource and infrastructure development.[2] Specific issues to be addressed over the medium term include: (i) a refocusing of government expenditures on areas where it is most needed; (ii) containment of current expenditure--whose rapid expansion in the 1980s, particularly on subsidies and wages, resulted in unsustainable deficits and declining real spending for investment and developmental purposes; (iii) strengthening of the performance of the public enterprise sector, in order to reduce the burden on the exchequer and to lower costs in the economy; (iv) improvements in cost recovery rates for publicly-provided goods and services in order to provide for much-needed expenditures on operations and maintenance (O&M); and (v) a strengthening of State finances in order to enhance the overall fiscal consolidation and to provide for increased spending in areas such as agriculture and social services.

3.3 Notable progress has been made with this agenda over the past two years. The fiscal deficits of both Central and State governments have been contained since 1990/91, and further reductions are planned (see paras. 1.19 and 1.25). Many industries that were previously reserved for the public sector have been thrown open to private investors, and budgetary support for public sector enterprises (PSEs) has been trimmed. The Government recognizes that substantial improvements are required in the efficiency, effectiveness and sustainability of its activities in areas of a legitimate public goods character. However, concrete reassessment of the future role of government expenditure in a number of key areas is still at an early stage, and unprogrammed spending cuts in recent years have exacerbated existing expenditure imbalances--particularly at the level of the State governments.

3.4 The next section of this Chapter presents an overview of the Government's evolving strategy for public expenditure reform. The following two Sections present a more detailed examination of issues in subsidies and cost recovery and State finances. These are areas where prompt action is required to improve the sustainability of fiscal consolidation, and to enhance the efficiency and benefits of adjustments in other sectors of the economy. Section E of the Chapter describes ways in which the effectiveness and efficiency of government spending in the social sectors could be enhanced in order

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[1] India's federal system has three levels--the Union Government at the apex, the States and Union Territories, and a multiplicity of local government authorities. The three main types of government entity are: administrative departments; departmental public enterprises (whose net receipts and capital accounts are part of the budget); and non-departmental public enterprises (which receive various types of financial support from the budget).

[2] See Volume 1 of the Eighth Five Year Plan, 1992-97. Planning Commission, GOI. New Delhi.

to protect the most vulnerable groups in the society during the transition period, and to provide a foundation for accelerated development of India's human resources over the longer term.

Table 3.1: Role of the Public Sector in the Indian Economy
(Percentage Shares)

	1960/61	1970/71	1980/81	1984/85	1989/90
Gross domestic product /a	10.0	13.8	19.8	23.6	27.1
Gross domestic saving	20.6	18.5	16.2	15.5	7.0
Final consumption expenditure	7.4	10.5	11.6	13.1	15.7
Net capital stock	n.a.	n.a.	42.6	43.2	45.5
Organized sector employment	n.a.	62.2	67.7	70.8	71.3 /b
Value added /a in					
Manufacturing	2.5	9.1	13.0	15.5	18.2
Utilities /c	70.1	87.4	90.7	89.4	n.a. /d
Transport	65.8	58.5	47.3	44.4	41.4
Communications	100.0	100.0	100.0	100.0	100.0
Banking and insurance	39.3	65.4	84.9	81.9	82.4
Gross domestic capital formation	44.7	39.1	41.4	51.1	43.6
Agriculture	29.7	28.7	38.9	38.2	30.4
Mining	72.1	90.3	95.0	97.7	99.4
Manufacturing	39.1	23.6	24.2	38.7	20.5
Utilities	92.7	98.6	93.1	95.1	92.9
Transport	67.3 /e	63.3 /e	57.8	51.2	47.7
Communications	100.0	100.0	100.0	100.0	100.0
Banking and insurance	60.0	60.7	64.0	53.1	68.4

/a At factor cost.
/b Figure refers to 1987/88.
/c Electricity, gas, and water supply.
/d Computed ratio was over 100%.
/e Figures include storage as well as transport.

Sources: National Accounts Statistics and Economic Survey, various years.

B. The Government's Agenda for Expenditure Reform

3.5 Broad thrust of the reform strategy. The magnitude and sectoral allocation of public expenditures in the Indian economy are broadly determined by the quinquennial Development Plans, which provide a consistent, medium-term framework for the activities of the Central and State governments and public enterprise sector. Several of the main themes of the Eighth Five Year Plan: 1992-97, which was unveiled in August 1992, relate closely to public expenditure reform. One is the need for better prioritization of investments and activities, with adequate funding of those deemed to be of highest priority. Another is creation of appropriate organizations and delivery systems to ensure that the benefits of social sector spending reach the intended beneficiaries. More fundamentally, the Plan emphasizes reorientation of the public sector--its withdrawal from areas where no public purpose is served by its involvement, a shift to a commercial footing for public enterprises, focus of public investment on essential infrastructure, and increased spending for social development. The Plan advocates promoting popular participation and strengthening local bodies and non-governmental organizations (NGOs) as well.

3.6 The Eighth Plan aims at a reduction in the share of total government expenditure in GDP from 31% in 1990/91 to an average of 28% during the Eighth Plan period (Volume I, pp. 92-96). The main elements of the Plan's fiscal strategy include containment of administrative expenditure, continued reductions in the share of defense spending in GDP, cutbacks in fertilizer and to a lesser extent food subsidies; phasing out of budgetary support to commercially-oriented public enterprises, higher user charges for public utilities; and additional revenue mobilization efforts.

3.7 Sectoral reallocations. Relative to recent Plans, the Eighth Plan envisages a modest reversal of the recent expenditure shift away from agriculture and irrigation, while increasing further the share of rural development programs (see Table 3.2). Total outlays for the social sectors are expected to increase significantly, largely through increased spending for education. Spending on transport (excluding railways) is also expected to grow substantially in the Eighth Plan period, while spending on energy and industry is projected to decline--allowing for an increased private sector role in these areas. Many of these reallocations were reflected in the 1993/94 Union budget (see para. 1.19).

3.8 The Plan envisages only modest changes in other sectoral shares, and intra-sectoral reallocations will be accorded greater importance than inter-sectoral shifts. One example is education, where budgetary funding is to shift in favor of primary education, with higher levels of education relying much more on cost recovery through fees to support their activities. A similar adjustment in budgetary funding is expected in the health sector away from programs with high private benefits (such as medical education and to a lesser extent public hospitals) to those with substantial externalities and a strong impact on the poor (infectious disease control programs, and primary public health network and services in rural areas). Adjustments in the composition of public spending are to be accompanied by a re-examination of program/project design, organizational structure, management, and incentives.

Table 3.2: Sectoral Allocation of Total Plan Outlay
(% of total)

	Total Plan Outlay a/		
	Sixth Plan (1980-85)	Seventh Plan (1985-90)	Eighth Plan (1992-97)
Total developmental/Plan spending	100.0	100.0	100.0
Economic services	85.1	83.1	81.8
Agricultural and allied services	6.7	5.8	6.1
Irrigation and flood control	10.0	7.6	7.5
Rural development and special areas programs	7.2	8.6	9.5
Energy	28.1	28.3	26.6
Industry and minerals	15.5	13.3	10.8
Transport and communications	15.7	17.4	18.7
Science, technology, etc.	0.9	1.4	1.1
Major subsidies	-	-	-
General economic services	1.0	1.7	1.5
Social services	14.8	16.0	18.2
Education, sports, art, and culture	2.8	3.9	4.9
Health and family welfare	3.2	3.1	3.2
Water supply and sanitation	3.7	3.2	3.8
Information and broadcasting	0.3	0.8	0.9
Social security and welfare	0.4	0.8	0.9
Other	4.4	4.2	4.4

/a Shares of total public sector Plan outlay (including budgetary support, internal resource generation of public enterprises, and their borrowing).

Source: Eighth Five Year Plan: 1992-97. Planning Commission, GOI.

C. Containing Subsidies and Enhancing Cost Recovery

Issues and Recent Policy Initiatives

3.9 Subsidies in the Indian economy. Central budgetary subsidies rose from negligible levels at the beginning of the 1970s to 2.3% of GDP and over 12% of total Government expenditure at the end of the 1980s. The fertilizer subsidy accounted for more than a third of the total subsidy bill (see Table 3.3). The other main items have been food subsidies and export subsidies. Recently the budget has also incurred a large burden for rural debt relief. Other, implicit, subsidies abound--particularly at the State level.[3] A study by the National Institute for Public Finance and Policy (NIPFP) estimates that the total value of subsidies to economic activities by the public sector in 1987/88 was about 8.3 percent of GDP. Although estimates of this sort inevitably include some degree of double-counting, the NIPFP figure indicates the broad extent of below-cost provision of government services and goods in India. Economic analyses of subsidies suggest that there are a few critical criteria against which any subsidy program must be judged: objectives; effectiveness; appropriate duration; transparency; and financial sustainability (see Box 3.1). Viewed from this broad perspective, many of India's subsidy programs raise serious questions.

Table 3.3: Central Budgetary Subsidies
(Rs. billion)

	Fertilizers /a	Food	Export promotion	Debt relief to farmers	Other subsidies	Total subsidies value	Total subsidies % of total expenditure	Total subsidies % of GDP
1985/86	19.24	16.50	6.03	0	6.19	47.96	9.6	1.8
1986/87	18.98	20.00	7.85	0	7.68	54.51	9.2	1.9
1987/88	21.64	20.00	9.62	0	8.54	59.80	9.3	1.8
1988/89	32.01	22.00	13.86	0	9.45	77.32	10.4	1.9
1989/90	45.42	24.76	20.14	0	14.42	104.74	11.9	2.3
1990/91	43.89	24.50	27.42	15.02	10.75	121.58	12.2	2.3
1991/92	52.05	28.50	17.54	14.25	10.36	122.70	12.0	2.0
1992/93 (RE)	61.40	28.00	8.80	15.00	7.88	121.08	10.5	1.8
1993/94 (BE)	37.50	30.00	5.00	5.00	8.76	86.26	7.1	1.1 b/

/a Includes subsidies on both domestically produced and imported fertilizers. For 1991/92, the figure includes Rs.4.05 billion provided to the States to allow them to subsidize fertilizers used by small and marginal farmers. For 1992/93 and 1993/94 the figures include the estimated cost of the special subsidy of Rs 1,000/ton on domestically produced phosphatic fertilizer.
/b Based on staff projections of 1993/94 GDP.

Source: Ministry of Finance, Union budget documents.

[3] The major implicit subsidies at the State level are those for canal irrigation and electric power. Public expenditure and other issues in those two areas are discussed in Chapter 4.

Box 3.1: Key Issues in the Analysis of Subsidies

The objectives of a subsidy. This first question is the obvious point of departure for analysis. Two general objectives are to improve economic equity through redistribution of income in general or for specific target groups, and to improve economic incentives in order to increase efficiency. It is important to establish the objectives clearly because it is against the objectives that the effectiveness, appropriateness and affordability of the subsidy program is judged.

"Effectiveness" of existing or proposed subsidy programs. Considerable analytical effort is devoted to answering the extent to which the equity or efficiency objectives of the subsidy are being met. The most economically effective subsidy programs concerned with equity are those which do not miss or "spill over" the target group and which achieve an income transfer to the target group with the minimum amount of distortion to the economic incentive system. For programs with an efficiency objective, "effectiveness" means offsetting a certain distortion with the minimum amount of income transfer.

The appropriate duration of a subsidy program. This query regarding the appropriate duration of any particular subsidy program is heavily influenced by both theoretical and practical support for the notion that any particular subsidy program (although not necessarily the subsidy itself) should exist for a limited period of time only. The analysis begins by making a distinction between the program delivering the subsidy and the rationale for the subsidy itself. Thus, a subsidy to help the poor may be needed but a particular program may have existed for so long that many richer people have gained access to the subsidy. In such a case a new, retargeted program is needed.

Is the amount and source of financing for subsidies "transparent"? Ideally, the size of the financial requirement, or the budgetary cost, should be transparent so that policy-makers, recipients and financiers can all see the extent of the benefits and costs of the programs.

Can the subsidy be financed? At times it is simply too costly to finance a subsidy. Some costs are macroeconomic in nature, including excessive inflation and/or reductions in saving and investment due to associated budget deficits or redistribution of income. Others are microeconomic and encompass both the administrative cost of raising additional revenue and any undesirable distortions to incentives. Benefits should not be ignored, however. Reducing a particular subsidy in order to decrease a deficit might be costly in terms of the benefits foregone. In such cases, new revenue measures or expenditure cutbacks elsewhere in the budget may be more appropriate from an economic point of view.

Source: "The Bank's Approach to Subsidies", World Bank paper, Country Policy Department, November 1986.

3.10 Subsidies in India have come into existence in several ways, sometimes seemingly by accident (e.g. sugar). Often the imposition of price controls to protect consumers from inflation gives rise to subsidization, as was the case with petroleum products and food, among others. Once in place, subsidies tend to become entrenched, with sharp cost increases due to declining rates of cost recovery combined with expanded provision--the most glaring example being fertilizers, whose domestic price remained unchanged during the period 1981-1990. Inefficiency in service provision is another source of rising subsidy costs--as in canal irrigation water. More generally, incentives to contain subsidy costs may be virtually nonexistent, whether in the form of competition among providers (including the private sector), pressure from consumers, or internal management controls.

3.11 Failure to increase prices of subsidized goods and services in the face of rising costs of provision has been the main factor behind declining cost recovery rates. As demonstrated in Box 3.2, particularly where the initial rate of subsidy is low (i.e. there is a high degree of cost recovery), holding prices constant in nominal terms leads to automatic rapid growth of unit subsidy costs even with moderate inflation.

Box 3.2: Subsidy Costs and Inflation

The proximate cause of burgeoning subsidies in India in the 1980s was the tendency to maintain more-or-less constant nominal prices of subsidized goods and services in the face of substantial inflation in the economy and in the costs of providing subsidized goods and services. The rate of growth of the subsidy bill under such circumstances is much higher than the rate of inflation and usually well above the rate of GDP growth because all of the burden of cost increases falls on the subsidy portion. Illustrative calculations, shown in the table below, indicate the magnitude of this effect. They are based on an assumed initial total unit cost for a subsidized good or service of 100 (including producer costs, producers' return, if any, and transport/distribution costs), and 10% or 5% annual cost increases. The initial unit subsidy varies between 0 and 50% of initial cost.

Initial levels of			% increase in unit subsidy in 1st year		Average annual % increase in unit subsidy over 5 years		Real value of unit subsidy after 5 years /a	
Cost	Sale price	Subsidy	10% inflation	5% inflation	10% inflation	5% inflation	10% inflation	5% inflation
100	100	0	-	-	57 /b	53 /b	38	22
100	90	10	100	50	48	30	44	29
100	80	20	50	25	32	19	50	37
100	50	50	20	10	17	9	69	61

/a Average annual growth over last four years; growth rate in the first year is undefined.
/b At base year prices, which means that these figures can be compared in real terms with the initial unit subsidy levels.

As long as the initial subsidy is less than 100% -- that is, there is some cost recovery to start with -- the per-unit subsidy will increase faster than the rate of inflation. In fact, better initial cost recovery means a more rapid rate of increase in the unit subsidy. If production of the subsidized good/service grows at the same rate as GDP, the total subsidy cost will grow faster than GDP, much faster if the initial cost recovery rate is high. The declining relative price implied by nominal constancy of the subsidized price could induce demand to grow faster than GDP, however, further aggravating the problem if increasing demand is met by expanding subsidized supply.

The same numerical relationships imply that an increase in the price of a subsidized good or service will result in a disproportionate decline in the per-unit subsidy. For example, if the initial subsidy is 20 on a total cost of 100, a 10% increase in the subsidized price would yield a 40% reduction in the unit subsidy. One-time price increases, however, provide only a temporary breathing space before subsidy costs resume their increase.

Macroeconomic stabilization or other efforts to lower inflation in the cost of providing subsidized goods or services would be effective in reducing nominal and real growth of subsidy costs. For example, if cost inflation is only 5% p.a. as opposed to 10% p.a., the average annual growth of subsidies over five years under the last three scenarios shown in the table would be 30%, 19%, and 9%, respectively (as opposed to 48%, 32%, and 17% with 10% p.a. cost inflation), all considerably lower in real terms.

Indexing the subsidized price to the rate of cost inflation would result in the unit subsidy increasing at the same rate as unit costs. Maintaining a fixed nominal gap between the unit cost and the subsidized price would freeze the subsidy cost in nominal terms; moreover, since the price would be rising faster than the rate of inflation demand growth would likely be low. for such "automatic" adjustment mechanisms to work, the pricing decision must be depoliticized; otherwise beneficiaries will try to prevent or hold down price adjustments, as has occurred n the past. Complete price decontrol in principle should solve this problem, but even then informal pressures may be brought to bear on providers to limit price increases.

3.12 Recent policy adjustments. Since 1991 the Government has made strong efforts to contain Central budgetary subsidies. Export subsidies were abolished in mid-1991, and the price of fertilizer was increased by 30%. In August 1992 prices of phosphatic and potassic fertilizers were decontrolled. However, the subsidized price of urea was reduced by 10%, and subsequently partial subsidization of phosphatic and potassic fertilizers was restored. The rural loan waiver scheme of 1989 will be wound down in 1993/94--the total cost to the Central budget over the period 1990-94 is estimated at about Rs 48 billion. Food subsidies were contained to some extent by raising prices. Budgetary support to Central public enterprises has been reduced, with the medium-term objective of phasing out such spending except in essential infrastructure sectors. Finally, some efforts have been made to raise fees for higher education in specialized technical and business-oriented institutions, and budgetary grants to universities have been held to little or no growth in nominal terms.

3.13 Overall, a promising beginning has been made in dealing with some of the major subsidies, but they still place an excessive burden on the budget, and further actions are needed. Moreover, the recent approach to containing subsidy costs has been piecemeal and product-specific, with the main focus on short-run savings. Except in the case of export subsidies, complete programs for rationalization or elimination of a major subsidy have not yet been developed. The fundamental principle that cost recovery is necessary for most publicly provided goods and services has been enunciated but not yet acted upon. Elements of a general strategy for containing subsidies and improving cost recovery are outlined below. This is followed by an examination of the scope for rationalizing subsidy expenditures for fertilizers and food. Cost recovery issues in the social sectors are discussed in Section F.

Elements of a General Strategy

3.14 Subsidies. A number of generic strategies, individually or in combination, can be used to contain subsidies, although actions to contain and where appropriate eliminate subsidies will vary across sectors. Increases in controlled prices can alleviate the subsidy burden in the short run. Even relatively small price increases, provided they exceed the rate of inflation, can result in large reductions in subsidy costs. They do not provide a long-term solution, however, and a sizable initial price increase may strengthen resistance against subsequent price increases. Phased price increases or indexation of subsidized prices so that they automatically rise with inflation can also contain the growth of subsidies. But these approaches may be difficult to implement in practice since opposition to the price increases would likely grow over time. Nevertheless, in some cases there may be no alternative to a phased approach which at least offers some containment of subsidy costs in the short run.

3.15 Where a subsidized good or service is widely consumed by beneficiaries outside the target group, measures to limit access and improve targeting can be attractive options for cost containment. Forms of targeting that are relatively easy to administer and not very costly include: geographical targeting, under which subsidized goods or services are provided only to residents of designated (poorer and more backward) localities; targeting by personal characteristics, e.g. mothers with small children; and self-targeting, under which the subsidy program is so designed that people from outside the target group are discouraged from participating. Examples include a work requirement associated with income transfers (as in India's rural employment schemes) and provision of lower-quality goods or services not preferred by the nonpoor even at subsidized prices.

3.16 A shift toward private provision can be an important strategy to contain subsidies. Such an approach may be workable in the case of higher education, for example.[4] Privatization of existing public subsidized activities may be more difficult. To be effective and viable, privatization is best accompanied by elimination of the subsidy--otherwise private investors and managers would be reluctant to get involved. Even providing some form of continuing subsidy to the private provider may not be attractive given likely difficulties in implementing future price adjustments to offset inflation.

3.17 Cost recovery. Many of the price adjustments required to rationalize the subsidy system are likely to strengthen the scope for cost recovery. Improving the incentives for greater cost recovery by public service providers will be important as well. For many government departments or departmental entities, earnings resulting from partial or full cost recovery are treated as budgetary revenue and do not accrue to the line department concerned. In some cases, like irrigation, user charges are actually collected by the revenue department. These problems can be addressed by making service providers responsible for collection of user charges and allowing them to keep revenues they mobilize in this way for use in their own O&M expenditures. This could require commercialization of the providers and their separation from government departments.

3.18 Efforts to increase cost recovery need to be coupled with measures to improve quality and accountability. Consumers are often willing to pay for public services, but in return they demand good quality and reliability. To be successful, increased cost recovery needs to be accompanied by strong efforts to eliminate rent-seeking. Consumers who have to make side payments in order to gain access to a subsidized good or service are likely to resist price increases, unless the side payments can be eliminated at the same time. Finally, enhanced cost recovery calls for a shift away from the current supply-driven approach towards a service orientation--where responsiveness to customers will be at a premium.

The Fertilizer Subsidy

3.19 The fertilizer subsidy program was introduced in the mid-1970s to: (i) encourage widespread adoption of chemical fertilizers; (ii) stimulate rapid growth of domestic fertilizer production and greater self-sufficiency in fertilizers; and (iii) raise the profitability of agriculture and augment farm incomes. Since its inception, the domestic price of fertilizer has been characterized by extreme rigidity. Between 1981 and 1990 there was little change in the rupee price of fertilizers to farmers, although wheat and rice procurement prices nearly doubled and domestic production costs as well as the rupee cost of imported fertilizer increased substantially. The steadily declining fertilizer/grain price ratio stimulated substantial growth of fertilizer usage. As a result, the fertilizer subsidy has grown to become the largest Central budgetary subsidy--amounting to about 1 percent of GDP in 1990/91.

3.20 The fertilizer subsidy consists of two major components: a subsidy to farmers; and a subsidy to the fertilizer industry and its input suppliers. The latter derives from a combination of high domestic prices for capital and intermediate goods, production inefficiencies and the plant-specific retention pricing

[4] Kerala in the mid-1970s started allowing students of private institutions to take examinations for state-accredited university degrees. This resulted in rapid growth of private coaching schools (so-called "parallel colleges") and eased the pressure for increases in public spending on university education. As many as 45% of the candidates appearing at examinations for university degrees are now privately registered.

system. This system provides virtually no incentives to fertilizer plants to improve efficiency and reduce costs, and high-cost plants (old or new) are able to continue production and expansion.[5/]

3.21 The above fiscal and efficiency considerations have led the Government to cut back the fertilizer subsidy since mid-1991. The principal actions taken include:

- A 40% increase in the controlled price of fertilizers in July 1991. This subsequently was scaled back to 30%, and Rs. 4.05 billion was provided to the States to allow them to continue subsidizing small and marginal farmers at the old rate.

- Decontrol of the prices of phosphatic and potassic fertilizers in August 1992 based on the recommendations of a Parliamentary Committee. The price of urea, on the other hand, was reduced by 10%. The retention pricing system was abolished for phosphatic fertilizer producers, but was kept in place for urea plants. Subsequently the Central government provided Rs. 3.4 billion to allow States to subsidize phosphatic and potassic fertilizers to the extent of Rs. 1,000/tonne.

3.22 The net result of these measures has been a significant decline in the fertilizer subsidy. In 1992/93 the total cost of the fertilizer subsidy was limited to Rs 61 billion. In 1993/94, as a result of the full-year effect of measures already taken, the cost is projected to decline to Rs 37.5 billion.

3.23 Despite these important improvements in the fiscal aspects of the fertilizer subsidy, the failure to reduce the subsidy on domestic urea has resulted in major, distortionary changes in relative prices. Prices of phosphatic and potassic fertilizers have moved close to world price levels, while the domestic price of urea is only about half the c.i.f. import price. Predictably, demand for non-nitrogenous fertilizers has declined, whereas demand for urea has increased significantly.

3.24 Although changes in fertilizer consumption induced by the 1992 price changes may not harm agricultural output in the short run, longer-term adverse effects would be substantial. Phosphatic and potassic fertilizers have positive longer-term effects on soil quality while overuse of nitrogen leads to declining groundwater quality. Moreover, less use of phosphate and potash reduces the productivity of nitrogen-based fertilizer as well. Given these considerations, the normal prescription is that if there is to be any subsidization of fertilizer use at all, it should apply to phosphatic and/or potassic fertilizers rather than to nitrogen-based fertilizers.

3.25 The fertilizer subsidy needs to be phased out over the next several years in the context of a general reform of the agricultural sector--involving a broad-based liberalization of agricultural markets. Possible actions toward this end include the following:

- A substantial price increase for urea-based fertilizers.

- A phase-out of the retention pricing system for urea plants.

- Decontrol of urea prices and elimination of the subsidy as a second-stage measure.

- Restructuring of the fertilizer industry, including a phased closure of nonviable public units.

[5/] In recent years however, delays in subsidy payments as well as considerable uncertainty about norms for the retention pricing system have discouraged investment and expansion in the industry.

The Food Subsidy

3.26 The Public Distribution System (PDS) provides rationed amounts of foodstuffs (mainly wheat, rice, sugar, and edible oil) and other goods (kerosene, matches, tea) to the population at controlled prices, through a national network of 400,000 Fair Price Shops. Procurement and distribution are organized by the Central Food Corporation of India (FCI) and corresponding State-level agencies. The food subsidy has multiple objectives: (i) to protect the population from shortages by providing rations of basic commodities; (ii) to stabilize prices of essential consumer goods; and (ii) to promote anti-poverty objectives by providing low-cost foodstuffs to the poor. In addition, the PDS forms part of the broader set of rural market interventions to promote agricultural growth and self-sufficiency and to offer remunerative prices to farmers.

3.27 The effectiveness of the PDS in promoting these objectives needs to be reexamined. Agricultural markets in India have developed to the point where there is little need for a costly retail distribution mechanism to ensure availability of food.[6/] The objective of price stability has become fiscally unsustainable. The cost to the Central budget alone is currently estimated at about 0.5 percent of GDP.[7/] Finally, as an anti-poverty instrument, the PDS is flawed (see Box 3.3). Universal entitlement goes against the imperative to target expenditures at the poor. The PDS is unable to reach people who do not purchase foodstuffs on the market, of whom a substantial number are probably poor. Large leakages reduce further the effectiveness of the system, and inefficiencies in the operations of FCI, which employs some 70,000 people, have also been noted by the Bureau of Industrial Costs and Prices (BICP) in a recent study.

3.28 Despite its current shortcomings, the PDS has the potential to become an integral part of an effective safety net for the poor. India's Eighth Five Year Plan calls for targeting better the PDS at the poor; discontinuing access to PDS for the nonpoor; enhancing access to the program by the poorer segments of the population in backward areas; improving the efficiency of FCI; and reducing the size of the foodgrain buffer stock. Over the longer term, fundamental changes, such as the replacement of public food distribution with food entitlements in the form of vouchers, could be considered in the context of overall reform of the agricultural procurement, pricing, marketing, and regulatory system.

3.29 In the short run the government could signal a stronger anti-poverty orientation of the PDS by de-emphasizing universal entitlement. The use of PDS ration cards as "identity cards" by the population needs to be discouraged, if necessary by creating another card for that purpose.[8/] Certain people near the top end of the income spectrum (e.g. senior civil servants, income tax payers, sizable

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[6/] The case is sometimes made that the PDS is needed to deal with droughts or other natural calamities; indeed the PDS appears to have mitigated the impact of the 1987 drought. But it is not necessary to maintain a costly network of retail outlets and a full-blown rationing system for this purpose. Market interventions combined with relief supplies where needed would be sufficient to deal with temporary, abnormal shortages. Moreover, a reformed, poverty-oriented PDS would cushion better the poor from droughts and natural disasters.

[7/] To avoid further escalation in subsidy costs, in recent years increases in procurement prices have been matched with higher issue prices, albeit with a lag.

[8/] The need for a PDS ration card for a variety of identification and proof-of-residence purposes, combined with the perceived need to use ration cards to avoid their lapsing, means that many people who do not want access to subsidized food nevertheless make use of PDS intermittently. Merely by staying on the rolls and not attempting to use their full entitlements, such people may contribute to leakages in the system.

Box 3.3: Leakages and Targeting in the Public Distribution System

Data from the National Sample Survey (NSS) for the period July 1986-June 1987, combined with PDS information on food supplied for public distribution, provide some indication of the coverage and degree of targeting of PDS, as well as a rough estimate of the extent of leakages (the difference between quantities distributed as reported by the PDS and estimated purchases based on NSS data). Summary statistics on coverage, targeting, and leakages for the main PDS goods are presented below.

	% of population using PDS	% of population relying solely on PDS	% of market purchasers using PDS	% of PDS going to poorest 40% of population		Estimated leakage (%)	PDS supplies going to poorest 40% of population
				Urban	Rural		
Wheat	12	10	33	48	46	32	32
Rice	25	8	40	55	50	31	37
Sugar	57	28	70	48	42	34	31
Edible oil	17	4	19	50	45	51	23

Note: Figures on leakages are based on the assumption that NSS data undercount the rural population by a margin of 2% and the urban population by 19%.
Source: Deepak Ahluwalia, "Public Distribution of Food in India: Issues and Evidence" (unpublished, July 1992).

The following salient points emerge from the table:

(1) PDS does not reach a large proportion of India's total population, although its coverage of those who buy the food products concerned on the market is somewhat better. (Large numbers of people do not purchase these goods on the market at all; this could be for varying reasons, but it is likely that substantial numbers of poor people, especially farmers, are non-purchasers).

(2) The numbers of people relying solely on PDS for their supplies are very small except in the case of sugar. Markets are well-developed enough in India that the case for a public distribution system merely to ensure adequate supplies to the population has little or no basis.

(3) The poor (defined here as the poorest 40% of the population) do account for a larger share of PDS purchases than their share in the population, but the difference is marginal. This means that PDS is not biased in favor of the well-off, contrary to the common perception. (Detailed data indicate that there is not a marked urban bias in PDS consumption, either.) By the same token, however, PDS clearly is not targeted at the poor to any significant extent.

(4) Substantial amounts of goods appropriated by PDS do not reach consumers. Although caution is required in comparing NSS-based purchase data with PDS data on amounts supplied, it appears that around a third of PDS wheat, rice, and sugar and more than half of edible oils do not reach consumers. Leakages seem to be greater in rural areas than in urban areas, and in states with smaller PDS programs. Substitution of lower-quality goods for better-quality PDS supplies and diversion of the latter to market channels is by all accounts common and represents another form of leakage.

(5) Taking into account leakages, lack of targeting, and the somewhat limited coverage of PDS in terms of the population as a whole, the program is on balance rather ineffective in reaching the poor. On a conservative estimate less than one-third of PDS wheat and sugar, a somewhat higher proportion of rice, and less than a quarter of PDS edible oil actually reach the poorest 40% of the population.

Statewise data indicate that there is great variation in coverage and leakages across states. Although the distribution of PDS supplies has been more-or-less in accordance with population in the case of sugar, wheat and rice allocations have not been closely related to population or poverty except perhaps to some extent in drought years. Some of the poorest states, such as Bihar, Orissa, and Madhya Pradesh, have relatively small, leakage-prone PDS programs in foodgrains. On the positive side, some states like Andhra Pradesh and Kerala have introduced innovative changes to improve targeting, and Rajasthan's wheat distribution system seems to work.

landowners) could be excluded readily from the PDS. The use of other reliable indicators of income and wealth to exclude the upper end of the income spectrum from PDS, such as household electricity consumption levels, telephone connections, and motor vehicle ownership, also needs to be considered.

The experience of several States with two-tier systems--different types of ration cards giving differential access to PDS goods at different prices--should be reviewed to ascertain whether such systems are administratively feasible and cost-effective at the national level.

3.30 Self-targeting would need to be pursued as well. For instance, use of common rather than fine or superfine varieties of wheat and rice would discourage better-off persons from using the PDS.[9] Phased removal of sugar from PDS, if necessary substituted with gur or khandsari, would help accomplish the same purpose. The Government's program to expand PDS in 1,700 poor blocks shows

awareness of the potential for better geographical targeting. However, this expansion needs to be accompanied by other targeting measures (such as those mentioned above) and by actions to improve administration of the system.

3.31 Measures are required to improve the internal efficiency of the PDS as well. More extensive monitoring and supervision, including effective inspections, are needed to detect and deter abuses. The lists which serve as the basis for allocation of PDS quotas to Fair Price Stores need to be regularly reviewed and revised. FCI itself needs to undertake vigorous cost-cutting measures along the lines proposed in the BICP's recent study. Finally, some degree of competition could be introduced into the PDS--for example, by letting consumers choose among Fair Price Stores, and by letting private contractors compete with FCI for transportation and storage.

3.32 Removal of certain goods from the ambit of PDS would help contain costs. Sugar is one such item. An even stronger candidate for early removal is edible oil, which suffers from heavy leakages and reaches only a small fraction of the poor (see Box 3.3). Nonfood commodities should generally be removed as they form too small a part of the consumption basket to generate significant implicit income transfers. Scaling back the grain buffer stock would provide additional savings and help contain overall costs.[10] More generally, new initiatives to advance anti-poverty objectives need to be carefully balanced with fiscal concerns, and should rely heavily on savings from better targeting, improved management and cost containment. In this context, the linkage between agricultural procurement price increases and increases in PDS issue prices probably needs to be maintained in the short run. This is not strictly compatible with a strong anti-poverty orientation for PDS, but is essential to contain the budgetary cost in the present setting where the bulk of PDS supplies do not go to the poorest 40% of the population.

D. State Finances[11]

Issues in State Finances

3.33 Under India's federal system, the States play an important role in public expenditure. They account for the bulk of budgetary spending on social services as well as on economic services like

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[9] An added benefit of supplying only lower-quality goods through PDS would be the reduced scope for diversion and substitution at the wholesale or retail level.

[10] BICP has recommended relying more on international markets to provide partial insurance against poor crops, via options and other instruments, in which case the country could safely keep a smaller grain buffer stock.

[11] This Section does not deal with issues raised by the revenue and expenditure assignments between the Central and State governments.

agriculture and irrigation (see Table 3.4). Moreover, the States absorb large amounts of Central budgetary funds and take responsibility for implementing numerous Centrally-financed programs.[12]

3.34 There is considerable variation in the seriousness of States' fiscal difficulties, but all States have seen a deterioration in their fiscal situation in recent years. During the past two years, a number of States have run into acute liquidity problems, and some States now routinely delay all payments except wages, and in a few cases even these have been affected. Under these circumstances, States have had to engage in day-to-day financial management geared toward meeting operational expenditures, to the detriment of broader public expenditure concerns and careful programming and budgeting.

3.35 As in the case of the Center, rapid growth of recurrent expenditure has been the primary factor behind the fiscal crisis of the States.[13] Given their limited autonomous borrowing authority and the clamp-down by the RBI on States' overdrafts since 1985, expenditure growth has been constrained somewhat in recent years--the average annual nominal growth of total expenditure dropped from close to 17% p.a. in the 1970s to 15% p.a. in the 1980s. The main manifestation of the States' fiscal crisis is the deterioration in the composition and "quality" of their expenditures, specifically the "crowding out" of States' governmental activities and support for economic development in the sectors they are mainly responsible for.[14]

3.36 Problems in the composition of State expenditures are most evident in the sharp slowdown in capital spending in the late 1980s, especially on infrastructure. Irrigation capital expenditure has been declining slowly in real terms since the mid-1980s. Capital spending on agriculture has not yet recovered in real terms from a decline in the mid-1980s. The squeeze on State governments' capital expenditures has contributed to a growing backlog of uncompleted investment projects which ties up large amounts of public resources and reduces the efficiency of public investment. Many States have projects that have been under implementation for a decade or longer and have virtually no prospect for completion within another decade.

3.37 More difficult to quantify but also very deleterious to the functioning of State government programs and facilities is the worsening situation with respect to funding for maintenance of key infrastructure facilities and for the operations of government programs (so-called Operations and Maintenance or O&M). The shortfall of O&M applies particularly to nonwage O&M, as wages of State employees are protected from inflation. Declining cost recovery rates for government-provided services have adversely affected availability of resources for O&M. More generally, O&M has received low

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[12] Center-state fiscal transfers occur through a complex mix of discretionary and mandated flows. Gross fiscal transfers from the central government to the states amounted to nearly 8% of GDP in 1989/90, of which 2.7% consisted of shared tax revenue, 2% block central assistance to state plans, grants in support of centrally-sponsored schemes 1%, onlending of Small Savings receipts 1.3%, and nonplan grants stipulated by the Finance Commission most of the remainder. Debt servicing by the states amounted to 1.7% of GDP, meaning that the aggregate net transfer was roughly 6% of GDP. There has been a marginal decline in the GDP share of central transfers since 1990/91. In 1992/93, gross transfers were still over 7.5% of GDP, net transfers about 5.8%, and the corresponding budgeted figures for 1993/94 are 7.1% and 5.2%.

[13] In fact, in the 1970s and 1980s states' total revenue grew slightly faster than their total expenditure overall. (States' own tax and nontax revenue and flows from the center increased at almost the same rate.)

[14] According to recent estimates, a number of States were unable to meet their 1992/93 target for generating Plan resources.

priority in the allocation of limited State budgetary resources. Finally, States' wage bills have grown rapidly in the 1980s, reflecting both high employment growth (on the order of more than 3% p.a.) and substantial real increases in average wage rates (around 4% p.a.).

Table 3.4: Share of States in Budgetary Expenditure
(% of total)

	1980/81 (Gross /a)	1989/90 Gross /a	Net /b	Central transfers
Total expenditure /c	52.2	49.4	48.2	1.2
Capital expenditure /c	48.4	42.7	n.a. /d	n.a. /d
Revenue expenditure	53.7	51.1	n.a. /d	n.a. /d
Education	91.4	92.3	88.8	3.5
Health and family welfare	95.1	91.9	76.5	15.3
Social security and welfare	89.9	82.4	81.2	1.2
Agriculture and allied services	91.4	87.4	78.5	8.8
Rural development	88.6	88.8	10.1	78.7
Irrigation and flood control	98.9	98.7	95.5	3.1
Energy	53.1	34.1	32.7	1.4
Industry and minerals	20.0	29.2	24.0	5.2
Transport	48.2	42.4	39.9	2.5
Interest payments /e	19.0	15.4	36.5	-21.1
Administrative services	73.6	74.2	74.2	0.0
Fiscal services	45.4	61.5	61.5	0.0
Pensions and miscellaneous services	24.9	56.6	56.6	0.0
Other	29.5	28.6	26.3	2.3

/a Including spending financed by specific-purpose Central government grants and loans.
/b Excluding spending funded by specific-purpose Central government grants and loans.
/c Capital expenditure includes lending net of loan repayments received.
/d It is difficult to allocate specific-purpose Central grants as between those supporting capital and current expenditure at the State level.
/e "Gross" interest payments are smaller than "net" interest payments because the transfer "transfer" from Center to States is a negative one in this case.

Source: Union budget documents; RBI bulletin on State finances.

Options for Reform

3.38 Options with respect to State expenditures fall into two main categories: (1) actions States need to take on their own and (2) possible measures by the Center that affect the incentives and resources for adjustment by the States. The former include the following:

- Gain control over the wage bill, through an effective hiring freeze, attrition-based reductions in employment, redeployment of surplus staff (across departments if necessary), curbs in wage increases, and elimination or postponement of certain parts of the benefits package.

- Increase cost recovery rates, especially in electric power and irrigation--sectors where cost recovery rates are presently very low and where the private benefits of subsidization are high and to a large extent go to non-poor members of the population.

- Greater emphasis on O&M, particularly in irrigation, roads, and key social sectors.

- Comprehensive review of the portfolio of unfinished State public investment projects to weed out those of low priority, those whose prospects for early completion are poor, and those whose role and/or technology has become obsolete.

- Better utilization of States' available tax revenue sources (mainly agricultural taxes and property taxation).

3.39 The Central government has limited leverage in encouraging States to make the necessary adjustments. Nevertheless, the Center can influence State finances by means of (i) changes in discretionary flows to the States (mainly Plan assistance and grants for Centrally Sponsored Schemes); (ii) actions that indirectly affect State finances, such as decisions on pay and benefits of Central government employees; (iii) dialogue with States as part of the planning process; and (iv) central regulation of public investment projects and other government activities. The Central government can also exert a strong influence over the States by setting an example in various aspects of public expenditure. Specific options for Central action include:

- rationalizing the number of Centrally Sponsored Schemes, with a view to focusing on a relatively small number of substantial, sector-oriented programs with more flexibility for States in the use of funds, within broad parameters and performance-related conditions;

- adjusting the terms and State-wise allocations of funds for centrally-sponsored schemes to favor more strongly the poorer States and focus on anti-poverty objectives, while at the same time providing incentives for resource mobilization at the State level;

- setting a good example for the States in expenditure management--for example by taking concrete actions to reduce the rate of growth of the Central Government wage bill, or by strengthening expenditure controls in Union Territories, which are directly subordinate to the Central Government.

3.40 The above options are in the nature of short-term measures that can be taken even in the absence of changes in the broader framework of Center-State relationships. Indeed the Center has adopted a number of measures to tighten the linkage between fiscal management by State governments and their access to Central assistance since 1991/92. In order to enhance accountability and program effectiveness, 113 Centrally Sponsored Schemes are to be transferred to the States. In the medium- to longer-term, changes in the parameters governing Center-State fiscal relations would need to be considered. The appropriate vehicle for such changes is the recently constituted Tenth Finance Commission whose recommendations, covering the period 1995/96-1999/2000, will be available in November 1993. In addition to the re-examination of the magnitudes and modalities of Center-State revenue sharing and transfers, the Commission's terms of reference include ways to: strengthen resource mobilization by States and reduce their fiscal deficit; improve maintenance of capital assets; modernize State administrative systems; and ensure reasonable returns on investments in irrigation, power and other State public undertakings. More general reforms in Center-State fiscal relations, many of which would require legislative or Constitutional change, have been recommended in the Report of the Sarkaria Commission, published in 1988. The Report emphasizes the need for decentralization of authority and resources to State and local levels of government, combined with measures to instill meaningful accountability at lower levels.

E. Enhancing Human Resources Development During the Transition

Current Status

3.41 Substantial progress has been made over the last four decades in raising the level of human welfare in India through a sustained expansion of social sector expenditure by the Central and State governments. Over this period, for example, primary school enrollment increased five-fold, upper primary ten-fold, and secondary school enrollment by a factor of 14. In addition, India has set up a food security program in the Public Distribution System (PDS) and essentially eliminated famine. A program has been established for child development, the Integrated Child Development Services (ICDS), which now covers about half of India's 5,300 district blocks. The authorities have established a large network of health facilities, based on sub-centers, primary health care centers (PHC), and community health care centers (CHC). A national immunization program is in place and programs exist also to address all of the major endemic and communicable diseases. Several of India's States, including Kerala, Mizoram, and Lakshadweep, now have literacy rates as good as those in many middle-income countries. In Kerala, the literacy and infant mortality rates rival those of some industrialized economies.

3.42 Despite this progress, the overall level of human capital attainment in India remains very inadequate. According to the UNDP's Human Development Index, India ranked 121 of 160 developed and developing countries in 1991.[15/] Moreover, there are huge regional and gender disparities in human capital attainment. The south, the west and males have made considerable progress in a number of areas; the north, women, scheduled castes and scheduled tribes have lagged severely. The financial pressures being generated by the macro-adjustments underway have heightened concerns about the efficiency, equity and sustainability of public expenditures in the social sectors, and the effectiveness of such expenditures in alleviating long term poverty and raising the level of human capital in India--particularly of the most vulnerable groups in the society.

3.43 The continuing low level of human resource development in India stems from a number of factors. First, and foremost, is the population dimension. India has a population of about 866 million (mid-1991), over one-quarter of which lives below the official poverty line, and which is still growing at about 2 percent per annum. The large increases in the number of people to be fed, housed and schooled (about 17 million in 1991) place a tremendous strain on both financial and natural resources, and underscore the urgent need for more rapid economic growth and greater efficiency in resource use. Second, public interventions to enhance the status of human resources in India suffer from a number of generic problems that have resulted in poor quality outcomes. Their low quality has profound implications: it discourages participation in them and is responsible for much of the underutilization of facilities and staff that exists even in the face of large coverage gaps--particularly for the poor and other disadvantaged segments of the society. The low quality reflects, most fundamentally, deficiencies in the allocation of resources both across and within programs, as well as widespread inefficiencies in the use of resources.

3.44 The Government of India has adopted recently a number of initiatives to improve the effectiveness and efficiency of public expenditures on social programs. These steps are important because of the large unfinished agenda for developing India's human resources, and because international experience indicates that countries that have used the adjustment process to rationalize social investments both improved the prospects for human resources development and were more successful in meeting their

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[15/] United National Development Program (UNDP). Human Development Report, 1991. UNDP, 1991.

overall adjustment aims.[1] The rest of this Section examines public expenditure issues and program constraints in the key areas of nutrition, health, family welfare, and education. Following a brief discussion of the issues, and a review of the measures that the Government is taking in these areas, a general strategy for enhancing the effectiveness and efficiency of public spending in these areas is outlined. The analysis is based on the premise that the Government will not be able to expand significantly the public funds available for social programs in the next few years. Consequently, along with improvements in the efficiency of existing expenditures on these programs, it will be necessary to: raise additional revenue through greater cost recovery; increase efficiency of service delivery where possible through private participation; and effect intra-sectoral shifts in the allocation of resources to areas where the needs are greatest and where maximum social returns can be realized.

Key Issues for Reform

3.45 If India is to accelerate the pace of human resources development, it has to address a number of generic problems in the use of public funds for nutrition, health, family welfare and education programs. These include: deficient targeting of public expenditures; inadequate funding for operation and maintenance of service delivery systems; insufficient cost recovery where ability to pay exists; and widespread institutional rigidities and weak program incentives. These are each examined briefly below.

3.46 Targeting. One of the most striking features of human resource development programs in India is the extent to which there has been a mismatch between the highest priority needs and the areas toward which funds have been allocated. In some cases, programs have not been targeted to those who need them most. In other cases, expenditures have not been targeted to those activities yielding the highest social returns. In nutrition, such mismatches are evident in the ICDS. Expenditure on nutrition supplementation has led to some important gains in nutritional status over the last decade. However, the gains in status have been largely in the relatively wealthier States. The low per capita States have achieved very little change in their rates of malnutrition. In part, this reflects the fact that those States have spent the least on nutrition.

3.47 The health sector has suffered historically from a bias in public expenditures toward tertiary care and medical education (see Figure 3.1). These consumed about 40 percent of total Government health expenditures in 1989, while maternal and child health got about 3 percent, family planning 13 percent, and public health 15 percent. Given the scarcity of resources, this allocation has left little funding for those health problems affecting the poorer segments of Indian society, and for which prevention and treatment provide the highest social returns--including maternal and child health, tuberculosis, malaria, leprosy, diarrheal disease control, and the control of acute respiratory infections. In education, resources have historically been skewed in favor of secondary and higher education when compared with the expenditure patterns in most of Asia. This has resulted in a distribution of public expenditure on education that has favored the economically better off segments of the population. Although the share of Government expenditures going to primary education has increased steadily since the mid 1980s, with

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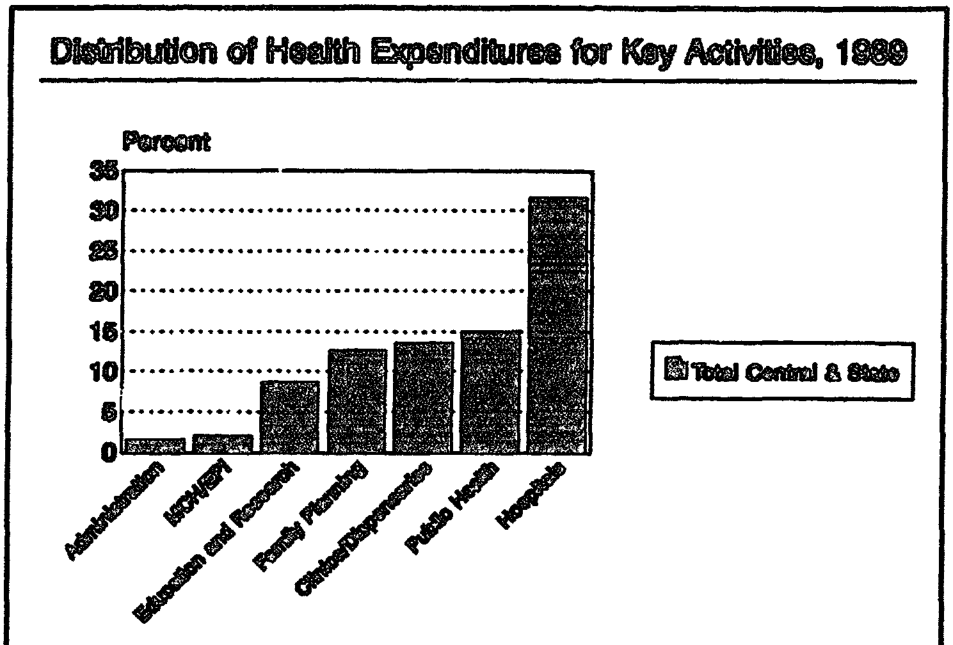
[1] See The Third report on Adjustment Lending: Private and Public Resources for Growth, World Bank, R92-47, March 1992.

the launching of the National Policy on Education (1986), it is still much lower than that in other Asian countries (see Figure 3.2).[2/]

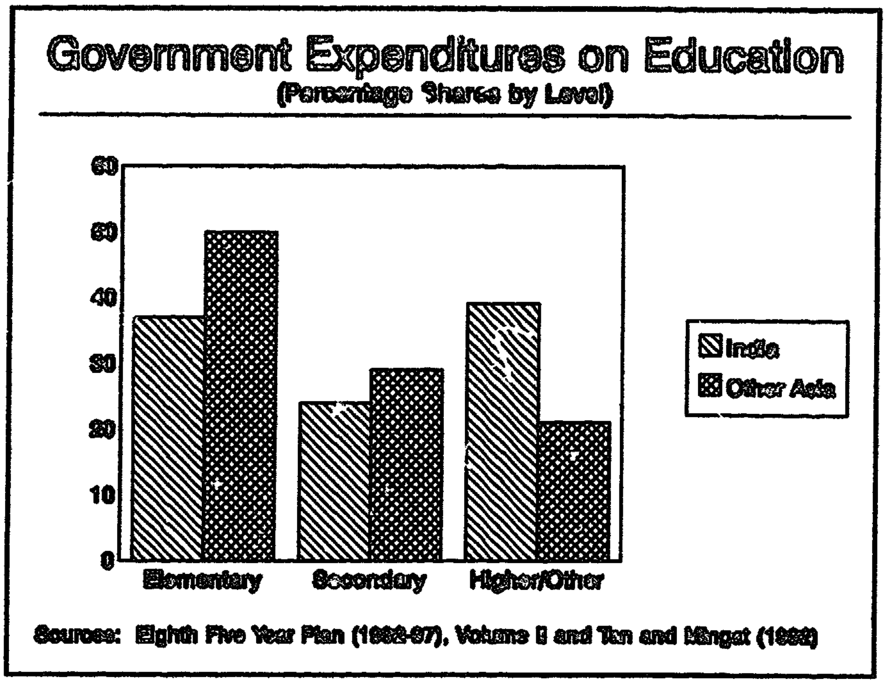
Figure 3.1



Source: Annual Report of the MOHFW.
Note: MCH/EPI - Maternal and Child Health and the Immunization Program.

[2/] See also Tan, Jee Peng and Alain Mingat. "Education in Asia: A Comparative Study of Cost and Financing". World Bank Regional and Sectoral Studies, 1992.

Figure 3.2 [3/]



Sources: Eighth Five Year Plan (1992-97), Volume II and Tan and Mingat (1992)

3.48 Operations and Maintenance. Within designated priority programs, there are numerous examples of inadequate funding of operations and maintenance (O&M). The health and family welfare programs, for example, face serious funding problems in the provision of recurrent non-salary expenditures, such as materials, supplies, pharmaceuticals, and operation and maintenance of facilities. These problems have reached a stage where they present a serious constraint to overall service delivery, especially in the poorer states. The annual level of expenditure per health facility has declined by 5 percent in real terms since the mid-1970s. As a result, non-salary expenditures have dropped 15 percent below the level of the mid-1970s. There are similar issues in education. In primary education, about 94 percent of recurrent expenditures is for teacher's salaries, leaving very little for other critical inputs to the learning process. The experience of other countries with social sector reform indicates the considerable gains from increased attention to O&M (see Box 3.4).

3.49 Cost Recovery. Indian institutions recover little for services provided. Increased spending by government on education seems to be replacing, rather than supplementing, contributions by beneficiaries with the ability to pay. The proportion of total funds for educational institutions provided by State and Central governments rose from 57 percent in 1950/51 to 82 percent in 1982/83. In 1987-88, State and Central Governments financed about 87 percent of all recurrent educational expenditure in India. Government finances 87 percent of the total cost of primary education and 80 percent for higher levels. Little effort is made to generate resources through fees. Those charges that are levied bear no relation

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[3/] "Other Asia" is comprised of Bangladesh, China, Indonesia, Korea, Malaysia, Nepal, Papua New Guinea, the Philippines, Sri Lanka and Thailand.

Box 3.4: Efficiency Gains in Northeastern Brazil

The Brazilian Government undertook a massive program of school improvement in rural schools in the poorest region of the country in 1980. An evaluation of the program after six years showed increases in student learning, which were translated into lower repetition rates. The result was a considerable cost saving. For example, investing $1 in writing materials and textbooks shortened the average length of time for a student to progress from second to fourth grade by 0.134 years. Since the annual cost per student was $30, this $1 investment reduced the total cost of producing a fourth grade student by $4.02. Savings per dollar invested were $2.39 for buildings, furniture and equipment and $1.88 for in-service distance teacher training.

Source: M. Lockheed and A. Verspoor, "Improving Primary Education in Developing Countries: A Review of Policy Operations", World Bank (1990).

to the cost of education nor to the private benefits accruing to the fortunate students, many of whom have the ability to pay. For instance, fees cover only about 10 percent of the cost of secondary education and less than 1 percent of the cost of medical education. In addition, "private-aided" schools in India cover as much as 95 percent of their expenses with government grants, despite the fact that they charge fees and serve higher-income groups. In health, less than one percent of hospital expenditures is collected from patients.

3.50 Institutional deficiencies. One of the reasons why poorer States have benefitted less from social programs than better-off States is that funds for many programs, especially nutrition and family welfare, have been allocated on a per capita basis, rather than on the basis of need. In addition, there is a strong tendency for the States to avoid budgeting for operation and maintenance of those assets that are created with Central assistance, such as family welfare facilities. Although the Center bears most of the costs of the ICDS program, for instance, a number of States routinely fail to allocate adequate funds for the food supplements that they are supposed to provide under the program.

3.51 Finally, the monitoring and evaluation of Indian programs in nutrition, health, family welfare, and education has had a strong tendency to focus on inputs rather than outcomes, and this has affected adversely program performance. In education, insufficient attention has been paid until recently to measuring the amount learned. The Family Welfare Program has emphasized measuring the number of sterilization acceptors instead of focusing on the number of families limiting their size to only two children. ICDS has focused too much attention on counting the number of feeding days, rather than measuring the number of children who are brought out of moderate and severe malnutrition. Changing the signals given to sectoral and program managers so that they will focus on outcomes and on what is necessary to achieve them may be among the most powerful tools available in India to make programs more effective and efficient in the medium term.[4] Measures currently being taken to implement

[4] Stout, Susan. "Family Welfare Strategy in India: Changing the Signals", Background paper for the 1989 Economic Memorandum, World Bank, 1989.

minimum levels of learning in education provide a good example of how greater attention can be paid to outcomes in India's social programs.

Recent Government Initiatives

3.52 The Eighth Five Year Plan acknowledges both the public expenditure issues and program constraints noted above.[5] The Plan states that India will: direct greater government attention to raising the level of human capital in India, through both the creation of an enabling environment for the private sector and through its own efforts; direct greater resources to key social programs; see that social programs offer a level of quality that attracts appropriate clients and produces an acceptable minimum level of output; and focus greater attention on the efficiency of social programs. The Plan document indicates also that Central and State governments will improve the financing patterns for programs to ensure that: resources are available when needed; there is a sufficient level of expenditure on operations and maintenance to make programs effective and efficient; public subsidies are targeted on those most in need of them; and, that costs are recovered from those able to pay--particularly for tertiary education and higher level health care.

3.53 The Government made some progress with this agenda during 1992/93. Cuts that were made in budgetary funding for important social programs in the early stages of the adjustment process have now been restored. In conjunction with the development of a Program to Strengthen the Safety Net, the Government announced a number of policy measures to deal with the points indicated above. In terms of the funding of operations and maintenance, for example, the Government is enhancing the funding for the provision of drugs for primary health care and is revamping Operation Blackboard to assure greater availability of teaching materials in primary schools. It is also increasing the norms for food supplementation under the ICDS program. To improve targeting, the Government is focusing the expansion of ICDS on 180 districts in which infant and maternal mortality are the highest. The Government is expanding also the PDS into targeted priority areas, and States are taking measures to reduce the participation in PDS of better-off groups. Primary health care expansion is being focused on 90 districts in which maternal mortality rates are highest. Many of the ideas outlined in the preceding paragraph are incorporated also in the revised National Policy on Education (1992) and in the associated Programme of Action adopted in August 1992. The Government is implementing a new national primary school development program that gives priority to districts where female literacy rates are below the national average or where total literacy campaigns have generated an unmet demand for education. The Center's plan allocations for higher education are to be held constant in nominal terms.

3.54 To increase cost recovery, the Government has increased the fees at some of India's elite institutions of higher learning. For example, fees at Indian Institutes of Technologies have been increased from Rs. 385 to Rs. 1,000 per year, and at the Management Institutes they have risen to about Rs 6,000 per year. In addition, a major study of financing is being carried out by the Universities Grants Commission; new endowments have been set up at State educational institutions; tax concessions offered to those who donate to institutions of higher learning; and fees raised for foreign students. Steps to raise cost recovery at some Government operated tertiary hospitals have been taken as well. Greater attention is being given also to improving the quality, efficiency and effectiveness of key programs. The Government has begun to implement an Action Plan for Revamping the Family Welfare Program. It has

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[5] See, Eighth Five Year Plan, 1992-97: Volume II, Sectoral Programmes of Development. Planning Commission, GOI, 1992.

already carried out major reviews of primary health care, endemic disease control programs and cataract blindness and has begun to implement enhanced programs for leprosy and blindness. Plans are being drawn up for similar investments to combat malaria and tuberculosis. Finally, the 1993/94 Union budget includes a substantial increase in funding for Central assistance for primary education, endemic disease control programs and the ICDS.

Reform Priorities during the Transition

3.55 The measures being taken by the Government are timely, important, and represent a departure from previous approaches that have made limited progress in developing India's human resources. However, the funds available to accomplish the Government's goals for human resource development are likely to remain limited during the next several years. Consequently, measures to improve the effectiveness and efficiency of public expenditures in the social sectors need to be at the heart of the reform effort during the transition. Determined action in the following areas will be crucial: focusing public financing on high priority programs and needs; enhancing cost-recovery; and increasing the role of the private sector in funding and providing human resource development programs. Over the medium term, it is unlikely that India can meet its priority human resource development needs by continuing to provide only 3 percent of GDP from public funds for the social sectors. Given the large volume of unmet social needs, and the low coverage rates of programs to address them, additional public funds will be needed to ensure satisfactory coverage for those unable to pay for them in the private sector and to meet gaps that the private sector (including voluntary groups) will be unable or unwilling to fill. Significant progress in the priority areas noted above during the next few years will help to create a more favorable environment for productive use of public funds to accelerate human resources development in India. The agenda in each of these areas is elaborated on below.

3.56 Focusing on high priority areas and needs. The historical evidence from both India and other countries indicates that providing universal access to primary schooling and raising completion rates in primary school merits high priority in human resource development and the highest priority for educational investment. Moreover, the highest priority within primary education needs to be the education of young girls.[6] Improved educational attainment in India, would reduce significantly the difficulties associated with promoting nutrition, health and fertility reduction.

3.57 Another high priority for public investments in human resources is to raise the nutritional status of children under three years of age, and of pregnant and lactating women. Many of the nutrition investments to deal with these problems are of extremely low cost but yield a very high rate of social return. Improving basic health requires greater attention to immuno-preventable diseases, diarrheal disease and acute respiratory infections for children, and to maternal health and family planning, malaria, respiratory infections and tuberculosis for adults. As in the case of micro-nutrients, virtually all of these diseases can be addressed with low-cost, highly effective and well proven technologies.

3.58 Addressing India's needs in these priority areas requires, not only improvements in existing programs, but diversion of resources from other areas. The Government recognizes this and, within the social program budgets, has committed itself to maintaining the present levels of public expenditure on higher education and tertiary health care in nominal terms. This will allow it to allocate a larger share

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[6] Subbarao, K. and Laura Raney. "Social Gains from Female Education: A Cross-National Study", World Bank Policy Research Working Paper, 1992.

of total public health and education expenditure on primary education and primary health care in coming years--e.g., the Eighth Plan provides for an increase in the share of elementary education from 37 percent of Plan resources for education in 1985-90 to 47 percent in 1992-97. Better focusing and targeting of public expenditure, especially on the poor, would help also to address some of the regional and gender disparities noted earlier. There are also important shifts that can be considered within programs. For example, about 11 percent of the Family Welfare budget is currently spent on compensation and related expenses to women who accept sterilization. The Government plans to reduce these payments in favor of promoting more flexible forms of contraception among younger women, and to raise the overall quality of the services offered.

3.59 Enhancing cost recovery and mobilizing extra-budgetary resources. Despite the political difficulties, it is crucial that the authorities continue to expand cost recovery efforts in health and education, particularly in tertiary level institutions. The failure to recover costs at these institutions is contributing to the lack of funds at all levels of health and education. It has been estimated, for example, that if the Union Government increased fees in the elite tertiary institutions from an average of 0.3 percent to 10 percent of total operating cost per year, it would raise additional revenues of about Rs 4 billion each year. This would be a significant contribution in view of the fact that total Central budgetary expenditures in the social sectors amounted to less than Rs 68 billion (about 1 percent of GDP) in 1992/93. Other resources can be raised, at least for tertiary education, through, for example, voluntary contributions and endowments. It is estimated that 20-30 percent of the costs of tertiary education and tertiary health care could be recovered from beneficiaries over the medium term. The Government has begun to take steps in these directions. Moreover, by allowing universities and hospitals to keep some of the revenues raised through cost-recovery efforts, these institutions could improve the funding of their own programs and help compensate for constraints on public funding.

3.60 Increasing the role of the private sector. Although comprehensive data on the overall extent of private sector participation in India's social sectors are unavailable, it is clear that this participation is considerable and could be enhanced. The Government could develop more systematic mechanisms for encouraging private and voluntary participation in nutrition, health, family welfare, and education services. For example, although there are a large number of NGOs that are involved in Family Welfare activities, their total contribution is not significant. The Central and State governments could actively encourage the participation of NGOs, especially in areas of community participation and awareness activities where they could have a potentially large impact. Some of the efforts at increasing NGO participation in the Family Welfare Program and the District Primary Education Project may provide "models" for further collaboration with NGOs--as with some of the social sector activities in Gujarat, in which NGOs play a very active role.

Building Towards the Longer Term

3.61 The Government recognizes that social sector adjustment is a high priority both to protect the poor and other disadvantaged groups during the transition, and to lay the foundations for accelerated development of India's human resources over the longer term. The measures noted above would: focus public expenditure on the highest priority areas and target groups; lead to improved quality, effectiveness and efficiency of key programs; and help to expand coverage through some of these improvements and through an enhanced role for the private and voluntary sectors--which would allow public funds to be concentrated further in key areas that cannot be filled in other ways. Accomplishing these reforms would create a more favorable environment for productive use of public funds in the future when government spending will have to be increased to address the large volume of unmet social needs.

F. Conclusions

3.62 A central objective of the Government's structural reform program is to change the role of government in the economy through: a reduction of the fiscal deficit to free financial resources for private investment; a withdrawal of government from activities and interventions where its involvement is unnecessary, ineffective and/or inefficient, and costly (in relation to the private sector alternative); the creation of an environment conducive to private sector involvement where appropriate; and a strengthening of the public sector in its remaining high-priority functions.

3.63 Despite the considerable progress made in reducing the Central fiscal deficit and relaxing barriers to private sector entry in a large number of industries, concrete reassessment of the future role of both Central and State governments in a number of key areas is still at an early stage. Without a comprehensive, programmed approach to public expenditure reform, the ongoing fiscal adjustments may prove unsustainable, and the social benefits from government spending will remain unacceptably low. Possible roles for expenditure reallocations, program cutbacks, shifts in financing patterns, and improvements in program effectiveness and cost recovery in India's overall fiscal adjustment need to be carefully examined. From an expenditure containment perspective, desirable steps would include: price increases and improved targeting to reduce subsidies--for food and fertilizer at the Central level, and irrigation water and power at the State level; elimination of budgetary support to loss-making public sector enterprises (PSEs) and of investments in non-infrastructure PSEs; exposure of commercially viable PSE units to market discipline; more vigorous action to contain government staff costs--particularly at the State level; and continued restraint in defense spending.

3.64 In view of the resource stringencies facing the public sector, strengthening the role of the public sector in key areas such as human resources development will require: (i) intra-sectoral expenditure re-allocations to focus more on providing basic health, nutrition and education services--particularly to the most disadvantaged and vulnerable groups in the society; (ii) a more programmatic approach to such expenditures, involving a more effective mix of staff, facilities and materials; (iii) a reorientation of public expenditures from subsidies to augmenting, improving and adequately maintaining the infrastructure for economic development; (iv) improving incentives for greater cost recovery for publicly provided goods and services--particularly from those able to pay; and (v) tapping private capital and initiative wherever possible--especially in tertiary social services such as universities, medical schools and hospitals. Expenditure reforms along these lines will create a solid foundation on which the Government can build, once the ongoing fiscal adjustments have created the necessary flexibility for increased budgetary expenditures in the social and infrastructure sectors. The agenda for reform in India's core infrastructure subsectors is examined in greater detail in the following Chapter.

CHAPTER 4: CHALLENGES IN PROMOTING INFRASTRUCTURE DEVELOPMENT

A. Introduction

4.1 India's development strategies have always given a high priority to the expansion of the country's physical infrastructure. Over the past decade the infrastructure sectors--defined to include transport, communications, irrigation and flood management, water and sanitation, and power--absorbed about 50 percent of Plan resources. However, as in other areas of public spending, expenditures on infrastructure have been spread thinly across a large number of programs and projects, and give insufficient attention to the actual provision of services as opposed to provision of physical facilities. Thus, the willingness of users to pay more for better or different services has been a secondary consideration to provision of basic services at the lowest possible charge. Inappropriate pricing of public infrastructure services and little private sector participation has been the norm. The result has been a pattern of growing supply-demand gaps, disappointing levels of efficiency and effectiveness, declining rates of cost recovery, and inadequate returns on investments.

4.2 Recognizing that severe infrastructural bottlenecks could inhibit the pace, efficiency and sustainability of economic reforms, and seriously limit the distribution of its benefits, the Government's new development strategy attaches a heightened importance to development of infrastructure and the provision of actual infrastructure services to users (see Box 4.1). The Eighth Plan (1992-97) calls for a similar proportion of public sector outlays as in previous Plans (see Table 4.1). However, the Plan envisages also a much greater role for the private sector than in the past, as well as a substantial improvement in the efficiency of public investments.

Table 4.1 Public Sector Outlays for Infrastructure in the Eighth Plan, 1992-97
(Rs. billions)

	Center		State		Total	
Subsector	Rs.	Percent	Rs.	Percent	Rs.	Percent
Irrigation	15	1.4	310	29.5	325	15.6
Electric Power	312	30.1	484	46.0	796	38.1
Transport	410	39.6	149	14.2	559	26.8
Telecommunications	239	23.1	---	----	239	11.5
Water & Sewer	60	5.8	107	10.2	167	8.0
Total	1036	100.0	1051	100.0	2087	100.0
Percent of Public Sector Plan Outlays	42		56		48	

Source: India: Eighth Five Year Plan, 1992-97, Vol. 1, Table 3.18, pp. 59-62.

4.3 In the next Section, an attempt is made to gain an understanding of the task ahead in infrastructure reform in India based first on the lessons to be learned from the "quiet" reforms already undertaken. This is followed by an examination of issues for future reform in each of the major infrastructure categories. The Chapter concludes with a summary of some key, common policy implications for the infrastructure reform process and an assessment of the degree of susceptibility of the various subsectors to economic reform.

Box 4.1: The Importance of Supportive Infrastructure

In recent years the World Bank has conducted a large volume of research and sector work in this area, expanding the inquiry beyond the simple linkage of investment and growth to include the actual flow of infrastructure services and their impact on growth, social welfare, the environment and macroeconomic stability (see, for instance, Infrastructure Sector Policy Review, Draft Paper, World Bank, December 1992). The basic message is that there are multiple benefits to be gained from good infrastructure policies but, likewise, high potential costs from mistakes.

The international experience accumulated in the Bank's work suggests that there are a number of conditions necessary for infrastructure to have favorable impacts on economic development and social welfare. These are:

(i) there should be a macroeconomic policy climate which is favorable to efficient allocation of resources--this implies that major infrastructural investments should be accompanied or preceded by macroeconomic structural adjustment and that where severe structural distortions persist, even "strictly hardware" projects may not be productive;

(ii) infrastructure projects can only raise the productivity of other resources when there is a sufficient complement and basic productive level of other resources--infrastructure investments cannot create economic potential, only help develop it;

(iii) infrastructure having the most significant and durable benefits to both productivity and consumption is that which provides the degree of reliability and quality of services needed by users; and

(iv) infrastructure is likely to be more economically efficient and have favorable impacts on the environment when it is subject to user charges based (as much as possible) on economic prices and willingness to pay.

The first of these preconditions is being pursued in India with the economic reforms now being put in place. Leading the way are reforms designed to integrate India's economy into the world economy by deregulating foreign trade and promoting its expansion. This is being accompanied by deregulation of domestic industry and administered prices together with financial sector reforms that will allow the private sector to compete with the public sector in much freer domestic capital markets. Finally, macroeconomic stability is to be pursued by containing government expenditure, reducing government budget support to public entities, and raising user charges for public utility services, including specifically electricity, irrigation water, drinking water and transportation. The Eighth Plan document explicitly recognizes also the importance of the fourth precondition concerning user charges (see "Policy Framework" in Chapter 4 of India Eighth Five Year Plan 1992-97, Volume I, pp. 84-96).

B. Lessons from Past Infrastructure Service Reforms

Transportation Reforms

4.4 There are three areas in which substantial reform of transport infrastructure services have taken place in India. This is in domestic trucking, domestic airline service and intercity and urban bus transport. Trucking in India has never been publicly provided nor subjected to the sort of detailed government control that has proved to be so costly in many other countries. Under the Motor Vehicles Act of 1939 attempts were made to protect the railways from trucking competition by restricting trucks to operations in a single State thereby limiting them to short haul operations. Otherwise free entry and exit and a free pricing policy were allowed. States were allowed to issue national multi-State trucking permits subject to ceilings set by the Central Government and these expanded steadily as freight transport demand grew and the railroads withdrew from haulage of privately-owned goods in favor of haulage of public sector goods and passengers. In 1986, the Central Government removed the ceiling on national permits and in one year the number of permits increased from 25,000 to 57,000. Today there is no shortage of trucking capacity in India and services of various quality can be purchased by any user willing to pay. The effect of this deregulation and privatization of trucking has been to shift India from a rail-dominated freight market in the 1950s to a road dominated market in the 1990s.[1/]

4.5 The major privately-owned airline in India has, in about one year, managed to capture approximately 20 percent of the domestic intercity air travel market from the former Indian Airlines (IA) monopoly. A bill providing for repeal of the Air Corporations Act of 1953 has been introduced into Parliament and, if passed, will lead to more privatization of domestic and international air services. Airport development and operations will move also to a "landlord" type operation where many of the facilities will be leased to private operators to sell their services to the airlines. The push for introducing competition came from poor IA service and financial difficulties that, in the face of declining traffic and at least 20 percent redundant staff, could not be fixed with fare increases.

4.6 The steady privatization of State bus monopolies has been less dramatic except for the city of Calcutta where the rapid financial and physical demise of the State bus company led to a reintroduction of majority private bus services into the metropolitan area. At the national level the process is reflected in the decline of public sector buses from 46 percent of the national fleet in 1980/81 to 33 percent of the fleet in 1989/90. The pressure for this reform has come less from poor quality service and more from financial distress. In order to cut losses of the State bus monopolies and maintain services, the least profitable bus routes have been turned over to the private sector which has managed to make a profit without fare increases.

[1/] The Eighth Plan document avoids a discussion of modal split and the fact that roads now carry over 75 percent of intercity passenger-km and over 60 percent of intercity ton-km. The August 1988 Planning Commission Report on Perspective Planning for Transport Development, deals explicitly with the issue but reduces the dramatic nature of the shift in shares by treating only the inter regional traffic which exclude all of the short-haul traffic on the roads. The more recent Expressway Study by the Ministry of Surface Transport (MOST) highlights the true nature of the modal split by making comparison of road and rail traffic for parallel links. See Development of a Long Term Plan for Expressways in India, Final Report, GOI, MOST, October 1991, Table 4.14, p. 4-31.

Irrigation Reform

4.7 Another "quiet" reform that has received little attention is in the shift from public canal irrigation to private tube wells and low-lift pumps.[2/] Portable motorized pumps did not become a prominent feature of irrigation in India until well after their introduction in the 1950s.[3/] It is safe to assume that in 1950/51 most irrigation was effected by large scale surface canals and small scale reservoirs or tanks (the "other" category). By 1970/71, of 31.1 million net irrigated ha in India, about 38 percent was from wells, most of which were motorized and privately owned. By 1984/85 the well share had risen to 48 percent of the net irrigated area. The "privatization" of irrigation was well advanced a decade ago through a "minor irrigation" technology that allowed individual farmers and small farmer groups to pump water from the aquifer. With the "lift" technology of the deltas, farmers were able also to use portable low-lift pumps to raise water from drains and ponds to the fields.

Table 4.2 Shifts in Irrigation Technology 1951-1985

Area (Millions of ha)	1951/52	1965/66	1970/71	1984/85
Total Net Irrigated Area	21.1	26.4	31.1	41.8
Of Which (net):				
Canals			12.8	15.9
Wells			11.9	20.0
Other			6.4	5.9

Source: World Bank staff estimates.

4.8 The shifts from public to private irrigation technology in India are clear from the official statistics but tell only part of the story. Official estimates of irrigation command areas for large public canal schemes are invariably overstated while those for small-scale and private tube wells are usually

[2/] This farmer response to change in pumping technology is a "reform" in the sense that it has led to "privatization" of a substantial share of irrigation service. While public investment in tubewells have been made, they have not performed well and are a small proportion of the total investment in pumping machinery.

[3/] According to the Eighth Plan document there were 200,000 electric pumps in the country in 1950. By 1989/90 the number had risen to about 8 million. If the estimated diesel-driven pumps of about 5 million are added then the total number of irrigation pumps would be about 13 million for a national net irrigated area of about 42 million ha. approximately one pump for every 3 ha. of irrigated land. What is usually referred to as "minor" irrigation equipment has become a "major" element of irrigation technology. See: Chapter 3 (Irrigation Command Area Development and Flood Control) and Chapter 8 (Energy) in India Eighth Five Year Plan 1992-97, Volume II, New Delhi, 1992, pp.56-91, and pp. 159-219.

under-reported in official statistics.[4] Furthermore, the productivity of well water is generally higher than that of canal water because of farmer control over quantities and timing. Finally, increasing conjunctive use of surface and ground water makes it difficult to separate out the effects of the two technologies and a major role of surface water in some areas is to recharge the aquifer for tube well use later in the year. As in the case of the shift in shares from rail to trucking technology, the shift in shares from public surface water technology to private ground water and low lift technology has probably gone much farther than the official statistics show.

Lessons

4.9 The basic lesson from the transport and irrigation reform efforts to date is that even modest reforms can produce substantial efficiency and welfare improvements. In the case of trucking it has meant the mobilization of large amounts of private capital and the provision of sustainable, adequate, high-quality, demand-responsive freight transport services. In the case of the airlines it has meant improvements in the quality of service of IA, because of the competitive pressures of the private airlines, and has brought private resources to bear where public funds are no longer available. In the case of the buses it has meant the mobilization of private resources to provide passenger transport service in areas where service might otherwise disappear. In irrigation it has mobilized private capital to facilitate flexible, high quality water control to complement fertilizer and high-yielding seeds and to make Indian agriculture more drought resistant and productive than with surface irrigation technology alone.

4.10 A second lesson is that the private sector in India is willing to invest in and operate mobile pieces of capital equipment that can be removed, sold or used elsewhere on short notice. Hence, the risk facing the private operator is reduced to acceptable levels. While airplanes, trucks and buses are using fixed infrastructure provided by the public sector (airports and roads), they are actually the providers of the services the infrastructure makes possible. With public regulation to protect from market failure, all airplanes and all buses in the country could be provided and operated by the private sector as is the case with virtually all trucks on the national highways and all buses in Calcutta. That this is unlikely to happen is the subject of the third lesson.

4.11 The third lesson that emerges from the airline and bus reforms is that there is a way to push ahead with reform despite the concerns of redundant labor and the power of the unions. For bus transport the average number of employees per public bus is 7.5 while that for private buses is about 3.0. Personnel costs for the State operations are about 37 percent of total costs while those for private operations varies between 6 and 13 percent of total costs. If four staff per bus were to be adopted as an efficient standard for public bus operations then about 350,000 public bus employees, about 47 percent of the labor force, would be redundant. Indian Airlines operates 52 aircraft with 23,000 employees of which about 20 percent are estimated to be redundant. In spite of the understandable concerns of labor, reforms have been able to proceed at the margin and can expand gradually as the total market continues to expand. This is important because it provides a middle ground on the difficult issue of labor redundancy. Reform at the margin allows enough movement for the crucial demonstration effect of reform effectiveness to develop. Once it becomes clear that there are substantial benefits to be had, the beneficiaries themselves become a force for more effort and an effective protection from attempts to roll back the initiatives.

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[4] See Irrigation in Asia and the Near East in the 1990s, by Levine, Rosegrant and Svendsen, USAID, Washington, D.C. 1988.

4.12 The final lesson is that substantial reform can be achieved "quietly" through incremental changes over time leading to an accretion of progress that may not receive much attention. The reform process need not always be dramatic, as long as the cumulative results are manifestly significant.

C. Future Sector Reforms

4.13 To date, the major reform-inducing link between the macroeconomy and the infrastructure sector has been that of finance. Recent reforms of the financial system and the removal of interest rate cross subsidies from private to public entities and State governments has generated beneficial financial pressures that have supported airline and bus reform and set the stage for reform in the crucial electric power sector and the railways. As the rest of the macroeconomic and structural reform package is put into place there will be new pressures for change in the infrastructure subsectors. To appreciate these linkages it is necessary to consider the situation that obtains in each subsector and to assess the actions necessary for change in the near future.

Telecommunications

4.14 It is well established that foreign trade is dependent on internationally compatible communications and transport systems and that virtually all the successful trading economies in Asia have made substantial progress with extension and quality improvement through privatization, efficiency pricing and competition in this sector.[5] As with airlines, telecommunications in India is a non overlapping central subject; the users of the system are neither disadvantaged nor deserving of subsidies and, given new technologies, parallel competition by two or three national providers is feasible without sacrificing economies of scale.[6] The quality of the current service is also very poor compared to international standards. Further, in India the potential market is estimated to be three to four times the market currently being served--and it is well established that users would be willing to pay for better service. The case for substantial reform is overwhelming and much of the groundwork has already been prepared.[7]

4.15 Currently presiding over telecommunications services in India is a single financially self sufficient monopoly, the Department of Telecommunications (DOT). DOT is involved in regulation, direct provision of services, and promotion of telecoms equipment manufacturing. The recommended first reform step is to separate these three functions so that independent regulatory and policy making bodies could promote competition and private sector participation and concentrate on the flow of services to users rather than the provision of physical infrastructure. Besides the establishment of these two independent bodies, comprehensive reform would include entry of competitors in both long distance and

[5] See "Restructuring the Telecommunications Sector in Asia: An Overview of Approaches and Options by Robert Bruce and Jeffrey Cunard, The World Bank, September 1992.

[6] It may be that rural services require a subsidy or cross subsidy but the nature and extent of such support has not yet been ascertained.

[7] See, for instance, the presentations and background papers prepared for the recent workshop "International Experiences in Telecommunications Reform and its Relevance to India", New Delhi, November 21-22, 1992.

local services, and the reorganization of DOT into regional operating companies. None of these steps have been taken yet but DOT has agreed, in principle, that a separate regulatory authority be established for the subsector and has accepted the offer of the Industrial Credit and Investment Corporation of India (ICICI) to help develop a well-researched strategy to set up the authority and to determine appropriate arrangements for allowing new entrants in the rural areas.

4.16 Progress is being made in other areas also. Private sector competition in some areas of telecoms manufacturing is now being allowed. As in the case of irrigation, emerging competition from new technologies that do not depend on the core infrastructure services of DOT is promising. Wireless cellular services are being arranged by non DOT firms and this was a conscious and laudable decision by the Government. Also, the non DOT core communications infrastructure of the railroads and oil companies are potential competitors. This is an area where much more can be done fairly rapidly once the key political and policy decisions are made; with a high potential payoff in terms of exports, foreign investment and domestic commerce.

Ports

4.17 Ports in India are regional monopolies for large scale bulk and container flows. They are administered by autonomous Port Trusts with a Chairman and Chief Executive Officer usually, in the larger ports, from the Indian Administrative Service cadre. As in telecommunications, the ability to cover costs with user charges and the emphasis on provision of physical infrastructure rather than a flow of services to the user has led to high cost, low quality, port service. The modern container facilities at New Bombay and Madras handle less than ten containers per hour compared to 25-30 per hour in other ports in the region. Low capital and labor productivities lead to a chain of cargo and ship delays that are costly. Container delays cost about US$ 70 millions per year while excessive ship waiting time costs run about US $100 million. Less obvious but more serious is the poor international shipping technology that serves the major Indian ports because of the delays. The cost of Indian foreign trade moving in feeder services rather than mainline services is estimated at US$ 250 million per year. The 104,000 port employees and the unspecified number of customs personnel working in the five major ports of the country continue to employ the usual restrictive practices of unreformed ports and payment of "speed" money by port users to facilitate clearances is so normal that it is routinely quantified (see Box 4.2).

4.18 For ports, the model for successful reform in other countries has been similar to that used for airports in which the port authority remains responsible for the provision of the basic breakwater, channel and wharfs and controls safety and environmental elements. It then leases or franchises the various operating services of the port to the private sector which then organizes the machinery and labor to provide services for a fee to ships calling at the port.[8] The port authority then specializes in being a real estate and leasing operation in which competition and private finance are encouraged so that the flow of cargo is rapid and smooth. The most promising first step to improve rapidly the operation of the key container terminals of the country, the facilities that move most of the high value import and export cargoes, would be to license or franchise their operation to suitably prequalified firms. This is being considered but not yet undertaken. There have, however, been cases of berth and equipment leasing, berth reservation schemes and privatization of dry docks so that some "quiet" reforms are proceeding.

[8] See Ports Administration: Should Public Ports be Privatized?, by Zvi Ra'anan, The World Bank, Sept. 1992.

Box 4.2: Ports as a Deterrent to Trade Expansion

A recent study of the actual cash costs of moving containers through Indian ports reveals that the cash outlay to move an import container through a major Indian port comes to about US$500-520 per box compared to US$330-350 in foreign ports in the region. For export containers the Indian cash outlay is US$420 compared to about US$ 340 at comparable foreign ports. An Indian exporter bears a cost disadvantage of US$ 80 per container compared to their competitors. The two major reasons for the excessive cash outlays are the payment of "speed" money and custom agent charges for customs administrative procedures. "Speed" money payments are estimated to be US$50 to US$100 per container in Indian ports as opposed to US$0 to US$30 in other ports. Customs agent charges amount to US$120 to US$200 per container in Indian ports compared to US$50 to US$100 on other ports. Both payments arise from the need to process 23 separate documents to clear imports and 118 separate documents to clear exports through Indian ports--requiring an estimated 22 hours of preparation time.

The above cash payments are quantifiable symptoms of the larger problem of non-cash outlays and costs imposed by ship delays in port resulting in poor international shipping services and lost trade opportunities--costs that do not enter the calculus of current port administrators.

Source: Part of this example is taken from "India's Growing Conflict between Trade and Transport", by Hans J. Peters, Working Paper INU-69, The World Bank, 1990.

Electric Power

4.19 The electric power subsector is the largest of the infrastructure categories in terms of public expenditure. The direct linkage between electric power usage and economic growth is more obvious than in any other infrastructure sector and this is currently the sector receiving the most active attention from the authorities, including a new and growing appreciation of the potential role of the private sector. The essential ingredients for reform i.e. inadequate and poor quality service and financial distress are also manifest (see Box 4.3). However, effective reform of the electric power sector has been delayed by the overlapping and conflicting concerns of the Central and State governments.

4.20 The main problem has been the poor performance of the State Electricity Boards (SEBs), which distribute power, set tariffs and collect revenues. India has in place, in its Electricity Act, a potentially workable regulatory framework for the sector, giving the SEBs considerable autonomy. In practice, however, the SEBs must obtain State Government approval (often at the highest political level) for most major decisions including those on investments, tariffs, borrowing, salary and personnel policies. In India's federal structure it is difficult for the Central Government to effect needed reforms directly. Budgetary allocations from the Center to the States are set by an automatic allocation formula. Within this framework, apart from pressing the States to adjust power tariffs, the Government's power sector strategy addresses the SEB problems indirectly through Central sector agencies (conditioning power supplies of Central sector utilities and discretionary financing to the states on SEB performance) and by using the private sector. The SEBs have sunk steadily into deficit financing with funds meant for system expansion. The power system has expanded as far as the industrial tax base and the financial resources of government will accommodate. While the fortunate residential and agricultural users who are allocated power have little to complain about since they pay so little for a poor service, they are not yet given the alternative of paying more for better service nor is it possible to extend the service to those who currently have none.

Box 4.3: Pressures for Reform in the Electric Power Subsector

Despite the fact that nearly 25 percent of public resources consistently go to the power subsector, the power shortage in 1992/93 is estimated to be 9 percent of total energy and 18 percent of peak capacity requirements leading to low capacity utilization in industry and substantial production losses.

Average retail tariff rates have increased only slightly since 1981/82 in real terms and remain at about 50% of the long-run marginal cost (LRMC). Tariff differentials among consumer groups have widened. Rates to industrial consumers are in most states close to, and in some cases even above, LRMC. Agricultural tariffs, on the other hand, cover less than 10% of LRMC. Partly as a result of this subsidization, agriculture's share in total consumption has grown from about 17% in 1981/82 to about 27% in 1991/92. Compounding the problem is the poor collection from farmers, and high related transmission and distribution losses. A similar situation applies to the residential uses of electricity. The resulting aggregate operating loss of the State Electricity Boards (SEBs) was Rs. 14.7 billion in 1991/92 (over 0.2 percent of GDP). The overall economic subsidy to power users in India is now estimated to be about 3 percent of GDP.

4.21 The present installed generating capacity in India is about 70,000 MW and the target for the Eighth Plan is to raise this to 118,000 MW by 1998, an increment of 48,000 MW. Because of public resource constraints, the Eighth Plan allocation will accommodate the addition of only 24,000 MW. The missing 24,000 MW is hopefully to be provided by the private sector and is a good example of how potential reforms can be induced by financial pressures and obvious subsector linkages to economic production and growth. India now allows full ownership of power companies by the private sector (local and foreign), an extended period of license of 30 years with 20-year renewals and increased financial returns. These recent policy changes and high-level promotional efforts have been successful in encouraging interest in private power projects. About 43 proposals are currently under active consideration; various SEBs have signed Memoranda of Understanding (MOU) for 38 private developments; eight projects are at an advanced stage of further negotiation. In spite of substantial interest, exploratory activity and MOUs, no agreements have yet been finalized. Additional incentives were introduced in the Union budget for 1993/94, including a reduction of import duty on power projects to 20 percent and a five-year tax holiday for new private power projects. These recent incentives notwithstanding, significant private sector investment will materialize only after reforms of the SEBs. In early 1993 the Power Ministers of the various states adopted an action plan designed to begin the necessary reform by committing to specific target improvements in the area of plant load factors, transmission and distribution losses, tariff rationalization, payment of arrears, utilization of external assistance and private sector participation. The first steps are being taken.

4.22 There is much more to achieving a flow of high quality power services than expanding generating capacity and the reform package being promoted in India takes a comprehensive view of a nationwide, sustainable, long term industry and market structure (see Box 4.4). Fortunately, there are good international models of successfully operated power utilities that India can draw on and, given the eventual reform of the SEBs, the rest of the package can be put into place.

Box 4.4: Emerging Electric Power Industry and Market Structures

With the establishment of POWERGRID, India has taken a very important strategic step towards the fundamental reform of the power sector for a functioning national power grid with an increasingly competitive and coordinated generation and transmission system. The emerging industry structure consists of: (i) Central, State and private generating companies; (ii) POWERGRID as the national grid company; and (iii) state and privately-owned distribution.

SEBs are likely for the time being to remain integrated state-level utilities but are expected to focus more on distribution and, with POWERGRID's assistance, on trading and improved coordination of their system operations.

Power trading is expected to be dominated by capacity contract trading (long-term contracts between generators and SEBs), supplemented by spot trading in a short-term market with prices reflecting supply and demand on a short-term basis. Spot trading is likely to gradually increase in share and sophistication as the participants gain experience in the operations of the power pools and realize the benefits and uncertainties of spot trading in supplementing contracted supply.

Contract trading (in the case of SEBs mainly power purchases from central sector utilities and competitive procurement of private generation) would account for a steadily increasing share in their overall supply. Such reliance would increase commercial pressures on the SEBs as generators (both private and public) focus their investments and operations to serve financially viable and commercially disciplined clients and divert supplies from non-performers. At the same time generating companies would have to increasingly compete to sell their output to the viable SEBs.

Long-term prospects also include power imports from Nepal, most likely with transmission service by POWERGRID. Private investments would focus mainly on generation (mostly new facilities, but possibly also on takeover, rehabilitation and operation of existing SEB plants). They would be complemented by distribution (licensee) operations and possibly a few joint-ventures with POWERGRID for major transmission investments.

Railroads

4.23 Little reform has taken place with Indian Railways (IR) to date because the quality of rail service for its captive public shipper freight market was, until recently, relatively good and because the public sector bulk freight shippers have been paying freight rates that have covered the losses on the meter gauge system and on passenger operations. In the absence of poor quality service and financial pressures, IR has remained as a manufacturing/transportation conglomerate in a highly segmented transport market. There is no commercial or marketing department actively concerned about the flow of rail services to private sector shippers, most of whom have shifted their business to more costly but more demand responsive road transport. Moreover, the labor force of 1.7 million, of which at least 400,000 are redundant, is another powerful deterrent to reform.

4.24 The financial performance of IR has begun to deteriorate as has the quality of service for freight shippers. Subsidized passenger operations are growing faster than profitable freight operations and passenger trains are given priority over freight in the now-congested main line rail corridors. Also, the wages of the labor force in most years have been growing faster than their productivity. With declining budgetary support, IR has attempted to sell bonds on the open market, but has had little success to date.

4.25 For railroads, a common reform model is similar to that of telecommunications in which the first step is to separate the regulatory and manufacturing functions from that of providing commercial freight and passenger services.[9] A corporatized transportation organization, operating along commercial lines, answerable to an independent regulatory commission would begin to provide an environment in which appropriate services and "correct" pricing signals could be sent to public and private sector users. The existence of a competitive private sector bus and truck industry would then give the public and private users of transport services an array of options to choose from.

4.26 The first practical manifestation of change has been the creation of the successful rail subsidiary, Container Corporation (CONCOR), for handling privately owned import/export container flows by rail to and from the ports. This has been the first tentative step in decentralized commercial rail specialization to serve private sector shippers. The pressure of international container service operators together with the now binding financial constraint has been responsible for the creation of CONCOR. The next step would be to develop CONCOR into an autonomous commercial entity with private capital participation and to expand the concept to domestic container flows to both relieve pressure on the roads and to generate new profitable services for IR. The expansion of CONCOR into domestic container flows has been accepted, in principal, by IR management so that reform is beginning to advance in the railways as well.

Roads

4.27 Roads have been the most accessible infrastructure in the country in that they are jointly consumed by millions of individual public and private users with free access to the system. This characteristic has, however, been responsible for the lack of a commercial linkage between providers of roads and their users. Further it has allowed axle overloads that are financially profitable for the users but economically disastrous for the system in terms of pavement damage. Externalities in the form of fatal accidents and air pollution are also associated with this transport technology. Official planning objectives have been to keep as much traffic as possible on the safe, fuel efficient, non polluting railroads and to invest in roads as little as possible except in the case of rural access roads where there are no rail links.

4.28 These policy objectives have not been met because private bus and truck operators have been able to offer relatively better quality services than rail on the rudimentary road network. Private shippers of high value products have almost no other alternative as Indian Railways has given priority to passenger services and public bulk shippers. Despite the emphasis on passenger services and bulk freight, IR today accounts for only 22 percent of intercity passenger-kilometers and about 40 percent of intercity ton-kilometers. India's transport system is dominated by roads and road transport despite official objectives to the contrary. The conflicting priorities and actual trends have, however, led to a situation where main corridor road congestion is so severe that the typical marginal return on core road investments is around 40 percent, which indicates that too little investment is being undertaken too late in the high density network.

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[9] See Options for Reshaping the Railway, by Neil Moyer and Louis Thompson, The World Bank, June 1992.

4.29 The sort of financial pressures that are so effective in forcing reforms of revenue generating public providers of infrastructure are missing. Roads have always been financed 100 percent from budgetary sources and planned and implemented by the State Public Works Departments (PWDs). The inadequate supply of public main corridor roads generates private financial problems in the form of congestion and high operating costs but does not threaten the existence of any public entity. Moreover, there is no evidence that a much larger budget could be turned rapidly into high quality roads by the State PWDs and the domestic road construction industry. High traffic volume road projects that require machine compaction and finish should take three to four years to complete but routinely require eight to ten years in India with engineering characteristics that generally cannot support high traffic volumes and heavy axle loads efficiently .

4.30 The most compelling force for reform in the financing, provision and maintenance of main roads is that of poor quality infrastructure leading to costly service. While this has been well-documented, it has not been sufficient for comprehensive action, partly because the extent of the domination of road transport over rail and its implication for transport policy has never been fully acknowledged (see Box 4.5).[10]

4.31 A substantial earmarked diesel fuel and gasoline tax for exclusive use of the core road network has been proposed on the grounds that road users should pay these special taxes in return for adequate roads. The argument against earmarking of tax revenues is well known but such a fund, given a limited life, would aid greatly in reducing the backlog of high return road investment projects if the absorptive capacity constraint of the State PWDs and the construction industry could be relaxed.[11] An approach which has been used in many countries is toll roads. India has collected tolls on bridges for many years but not on roads. The attractiveness of a commercialized toll road authority is that the user charge feedback mechanism, which has been missing for both roads and irrigation infrastructure in India, would then be in place for major roads. The revenues would then be exclusively for operation and maintenance of the facilities, together with a contribution to the capital costs. A toll road authority could also introduce competition for and privatize many of the services that the State PWDs provide inefficiently in-house. Chief amongst these are engineering design and supervision services, toll collection, axle weight control and road maintenance. Provision for a toll road authority has been included in the act to establish the National Highway Authority (NHA) and the 360 Km Bombay-Vadodora station is likely to be the first toll project undertaken. However, appointments of key personnel and funding allocations, which are under active consideration by MOST, need to be made to make NHA effective.

4.32 As in the case of electric power generation, it is hoped that the private sector can be induced to undertake Build-Operate-Transfer (BOT) type operations to fill the supply gap. Experiments with these

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[10] The Eighth Plan document acknowledges the need to expand the capacity of the high density road corridors (HDC) and the possible use of toll expressways. However, the absorptive constraint brought on by the underdeveloped domestic road construction industry is not mentioned nor is the current organization of the State PWDs. Also, the actual allocation for construction is so small that the revealed priority for the HDC network appears relatively low. See: "Roads" in Chapter 9 of India Eighth Five Year Plan 1992-97, Volume II, New Delhi, 1992, pp. 224-230.

[11] The State PWDs are slowly expanding their absorptive capacity by packaging larger contracts with longer road segments that will encourage the use of large scale machine-intensive construction of the most congested main roads.

Box 4.5: The Extent of the Road Congestion Problem

Most observers agree that the main road system of India is seriously congested and possibly serving as a bottleneck for industrial development. The most comprehensive discussion of the extent of the problem is found in a 1988 study by MOST. In 1988, sixty-six 20-kilometer sections of the National and State Highway system were examined. This sample constitutes about one percent of the 137,000 km arterial network. The actual traffic flows on these sections was measured as were the physical characteristics of the road sections. From the latter the practical or design capacity of the road was estimated. This could then be compared with the actual and expected future traffic volumes to get some idea of how serious the problem was in 1988 with the arterial network.

The general picture projected by the 66 samples examined is that the network as a whole in 1988 was not uniformly saturated. Most sections (83 percent) were operating far below their practical capacity and offered no major constraint (in a capacity sense) to intercity movement of goods and passengers. However, the bottlenecks that did exist (17 percent) were clear and dramatic and in need of immediate alleviation. The critical areas for investment in roads lie in the high density corridors (HDC) that carry most of the traffic between major cities. The capacity and saturation analysis done above indicates that in 1988 about 23,000 km of the HDC system were severely congested. The recently completed MOST expressway study indicates that 10,000 km of HDC road capacity expansion will be required by 2015. This is to take the form of expanding the existing two lane road in the HDC to four lanes with urban bypasses and the construction of a parallel limited access expressway. About 1350 km of such works are recommended and economically justified by the year 2000. This would entail road construction on a scale and to a standard never before seen in India and would raise huge problems of planning, finance and implementation.

types of operations should be encouraged. However, the possibilities are not good in India given the high returns to investment in the private sector and the uncertainty injected into the large fixed investment decision by possible government policy changes. Private competitive provision of trucks and buses operating on a combination of public free access and toll facilities is likely to be the most fruitful course.

Canal Irrigation

4.33 State Irrigation Departments (IDs) attempt to combine the planning, construction, operation, maintenance, and regulatory functions under one roof. This was effective in the early 1950s when public irrigation infrastructure services were profitable and competition from public and private tubewells was not yet significant. Since then, declining real user charges and collection rates, together with large increases in irrigation bureaucracies at the State level have led to large deficits requiring public funds. In some States the personnel cost for user charge collection alone exceeds the revenues collected. The steady approach to a zero user charge for canal irrigation water is part of the justification for subsidizing rural electric power, the argument being that users of tubewell water should get it as cheaply as users of canal water.

4.34 The presence of poor quality service and financial crisis exclusively at the State level would (as in the case of bus transport) normally create considerable pressure for reform, the most prominent being an increase in irrigation user charges. This would alleviate the financial problem and address the quality of service problem as well since farmers paying a substantial user charge would be justified in demanding high quality service. This common prescription is difficult to implement because of the peculiar technical problems of identifying beneficiaries and measuring volumes of water with canal systems (see Box 4.6). If canal irrigation were the only irrigation technology, and the quality and coverage of the service were stagnant or declining, then a reform-inducing food production crisis could eventually be expected. That this has not happened is largely because of the development of tube well and low lift pump irrigation technologies. The public tubewell bureaucracy that was set up has been unable to keep the public wells operating efficiently and the turning over of the relatively few public wells to private user groups is recommended. Missing also is reform pressure from industrial and foreign trade interests that make use of the power, telecommunication and transport infrastructure but do not benefit directly from irrigation infrastructure.

4.35 The absence of well-defined user groups paying substantial user charges to a regulated and independently monitored canal irrigation bureaucracy is a major weakness in the operation of the many canal irrigation systems in the country. Reforming public irrigation systems into regulated, revenue-generating public utilities would do much to deal with the financial problems and poor service at the State level but would not solve the larger problem of efficient national water resource use that arises from perverse financial incentives for farmers to over-exploit water and the inability to effect basin-wide planning of water resources. As in the case of the State Electricity Boards, the State Irrigation Departments can ignore the important technical systems effects and tradeoffs that occur at the level of the river basin. The inability of the Central Government to promote effective river basin planning across States and between uses has led to situations where canal facilities are being constructed for which there may well be no water in the future. The presence of perverse financial incentives for farmers in the form of free or nearly free electricity for pumping (when it is available) and nearly free canal water (when it is available) leads to inefficient use of scarce water and energy resources and inefficient cropping patterns for agriculture generally. The removal of these incentives would promote desirable long-range changes in patterns of food production and consumption, but is likely to be resisted by beneficiaries of the current system in the short run.

Box 4.6: Some Problems with Implementing Efficiency Pricing in Irrigation

The administrative difficulties of collecting efficiency based user charges from road users is well known. There is, however, a constant call for the imposition of irrigation water pricing--implying administrative feasibility. Actual demand for canal water fluctuates greatly depending on the rainfall in a particular year and its distribution throughout the year all of which can change dramatically, especially in tropical monsoon areas of eastern India--desert irrigation demand in western India is much more stable and predictable as is the marginal product of water. Continuous monitoring of a rapidly fluctuating demand and charging users for the measured volume of water used under fluctuating supply conditions is virtually impossible and is not done in any large public canal system in the world subject to substantial rainfall. An irrigated land tax is sometimes assessed and this is administratively feasible (though not an efficiency price) provided the land is actually served when water is needed (as is the case, for instance, in Taiwan). The large deviation in India between land officially served by canal water and that actually receiving water when needed makes even an irrigated land tax difficult to collect since it is inequitable for those who receive no service. There is also the problem that water theft (even in well-organized Taiwan) is relatively easy with open canal supplies. Ignorance of the true beneficiaries of the system together with the normal desire for a free government service leads inexorably to extremely low user charges and low collection rates in most public canal systems in the world. Rather than exhortations for water pricing or user charges there should first be a call for some form of system monitoring by independent public utility regulators to see who actually constitute the core beneficiaries of the systems.

4.36 The problems in canal irrigation in India are unusually complex and need to receive more attention from government. In particular, more needs to be done in the form of central water resource planning and in promoting feasible user charge regimes. The latter is complicated by the fact that there are few, if any, successful reform models in large scale public canal irrigation that Indian planners can look to as they can in other areas of infrastructure.

Urban Water Supply and Sewerage

4.37 Urban water supply and sewerage does, on the surface, appear to be a technology that is amenable to efficient management in the sense that, unlike roads, water supply and sewerage users need to be connected and are, therefore, excludable. Unlike canal irrigation systems, the volume of individual water use can be metered with some precision and (because of the excludability characteristic) the user charged. Urban water and sewerage service demand is also relatively predictable, unlike irrigation water use which varies widely as a function of cropping systems and rainfall distribution in a particular year. All of these advantages apply to comparatively compact physical systems in easily accessible areas. Yet, the characteristics of inadequate low quality service and financial distress exist in virtually all urban systems in India. For instance, it is estimated that over 25 percent of the urban population in 1985 did not have access to piped water while over 70 percent did not have access to sanitary sewers.

4.38 Project completion reports and the sector work that has been conducted by the Bank point out that part of the problem is that local governments depend on State government funds for much of their revenues. When investment funds are made available and systems expanded or rehabilitated, the local governments frequently do not then have the manpower or financial resources to subsequently maintain and operate the systems. Absent predictable resource inflows, it has been difficult to put in place the high quality financial, planning, engineering and administrative units that sustainable urban infrastructure requires. Investment initiatives then take on an ad hoc character, and operational revenue and expenditure accounts at the local level tend to achieve balance by allowing the system to run down.

4.39 The obvious expedient of self-financing through user charges has never been implemented despite the fact that there is much evidence that urban dwellers are willing to pay a great deal more than official tariffs for reliable safe drinking water. The major technical reason for the lack of volume-based user charges is that it has been difficult to have a system of universal metering because of fluctuating water pressures and poor quality (or badly maintained) meters. This makes user charge systems for urban water supply as difficult as those for canal irrigation, and water charges have in some cases taken on the form of a special tax on property that is connected to the system. Given official rent controls in all urban areas that define legal rents on bases set many years ago without adjustment for inflation, property taxes and water taxes based on property taxes cannot rise with inflation. Even where actual rents have been proved to be well above legal rents the courts have ruled that, for tax purposes, only the legal rents can be used in the tax computation.

4.40 Potable water, is also different from other infrastructure services in that it is not primarily an intermediate good--it is an element of final demand or consumption for households. It has been defined as an essential good that every Indian citizen ought to have as a basic right. So called "free allowances" (defined in daily or monthly terms) were important at one time. This has meant in practice that domestic users are to pay as little as possible for this essential commodity while commercial and especially industrial consumers, for whom it is an intermediate good, are to pay enough extra to cover the cost of domestic consumption. For cities like Bombay, Madras and Hyderabad, with a large and affluent industrial and commercial base, average costs of production and delivery of their limited systems have generally been covered.[12] For all other cities this has not been the case. Clearly, the right to water of all citizens in urban areas is currently conditioned by the size of the industrial user group and the availability of other tax revenues to cover the cost of the subsidies.

4.41 Sewage treatment and disposal is a substantially different technological and administrative task. The urban population puts also a much higher priority on access to drinking water as evidenced by the fact that even nominal charges for household connections to sewers are frequently avoided. This has led in some areas to underutilization of installed sewer capacity, something unheard of in almost all other infrastructure categories in India. It also threatens the safety of drinking water supplies through possible contamination of leaking water systems which may experience negative pressures under fluctuating supply conditions.

4.42 While private financing and operation of urban bus and solid waste disposal systems is feasible, it is much more difficult to organize alternatives to public finance and provision of water supply and sewerage. It appears, therefore, that reform in this area implies a change in policy towards domestic user charges together with universal metering and/or a change in the legal definition of property rental value and the power of local governments to set and collect taxes.[13] The latter involves major questions concerning urban land use controls and land markets as well as new independent powers for elected (as opposed to appointed) local governments. These issues are far removed from the poor service/financial distress/labor redundancy issues associated with reform in the other categories of infrastructure. A better understanding of the constitutional separation of powers between the various levels of government is required in order to assess what is possible institutionally to do about what, on the surface, appear to be ordinary problems of unreformed elements of infrastructure services.

D. General Considerations for Infrastructure Reform

Increasing Economic Efficiency

4.43 The basic message for reform of India's infrastructure sector is the need for more efficient use of the price mechanism and for competition among service providers. Without the "correct" efficiency pricing signals a system that is technically optimal in a physical flow sense will not be used optimally, nor will the system operators be able to respond dynamically to changes in user demands for services. Similarly, only competition can get at the problem of low quality and lack of variety and innovation since users are then in a position to vote with their user charges for better or different services from alternative suppliers. With competition, markets and market niches that are not being served would receive

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[12] In Madras, industrial users pay seven times the rate of metered domestic consumers and account for about 40 percent of water authority revenues as opposed to 3 percent of revenues from domestic users. This comes from 313 industrial connections and 125,000 domestic connections. The technical feasibility of metering only 313 industrial connections is also much higher than that for the 125,000 domestic connections.

[13] The Eighth Plan document takes the position that water should be managed as a commodity and that systems should be based on the principal that the user pays. It further states that municipalities/local bodies should be free to charge users to at least cover the cost of operation and maintenance. There is no lack of understanding of the problem and its solution.

attention. High quality domestic rail container services (which are currently not offered) would be supplied and peak hour suburban rail passenger services would not be restricted only to those who are strong enough to survive "dense crush" loading. Telephone services would expand rapidly and the rate of successful calls would rise. Industries that require high quality electric power services would buy their power from those who provided it and so on. Getting the prices right and introducing (and maintaining) competition is much of the reform agenda for India's infrastructure sectors.

4.44 The difficulty of effecting these generic reforms in India should not be underestimated. The pervasive willingness to use large cross subsidies within public infrastructure as an informal system of taxation and expenditure outside the budget is a characteristic common to the Indian fiscal system. When this is combined with the engineering arguments for high level systems planning, the low status of efficiency pricing and competition as systems organizers, the power of groups likely to be adversely affected by reform, and the overlapping concerns of two or three levels of government, it is easy to see why only strong exogenous shocks in the form of very low quality (or no) services and financial crises have been the principal engines of even modest reform efforts in India and elsewhere.[14/]

4.45 Beyond the normal institutional resistance to change lie some serious technical constraints that need to be addressed. The call for efficiency prices and user charges is appropriate for telecommunications, road transport, ports, railways, airlines and usually electric power. Users are easily identified and metered and can be charged or excluded. For free access roads and canal irrigation in all countries there are quite substantial and unresolved problems with identifying, metering and charging users anything approaching an efficiency price. Crude surrogates usually in the form of taxes are resorted to which generally promote equity and financial objectives but have weak linkages to efficiency objectives. More specific to India is the problem with universal metering, billing and collecting for consumption of electric power and especially piped urban water. Part of the problem is that official user charges for some users are so low that it is not worth the cost of meters and staff to collect them. The other part of the problem is that the provision and maintenance of a metering, billing and collection system requires resources and skills that may not be available to an institution emphasizing expansion of output and at the same time experiencing financial distress. Both of these problems derive from the presence of large groups of users that pay little or nothing for valuable services.

Promoting Social Welfare

4.46 The provision of valuable infrastructure services at prices much lower than users would be willing to pay generates economic rents. Managers and administrators who preside over the targeting of subsidies to deserving members of the population are allocating valuable rents. As many as 20 percent of rail passengers are riding at little or no charge. Some farmers receive free canal water and nearly free electricity for their tubewells. Relatively affluent urban householders receive nearly free water and subsidized electricity. Some poor urban dwellers have received nearly rent free housing. These are all official transfers of rents to targeted beneficiaries. With a steady increase of two percent per annum in the population of deserving recipients, and the stagnation and congestion experienced in most infrastructure service output it becomes necessary to exclude deserving recipients or spread the services more thinly. The manager or administrator making these decisions is far removed from the need to

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14/ Bankruptcy and threatened bankruptcy of important U.S. freight railroads led to eventual reform which took many years. It was a combination of financial losses and poor quality service for Japan's largely passenger railroads that finally led to reforms.

consider newer or better service innovations. Rationing a scarce supply of a generally poor service dominates his or her thinking.

4.47 The experience with such subsidies and cross subsidies in India and elsewhere is that they create an environment in which rent seeking and rent distribution behavior push aside concerns for a flow of high quality services to users. The effect of this behavior is both wasteful and inequitable in that the non-poor, over time, tend to capture the rents that were initially meant for the poor. Making targeted subsidies to the poor effective over time is not easy. Providing free public standpipes for drinking water in slum areas is effective as long as the area remains a slum. Rent controls work for the first generation of beneficiaries but penalize the next. In a growing, changing, urbanizing India, well-meaning decisions taken under non-dynamic assumptions may, inadvertently, exacerbate poverty rather than mitigate it.

The Importance of Non-Financial Initiatives

4.48 Financial crises can be beneficial in focusing on the need for reform in a subsector but there are two dangers in placing too much dependence on this factor alone. The first is that it may not ever visit subsectors with a monopoly provider facing commercial or affluent users--prices can simply be raised to cover costs. The second less obvious danger is that, undirected, subsector managers may take actions to solve a financial crisis that are inefficient and or inequitable.

4.49 An example of the first danger is telecommunications and ports. There is no financial crisis in either subsector. The reasons for reforming both ports and telecoms have to do with integrating the Indian economy with global markets and promoting the efficiency of domestic commerce and industry. Re-regulation, efficiency prices, and competition are both possible and desirable in these two subsectors and there are clear international examples of how to do this and how beneficial it has been. This requires direct support and leadership from economic ministries that have a broad view of how these reforms fit into the larger reform effort--as in Mexico during the 1980s.

4.50 Inappropriate responses to financial crises may require also the intervention of high level leadership. Indian Railways could attempt to solve its financial crisis by raising rates on coal transport, an exercise that is relatively simple since it involves transfers of resources from one ministry to another and an increase in the price of coal. This would exacerbate the problems of the electric power subsector and transfers the rail financial crisis elsewhere. A more efficient response would be to reduce subsidies on rail passenger services responsible for congestion on the mainlines and promote an expansion of profitable domestic rail container services. The latter response requires much more effort and initiative by IR management and might not be forthcoming without clear signals and support from the Government.

4.51 There is, therefore, an important but limited role for financial pressure in the reform effort. The larger objectives of reform that are embodied in the ongoing macroeconomic and structural initiatives need to be projected down to the subsectors if the right actions are to be taken at that level. The basic groundwork for influencing the right actions has been done for electric power, telecommunications and ports. Only part of the preparation has been done for railroads and main roads. Canal irrigation and urban water supply and sewerage need the most additional effort if detailed actions are to be supported. The sequencing of India's infrastructure reforms is following an understandable path--not unlike that of other continental economies. Much has already been achieved and a great deal is well-advanced in terms of preparation. Low-risk initiatives can be taken now in both telecommunications and ports that would yield rapid and dramatic benefits, and would enhance the credibility and sustainability of the overall reform process.

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STATISTICAL APPENDIX

TABLE OF CONTENTS

AGRICULTURE

INDUSTRY, TRANSPORT AND ENERGY

PRICES

Table A1.1
ESTIMATED POPULATION & DISTRIBUTION BY SEX 1960-2030
(in thousands)

Year	Male	Female	Total
1960	225942	208907	434849
1961	228715	215520	444235
1962	234131	220248	454379
1963	239689	225404	465093
1964	245395	230696	476091
1965	251224	236100	487324
1966	257196	241635	498831
1967	263271	247265	510536
1968	269511	253044	522555
1969	275918	258977	534895
1970	282500	265069	547569
1971	289019	271100	560119
1972	295118	276732	571850
1973	301346	282480	583826
1974	307704	288349	596053
1975	314195	294339	608534
1976	320826	300454	621280
1977	327596	306695	634291
1978	334509	313067	647576
1979	341471	319667	661138
1980	354840	332492	687332
1981	362170	339362	701532
1982	370142	346843	716985
1983	378537	354711	733248
1984	386973	362583	749556
1985	395083	370064	765147
1990	439402	410113	849515
1995	480922	448998	929920
2000	519431	486683	1006114
2005	556808	524429	1081237
2010	592527	560840	1153367
2015	625181	594685	1219866
2020	656604	627882	1284486
2025	686888	660701	1347589
2030	714964	692272	1407236

Note: Population estimates are as of March for each year. The population figures for the census years 1961, 1971 and 1981 differ from the official estimates as they have been corrected for undercounting. Projection with NRR=1 by 2015.

Source: World Bank estimates.

Table A1.2
DISTRIBUTION OF POPULATION BY AGE GROUP AND SEX 1961-1991
(in thousands)

Year	(0-4)	(5-14)	(15-19)	(20-29)	(30-39)	(40-49)	(50-59)	(60+)	Total
1961									
Males	37363	55035	22665	38405	28944	19699	12307	14298	228716
Females	36834	53446	22189	36788	25205	16931	10827	13000	215220
Total	74197	108481	44854	75193	54149	36630	23134	27298	443936
1971									
Males	46758	74948	28688	45944	35790	26098	16590	14204	289020
Females	44531	71689	27303	43880	33613	22522	14459	13103	271100
Total	91289	146637	55991	89824	69403	48620	31049	27307	560120
1981									
Males	53152	91039	37690	56881	42875	34552	23618	22363	362170
Females	51487	84082	34149	55109	41096	31168	20700	21573	339364
Total	104639	175121	71839	111990	83971	65720	44318	43936	701534
1991									
Males									439230
Females									407072
Total									846302

Note: The population figures differ from the official census estimates as they have been corrected for under-counting. The 1991 census, Final Population Totals exclude population distribution by age.

Source: World Bank estimates.

Table A1.3
SELECTED DEMOGRAPHIC CHARACTERISTICS BY STATES

STATES	1991 Area in Thousand Sq.kms	Population (million) 1981	Population (million) 1991	Pop. per sq.km 1991	1981-1991 Inter-censal Growth Rate (% per annum)	1991 sex ratio no.of males per 1000 females	Percentage of urban to total population 1981	Percentage of urban to total population 1991	Literacy rates (b) 1991 total	Literacy rates (b) 1991 males	Literacy rates (b) 1991 females	1991 workers (c) as % of total population males	1991 workers (c) as % of total population females	1991 workers (c) as % of total population total	Vital Rates (per 1000 pop.) Avg. of 1985-1988 Crude Birth Rate	Vital Rates (per 1000 pop.) Avg. of 1985-1988 Crude Death Rate
Andhra Pradesh	275.0	53.55	66.51	242	2.19	1029	23.3	26.9	36.8	46.1	27.3	55.5	34.3	45.1	29.7	10.0
Arunachal Pradesh	83.7	0.63	0.86	10	3.22	1164	6.7	12.8	32.8	41.3	23.0	53.8	37.5	46.2	37.9	14.9
Assam	78.4	19.90	22.41	286	1.20	1083	10.3(a)	11.1	42.5	50.0	34.3	49.4	21.6	36.1	33.9	12.3
Bihar	173.9	69.91	86.37	497	2.14	1098	12.5	13.1	30.6	42.0	18.1	47.9	14.9	32.2	37.1	13.6
Goa	3.7	1.01	1.17	316	1.51	1034		41.0	66.6	73.8	59.2	49.6	20.5	35.3	18.8	7.7
Gujarat	196.0	34.09	41.31	211	1.94	1071	31.1	34.5	51.2	61.0	40.6	53.6	26.0	40.2	31.3	10.5
Haryana	44.2	12.92	16.46	372	2.45	1156	21.9	24.6	45.2	56.1	32.7	48.5	10.8	31.0	34.8	9.1
Himachal Pradesh	55.7	4.28	5.17	93	1.91	1025	7.6	8.7	53.5	63.0	43.8	50.6	34.8	42.8	30.9	9.3
Jammu & Kashmir (a)	222.2	5.99	7.72	35	2.57	1083	21.1	23.8	n.a	n.a	n.a	n.a	n.a	n.a	32.7	8.6
Karnataka	191.8	37.14	44.98	235	1.93	1042	28.9	30.9	46.7	56.1	37.0	54.1	29.4	42.0	29.1	8.8
Kerala	38.9	25.45	29.10	749	1.35	965	18.7	26.4	78.0	80.8	75.2	47.6	15.8	31.4	21.9	6.3
Madhya Pradesh	443.4	52.18	66.18	149	2.41	1074	20.3	23.2	35.5	47.0	23.1	52.3	32.7	42.8	37.5	13.8
Maharashtra	307.7	62.78	78.94	257	2.32	1071	35.0	38.7	53.8	63.5	43.3	52.2	33.1	43.0	29.3	8.5
Manipur	22.3	1.42	1.84	82	2.61	1044	26.5	[illegible]7.5	49.9	59.8	39.6	45.3	39.0	42.2	26.3	6.7
Meghalaya	22.4	1.34	1.77	79	2.85	1047	18.0	18.6	38.2	41.5	34.7	50.1	34.9	42.7	36.4	10.3
Mizoram	21.1	0.49	0.69	33	3.48	1086	24.7	46.1	67.0	70.1	63.6	53.9	43.5	48.9	n.a	n.a
Nagaland	16.6	0.78	1.21	73	4.48	1129	15.5	17.2	51.1	56.6	44.8	46.9	38.0	42.7	24.0	5.5
Orissa	155.7	26.37	31.66	203	1.85	1030	11.8	13.4	40.8	52.4	28.8	53.8	20.8	37.5	31.5	13.1
Punjab	50.4	16.79	20.[illegible]8	403	1.91	1134	27.7	29.5	49.0	54.9	42.2	54.2	61.5	2.1	28.6	8.4
Rajasthan	342.2	34.26	44.01	129	2.54	1099	21.0	22.9	30.8	44.0	16.3	49.3	27.4	38.9	36.0	12.4
Sikkim	7.1	0.32	0.41	57	2.42	1139	16.1	9.1	46.5	54.2	37.7	51.3	30.4	41.5	33.1	10.7
Tamil Nadu	130.1	48.41	55.86	429	1.44	1027	33.0	34.2	54.3	63.8	44.6	56.4	29.9	43.3	23.8	9.5
Tripura	10.5	2.05	2.76	263	3.01	1058	11.0	15.3	49.5	58.0	40.6	47.5	13.8	31.1	27.7	9.4
Uttar Pradesh	294.4	110.86	139.11	473	2.30	1138	17.9	19.8	33.2	44.7	20.0	49.7	12.3	32.2	37.5	14.5
West Bengal	88.8	54.58	68.08	767	2.23	1091	26.5	27.5	47.9	56.6	38.4	51.4	11.2	32.2	29.5	8.9
A & N Islands	8.2	0.19	0.28	34	3.98	1222	26.5	26.7	61.0	67.0	53.6	53.3	13.1	35.2	25.7	6.8
Chandigarh	0.1	0.45	0.64	5632	3.62	1266	93.6	89.7	66.2	70.5	60.8	54.3	10.4	34.9	23.6	4.2
D & N Haveli	0.5	0.11	0.14	282	2.33	1050	6.7	8.5	32.4	42.9	21.3	57.5	48.8	53.2	38.6	10.6
Daman&Diu	0.1	0.08	0.10	907	2.55	1032	32.4	46.8	60.1	69.7	50.2	51.6	23.2	37.6	28.6	8.6
Delhi	1.5	6.22	9.42	6352	4.24	1209	92.7	89.9	62.4	68.7	54.9	51.7	7.4	31.6	30.2	7.6
Lakshadweep	0.0	0.04	0.05	1616	2.60	1060	46.3	56.3	66.8	73.7	59.6	44.2	7.6	26.4	30.8	6.3
Pondicherry	0.5	0.60	0.81	1642	3.02	1021	52.3	64.0	64.5	72.1	56.7	50.6	15.2	33.1	22.3	7.8
All-India	3287.3	685.19	846.30	257	2.13	1079	23.3	25.7	42.5	52.3	31.9	51.1	22.1	37.1	32.3	11.2

Note: (a) Based on projections.
(b) Percentage have been computed on the total population inclusive of age group 0-6 years.
(c) Includes both main and marginal workers.

Sources: 1. Census of India 1991, Final Population Totals, Series 1, Papers 1 and 2 of 1992. Vol II.
2. Registrar General India, Sample Registration Bulletin, December 1989; also published in "Health Information India."

Table A1.4
TRENDS IN DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION

a. Population

Year	Population (millions) Total	Males	Females	Average Compound Growth Rate of Population during Previous Ten Years (% per annum)	Sex-Ratio (Males per 1000 Females)	Density of Population Per Sq.KM	Percentage Urban Popul to Total
1951	361	185	176	1.26	1057	117	17.3
1961	444	229	215	1.98	1063	142	18.0
1971	560	289	271	2.20	1075	177	19.9
1981	701	362	339	2.26	1071	216	23.3
1991	846	439	407	2.13	1079	257	25.7

b. Fertility, Life Expectancy & Birth/Death Rates

Average for Period	General Fertility Rate (per thousand women of child bearing age	Total Fertility Rate	Average Expectation of Life at Birth (years) males	females	Birth Rate (per thous. popul.)	Death Rate
1951/61	201	6.0	41.2	39.8	42.7	24.4
1961/71	192	5.8	46.7	45.4	42.0	18.8
1971/76	175	5.4	49.5	49.0	39.0	16.5
1976/81	154	5.1	51.0	50.0	36.5	14.5
1981/86 (b)(c)	133	4.8	52.7	54.4	34.2	12.7
1986/91 (b)(c)	117	4.3	54.4	56.8	30.9	11.3

c. All India Sample Registration Survey: Vital Rates
(Annual rate per thousand)

Year	Crude Birth Rate Total	Rural	Urban	Crude Death Rate Total	Rural	Urban	Infant Mortality Rate per 1000 Live Births Total	Rural	Urban
1970	36.8	38.9	29.7	15.7	17.3	10.2	129	136	90
1971	36.9	38.9	30.1	14.9	16.4	9.7	129	138	82
1972	36.6	38.4	30.5	16.9	18.9	10.3	139	150	85
1973	34.6	35.9	28.9	15.5	17.0	9.6	134	143	89
1974	34.5	35.9	28.4	14.5	15.9	9.2	126	136	74
1975	35.2	36.7	28.5	15.9	17.3	10.2	140	151	84
1976	34.4	35.8	28.3	15.0	16.3	9.5	129	139	80
1977	33.0	34.3	27.8	14.7	16.0	9.4	129	142	67
1978	33.2	34.6	27.8	14.1	15.3	9.4	125	136	70
1979	33.1	34.3	28.3	12.8	13.9	8.4	n.a	n.a	n.a
1980	33.3	34.6	28.1	12.4	13.5	8.0	n.a	n.a	n.a
1981	33.9	35.6	27.0	12.5	13.7	7.8	110	119	62
1982	33.8	35.5	27.6	11.9	13.1	7.4	105	114	65
1983	33.7	35.3	28.3	11.9	13.1	7.9	105	114	66
1984	33.9	35.3	29.4	12.6	13.8	8.6	104	113	66
1985	32.9	34.3	28.1	11.8	13.0	7.8	97	107	59
1986	32.6	34.2	27.1	11.1	12.2	7.6	96	105	62
1987	32.2	33.7	27.4	10.9	12.0	7.4	95	104	61
1988	31.3	32.8	26.0	10.9	11.8	7.5	94	102	61
1990	30.2	31.7	24.7	9.7	10.5	6.8	80	86	50

(a) Projections by Registrar General of India, for March 1 of year shown. The projections yield somewhat lower values than do those produced by World Bank staff, which have a higher base to adjust for census under-counting.
(b) Projections relate to mid-year of period.
(c) For 1981-90 the projections as produced by World Bank staff.

Sources: 1. Office of the Registrar-General.
2. Planning Commission.

Table A1.5

TRENDS IN ACCEPTANCE OF FAMILY PLANNING METHODS AND ESTIMATED NUMBER OF BIRTHS AVERTED

(in thousands)

	1956 (a)	1960 (a)	65/66 (b)	70/71	75/76	80/81	85/86	86/87	87/88	88/89	89/90	90/91	91/92 (e)	92/93 (e)
Total	7	64	671	1330	2669	2053	4902	5043	4940	4678	4188	4126	4089	4176
Males	2	37	577	879	1438	439	640	810	754	617	341	255	174	133
Females	5	27	94	451	1231	1614	4262	4233	4186	4061	3847	3871	3915	4043
IUD insertions	n.a	n.a	813	476	607	628	3274	3935	4356	4852	4942	5370	4384	4623
Users of Conventional Contraceptives (c)	n.a	n.a	582	1963	3528	3809	10744	11654	13406	14838	16952	17860	17388	17856
Total Acceptors	7	64	2066	3769	6804	6490	18920	20632	22702	24368	26082	27356	25861	26655
Equivalent Sterilizations	7	64	974	1598	3068	2479	6665	7104	7251	7254	6932	7082	6704	6875
Cumulative Number of Births Averted since 1956		36	635	6823	20648	44190	76366	85367	95322	106194	117868	130173	142871	155626
Medical Termination of Pregnancy (MTP)	n.a	n.a	n.a	n.a	214	388	584	588	585	582	596	581	633	343 (f)
Cumulative Number of Births Averted due to MTP Since 1956(d)		n.a	n.a	n.a	304	1578	3706	4176	4644	5110	5586	6051	6558	6832
Cumulative Number of Total Births Averted since 1956		n.a	n.a	n.a	20952	45768	80072	89543	99966	111304	123454	136224	149429	162458

Notes: (a) The data for 1956 and 1960 relate to calendar years.

(b) Relates to period January 1965 to March 1966.

(c) From 1970/71 onwards the figures exclude condoms distributed freely to vasectomised cases and also those distributed as free samples. Equivalent users have been derived by dividing the distributed number of pieces of condoms, diaphragms, jelly . cream tubes,foam tablets and oral pill cycles by 72,2,7,72,13 respectively which are the average numbers required to give complete protection to a couple in one year. With the increased capacity and efficacy of Delfin Cream Tube (100 gm. with a dosage of 2.5 ml.) the number of Jelly/Cream Equivalent users from the year 1987/88 and onward have been worked out by taking 3 tubes as an annual requirement of one user. Data from 1975/76 onward include oral pill users also.

(d) Estimated by assuming that percentage of births averted due to medical termination of pregnancy is 80.

(e) Provisional.

(f) Upto December 1992.

Sources: 1.Ministry of Health and Family Welfare.
2.World Bank estimates.

Table A1.6
EMPLOYMENT IN THE ORGANIZED SECTOR - BY INDUSTRY
(in thousands)

As at the End of the Fiscal Year	Agriculture and allied Activities	Mining & Quarrying	Manufac- turing	Construc- tion	Public Utilities	Transport & Communication	Trade & Commerce	Services	All activities Total
1960/61									
Public Sector	180	129	369	602	224	1725	94	3427	7050
Private Sector (a)	670	550	3020	240	40	80	160	280	5040
Total	850	679	3389	842	264	1805	254	3707	12090
1970/71									
Public Sector	264	177	782	797	402	2189	288	5475	10374
Private Sector (b)	814	429	3900	152	44	101	293	963	6696
Total	1078	606	4822	949	446	2290	581	6438	17070
1975/76 (c)									
Public Sector	359	719	1113	992	536	2418	546	6639	13321
Private Sector (b)	827	132	4158	94	35	74	470	1055	6844
Total	1186	851	5271	1086	571	2491	1016	7694	20165
1980/81									
Public Sector	463	818	1502	1089	683	2709	865	7355	15484
Private Sector (b)	858	130	4545	72	35	60	473	1222	7395
Total	1321	948	6047	1161	718	2769	1338	8577	22879
1984/85									
Public Sector	498	974	1761	1146	760	2894	1114	8123	17270
Private Sector (b)	807	113	4421	70	39	54	496	1309	7309
Total	1305	1087	6182	1216	799	2948	1610	9432	24579
1985/86									
Public Sector	526	966	1815	1181	785	2929	1161	8321	17684
Private Sector (b)	822	111	4448	69	40	54	498	1332	7374
Total	1348	1077	6263	1250	825	2983	1659	9653	25058
1986/87									
Public Sector	557	942	1862	1085	789	2970	1190	8529	17924
Private Sector (b)	848	91	4410	58	40	52	506	1359	7364
Total	1405	1033	6272	1143	829	3022	1696	9888	25288
1987/88									
Public Sector	554	956	1867	1214	849	3011	1234	8635	18320
Private Sector (b)	844	93	4395	50	41	51	521	1397	7392
Total	1398	1049	6262	1264	890	3062	1755	10032	25712
1988/89									
Public Sector	555	956	1863	1146	869	2974	1273	8811	18447
Private Sector (b)	868	96	4383	69	39	51	520	1429	7455
Total	1423	1052	6246	1215	908	3025	1793	10240	25902
1989/90									
Public Sector									18729
Private Sector (b)									7590
Total									26319
1990/91									
Public Sector									18965
Private Sector (b)									7854
Total									26819

Notes:
(a) Establishments of 25 workers and over. Reporting is compulsory.
(b) Includes employment in establishments of 10 workers and over. Reporting for the category 10-25 workers is on a voluntary basis, and the extent of coverage is not known.
(c) Data from 1975/76 onwards is based on National Industrial classification, 1970 and is not exactly comparable with the earlier years.

Source: Economic Survey, various issues.

Table A1.7
DISTRIBUTION OF PERSON DAYS PER DAY OF PERSONS OF AGE 5 AND ABOVE
BY CURRENT DAILY ACTIVITY (a)
(%)

	Rural			Urban			All-India		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
I Working Persons in Labour Force	55.86	22.91	39.67	53.68	12.16	34.02	55.32	20.39	38.31
a. Working in own farm	29.48	12.18	20.99	3.26	1.50	2.43	22.99	9.67	16.50
b. Working in household non-farm enterprise/profession	6.60	1.98	4.33	18.73	3.25	11.39	9.60	2.28	6.06
c. Working as regular salaried employee/ wage labour in farm	2.06	0.31	1.20	0.35	0.06	0.21	1.64	0.25	0.96
d. Working as regular salaried employee/ wage labour in non-farm enterprise/ profession	4.05	0.69	2.40	24.63	4.27	15.00	9.14	1.53	5.44
e. Working as casual labour of which:									
Public works	0.46	0.16	0.31	0.26	0.05	0.16	0.41	0.13	0.28
Agriculture	10.41	6.53	8.50	1.09	0.97	1.03	8.10	5.22	6.70
Non-Agriculture	2.48	1.04	1.77	5.28	2.04	3.75	3.17	1.27	2.25
f. Working as bonded laborer	0.32	0.02	0.17	0.08	0.02	0.05	0.26	0.02	0.14
II Not Working but seeking and available for work - unemployed	4.54	2.26	3.42	5	1.50	3.58	4.77	2.08	3.46
III Not in Labor Force	39.60	74.83	56.91	40.86	86.34	62.40	39.91	77.53	58.23
IV Total Population	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) For the period January to December 1983.

Source: The National Sample Survey, 38th Round (1983).

Table A1.8
STATEWISE UNEMPLOYMENT RATES (a)
(%)

STATES	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh	7.87	10.54	8.87	9.43	12.09	9.99	8.21	10.70	9.07
Bihar	7.06	10.66	7.89	6.77	5.54	6.61	7.02	10.34	7.75
Karnataka	6.61	8.32	7.17	8.97	9.28	9.06	7.32	8.51	7.68
Kerala	24.31	31.01	26.24	22.67	28.99	24.28	24.00	30.69	25.89
Madhya Pradesh	2.07	1.81	1.98	5.75	4.85	5.62	2.86	2.05	2.60
Maharashtra	6.25	7.23	6.63	9.05	10.44	9.28	7.24	7.71	7.40
Orissa	7.82	11.79	8.86	8.47	10.85	8.81	7.91	11.73	8.86
Rajasthan	3.50	1.55	2.76	5.54	4.13	5.25	3.95	1.82	3.20
All India	7.57	8.98	7.97	9.23	10.98	9.53	7.97	9.27	8.31

(a) Percentage of persons seeking and/or available for work (unemployed) to total labour force available for work (current day status).

Note : Data available for only eight states.

Source: National Sample Survey, 38th Round (1983).

Table A1.9
EDUCATION - PROGRESS OF ENROLLMENT

Year	Primary Level (Class I-V) Age 6-11 Years			Medium Level (classes VI-VIII) Age 11 -14 Years			Secondary Level (classes IX-XI) Age 14 - 17 Years			University Age 17-23 Years
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	(c)
					(million persons)					
1950/51	13.8	5.4	19.2	2.6	0.5	3.1	1.1	0.2	1.3	0.3
1955/56	17.5	7.7	25.2	3.4	0.9	4.3	1.5	0.4	1.9	0.6
1960/61	23.6	11.4	35.0	5.1	1.6	6.7	2.3	0.5	2.8	0.8
1965/66	32.2	18.3	50.5	9.7	2.8	12.5	3.9	1.2	5.1	1.3
1970/71	35.7	21.3	57.0	9.4	3.9	13.3	4.9	1.7	6.6	2.4
1975/76	40.7	25.0	65.7	11.0	5.0	16.0	5.3	2.1	7.4	3.1
1976/77	42.7	26.4	69.1	11.4	5.3	16.7	5.5	2.1	7.6	3.6
1977/78	41.9	25.5	67.4	11.7	5.6	17.3	5.7	2.3	8.0	3.0
1978/79	42.6	26.4	69.0	12.2	5.9	18.2	5.9	2.5	8.4	3.8
1979/80	44.2	27.3	71.5	13.0	6.2	19.2	6.9	2.9	9.8	3.1
1980/81	45.3	28.5	73.8	13.2	6.8	20.7	7.1	3.1	10.1	4.1
1981/82	46.7	29.4	76.1	14.7	7.2	21.9	7.6	3.3	10.9	4.0
1982/83	48.6	30.9	79.5	15.7	7.7	23.6	8.1	3.5	11.6	4.9
1983/84	50.4	32.2	82.6	16.6	8.6	25.2	8.4	3.7	12.2	5.2
1984/85	51.9	33.7	85.6	17.2	9.0	26.2	10.8	4.7	15.5	4.3
1985/86	52.2	35.2	87.4	17.7	9.6	27.3	11.5	5.0	16.5	4.5
1986/87	51.7	35.4	87.1	17.9	9.6	27.5	11.4	5.2	16.6	4.8
1987/88 (a)	55.2	37.8	93.0	19.2	10.7	29.9	12.3	5.6	17.9	3.1
1988/89 (a)	57.1	38.6	95.7	19.7	11.2	30.9	12.6	5.9	18.5	3.2
1989/90 (a)	57.7	39.6	97.3	20.3	11.8	32.1	13.5	6.4	19.9	3.6
1990/91 (a)	58.0	41.0	99.1	20.8	12.4	33.2	14.0	6.9	20.9	3.7
					Enrollment as percentage of the corresponding age group (b)					
1950/51	60.6	24.8	43.1	20.6	4.6	12.9	8.7	1.5	5.3	-
1970/71	95.5	60.5	78.6	46.3	19.9	33.4	26.8	9.8	18.5	3.9
1975/76	100.4	66.1	83.8	48.6	23.9	36.7	25.6	10.5	18.3	4.5
1978/79	97.9	64.3	81.6	49.9	25.5	38.0	25.6	11.6	18.8	4.9
1979/80	99.3	65.0	82.7	52.0	26.4	39.6	22.9	13.9	21.9	3.7
1980/81	95.8	64.1	80.5	54.3	28.6	41.9	23.1	11.1	17.3	5.4 (d)
1981/82	98.9	66.2	83.1	56.0	29.7	43.3	24.1	11.3	18.0	5.1 (d)
1982/83	103.0	69.7	86.8	58.3	31.8	45.5	25.1	11.6	18.6	6.1 (d)
1983/84	106.9	72.6	90.2	60.6	33.2	47.3	25.4	12.1	12.0	3.5
1984/85	110.3	75.9	93.6	61.3	34.8	48.1	31.7	14.7	23.5	3.5
1985/86	111.1	79.2	95.6	61.8	35.2	48.0	32.7	15.5	24.4	3.6
1986/87	110.0	79.8	95.4	61.0	34.7	48.2	30.8	15.6	24.0	-
1987/88 (a)	113.1	81.7	97.9	68.9	40.6	55.1	33.3	16.2	25.0	-
1988/89 (a)	115.7	82.5	99.6	70.8	42.3	56.9	33.4	16.7	25.3	-
1989/90 (a)	115.5	83.6	99.9	73.0	44.6	59.1	35.0	17.7	26.6	-
1990/91 (a)	115.3	85.9	101.0	73.4	46.1	60.1	37.3	19.4	28.6	-

(a) Provisional.
(b) Enrollment as percentage of corresponding age group may exceed 100 in some instance because of presence of children both younger and older than indicated in the age group for these classes.
(c) Refers to general education in commerce, arts & science courses in the Universities. Excludes engineering, medicine and technical courses conducted in autonomous institutions.
(d) Includes inter/junior colleges & pre-degree courses.

Sources: 1. Ministry of Education.
2. Planning Commission, Draft Sixth Five Year Plan 1980-85.

Table A2.1(a)
INDIA: National Accounts Summary
(Rs. billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDPfc	1224.27	1867.23	2085.33	2337.99	2600.30	2948.51	3535.17	4058.27	4726.60	5418.88
Agriculture	466.49	674.98	719.50	772.26	826.13	923.79	1140.73	1270.49	1500.83	1743.37
Industry	317.15	507.37	578.50	658.14	737.46	838.29	1008.80	1180.60	1360.92	1511.47
Mining	18.87	49.09	54.58	61.98	67.96	70.85	92.08	103.09	108.66	113.63
Manufacturing	216.44	330.45	372.43	417.75	461.66	528.65	636.70	752.34	878.24	962.47
Construction	61.14	94.21	110.97	129.47	152.17	176.11	206.77	238.07	271.32	313.31
Electricity	20.70	33.62	40.52	48.96	55.67	62.68	73.25	87.10	102.70	122.06
Services	440.63	684.88	787.33	907.61	1038.71	1186.43	1385.64	1607.18	1864.85	2164.04
Indirect Taxes	135.86	208.66	228.10	284.44	329.19	383.50	430.76	481.59	582.05	667.84
GDPmp	1360.13	2075.89	2313.43	2622.43	2929.49	3332.01	3965.93	4539.86	5308.65	6086.72
Resource Gap (M-X)	48.25	47.48	54.18	81.37	80.87	85.93	124.93	112.19	107.07	22.43
Imports (g+nfs)	137.17	175.04	211.28	237.67	255.25	296.23	388.59	465.46	527.51	594.63
Exports (g+nfs)	88.92	127.56	157.10	156.30	174.37	210.31	263.66	353.28	420.44	572.19
Total Expenditure	1408.38	2123.37	2367.61	2703.80	3010.36	3417.94	4090.86	4652.05	5415.72	6109.15
Consumption	1123.85	1692.76	1879.73	2074.34	2334.28	2664.41	3166.06	3593.34	4010.56	4644.95
General Gov't	130.84	211.41	243.52	291.74	346.25	408.43	473.47	543.19	615.37	695.47
Private	993.01	1481.35	1636.21	1782.60	1988.03	2255.98	2692.59	3050.15	3395.19	3949.48
Investment	284.53	430.61	487.88	629.46	676.08	753.53	924.80	1058.71	1405.16	1464.20
Fixed Investment	262.76	399.91	455.68	542.55	620.52	721.94	830.86	964.08	1225.73	1360.85
Change in Stocks	21.77	30.70	32.20	86.91	55.56	31.59	93.94	94.63	179.43	103.35
Domestic Savings	236.28	383.13	433.70	548.09	595.21	667.60	799.87	946.52	1298.09	1441.77
Net Factor Income	2.81	-11.28	-17.22	-19.00	-26.15	-32.05	-43.21	-55.07	-67.20	-92.83
Current Transfers	22.57	27.75	29.67	27.01	29.75	34,99	38.42	37.59	36.27	65.83
National Savings	261.66	399.60	446.15	556.10	598.81	670.55	795.08	929.04	1267.17	1414.77
Foreign Savings	22.87	31.01	41.73	73.36	77.27	82.98	129.72	129.67	137.99	49.43
GDP per capita (Rs.)	2003.14	2871.22	3130.49	3473.42	3799.60	4228.44	4926.62	5522.94	6327.35	7110.65
Per capita private consumption	1462.46	2048.90	2214.09	2361.06	2578.51	2862.91	3344.83	3710.64	4046.71	4613.88
Average Exchange Rates:										
Rupees per US $	7.893	10.312	11.887	12.237	12.787	12.968	14.477	16.663	17.949	24.519
Rupees per SDR	10.154	10.914	11.944	12.918	15.707	17.360	19.269	21.361	30.714	33.428
Memo Items:										
Priv. Consumption (CSO)	992.92	1469.48	1620.90	1777.58	1999.98	2240.61	2615.50	2914.69	3358.37	3894.18
Population (mill)	679	723	739	755	771	788	805	822	839	856

Table A2.1(b)
INDIA: National Accounts Summary
(Rs. billion at 80/81 prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDPfc	1224.27	1448.65	1504.33	1565.66	1632.71	1703.22	1889.43	1995.03	2097.91	2123.16
Agriculture	466.49	540.80	540.61	542.18	532.81	534.79	622.14	632.63	662.92	653.78
Industry	317.15	389.92	413.30	432.25	463.82	493.67	543.45	582.39	622.39	622.19
Mining	18.87	24.51	26.86	26.23	29.78	30.80	35.42	38.02	39.90	41.51
Manufacturing	216.44	273.77	291.53	303.20	326.45	348.18	383.44	410.63	441.31	431.31
Construction	61.14	65.76	68.28	71.83	73.37	77.77	83.79	88.90	93.26	97.64
Electricity	20.70	25.88	28.63	30.99	34.22	36.92	40.80	44.84	47.92	51.73
Services	440.63	517.93	550.42	591.23	636.08	674.76	723.84	780.01	812.60	847.19
Indirect Taxes	135.86	166.82	170.56	200.82	219.79	237.63	248.84	259.14	283.53	285.81
GDPmp	1360.13	1615.47	1674.89	1766.48	1852.50	1940.85	2138.27	2254.17	2381.44	2408.97
Terms of Trade Effect	0.00	14.19	13.86	16.36	24.62	14.83	23.64	168.22	8.88	14.11
Gross Domestic Income	1360.13	1629.66	1688.75	1782.84	1877.12	1955.68	2161.91	2422.39	2390.32	2423.08
Resource Gap (M-X)	48.25	41.24	41.31	61.97	62.10	55.88	71.77	53.42	43.29	7.41
Imports (g+nfs)	137.17	152.03	161.08	181.02	195.98	192.66	223.25	221.64	213.28	196.32
Capacity to import	88.92	110.79	119.77	119.05	133.88	136.78	151.48	168.22	169.99	188.92
[Exports (g+nfs)]	88.92	96.60	105.91	102.68	109.26	121.95	127.84		161.10	174.81
Total Expenditure	1408.38	1670.90	1730.06	18[illegible].82	1939.22	2011.57	2233.68	2475.81	2433.61	2430.48
Consumption	1123.85	1348.50	1397.57	[illegible]50.31	1539.97	1590.68	1759.28	1983.87	1848.67	1932.80
General Gov't	130.84	157.50	169.83	189.24	208.49	226.60	238.77	253.37	259.58	259.75
Private	993.01	1191.00	1227.74	1261.07	1331.48	1364.08	1520.51	1730.50	1589.09	1673.05
Investment	284.53	322.40	332.49	394.51	399.25	420.89	474.40	491.94	584.94	497.68
Fixed Investment	262.76	296.32	307.84	329.74	359.97	399.55	416.40	438.94	515.63	497.72
Change in Stocks	21.77	26.08	24.65	64.77	39.28	21.34	58.00	53.00	69.31	-0.04
Domestic Savings	236.28	281.[illegible]	291.18	332.54	337.15	365.01	402.63	438.52	541.65	490.27
Net Factor Income	2.81	-9.80	-13.13	-14.47	-20.08	-20.84	-24.83	-26.22	-27.17	-30.65
Current Transfers	22.57	24.10	22.62	20.57	22.85	22.76	22.07	17.90	14.67	21.74
National Savings	261.66	295.47	300.67	338.64	339.92	366.92	399.87	430.20	529.15	481.36
Foreign Savings	22.87	26.93	31.82	55.87	59.33	53.97	74.53	61.74	55.79	16.32
GDP per capita (Rs.)	2003.14	2234.40	2266.43	2339.71	2402.72	2463.01	2656.24	2742.30	2838.43	2814.22
Per capita private consumption	1462.46	1647.31	1661.36	1670.29	1726.95	1731.06	1888.84	2105.23	1894.03	1954.50
Rupee Deflators (1980/81=100):										
GDPmp	100.0	128.5	138.1	148.5	158.1	171.7	185.5	201.4	222.9	252.7
Imports(g+nfs)	100.0	115.1	131.2	131.3	130.2	153.8	174.1	210.0	247.3	302.9
Exports(g+nfs)	100.0	132.1	148.3	152.2	159.6	172.5	206.2		261.0	327.3
Total Expenditure	100.0	127.1	136.9	146.6	155.2	169.[illegible]	183.1	187.9	222.5	251.4
Govt. Consumption	100.0	134.2	143.4	154.2	166.1	180.2	198.3	214.4	237.1	267.7
Priv. Consumption	100.0	124.4	133.3	141.4	149.3	165.[illegible]	177.1	176.3	213.7	236.1
Fixed Investment	100.0	135.0	148.0	164.5	172.4	180.7	199.5	219.6	237.7	273.4
Total Investment	100.00	133.56	146.74	159.55	169.34	179.03	194.96	215.21	240.22	294.21

Table A2.1(c)
India: National Accounts Summary
(US$ million at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDPfc	155108	181071	175432	191053	203363	227360	244198	243550	263342	221010
Agriculture	59102	65455	60529	63105	64453	71234	78798	76246	83619	71104
Industry	40181	49201	48667	53781	57675	64661	69685	70852	75824	61645
Mining	2391	4760	4592	5065	5315	5463	6361	6187	6054	4634
Manufacturing	27422	32045	31331	34137	36105	40764	43981	45150	48931	39254
Construction	7746	9136	9336	10580	11901	13580	14283	14287	15117	12778
Electricity	2623	3260	3409	3999	4354	4833	5060	5227	5722	4978
Services	55825	66415	66236	74167	81235	91486	95716	96452	103900	88261
Indirect Taxes	17213	20234	19189	23243	25745	29572	29756	28902	32429	27238
GDPmp	172321	201306	194621	214296	229108	256932	273954	272452	295771	248248
Resource Gap (M-X)	6113	4605	4558	6649	6325	6626	8630	6733	5965	915
Imports (g+nfs)	17378	16974	17774	19422	19962	22843	26843	27934	29390	24252
Exports (g+nfs)	11265	12370	13216	12773	13637	16217	18213	21201	23425	23337
Total Expenditure	178434	205910	199180	220946	235433	263557	282583	279184	301737	249163
Consumption	142386	164153	158136	169508	182558	205452	218701	215648	223448	189445
General Gov't	16577	20501	20487	23840	27079	31494	32706	32599	34285	28365
Private	125809	143652	137649	145668	155479	173958	185995	183049	189163	161080
Investment	36048	41758	41044	51437	52875	58105	63882	63537	78288	59718
Fixed Investment	33290	38781	38335	44335	48529	55669	57393	57858	68292	55502
Change in Stocks	2758	2977	2709	7102	4345	2436	6489	5679	9997	4215
Domestic Savings	29935	37153	36486	44788	46550	51479	55253	56804	72323	58803
Net Factor Income	356	-1094	-1449	-1552	-2045	-2471	-2985	-3305	-3744	-3786
Current Transfers	2860	2691	2496	2207	2327	2698	2654	2256	2021	2685
National Savings	33151	38750	37533	45443	46832	51706	54922	55755	70600	57702
Foreign Savings	2897	3007	3511	5994	6043	6399	8961	7782	7688	2016
GDP per capita	254	278	263	284	297	326	340	331	353	290
Per capita private consumption	185	199	186	193	202	221	231	223	225	188
Memo Item:										
Priv. Consumption (CSO)	125798	142500	136361	145258	156413	172774	180670	174920	187111	158825

Table A2.1(d)
INDIA: National Accounts Summary
(US$ million at 80/81 prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDPfc	155108	183536	190590	198361	206855	215789	239380	252759	265794	268993
Agriculture	59102	68516	68492	68691	67504	67735	78822	80151	83988	82830
Industry	40181	49401	52363	54764	58763	62545	68852	73786	78853	78828
Mining	2391	3105	3150	3323	3773	3902	4488	4817	5055	5259
Manufacturing	27422	34685	36935	38414	41106	44113	48580	52025	55912	54645
Construction	7746	8331	8651	9100	9349	9853	10616	11263	11816	12370
Electricity	2623	3279	3627	3926	4335	4678	5169	5681	6071	6554
Services	55825	65619	69735	74906	80588	85488	91707	98823	102952	107334
Indirect Taxes	17213	21135	21609	25443	27846	30106	31527	32832	35922	36211
GDPmp	172321	204671	212199	223803	234702	245895	270907	285591	301715	305203
Terms of Trade Effect	0	1798	1756	2073	3119	1879	2995	21313	1125	1787
Gross Domestic Income	172321	206469	213956	225877	237821	247774	273902	306904	302841	306990
Resource Gap (M-X)	6113	5225	5234	7852	7867	7080	9093	6768	5484	938
Imports (g+nfs)	17378	19261	20408	22934	24830	24409	28285	28081	27021	24873
Capacity to import	11265	14036	15175	15082	16962	17329	19192	21313	21536	23935
[Exports (g+nfs)]	11265	12238	13418	13009	13843	15450	16197		20411	22148
Total Expenditure	178434	211694	219190	233728	245688	254854	282996	313672	308325	307929
Consumption	142386	170848	177065	183746	195105	201530	222892	251346	234217	244876
General Gov't	16577	19954	21517	23976	26415	28709	30251	32101	32887	32909
Private	125809	150893	155548	159770	168691	172821	192641	219245	201329	211967
Investment	36048	40846	42125	49982	50583	53324	60104	62326	74109	63053
Fixed Investment	33290	37542	39002	41776	45606	50621	52756	55611	65328	63058
Change in Stocks	2758	3304	3123	8206	4977	2704	7348	6715	8781	-5
Domestic Savings	29935	35621	36891	42131	42716	46244	51011	55558	68624	62115
Net Factor Income	356	-1241	-1663	-1833	-2544	-2640	-3145	-3322	-3442	-3883
Current Transfers	2860	3054	2866	2606	2894	2883	2797	2268	1858	2754
National Savings	33151	37434	38093	42904	43066	46487	50662	54503	67040	60986
Foreign Savings	2897	3412	4031	7078	7516	6838	9442	7823	7069	2068
GDP per capita	254	283	287	296	304	312	337	347	360	357
Per capita private consumption	185	209	210	212	219	219	239	267	240	248
Dollar Deflators(1980/81=100):										
Imports(g+nfs)	100.0	88.1	87.1	84.7	80.4	93.6	94.9	99.5	108.8	97.5
Exports(g+nfs)	100.0	101.1	98.5	98.2	98.5	105.0	112.4		116.8	105.4
Terms of Trade Index	100.0	114.7	113.1	115.9	122.5	112.2	118.5		105.5	108.1
Exchange Rate Index (US$ per Rupee)	100.0	76.5	66.4	64.5	61.7	60.9	54.5	47.4	44.0	32.2

Table A2.2(a)
GROSS DOMESTIC PRODUCT AT FACTOR COST - BY INDUSTRY OF ORIGIN
(Rs. billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	466.49	674.98	719.50	772.26	826.13	923.79	1140.73	1270.49	1500.83	1743.37
Agriculture	424.66	613.18	651.81	699.64	744.05	835.15	1041.03	1154.47	1374.11	1608.60
Forestry & Logging	32.62	47.32	50.53	52.86	57.58	61.78	68.28	78.21	80.99	83.95
Fishing	9.21	14.48	17.16	19.74	22.50	26.86	31.42	37.81	45.73	50.82
Industry Sector	317.15	507.37	578.50	658.16	737.46	838.29	1008.80	1180.60	1360.92	1511.47
Mining & Quarrying	18.87	49.09	54.58	61.98	67.96	70.85	92.08	103.09	108.66	113.63
Manufacturing	216.44	330.45	372.43	417.75	461.66	528.65	636.70	752.34	878.24	962.47
Registered	122.81	203.08	233.52	258.06	282.54	322.07	398.57	465.17	543.14	603.33
Unregistered	93.63	127.37	138.91	159.69	179.12	206.58	238.13	287.17	335.10	359.14
Electricity,Gas &Water	20.70	33.62	40.52	48.94	55.67	62.68	73.25	87.10	102.70	122.06
Construction	61.14	94.21	110.97	129.47	152.17	176.11	206.77	238.07	271.32	313.31
Services Sector	440.63	684.88	787.33	907.61	1038.71	1186.43	1385.64	1607.18	1864.85	2164.04
Transport, Storage & Com.	57.24	102.81	118.73	140.98	165.37	199.38	238.72	277.84	338.67	411.85
Railways	11.24	24.17	24.74	31.36	37.65	43.56	47.51	55.75	64.33	72.27
Other Transport	36.80	63.68	77.24	91.00	105.10	124.68	152.29	178.55	222.95	280.38
Storage	1.22	1.83	2.12	2.60	2.80	3.17	3.34	3.71	4.15	4.50
Communication	7.98	13.13	14.63	16.02	19.82	27.97	35.58	39.83	47.24	54.70
Trade, Hotels etc.	147.13	229.90	266.90	310.50	345.51	384.33	452.22	512.53	587.91	662.87
Banking & Insurance	34.08	59.63	70.81	82.65	96.64	111.43	134.13	172.68	198.45	254.44
Real Estate etc.	73.83	96.28	105.14	116.17	126.45	136.13	148.43	164.46	191.81	201.03
Public Admin & Defence	57.94	92.38	108.36	125.11	149.33	179.48	208.58	241.33	269.25	306.91
Other Services	70.41	103.88	117.39	132.20	155.41	175.68	203.56	238.34	278.7'	326.94
GDP at Factor Cost	1224.27	1867.23	2085.33	2337.99	2600.30	2948.51	3535.17	4058.27	4726.60	5418.88

Note: 1990/91 and 1991/92 data are from Quick Estimates.

Sources: CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.

Table A2.2(b)
GROSS DOMESTIC PRODUCT AT FACTOR COST - BY INDUSTRY OF ORIGIN
(Rs. billion at 80/81 prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	466.49	540.80	540.61	542.18	532.81	534.79	622.14	632.63	662.92	653.78
Agriculture	426.66	497.53	497.02	498.55	489.95	492.58	579.40	585.68	614.26	603.49
Forestry & Logging	32.62	31.99	31.80	31.81	30.90	29.86	29.60	31.95	32.47	33.13
Fishing	9.21	11.28	11.79	11.82	11.96	12.35	13.34	15.00	16.19	17.16
Industry Sector	317.15	389.92	413.30	432.25	463.82	493.67	543.65	582.39	622.39	622.19
Mining & Quarrying	18.87	24.51	26.86	26.25	29.78	30.80	35.62	38.02	39.90	41.51
Manufacturing	216.44	273.77	291.53	303.20	324.65	348.18	383.44	410.63	441.31	431.31
Registered	122.81	166.29	180.31	184.53	195.21	209.02	236.05	251.09	269.74	267.28
Unregistered	93.63	107.48	111.22	118.67	129.26	139.16	147.39	159.54	171.57	164.03
Electricity,Gas &Water	20.70	25.88	28.63	30.99	34.22	36.92	40.80	44.84	47.92	51.73
Construction	61.14	65.76	68.28	71.83	75.37	77.77	83.79	88.90	93.26	97.64
Services Sector	440.63	517.93	550.42	591.23	636.08	674.76	723.84	780.01	812.60	847.19
Transport, Storage & Com.	57.24	66.92	73.02	79.51	84.83	92.27	98.04	106.85	111.85	120.23
Railways	11.24	12.43	12.67	14.04	15.14	15.76	15.60	16.23	16.77	17.78
Other Transport	36.80	43.48	48.35	53.09	56.51	62.61	67.92	75.22	78.70	85.03
Storage	1.22	1.40	1.53	1.63	1.70	1.69	1.64	1.71	1.81	1.85
Communication	7.98	9.61	10.47	10.75	11.48	12.21	12.88	13.69	14.57	15.57
Trade, Hotels etc.	147.13	174.17	181.73	196.49	208.52	218.01	233.85	243.10	257.45	261.55
Banking & Insurance	34.08	45.93	51.53	58.28	66.92	73.99	86.23	102.69	104.82	117.09
Real Estate etc.	73.83	82.66	85.61	88.80	92.24	94.72	97.92	101.35	105.03	109.59
Public Admin & Defence	57.94	67.75	74.46	80.16	88.07	97.04	103.42	112.14	112.55	112.90
Other Services	70.41	80.50	84.07	87.99	95.50	98.73	104.38	113.88	120.90	125.83
GDP at Factor Cost	1224.27	1448.65	1504.33	1565.66	1632.71	1703.22	1889.43	1995.03	2097.91	2123.16

Note: 1990/91 and 1991/92 data are from Quick Estimates.

Sources: CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.

Table A2.2(c)
IMPLICIT PRICE DEFLATORS FOR GDP AT FACTOR COST
(1980/81=100)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	100.00	124.81	133.09	162.43	154.68	172.74	183.36	200.83	226.40	266.66
Agriculture	100.00	123.24	131.14	140.33	151.86	169.55	179.67	197.12	223.70	266.55
Forestry & Logging	100.00	147.92	158.90	166.17	186.36	206.90	232.24	244.79	249.43	253.40
Fishing	100.00	128.37	165.55	167.01	188.13	217.49	235.53	252.07	282.46	296.15
Industry Sector	100.00	130.12	139.97	152.26	159.00	169.81	185.63	202.72	218.66	242.93
Mining & Quarrying	100.00	200.29	219.55	236.29	228.21	230.03	259.97	271.15	272.33	273.76
Manufacturing	100.00	120.70	127.75	137.78	142.29	151.83	166.05	183.22	199.01	223.15
Registered	100.00	122.12	129.51	139.85	144.76	154.09	168.85	185.26	201.36	225.73
Unregistered	100.00	118.51	124.90	134.57	138.59	148.45	161.56	180.00	195.31	218.95
Electricity,Gas &Water	100.00	129.91	141.53	157.92	162.68	169.77	179.53	194.25	214.32	235.96
Construction	100.00	143.26	162.52	180.25	201.90	226.45	246.77	267.80	290.93	320.88
Services Sector	100.00	132.23	143.04	153.51	163.30	175.83	191.43	206.05	229.49	255.44
Transport, Storage & Com.	100.00	153.63	162.60	177.31	194.94	216.08	243.49	260.03	302.79	342.55
Railways	100.00	194.45	195.26	223.36	248.68	276.40	304.55	343.50	383.60	406.47
Other Transport	100.00	146.46	159.75	171.41	185.98	199.14	224.22	237.37	283.29	329.74
Storage	100.00	130.71	138.56	159.51	164.71	187.57	203.66	216.96	229.28	243.24
Communication	100.00	136.63	139.73	149.02	172.65	229.07	276.24	290.94	324.23	351.32
Trade, Hotels etc.	100.00	132.00	146.87	158.02	165.70	176.29	193.38	210.83	228.36	253.44
Banking & Insurance	100.00	129.83	137.42	141.82	144.41	150.60	155.55	168.16	189.32	217.30
Real Estate etc.	100.00	116.48	122.81	130.82	137.09	143.72	151.58	162.27	182.62	183.44
Public Admin & Defence	100.00	136.35	145.53	156.08	169.56	184.95	201.68	215.20	239.23	271.84
Other Services	100.00	129.04	139.63	150.24	162.73	177.94	195.02	209.29	230.57	259.83
GDP at Factor Cost	100.00	128.89	138.62	149.33	159.26	173.11	187.10	203.42	225.30	255.23

Note: 1990/91 and 1991/92 data are from Quick Estimates.
Source: Derived from Tables 2.2(a) and 2.2(b).

Table A2.3
GROSS SAVINGS AND INVESTMENT
(Rs. billion)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
(At current prices)										
GROSS NATIONAL SAVINGS	261.66	399.60	446.15	556.10	598.81	670.55	795.08	929.04	1267.17	1614.77
Households	192.28	300.07	341.42	418.36	466.69	540.24	626.36	737.52	1067.33	1146.68
Private corporate sector	22.84	31.72	39.47	53.19	52.10	58.08	87.33	120.98	143.93	166.33
Public sector	46.54	67.81	65.26	84.57	80.02	72.23	81.39	70.54	55.91	101.76
Foreign Savings	22.87	31.01	41.73	73.36	77.27	82.98	129.72	129.67	137.99	49.43
GROSS DOMESTIC INVESTMENT	284.53	430.61	487.88	629.46	676.08	753.53	924.80	1058.71	1405.16	1466.20
Change in stocks	21.77	30.70	32.20	86.91	55.56	31.59	93.94	94.63	179.43	103.35
GROSS FIXED CAPITAL FORMATION	262.76	399.91	455.68	542.55	620.52	721.94	830.86	964.08	1225.73	1360.85
By Type of Asset:										
Construction	136.49	196.49	227.19	274.53	297.81	340.53	392.57	447.93	557.32	659.34
Machinery & Equipment	126.27	203.42	228.49	268.02	322.71	381.41	438.29	516.15	668.41	701.51
By Sector:										
Public sector	116.93	204.50	233.96	275.01	332.54	345.71	397.99	447.27	497.98	549.66
Private sector	145.83	195.41	221.72	267.54	287.98	376.23	432.87	516.81	727.75	811.19
GDPmp at current prices	1360.13	2075.89	2313.43	2622.43	2929.49	3332.01	3965.93	4539.86	5308.65	6086.72
(At 1980/81 prices)										
GROSS DOMESTIC INVESTMENT	284.53	322.40	332.49	394.51	399.25	420.89	474.40	491.94	584.94	497.68
Change in Stocks	21.77	26.08	24.65	64.77	39.28	21.34	58.00	53.00	69.31	-0.04
GROSS FIXED CAPITAL FORMATION	262.76	296.32	307.84	329.74	359.97	399.55	416.40	438.94	515.63	497.72
By Type of Asset:										
Construction	136.49	125.64	127.18	139.60	135.80	150.45	155.19	162.52	185.66	194.30
Machinery & Equipment	126.27	170.68	180.66	190.14	224.17	249.10	261.21	276.42	329.97	303.42
By Sector:										
Public sector	116.93	155.51	164.33	170.80	192.31	186.60	194.90	200.42	203.91	198.72
Private sector	145.83	140.81	143.51	158.94	167.66	212.95	221.50	238.52	311.72	299.00

Sources: CSO, National Accounts Statistics 1992.

Table A2.6
DISPOSABLE INCOME AND ITS USES
(Rs. billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GDPmp	1360.1	2075.9	2313.4	2622.4	2929.3	3332.0	3965.9	4539.9	5308.7	6086.7
Net Factor Income from abroad	2.8	-11.3	-17.2	-19.0	-26.1	-32.0	-43.2	-55.1	-67.2	-101.0
Other current transfers	22.6	27.7	29.7	27.0	29.8	33.0	38.4	37.6	35.9	65.8
Disposable income	1385.5	2092.6	2325.9	2630.4	2933.1	3333.0	3961.1	4522.4	5277.4	6051.6
Private disposable income	1208.1	1813.1	2017.1	2254.1	2506.8	2852.3	3406.3	3908.7	4606.1	5254.4
Public disposable income	177.4	279.2	308.8	376.3	426.3	480.7	554.9	613.7	671.3	797.2
Gross National Savings	261.7	399.6	446.1	556.1	598.8	670.5	795.1	927.3	1246.2	1378.9
Private savings	215.1	331.8	380.9	471.5	518.8	598.3	713.7	856.7	1190.3	1277.2
Public savings	46.5	67.8	65.3	84.6	80.0	72.2	81.4	70.5	55.9	101.8
Final Consumption	1123.8	1692.8	1879.7	2076.3	2334.3	2664.4	3166.1	3595.1	4031.2	4672.6
Private Consumption	993.0	1481.4	1636.2	1782.6	1988.0	2256.0	2692.6	3051.9	3415.8	3977.2
Public Consumption	130.8	211.4	243.5	291.7	346.3	408.4	473.5	543.2	615.4	695.5

Note: 1990/91 and 1991/92 data are from Quick Estimates.

Sources: (1) CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.
(2) World Bank Estimates.

Table A2.5(a)
GROSS DOMESTIC INVESTMENT BY INDUSTRY OF ORIGIN
(Rs. billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	48.6	60.6	70.1	73.8	77.4	91.9	99.8	110.1	129.5	145.2
Agriculture	46.4	56.2	64.8	70.1	70.5	84.0	90.6	100.0	116.9	131.4
Forestry & Logging	1.0	1.9	2.2	2.0	2.4	2.6	3.0	3.1	4.6	4.4
Fishing	1.3	2.6	3.1	3.7	4.5	5.4	6.3	7.1	8.1	9.4
Industry Sector	96.7	188.9	207.1	261.5	291.1	336.3	419.2	481.1	557.2	565.4
Mining & Quarrying	9.6	29.3	29.3	40.2	45.1	43.4	47.3	62.6	70.6	73.5
Manufacturing	48.4	101.9	111.5	138.5	141.0	175.7	247.0	273.4	319.6	305.2
Registered	29.2	73.6	80.7	99.1	95.4	124.2	183.5	198.5	225.0	211.4
Unregistered	19.2	28.4	30.8	39.4	45.5	51.6	63.5	74.9	94.6	93.9
Electricity,Gas &Water	31.7	50.6	55.5	70.5	95.0	104.7	113.2	130.0	140.8	158.7
Construction	7.0	7.1	10.7	12.3	10.1	12.4	11.8	15.0	26.3	28.0
Services Sector	112.6	168.6	198.9	269.4	289.2	271.6	359.9	400.5	510.5	536.8
Transport, Storage & Com.	29.1	45.1	57.1	61.7	78.8	80.5	105.6	126.9	146.2	157.7
Railways	8.1	11.9	14.0	16.7	22.9	21.5	26.4	26.4	31.4	31.9
Other Transport	17.5	25.9	34.3	35.5	44.6	43.9	57.3	72.5	84.8	91.6
Storage	0.2	0.6	0.5	0.6	0.7	0.8	0.5	0.7	0.8	0.9
Communication	3.2	6.8	8.3	9.0	10.6	14.3	21.4	27.3	29.1	33.4
Trade, Hotels etc.	23.3	30.7	27.5	71.5	49.7	16.7	49.4	54.9	102.5	75.6
Banking & Insurance	1.7	3.6	5.4	5.5	8.7	14.8	20.6	24.5	27.4	35.4
Real Estate etc.	31.4	48.6	59.8	68.8	80.9	90.1	101.6	110.6	129.6	151.6
Public Admin & Defence	21.6	32.2	39.0	48.0	55.1	55.1	62.2	60.0	75.5	84.9
Other Services	5.5	8.4	10.2	14.0	16.1	16.4	20.6	23.5	29.4	31.7
Gross Domestic Investment	257.9	418.1	476.0	606.7	657.7	699.8	878.9	991.7	1197.3	1247.5
Memo Items										
Gross Domestic Investment (a)	308.8	414.9	454.1	580.3	612.1	759.7	937.3	1111.9	1397.9	1554.1
Errors & Omissions	24.3	-15.7	-33.8	-49.1	-64.0	6.2	12.5	53.2	-7.2	89.9
Gross Domestic Investment (unadjusted) (b)	284.5	430.6	487.9	629.5	676.1	753.5	924.8	1058.7	1405.2	1464.2

Note: 1990/91 and 1991/92 data are from Quick Estimates.

(a) Refers to CSO's savings-based estimate of investment.
(b) Refers to Gross Capital Formation unadjusted for errors and omissions, which is CSO's direct estimate of investment based on physical flows.

Sources: CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.

Table A2.5(b)
GROSS DOMESTIC INVESTMENT BY INDUSTRY OF ORIGIN
(Rs. billion at 80/81 prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	48.6	46.1	48.9	46.6	43.6	47.8	47.3	47.4	51.2	50.5
Agriculture	46.4	41.0	45.5	43.2	40.1	44.2	43.5	43.3	46.4	45.8
Forestry & Logging	1.0	1.4	1.5	1.2	1.3	1.2	1.3	1.2	1.6	1.3
Fishing	1.3	1.7	1.8	2.0	2.2	2.4	2.6	2.9	3.1	3.4
Industry Sector	96.7	146.6	149.6	171.1	177.6	197.0	210.6	235.3	230.3	191.5
Mining & Quarrying	9.6	23.1	21.7	26.5	27.7	25.5	25.2	30.5	28.1	25.1
Manufacturing	48.4	78.1	80.0	90.8	85.9	104.5	121.6	136.1	131.0	99.4
Registered	29.2	57.9	59.9	66.9	60.5	77.9	90.6	102.9	96.1	72.2
Unregistered	19.2	20.1	20.1	23.9	25.6	26.7	31.0	33.1	34.9	27.2
Electricity,Gas &Water	31.7	39.4	39.9	45.6	57.1	59.1	56.7	60.8	58.9	55.8
Construction	7.0	6.0	8.0	8.4	6.9	7.8	7.1	8.0	12.3	11.3
Services Sector	112.6	122.5	131.8	165.1	160.4	135.0	183.1	172.5	206.2	174.6
Transport, Storage & Com.	29.1	35.9	42.6	39.7	48.5	45.7	53.4	58.1	60.2	60.1
Railways	8.1	8.3	8.8	9.1	12.4	10.1	11.1	9.8	10.6	9.6
Other Transport	17.5	22.1	27.6	24.6	29.6	27.4	31.6	35.9	37.6	38.6
Storage	0.2	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.3
Communication	3.2	5.2	6.0	5.7	6.1	7.9	10.5	12.1	11.7	11.6
Trade, Hotels etc.	23.3	24.4	19.8	52.0	32.5	8.2	42.0	27.9	51.0	17.2
Banking & Insurance	1.7	2.7	3.7	3.4	5.2	8.8	11.0	11.8	11.7	13.5
Real Estate etc.	31.4	30.1	33.0	34.4	35.9	36.6	38.6	39.5	43.8	45.1
Public Admin & Defence	21.6	23.6	26.3	28.1	29.9	27.5	28.7	25.4	28.2	28.2
Other Services	5.5	5.9	6.5	7.5	8.4	8.3	9.5	9.9	11.3	10.6
Gross Domestic Investment	257.9	313.2	330.3	382.6	381.6	379.8	441.0	455.1	487.7	416.6
Memo Items										
Gross Domestic Investment (a)	308.8	310.7	309.6	364.7	362.1	424.3	480.7	516.2	581.9	530.5
Errors & Omissions	24.3	-11.7	-22.9	-29.9	-37.1	3.4	6.3	24.2	-3.0	32.9
Gross Domestic Investment (unadjusted) (b)	284.5	322.4	332.5	394.5	399.3	420.9	474.4	491.9	584.9	497.7

Note: 1990/91 and 1991/92 data are from Quick Estimates.

(a) Refers to CSO's savings-based estimate of investment.
(b) Refers to Gross Capital Formation unadjusted for errors and omissions, which is CSO's direct estimate of investment based on physical flows.

Sources: CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.

Table A2.5(c)
INVESTMENT DEFLATORS BY INDUSTRY OF USE
(1980/81=100)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Agricultural Sector	100.0	137.6	143.3	163.4	177.5	192.1	210.8	232.3	253.1	287.4
Agriculture	100.0	137.1	142.3	162.2	175.6	190.0	208.4	230.6	251.7	287.0
Forestry & Logging	100.0	130.3	144.2	168.9	189.6	207.3	233.1	258.0	285.8	334.4
Fishing	100.0	152.7	168.9	185.0	203.4	223.3	239.8	246.5	256.4	275.7
Industry Sector	100.0	128.9	138.4	152.8	163.9	170.7	199.1	204.5	242.0	295.2
Mining & Quarrying	100.0	126.5	135.0	151.4	162.7	170.3	187.4	205.6	250.8	292.9
Manufacturing	100.0	130.5	139.4	152.6	164.1	168.1	203.2	201.0	244.0	307.1
Registered	100.0	127.0	134.8	148.2	157.8	159.5	202.6	192.9	234.1	292.9
Unregistered	100.0	140.8	153.3	165.0	179.1	193.2	204.9	226.1	271.4	345.1
Electricity,Gas &Water	100.0	128.5	139.0	155.2	166.3	177.1	199.6	214.0	239.0	284.5
Construction	100.0	119.0	134.5	146.4	145.8	158.7	165.4	188.0	213.7	248.1
Services Sector	100.0	137.6	150.9	163.2	180.3	201.3	196.6	232.2	247.5	307.5
Transport, Storage & Com.	100.0	125.6	134.0	155.5	162.6	176.4	197.8	218.5	242.7	262.4
Railways	100.0	142.8	159.2	182.2	184.5	214.2	237.4	269.0	297.8	330.6
Other Transport	100.0	117.5	124.4	144.2	150.7	160.4	181.4	201.9	225.3	237.4
Storage	100.0	154.1	165.5	190.3	202.8	232.4	270.0	257.7	276.7	310.7
Communication	100.0	130.3	139.9	159.6	173.4	181.1	204.2	226.0	248.3	287.3
Trade, Hotels etc.	100.0	125.7	139.0	137.3	152.8	179.1	117.4	196.8	200.8	440.6
Banking & Insurance	100.0	134.8	143.8	160.4	166.0	168.4	187.3	208.1	235.0	263.0
Real Estate etc.	100.0	161.6	181.5	200.2	225.3	246.3	263.5	280.0	295.7	336.2
Public Admin & Defence	100.0	136.6	148.3	170.4	184.4	200.7	217.1	236.6	267.3	301.2
Other Services	100.0	143.6	157.9	188.5	191.7	198.5	217.7	238.5	260.8	299.3
Gross Domestic Investment	100.0	135.5	146.1	158.6	172.4	184.3	199.3	217.9	245.5	299.4
Memo Items										
Gross Domestic Investment (a)	100.0	133.5	146.6	159.1	169.0	179.0	195.0	215.4	240.2	292.9
Gross Domestic Investment (unadjusted) (b)	100.0	133.6	146.7	159.6	169.3	179.0	194.9	215.2	240.2	294.2

Note: 1990/91 and 1991/92 data are from Quick Estimates.

(a) Refers to CSO's savings-based estimate of investment.
(b) Refers to Gross Capital Formation unadjusted for errors and omissions, which is CSO's direct estimate of investment based on physical flows.

Sources: CSO, National Accounts Statistics 1992 and Quick Estimates dated January 15, 1993.

Table A2.6 (a)

GROSS DOMESTIC INVESTMENT IN PUBLIC SECTOR

(Rs. billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Agricultural Sector	18.92	24.24	26.79	28.11	29.01	33.11	34.45	33.47	n.a.
Agriculture	17.96	22.46	24.63	26.16	26.71	30.63	31.64	30.54	n.a.
Forestry & Logging	0.95	1.76	2.12	1.92	2.24	2.44	2.79	2.91	n.a.
Fishing	0.01	0.02	0.04	0.03	0.06	0.04	0.02	0.02	n.a.
Industry Sector	53.27	106.98	127.21	163.90	182.94	195.56	207.02	239.78	n.a.
Mining & Quarrying	9.14	28.20	28.65	38.80	42.61	42.23	47.00	62.23	n.a.
Manufacturing	11.70	31.36	43.20	55.62	50.76	51.27	54.27	55.92	n.a.
Electricity,Gas &Water	29.51	67.59	52.78	67.12	89.45	99.72	105.85	120.78	n.a.
Construction	2.92	-0.17	2.58	2.36	0.14	2.34	-0.10	0.85	n.a.
Services Sector	45.48	72.59	93.15	98.55	124.79	104.85	152.80	188.31	n.a.
Transport, Storage & Com.	18.19	25.61	33.50	33.93	50.82	46.34	60.85	74.86	n.a.
Railways	8.14	11.85	14.04	16.65	22.90	21.53	26.37	26.44	31.59
Other Transport	6.67	6.66	10.71	7.84	16.79	10.03	12.85	20.81	n.a.
Storage	0.17	0.33	0.41	0.42	0.55	0.47	0.23	0.35	n.a.
Communication	3.21	6.77	8.34	9.02	10.58	14.31	21.40	27.26	28.70
Trade, Hotels etc.	-0.30	4.22	10.29	0.48	-1.71	-22.32	-4.10	16.08	n.a.
Banking & Insurance	1.10	2.06	2.84	3.15	4.93	9.30	14.67	16.78	n.a.
Real Estate etc.	1.70	3.60	3.78	5.08	6.51	6.70	7.57	7.80	n.a.
Public Admin & Defence	21.62	32.23	38.95	47.95	55.06	55.12	62.24	59.98	72.81
Other Services	3.17	4.87	5.79	7.96	9.18	9.51	11.57	12.81	n.a.
Gross Domestic Investment	117.67	203.81	249.15	290.56	336.74	333.52	394.27	461.56	557.21

Sources: CSO, National Accounts Statistics 1992.

Table A2.6(b)
GROSS DOMESTIC INVESTMENT IN PUBLIC SECTOR
(Rs. billion at 1980/81 prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Agricultural Sector	18.92	18.43	18.22	16.31	15.58	15.80	14.85	12.83	n.a.
Agriculture	17.98	17.07	16.73	15.16	14.38	14.61	13.64	11.69	n.a.
Forestry & Logging	0.93	1.34	1.47	1.13	1.18	1.17	1.20	1.13	n.a.
Fishing	0.01	0.02	0.02	0.02	0.06	0.02	0.01	0.01	n.a.
Industry Sector	53.27	83.36	92.66	103.31	111.07	112.90	107.67	113.52	n.a.
Mining & Quarrying	9.16	22.32	21.23	25.64	26.17	24.77	24.52	29.71	n.a.
Manufacturing	11.70	23.88	31.76	33.14	30.89	30.69	30.18	27.08	n.a.
Electricity,Gas &Water	29.51	37.03	37.97	43.15	53.67	56.18	52.77	56.21	n.a.
Construction	2.92	0.11	1.70	1.38	0.34	1.26	0.20	0.52	n.a.
Services Sector	45.48	53.23	65.00	57.56	69.27	50.88	70.94	82.60	n.a.
Transport, Storage & Com.	18.19	19.12	23.31	20.19	29.79	24.29	28.57	32.20	n.a.
Railways	8.14	8.30	8.82	9.16	12.41	10.05	11.11	9.83	10.51
Other Transport	6.67	5.42	8.28	5.18	11.00	6.14	6.91	10.17	n.a.
Storage	0.17	0.21	0.25	0.22	0.28	0.20	0.07	0.14	n.a.
Communication	3.21	5.19	5.96	5.65	6.10	7.90	10.48	12.06	11.62
Trade, Hotels etc.	-0.30	3.34	7.68	0.11	-1.39	-14.26	-2.56	8.74	n.a.
Banking & Insurance	1.10	1.51	1.93	1.94	3.02	5.71	7.92	8.08	n.a.
Real Estate etc.	1.70	2.23	2.09	2.56	2.99	2.82	2.96	2.82	n.a.
Public Admin & Defence	21.62	23.59	26.27	28.16	29.86	27.47	28.67	25.35	28.18
Other Services	3.17	3.44	3.70	6.60	5.00	4.85	5.38	5.41	n.a.
Gross Domestic Investment	117.67	155.02	175.88	182.16	195.86	179.58	193.46	208.95	216.13

Sources: CSO, National Accounts Statistics 1992.

Table A3.1:
INDIA: Balance of Payments, 1980/81-1991/92 /a/
(US$ Million at current prices)

	1980/81	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Exports of Goods and Non-Factor Services	11265	13216	12773	13637	16217	18213	21201	23425	23337
Merchandise (fob) /b/	8316	9769	9463	10420	12646	14257	16955	18491	18135
Non-factor Services	2949	3447	3310	3217	3571	3956	4246	4934	5202
Imports of Goods and Non-Factor Services	17378	17774	19422	19962	22843	26843	27934	29390	24252
Merchandise (cif) /b/	15862	15424	17298	17740	19816	23618	24411	25241	19726
Non-factor Services	1516	2350	2124	2222	3027	3225	3523	4149	4526
Trade Balance	-7546	-5655	-7835	-7320	-7170	-9361	-7456	-6750	-1591
Nonfactor Services Balance	1433	1097	1186	995	544	731	723	785	676
Resource Balance	-6113	-4558	-6649	-6325	-6626	-8630	-6733	-5965	-915
Net Factor Income	356	-1449	-1552	-2045	-2471	-2985	-3305	-3744	-3786
Factor Service Receipts	1083	493	547	501	446	397	395	257	157
Factor Service Payments /c/	727	1942	2099	2546	2917	3382	3700	4001	3943
Net Current Transfers	2860	2496	2207	2327	2698	2654	2256	2021	2685
Transfer Receipts	2874	2509	2219	2339	2724	2670	2271	2037	2701
Transfer Payments	14	13	12	12	26	16	15	16	16
Current Account Balance	-2897	-3511	-5994	-6043	-6399	-8961	-7782	-7688	-2016
Foreign Direct Investment	8	62	160	208	181	287	350	112	200
Official Grant Aid	643	453	359	403	410	406	500	476	451
Net Medium & Long-Term Capital /d/	1401	2465	2534	2919	3939	4351	3910	2765	4895
Gross Disbursements	2157	3557	3843	5210	5832	6299	5892	5169	7468
Principal Repayments	756	1091	1309	2291	1893	1948	1982	2405	2573
Other LT Inflows (NRI)	339	814	1579	1825	1992	2650	2244	786	-1622
Capital Flows NEI	-854	-87	2174	1407	620	1044	937	565	695
Net Short-Term Capital	228	220	273	168	222	253	917	111	-1609
Others /e/	-200	273	474	-102	-731	141	167	-1000	-1228
Capital flows n.e.i. /f/	-882	-580	1427	1341	1129	650	-147	1454	3532
Overall Balance	-1360	196	812	720	744	-222	158	-2985	2604
Net IMF Credit	1014	67	-264	-648	-1082	-1210	-1008	1214	780
Change in Reserves (Excl. Gold) (- = increase)	346	-263	-548	-72	338	1432	850	1771	-3384
Memorandum Items:									
End of Year Gross Reserves (Excl. Gold)	6858	6110	6657	6729	6391	4959	4109	2338	5722
Reserves in Months of Imports	5.2	4.8	4.6	4.6	3.9	2.5	2.0	1.1	3.5
Current Account Deficit / GDP	1.7%	1.8%	2.8%	2.6%	2.5%	3.3%	2.9%	2.6%	0.8%
Debt Service Ratio /g/	9.2%	18.2%	22.7%	32.0%	29.4%	29.6%	27.2%	27.0%	25.8%

/a/ BOP based on revised treatment of non-custom imports as adopted by GOI from 1990/91 onwards.
/b/ Net of crude petroleum exports.
/c/ Includes interest on non-resident deposits and IMF service charges.
/d/ Excluding non-resident deposits, shown below under Other LT Inflows (NRI).
/e/ Corresponds to bilateral balance from 1990/91 onwards.
/f/ Residual item including short-term capital, reserve valuation changes, rupee trade imbalance, etc.
/g/ As proportion of gross current receipts.

Table A3.2 (a)
INDIA: Merchandise Exports, 1980/81 - 1991/92
(US$ Million at current prices)

	1980/81	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Primary Exports	3399	3152	3279	3287	3254	3852	4354	4189
Fish	275	334	421	411	435	412	535	588
Rice	284	160	154	241	229	256	257	308
Cashews	177	184	256	243	191	221	249	276
Coffee	271	217	232	202	203	208	140	135
Tea	540	511	451	463	421	550	596	494
Spices	141	227	218	260	190	166	130	152
Iron Ore	384	473	428	427	465	557	584	585
Other Primary	1327	1046	1118	1020	1121	1480	1862	1650
Manufactured Exports	5106	5639	6457	8797	10693	12729	13781	13773
Chemicals	298	407	456	618	890	1286	1417	1601
Leather Manufactures	494	629	721	964	1051	1170	1448	1276
Textiles	1057	860	994	1407	1312	1603	2266	2164
Garments	697	872	1041	1403	1432	1936	2235	2211
Gems & Jewellery	783	1228	1622	2015	3033	3179	2923	2753
Engineering Goods	1048	779	886	1141	1558	1974	2160	2246
Petroleum Products	32	417	321	500	349	418	522	417
Other Manufactures /a/	697	447	416	750	1049	1162	809	1105
TOTAL EXPORTS (Commerce) /b/	8506	8791	9736	12085	13948	16581	18136	17962
Statistical Discrepancy	-189	672	684	561	310	375	355	173
TOTAL EXPORTS (B.O.P.) /b/	8316	9463	10420	12646	14257	16955	18491	18135

/a/ Including unclassified exports
/b/ Net of crude petroleum exports
Commerce figures for 1989/90 are provisional

Sources: 1. Ministry of Commerce (D.G.C.I.S)
2. Reserve Bank of India
3. Economic Survey
4. World Bank Staff Estimates

Table A3.2 (b)
INDIA: Merchandise Exports, 1980/81 - 1991/92
(US$ Million at 80/81 prices)

	1980/81	1985/86	1986/87	1987/88	1988/89	1990/91	1991/92
Primary Exports	3399	3078	3184	3099	3220	4499	4368
Fish	273	323	357	354	386	480	571
Rice	204	96	97	152	137	197	265
Cashews	177	204	236	229	202	305	288
Coffee	271	293	231	317	291	339	343
Tea	560	471	418	479	451	463	503
Spices	141	153	138	116	122	110	115
Iron Ore	384	497	468	461	561	530	490
Other Primary	1327	1037	1239	994	1090	2075	1795
Manufactured Exports	5106	5875	6698	8414	9184	11303	12678
Chemicals	298	377	463	542	867	1585	2157
Leather Manufactures	494	781	770	899	958	980	957
Textiles	1057	669	757	1074	915	1329	1873
Garments	697	837	917	1142	1137	1641	1759
Gems & Jewellery	783	1021	1419	1602	2092	n.a.	n.a.
Engineering Goods	1048	952	978	1391	1728	2470	2514
Petroleum Products	32	535	645	986	694	917	980
Other Manufactures /a/	697	704	749	777	823	n.a.	n.a.
TOTAL EXPORTS (Commerce) /b/	8506	8954	9883	11513	12403	15802	17046
Statistical Discrepancy	-189	684	695	535	275	309	165
TOTAL EXPORTS (B.O.P.) /b/	8316	9638	10577	12048	12679	16112	17211

/a/ Including unclassified exports
/b/ Net of crude petroleum exports
Quantum Indices are not available for 1989/90

Sources: 1. Ministry of Commerce (D.G.C.I.S)
2. Reserve Bank of India
3. Economic Survey
4. World Bank Staff Estimates

Table A3.2 (e)
INDIA: Export Unit Value Indices, 1980/81 - 1991/92
(US$ Terms: 80/81 = 100)

	1980/81	1985/86	1986/87	1987/88	1988/89	1990/91	1991/92
Primary Exports	100.0	102.4	103.0	104.1	101.1	96.8	95.9
Fish	100.0	102.9	110.1	116.1	112.7	111.5	103.1
Rice	100.0	167.3	159.0	172.1	167.4	130.5	116.3
Cashews	100.0	90.2	103.6	106.3	94.5	81.7	95.8
Coffee	100.0	73.6	100.4	63.7	69.7	41.6	39.5
Tea	100.0	103.6	107.9	94.7	93.3	128.8	98.2
Spices	100.0	148.1	158.2	228.0	195.2	118.8	131.5
Iron Ore	100.0	95.1	91.6	92.7	85.9	110.2	119.4
Other Primary	100.0	100.8	90.3	102.6	102.9	89.7	92.0
Manufactured Exports	100.0	96.0	96.4	106.6	116.4	121.9	108.6
Chemicals	100.0	107.9	98.4	115.9	105.0	89.6	74.2
Leather Manufactures	100.0	80.6	93.6	107.2	109.8	147.9	133.4
Textiles	100.0	128.7	131.4	131.0	143.6	170.5	115.5
Garments	100.0	106.2	113.5	122.9	127.7	136.2	125.7
Gems & Jewellery	100.0	120.3	114.3	125.7	145.7	n.a.	n.a.
Engineering Goods	100.0	81.8	90.6	82.0	90.1	87.4	89.4
Petroleum Products	100.0	77.9	69.8	50.8	50.3	57.0	42.5
Other Manufactures /a/	100.0	63.5	95.6	96.4	127.4	n.a.	n.a.
TOTAL EXPORTS (Commerce) /b/	100.0	98.2	98.5	105.0	112.4	114.8	105.4
Statistical Discrepancy	100.0	98.2	98.5	105.0	112.6	114.8	105.4
TOTAL EXPORTS (B.O.P.) /b/	100.0	98.2	98.5	105.0	112.4	114.8	105.4

/a/ Including unclassified exports
/b/ Net of crude petroleum exports.
Quantum Indices are not available for 1989/90

Sources: 1. Ministry of Commerce (D.G.C.I.S)
2. Reserve Bank of India
3. Economic Survey
4. World Bank Staff Estimates

Table A3.3 (a)
INDIA: Merchandise Imports, 1980/81 - 1991/92
(US$ million at current prices)

	1980/81	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Food	1348	1321	1068	1292	1203	714	690	426
Foodgrains	127	90	37	25	437	227	102	71
Edible Oils	865	600	479	709	503	127	181	101
Others	356	631	552	557	263	361	407	254
Other Consumer Goods	378	452	596	600	700	800	851	637
P.O.L	6669	4054	2187	3148	2938	3766	6028	5365
Crude Petroleum /b/	4243	3013	1672	2395	1891	2455	3422	3218
Petroleum Products	2426	1041	515	753	1047	1311	2606	2147
Capital Goods /a/	2416	3503	5073	5064	4803	5304	5833	4233
Intermediate: PRIMARY	1277	2156	2474	2997	3800	4488	4653	3821
Fertilizer Raw Material	210	313	218	243	301	329	348	311
Gems	528	899	1170	1538	1984	2546	2082	1968
Other	539	944	1087	1217	1515	1613	2223	1542
Intermediate: MANUFACTURES	3782	4471	4316	4054	6053	6200	6017	4929
Fertilizer Manufactures	826	860	387	132	341	737	636	649
Iron & Steel	1080	1140	1134	982	1341	1383	1177	803
Non-Ferrous Metals	605	443	324	444	544	752	614	342
Others	1271	2028	2470	2496	3827	3328	3590	3135
TOTAL IMPORTS (Commerce) /b/	15869	15957	15712	17156	19497	21272	24072	19411
Statistical Discrepancy	-7	1341	2028	2660	4121	3139	1169	315
TOTAL IMPORTS /b/ /c/	15862	17298	17740	19816	23618	24411	25241	19726

/a/ Includes project goods
/b/ Net of crude oil exports
/c/ From 1990/91 onwards total imports are based on a revised treatment of non-custom imports (reflected in statistical discrepancy) as adopted by GOI.

Sources: 1. Ministry of Commerce, D.G.C.I.S.
2. Reserve Bank of India
3. World Bank Staff Estimates

Table A3.3 (b)
INDIA: Merchandise Imports, 1980/81 - 1991/92
(US$ Million at 80/81 prices)

	1980/81	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Food	1348	1456	1527	1710	1968	865	835	458
Foodgrains	127	113	56	35	1021	310	126	77
Edible Oils	865	566	770	980	539	160	287	124
Others	356	777	701	695	409	395	422	257
Other Consumer Goods	378	471	567	513	555	643	647	475
P.O.L	6669	5113	5065	5959	6748	7281	8284	9428
Crude Petroleum /b/	4243	3828	4053	4646	4665	5105	5422	6283
Petroleum Products	2426	1285	1012	1314	2083	2176	2862	3145
Capital Goods /a/	2416	3875	4703	4203	3706	4140	4310	3071
Intermediate: PRIMARY	1277	2461	3038	2419	2841	3363	3306	2651
Fertilizer Raw Material	210	140	197	161	178	157	166	141
Gems	528	977	1127	1262	1511	1965	1521	1409
Other	539	1344	1714	996	1151	1242	1619	1101
Intermediate: MANUFACTURES	3782	5468	4644	3529	4726	5092	4750	3825
Fertilizer Manufactures	826	1163	813	320	472	876	764	771
Iron & Steel	1080	1319	1110	874	1275	1162	936	626
Non-Ferrous Metals	605	642	481	540	553	775	599	327
Others	1271	2344	2240	1795	2426	2279	2451	2101
TOTAL IMPORTS (Commerce) /b/	15869	18842	19543	18332	20544	21384	22132	19908
Statistical Discrepancy	-7	1583	2522	2842	4342	3155	1075	323
TOTAL IMPORTS /b/ /c/	15862	20426	22066	21175	24887	24539	23206	20231

/a/ Includes project goods
/b/ Net of crude oil imports
/c/ From 1990/91 onwards total imports are based on a revised treatment of non-custom imports (reflected in statistical discrepancy) as adopted by GOI.

Sources: 1. Ministry of Commerce, D.G.C.I.S.
2. Reserve Bank of India.
3. World Bank Staff Estimates.

Table A3.3 (c)
INDIA: Import Unit Value Indices, 1980/81 - 1991/92
(US$ Terms: 80/81 = 100)

	1980/81	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Food	100.0	90.8	78.0	75.5	61.1	82.6	82.6	93.0
Foodgrains	100.0	79.6	66.1	72.0	42.8	73.1	81.0	92.2
Edible Oils	100.0	106.6	62.2	72.6	93.6	79.3	63.1	81.5
Others	100.0	81.1	78.8	80.2	64.5	91.6	96.4	98.8
Other Consumer Goods	100.0	95.9	104.8	117.1	126.1	126.5	131.5	134.1
P.O.L /b/	100.0	79.3	43.2	52.8	43.5	51.7	72.8	56.9
Crude Petroleum	100.0	78.7	41.2	51.6	40.5	48.1	63.1	51.2
Petroleum Products	100.0	81.0	50.9	57.3	50.3	60.2	91.1	68.3
Capital Goods /a/	100.0	90.4	107.9	120.5	129.6	128.1	135.3	137.8
Intermediate: PRIMARY	100.0	87.6	81.5	123.9	133.8	133.4	140.7	144.1
Fertilizer Raw Material	100.0	223.6	110.5	150.7	168.7	209.6	209.6	220.6
Gems	100.0	92.0	108.8	121.9	131.3	129.6	136.9	139.7
Other	100.0	70.2	63.6	122.2	131.6	129.9	137.3	140.1
Intermediate: MANUFACTURES	100.0	81.8	92.9	114.9	128.1	121.8	126.7	128.9
Fertilizer Manufactures	100.0	73.9	47.6	41.3	72.3	84.2	83.2	84.2
Iron & Steel	100.0	86.6	102.1	112.3	105.2	119.0	125.7	128.3
Non-Ferrous Metals	100.0	69.0	67.5	82.3	98.3	97.0	102.5	104.6
Others	100.0	86.5	110.3	139.1	157.8	146.0	146.5	149.2
TOTAL IMPORTS (Commerce) /b/	100.0	84.7	80.4	93.6	94.9	99.5	108.8	97.5
Statistical Discrepancy	100.0	84.7	80.4	93.6	94.9	99.5	108.8	97.5
TOTAL IMPORTS /b/ /c/	100.0	84.7	80.4	93.6	94.9	99.5	108.8	97.5

/a/ Includes project goods
/b/ Net of crude oil exports
/c/ From 1990/91 onwards total imports are based on a revised treatment of non-custom imports (reflected in statistical discrepancy) as adopted by GOI.

Sources: 1. Ministry of Commerce, D.G.C.I.S.
2. Reserve Bank of India.
4. World Bank Staff Estimates.

Table A3.4
Destination of Exports
(% distribution)

	70/71	75/76	80/81	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Africa	8.37	5.65	5.22	2.99	2.69	2.23	1.93	1.89	1.88	2.05	2.18
America	15.98	14.47	12.54	18.86	19.76	20.07	19.81	19.90	17.45	16.00	17.98
USA	13.51	12.88	11.08	17.35	18.36	18.72	18.55	18.38	16.16	14.76	16.35
Canada	1.82	1.13	0.93	1.29	1.23	1.10	1.05	0.97	0.95	0.86	1.06
Latin America & Carribean	0.66	0.45	0.54	0.20	0.17	0.25	0.21	0.54	0.34	0.41	0.57
Asia and Oceania	32.09	38.62	34.78	31.69	30.47	30.65	29.37	31.72	30.84	30.28	32.50
(a) OPEC	6.42	15.26	11.10	9.27	7.76	6.21	6.11	5.88	6.65	5.62	8.74
Of which:											
Iran	1.76	6.76	1.84	1.32	0.88	0.38	0.88	0.44	0.48	0.43	0.69
Iraq	0.63	1.58	0.77	0.48	0.32	0.15	0.11	0.26	0.46	0.14	0.00
Saudi Arabia	0.95	1.49	2.46	2.67	2.06	1.72	1.77	1.59	1.55	1.29	1.97
Kuwait	1.03	1.17	1.45	1.05	1.13	0.76	0.67	0.71	0.72	0.23	0.29
(b) Other Asia and Oceania	25.67	23.35	23.68	22.42	22.71	24.43	23.26	25.84	24.19	24.65	23.75
Japan	13.25	10.72	8.91	10.11	10.82	10.71	10.26	10.62	9.85	9.34	9.24
Australia	1.59	1.19	1.37	1.36	1.14	1.17	1.14	1.31	1.21	0.99	1.13
Others	10.82	11.44	13.41	10.95	10.74	12.55	11.85	13.91	13.13	14.33	13.38
Eastern Europe	21.04	16.32	22.15	22.02	21.32	19.19	16.48	16.55	19.28	17.88	10.93
USSR	13.67	10.32	18.27	18.46	18.64	14.99	12.47	12.86	16.12	16.14	9.18
Others	7.37	6.00	3.87	3.56	2.68	4.20	4.01	3.68	3.15	1.73	1.75
Western Europe	18.39	21.55	21.57	19.67	17.92	21.97	24.99	24.29	24.95	27.50	27.02
of which:											
Belgium	1.32	1.13	2.15	1.90	2.09	2.75	3.08	4.37	4.37	3.87	3.73
France	1.17	2.14	2.19	1.88	1.88	2.18	2.41	2.11	2.30	2.35	2.38
West Germany	2.10	2.92	5.73	4.79	4.77	5.89	6.73	6.09	6.42	7.83	7.11
Netherlands	0.91	2.04	2.27	1.91	1.47	1.81	1.77	1.98	1.91	1.98	2.09
U.K.	11.10	10.44	5.88	6.02	4.87	5.62	6.45	5.69	5.79	6.54	6.37
Others	4.13	3.39	3.75	4.79	7.86	5.89	7.42	5.66	5.61	6.29	9.40
GRAND TOTAL (a)	1· 00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Memo Item:											
Total Exports (a) (US$ million)	2047	4672	8506	8564	8791	9736	12085	13948	16581	18136	17962

(a) Excludes exports of crude petroleum, for which details regarding destination are not available.

Sources: (1) Economic Survey , various issues.
(2) Foreign Trade Statistics, D.G.C.I.S.

Table A3.5
Origin of Imports
(% distribution)

	70/71	75/76	80/81	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Africa	10.35	2.13	1.63	2.27	3.02	4.38	2.81	3.33	2.42	2.22	4.10
America	35.86	29.47	18.19	15.51	15.48	13.26	12.57	15.06	15.35	15.69	13.54
USA	27.72	24.41	12.90	9.93	10.50	9.38	9.00	11.47	12.03	12.14	10.28
Canada	7.17	4.41	2.65	2.91	2.29	1.85	1.34	1.52	1.28	1.29	1.44
Latin America & Caribbean	0.97	0.66	2.64	2.67	2.69	2.02	2.22	2.07	2.04	2.25	1.82
Asia and Oceania	18.31	33.78	46.51	41.81	40.60	32.04	37.14	38.44	37.36	41.17	39.36
(a) OPEC	7.68	21.86	27.79	19.41	17.40	9.70	13.28	13.38	14.33	16.30	19.68
Of which:											
Iran	5.61	8.74	10.67	2.83	6.50	0.70	0.65	0.46	1.10	2.36	3.00
Iraq	0.19	4.71	6.00	3.94	2.78	0.63	2.75	0.69	1.30	1.15	0.01
Saudi Arabia	1.48	5.51	4.30	7.37	4.04	4.29	3.44	6.70	4.09	6.71	7.43
Kuwait	0.34	1.19	2.69	2.16	1.73	1.44	2.12	1.85	3.28	0.84	1.57
(b) Other Asia and Oceania	10.63	11.92	18.72	22.40	23.20	22.34	23.87	25.06	23.04	24.87	19.68
Japan	5.11	6.86	5.97	7.24	9.02	8.03	9.56	9.32	7.96	7.51	7.06
Australia	2.24	1.93	1.36	1.17	2.25	2.02	2.26	2.50	2.50	3.39	3.02
Others	3.29	3.13	11.40	13.99	11.92	12.29	12.05	13.24	12.57	13.97	9.60
Eastern Europe	13.46	10.75	10.33	12.56	11.04	7.65	9.56	6.90	8.44	7.82	5.11
USSR	6.49	5.88	8.08	10.44	8.53	5.01	7.23	4.46	5.75	5.90	3.75
Others	6.97	4.86	2.25	2.13	2.50	2.64	2.33	2.44	2.69	1.92	1.35
Western Europe	19.59	20.90	21.03	24.64	26.62	32.59	33.27	31.89	33.14	29.36	29.19
of which:											
Belgium	0.70	1.64	2.36	4.63	4.84	5.45	6.16	7.28	7.61	6.29	7.15
France	1.31	3.73	2.23	2.09	2.96	3.41	3.59	2.85	4.55	3.02	3.17
West Germany	6.58	7.03	5.53	7.52	7.85	9.54	9.71	8.71	7.76	8.04	8.03
Netherlands	1.17	1.21	1.71	2.13	1.51	1.94	1.99	1.90	1.55	1.84	1.44
U.K.	7.76	5.39	5.83	5.45	6.36	8.27	8.67	8.49	8.40	6.70	6.19
Others	2.63	2.97	2.31	3.21	3.24	10.08	4.65	4.39	3.28	3.74	8.71
GRAND TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Memo Items:											
Total Imports (a) (US$ million)	2179	6085	15869	14414	16067	15712	17156	19497	21272	24072	19411

(a) The figure for total imports shown here differs from the total value of imports shown in Table 3.3 (a), as the latter figure is net of exports of crude petroleum.

Sources: (1) Economic Survey , various issues.
(2) Foreign Trade Statistics, D.G.C.I.S.

Table A3.6
Invisibles on Current Account
(US$ Million)

	1980/81	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
GROSS RECEIPTS	6906	6076	6057	6741	7023	6912	7228	8060
Non-Factor Services	2949	3310	3217	3571	3956	4246	4934	5202
of which:								
Transport	458	494	538	680	898	907	1156	1028
Travel	1478	972	1256	1431	1419	1433	1393	1409
Others	1013	1844	1423	1460	1639	1906	2385	2765
Factor Income	1083	547	501	446	397	395	257	157
Current Transfers /a/	2874	2219	2339	2724	2670	2271	2037	2701
GROSS PAYMENTS	2257	4235	4780	5970	6623	7238	8166	8485
Non-Factor Services	1516	2124	2222	3027	3225	3523	4149	4526
of which:								
Transport /b/	450	667	585	870	1027	1115	1226	1250
Travel	114	336	290	376	405	403	488	567
Others	952	1121	1347	1781	1793	2005	2435	2709
Factor Income	727	2099	2546	2917	3382	3700	4001	3943
Current Transfers	14	12	12	26	16	15	16	16
NET RECEIPTS	4649	1841	1277	771	400	-326	-938	-425
Non-Factor Services	1433	1186	995	544	731	723	785	676
of which:								
Transport	8	-173	-47	-190	-129	-208	-70	-222
Travel	1364	636	966	1055	1014	1030	905	842
Others	61	723	76	-321	-154	-99	-50	56
Factor Income	356	-1552	-2045	-2471	-2985	-3305	-3744	-3786
Current Transfers	2860	2207	2327	2698	2654	2256	2021	2685

/a/ Excluding foreign grants, and including the Bhopal settlement in 1988/89.
/b/ Excluding freight included in c.i.f value of merchandise imports.

Sources: 1. Reserve Bank of India.
2. World Debt Tables.

Table A3.7
Decomposition of Recent Export Growth
(US$ million at current prices - annual averages)

	1980/81-85/86	1986/87-91/92	Increase	Contribution to Growth
Manufactured Exports	5257	11038	5782	92%
Consumption goods	3317	7029	3712	59%
Leather	500	1103	603	10%
Gems (gross)	1065	2607	1543	25%
Garments	747	1713	966	15%
Textiles	1025	1624	599	10%
Investment goods a/	891	1661	770	12%
Intermediate goods	1048	2348	1300	21%
Chemicals	368	1045	676	11%
Petroleum Prod.	203	421	219	3%
Others b/	477	882	405	6%
Primary Exports	3194	3702	508	8%
Fish	329	467	138	2%
Rice	222	244	22	0%
Cashews	167	239	72	1%
Coffee	200	187	-13	0%
Tea	504	496	-8	0%
Spices	144	186	42	1%
Iron Ore	404	508	104	2%
Other Primary	1224	1375	151	2%
TOTAL EXPORTS (Customs) c/	8451	14741	6290	100%
Discrepancy	503	410	-94	
TOTAL EXPORTS (BOP) c/	8954	15151	6197	
Memo:				
Gems (Net) d/	285	706	400	

a/ Refers to engineering goods.
b/ Including unclassified exports.
c/ Net of crude petroleum exports.
d/ Exports less imports of gems and jewellory.

Sources: 1. Ministry of Commerce, DGCIS.
2. Reserve Bank of India.

Table A4.1 (a)
External Debt Summary: Debt Outstanding and Disbursed
(US$ Millions at Current Prices)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
A. Public & Publicly Guar. LT	18766	21127	23519	25282	31557	39358	46469	50569	55882	60125	62893
1. Official Creditors	16366	17589	18966	19185	22601	26750	30167	31029	33371	36735	40344
a. Multilateral	6972	8362	9801	10462	12600	14268	16588	18063	19499	21784	23992
aa of which IBRD	1193	1393	1779	1688	2396	3673	4661	5590	6615	7835	8585
ab of which IDA	5654	6985	7820	8345	9750	10329	11615	12019	12521	13312	14203
b. Bilateral	9394	9227	9165	8723	10201	12482	13579	12966	13872	16951	16352
2. Private Creditors	2401	3338	4553	6097	8957	12608	16302	19540	22510	23390	22549
a. Suppliers	87	94	96	466	629	805	715	632	539	434	426
b. Commercial Banks	617	771	1121	1547	2196	3284	4768	5764	6434	6940	7067
c. NRI Deposits	1570	2023	2809	3265	4914	6595	8616	10348	12068	12298	9408
d. NRI Bonds	0	0	0	0	0	0	0	0	0	0	1625
e. Other Bonds	2	11	30	259	657	1117	1317	1876	2577	2948	3057
f. Other Private	125	439	497	560	561	807	886	920	892	770	966
B. Private Non-Guaranteed LT	873	1029	1185	1341	1497	1388	1652	1473	1551	1488	1473
C. Total LT DOD (A+B)	19639	22156	24726	26623	33054	40746	48121	52042	57433	61613	64366
D. Use of IMF Credit	1553	3646	4713	4656	4832	4768	4023	2573	1566	2623	3451
E. Short-Term Debt	1204	1891	2636	2656	3129	3297	3519	3772	4689	4800	3191
F. Total External Debt (C+D+E) /a/	22396	27693	32073	33935	41016	48811	55663	58387	63688	69036	71008

/a/: Excludes debt to the FSU and other military debt.

Table A4.1(b)
External Debt Summary: Disbursements
(US$ Millions at Current Prices)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
A. Public & Publicly Guar. LT	2296	3202	3509	3920	4919	6710	7476	8774	7896	5741	5529
1. Official Creditors	1671	1932	1918	1753	2017	2214	3598	3628	3620	3655	4435
a. Multilateral	1209	1440	1350	1119	1398	1316	2269	2626	2106	2226	2776
aa. IBRD	399	270	455	265	323	641	1295	1716	1645	1219	1231
of which fast-disbursing	0	0	0	0	0	0	0	0	0	0	300
ab IDA	786	1109	876	820	986	653	912	754	567	764	958
of which fast-disbursing	0	0	0	0	0	0	0	0	0	0	155
b. Bilateral	462	492	568	634	619	900	1329	1002	1514	1429	1679
2. Private Creditors	625	1270	1591	2168	2902	4496	3878	5146	4276	2086	1074
a. Suppliers	9	40	41	405	193	283	5	16	3	8	73
b. Commercial Banks	197	218	503	623	753	1713	1587	1606	1159	696	417
c. NRI Flows	364	671	937	814	1579	1825	1992	2650	2264	786	3
(i) Deposits	364	671	937	816	1579	1825	1992	2650	2244	786	-1622
(ii) Bonds	0	0	0	0	0	0	0	0	0	0	1625
d. Other Bonds	0	10	21	232	330	359	116	679	773	586	264
e. Other Private	55	331	89	94	47	316	178	195	97	10	317
B. Private Non-Guaranteed LT	422	355	407	450	503	325	348	175	240	214	317
C. Total LT Disbursements (A+B)	2718	3557	3916	4370	5422	7035	7824	8949	8136	5955	5846
D. IMF Purchases	692	1968	1376	201	0	0	0	0	0	1862	1240
E. Net Short-Term Capital	278	687	745	220	273	168	222	253	917	111	-1609
F. Total Disbursements (C+D+E) /a/	3688	6212	6037	4791	5695	7203	8046	9202	9053	7928	5477

/a/: Excludes debt to the FSU and other military debt.

Table A4.1 (c)
External Debt Summary: Principal Repayments
(US$ Millions at Current Prices)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
A. Public & Publicly Guar. LT	661	714	826	786	946	1811	1604	1668	1660	2087	2295
1. Official Creditors	575	600	599	547	651	844	1108	972	1094	1205	1436
a. Multilateral	86	100	122	131	161	242	508	397	467	609	703
aa of which IBRD	66	72	87	87	106	176	431	306	352	472	527
ab of which IDA	20	26	33	61	53	61	69	81	98	114	141
b. Bilateral	489	500	477	416	490	602	600	575	627	596	733
2. Private Creditors	86	114	225	239	295	967	496	696	566	882	859
a. Suppliers	31	33	38	30	47	120	98	96	98	113	82
b. Commercial Banks	42	64	154	178	202	778	293	425	316	355	412
c. NRI Bonds	0	0	0	0	0	0	0	0	0	0	0
d. Other Bonds	0	0	2	0	0	0	6	14	27	282	264
e. Other Private	13	17	31	31	46	69	99	161	125	132	121
B. Private Non-Guaranteed LT	85	219	261	305	363	480	289	280	322	318	278
C. Total LT Repayments (A+B)	746	933	1085	1091	1309	2291	1893	1948	1982	2405	2573
D. IMF Repurchases	40	0	70	134	264	648	1082	1210	1008	648	460
E. Total LT Repay + IMF Repur. /a/	786	933	1155	1225	1573	2939	2975	3158	2990	3053	3033

/a/: Excludes debt to the FSU and other military debt.

Table A4.1 (d)
External Debt Summary: Net Flows
(US$ Millions at Current Prices)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
A. Public & Publicly Guar. LT	1635	2488	2685	3134	3973	4899	5872	7106	6236	3656	3234
1. Official Creditors	1097	1333	1319	1205	1366	1370	2490	2656	2526	2451	3019
a. Multilateral	1124	1341	1228	987	1237	1072	1761	2229	1639	1618	2073
aa of which IBRD	334	199	368	178	218	467	864	1611	1096	747	703
ab of which IDA	766	1083	841	779	933	592	843	673	449	651	817
b. Bilateral	-27	-8	91	218	129	298	729	427	887	833	946
2. Private Creditors	539	1156	1366	1929	2607	3529	3382	4450	3710	1204	215
a. Suppliers	-22	7	3	375	146	163	-93	-80	-95	-105	-9
b. Commercial Banks	155	154	349	445	551	935	1294	1181	843	341	5
c. NRI Net Flows	364	671	937	814	1579	1825	1992	2650	2244	786	3
(i) Deposits	364	671	937	814	1579	1825	1992	2650	2244	786	-1622
(ii) Bonds	0	0	0	0	0	0	0	0	0	0	1625
d. Other Bonds	0	10	19	232	330	399	110	665	746	304	20
e. Other Private	42	316	58	63	1	247	79	34	-28	-122	196
B. Private Non-Guaranteed LT	337	136	146	145	140	-195	59	-105	-82	-106	39
C. Total LT Net Flows (A+B)	1972	2624	2831	3279	4113	4704	5931	7001	6154	3550	3273
D. Net IMF Credit	652	1968	1306	67	-264	-640	-1092	-1210	-1008	1214	780
E. LT Net Flows+IMF Net Flows (C+D) /	2902	5279	4882	3566	4122	4264	5071	6064	6063	4875	2444

/a/: Excludes debt to the FSU and other military debt.

Table A6.1 (e)
External Debt Summary: Interest Payments
(US$ Millions at Current Prices)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
A. Public & Publicly Guar. LT	561	662	846	905	1219	1635	2022	2505	2872	3233	3018
1. Official Creditors	343	357	431	440	550	681	794	923	1087	1178	1265
a. Multilateral	111	148	218	239	282	388	479	581	640	737	800
aa of which IBRD	71	101	158	169	209	296	378	476	529	614	647
ab of which IDA	40	46	58	68	71	91	98	98	90	97	101
b. Bilateral	232	209	213	201	268	293	315	342	447	441	465
2. Private Creditors	218	305	415	465	669	954	1228	1582	1785	2055	1753
a. Suppliers	6	6	8	8	48	64	67	61	53	43	31
b. Commercial Banks	55	73	123	126	155	252	286	376	492	543	469
c. NRI Flows	151	195	262	290	400	526	714	962	1016	1182	943
(i) Deposits	151	195	262	290	400	526	714	962	1016	1182	883
(ii) Bonds	0	0	0	0	0	0	0	0	0	0	60
d. Other Bonds	0	0	3	3	17	55	85	111	150	207	223
e. Other Private	6	31	40	40	49	59	76	74	76	80	87
B. Private Non-Guaranteed LT	37	126	130	138	154	158	147	127	140	135	116
C. Total LT Interest (A+B)	598	788	976	1043	1373	1793	2169	2632	3012	3368	3134
D. IMF Service Charges	25	164	277	376	360	317	297	233	184	134	203
E. Interest Paid on ST Debt	159	178	200	316	226	225	250	287	296	393	400
F. Total Interest Paid (C+D+E) /a/	781	1110	1453	1735	1959	2335	2716	3152	3492	3895	3737

/a/: Excludes debt to the FSU and other military debt.

Table A4.2 (a)
Loan Commitments by Donor
(US$ millions)

	1980/81	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Bilateral Consortium	871	756	598	1225	717	894	2192	2109	1013	2663	1789
Austria	2	3	5	0	0	7	0	0	9	0	10
Belgium	0	18	7	0	0	0	0	0	7	0	0
Canada	82	121	36	470	2	0	8	281	0	21	0
Denmark	0	20	21	22	0	24	0	0	16	0	0
France	146	96	11	0	117	68	129	185	222	952	48
Germany	299	84	179	229	330	165	462	569	316	598	329
Italy	0	0	10	36	64	40	87	0	0	32	250
Japan	58	324	70	378	184	492	1237	1002	383	1059	1067
Netherlands	85	64	33	44	4	29	132	45	51	0	40
Norway	0	0	0	0	12	0	0	0	0	0	0
Switzerland	0	0	47	0	0	0	0	0	0	0	27
United Kingdom	0	0	0	0	0	0	35	27	0	0	17
United States	198	26	179	46	4	69	103	0	10	0	0
Multilateral Consortium	2523	2128	1107	2651	2882	2040	3926	3296	3578	2506	3798
IBRD	555	740	500	1721	1924	1493	2478	2075	2126	1243	1482
IDA	1948	1388	572	929	958	296	1026	570	860	943	1379
ADB	0	0	0	0	0	250	378	611	509	320	917
EEC	3	0	0	0	0	0	0	0	0	0	0
IFAD	18	0	35	0	0	0	12	0	17	0	20
Nordic Investment Bnak	0	0	0	0	0	0	30	40	66	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total Consortium	3395	2883	1705	3875	3598	2933	6116	5405	4592	5168	5587
Bilateral Non-Consortium	353	89	148	17	588	721	408	204	3000	5	0
Eastern Europe	248	0	68	17	517	721	370	170	2592	0	0
of which former USSR	248	0	67	17	517	721	370	170	2392	0	0
Gulf Coutntries	105	89	80	0	71	0	38	25	0	0	0
Other countries	0	0	0	0	0	0	0	10	408	5	0
Multilateral Non-Consortium	50	0	23	0	0	7	8	10	0	7	0
OPEC Special Fund	50	0	23	0	0	7	8	10	0	7	0
Total Non-Consortium	403	89	170	17	588	728	416	214	3000	12	0
TOTAL OFFICIAL LOANS	3798	2972	1875	3892	4186	3661	6532	5619	7592	5180	5587

Source: The World Bank's Debt Reporting System (DRS).

Table A4.2 (b)
Loan Disbursements by Donor
(US$ millions)

	1980/81	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Bilateral Consortium	608	443	416	484	480	844	1249	935	1391	1273	1607
Austria	3	4	2	2	3	1	0	0	4	11	3
Belgium	6	7	6	5	2	5	5	1	1	0	1
Canada	26	29	29	138	32	29	11	31	61	95	72
Denmark	4	7	11	14	9	13	16	7	10	5	9
France	71	19	18	55	87	134	125	46	88	90	78
Germany	206	143	125	150	138	225	219	260	556	392	443
Italy	0	0	0	7	10	25	71	29	63	6	27
Japan	75	29	157	50	110	296	649	399	483	570	899
Netherlands	93	97	16	35	34	44	59	81	50	32	10
Switzerland	0	0	0	0	3	4	3	3	11	10	9
United Kingdom	2	0	0	0	0	0	11	11	15	14	27
United States	122	107	52	28	51	68	79	68	50	48	29
Multilateral Consortium	859	1221	1359	1139	1400	1308	2250	2605	2101	2221	2764
IBRD	174	421	471	291	328	641	1295	1716	1445	1219	1231
IDA	652	786	874	823	1047	656	917	755	566	762	953
ADB	0	0	0	0	0	0	12	78	64	212	562
EEC	24	0	0	0	0	0	0	0	0	0	0
IFAD	9	14	11	25	24	10	16	20	11	18	4
Nordic Investment Bank	0	0	3	1	1	0	10	35	15	10	13
Other	0	0	0	0	0	0	0	0	0	0	0
Total Consortium	1467	1664	1775	1624	1881	2152	3499	3541	3493	3494	4370
Bilateral Non-Consortium	48	23	152	150	139	55	80	67	123	156	72
Eastern Europe	18	5	35	79	95	31	71	60	43	45	13
of which former USSR	18	5	34	79	95	31	71	52	29	35	13
Gulf Countries	31	18	20	70	44	24	9	5	27	18	12
Other Countries	0	0	98	0	0	0	0	2	53	94	47
Multilateral Non-Consortium	4	10	6	5	4	6	19	20	4	6	7
OPEC Special Fund	4	10	6	5	4	6	19	20	4	6	7
Total Non-consortium	53	33	159	155	143	61	98	87	127	162	79
TOTAL OFFICIAL LOANS	1519	1697	1933	1778	2023	2214	3598	3627	3619	3656	4450

Source: The world Bank's Debt Reporting System (DRS).

Table A6.2 (c)
Principal Repayments by Donor
(US$ millions)

	1980/81	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Bilateral Consortium	392	357	302	293	338	414	475	490	557	517	591
Austria	2	1	1	1	2	2	2	2	2	3	3
Belgium	1	1	1	2	2	3	3	3	4	5	5
Canada	12	13	15	10	8	8	9	10	13	15	20
Denmark	2	1	1	1	1	1	2	2	1	2	2
France	29	22	15	12	13	18	29	31	31	37	39
Germany	102	81	46	42	49	82	107	110	173	132	154
Italy	4	3	2	1	1	2	2	3	2	3	6
Japan	60	51	48	53	39	109	99	104	104	102	129
Netherlands	9	9	10	12	16	22	30	34	35	41	41
Switzerland	2	1	1	1	2	2	3	2	2	3	3
United Kingdom	67	64	53	45	47	49	55	54	47	51	66
United States	102	110	109	114	139	117	133	135	143	124	124
Multilateral Consortium	86	85	120	129	158	236	499	384	456	598	692
IBRD	71	66	87	87	104	174	430	303	352	472	527
IDA	15	20	33	41	53	61	69	81	98	114	141
ADB	0	0	0	0	0	0	0	0	5	8	19
EEC	0	0	0	0	0	0	0	0	0	0	0
IFAD	0	0	0	0	0	0	0	0	1	3	3
Nordic Investment Bank	0	0	0	0	1	1	1	1	1	1	1
Total Consortium	479	443	422	422	496	650	974	874	1012	1115	1283
Bilateral Non-Consortium	106	132	175	123	152	187	125	85	71	79	142
Eastern Europe	24	21	12	11	42	19	16	17	12	13	14
of which former USSR	15	13	6	6	39	16	14	15	11	13	14
Gulf Countries	82	110	159	99	96	101	103	63	53	59	126
Other Countries	0	0	4	13	13	67	6	6	6	6	2
Multilateral Non-Consortium	0	1	2	3	4	7	9	13	11	11	11
Total Non-Consortium	106	132	177	126	156	194	134	98	82	89	153
TOTAL OFFICIAL LOANS	585	575	599	548	652	844	1108	973	1094	1205	1436

Source: The World Bank's Debt Reporting System (DRS).

Table 4.2 (d)
Interest Payments by Donor
(US$ millions)

	1980/81	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Bilateral Consortium	206	194	177	169	213	257	290	319	354	400	420
Austria	1	1	1	1	1	1	1	1	1	1	1
Belgium	1	1	0	0	0	1	1	1	1	1	1
Canada	2	1	1	0	28	28	20	23	24	38	29
Denmark	0	0	0	0	0	0	0	0	0	0	1
France	16	14	9	8	11	20	30	33	36	41	37
Germany	43	34	30	26	35	48	63	58	86	99	98
Italy	1	1	1	0	0	1	1	2	3	4	4
Japan	44	42	41	42	47	67	81	108	108	123	156
Netherlands	13	13	13	12	13	17	20	20	21	22	21
Switzerland	1	1	1	1	1	1	1	1	1	1	2
United Kingdom	11	8	4	3	2	2	1	2	3	4	5
United States	72	79	78	76	75	72	71	71	72	67	67
Multilateral Consortium	101	111	217	239	281	388	479	580	638	736	799
IBRD	66	71	158	169	209	295	378	474	529	615	647
IDA	35	40	58	68	71	91	98	98	90	97	101
ADB	0	0	0	0	0	0	1	3	12	16	44
EEC	0	0	0	0	0	0	0	0	0	0	0
IFAD	0	0	1	1	1	1	1	2	2	2	2
Nordic Investment Bank	0	0	0	0	0	0	0	3	5	6	6
Other	0	0	0	0	0	0	0	0	0	0	0
Total Consortium	307	305	394	407	495	645	768	899	993	1136	1219
Bilateral Non-Consortium	39	39	36	32	55	35	26	23	93	41	45
Eastern Europe	4	4	4	5	27	10	7	8	6	7	7
of which former USSR	3	3	3	4	27	10	7	8	5	6	6
Gulf Countries	35	35	21	17	18	18	16	14	86	20	31
Other Countries	0	0	11	10	10	8	2	2	1	14	7
Multilateral Non-Consortium	0	0	1	1	1	1	1	1	1	1	1
OPEC Special Fund	0	0	1	1	1	1	1	1	1	1	1
Total Non-Consortium	39	39	36	33	56	36	26	24	94	42	46
TOTAL OFFICIAL LOANS	346	344	430	440	550	681	795	923	1087	1179	1265

Source: The World Bank's Debt Reporting System (DRS).

Table A4.2 (e)
Debt Outstanding and Disbursed by Donor
(US$ millions)

	1980/81	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Bilateral Consortium	8851	8123	8033	7556	9038	10887	12579	12173	13027	14036	15515
Austria	30	29	30	26	36	45	47	39	45	52	55
Belgium	84	69	66	60	79	103	113	97	107	101	102
Canada	470	469	483	575	586	649	688	732	795	879	911
Denmark	29	29	54	60	85	122	145	131	158	156	165
France	355	278	210	220	375	573	711	640	781	811	887
Germany	1773	1603	1652	1687	2089	2843	3208	2958	3689	3881	4336
Italy	20	13	7	11	21	45	114	137	205	207	232
Japan	1200	1008	1292	1148	1673	2264	3226	3349	3157	3967	4964
Netherlands	544	557	537	473	653	862	974	895	1017	995	1009
Switzerland	21	20	16	12	18	24	27	23	36	43	43
United Kindom	1040	766	518	402	429	411	434	349	307	290	251
United States	3284	3281	3168	3082	2994	2945	2891	2824	2731	2655	2560
Multilateral Consortium	6030	7163	9709	10369	12307	14176	16485	17951	19561	21687	23898
IBRD	827	1181	1779	1688	2396	3475	4661	5590	6615	7685	8459
IDA	5142	5906	7820	8545	9750	10529	11615	12019	12521	13312	14203
ADB	0	0	0	0	0	0	12	90	149	369	899
EEC	53	53	53	53	53	53	53	53	52	52	52
IFAD	9	23	48	73	98	108	124	144	155	190	195
Nordic Investment Bank	0	0	3	4	5	6	16	49	64	73	85
Other	0	0	6	6	6	6	6	6	6	6	6
Total Consortium	14881	15286	17742	17925	21344	25063	29064	30124	32588	35723	39413
Bilateral Non-Consortium	1395	1276	1152	1167	1164	1045	1000	793	845	915	837
Eastern Europe	155	133	154	220	273	285	340	209	238	267	259
of which former USSR	106	98	134	207	263	279	335	199	217	240	239
Gulf Countries	1240	1143	881	845	800	735	641	570	541	499	384
Other Countries	0	0	117	101	90	24	19	15	66	150	194
Multilateral Non-Consortium	40	50	92	93	93	92	103	110	103	97	94
OPEC Special Fund	40	50	92	93	93	92	103	110	103	97	94
Total Non-Consortium	1435	1326	1244	1260	1257	1137	1103	903	948	1013	931
TOTAL OFFICIAL LOANS	16316	16611	18986	19185	22601	26200	30167	31027	33536	36735	40344

Source: The World Bank's Debt Reporting System (DRS).

Table A4.2 (f)
Grant Commitments, by Donors
(US$ Million)

	80/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Bilateral Consortium	349.2	546.8	434.0	451.4	401.7	423.7	778.7	408.1	486.0	424.5	522.60
Austria	-	-	-	-	-	-	-	-	-	-	-
Belgium	0.5	-	-	-	-	-	-	-	-	-	-
Canada	8.7	12.0	54.1	1.5	-	30.2	330.8	2.5	48.7	n.a.	
Denmark[a]	19.6	15.9	14.5	15.7	11.2	22.4	25.3	18.2	39.6	32.8	43.30
France	-	-	-	-	-	-	4.2	11.8	31.1	0.2	
Germany	-	-	2.7	-	-	-	0.9	2.9	2.7	6.3	
Italy[a]	-	0.4	0.2	16.5	1.0	1.9	-	-	-	-	
Japan	23.2	14.7	10.2	11.6	12.8	25.2	36.1	23.6	21.7	25.6	23.90
Netherlands[a]	28.7	50.2	29.8	36.8	40.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Norway[a]	22.5	19.7	19.8	19.1	22.3	24.1	23.5	24.0	23.7	22.4	16.20
Sweden[b]	71.9	50.7	43.5	39.6	43.0	55.4	62.0	59.8	60.4	68.5	66.70
Switzerland[a]	4.7	5.2	22.1	19.9	15.0	20.9	26.8	26.4	19.1	29.4	24.70
United Kingdom	39.1	263.1	102.1	170.7	138.9	128.4	167.0	88.3	129.4	129.4	188.00
United States [c]	130.4	114.9	135.0	120.0	116.7	115.3	102.1	150.9	109.6	109.8	159.80
Multilateral Consortium	190.8	227.3	236.5	201.5	172.0	228.0	150.8	179.8	133.1	95.5	
EEC[a]	87.4	116.9	120.1	100.0	64.0	101.0	150.8	179.8	133.1	95.5	
UN[a]	103.4	110.4	116.4	101.5	108.0	127.0	n.a.	n.a.	n.a.	n.a.	
IFAD	-	-	-	-	-	-	-	-	-	-	
TOTAL CONSORTIUM	540.0	774.2	670.5	652.9	573.7	651.7	929.5	587.9	619.1	520.0	
Others	5.7	-	-	-	-	-	-	-	-	-	
GRAND TOTAL	545.7	774.2	670.5	652.9	573.7	651.7	929.5	587.9	619.1	520.0	

NOTE: The totals for consortium bilateral and multilateral grant aid are underestimated due to non-availability of data in some cases.

[a] Relates to calendar years; e.g. the figures for 1980/81 relate to calendar year 1980 and so on.
[b] Relates to the year July-June; e.g. the figures for 1980/81 relate to period July 1980-June 1981 and so on.
[c] Includes PL 480 Title II food aid commitments and other bilateral assistance adjusted to Indian fiscal year.

Sources: 1. Embassies and Offices of Consortium Donors in New Delhi.
2. "External Assistance," Ministry of Finance, Department of Economic Affairs - for four donors viz. Austria, Belgium, Germany and Italy.

Table A4.2 (g)
Grant Disbursements, by Donors
(US$ Million)

	80/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Bilateral Consortium	639.0	462.7	410.3	386.7	416.7	475.8	528.9	547.5	611.8	520.8	545.2
Austria	-	-	-	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	-	-
Canada	3.3	10.7	14.1	15.8	12.3	32.0	57.2	41.8	28.8	n.a.	
Denmark[a]	19.6	15.9	14.5	15.7	11.2	22.6	25.3	18.2	39.6	32.8	
France	-	-	-	-	-	-	-	4.1	30.5	5.4	
Germany	7.8	1.9	0.1	0.3	1.6	-	0.4	0.6	0.6	0.6	
Italy[a]	-	0.4	0.2	4.2	5.9	5.0	-	-	-	-	
Japan [c]	23.2	14.7	10.2	11.6	12.8	25.2	36.1	23.4	21.7	25.6	15.6
Netherlands[a]	28.7	50.2	29.8	36.8	40.9	46.0	49.6	58.3	60.7	59.0	67.5
Norway[a]	22.4	20.9	20.4	19.9	23.0	24.3	30.4	27.8	24.9	26.7	
Sweden[b]	64.9	56.9	53.1	35.1	43.0	55.4	52.9	62.1	131.8	61.9	56.5
Switzerland[a]	17.1	13.3	20.2	17.4	13.6	11.5	19.8	20.6	14.0	8.2	22.8
United Kingdom	327.2	184.9	137.9	135.8	172.5	176.6	173.5	150.0	155.9	182.9	216.8
United States [d]	124.9	92.9	109.7	94.1	80.1	77.5	83.7	140.5	103.3	117.6	166.0
Multilateral Consortium	190.8	227.3	236.5	201.5	172.0	228.0	267.8	355.2	292.1	316.2	
EEC [a] [e]	87.4	116.9	120.1	100.0	64.0	101.0	150.8	179.8	133.1	95.5	
UN[a]	103.4	110.4	116.4	101.5	108.0	127.0	117.0	175.4	159.0	220.7	
IFAD	-	-	-	-	-	-	-	-	-	-	
TOTAL CONSORTIUM	829.8	690.0	646.7	588.2	588.7	703.8	796.7	902.7	903.9	837.0	
Others	5.7	-	-	-	-	-	-	-	-	-	
GRAND TOTAL	835.5	690.0	646.7	588.2	588.7	703.8	796.7	902.7	903.9	837.0	
Memo Item:											
BOP Total [f]	643.0	399.0	367.0	453.0	359.0	403	410.0	406.0	500.0	476.0	451.0

NOTE: The totals for consortium grant aid are underestimated due to non-availability of data in some cases.

[a] Relates to calendar years; e.g. the figures for 1980/81 relate to calendar year 1980 and so on.
[b] Relates to the year July-June; e.g. the figures for 1980/81 relate to period July 1980-June 1981 and so on.
[c] Only commitments data available but the entire committed grants were disbursed in committed fiscal year or next.
[d] Data for 1980/81 through 1986/87 represents only PL 480 Title II Food aid grants - value of commodities actually arrived plus ocean freight. Development assistance disbursements data is not readily available for this period.
Data beyond 1987/88 includes both food aid and other bilateral assistance (adjusted to Indian fiscal year.)
[e] Only commitments data available. Assumed to have been disbursed in the same fiscal year.
[f] Official Grant Aid as covered in the balance of payments account.

Sources: 1. Embassies and offices of Consortium donors in New Delhi.
2. "External Assistance," Ministry of Finance, Department of Economic Affairs - for four donors viz. Austria, Belgium, Germany and Italy.

Table A4.3
EXTERNAL RESERVES
(US $ million)

	Foreign Exchange	SDRs	Reserve Position in the Fund	Reserves excluding Gold	Gold [c]	Reserves including Gold	Use of IMF Credit	Net Reserves
1950/51 [a]	1809	-	-	1809	247	2056	72	1984
1955/56 [b]	1620	-	15	1635	247	1882	-	1082
1960/61	391	-	-	391	247	638	63	575
1965/66	383	-	-	383	243	626	215	411
1968/69	526	-	-	526	243	769	340	429
1970/71	584	149	76	809	243	1052	-	1052
1971/72	661	269	83	1013	264	1277	-	1277
1972/73	629	297	92	1018	293	1311	-	1311
1973/74	736	296	92	1124	293	1417	75	1342
1974/75	782	293	-	1075	303	1378	620	758
1975/76	1657	234	-	1891	281	2172	807	1365
1976/77	3240	217	-	3457	290	3747	471	3276
1977/78	5305	200	-	5505	318	5823	155	5668
1978/79	6421	470	[illegible]	6980	377	7357	-	7357
1979/80	6324	662	218	7204	375	7579	-	7579
1980/81	5850	603	405	6858	370	7228	327	6901
1981/82	3582	473	405	4460	335	4795	964	3831
1982/83	4281	291	393	4965	324	5289	2876	2413
1983/84	5099	230	518	5847	320	6167	4150	2017
1984/85	5482	145	483	6110	325	6435	3932	2503
1985/86	5972	131	554	6657	416	7073	4290	2783
1986/87	5924	179	626	6729	470	7199	4291	2908
1987/88	5618	97	676	6391	507	6898	3653	3246
1988/89	4226	103	630	4959	473	5432	2364	3067
1989/90	3368	107	634	4109	487	4596	1493	3102
1990/91	2236	102	-	2338	504	2842	2623	219
1991/92	5631	90	1	5722	542	6264	3451	2812
1992/93	6434	18	297	6749	557	7306	4799	2507
End of the Month								
1990								
March	3368	107	634	4109	487	4596	1493	3102
June	3072	118	645	3835	495	4330	1374	2956
September	2515	478	-	2993	521	3514	1242	2272
December	1205	316	-	1521	532	2053	1138	915
1991								
March	2236	102	-	2338	504	2842	2623	219
June	1124	63	-	1187	492	1679	2457	-778
September	1722	184	-	1906	512	2418	3294	-876
December	3580	46	-	3627	565	4192	3471	721
1992								
March	5631	90	1	5722	542	6264	3451	2812
June	6221	115	1	6336	565	6901	3522	3379
September	5777	34	1	5812	582	6394	4183	2211
December	5461	4	292	5757	548	6305	4483	1822
1993								
March	6434	18	297	6749	557	7306	4799	2507

Note: IMF Credit refers to Use of IMF credit within the General Resources Account (GRA) excluding Trust Fund, Structural Adjustment Facility (SAF), and Enhanced Structural Adjustment Facility (ESAF) loans.
[a] At the end of 1950.
[b] At the end of 1955.
[c] Valued at 35 SDR's per fine troy ounce.
Source: IMF, International Financial Statistics, various issues.

Table A5.1 (a)
Indicators of Fiscal Deficit
(Rs.Billion at current prices)

	1980/81	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 Estimate
Public Sector (CSO) [a]										
Gross Investment	117.68	249.17	290.64	336.79	333.63	394.28	461.67	557.21	579.49	
Gross Saving	46.21	64.57	83.71	78.97	70.25	79.83	70.54	55.92	101.76	
Net Fiscal Deficit [b]	71.47	184.60	206.93	257.82	263.38	314.45	391.13	501.29	477.73	
Public Sector (Non-Financial)										
Gross Investment	116.56	246.27	287.36	331.76	323.84	379.40	444.60	537.96	559.49	
Gross Saving	37.91	44.43	56.89	48.96	37.52	39.80	15.15	-3.72	31.76	
Net Fiscal Deficit	78.65	201.84	230.47	282.80	286.32	339.60	429.45	541.68	527.73	
Public Enterprises [c]										
Gross Investment	53.82	133.54	155.20	188.78	174.57	199.59	259.61	327.64	318.40	
Gross Saving	9.87	40.26	47.44	58.02	70.59	92.09	103.25	120.20	126.76	
Net Fiscal Deficit	43.95	93.28	107.76	130.76	103.98	107.50	156.36	207.44	191.64	
General Government [d]										
Gross Investment	62.74	112.73	132.16	142.98	149.27	179.81	184.99	210.32	241.09	
Gross Saving	28.04	4.17	9.45	-9.06	-33.07	-52.29	-88.10	-123.92	-95.00	
Net Fiscal Deficit	34.70	108.56	122.71	152.04	182.34	232.10	273.09	334.24	336.09	
State Government [e]										
Gross Investment	43.67	71.50	86.58	83.93	89.66	109.25	103.62	124.30	145.89	
Gross Saving	28.00	13.80	23.86	19.45	9.86	4.93	-13.68	-18.91	-12.12	
Net Fiscal Deficit	15.66	57.70	62.72	64.48	79.80	104.32	117.30	143.21	158.01	
Central Government										
Gross Investment	19.08	41.23	45.58	59.05	59.61	70.56	81.37	86.02	95.20	117.88
Gross Saving	0.04	-9.63	-14.41	-28.51	-42.93	-57.22	-74.42	-105.01	-82.89	-40.40
Net Fiscal Deficit	19.04	50.86	59.99	87.56	102.54	127.78	155.79	191.03	178.08	158.27
Other Capital Expenditure [f]	68.31	123.30	158.66	175.86	167.91	181.44	223.51	255.47	185.17	208.95
Gross Fiscal Deficit (GOI) [g]	87.35	174.16	218.65	263.42	270.45	309.22	379.30	446.50	363.25	367.22
OCC & other adjustments	..	8.50	14.70	23.90	14.10	12.90	-25.00	-12.50	-11.00	6.32
Adjusted Gross Deficit (IMF)	87.35	165.66	203.95	239.52	256.35	296.32	404.30	459.00	374.25	360.90

[a] National Accounts definition of "public sector" includes the public banking and financial sector.
[b] Net fiscal deficit refers to the national accounts concept of the investment-savings gap.
[c] Non-departmental non-financial enterprises only.
[d] Consolidated central and state government, based on national accounts statistics.
[e] Derived residually from national accounts statistics and the economic classification of the central budget.
[f] Including equity investment in, plus lending and capital transfers to, private and other public entities.
[g] Gross fiscal deficit represents total borrowing requirement, or increase in liabilities.

Sources

1. CSO, National Accounts Statistics.
2. Ministry of Finance, Economic & Functional Classification of the Central Government Budget.
3. Reserve Bank of India, Finances of State Governments.
4. World Bank staff estimates.

Table A5.1 (b)
Indicators of Fiscal Deficit
(Percent of GDPmp)

	1980/81	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 Estimate
Public Sector (CSO) [a]										
Gross Investment	8.65	10.77	11.08	11.50	10.01	9.94	10.17	10.50	9.52	
Gross Saving	3.40	2.79	3.19	2.70	2.11	2.01	1.55	1.05	1.67	
Net Fiscal Deficit [b]	5.25	7.98	7.89	8.80	7.90	7.93	8.62	9.44	7.85	
Public Sector (Non-Financial)										
Gross Investment	8.57	10.65	10.96	11.32	9.72	9.57	9.79	10.13	9.19	
Gross Saving	2.79	1.92	2.17	1.67	1.13	1.00	0.33	-0.07	0.52	
Net Fiscal Deficit	5.78	8.72	8.79	9.65	8.59	8.56	9.46	10.20	8.67	
Public Enterprises [c]										
Gross Investment	3.96	5.77	5.92	6.44	5.24	5.03	5.72	6.17	5.23	
Gross Saving	0.73	1.74	1.81	1.98	2.12	2.32	2.27	2.26	2.08	
Net Fiscal Deficit	3.23	4.03	4.11	4.46	3.12	2.71	3.44	3.91	3.15	
General Government [d]										
Gross Investment	4.61	4.87	5.04	4.88	4.48	4.53	4.07	3.96	3.96	
Gross Saving	2.06	0.18	0.36	-0.31	-0.99	-1.32	-1.94	-2.33	-1.56	
Net Fiscal Deficit	2.55	4.69	4.68	5.19	5.47	5.85	6.02	6.30	5.52	
State Government [e]										
Gross Investment	3.21	3.09	3.30	2.87	2.69	2.75	2.28	2.34	2.40	
Gross Saving	2.06	0.60	0.91	0.66	0.30	0.12	-0.30	-0.36	-0.20	
Net Fiscal Deficit	1.15	2.49	2.39	2.20	2.39	2.63	2.58	2.70	2.60	
Central Government										
Gross Investment	1.40	1.78	1.74	2.02	1.79	1.78	1.79	1.62	1.56	1.70
Gross Saving	0.00	-0.42	-0.55	-0.97	-1.29	-1.44	-1.64	-1.98	-1.36	-0.58
Net Fiscal Deficit	1.40	2.20	2.29	2.99	3.08	3.22	3.43	3.60	2.93	2.28
Other Capital Expenditure [f]	5.02	5.33	6.05	6.00	5.04	4.57	4.92	4.81	3.04	3.01
Gross Fiscal Deficit (GOI) [g]	6.42	7.53	8.34	8.99	8.12	7.80	8.35	8.41	5.97	5.30
OCC & other adjustments	0.00	0.37	0.56	0.82	0.42	0.33	-0.55	-0.24	-0.18	0.09
Adjusted Gross Deficit (IMF)	6.42	7.16	7.78	8.18	7.69	7.47	8.91	8.65	6.15	5.20

[a] National Accounts definition of "public sector" includes the public banking and financial sector.
[b] Net fiscal deficit refers to the national accounts concept of the investment-savings gap.
[c] Non-departmental non-financial enterprises only.
[d] Consolidated central and state government, based on national accounts statistics.
[e] Derived residually from national accounts statistics and the economic classification of the central budget.
[f] Including equity investment in, plus lending and capital transfers to, private and other public entities.
[g] Gross fiscal deficit represents total borrowing requirement, or increase in liabilities.

Sources

1. CSO, National Accounts Statistics.
2. Ministry of Finance, Economic & Functional Classification of the Central Government Budget.
3. Reserve Bank of India, Finances of State Governments.
4. World Bank staff estimates.

Table A5.2
Economic Classification of Public Sector (Non-Financial) /a/
(Rs. Billion at current prices)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Current Income	270.54	441.12	510.32	616.28	730.95	828.71	979.23	1118.92	1259.30	1458.58
Direct Taxes	33.34	41.16	45.70	55.61	59.64	66.67	90.57	100.73	117.31	155.59
Indirect Taxes	167.46	264.71	306.40	369.87	427.14	498.47	574.30	668.75	759.25	866.50
Factor Income	57.59	123.29	144.13	177.64	220.53	241.30	292.14	324.46	356.94	403.65
Interest Receipts	7.02	4.80	2.99	-1.61	9.71	8.15	3.70	4.14	2.66	3.44
Dividend (RBI)	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	3.50
Miscellaneous Receipts	3.03	5.06	9.00	12.67	11.83	12.02	16.42	18.74	21.04	25.90
Current Expenditure	232.63	392.44	465.89	559.39	681.99	791.19	939.43	1103.77	1263.02	1426.82
Consumption	130.84	211.41	243.52	291.74	346.25	408.43	473.47	543.19	615.37	695.47
Subsidies	31.60	56.05	78.30	85.43	97.95	114.97	139.53	178.43	177.20	198.66
Interest Payments	31.34	65.00	84.27	106.90	131.21	162.56	200.56	247.49	295.64	382.65
on External Debt	2.83	5.72	6.70	9.03	13.55	16.86	21.69	28.34	34.87	51.40
on Domestic Debt	28.50	59.28	77.58	97.87	117.66	145.70	178.88	219.15	260.76	331.25
Net Current Transfers	38.86	59.99	59.80	75.32	106.58	105.23	125.87	134.66	174.81	150.04
GT1 EXP INT DOM										
Gross Saving	37.91	48.68	44.43	56.89	48.96	37.52	39.80	15.15	-3.72	31.76
Gross Investment	116.56	201.74	246.27	287.36	331.76	323.84	379.40	444.60	537.96	559.49
Investment-Saving GAP	78.65	153.06	201.84	230.47	282.80	286.32	339.60	429.45	541.68	527.73
Other Capital Expenditure	30.85	21.06	44.52	16.11	65.79	49.40	56.41	72.83	69.36	10.14
Increase in Bank Balance	0.57	5.73	8.83	3.42	15.61	-0.07	18.93	10.00	10.00	-5.00
Foreign Grants	-4.36	-3.26	-4.75	-4.85	-4.36	-4.92	-6.00	-7.54	-5.86	-9.75
Lending to External Sector	6.41	7.10	4.29	5.91	15.23	10.83	8.43	16.40	4.07	0.74
Other (to Private Sector)	28.23	11.49	36.15	11.63	39.31	43.56	35.05	53.97	61.15	24.15
GROSS DEFICIT	109.50	174.12	246.36	246.58	348.59	335.72	396.01	502.28	611.04	537.87
Financed by:										
R.B.I.	40.38	39.87	75.40	43.28	76.07	64.02	69.27	140.69	151.65	51.68
Commercial Banks	28.78	31.92	40.79	48.25	73.43	50.27	71.31	47.10	88.77	139.33
Private Sector	25.06	84.76	100.09	130.10	161.24	179.49	205.52	254.28	329.52	290.90
External Loans	15.28	17.57	30.08	24.95	37.85	41.94	49.91	60.20	41.10	55.96
MEMO ITEMS:										
Gross Deficit / GDPmp (%)	8.05	8.39	10.65	9.40	11.90	10.08	9.99	11.06	11.51	8.84
Public Debt / GDPmp (%)	56.90	60.76	66.44	69.09	75.40	77.21	76.93	79.75	82.41	85.90
End-Year Debt Stock	773.89	1261.37	1537.15	1811.72	2208.95	2572.59	3050.83	3620.58	4375.07	5228.67
Debt to RBI	164.43	268.10	343.50	386.78	462.85	526.87	596.14	736.83	888.48	940.16
Debt to Commercial Banks	154.87	249.25	290.04	338.29	411.72	461.99	533.30	580.40	669.17	808.50
Debt to Private Sector	327.29	533.87	633.96	764.07	925.31	1104.80	1310.32	1564.60	1894.12	2185.02
Debt to External Sector	127.31	210.15	269.65	322.59	409.08	478.93	611.07	738.75	923.30	1294.99

/a/ Consolidation of central and state governments and non-financial public enterprises.

Sources: 1. Ministry of Finance, Economic & Functional Classification of the Central Govt Budget.
2. CSO, National Account Statistics.
3. Reserve Bank of India, Finances of State Governments.
4. World Bank staff estimates.

Table A5.3
Economic Classification of Central Govt Finances
(Rs.Billion at current prices)

	1980/81	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 B.E.
Current Income	120.89	234.04	281.16	330.55	376.38	444.40	512.19	569.92	691.17	789.95
Direct Taxes	19.72	35.46	37.55	40.64	41.57	60.75	60.81	69.09	98.95	112.85
Indirect Taxes	73.75	141.07	173.86	202.55	238.57	276.76	322.68	360.70	401.12	451.72
Enterprise & Proprty Income	22.95	49.07	58.23	74.93	83.38	93.77	113.08	125.12	163.26	206.65
Factor Income	4.00	10.40	15.27	25.72	28.22	29.91	33.72	44.89	56.31	68.75
Dividend	2.92	4.07	5.15	5.08	6.05	4.75	7.15	19.32	10.49	26.22
Interest received	16.03	34.60	37.80	44.13	49.11	59.12	72.21	60.91	96.46	111.69
Miscellaneous Receipts	4.47	8.45	11.53	12.43	12.85	13.13	15.62	15.01	27.84	18.74
Current Expenditure	120.86	243.67	295.57	359.07	419.31	501.62	586.61	674.93	774.05	830.35
Consumption	51.74	94.29	112.10	146.64	165.51	187.64	207.84	223.59	247.31	271.30
Compensation of employees	24.58	44.83	50.94	64.36	74.96	84.28	90.82	99.70	112.25	125.22
Purchase of Goods & Servs.	27.16	49.46	61.16	82.28	90.55	103.35	117.02	123.89	135.06	146.08
Interest Payments	22.53	56.46	70.90	86.48	107.02	133.47	165.25	199.49	256.82	296.46
on External Debt	2.50	4.60	5.38	7.66	9.77	12.42	14.84	18.09	30.00	40.94
on Domestic Debt	20.03	51.86	65.52	78.82	97.25	121.05	150.41	181.40	226.82	255.52
Grants	24.21	42.24	55.40	62.22	73.62	86.23	86.43	110.90	130.01	133.13
Grants to State Govts	18.09	28.64	39.22	42.05	49.62	58.31	57.25	76.64	91.02	92.39
Grants to Others	6.11	13.60	16.18	20.17	24.00	27.91	29.18	34.26	38.99	40.73
Subsidies	19.12	44.84	50.70	55.42	59.76	78.59	108.62	107.28	103.63	89.10
Pensions	2.67	4.95	5.26	6.35	11.57	13.76	15.99	16.50	18.88	21.98
Other Current Transfers	0.59	0.89	1.21	1.96	1.82	1.94	2.48	17.16	17.40	18.38
Gross Saving	0.04	-9.63	-14.41	-28.51	-42.93	-57.22	-74.42	-105.01	-82.89	-40.40
Gross Investment	19.08	41.23	45.58	59.05	59.61	70.56	81.37	86.02	95.20	117.88
Investment-Saving GAP	19.04	50.86	59.99	87.56	102.54	127.78	155.79	191.03	178.08	158.27
Other Capital Expenditure	68.31	123.30	158.66	175.86	167.91	181.44	223.51	255.47	185.17	189.81
Net Capital Transfers	8.44	24.79	33.19	39.66	49.75	51.49	60.81	65.32	44.79	53.16
to State Govts	10.53	24.78	32.93	36.81	44.48	44.64	53.33	59.02	72.75	74.17
to Private Sector	2.27	4.76	5.10	7.23	10.18	12.85	15.02	12.15	-18.21	-12.36
from External Sector	-4.36	-4.75	-4.85	-4.36	-4.92	-6.00	-7.54	-5.86	-9.75	-8.66
Net Lending	59.87	98.50	125.47	136.18	118.16	129.95	162.71	190.15	140.38	136.65
to State Govts	23.33	39.20	61.63	54.04	66.29	73.68	84.15	112.79	96.21	95.51
to Non-Fin Enterprises	25.14	48.32	54.30	66.45	46.00	47.98	52.37	45.56	35.53	42.64
to Financial Enterprises	4.95	5.67	4.47	5.08	2.99	6.79	9.27	9.70	10.83	10.23
to Private Sector /b/	0.04	1.03	-0.85	-4.61	-7.95	-6.94	0.51	18.04	-2.93	-12.77
to External Sector	6.41	4.29	5.91	15.23	10.83	8.43	16.40	4.07	0.74	1.04
GROSS FISCAL DEFICIT (GOI) /a/	87.35	174.16	218.65	263.42	270.45	309.22	379.30	446.50	363.25	348.08

contd....

Table A5.3
Economic Classification of Central Govt Finances
(Rs.Billion at current prices)

	1980/81	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 B.E.
Financed by:										
R.B.I	35.51	60.56	61.89	70.91	65.59	65.03	138.13	147.45	55.08	
Commercial Banks	15.05	11.56	33.64	50.20	39.36	46.20	46.79	54.28	100.14	
Private Sector /b/	27.41	77.29	79.39	99.12	125.95	151.35	168.85	212.50	154.88	
External	13.35	15.17	15.16	21.46	29.24	25.23	27.71	33.40	54.00	
MEMO ITEMS:										
OCC & other adjustments	..	8.50	14.70	23.90	14.10	12.90	-25.00	-12.50	-11.00	
Adjusted Gross Deficit (IMF)	87.35	165.66	203.95	239.52	256.35	296.32	404.30	459.00	374.25	
End-Year Debt Stock	607.44	1130.38	1358.64	1637.43	1916.58	2275.22	2709.31	3270.67	3873.80	
Debt to RBI	152.78	318.58	380.47	451.38	516.97	582.00	720.13	867.58	922.66	
Debt to Commercial Banks	73.64	118.26	151.90	202.10	241.46	287.66	333.85	388.13	488.27	
Debt to Private Sector	254.06	474.64	554.03	653.15	779.10	930.45	1099.30	1311.80	1466.68	
Debt to External Sector	120.26	215.16	254.63	315.36	367.40	454.95	538.05	686.31	980.20	
GDPmp	1360.13	2313.87	2619.20	2919.74	3326.16	3949.92	4506.01	5295.37	6107.24	
Gross Deficit / GDP (%)	6.42	7.53	8.34	8.99	8.12	7.80	8.35	8.41	5.97	
Adjusted Deficit (IMF)/ GDP(%)	6.42	7.16	7.78	8.18	7.69	7.47	8.91	8.65	6.15	
Debt / GDP (%)	44.66	48.86	51.81	55.89	57.52	57.37	59.68	61.61	63.64	

/a/ Excluding the write-off of Rs 23 billion liability to OCC deposits in 1989/90, which was treated as revenue by GOI.
/b/ Derived residually.

Sources: 1. Ministry of Finance, Economic & Functional Classification of the Central Government Budget.
2. World Bank staff estimates.

Table A5.4
Budgetary Classification of Central Government Finances
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93 R.E.	93/94 B.E.
Revenue receipts	280.35	330.83	370.37	435.91	499.96	549.54	660.46	782.79	842.09
Tax revenue	211.40	243.19	280.15	337.51	383.49	429.78	500.69	581.79	627.39
Non-tax revenue	68.95	87.64	90.22	98.40	116.47	119.76	159.77	201.00	214.70
Interest from state governments	18.72	27.54	31.58	37.70	44.24	51.74	65.65	77.50	97.67
Revenue expenditure (A+B+C+D)	342.48	408.60	461.75	541.06	642.07	735.15	823.08	949.80	1018.39
A. Developmental	89.28	102.85	114.25	140.36	184.15	196.01	198.17	216.57	196.20
1. Social services	12.52	16.75	19.35	22.43	24.99	27.53	30.57	35.75	40.30
2. Economic services	76.76	86.11	94.90	117.93	159.17	168.48	167.60	180.83	155.90
B. Non-developmental	175.84	220.10	244.59	287.69	335.47	391.00	450.34	531.70	605.26
Defence services	70.20	91.79	88.60	95.58	101.94	108.74	114.42	123.62	136.80
Interest payments	75.03	92.37	112.36	142.61	177.57	214.71	265.63	325.00	380.00
C. Grants-in-aid and contributions	71.51	78.59	93.49	102.08	109.36	134.39	159.53	185.88	199.61
Grants to state governments	67.04	73.53	91.36	100.15	107.44	132.02	157.00	182.98	196.38
D. Revenue expenditure of UTs	5.86	7.06	9.43	10.92	13.09	13.75	15.05	15.65	17.31
Net current balance	-62.13	-77.77	-91.38	-105.15	-142.11	-185.61	-162.62	-167.01	-176.30
Capital expenditure (A+B+C+D-E)	156.53	185.65	179.07	204.08	237.18	260.88	200.63	200.21	193.30
A. Developmental	58.72	75.62	56.67	60.03	70.95	69.23	58.26	68.43	61.90
1. Social services	1.74	3.90	2.80	3.51	3.21	2.47	2.39	2.62	4.16
2. Economic services	56.99	71.72	53.86	56.52	67.74	66.77	55.87	65.81	57.74
B. Non-developmental	16.48	14.58	33.39	40.76	45.27	49.56	52.32	56.48	61.82
Defence services	9.67	12.98	31.08	37.83	42.22	45.52	49.05	51.38	55.00
C. Capital expenditure of UTs	1.35	2.40	2.88	1.76	1.87	2.68	3.42	3.45	4.25
D. Loans and advances (net)	79.97	93.05	86.13	101.53	119.09	139.40	117.01	106.86	100.33
to States & UTs	73.62	49.87	58.51	67.30	79.55	98.69	94.18	89.20	77.42
to Others	6.35	43.18	27.62	34.23	39.55	40.71	22.83	17.65	22.92
E. Disinvestment of equity in PSEs	..	..	..	..	..	..	30.38	35.00	35.00
Gross fiscal deficit (GOI Defn.)	218.66	263.42	270.45	309.22	379.30	446.50	363.25	367.22	369.59
OCC and other adjustments	14.70	23.90	14.10	12.90	-25.00	-12.50	-11.00	6.32	0.79
Gross fiscal deficit (IMF Definition)	203.96	239.52	256.35	296.32	404.30	459.00	374.25	360.90	368.80
Finance by instruments									
Market loans	48.84	55.32	58.62	84.18	74.04	80.01	75.10	36.70	37.00
Small savings	43.69	34.11	39.11	58.35	85.75	91.04	66.40	55.00	55.00
Provident funds	14.20	46.80	52.74	71.12	90.86	89.37	79.56	94.50	100.20
External loans	14.49	20.24	28.93	24.60	25.95	31.81	54.21	44.30	54.54
Treasury bills	65.65	88.62	56.52	62.44	109.11	117.69	68.87	47.34	43.14
Other	31.79	18.33	34.53	8.53	-6.41	36.58	19.11	89.38	79.72

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.
3. Dept. of Expenditure, Finance Accounts.

Table A5.5
Budgetary Classification of State Government Finances
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 R.E.	92/93 B.E.
Revenue receipts	340.37	386.86	448.00	507.09	589.08	673.19	797.85	883.03
Tax revenue	220.42	251.88	289.20	330.70	392.27	448.80	523.04	595.45
Direct tax	14.84	16.77	19.85	24.13	30.06	33.75	37.46	42.18
Indirect tax	130.67	150.35	173.37	199.88	229.89	269.70	313.61	353.35
State share in central taxes	74.91	84.76	95.98	106.69	132.32	145.35	171.97	199.92
Non-tax revenue	119.95	134.98	158.80	176.38	196.81	224.39	274.81	287.58
Grants from centre	67.04	73.53	91.36	100.15	107.44	132.02	157.00	162.48
Revenue expenditure [A+B+C]	329.35	381.58	451.54	522.96	602.53	717.73	847.97	934.43
A. Developmental (1+2)	230.76	269.44	318.20	362.37	407.81	488.55	572.93	597.90
1. Social services	133.66	151.99	177.06	205.74	240.17	279.62	312.71	339.16
2. Economic services	97.10	117.45	141.14	156.63	167.64	208.92	260.22	258.74
B. Non-developmental	94.56	107.69	128.44	155.06	188.69	221.34	265.75	326.62
Interest payments	35.44	44.29	52.68	64.11	76.68	92.21	111.38	139.35
To centre	18.72	27.54	31.58	37.70	44.24	51.74	65.65	82.60
To others	16.72	16.75	21.10	26.41	32.44	40.47	45.73	56.75
C. Other expenditure /a/	4.02	4.46	4.91	5.53	6.03	7.84	9.28	9.92
Net current balance	11.03	5.28	-3.55	-15.87	-13.45	-44.54	-50.12	-51.40
Capital expenditure [A+B+C]	81.74	94.39	101.31	98.66	117.52	134.78	148.75	173.46
A. Developmental (1+2)	53.55	60.51	64.29	68.53	77.28	89.61	98.47	110.47
1. Social services	7.44	9.88	10.74	11.28	11.71	12.57	16.95	18.08
2. Economic services	46.11	50.63	53.55	57.25	65.57	77.03	81.52	92.40
B. Non-developmental	0.98	2.26	2.26	2.25	2.36	2.63	2.36	3.15
C. Loans and advances (net)	27.21	31.62	34.77	27.88	37.88	42.55	47.92	59.84
Gross fiscal deficit	70.72	89.11	104.85	114.53	130.96	179.32	198.87	224.86
Finance by instrument:								
Market loans	14.28	14.31	18.01	22.46	25.95	25.60	33.12	36.17
Loans from centre (Net)	72.05	48.22	58.31	67.07	79.30	98.39	93.75	89.44
Small savings & Provident funds	9.71	10.42	16.28	20.01	23.07	30.69	30.33	31.09
Other	-25.33	16.16	12.26	4.98	2.65	24.63	41.66	68.16

/a/ Other expenditure include compensation and assignments to local bodies and panchayat raj institutions and reserve with the finance department

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.

Table A5.6
Budgetary Classification of General Government Finances
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 /a/	92/93 B.E.
Revenue receipts	534.96	616.62	695.43	805.15	937.36	1038.97	1235.66	1394.83
Tax revenue	431.82	495.07	569.35	668.21	775.76	878.58	1023.73	1160.01
Non tax revenue	103.14	121.55	126.08	136.94	161.60	160.39	211.93	234.82
Revenue expenditure [A+B+C+D]	586.06	689.12	790.35	926.17	1092.92	1269.12	1448.40	1585.06
A. Developmental	320.04	372.29	432.44	502.73	591.96	684.56	771.10	792.38
1. Social services	146.18	168.73	196.40	228.17	265.15	307.16	343.28	372.34
2. Economic services	173.86	203.56	236.04	274.55	326.80	377.40	427.82	420.04
B. Non-developmental	251.68	300.25	341.45	405.05	479.92	560.60	650.44	764.83
C. Revenue disbursements of UTs	5.86	7.06	9.43	10.92	13.09	13.75	15.05	14.81
D. Other Expenditure /b/	8.49	9.52	7.04	7.46	7.95	10.21	11.81	13.04
Net current balance	-51.11	-72.49	-94.93	-121.02	-155.56	-230.15	-212.74	-190.22
Capital expenditure [A+B+C+D-E]	164.65	230.17	221.87	235.44	275.15	296.97	255.21	288.87
A. Developmental (1+2)	112.28	136.14	120.95	128.56	148.23	158.84	156.72	173.85
1. Social services	9.18	13.78	13.54	14.79	14.92	15.04	19.34	21.32
2. Economic services	103.10	122.35	107.41	113.76	133.31	143.80	137.38	152.53
B. Non-Developmental	17.46	16.83	35.65	43.01	47.63	52.19	54.69	61.55
C. Loans and advances (net)	33.56	74.80	62.38	62.11	77.42	83.26	70.75	74.66
D. Capital disbursements of UTs	1.35	2.40	2.88	1.76	1.87	2.68	3.42	3.80
E. Disinvestment of equities in PSEs.	..	..	..	..	..	..	30.38	25.00
Gross fiscal deficit	215.76	302.66	316.79	356.45	430.71	527.12	467.94	479.09
Finance by Instrument:								
Market Loans	63.12	69.63	76.63	106.64	99.99	105.61	108.22	86.17
Small Savings	43.69	34.11	39.11	58.35	85.75	91.04	66.40	72.00
Provident Funds	23.91	57.22	69.02	91.13	113.93	120.06	109.89	128.69
External Loans	14.49	20.24	28.93	24.60	25.95	31.81	54.21	45.09
Treasury Bills	65.65	88.62	56.52	62.44	109.11	117.69	68.87	53.89
Other	4.90	32.84	46.58	13.29	-4.02	60.90	60.35	93.25

/a/ Actuals for the centre and revised estimates for the states.
/b/ Other expenditure include compensation and assignments to local bodies and panchayat raj institutions and reserve with the finance department and central grants to UTs.

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.
3. Dept. of Expenditure, Finance Accounts.

Table A5.7
TAX REVENUE - CENTRE AND STATES
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 /a/	92/93 /b/	93/94 B.E.
Central Government									
A. Gross tax revenue	286.70	328.38	376.66	444.74	516.36	575.76	673.61	787.82	848.67
Corporation tax	28.65	31.60	34.33	44.07	47.29	53.35	78.53	92.00	105.00
Taxes on income	25.11	28.79	31.92	42.41	50.04	53.71	67.24	83.00	95.00
Customs	95.26	114.75	137.02	158.05	180.36	206.44	222.57	255.00	277.27
Union Excise Duties	129.56	144.70	164.26	188.41	224.06	245.14	281.10	325.00	337.51
Other	8.12	8.54	9.13	11.80	14.61	17.12	24.17	32.82	33.89
B. States Share of Tax Revenue	74.91	84.76	95.98	106.69	132.32	145.35	171.97	205.25	220.49
Income Tax	18.46	21.60	25.89	27.49	39.22	41.21	51.04	60.60	71.36
Estate Duty	0.20	0.10	0.06	0.01	..	..	..	..	..
Union Excise Duties	56.25	63.06	70.03	79.19	93.10	104.14	120.93	144.65	149.13
C. Assignments of UT taxes to local bodies	0.39	0.43	0.53	0.54	0.55	0.63	0.95	0.78	0.79
Tax Revenue (net) [A-B-C]	211.40	243.19	280.15	337.51	383.49	429.78	500.69	581.79	627.39
State Government									
States own Tax Revenue	145.51	167.12	193.22	224.01	259.95	303.45	351.07	395.53	
Direct Tax	14.84	16.77	19.85	24.13	30.06	33.75	37.46	42.18	
Taxes on income	2.72	2.70	2.70	3.12	4.53	6.34	6.56	6.49	
Land revenue	3.53	3.82	4.48	5.94	6.90	6.07	5.62	6.59	
Stamps and registration fees	8.53	10.16	12.54	14.86	18.45	21.12	25.04	28.75	
Other	0.07	0.08	0.13	0.21	0.18	0.22	0.24	0.35	
Indirect Tax	130.67	150.35	173.37	199.88	229.89	269.70	313.61	353.35	
Sales Tax	84.29	96.40	111.85	131.22	150.60	176.67	208.87	237.69	
State excise	20.52	24.21	28.67	30.81	38.64	47.95	53.28	59.29	
Taxes on Vehicles	8.26	9.98	11.75	12.90	14.15	15.66	18.06	20.73	
Other	17.60	19.77	21.09	24.96	26.49	29.41	33.39	35.64	
State's Share of Central Taxes	74.91	84.76	95.98	106.69	132.32	145.35	171.97	199.92	
Tax revenue retained by states	220.42	251.88	289.20	330.70	392.27	448.80	523.04	595.45	

/a/ Actuals for the centre and revised estimates for the states.
/b/ Revised estimates for the Centre and Budget estimates for the States.

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.

Table A5.8
NON-TAX REVENUE - CENTRE AND STATES
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 /a/	92/93 /b/	93/94 B.E.
Central Government									
Non-tax revenue	68.95	87.64	90.22	98.40	116.47	119.76	159.77	201.00	214.70
Interest receipts	45.95	53.53	57.55	69.81	84.66	87.30	109.22	124.37	145.31
from state governments	18.72	27.54	31.58	37.70	44.24	51.74	65.65	77.50	97.67
Dividends and profits	5.15	5.07	6.05	4.75	7.16	7.74	10.55	25.48	26.91
Other general services	2.61	3.01	3.37	3.95	4.05	5.06	5.41	8.39	6.36
Social services	0.76	4.54	0.60	0.80	0.57	0.65	0.73	0.99	1.27
Economic services	3.58	11.49	12.73	8.93	5.45	8.60	20.43	18.49	11.61
Grants-in-aid and contributions	4.87	4.36	4.92	6.00	7.54	5.86	9.47	11.06	13.65
Other	6.03	5.64	5.00	4.16	7.06	4.55	3.96	12.24	9.59
State Government									
States own Non-tax revenue	52.91	61.45	67.44	76.24	89.37	92.37	117.81	125.10	
Interest receipts	13.65	16.88	19.47	23.87	26.34	24.03	45.90	36.83	
General services	6.81	7.04	7.54	9.51	11.40	19.13	16.45	17.28	
Social services	4.49	4.75	5.04	5.73	6.76	5.86	7.17	7.39	
Economic services	27.75	32.55	35.12	36.64	44.59	43.01	47.68	63.02	
Forestry and wild life	8.98	9.59	10.67	10.08	11.96	11.37	13.23	16.14	
Industries	6.63	8.50	9.11	12.08	14.31	12.23	15.16	20.67	
Other	12.16	14.46	15.33	14.48	18.32	19.41	19.29	26.20	
Other	0.21	0.23	0.28	0.49	0.28	0.34	0.61	0.58	
Grants from centre	67.04	73.53	91.36	100.15	107.44	132.02	157.00	162.48	
Non-tax revenue retained by states	119.95	134.98	158.80	176.38	196.81	224.39	274.81	287.58	

/a/ Actuals for the centre and revised estimates for the states.
/b/ Revised estimates for the Centre and Budget estimates for the States.

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.

Table A5.9
Revenue Expenditure of Centre
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93 R.E.	93/94 B.E.
Revenue expenditure (A+B+C+D)	342.48	408.60	461.75	541.06	642.07	735.15	823.08	949.80	1018.39
A. Developmental	89.28	102.85	114.25	140.36	184.15	196.01	198.17	216.57	196.20
1. Social services	12.52	16.75	19.35	22.43	24.99	27.53	30.57	35.75	40.30
Education, Sports, Art and Culture	5.30	7.08	10.13	11.12	11.41	12.74	13.72	15.23	18.45
Health and Family welfare	2.11	2.22	2.67	3.11	3.48	3.97	4.50	5.94	6.09
Information and Broadcasting	1.30	1.72	2.10	2.36	3.23	3.60	4.43	3.93	4.13
Water supply and Sanitation	0.04	0.80	0.13	0.51	0.78	0.93	0.64	0.66	1.06
Labour and labour welfare	1.71	2.34	1.64	2.43	2.64	2.78	3.00	3.46	3.58
Social security and welfare	1.42	1.86	1.92	1.96	2.36	2.25	2.81	4.60	4.91
Other	0.64	0.72	0.76	0.94	1.09	1.27	1.47	1.92	2.08
2. Economic services	76.76	86.11	94.90	117.93	159.17	168.48	167.60	180.83	155.90
Agriculture and allied services	4.64	5.10	5.55	7.45	7.75	22.92	19.05	22.01	18.94
Fertilizer Subsidy	19.24	18.98	21.64	32.01	45.42	43.89	52.05	61.40	35.00
Food Subsidy	16.50	20.00	20.00	22.00	24.76	24.50	28.50	28.00	30.00
Export Subsidy	6.03	7.85	9.62	13.86	20.16	27.42	17.54	8.80	5.00
Irrigation and Flood Control	0.48	0.84	0.76	0.85	0.81	0.89	1.20	1.38	1.64
Rural Development	2.16	2.91	3.13	3.61	3.70	3.77	3.57	4.13	6.59
Special Areas Programmes	0.11	0.12	0.06	0.05	0.07	0.12	0.19	0.18	0.22
Energy	3.89	3.16	3.94	5.59	6.90	7.49	5.37	5.21	5.28
Industry and Minerals	8.66	11.17	13.57	12.20	17.96	12.26	12.03	18.73	19.16
Transport and Communications	4.25	3.12	6.06	6.79	15.62	8.05	9.19	10.44	11.74
Science, Technology and Environment	5.24	6.10	7.57	9.34	10.40	11.27	12.87	13.90	15.85
General Economic Services	5.56	6.76	2.99	4.18	5.62	5.90	6.04	6.63	6.47
B. Non-developmental	175.84	220.10	244.59	287.69	335.47	391.00	450.34	531.70	605.26
Defence services	70.20	91.79	88.60	95.58	101.94	108.74	114.42	123.62	136.80
Interest payments	75.03	92.37	112.36	142.61	177.57	214.71	265.63	325.00	380.00
on Internal Debt	39.19	47.63	55.14	69.13	82.73	96.22	109.09	136.03	154.23
on External Debt	5.38	7.66	9.77	12.42	14.94	17.78	25.69	36.23	39.46
on Small Savings, PFs. etc.	28.69	34.89	44.90	58.01	75.73	96.37	124.20	145.38	180.01
Other	1.77	2.19	2.56	3.06	4.17	4.34	6.66	7.37	6.30
Administrative Services	10.47	13.28	15.32	17.91	20.71	25.24	27.98	32.46	34.22
Fiscal Services	10.06	12.07	10.94	11.00	12.78	12.12	17.69	20.70	23.31
Pensions and misc. services	10.07	10.59	17.37	20.60	22.46	30.19	24.63	29.92	30.93
C. Grants-in-aid and contributions	71.51	78.59	93.49	102.08	109.36	134.39	159.53	185.88	199.61
Grants to State Governments	67.04	73.53	91.36	100.15	107.44	132.02	157.00	182.98	196.38
a. Non Plan	16.07	16.17	19.22	23.40	23.33	41.67	31.51	32.09	24.26
b. State Plan Schemes	24.69	26.64	34.43	35.59	35.38	38.78	70.55	82.80	87.76
c. Central and Centrally sponsored schemes	26.10	30.12	37.14	40.46	48.37	51.05	54.93	68.09	84.36
d. Other	0.19	0.60	0.58	0.71	0.35	0.52	0.01	0.00	..
Grants to UTs. and Others	4.47	5.06	2.13	1.93	1.92	2.37	2.53	2.90	3.23
D. Revenue Disbursements of UTs (Net)	5.86	7.06	9.43	10.92	13.09	13.75	15.05	15.65	17.31
Memo Items:									
Total Subsidies	47.96	54.51	59.80	77.32	104.74	121.58	122.70	121.08	83.76
Major Subsidies	41.77	46.83	51.26	67.87	90.32	95.81	98.09	94.80	70.00
Other Subsidies	6.19	7.68	8.54	9.45	14.42	25.77	24.61	26.28	13.76
Rural Employment Programme	9.39	12.05	14.10	12.44	21.00	20.00	18.17	25.46	33.06
RLEGP	6.03	7.27	6.66	7.84	0.02	..	..	..	..
NREP	3.36	4.78	7.45	4.60	0.02	..	..	..	..
Jawahar Rojgar Yojana	..	..	..	..	20.96	20.00	18.17	25.26	32.83

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.
3. Dept. of Expenditure, Finance Accounts.

Table A5.10
Revenue Expenditure of State Governments
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 R.E.	92/93 B.E.
Revenue expenditure (A+B+C)	329.35	391.58	451.54	522.96	602.53	717.73	847.97	934.43
A. Developmental (1+2)	230.76	269.44	318.20	362.37	407.81	488.55	572.93	597.90
1. Social services	133.66	151.99	177.06	205.74	240.17	279.62	312.71	339.16
Education, Sports, Art and Culture.	68.40	77.55	90.10	109.43	135.71	155.28	172.65	190.11
Health and Family Welfare.	25.78	25.54	30.53	34.77	39.64	45.86	50.83	54.62
Water supply and Sanitation	6.48	11.78	13.22	13.94	14.77	16.38	17.29	18.42
Welfare of SC, ST and BCs	8.51	9.08	11.86	13.18	14.69	17.90	20.65	22.00
Social security and welfare	7.49	9.24	8.23	9.70	11.07	13.62	16.24	17.73
Other	17.00	18.79	23.13	24.72	24.29	30.59	35.06	36.29
2. Economic services	97.10	117.45	141.14	156.63	167.64	208.92	260.22	258.74
Agriculture and Allied Services	31.19	33.25	38.98	42.65	48.29	62.67	71.77	74.58
Crop Husbandry	8.57	8.76	9.59	11.06	12.65	16.97	20.06	22.75
Food Storage and Warehousing	0.74	1.05	1.20	1.23	1.56	1.88	2.45	3.56
Forestry and Wild Life	6.52	7.61	8.69	9.46	10.28	11.75	13.83	14.68
Other	15.36	15.83	19.50	20.90	23.80	32.06	35.44	33.58
Rural Development	21.84	28.20	32.20	36.54	28.27	46.75	58.71	62.82
Special Areas Programmes	1.65	2.06	2.35	3.09	3.54	3.57	4.67	4.52
Irrigation and Flood Control	18.90	24.08	27.75	33.19	33.94	34.56	41.29	46.39
Energy	2.27	4.04	9.14	7.74	10.92	9.89	29.05	11.87
Industry and Minerals	5.88	6.67	7.33	8.69	12.17	11.65	13.40	14.11
Transport and Communications	10.67	13.78	16.01	17.35	19.22	23.36	25.56	27.55
Science, Technology and Environment	0.11	0.23	0.24	0.23	0.26	0.29	0.41	0.44
General Economic Services	4.6[illegible]	5.15	7.14	7.15	11.02	16.18	15.37	16.46
B. Non-Developmental	94.56	107.69	128.44	155.06	188.69	221.34	265.75	326.62
Interest Payments	35.44	44.29	52.68	64.11	76.68	92.21	111.38	139.35
On loans from the centre	18.72	27.54	31.58	37.70	44.24	51.74	65.65	82.60
On the Internal Debt	6.15	7.06	8.95	10.42	13.41	15.68	20.10	25.89
On Small Savings, PFs.	3.59	6.01	7.63	10.58	12.70	17.03	22.19	26.47
Other	6.98	3.68	4.51	5.41	6.34	7.76	3.44	4.40
Administrative Services	33.18	37.18	44.18	50.31	59.74	70.18	76.29	100.32
Pensions and Miscellaneous Services	12.07	13.91	17.58	23.92	29.31	35.93	43.68	51.25
Other	13.87	12.31	13.99	16.72	22.96	23.01	34.40	35.70
C. Other expenditure /a/	4.02	4.46	4.91	5.53	6.03	7.84	9.28	9.92

/a/ Other expenditure include compensation and assignments to local bodies and panchayat raj institutions and reserve with the finance department.

Source: Reserve Bank of India, RBI bulletins on state finances.

Table A5.11
CAPITAL EXPENDITURE: CENTRE AND STATES
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92 /a/	92/93 /b/	93/94 B.E.
Central Government									
Capital expenditure [A+B+C+D-E]	156.53	185.65	179.07	204.08	237.18	260.88	200.63	200.21	193.30
A. Developmental (1+2)	58.72	75.62	56.67	60.03	70.95	69.73	58.26	68.43	61.90
1. Social services	1.74	3.90	2.80	3.51	3.21	2.47	2.39	2.62	4.16
Education, Sports, Art etc.	0.03	0.68	0.05	0.13	0.08	0.06	0.04	0.05	0.10
Health and Family welfare	0.72	0.01	0.19	0.15	0.20	0.00	0.20	0.02	0.06
Housing	0.76	1.03	0.75	0.99	0.98	1.11	1.26	1.63	2.29
Information and Broadcasting	0.83	2.13	1.74	1.71	1.78	1.06	0.35	0.27	0.51
Other	-0.60	0.05	0.08	0.52	0.18	0.24	0.53	0.64	1.20
2. Economic services	56.99	71.72	53.86	56.52	67.74	66.77	55.87	65.81	57.74
Agriculture and allied	1.50	2.32	0.54	0.55	0.45	0.45	0.49	0.49	0.72
Energy	18.18	21.25	18.46	19.05	26.07	27.09	19.91	16.28	22.48
Industry and Minerals	22.93	20.82	14.07	13.10	11.52	7.71	6.70	9.25	8.52
Transport & Communications	17.09	23.79	18.40	21.51	26.15	26.45	24.72	27.38	20.83
General Economic Services	-4.25	1.09	0.65	0.00	1.26	2.52	2.57	9.23	2.18
Other	1.54	2.45	1.75	2.31	2.28	2.56	1.48	3.18	3.01
B. Non-developmental	16.48	14.58	33.39	40.76	45.27	49.56	52.32	56.48	61.82
Defence Services	9.67	12.98	31.08	37.83	42.22	45.52	49.05	51.38	55.00
Other	6.81	1.59	2.32	2.93	3.05	4.04	3.27	5.09	6.82
C. Capital Expenditure of UTs	1.35	2.40	2.88	1.76	1.87	2.68	3.42	3.45	4.25
D. Loans and Advances(Net)	79.97	93.05	86.13	101.53	119.09	139.40	117.01	106.86	100.33
To State Governments & UTs.	73.62	49.87	58.51	67.30	79.55	98.69	94.18	89.20	77.42
To Others	6.35	43.18	27.62	34.23	39.55	40.71	22.83	17.65	22.92
E. Disinvestment of equity in PSEs	..	..	..	..	..	..	30.38	35.00	35.00
State Government									
Capital expenditure [A+B+C]	81.74	94.39	101.31	98.66	117.52	134.78	148.75	173.46	
A. Developmental (1+2)	53.55	60.51	64.29	68.53	77.28	89.61	98.47	110.47	
1. Social Services	7.44	9.88	10.74	11.28	11.71	12.57	16.95	18.08	
Education, Sports, Art etc.	0.88	1.20	1.29	1.68	2.64	2.84	2.87	3.40	
Health and Family Welfare	2.22	1.89	1.88	2.04	1.84	2.37	3.04	3.36	
Water supply and Sanitation	2.27	3.39	4.00	4.04	3.37	3.54	5.05	5.62	
Housing	0.77	1.75	2.11	1.90	1.99	1.82	1.97	1.85	
Other	1.30	1.65	1.45	1.63	1.87	2.00	4.02	3.85	
2. Economic Services	46.11	50.63	53.55	57.25	65.57	77.03	81.52	92.40	
Agriculture and allied	5.43	2.60	2.17	2.69	5.91	6.11	5.24	7.84	
Irrigation and Flood control	25.98	27.11	29.66	32.66	32.91	36.56	34.42	42.33	
Transport	7.86	9.75	9.43	10.27	11.59	13.42	14.02	16.97	
Other	6.83	11.17	12.28	11.63	15.16	20.94	27.83	25.25	
B. Non-developmental	0.98	2.26	2.26	2.25	2.36	2.63	2.36	3.15	
C. Loans and advances(Net)	27.21	31.62	34.77	27.88	37.88	42.55	47.92	59.84	

/a/ Actuals for the centre and revised estimates for the states.
/b/ Revised estimates for the Centre and Budget estimates for the States.

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.

Table A5.12
Transfers between Centre and States
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93 R.E.	93/94 B.E.
States' share in central taxes	74.91	84.76	95.98	106.69	132.32	145.35	171.97	205.25	220.49
Union excise duties	56.25	63.06	70.03	79.19	93.10	104.14	120.93	144.65	149.13
Income tax	18.46	21.60	25.89	27.49	39.22	41.21	51.04	60.60	71.36
Estate duty	0.20	0.10	0.06	0.01	0.00	0.00	0.00	0.00	0.00
Grants to States	67.04	73.53	91.36	100.15	107.44	132.02	157.00	182.98	196.38
Non-plan grants	16.07	16.17	19.22	23.40	23.33	41.67	31.51	32.09	24.26
State plan schemes	24.69	26.64	34.43	35.59	35.38	38.78	70.55	82.80	87.76
Central and Centrally sponsored schemes	26.10	30.12	37.14	40.46	48.37	51.05	54 93	68.09	84.36
Other	0.19	0.60	0.58	0.71	0.35	0.52	0.01	0.00	0.00
Loans to States & UTs	92.37	75.13	86.98	99.15	109.16	135.66	123.30	123.02	118.47
Loan Repayments by States and UTs	18.75	25.27	28.47	31.85	29.62	36.97	29.12	33.81	41.06
Interest Payments by States	18.72	27.54	31.58	37.70	44.24	51.74	65.65	77.50	97.67
NET TRANSFER(Centre to States)	196.85	180.61	214.28	236.43	275.07	324.32	357.50	399.93	396.62

Sources: 1. Ministry of Finance, Union budget documents.
2. Reserve Bank of India, RBI bulletins on state finances.
3. Dept. of Expenditure, Finance Accounts.

Table A3.13
Explicit Subsidies in the Central Government Budget
(Rs. billion at current prices)

	1985/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93 R.E.	93/94 B.E.
A. Major Subsidies	41.77	46.83	51.26	67.87	90.32	93.81	98.09	94.80	70.00
1. Food	16.50	20.00	20.00	22.00	24.76	24.50	28.50	28.00	30.00
2. Indegenious Fertilizers	16.00	17.00	20.50	30.00	37.71	37.30	35.00	48.00	30.00
3. Imported Fertilizers	3.24	1.98	1.14	2.01	7.71	6.59	13.00	10.00	5.00
4. Other Fertilizer Subsidy	..	..	..	..	..	..	4.05	3.40	..
5. Export Promotion and Market Development.	6.03	7.85	9.62	13.86	20.16	27.42	17.54	8.80	5.00
B. Debt relief to farmers	..	..	..	..	..	15.02	14.25	15.00	5.00
C. Other Subsidies	6.19	7.68	8.54	9.45	14.42	10.75	10.36	11.28	8.76
5. Railways	1.28	1.44	1.74	2.07	2.33	2.83	3.13	3.41	3.59
6. Mill-made cloth	0.51	0.36	0.23	0.27	0.10	0.10	0.15	0.15	0.12
7. Handloom Cloth	0.86	1.23	1.24	1.46	1.81	1.85	1.87	1.94	2.07
8. Import/Export of Sugar, Edible Oils etc.	0.23	0.76	0.05	0.60	..	..	..	..	..
9. Interest Subsidies	2.71	2.29	3.93	4.06	8.81	3.79	3.16	1.13	1.13
10. Other Subsidies	0.60	1.60	1.35	1.19	1.37	2.18	2.05	1.25	1.85
TOTAL - Subsidies	47.96	54.51	59.80	77.32	104.74	121.58	122.70	121.08	83.76

Source: Minstry of Finance, Union Budget Documents.

Table A5.14
OUTSTANDING DEBT OF CENTRAL GOVERNMENT [a]
(Rs billion at current prices)

	1980/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92 [b]
1. To Reserve Bank of India	152.78	218.53	258.02	318.58	380.47	451.38	516.97	582.00	720.13	867.58	922.66
a. Treasury bills	118.44	159.05	146.47	189.85	242.49	183.61	70.91	123.18	235.73	49.80	61.59
b. CG Securities	38.58	63.34	77.91	98.19	104.23	82.26	88.63	110.89	141.02	174.50	n.a.
c. Special securities	5.85	42.10	45.70	46.50	51.87	198.67	371.77	369.87	368.81	671.01	720.46
d. Other liabilities	-2.92	-7.52	-10.52	-9.86	-16.64	-6.95	-6.12	-11.69	-25.43	-27.73	n.a.
e. Cash balances and Dpts.	7.17	38.44	1.54	6.12	1.48	8.21	8.02	10.25	n.a.	n.a.	n.a.
2.To commercial banks	73.64	98.59	106.70	118.26	151.90	202.10	261.46	287.66	333.85	388.13	488.27
a. Treasury bills	5.21	11.55	9.38	2.98	0.46	0.16	0.14	0.03	0.06	0.10	0.11
b. CG Securities	68.43	87.04	97.32	115.28	151.44	201.94	241.32	287.63	333.79	388.03	488.16
To Banking system	226.42	317.12	364.72	436.84	532.37	653.48	758.43	869.66	1053.98	1255.71	1410.93
3.To Private Sector	250.81	372.28	400.70	482.41	587.84	696.62	829.78	973.10	1089.90	1203.56	1155.49
a. Small savings	79.76	110.98	135.07	171.57	214.49	247.25	283.58	338.33	417.91	501.00	556.20
b. Others	171.05	261.30	265.63	310.84	373.35	449.37	546.20	634.77	671.99	702.56	599.29
4. External Debt	120.26	159.32	183.62	215.16	254.63	315.36	367.40	454.95	538.05	686.31	980.20
5. Total outstanding debt	597.49	848.72	949.04	1134.41	1374.84	1665.46	1955.61	2297.71	2681.93	3145.58	3546.62

[a] End of year stocks.
[b] Provisional

Sources: 1. RBI, Report on Currency and Finance, various issues.
2. Ministry of Finance, Union Budget & Indian Economic Statistics (Public Finance).
3. Economic Survey, various issues.
4. World Bank Staff Estimates.

Table A5.15
OUTSTANDING DEBT OF STATE GOVERNMENT [a]
(Rs billion at current prices)

	1980/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92 [b]
1. To Reserve Bank of India	11.65	9.70	10.08	24.92	6.31	11.47	9.90	14.14	16.70	20.90	17.50
a. Gross	12.11	9.84	10.93	25.76	10.65	14.58	10.09	14.29	n.a.	n.a.	n.a.
b. Cash balances and Dpts.	0.46	0.14	0.85	0.84	4.34	3.11	0.19	0.15	n.a.	n.a.	n.a.
2. To commercial banks	19.11	25.75	31.62	41.66	44.53	55.25	75.37	89.92	100.83	125.32	154.51
a. SG Securities	16.81	23.17	29.12	38.38	47.74	56.18	69.47	85.02	103.49	122.90	154.62
b. Others	2.30	2.58	2.50	3.28	-3.21	-0.93	5.90	4.90	-2.66	2.42	-0.11
To Banking System (1)+(2)	30.76	35.45	41.70	66.58	50.84	66.72	85.27	104.06	117.53	146.22	172.01
3. To Private Sector	45.00	59.38	70.26	68.84	108.06	106.77	118.61	151.20	184.42	218.91	262.88
a. Provident Fund	24.63	36.30	44.27	48.46	58.17	68.59	84.87	104.56	127.63	156.63	n.a.
b. Others	20.37	23.08	25.99	20.38	49.89	38.18	33.74	46.64	56.79	62.28	n.a.
4. To Central Govt. (a-b-c)	164.01	230.40	271.90	308.52	352.23	419.24	481.35	539.69	621.05	716.90	807.83
a. Loans from Center	170.71	235.58	274.56	312.26	369.84	434.68	493.00	559.85	639.03	738.52	835.62
b. States' holding of Trs.Bill	4.35	2.97	0.17	1.43	15.20	12.68	8.88	17.38	15.18	18.80	24.95
c. States' holding of CG Sec.	2.35	2.21	2.49	2.31	2.41	2.76	2.77	2.78	2.80	2.82	n.a.
5. Total outstanding debt	239.77	325.23	383.86	443.94	511.13	592.73	685.23	794.96	923.00	1082.03	1242.72

[a] End of year stocks.
[b] Provisional

Sources: 1. RBI, Report on Currency and Finance, various issues.
2. Ministry of Finance, Union Budget & Indian Economic Statistics (Public Finance).
3. Economic Survey, various issues.
4. World Bank Staff Estimates.

Table A5.16
OUTSTANDING DEBT OF CENTRAL AND STATE GOVERNMENTS [a]
(Rs billion at current prices)

	1980/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92 [b]
1. To Reserve Bank of India	164.43	228.23	268.10	343.50	386.78	462.85	526.87	596.14	736.83	888.48	940.16
a. Centre	152.78	218.53	258.02	318.58	380.47	451.38	516.97	582.00	720.13	867.58	922.66
b. State	11.65	9.70	10.08	24.92	6.31	11.47	9.90	14.14	16.70	20.90	17.50
2.To commercial banks	92.75	124.34	138.32	159.92	196.43	257.35	316.83	377.58	434.68	513.45	642.78
a. Centre	73.64	98.59	106.70	118.26	151.90	202.10	241.46	287.66	333.85	388.13	488.27
b. State	19.11	25.75	31.62	41.66	44.53	55.25	75.37	89.92	100.83	125.32	154.51
To Banking System (1)+(2)	257.18	352.57	406.42	503.42	583.21	720.20	843.70	973.72	1171.51	1601.93	1582.94
3.To Private Sector	289.11	426.48	468.30	547.51	678.29	787.95	936.74	1104.15	1256.34	1400.85	1390.58
a. Small savings	79.76	110.98	135.07	171.57	214.49	247.25	283.58	338.33	417.91	501.00	556.20
b. Others	209.35	315.50	333.23	375.94	463.80	540.70	653.16	765.82	838.43	899.85	834.38
4. External Debt	120.26	159.32	183.62	215.16	254.63	315.36	367.40	454.95	538.05	686.31	980.20
5. Total outstanding debt	666.55	938.37	1058.34	1266.09	1516.13	1823.51	2147.84	2532.82	2965.90	3489.09	3953.72
Loans to States from Centre	170.71	235.58	274.56	312.26	369.84	434.68	493.00	559.85	639.03	738.52	835.62

[a] End of year stocks.
[b] Provisional

Sources: 1. RBI, Report on Currency and Finance, various issues.
2. Ministry of Finance, Union Budget & Indian Economic Statistics (Public Finance).
3. Economic Survey, various issues.
4. World Bank Staff Estimates.

Table A5.17(a)
PROJECTED AND ACTUAL PLAN OUTLAYS BY SECTORS
(Rs billion)

	Sixth Plan		Seventh Plan				Eighth Plan
	(80/81-84/85)		(85/86-89/90)		90/91	91/92	(92/93-96/97)
	proj.	actuals	proj.	actuals	Actuals	Revised	Projections
A Agriculture & Allied Programs	119.15	152.02	222.34	315.10	85.42	91.58	636.43
Agriculture	56.95	66.24	105.26	127.93	34.05	39.44	224.67
Rural Development	53.64	69.97	89.06	152.46	41.50	41.13	344.25
Special Area Program	14.80	15.81	28.04	34.70	9.86	11.01	67.50
B Irrigation & Flood Control	121.60	109.31	169.79	165.91	39.74	39.56	325.25
Minor Irrigation	18.10	18.48	28.05	31.92	8.28	8.30	59.77
Maj. Irrigation	84.48	74.93	115.56	110.20	26.34	25.58	224.15
Flood Control	10.45	8.11	9.47	9.45	1.97	2.46	16.23
Command Area Development	8.56	7.79	16.71	14.33	3.15	3.22	25.10
C Industry and Minerals	150.18	169.50	221.08	290.99	63.74	80.26	469.22
Village & Small Scale	17.81	19.45	27.53	32.49	8.78	10.47	63.34
Large & Medium Industries	132.37	150.05	193.55	258.50	54.96	69.79	405.88
D Energy	265.35	307.51	551.29	618.20	171.01	188.43	1155.61
Power	192.65	182.98	342.74	378.95	113.88	127.59	795.89
Petroleum	43.00	84.82	129.35	161.31	35.92	40.57	240.00
Coal	28.70	38.08	74.01	71.22	19.85	18.63	105.07
E Transport	124.12	142.07	229.71	297.70	80.74	97.18	559.26
Railways	51.00	65.87	123.34	165.50	48.93	53.25	272.02
Roads & Road Transport	46.35	50.82	71.90	84.59	22.60	23.83	169.52
Ports & Shipping [a]	14.86	12.13	23.13	26.07	5.41	13.33	76.14
Civil Aviation	8.59	9.57	7.58	18.99	3.24	6.14	40.83
F Communication & Broadcasting	31.34	34.69	61.14	98.93	32.39	39.13	289.66
G Science & Technology	8.65	10.11	24.63	30.23	7.59	8.88	90.42
H Social Services	140.35	159.15	295.78	332.61	93.15	102.46	751.55
Education	25.24	29.78	63.83	76.85	21.01	24.35	196.00
Health & Family Welfare	28.31	34.12	64.49	68.09	18.23	18.99	140.76
Housing & Urban Development	24.88	28.38	42.30	48.36	16.80	17.10	105.50
Water Supply & Sanitation	39.22	39.97	65.22	70.92	18.34	22.17	167.11
Other Social Services	22.70	26.90	59.94	68.38	18.78	19.84	142.19
I Others	8.02	16.56	24.24	57.94	9.90	11.09	63.60
J TOTAL	975.0	1100.9	1800.0	2207.6	583.69	658.56	4341.00

Note: The Plan totals are at base year prices for projections and at current prices for actuals.
[a] Covers Major and Minor ports, Shipping, Lighthouses and Inland Water
[b] Includes Communication & Broadcasting.
[c] Includes Scientific Research.
[d] Included under other social services.

Source: Planning Commission.

Table A5.17(b)
PROJECTED AND ACTUAL PLAN OUTLAYS BY SECTORS
(Annual averages at constant 1980/81 prices - Rs billion)

	Sixth Plan		Seventh Plan				Eighth Plan
	(80/81-84/85)		(85/86-89/90)		90/91	91/92	(92/93-96/97)
	proj.	actuals	proj.	actuals	actuals	Revised	Projections
A Agriculture & Allied Programs	26.78	24.45	30.31	33.35	36.90	38.16	53.04
Agriculture	12.80	10.68	14.35	13.56	14.71	16.43	18.72
Rural Development	12.05	11.23	12.14	16.13	17.93	17.14	28.69
Special Area Program	3.33	2.54	3.82	3.67	4.26	4.59	5.63
B Irrigation & Flood Control	27.33	17.78	23.15	17.75	17.17	16.48	27.10
Minor Irrigation	4.07	2.98	3.82	3.39	3.58	3.46	4.98
Major Irrigation	18.98	12.22	15.75	11.81	11.38	10.66	18.68
Flood Control	2.35	1.34	1.29	1.01	0.85	1.02	1.35
Command Area Development	1.92	1.24	2.28	1.54	1.36	1.34	2.09
C Industry and Minerals	33.75	27.01	30.14	31.21	27.53	33.44	39.10
Village & Small Scale	4.00	3.11	3.75	3.46	3.79	4.36	5.28
Large & Medium Industries	29.75	23.61	26.39	27.75	23.74	29.08	33.82
D Energy	59.63	49.16	75.16	65.64	73.87	78.51	96.30
Power	43.29	29.57	46.73	40.08	49.19	53.16	66.32
Petroleum	9.66	13.35	17.63	17.32	15.52	16.91	20.00
Coal	6.45	6.12	10.09	7.52	8.57	7.76	8.76
E Transport	27.89	22.92	31.32	31.24	34.88	40.49	46.60
Railways	11.46	10.67	16.82	17.36	21.14	22.19	22.67
Roads & Road Transport	10.42	8.26	9.80	9.04	9.76	9.93	14.13
Ports & Shipping	3.34	1.97	3.15	2.77	2.34	5.55	6.34
Civil Aviation	1.93	1.52	1.03	2.04	1.40	2.56	3.40
F Communication & Broadcasting	7.04	5.51	8.34	10.26	13.99	16.30	24.14
G Science & Technology	1.94	1.59	3.36	3.19	3.28	3.70	7.53
H Social Services	31.54	25.41	40.32	35.37	40.24	42.69	62.63
Education	5.67	4.71	8.70	8.01	9.07	10.15	16.33
Health & Family Welfare	6.36	5.44	8.79	7.23	7.87	7.91	11.73
Housing & Urban Development	5.59	4.61	5.77	5.14	7.26	7.13	8.79
Water Supply & Sanitation	8.81	6.39	8.89	7.57	7.92	9.24	13.93
Other Social Services	5.10	4.27	8.17	7.42	8.11	8.27	11.85
I Others	1.80	2.78	3.30	6.22	4.28	4.62	5.30
J TOTAL	219.1	176.6	245.4	234.2	252.1	274.4	361.75
Memo Item: Price Deflator	89.0	122.8	146.7	187.2	231.5	240.0	240.0

Note: See footnotes to Table A5.17(a).

Table A5.17(c)
PROJECTED AND ACTUAL PLAN OUTLAYS BY SECTORS
(% distribution and achievement rates) [a]

	Sixth Plan (80/81-84/85) % share [b]	Sixth Plan (80/81-84/85) achievement [c]	Seventh Plan (85/86-89/90) %share [b]	Seventh Plan (85/86-89/90) achievement [c]	1990/91 achievement [c]	1991/92 achievement [c]	Eighth Plan (92/93-96/97) % share [b]
A Agriculture & Allied Programs	12.2	91.3	12.6	110.0	93.4	91.0	14.7
Agriculture	5.8	83.4	5.8	96.5	89.6	88.2	5.2
Rural Development	5.5	93.2	4.9	132.8	96.5	92.6	7.9
Special Area Program	1.5	76.3	1.6	95.9	95.1	96.3	1.6
B Irrigation & Flood Control	12.5	65.1	9.4	76.7	96.7	84.2	7.5
Minor Irrigation	1.9	73.3	1.6	88.7	94.5	85.6	1.4
Major Irrigation	8.7	64.4	6.4	75.0	99.3	83.2	5.2
Flood Control	1.1	57.0	0.5	78.4	86.3	85.4	0.4
Command Area Development	0.9	64.4	0.9	67.4	91.0	88.0	0.6
C Industry and Minerals	15.4	80.0	12.3	103.6	75.4	93.1	10.8
Village & Small Scale	1.8	77.6	1.5	92.2	89.2	88.2	1.5
Large & Medium Industries	13.6	79.4	10.8	105.2	73.6	93.9	9.3
D Energy	27.2	82.4	30.6	87.3	90.6	88.5	26.6
Power	19.8	68.3	19.0	85.8	91.3	93.3	18.3
Petroleum	4.4	138.1	7.2	98.2	94.7	82.5	5.5
Coal	2.9	94.8	4.1	74.6	81.1	73.9	2.4
E Transport	12.7	82.2	12.8	99.8	86.8	98.0	12.9
Railways	5.2	93.1	6.9	103.2	97.9	100.0	6.3
Roads & Road Transport	4.8	79.3	4.0	92.3	97.9	87.5	3.9
Ports & Shipping	1.5	59.0	1.3	87.7	37.5	97.9	1.8
Civil Aviation	0.9	78.8	0.4	197.1	61.7	139.6	0.9
F Communication & Broadcasting	3.2	78.2	3.4	123.1	92.2	100.0	6.7
G Science & Technology	0.9	81.8	1.4	94.9	85.0	87.3	2.1
H Social Services	14.4	80.6	16.4	87.7	100.3	91.0	17.3
Education	2.6	83.0	3.5	92.1	93.3	93.5	4.5
Health & Family Welfare	2.9	85.5	3.6	82.2	104.6	98.2	3.2
Housing & Urban Development	2.6	82.4	2.4	89.2	128.2	97.8	2.4
Water Supply & Sanitation	4.0	72.5	3.6	85.2	95.9	88.2	3.8
Other Social Services	2.3	83.7	3.3	90.8	90.8	80.6	3.3
I Others	0.8	154.3	1.3	188.4	86.1	72.4	1.5
J TOTAL	100.0	80.6	100.0	95.5	90.2	91.1	100.0

[a] Derived from Table A5.17(b).
[b] Percentage share in total Plan outlay.
[c] Actual outlay as a percentage of target outlay for the Plan.

Table A6.1
MONEY SUPPLY AND SOURCES OF CHANGE, 1980/81 - 1992/93
(Rupees billion)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
BROAD MONEY SUPPLY (M3)	557.74	860.83	1023.62	1193.99	1416.42	1642.79	2002.41	2309.48	2658.28	3150.84	3607.90
Narrow Money Supply (M1)	181.69	333.93	399.22	640.99	515.22	585.59	711.01	810.58	928.92	1141.11	1227.77
Currency with Public	134.26	196.03	226.72	250.59	283.82	335.59	380.71	463.00	530.48	612.32	690.83
Deposit Money (total)	47.43	135.00	166.50	187.50	228.30	246.00	323.40	341.60	391.70	519.83	523.72
Time Deposits with Banks	376.05	526.90	624.40	753.00	901.20	1057.20	1291.40	1498.90	1729.36	2009.73	2380.13
SOURCES OF CHANGE											
Net Bank Domestic Credit	623.60	1013.68	1212.95	1411.24	1667.61	1918.57	2300.36	2688.57	3119.62	3493.59	3897.38
To Government	257.18	406.42	503.42	583.21	720.20	843.70	973.73	1171.53	1401.93	1582.94	1733.62
From Reserve Bank of India (RBI)	164.43	268.10	343.50	386.78	462.85	526.87	596.15	736.83	888.48	940.16	963.93
From Other Banks	92.75	138.32	159.92	196.43	257.35	316.83	377.58	434.70	513.45	642.78	769.70
To Commercial Sector	366.42	607.26	709.53	828.03	947.41	1074.87	1326.63	1517.04	1717.69	1910.65	2163.76
From Reserve Bank of India	17.00	23.80	27.52	30.52	33.94	37.90	55.24	63.49	63.42	72.60	60.72
From Other Banks	349.42	583.46	682.01	797.51	913.47	1036.97	1271.39	1453.55	1654.27	1838.05	2103.04
Net Foreign Exchange Assets of Banking Sector	47.30	16.46	31.34	38.72	48.15	56.72	68.00	66.51	86.72	195.27	197.81
Government's Currency Liabilities to the Public	6.19	7.19	7.77	9.40	11.92	13.80	14.75	15.55	16.21	16.96	17.78
Net Non-Monetary Liabilities	119.35	176.50	228.44	265.37	311.26	346.30	380.70	461.15	564.27	554.98	504.67
of Reserve Bank of India	53.60	53.11	86.22	107.07	134.44	142.25	169.36	175.36	270.22	274.03	269.39
of Other Banks	65.75	123.39	142.22	158.30	176.82	204.05	211.34	285.79	294.05	280.95	235.28
Broad Money Supply (M3)	557.74	860.83	1023.62	1193.99	1416.42	1642.79	2002.41	2309.48	2658.28	3150.84	3607.90
GDP at market prices	1360.13	2075.89	2313.43	2622.43	2929.49	3332.01	3965.93	4539.86	5308.65	6086.72	6934.84

Notes: [1] Upto 1991/92, as of March 31 on the basis of the closure of government accounts.
[2] 1992/93 numbers are provisional data from RBI.

Sources: [1] Economic Survey, various issues.
[2] RBI Bulletin (Weekly Statistical Supplement).

Table A6.2
BASE MONEY AND SOURCES OF CHANGE, 1980/81 - 1992/93
(Rupees billion)

	1980/81	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
TOTAL BASE MONEY SUPPLY	194.53	289.93	352.16	381.66	448.08	534.90	629.59	775.91	877.79	995.09	1029.34
Currency with Public	134.26	196.03	226.72	250.59	283.82	335.59	380.71	463.00	530.48	612.32	690.83
Other Deposits with RBI	4.11	2.91	5.95	2.89	3.09	3.97	6.94	5.98	6.74	8.96	13.32
Cash with Banks	8.73	10.39	12.03	14.65	15.31	15.63	19.72	19.86	22.34	24.99	26.51
Bank Deposits with RBI	47.43	80.60	107.46	113.53	145.86	179.71	222.22	287.07	318.23	348.82	298.68
SOURCES OF CHANGE											
RBI Claims	194.19	319.61	401.62	441.92	524.39	609.18	722.18	875.03	1051.97	1063.78	1084.33
On Government (net)	164.43	268.10	343.50	386.78	462.85	526.87	596.15	736.83	888.48	940.16	963.93
On Banks	12.76	27.71	30.60	24.62	27.60	44.41	70.79	74.71	100.07	51.02	59.68
On Commercial Sector	17.00	23.80	27.52	30.52	33.94	37.90	55.26	63.49	63.42	72.60	60.72
Net Foreign Exchange Assets of RBI	47.75	16.24	28.99	37.41	46.21	54.17	62.02	63.69	79.83	188.38	190.92
Government's Currency Liabilities to the Public	6.19	7.19	7.77	9.40	11.92	13.80	14.75	15.55	16.21	16.96	17.78
Net Non-Monetary Liabilities of Reserve Bank of India	53.60	53.11	86.22	107.07	134.44	142.25	169.36	175.36	270.22	274.03	269.39
Total Base Money Supply	194.53	289.93	352.16	381.66	448.08	534.90	629.59	775.91	877.79	995.09	1029.34
GDP at market prices	1360.13	2075.89	2313.43	2622.43	2929.49	3332.01	3965.93	4539.86	5308.65	6086.72	6934.84

Notes: [1] Upto 1991/92, as of March 31 on the basis of the closure of government accounts.
[2] 1992/93 numbers are provisional data from RBI.

Sources: [1] Economic Survey, various issues.
[2] RBI Bulletin (Weekly Statistical Supplement).

Table A6.3
SELECTED MONETARY POLICY INSTRUMENTS

Year & Month	Bank Rate	Minimum Cash Reserve(a) Ratio (e)	Statutory Liquidity(b) Ratio (f)	Net Liquidity (c)
1974 April	7	7	32	40
June 29	7	5	32	40
July 1	7	5	33	40
July 23	9	5	33	40
December 14	9	4.5	33	40
December 28	9	4	33	39
1975 November 1	9	4	33	(d)
1976 September 4	9	5	33	-
November	9	6	33	-
1977 January 14	9	Incremental CRR of 10% over January 14, 1977	33	-
1978 December	9	6	34	-
1980 October	9	Incremental CRR of 10% discontinued	34	-
1981 July 31	10	6.5	34	-
August 21	10	7.0	34	-
September 25	10	7.0	34.5	-
October 30	10	7.0	35	-
November 27	10	7.3	35	-
December 25	10	7.5	35	-
1982 January 29	10	7.75	35	-
April 10	10	7.25	35	-
June 11	10	7.00	35	-
1983 May 28	10	7.5	35	-
July 30	10	8.0	35	-
August 27	10	8.5	35	-
November 12	10	Incremental CRR of 10% over November 11, 1983	35	-
1984 February 4	10	9.0	35	-
July 28	10	9.0	35.5	-
September 1	10	9.0	36	-
October 30	10	(g)	36	-
1985 June 8	10	9.0	36.5	-
July 6	10	9.0	37	-

(Contd.)

Table A6.3 (concld.)
SELECTED MONETARY POLICY INSTRUMENTS

Year & Month	Bank Rate	Minimum Cash Reserve(a) Ratio (e)	Statutory Liquidity(b) Ratio (f)	Net Liquidity (c)
1987 February 28	10	9.5	37	-
April 25	10	9.5	37.5	-
October 24	10	10.0	37.5	-
1988 January 2	10	10.0	38	-
July 2	10	10.5	38	-
July 30	10	11.0	38	-
1989 July 1 (h)	10	15.0	38	-
1990 September 22	10	15.0 (i)	38.5	-
1991 July 4	11	15.0 (j)	38.5	-
1991 October 9	12	15.0 (k)	38.5	-
1992 April 1	12	15.0	30	-
1993 April 17	12	14.5 (m)	30 (l)	-

Note: Dates given are those on which the announced measures take effect.

(a) Minimum cash reserves to be deposited with the RBI as % of net demand and time liabilities (NDTL).
(b) The ratio of liquid assets (exclusive of those under (a)) to aggregate demand and time liabilities upto March 28, 1985 and net demand and time liabilities with effect from March 29 1985.
(c) Liquid assets as defined under (b) minus borrowing from RBI, SBI and IDBI. as percentage of aggregate demand and time liabilities.
(d) Starting from November 1 1975, the net liquidity ratio was abolished as a guideline to refinance.
(e) Besides the minimum cash reserves indicated under this column, banks were also required to maintain separately certain percentage of their liabilities under Foreign Currency (Non-Resident) Accounts (FCNR-10%) and Non-resident (External) Rupee Accounts (NRE-3%) till June 1, 1989. Thereafter there was no separate CRR for Non-resident deposits.
(f) Besides the percentage mentioned under this column, banks are to maintain effective October 25, 1975 in liquid assets 25% of their liabilities under FCNR Accounts. For the liabilities under NRE Accounts, the ratio was the same as that of domestic demand and time liabilities, upto October 25, 1985 and from October 2[illegible] 1985 onwards, banks are to maintain in liquid assets 25% of their liabilities under NRE accounts. Effective July 28, 1989 the SLR is 30% in respect of FCNR and NRE deposits.
(g) Of the balances impounded between 1977-1980, one-fifth was released in two instalments on October 30 and December 1 in 1984. Of the rest, one-third of outstanding balance on October 26, 1985; one-half of outstanding balance on November 22, 1986; and the balance on April 23, 1988.
(h) Announced on March 27, 1989. Effective July 1, 1989, the multiple prescription of cash reserves to be maintained are being withdrawn and being replaced by a single prescription.
(i) As the traditional instrument of credit control viz., the cash reserve ratio reached the statutory ceiling (15%), other measures were relied upon to moderate base money growth. An incremental net non-food credit-deposit ratio ceiling of 60% was stipulated in the second half of 1989/90. Exceeding this ratio entailed additional cost on refinance from RBI. This continued in 1990/91. In 1991/92 the ratio continued as incremental net non-food (excluding export credit) deposit ratio with a ceiling of 45%. In 1992/93 it was discontinued.
(j) For general credit control incremental cash reserve ratio (ICRR) of 10 percent (on increase in net demand and time liabilities over the level of May 3, 1991) was introduced w.e.f. May 4, 1991. This has been removed from 17 April, 1992.
(k) To prevent reserve money growth, the credit policy for the busy season announced withdrawal of food credit refinance, Standby refinance, 182 days' treasury bill refinance and discretionary refinance on Oct. 8, 1991
(l) 37.75% of NDTL up to April 3, 1992 would be reduced to 36.75% in four phases of 0.25 percentage points each as set out below: to 37.50 on Aug. 21, 1993; 37.25 on Sep. 18, 1993; 37.0 on Oct. 16, 1993 and 36.75 on Nov. 13, 1993. SLR of 30% of increase in NDTL over April 3, 1992 level remains unchanged.
(m) To be reduced to 14.0% on May 15, 1993.

Sources: 1. Reserve Bank of India, Report of the Committee to Review the Working of the Monetary System, 1985.
2. Reserve Bank of India, Annual Report - various issues.

Table A6.4
INTEREST RATES - SHORT TERM COMMERCIAL BANKING RATES
(in percent)

	1970/71	1980/81	1985/86	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93*
Bank Rate	5.0-6.0	9.0	10.0	10.0	10.0	10.0	10.0	12.0 (f)	12.0
Treasury Bill Rate(91 days)	3.0-3.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Call Money Rate									
State Bank of India									
- Scheduled Banks	8.5-12.0	15.0-19.4	17.5	16.5	16.5	16.5	16.5	16.5-22.5	
- Cooperative Banks	7.5-8.5	(a)	(a)	(a)	(a)	(a)	(a)		
Other Major Scheduled Commercial Banks									
- Bombay	6.38	7.12	10.00	9.88	9.77	15.85	11.49	19.57	27.78
- Calcutta	6.91	8.28	10.00	..	..	..	..	..	..
- Madras	6.45	9.42	10.00	9.92	..	..	..	..	..
Commercial Bank Rates									
Deposit Rates- Ceiling									
- 1 year to 3 years	6.0-6.5	7.5-8.5	8.5/9.0	9.0/10.0	9.0/10.0	9.0/10.0	9.0-10.0	12.0 (g)	13.0
- 3 years to 5 years	7.0	10.0	10.0	..	..	..	11.0	13.0 (h)	13.0
- above 5 years	7.25	10.0	11.0	..	..	..	..	13.0	..
Key Lending Rates				(d)					
Ceiling									
- General	(b)	19.40	17.50	16.5	(e)	..	..	..	..
- Exports	-	12.5-17.5	12.0/16.5	9.5/15.5	7.5/15.5	7.5/15.5	7.5-15.5	15-24(i)	15-19.0
- Food Procurements		12.50	14.00	14.00	14.00	14.00	16.00	19.0 (j)	19.0
- On deferred Payments	-	8.65	8.65	8.65	8.65	8.65	8.65	15.0 (k)	15.0
Minimum									
- General	-	13.5	(c)	(c)	16.0	16.0	16.0	19.0 (j)	19.0
- Selective Controls	-	17.5-19.5	16.5/17.5	16.5	16.0	16.0	16.0	19.0 (j)	19.0

Notes:

(a) Effective July 1980, the rates charged on demand loans are same as those applicable to general categories of borrowers for similar advances.

(b) The ceiling on lending rates was withdrawn in January 1970 but was reintroduced from March 1976.

(c) In the revised interest rate structure which became effective from March 2,1981, no general lending rate was fixed but a broad framework of interest rates was provided with fixed rates on certain types of advances and ceiling rates on other types of advances. Wherever ceiling rates were prescribed, the rate of interest fixed for the preceding advance would serve as floor rate in that category.

(d) Effective April 1,1987 all lending rates of commercial banks above 15% have been reduced by one percentage point.

(e) Effective October 10 ,1988, ceiling lending rates have been abolished and replaced with a minimum lending rate of 16%.

(f) The bank rate was raised to 11% with effect from the close of business on July 3, 1991 and further to 12% with effect from the close of business on October 8, 1991.

(g) Deposit rates for maturities of 1 year up to 3 years increased to 10.0/11.0 percent with effect from July 4, 1991 and and further to 12.0% with effect from October 9, 1991.

(h) Deposit rates for maturities of 3 years and over increased to 12.0 percent with effect from April 13, 1991 and and further to 13.0% with effect from July 4, 1991.

(i) Interest rates on export credit ranged between 7.5/16.0 effective April 1, 1991; 7.5/25.0 effective April 23, 1991; 12.5/25.0 effective August 6, 1991; and between 15.0/24.0 effective March 2, 1992.

(j) The minimum lending rate for borrowimgs of over Rs. 2 lakhs was raised from 16% to 17% effective April 13, 1991 to 18.5% effective July 4, 1991 and further to 20% effective October 9, 1991 and reduced to 19% from March 2, 1992.

(k) Interest rate on deferred export credit raised to 12.5% from August 6, 1991 and further to 12.5% from March 2, 1992.

* Up to December 18, 1992.

Source: Reserve Bank of India - Report on Currency and Finance, various issues.

Table A6.5
INTEREST RATES - LONG TERM RATES
(in percent)

	1970/71	1975/76	1980/81	1985/86	1989/90	1990/91	1991/92
Term Lending Institutions							
Prime Lending Rates							
IDBI	8.5	11.0	14.0	14.0	14.0	14.0-15.0 (g)	18.0-20.0
IFCI	9.0	12.0	14.0	14.0	14.0	14.0-15.0 (g)	18.0-20.0
ICICI	8.5	11.0	14.0	14.0	14.0	14.0-15.0 (g)	18.0-20.0
IRBI	-	8.5	9.2	12.5	14.0	14.0-15.0 (g)	18.0-20.0
SFC	7.5/10.5	8.0/14.5	12.0/16.0	11.5/16.5	11.5/16.5	..	..
(rates charged to SSI)	7.0/8.5	8.0/11.0	12.0/14.5	11.5/16.5	11.5/16.5	..	..
UTI Dividend Rate (July-June)	8.0	8.8	11.5	15.25	18.0	19.5	25.0
Corporate Borrowing Rates							
Preference - Ceiling	9.5	11.0	11.0	15.0	14.0/10.0	14.0/10.0 (h)	14.0/10.0
Debentures - Ceiling	8.0	10.5 (a)	13.5 (b)	13.5/15.0 (b)	12.5/14.0	12.5/14.0 (h)	12.5/14.0
Company Deposit Rates							
Private sector 1 year	-	9.0/13.5	9.0/13.5	10.0/15.0	10.5/14.0	10.5-14.0 (i)	10.5-15.0
2 years	-	10.0/14.5	10.0/14.5	12.0/15.0	12.0/14.0	12.0-14.0 (i)	12.0-15.0
3 years	-	9.5/16.5	13.0/15.5	13.0/15.0	13.5/14.0	13.5-14.0 (i)	14.0-15.0
5 years	-	9.0/16.0	15.0/16.0	-	-	-	-
Public sector 1 year	-	-	11.0	11.5/12.0	10.5/12.0	10.5-12.0 (i)	10.5-15.0
2 years	-	-	12.0	12.0/13.0	11.5/13.0	11.5-13.0 (i)	11.5-15.0
3 years	-	-	13.5	13.5/14.5	13.0/14.0	13.0-14.0 (i)	13.0-15.0
Industrial Securities							
Ordinary Shares	5.53	5.43	5.88	3.21	3.18	2.59	2.1
Debentures-Running Yield	7.31	8.39	n.a	n.a	n.a	n.a	n.a
Government Securities							
Short-term (1 - 5 years)	3.8/4.3	5.2/6.0	4.7/6.0	5.4/9.8	7.6/18.4	7.0-21.7	8.4-26.3
Medium-term (5-15 years)	4.3/4.8	5.5/6.0	5.8/6.8	6.5/9.5	7.7/15.1	9.4-12.7	9.5-13.4
Long-term(over 15 years)	4.8/5.5	6.1/6.5	6.4/7.5	8.4/11.5	10.1/11.8	10.9-12.0	9.9-12.4

(a) Effective September 12 ,1974 and for a term exceeding 7 years. 10 percent for a term less than 7 years.
(b) Interest on 'Rights' debentures issued by public limited companies to augment their long-term working capital requirements had been fixed at the rate of 10.5 percent upto 7 years maturity and 11 percent on the maturity period from 8 to 12 years as per guidelines issued by government in September 1978. The ceiling on interest on public issues of debentures was raised from 11 to 12 percent from October 1980 and further to 13.5 percent from March 2, 1981. From April 17, 1982, while the existing ceiling on interest rate of 13.5 percent was maintained for issues of convertible debentures, the ceiling rate was raised to 15 percent in the case of non-convertible debentures.
(c) The acceptance of deposits for periods more than 3 years has been prohibited effective from April 1, 1978 but in terms of the "Companies (Acceptance of Deposits) Rules 1975 companies are permitted to retain such deposits accepted prior to April 1 1978 till maturity.
(d) During 1985/86, a new instrument viz. Cumulative Convertible Preference shares with a ceiling rate of 10 % was introduced.
(e) The ceiling dividend rate on preference shares has been reduced from 15% to 14% effective April 16, 1987.
(f) The ceiling interest rates on debentures and company deposits were reduced by 1 percentage point effective April 1, 1987.
(g) Effective August 16, 1991 the interest rates of financial institutions were made flexible with a minimum rate of 15%.
(h) Effective August 5, 1991 the government removed all restrictions on interest rates on debentures and public sector bonds other than the tax free bonds of the public sector undertakings.
(i) With effect from January 1, 1992 the ceiling rate of interest on deposits accepted by the non-financial companies was raise to 15% from 14%.

Source: Reserve Bank of India - Report on Currency and Finance, various issues.

Table A6.6
SECTORAL DEPLOYMENT OF GROSS BANK CREDIT
(in Rs billion - change during year)

									April-July	
	80/81	85/86	86/87	87/88	88/89	89/90	90/91	91/92	91/92	92/93
Gross Bank Credit	35.69	72.57	73.56	76.91	154.68	169.43	153.48	79.87	7.90	79.49
Public Food Procurement Credit	-3.41	-1.30	-4.31	-29.14	-14.21	12.37	25.00	1.64	3.57	-1.89
Gross Non-Food Credit	39.10	73.87	77.87	106.05	168.89	157.06	128.48	78.23	4.33	81.38
Priority Sectors	17.74	31.57	34.84	40.20	51.49	61.64	25.32	25.54	6.17	11.89
Agriculture	8.17	13.98	15.12	14.39	19.41	25.76	2.26	14.37	6.02	6.60
Small Scale Industries	5.94	12.04	12.92	17.12	23.15	24.08	16.38	9.77	0.47	3.48
Other Priority Sectors	3.63	5.55	6.80	8.69	8.93	11.80	6.70	1.40	-0.32	1.81
Industry (Medium & Large)	16.91	24.83	29.34	37.97	70.32	60.87	62.46	28.22	3.66	49.98
Wholesale Trade (other than food procurement)	0.79	4.17	0.14	5.18	11.69	7.05	4.38	2.84	1.99	7.40
Cotton Corporation of India	0.32	0.25	-0.51	-0.18	-0.54	1.03	-0.49	1.17	-0.90	-1.44
Food Corporation of India	0.32	-0.25	0.08	0.22	0.31	0.28	-0.18	-1.91	-0.14	0.03
Jute Corporation of India	0.23	0.11	0.71	-0.56	-0.44	-0.44	0.08	0.08	-0.24	-0.02
Other Trade	-0.08	4.06	-0.14	5.70	12.36	6.18	4.97	3.50	3.27	8.83
Other Sectors	3.66	13.30	13.55	22.70	35.39	27.60	36.32	21.63	-7.49	12.11
Export Credit (included in Gross Non-Food Credit)	0.09	0.74	7.37	7.71	22.24	21.04	9.41	10.75	7.78	9.54
Priority Sector advances as percent of net bank credit in the last month of the period. [a]	35.0	40.80	42.20	44.10	43.20	42.40	39.20	38.50	39.70	36.60

Source: Economic Survey, various issues.

[a] Including Participation Certificates.

Table A6.7
INDICATORS OF INDUSTRIAL INVESTMENT CLIMATE [a]

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	April-December 1991/92	April-December 1992/93
Fresh approvals for setting up new industrial capacities:								
(a) Letters of Intent Issued:	997	971	1215	1155	931	600	434	454
(of which for backward areas)	533	525	610	550	399	269	192	242
(b) Registrations issued by SIA under scheme of delicensing	2575	1750	1125	1328	1345	1022	478	0
(of which for backward areas)	1600	1020	678	751	800	608	289	0
(c) Cases approved under the scheme of Minimum Economic Scales (MES)	134	46	36	71	71	n.a.	n.a.	n.a.
Licenses issued by way of conversion of L.I.	499	349	332	334	325	173	148	104
(of which for backward areas)	230	147	149	157	137	n.a.	57	n.a.
Carry-on Business licenses	97	48	58	67	51	22	17	.6
(of which for backward areas)	29	14	21	16	9	3	2	0
Re-endorsement of capacity	178	173	204	65	143	n.a.	n.a.	n.a.
Cases approved under broad-banding scheme	108	112	75	93	55	n.a.	n.a.	n.a.
Foreign Collaboration clearance given by Foreign Investment Board	649	587	636	595	638	1223	794	1092
Cases approved by Capital Goods Import(Main) Committee:								
Numbers	236	216	224	n.a.	n.a.	n.a.	n.a.	n.a.
Rs billion	11.82	8.06	10.37	16.33	8.54	n.a.	14.88	n.a.
Capital issues - consents given by CCI/SEBI Rs billion	58.43	51.67	82.35	120.76	126.33	194.02	7.36	91.11
Assistance from financial institutions:								
Sanctioned (Rs. bill.)	79.60	88.30	135.64	151.44	190.36	238.05	141.37 [b]	229.60 [b]
Disbursed (Rs. bill.)	56.56	66.11	83.75	96.04	119.76	159.89	101.30	146.88

[a] Relate to the period April-March.
[b] Relate to the period April-October

Source: Economic Survey, various issues.

Table A7.1
PROGRESS OF SELECTED PHYSICAL AGRICULTURAL DEVELOPMENT PROGRAMMES

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93 Target
High Yielding Varieties												
Total HYV (mls. hectares)	43.1	47.5	53.7	54.1	55.6	56.2	54.1	60.1	61.2	63.9	66.6	71.6
Paddy "	18.2	18.8	21.7	22.8	23.5	24.0	22.1	25.4	26.2	28.1	27.2	30.5
Wheat "	16.1	17.8	19.4	19.1	19.1	19.2	19.7	20.2	20.3	20.4	21.4	22.2
Maize "	1.6	1.7	1.9	2.0	1.8	2.2	2.2	2.5	2.3	2.6	3.0	3.2
Jowar "	3.5	4.4	5.3	5.1	6.1	5.5	6.1	6.1	6.9	6.7	8.0	8.3
Bajra "	3.6	4.7	5.4	5.2	5.0	5.3	4.0	5.9	5.6	5.1	6.0	6.3
Irrigated Area "	54.1	58.1	60.6	60.5	62.4	64.7	66.5	68.5	68.6	70.8	73.1	75.7
Major and Medium	22.7	24.0	26.6	25.3	25.8	26.5	26.8	27.2	25.5	26.0	26.6	27.3
Minor [a]	31.4	34.2	34.0	35.2	36.6	38.2	39.7	41.3	43.1	44.8	46.5	48.4
Soil conservation (mls. hect.) (cumulative at end of year)	24.4	26.5	28.0	29.4	30.5	31.2	32.1	32.9	34.0	34.9	35.7	36.5
Consumption of Chemical Fertilizers												
Nitrogenous (mls. tonnes)	3.7	4.2	5.2	5.5	5.7	5.8	5.7	7.3	7.4	8.0	8.0	8.4
Phosphatic "	1.2	1.4	1.7	1.9	2.0	2.1	2.2	2.7	3.0	3.2	3.3	3.2
Potassic "	0.6	0.7	0.8	0.8	0.8	0.9	0.9	1.1	1.2	1.3	1.4	1.1
Total NPK "	5.5	6.4	7.7	8.2	8.5	8.7	8.8	11.1	11.6	12.6	12.7	12.7

[a] The figures of minor irrigation indicate the net benefit after allowing for seepage.

Source: Economic Survey, various issues.

Table A7.2
PRODUCTION OF MAJOR CROPS

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Total Foodgrains	129.6	129.5	152.4	145.5	150.4	143.4	140.4	169.9	171.0	176.4	167.1
Kharif	77.6	69.9	89.2	84.5	85.3	80.2	74.6	95.6	101.0	99.4	91.4
Rabi	51.9	59.6	63.1	61.0	65.2	63.2	65.8	74.3	70.0	77.0	75.7
Total Cereals	119.0	117.7	139.5	133.6	137.1	131.7	129.4	156.1	158.2	162.1	155.0
Kharif	73.9	65.8	83.9	79.8	80.7	76.0	70.2	90.0	95.5	94.0	87.0
Rabi	45.1	51.9	55.6	53.8	56.4	55.7	59.2	66.1	62.7	68.1	68.0
Rice	53.6	47.1	60.1	58.3	63.8	60.6	56.9	70.5	73.6	74.3	73.7
Kharif	50.1	43.2	55.0	53.8	59.4	53.6	49.0	63.4	65.9	66.3	64.8
Rabi	3.5	3.9	5.0	4.6	4.4	7.0	7.8	7.1	7.7	8.0	8.9
Wheat	36.3	42.8	45.5	44.1	47.0	44.3	46.2	54.1	49.8	55.1	55.1
Barley (Jowar)	10.4	10.8	11.9	11.4	10.2	9.2	12.2	10.2	12.9	11.7	8.4
Kharif	7.5	7.5	8.7	7.8	7.3	6.5	8.6	7.1	9.2	8.3	5.9
Rabi	2.9	3.3	3.3	3.6	2.9	2.7	3.6	3.1	3.7	3.4	2.5
Maize	7.0	6.5	7.9	8.4	6.6	7.6	5.7	8.2	9.7	9.0	8.0
Bajra	5.3	5.1	7.7	6.0	3.7	4.5	3.3	7.8	6.6	6.9	4.6
Total Pulses	10.6	11.9	12.9	12.0	13.4	11.7	11.0	13.8	12.8	14.3	12.0
Kharif	3.8	4.1	5.4	4.8	4.5	4.2	4.4	5.6	5.5	5.4	4.4
Rabi	6.9	7.7	7.5	7.2	8.8	7.5	6.6	8.2	7.3	8.9	7.6
Gram	4.3	5.3	4.8	4.6	5.8	4.5	3.6	5.1	4.2	5.4	4.2
Tur	2.0	2.0	2.6	2.6	2.4	2.3	2.3	2.7	2.7	2.4	2.2
Total Oilseeds a/	9.4	10.0	12.7	12.9	10.8	11.3	12.6	18.0	16.9	18.6	18.3
Kharif	5.0	5.4	7.2	7.0	5.9	6.4	6.4	10.5	9.6	9.8	8.9
Rabi	4.4	4.6	5.5	5.9	4.9	4.9	6.2	7.5	7.3	8.8	9.4
Groundnut	5.0	5.3	7.1	6.4	5.1	5.9	5.8	9.7	8.1	7.5	7.1
Kharif	3.7	3.7	5.3	4.7	3.8	4.4	4.2	7.5	6.1	5.1	4.9
Rabi	1.3	1.5	1.8	1.7	1.4	1.4	1.7	2.2	2.0	2.4	2.2
Rapeseed & Mustard	2.3	2.2	2.6	3.1	2.7	2.6	3.4	4.4	4.1	5.2	5.8
Sugarcane	154.3	189.5	174.1	170.3	170.6	186.1	196.7	203.0	225.6	241.0	249.3
Cotton	7.0	7.5	6.4	8.5	8.7	6.9	6.4	8.7	11.4	9.8	9.8
Jute & Mesta	8.2	7.2	7.7	7.8	12.6	8.6	6.8	7.9	8.3	9.2	10.2
Jute	6.5	5.9	6.3	6.5	10.9	7.3	5.8	6.7	7.1	7.9	8.9
Mesta	1.6	1.2	1.4	1.3	1.8	1.3	1.0	1.2	1.2	1.3	1.3
Potato	9.7	10.0	12.1	12.6	10.4	12.7	14.1	14.9	14.8	15.2	15.7

Notes: Units of measurement of all commodities is million tonnes, except in the case of cotton, jute and mesta whose production is in terms of million of bales.
Figures for 1991/92 are provisional.
a/ Includes groundnuts, rapeseeds and mustard, sesamo, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

Sources: Economic Survey, various issues.

Table A7.3
GROSS AREA UNDER MAJOR CROPS
(million hectares)

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Total Foodgrains	126.7	125.1	131.2	126.7	128.0	127.2	119.7	127.7	126.8	127.8	121.6
Kharif	83.2	79.1	84.1	81.2	81.8	81.5	74.9	82.0	81.4	80.8	78.4
Rabi	43.5	46.0	47.0	45.5	46.2	45.7	44.8	45.7	45.4	47.0	43.2
Total Cereals	104.2	102.3	107.6	103.9	103.6	106.0	98.4	104.5	103.3	103.2	99.0
Kharif	72.8	68.8	73.0	70.6	70.8	70.7	64.9	70.9	69.9	69.3	67.0
Rabi	31.4	33.4	34.6	33.3	32.8	33.3	33.6	33.6	33.4	33.9	32.0
Rice	40.1	38.3	41.2	41.2	41.1	41.2	38.8	41.7	42.2	42.7	42.3
Kharif	38.4	36.4	38.9	39.2	39.2	38.4	35.8	38.9	39.3	39.7	39.0
Rabi	1.7	1.8	2.3	2.0	1.9	2.7	3.0	2.8	2.9	3.0	3.3
Wheat	22.3	23.6	24.7	23.6	23.0	23.1	23.1	24.1	23.5	24.2	23.0
Barley (Jowar)	15.8	16.4	16.4	15.9	16.1	15.9	16.0	14.6	14.8	14.4	12.6
Kharif	10.2	9.8	10.2	9.5	9.5	9.7	9.6	9.0	8.8	8.6	7.8
Rabi	5.6	6.5	6.3	6.5	6.5	6.2	6.4	5.7	6.0	5.8	4.8
Maize	6.0	5.7	5.9	5.8	5.8	5.9	5.6	5.9	5.9	5.9	5.8
Bajra	11.7	10.9	11.8	10.6	10.6	11.3	8.7	12.0	10.9	10.5	10.0
Total Pulses	22.5	22.8	23.5	22.7	24.4	23.2	21.3	23.1	23.4	24.7	22.6
Kharif	10.4	10.3	11.1	10.5	11.0	10.7	10.0	11.1	11.5	11.5	11.4
Rabi	12.0	12.6	12.4	12.2	13.4	12.4	11.2	12.0	11.9	13.2	11.2
Gram	5.6	7.4	7.2	6.9	7.8	7.0	5.8	6.8	6.5	7.5	5.7
Tur	2.8	2.9	3.2	3.2	3.2	3.1	3.3	3.5	3.6	3.6	3.7
Total Oilseeeds a/	17.6	17.8	18.7	18.9	19.0	18.6	20.1	21.9	22.8	24.1	25.4
Kharif	10.2	10.5	11.0	11.1	11.5	11.5	11.5	13.1	13.9	14.0	15.0
Rabi	7.4	7.2	7.7	7.8	7.5	7.1	8.6	8.8	8.9	10.1	10.4
Groundnut	6.8	7.2	7.5	7.2	7.1	7.0	6.8	8.5	8.7	8.3	8.6
Kharif	5.9	6.2	6.3	6.0	6.2	6.0	5.7	7.0	7.4	6.8	7.2
Rabi	0.9	1.0	1.2	1.1	0.9	0.9	1.2	1.5	1.3	1.5	1.4
Rapeseed & Mustard	4.1	3.8	3.9	4.0	4.0	3.7	4.6	4.8	5.0	5.8	6.5
Sugarcane	2.7	3.4	3.1	2.9	2.8	3.1	3.3	3.3	3.4	3.7	3.8
Cotton	7.8	7.9	7.7	7.4	7.5	6.9	6.5	7.3	7.7	7.4	7.7
Jute & Mesta	1.3	1.0	1.0	1.1	1.5	1.1	1.0	0.9	0.9	1.0	1.1
Jute	0.9	0.7	0.8	0.8	1.1	0.8	0.7	0.7	0.7	0.8	0.9
Mesta	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Potato	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0

Figures for 1991/92 are provisional.
a/ Includes groundnuts, rapeseeds and mustard, sesame, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

Source: Economic Survey, various issues.

Table A7.4
IRRIGATED AREA UNDER DIFFERENT CROPS
(million hectares)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Total Foodgrains	37.6	38.3	38.4	40.2	40.1	40.6	41.7	40.5	42.9	43.2
Total Cereals	35.6	36.2	36.6	38.5	38.4	38.5	39.5	38.5	40.8	41.0
Rice	16.3	17.1	16.0	17.4	17.7	17.7	18.2	17.0	18.7	19.1
Jowar	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
Bajra	0.6	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7
Maize	1.2	1.1	1.2	1.0	1.0	1.1	1.3	1.2	1.2	1.2
Wheat	15.5	15.5	17.0	17.9	17.5	17.5	17.7	17.9	18.6	18.4
Barley	0.9	0.8	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.5
Total Pulses	2.0	2.1	1.8	1.7	1.8	2.1	2.2	2.0	2.0	2.2
Other Crops										
Oilseeds a/	2.3	2.5	2.6	3.1	3.5	3.4	3.3	4.3	4.4	4.5
Cotton	2.1	2.2	2.3	2.3	1.9	2.2	2.2	2.3	2.3	2.5
Sugarcane	2.3	2.8	2.8	2.6	2.6	2.5	2.8	2.9	3.0	3.0

a/ Oilseeds include groundnuts, rapeseed and mustard, linseed, sesame, and others.

Source: Economic Survey, various issues.

Table A7.5
YIELD PER HECTARE OF MAJOR CROPS
(kgs. per hectare)

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Total Foodgrains	1023	1035	1102	1149	1175	1128	1173	1331	1349	1380	1374
Kharif	933	884	1060	1041	1042	985	996	1166	1241	1231	1166
Rabi	1195	1296	1343	1341	1410	1382	1468	1628	1544	1635	1751
Total Cereals	1142	1151	1296	1285	1324	1266	1315	1493	1530	1571	1565
Kharif	1015	956	1148	1129	1140	1074	1082	1270	1366	1357	1297
Rabi	1434	1552	1608	1617	1718	1673	1763	1964	1875	2010	2125
Rice	1336	1231	1457	1417	1552	1471	1465	1689	1745	1740	1741
Kharif	1303	1185	1413	1374	1514	1393	1368	1627	1677	1670	1660
Rabi	2071	2135	2205	2274	2329	2563	2640	2548	2678	2671	2705
Wheat	1630	1816	1844	1870	2046	1916	2002	2244	2121	2281	2397
Barley (Jowar)	660	657	726	715	633	576	762	697	869	814	664
Kharif	737	760	851	820	761	665	892	789	1053	969	760
Rabi	520	501	522	563	447	437	568	550	604	582	508
Maize	1159	1145	1352	1456	1146	1282	1029	1395	1632	1518	1381
Bajra	458	469	652	519	344	401	378	646	610	658	463
Total Pulses	473	519	548	526	547	505	515	598	549	578	534
Kharif	361	402	483	453	412	392	435	504	480	471	391
Rabi	571	615	605	589	658	604	587	686	616	672	680
Gram	657	715	663	661	742	649	629	753	652	712	735
Tur	689	680	801	819	767	722	685	779	763	673	588
Total Oilseeeds a/	532	563	679	684	570	605	629	824	742	771	719
Kharif	492	511	655	633	516	554	559	805	691	698	595
Rabi	588	639	713	758	651	687	720	851	822	872	897
Groundnut	735	732	940	898	719	841	855	1132	930	904	815
Kharif	629	604	835	779	602	733	737	1066	824	751	672
Rabi	1444	1516	1484	1518	1549	1540	1425	1442	1532	1611	1529
Rapeseed & Mustard	560	577	674	771	686	700	748	906	831	904	903
Sugarcane	57844	56441	55974	57673	60000	60000	60000	61000	65000	65000	66000
Cotton	152	163	141	196	197	169	168	202	252	225	217
Jute & Mesta	1129	1265	1323	1242	1524	1454	1274	1540	1646	1634	1656
Jute	1245	1458	1417	1411	1710	1647	1496	1748	1879	1833	1842
Mesta	828	771	869	764	910	865	680	909	956	988	990
Potato	13256	13549	15206	14806	12000	15000	16000	16000	16000	16000	16000

Figures for 1989/90 are provisional.
a/ Includes groundnuts, rapeseeds and mustard, sesame, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

Source: Economic Survey, various issues.

Table A7.6
NET AVAILABILITY OF CEREALS AND PULSES

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Population (mls.) [a]	688.5	718.9	734.5	750.4	766.5	782.7	799.2	815.8	832.6	867.7	865.8
Cereals (mls. tonnes)											
Net Production [b]	104.1	102.9	122.0	116.9	119.9	115.2	113.2	136.6	138.4	161.9	135.6
Net Imports	0.5	4.1	2.4	-0.3	-0.1	-0.4	2.3	0.8	-0.1	-0.6	0.8
Change in Govt. Stocks	-0.2	2.7	7.1	2.7	-1.6	-9.5	-4.6	2.6	6.2	-4.3	-3.5
Net Availability	104.8	104.4	117.3	113.9	121.5	124.4	120.1	134.7	132.3	165.6	140.0
Pulses (mls. tonnes)											
Net Availability	9.4	10.4	11.3	10.5	12.3	10.4	10.7	12.5	12.5	12.5	10.5
Per Capita Net Availability (per day in grams)											
Cereals	417.3	397.8	437.8	415.6	434.2	435.4	411.8	452.6	435.3	470.7	463.0
Pulses	37.4	39.6	42.1	38.3	44.0	36.4	36.7	42.0	41.1	40.3	33.4

[a] Population figures from 1981 onwards are provisional and are based on the 1981 census and the provisional figures available from the 1991 census.
[b] Production figures relate to agricultural year, July-June.

Source: Economic Survey, various issues.

Table A7.7
NET AVAILABILITY, PROCUREMENT AND PUBLIC DISTRIBUTION OF FOODGRAINS [a]
(million tonnes)

	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Net Production	113.4	113.3	133.3	127.3	131.6	125.5	122.8	148.7	149.7	154.3	146.2
Net Imports	0.7	4.1	2.4	-0.3	-0.5	-0.2	3.8	1.2	1.3	-0.6	1.2
Change in Government Stocks	-0.2	2.7	7.1	2.7	-1.6	-9.5	-4.6	2.6	6.2	-4.3	-3.5
Net Availability	114.3	116.7	128.6	124.3	135.8	134.8	130.8	147.2	144.0	158.1	152.5
Procurement	13.0	15.6	18.7	20.1	19.7	15.7	14.1	18.9	24.0	19.6	17.9
Public Distribution	13.0	16.2	13.3	15.8	17.3	18.7	18.6	16.4	16.0	20.6	19.1

[a] Production figures relate to agricultural year. Figures for procurement and public distribution relate to calendar years.

Source: Economic Survey, various issues.

Table A8.1 (a)
NEW INDEX OF INDUSTRIAL PRODUCTION
(1980/81=100)

	Weight	Index 1981/82	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 [a]	1990/91 over 1989/90	1991/92 over 1990/91
General Index	100.00	109.3	142.1	155.1	166.4	180.9	196.4	212.6	212.4	8.2	-0.1
Mining and Quarrying	11.46	117.7	167.5	177.9	184.6	199.1	211.6	221.2	221.8	4.5	0.3
Electricity Generated	11.43	110.2	152.4	168.1	181.0	198.2	219.7	236.8	257.0	7.8	8.5
Manufacturing Index	77.11	107.9	136.9	149.7	161.5	175.6	190.7	207.8	204.4	9.0	-1.6
Food products	5.33	113.5	125.6	133.2	139.0	148.5	150.9	169.8	176.8	12.5	4.1
Beverages, tobacco, etc.	1.57	104.3	112.1	98.5	84.9	92.1	103.0	104.8	119.1	1.7	13.6
Cotton textiles	12.31	99.7	110.4	112.5	111.2	107.8	112.3	126.6	128.2	12.7	1.3
Jute textiles	2.00	95.7	97.2	101.1	91.0	101.9	97.4	101.6	90.4	4.3	-11.0
Textile products	0.82	96.7	112.8	87.1	91.7	134.2	151.7	103.2	97.2	-32.0	-5.8
Wood & wood products	0.45	153.2	223.2	246.1	161.7	171.7	176.0	197.2	185.0	12.0	-6.2
Paper & paper products	3.23	108.3	148.5	163.2	166.3	171.3	181.5	198.0	205.1	9.1	3.6
Leather & leather products	0.49	128.1	169.2	177.7	185.5	177.4	188.3	194.3	181.5	3.2	-6.6
Rubber, plastic & petroleum prod.	4.00	119.2	153.0	149.6	155.1	168.3	173.5	174.0	172.2	0.3	-1.0
Chemical & chemical products	12.51	116.9	154.3	175.5	200.9	233.4	247.6	254.1	261.3	2.6	2.8
Non-metallic mineral products	3.00	106.7	157.3	160.3	158.1	184.6	189.9	193.1	205.2	1.7	6.3
Basic metal & alloy products	9.80	100.0	117.0	126.8	135.6	144.9	143.7	158.8	168.0	10.5	5.8
Metal products	2.29	94.6	114.7	124.5	129.6	133.5	142.6	143.1	133.1	0.4	-7.0
Machinery & machine tools	6.24	111.1	130.2	141.8	139.2	161.2	171.9	186.9	181.4	8.7	-2.9
Electrical machinery	5.78	103.9	200.6	254.7	335.2	346.0	459.2	563.6	492.9	22.7	-12.5
Transport equipment	6.39	108.1	135.8	144.9	151.9	171.3	181.1	192.5	189.3	6.3	-1.7
Miscellaneous products	0.90	149.2	152.7	235.4	272.1	306.3	333.2	321.8	269.8	-3.4	-16.2

[a] Provisional

Source: Economic Survey, various issues.

Table A8.1(b)
OLD INDEX OF INDUSTRIAL PRODUCTION
(1970=100)

Industry Group	Old Weight	1980/81	1981/82	1982/83	1983/84	Revised Weight	1983/84	1984/85	1985/86
Mining & Quarrying	9.69	151.9	175.8	195.8	217.3	9.69	217.3	234.8	245.7
Manufacturing	81.08	148.8	159.9	163.9	171.2	81.08	173.2	183.0	194.2
Food Industries	7.74	134.1	150.5	171.7	162.7	7.82	165.5	159.8	165.3
Beverage Industries	0.69	329.2	482.0	555.9	532.5	0.70	532.5	559.5	606.4
Tobacco Industries	2.21	127.2	144.2	150.0	139.5	2.23	139.5	137.7	122.0
Textiles	17.43	155.7	113.0	104.8	111.7	17.61	107.0	116.6	118.9
Footwear & Other Wearing Apparels etc	0.34	72.4	84.9	77.7	91.1	0.34	91.1	93.1	96.7
Wood & Cork except Furniture	0.49	100.2	87.3	136.8	207.7	-	-	-	-
Paper Products	2.24	135.7	149.6	151.8	150.4	2.26	149.6	171.7	192.9
Leather & Fur Products except Footwear	0.32	97.9	93.7	80.8	77.9	-	-	-	-
Rubber Products	2.22	152.0	157.5	164.0	178.0	2.24	186.9	194.7	200.4
Chemical & Chemical Products	10.90	188.2	212.8	217.9	231.5	11.01	234.2	250.8	264.4
Petroleum & Coal Products	1.62	140.5	164.2	181.0	191.5	1.64	191.5	193.4	232.2
Non-Metallic Mineral Products	3.[illegible]	161.4	169.9	179.6	189.8	3.36	168.9	196.3	253.7
Basic Metal Industries	8.84	137.5	1[illegible].1	161.4	160.8	8.93	163.8	173.1	184.7
Metal Products excluding Machinery & Transport Equipment	2.77	147.7	149.5	161.4	169.0	2.80	161.9	161.6	167.9
Mfg. of Machinery except Electrical Machinery	5.55	221.8	239.0	238.7	258.9	5.61	275.7	287.1	288.5
Electrical Machinery, Apparatus & Appliances	5.32	176.0	182.1	174.0	184.7	5.35	183.2	190.7	202.6
Transport Equipment	7.39	130.6	145.2	142.5	162.6	7.46	182.9	195.4	215.0
Miscellaneous Industries	1.68	108.9	92.3	89.5	78.5	1.72	72.6	90.7	99.7
Electricity Generated	9.23	202.9	223.6	238.9	254.6	9.23	254.6	285.0	245.7
General Index	100.00	154.1	167.4	173.9	183.3	100.00	184.9	197.4	209.8

Source: Economic Survey, 1986-87.

Note: Indices of industrial production are provisional.

Table A9.2(a)
NEW INDEX OF INDUSTRIAL PRODUCTION - BY USE BASE
(Base 1980/81=100)

Industry Group	Weight	1981/82	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 [a]
Use-Based Classification											
Basic Industries	39.42	110.9	125.7	139.7	149.2	163.2	172.2	189.2	199.6	213.1	226.7
Capital Goods Industries	16.43	106.7	123.5	127.2	140.7	166.3	192.[illegible]	206.6	251.4	291.7	256.3
Intermediate Goods Industries	20.51	103.7	116.9	126.1	135.5	140.8	146.9	162.0	168.8	176.9	174.6
Consumer Goods Industries	23.65	113.8	113.8	122.0	137.3	145.7	160.0	166.2	177.0	189.0	184.8
Durable Goods	2.55	110.9	140.5	170.8	202.8	241.3	259.6	317.5	325.0	359.7	317.7
Non-Durable Goods	21.10	116.1	110.5	116.1	129.4	134.1	147.9	148.0	159.1	168.3	168.8
General Index	100.00	109.3	120.4	130.7	142.1	155.1	166.4	180.9	196.4	212.6	212.4

Note: In the new series of IIP with 1980/81 as base year, the monthly data with the input-based and sector-based classification are not available. The 1970 based series has been discontinued.
[a] Provisional

Sources: 1. Economic Survey, various issues.
2. RBI Monthly Bulletin, Feb 1993 issue.

Table A8.2(b)
OLD INDEX OF INDUSTRIAL PRODUCTION - BY USE AND INPUT BASE
(Base 1970=100)

Industry Group	Old Weight	1960	1971	1975	1980	1982	1983	1984	Revised Weight	1983	1984	1985
Use-Based Classification												
Basic Industries	32.28	45.1	106.6	129.0	164.6	203.6	214.8	240.1	33.23	214.6	237.8	253.8
Capital Goods Industries	15.74	44.5	105.4	130.1	168.1	180.1	187.9	205.1	14.98	203.6	217.2	222.9
Intermediate Goods Industries	20.95	63.0	104.0	113.7	140.7	148.6	160.3	163.0	21.33	151.5	160.7	181.0
Consumer Goods Industries	31.03	64.6	103.6	107.6	135.9	155.5	156.1	158.1	30.46	154.9	159.0	163.9
Durable Goods	2.92	40.1	110.8	106.0	162.3	168.0	168.3	189.1	3.81	176.7	208.1	245.3
Non-Durable Goods	28.11	72.6	102.4	107.6	132.7	156.0	156.6	154.4	26.65	151.8	152.0	152.3
Input-based Classification												
Agro-based Industries	33.68	76.3	100.5	106.1	125.3	137.7	143.6	141.9	32.99	141.3	142.7	148.6
Metal-based Industries	21.93	42.4	105.2	123.1	162.2	172.5	178.5	194.1	22.39	188.0	203.0	213.3
Chemical-based Industries	12.86	40.8	111.9	128.9	178.8	213.6	219.8	242.7	13.20	220.8	241.8	252.9
Sectoral Indicators												
Transport Equipment & Allied Industries	10.79	58.7	102.9	116.1	136.6	153.7	164.5	184.7	10.81	183.7	197.8	216.1
Electricity & Allied Industries	14.53	29.0	106.6	131.5	187.3	215.6	221.8	246.9	n.a	n.a	n.a	n.a
Energy Output	18.51	n.a	102.7	132.0	171.0	217.5	233.1	256.6	18.53	232.0	256.5	275.5
General Index	100.00	55.3	104.2	11[illegible]	150.6	172.0	179.9	191.9	100.00	181.2	194.2	206.2

Notes: 1. Data prior to 1970 with a 1960 base have been changed to 1970 base.
2. Some of the industries represented in the series of index numbers of industrial production (1970=100) do not find place in any of the groups and some occur in both the classifications.

Sources: 1. Reserve Bank of India, Report on Currency and Finance, various issues.
2. RBI, Monthly Bulletin, October 1986.

Table A8.3
PRODUCTION OF SELECTED INDUSTRIES

	Units	50/1	60/1	70/1	80/1	84/5	85/6	86/7	87/8	88/9	89/90	90/91	91/92
MINING													
Coal (including lignite)	mls tons	32.8	55.7	76.3	118.8	155.2	162.3	175.2	190.9	207.0	213.7	225.5	243.8
Iron Ore	mls tons	3.0	11.0	32.5	42.2	42.6	47.7	52.7	51.0	49.5	50.6	53.7	53.9
Petroleum Crude	mls tons	n.a.	0.4	6.8	10.5	29.0	30.2	30.5	30.4	32.0	34.1	33.0	30.4
METALLURGICAL INDUSTRIES													
Pig Iron	mls tons	1.7	4.3	7.0	9.6	9.2	10.1	10.5	10.9	11.9	12.0	12.2	13.01
Steel Ingots (a)	mls tons	n.a.	n.a	6.1	10.3	10.8	12.2	12.2	12.9	14.0	13.7	-	-
Finished Steel	mls tons	1.0	2.4	4.6	6.8	7.8	9.5	9.6	11.7	12.8	13.0	13.5	14.33
Aluminum (virgin metal)	000 tons	4.0	18.3	168.8	199.1	276.5	264.8	257.3	277.7	357.3	427.1	451.1	513.3
MECHANICAL ENGINEERING INDUSTRIES													
Machine Tools	mls Rs.	3	70	430	1962	3028	2914	3571	3899	5107	6515	7731	8325
Sugar Mill Machinery	mls Rs.	n.a.	44	139	242	438	426	382	394	325	517	867	1050
Cotton Textile Machinery	mls Rs.	n.a.	104	303	3032	3505	3652	3961	4475	4840	6440	9454	10296
Cement Machinery	mls Rs.	n.a.	6	42	336	582	954	980	1250	2753	3146	2761	2251
Railway Wagons (b)	000 nos.	2.9	11.9	11.1	13.6	13.0	13.1	15.2	13.4	20.2	29.0	25.3	25.2
Automobiles	000 nos.	16.5	55.0	87.9	121.1	196.0	219.2	235.8	291.6	317.2	350.7	366.3	341.9
Commercial Vehicles	000 nos.	8.6	28.4	41.2	71.7	96.8	103.0	106.0	119.9	115.3	125.5	145.5	149.8
Passenger Cars & Jeeps	000 nos.	7.9	26.6	46.7	49.4	99.3	116.3	129.8	171.7	201.9	225.2	220.8	192.1
Motor Cycles, Scooters and mopeds/scooterettes	000 nos.	n.a.	0.9	97.0	447.2	918.0	1221.6	1434.7	1541.0	1674.4	1753.8	1842.8	1608.4
Diesel Engines (stationary)	000 nos.	5.5	44.7	65.0	173.9	170.3	183.9	187.2	160.0	167.0	152.0	158.4	159.6
Diesel Engines (vehicular)	000 nos.	n.a.	10.8	3.2	5.2	7.3	6.8	n.a	n.a	n.a	n.a	n.a	n.a
Power Driven Pumps	000 nos.	35	109	259	431	496	512	459	516	593	464	519	531
Sewing Machines	000 nos.	33	297	235	335	331	291	377	327	238	124	88	151
Bicycles	000 nos.	99	1063	2042	4189	5893	5553	6119	6676	6703	6802	7084	7150
ELECTRICAL ENGINEERING INDUSTRIES													
Power Transformers	mls k.v.a	0.2	1.4	8.1	19.5	25.4	27.3	28.3	24.7	28.5	36.6	36.6	34.3
Electric Motors	mls h.p	0.1	0.7	2.7	4.1	4.9	5.3	5.4	4.3	5.3	5.2	5.9	6.1
Electric Fans	mls nos.	0.2	1.1	1.7	4.2	4.8	5.2	3.9	4.8	5.2	3.5	4.2	4.2
Electric Lamps	mls nos.	14.0	43.5	119.3	198.1	276.6	270.7	283.7	256.6	247.5	251.7	274.4	288.8
Aluminum Conductors	000 tons	1.7	23.6	64.2	86.0	53.2	61.1	58.0	40.9	29.5	57.8	67.6	56.9
CHEMICAL & ALLIED INDUSTRIES													
Nitrogenous Fertilizers	'000 tons	9	98	830	2164	3917	4328	5410	5466	6712	6742	6993	7301
Phosphatic Fertilizers	'000 tons	9	52	229	842	1264	1417	1660	1665	2252	1792	2052	2562
Soda Ash	'000 tons	45	152	449	563	817	849	912	956	1175	1377	1385	1409
Caustic Soda	'000 tons	12	101	371	578	684	727	764	958	903	933	992	1036
Paper and Paper Board	'000 tons	116	350	755	1149	1376	1517	1569	1662	1726	1823	2088	2122
Automobile Tyres	mls nos.	n.a	1.4	3.8	8.0	11.5	12.3	12.7	14.6	15.0	19.0	20.1	16.2
Bicycle Tyres	mls nos.	n.a	11.2	19.2	27.0	31.2	36.1	29.7	31.8	26.0	25.6	24.8	22.6
Cement	mls tons	2.7	8.0	14.3	18.6	30.2	33.1	36.5	39.6	44.3	45.8	48.8	53.7
Refined Petroleum Products	mls tons	0.2	5.8	17.1	24.1	33.2	39.9	42.8	44.7	45.7	48.7	48.0	47.8

Table A8.3 (contd...)

PRODUCTION OF SELECTED INDUSTRIES

	Units	50/1	60/1	70/1	80/1	84/5	85/6	86/7	87/8	88/9	89/90	90/91	91/92
TEXTILE INDUSTRIES													
Jute Textiles	'000 tons	837	1302	1060	1392	1370	1352	1394	1192	1389	1304	1430	1290
Cotton Yarn	mls kgs.	534	907	929	1067	1183	1253	1302	1321	1310	1372	1510	1450
Cotton Cloth	bls metres	4.2	7.4	7.6	8.4	9.0	12.5	12.7	12.6	13.7	13.9	15.4	16.6
Mill Sector	bls metres	3.4	4.6	4.1	3.6	2.6	2.7	2.6	2.3	2.1	2.0	1.9	1.7
Decentralised Sector	bls metres	0.8	3.0	3.5	5.0	6.4	9.8	10.1	10.3	11.6	12.0	13.6	13.0
FOOD INDUSTRIES													
Sugar (c)	'000 tons	1134	3510	3740	5148	6143	7003	8502	9110	8752	10989	12047	13277
Coffee	'000 tons	21.0	62.1	71.4	139.5	160.8	160.3	139.5	164.4	166.7	175.0	128.5	137.9
Vanaspati	'000 tons	170	401	558	753	936	870	918	980	996	939	850	840
Tea	mls kgs.	277	376	423	568	634	648	618	678	690	700	705	743
ELECTRICITY GENERATED (d)	bls kwh	5.3	33.0	55.8	110.8	156.9	170.4	187.7	202.1	221.4	245.4	264.6	286.7

Source: Economic Survey, Various issues.

Note: Data for 1991/92 is provisional.

(a) Including mini-plants.
(b) Data for 1950/51 relates to calendar year.
(c) Annual figures relate to the sugar season which is October-September from 1967/68. Earlier it was November-October.
(d) Relates to public utilities only.

Table A8.4
PRODUCTION, IMPORTS AND CONSUMPTION OF FERTILIZERS
(000' nutrient tons)

Year	Nitrogenous (a)			Phosphatic (b)			Potassic		Total		
(April-March)	Production	Imports	Consumption	Production	Imports	Consumption	Imports	Consumption	Production	Imports	Consumption
1961/62	154.3	307.0	249.8	65.4	-	60.5	75.0	28.0	219.7	382.0	338.3
1962/63	194.2	244.0	333.0	88.2	10.0	82.8	41.0	36.4	282.4	295.0	452.2
1963/64	219.1	228.0	376.1	107.8	13.0	116.5	40.0	50.6	326.9	281.0	543.2
1964/65	243.2	232.0	555.2	131.0	12.0	148.7	57.0	69.3	374.2	301.0	773.2
1965/66	237.9	326.0	574.8	118.8	14.0	132.5	73.0	77.3	356.7	413.0	784.6
1966/67	309.0	632.0	737.8	145.7	148.0	248.6	118.0	114.2	454.7	898.0	1100.6
1967/68	402.6	867.0	1034.6	207.1	349.0	334.8	270.0	169.6	609.7	1486.0	1539.0
1968/69	563.0	844.0	1208.6	213.2	138.0	382.1	213.0	170.0	776.2	1195.0	1760.7
1969/70	730.6	667.0	1356.0	223.7	94.0	416.0	120.0	210.0	954.3	881.0	1982.0
1970/71	832.5	477.0	1479.3	228.1	32.0	541.0	120.0	236.3	1060.6	629.0	2256.6
1971/72	949.2	481.0	1798.0	290.3	248.0	558.2	268.0	300.6	1239.5	997.0	2656.8
1972/73	1054.5	665.0	1839.0	330.3	204.0	581.3	325.0	347.6	1384.8	1194.0	2767.9
1973/74	1049.9	659.0	1829.0	324.5	213.0	649.7	370.0	359.8	1374.4	1242.0	2838.5
1974/75	1186.6	884.0	1765.7	331.2	286.0	471.5	437.0	336.1	1517.8	1607.0	2573.3
1975/76	1508.0	996.0	2148.6	319.7	361.0	466.8	278.0	278.4	1827.7	1635.0	2893.8
1976/77	1862.4	750.1	2456.9	478.3	22.8	634.9	277.8	319.2	2340.7	1050.7	3411.0
1977/78	1999.8	758.1	2913.0	669.9	163.9	866.5	563.1	506.2	2669.7	1485.1	4285.7
1978/79	2173.0	1232.1	3419.5	778.0	243.5	1106.0	517.4	591.5	2951.0	1993.0	5117.0
1979/80	2220.3	1294.6	3498.1	763.1	237.1	1150.9	473.2	606.4	2983.4	2004.9	5255.4
1980/81	2163.9	1510.2	3678.1	841.5	452.1	1213.6	796.8	623.9	3005.4	2759.1	5515.6
1981/82	3143.3	1055.1	4068.7	950.0	343.2	1322.9	643.8	676.2	4093.3	2042.1	6067.8
1982/83	3429.7	424.6	4242.5	983.7	63.4	1432.7	643.7	726.3	4413.4	1131.7	6401.5
1983/84	3491.5	656.1	5204.4	1064.1	142.6	1730.3	556.4	775.4	4555.6	1355.1	7710.1
1984/85	3917.3	2008.6	5486.1	1317.9	745.2	1886.4	871.0	838.5	5235.2	3624.8	8211.0
1985/86	4328.0	1680.0	5661.0	1428.0	816.0	2005.0	903.0	808.0	5756.0	3399.0	8474.0
1986/87	5410.0	1103.0	5716.0	1660.0	255.0	2079.0	952.0	850.0	7070.0	2310.0	8645.0
1987/88	5466.0	175.0	5717.0	1665.0	0.0	2187.0	809.0	880.0	7131.0	984.0	8784.0
1988/89	6712.0	219.0	7251.0	2252.0	407.0	2721.0	982.0	1068.0	8964.0	1608.0	11040.0
1989/90	6747.0	523.0	7386.0	1796.0	1311.0	3014.0	1280.0	1168.0	8543.0	3114.0	11568.0
1990/91	6993.0	414.0	7997.0	2052.0	1016.0	3221.0	1328.0	1328.0	9045.0	2758.0	12546.0
1991/92	7301.0	566.0	8046.0	2562.0	967.0	3321.0	1236.0	1361.0	9863.0	2769.0	12728.0
1992/93 [c]	7500.0	1111.0	8400.0	2500.0	689.0	3191.0	1115.0	1066.0	10000.0	2915.0	12657.0
Average Compound Growth Rate(% per annum)											
1950/51- 75/76	17.9	15.9	16.2	15.6	14.0	19.2	16.1	17.9	17.4	15.5	17.1
1970/71- 80/81	10.0	12.2	9.5	13.9	30.3	8.4	20.8	10.2	11.0	15.9	9.4
1980/81- 90/91	12.4	-12.1	8.1	9.3	8.4	10.3	5.2	7.8	11.6	0.0	8.6
1980/81	-2.7	16.6	5.1	10.3	90.7	5.4	68.3	2.9	0.6	37.6	5.0
1981/82	45.3	-30.1	10.6	12.9	-24.1	9.0	-19.2	8.4	36.2	-26.0	10.0
1982/83	9.1	-59.8	3.7	3.6	-81.5	8.6	n.s	7.4	7.9	-44.6	5.8
1983/84	1.8	54.5	23.2	8.2	124.9	20.5	-13.6	6.7	3.2	19.7	20.7
1984/85	12.2	206.1	5.4	23.9	422.6	9.0	56.5	8.1	14.9	167.5	6.5
1985/86	10.5	-16.4	3.2	8.4	9.5	6.3	3.7	-3.6	9.9	-6.2	3.2
1986/87	25.0	-34.3	1.0	16.2	-68.8	3.7	5.4	5.2	22.8	-32.0	2.0
1987/88	1.0	-84.1	0.0	0.3	-	5.2	-15.0	3.5	0.9	-57.4	1.6
1988/89	22.8	25.1	26.8	35.3	26.3	24.4	21.4	21.4	25.7	63.4	25.7
1989/90	0.5	138.8	1.9	-20.2	222.1	10.8	30.3	9.4	-4.7	93.7	4.8
1990/91	3.6	-20.8	8.3	14.3	-22.5	6.9	3.8	13.7	5.9	-11.4	8.5
1991/92	4.4	36.7	0.6	24.9	-4.8	3.1	-6.9	2.5	9.0	0.4	1.5
1992/93 [c]	2.7	96.3	4.4	-2.4	-28.7	-3.9	-9.8	-21.7	1.4	5.3	-0.6

(a) Excludes nitrogen meant for non-agricultural purposes.
(b) Excludes data in respect of bonemeal and rockphosphate.
(c) Anticipated.
Sources: [1] The Fertilizer Association of India, Fertilizer Statistics, various issues.
[2] Economic Survey, various issues.

Table A8.5
INDIAN RAILWAYS - FREIGHT & PASSENGER TRAFFIC

	Revenue Earning Freight Traffic			Passenger Traffic					
				Non-Suburban			Suburban [a]		
Year	Originating tonnage (mln.tons)	Net tons-kilometers (million)	Average lead (kilometers)	Passengers originating (million)	Passenger-kilometers (million)	Average lead (kilometers)	Passenger originating (million)	Passenger-kilometers (million)	Average lead (kms)
1950/51	73.2	37565	513	872	59966	68.8	412	6551	15.9
1955/56	92.2	50435	541	780	54273	69.6	495	8127	16.4
1960/61	119.8	72333	603	914	65895	72.1	680	11770	17.3
1965/66	162	98978	611	1064	79130	74.6	1018	17164	16.9
1970/71	167.9	110696	659	1212	95136	78.5	1219	22984	18.9
1971/72	170.1	116894	687	1261	101079	80.2	1275	24250	19.0
1972/73	175.3	121164	691	1268	106931	84.3	1385	26596	19.2
1973/74	162.1	109391	675	1217	107627	88.5	1437	28037	19.5
1974/75	173.6	121374	699	1056	99097	93.8	1373	27157	19.8
1975/76	196.8	134874	685	1306	115899	88.7	1639	32862	20.1
1976/77	212.6	144030	677	1498	126754	84.6	1802	37082	20.6
1977/78	210.8	150250	713	1576	137201	87.1	1928	39633	20.4
1978/79	199.6	143870	721	1606	149546	93.1	2113	43639	20.6
1979/80	193.1	144559	749	1602	159927	99.8	1903	38730	20.4
1980/81	195.9	147652	754	1613	167472	103.9	2000	41086	20.5
1981/82	221.2	164253	743	1640	176822	107.8	2064	43965	21.3
1982/83	228.8	167781	733	1626	181142	111.4	2029	45789	22.6
1983/84	230.1	168849	734	1491	180808	121.3	1834	42127	23.0
1984/85	236.4	172632	730	1449	182318	125.8	1884	44264	23.5
1985/86	258.5	196600	760	1549	195175	126.0	1884	45439	24.1
1986/87	277.8	214100	771	1610	208057	129.0	1970	48411	24.6
1987/88	290.2	222528	767	1637	217632	133.0	2171	51859	23.9
1988/89	302.1	222374	736	1495	211819	141.6	2022	52023	25.7
1989/90	310.0	229602	741	1544	226045	76.9	2129	54933	25.8
1990/91	318.4	235785	741	1599	236066	147.6	2281	59724	26.2
1991/92	338.0	250238	740	1637	251174	153.4	2436	63543	26.1
1992/93	350.0	255630	730	1512	245678	162.4	2437	62476	25.6
1993/94	370.0	272412	736	1603	260420	162.4	2584	66225	25.6

Note: Figures for 1992/93 are revised estimates and budget estimates for 1993/94.
[a] Passengers booked between stations within the suburban areas of Bombay; From 1988/89 onwards Suburban passenger traffic includes Metro Railway, Calcutta.

Source: Ministry of Railways, Railway Budget.

Table A8.6
PETROLEUM SUMMARY
COMMODITY BALANCE OF PETROLEUM AND PETROLEUM PRODUCTS
(Million Tonnes)

	70/71	75/76	77/78	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92 [a]
A. CRUDE PETROLEUM																
1.Refinery Throughput	18.4	22.3	26.9	27.5	25.8	30.2	33.2	35.3	35.6	62.9	65.7	47.7	48.8	51.9	51.8	51.4
2.Domestic Production	6.8	8.4	10.8	11.8	10.5	16.2	21.1	26.0	29.0	30.2	30.5	30.4	32.0	34.1	33.0	30.3
(a) On-shore	6.8	8.4	8.7	7.3	5.5	8.2	8.2	8.6	8.9	9.6	9.9	10.2	10.9	12.4	11.8	11.4
(b) Off-shore	-	-	2.1	4.4	5.0	8.0	12.9	17.4	20.1	20.8	20.6	20.2	21.1	21.7	21.2	18.9
3.Imports	11.7	13.6	14.5	16.1	16.2	15.3	16.9	16.0	13.7	15.1	15.5	18.0	17.8	19.5	20.7	24.0
4.Exports	-	-	-	-	-	0.8	4.5	5.5	6.5	0.5	-	-	-	-	-	-
5.Net Imports (3-4)	11.7	13.6	14.5	16.1	16.2	14.5	12.4	10.5	7.2	14.6	15.5	18.0	17.8	19.5	20.7	24.0
B. PRODUCTS																
1.Domestic Consumption [b]	17.9	22.4	25.5	29.9	30.9	32.5	34.7	35.8	38.5	40.8	43.4	46.4	50.1	54.1	55.0	56.8
of which:																
(a) Naphtha	0.9	1.8	2.3	2.4	2.3	3.0	3.0	2.8	3.1	3.1	3.2	2.9	3.4	3.4	3.4	3.4
(b) Kerosene	3.3	3.1	3.6	3.9	4.2	4.7	5.2	5.5	6.0	6.2	6.6	7.2	7.7	8.2	8.4	8.4
(c) High Speed Diesel	3.8	6.6	7.7	9.8	10.3	10.8	12.0	12.6	13.7	14.9	16.0	17.7	18.8	20.7	21.1	22.7
(d) Fuel oils	4.7	5.8	5.8	7.1	7.5	7.2	7.3	7.6	7.9	7.9	7.9	8.1	8.5	8.8	9.0	9.1
2.Domestic Production	17.1	20.8	23.2	25.8	24.1	28.2	31.1	32.9	33.2	39.9	42.8	44.7	45.7	48.7	48.6	48.3
(a) Naphtha	1.2	1.9	2.1	2.4	2.1	3.0	3.0	3.6	3.5	5.0	5.6	5.5	5.4	5.2	4.9	4.5
(b) Kerosene	2.9	2.4	2.5	2.5	2.4	2.9	3.4	3.5	3.4	4.0	4.9	5.1	5.2	5.7	5.5	5.3
(c) High Speed Diesel	3.8	6.3	7.1	8.0	7.4	9.0	9.8	10.9	11.1	14.6	15.5	16.3	16.7	17.7	17.2	17.4
(d) Fuel oils	4.1	5.1	5.3	6.4	6.1	6.9	8.0	8.0	7.9	8.0	8.0	8.5	8.9	9.0	9.4	9.6
3.Imports	1.1	2.2	2.9	4.7	7.3	4.9	5.0	4.3	6.1	3.9	3.1	3.9	6.5	6.6	8.7	9.4
4.Exports [c]	0.3	0.2	0.1	0.1	n.a.	0.1	0.8	1.5	0.9	2.0	2.5	3.4	2.3	2.6	2.6	2.9
5.Net Imports	0.8	2.0	2.8	4.6	7.3	4.8	4.2	2.8	5.2	1.9	0.6	0.5	4.2	4.0	6.1	6.5

Source: Economic Survey, various issues.

[a] Provisional.
[b] Excludes refinery fuel consumption.
[c] Excludes supplies of POL products to Nepal.

Table A8.7
GENERATION OF ELECTRICITY BY REGION
(in GWH)

	70/71	75/76	80/81	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
I. Thermal (includes steam, Diesel, Wind & Gas)													
Northern	5615	9838	13691	17989	20051	22576	25728	29799	37737	41237	48817	52133	60441
Western	8648	14295	25368	32168	35780	42347	48935	54580	61802	63395	73078	76951	84330
Southern	4031	6557	9218	13435	14002	16316	20446	24102	28066	30530	34025	35760	40387
Eastern	9643	12136	12529	15360	15865	16728	18369	19311	20765	21396	21552	20389	22385
North-Eastern	225	476	496	917	989	871	869	1059	1244	1156	1224	1316	1191
All-India	28162	43302	61301	79869	86677	98836	114367	128851	149614	157711	178696	186547	208734
II. Hydro													
Northern	7088	10110	15080	18536	19021	18224	19493	22024	20863	23568	25011	27157	27181
Western	5005	6439	7812	6550	7738	7007	6179	6151	5064	7538	6867	8312	8154
Southern	11436	13639	20283	20247	19520	24556	21146	21075	17354	21636	24543	29168	29628
Eastern	1559	2932	2962	2562	3146	3317	3174	3670	3194	3764	4112	5342	5873
North-Eastern	160	182	406	478	519	844	1029	921	969	1362	1583	1662	1893
All-India	25248	33302	46542	48373	49954	53948	51021	53841	47444	57868	62116	71641	72729
III. Nuclear													
Northern	-	533	1228	552	1244	1075	1283	1324	1394	1869	1732	2163	1654
Western	2417	2094	1774	1470	1857	1929	1960	2000	1605	1900	1545	1904	1711
Southern	-	-	-	-	445	1071	1739	1698	2036	2048	1349	2074	2160
All-India	2417	2627	3001	2022	3546	4075	4982	5022	5035	5817	4626	6141	5525
IV. Utilities - All India (I through III)	55827	79231	110844	130264	140177	156859	170350	187714	202093	221396	245438	264329	286988
V. Self-Generation in Industry and Railways	5384	6695	8417	10035	10817	12346	13040	13565	16890	19911	23226	25110	27500
VI. Total - All India (IV and V)	61211	85926	119261	140299	150994	169205	183390	201279	218983	241308	268664	289439	314488

Note: Data for 1990/91 and 1991/92 are provisional.

Source: Central Electricity Authority, Power Data Bank & Information Directorate.

Table A8.8
ELECTRICITY CONSUMPTION BY SECTORS
(in 000 GWH)

Year (April- March)	Mining & Manufac- turing (a)	Trans- port	Do- mestic	Agri- culture	Others	Total
1953/54	5.00	0.60	0.70	0.20	1.10	7.60
1955/56	6.30	0.70	0.80	0.30	1.30	9.40
1960/61	11.60	0.80	1.50	0.80	2.20	16.90
1970/71	34.35	1.43	3.83	4.54	4.50	48.65
1971/72	36.46	1.67	4.11	5.00	4.68	51.92
1972/73	37.54	1.79	4.31	5.92	4.86	54.42
1973/74	37.91	1.57	4.64	6.31	5.28	55.71
1974/75	38.42	1.56	5.17	7.76	5.47	58.38
1975/76	43.46	1.89	5.82	8.72	6.28	66.17
1976/77	47.98	2.21	6.34	9.62	6.88	73.03
1977/78	49.29	2.34	6.82	10.11	7.39	75.95
1978/79	54.44	2.22	7.58	12.03	7.78	84.05
1979/80	53.20	2.33	8.40	13.45	7.98	85.36
1980/81	55.35	2.31	9.25	14.49	8.30	89.70
1981/82	60.85	2.55	10.44	15.20	9.04	98.08
1982/83	61.71	2.68	12.09	17.82	10.07	104.37
1983/84	66.51	2.75	13.23	18.23	11.07	111.79
1984/85	73.52	2.92	15.50	20.96	11.71	124.61
1985/86	78.30	3.08	17.26	23.42	12.26	134.32
1986/87	81.98	3.23	19.32	29.44	13.66	147.64
1987/88	82.97	3.62	22.12	35.27	15.42	159.40
1988/89	92.05	3.77	24.77	38.88	17.02	176.49
1989/90	100.40	4.07	29.58	44.06	17.01	195.12
1990/91 (b)	105.38	4.11	31.98	50.32	19.74	211.53
1991/92 (b)	110.08	4.47	35.56	58.10	21.40	229.61
Average Compound Growth Rate (% per annum)						
1953/54-75/76	10.33	5.35	10.11	18.72	8.24	52.75
1970/71-80/81	4.89	4.91	9.22	12.31	6.31	37.64
1980/81	4.04	-0.86	10.12	7.73	4.01	5.08
1981/82	9.94	10.39	12.86	4.90	8.92	9.34
1982/83	1.41	5.10	15.80	17.24	11.39	6.41
1983/84	7.78	2.61	9.43	2.30	9.93	7.11
1984/85	10.54	6.18	17.16	14.98	5.78	11.47
1985/86	6.50	5.55	11.36	11.75	4.67	7.79
1986/87	..	4.78	11.97	25.71	11.43	..
1987/88	1.21	12.09	14.47	19.79	12.89	7.97
1988/89	10.94	4.21	11.97	10.23	10.38	10.72
1989/90	9.07	7.89	19.43	13.33	-0.06	10.56
1990/91	4.96	0.98	8.11	14.21	16.05	8.41
1991/92	4.46	8.76	11.19	15.46	8.41	8.55

Source: Central Electricity Authority, Power Data Bank & Information Directorate

Notes: (a) Include industrial power from utilities plus net generation in the non-utilities.
(b) Provisional.

Table A8.9
COAL AND LIGNITE PRODUCTION
(Million Tonnes)

	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Coal India	101.0	109.0	114.7	121.4	130.8	134.1	144.7	159.0	171.5	178.6	189.6	204.1
Singareni Coal field	10.1	12.1	12.3	12.7	12.3	15.7	16.6	16.4	18.6	17.8	17.7	20.6
Others	2.9	3.2	3.5	4.1	4.3	4.4	4.5	4.3	4.5	4.5	4.4	4.6
Total All-India (excl.Lignite)	113.9	124.2	130.5	138.2	147.4	154.2	165.8	179.8	194.6	200.9	211.7	229.3
Coking Coal	24.6	26.8	30.1	30.1	30.6	29.1	27.9	26.2	25.5	24.5	45.3	46.3
Non- Coking Coal	89.3	97.3	100.4	108.1	116.8	125.1	137.9	153.6	169.2	176.4	166.4	183.0
Lignite	5.1	6.3	6.9	7.3	7.8	8.0	9.4	11.2	12.4	12.8	13.8	15.8
Total All-India (incl.Lignite)	119.0	130.5	137.4	145.5	155.2	162.3	175.2	190.9	207.0	213.7	225.6	245.1

Sources: 1. Economic Survey, various issues.
2. Department of Coal.

Table A9.1(a)
NEW INDEX NUMBERS OF WHOLESALE PRICES - BY YEARS
(Base 1981/82=100)

	WEIGHTS	82/83	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93[c]	[a]	1991	1992	[b]
TOTAL FOOD ARTICLES	17.386	111.1	134.1	147.8	161.1	177.1	179.3	200.6	241.2	270.7	12.3	230.3	266.8	15.8
Food Grains	7.917	109.1	124.5	129.4	141.3	161.8	165.4	179.2	216.4	242.4	12.4	204.0	244.1	19.7
Other Food	9.469	112.8	142.1	163.2	177.7	189.9	190.9	218.5	261.8	294.4	12.2	252.3	285.7	13.3
INDUSTRIAL RAW MAT.	14.909	101.6	115.9	124.4	142.8	140.3	145.3	166.6	192.3	192.1	-0.2	186.3	193.8	4.1
Non-Food Articles	10.081	100.8	120.4	134.1	163.0	160.2	166.0	194.2	229.2	228.6	-0.7	221.8	231.4	4.3
Minerals	4.828	103.3	106.5	104.2	100.5	98.6	102.2	109.0	113.5	115.9	2.0	112.1	115.5	3.0
FUEL, POWER & LUB.	10.663	106.5	129.8	138.6	143.3	151.2	156.6	175.8	199.0	227.0	12.4	193.3	219.3	13.5
MANUF. PRODUCTS	57.042	103.5	124.5	129.2	138.5	151.5	168.6	182.8	203.4	225.5	10.4	203.0	220.8	8.8
Food Products	10.143	97.4	117.2	129.1	140.5	147.8	165.4	181.7	206.3	224.1	8.7	201.1	221.2	10.0
Beverage & Tobacco	2.149	100.2	123.2	133.0	155.0	180.7	207.7	242.1	265.7	293.6	10.3	258.1	288.6	11.8
Textiles	11.545	104.8	119.5	116.0	126.6	139.6	158.2	171.2	188.4	200.4	5.9	183.4	198.5	8.2
Chemicals and Chemical Products	7.355	103.5	118.3	124.6	131.9	135.8	140.1	147.9	168.4	192.6	13.3	162.4	186.6	14.9
Basic metals and Products	7.632	104.5	139.7	141.3	149.7	176.4	205.6	219.9	234.8	256.1	8.7	231.8	250.9	8.2
Machinery and Machine Tools	6.268	102.8	121.4	127.3	132.3	150.8	166.2	180.2	208.3	230.7	10.2	200.4	226.7	13.1
Transport Eqpt.	2.705	103.6	123.0	129.6	135.5	148.9	166.2	181.3	202.5	218.4	7.4	197.1	215.5	9.3
ALL COMMODITIES	100.0	104.9	125.4	132.7	143.6	154.3	165.7	182.7	207.8	228.5	9.6	201.4	224.7	11.5

[a] Percent change in fiscal year 1992/93 over 1991/92.
[b] Percent change in calendar year 1992 over 1991.
[c] Provisional.
Note : This WPI series based 1981/82 was introduced as of July 1989.

Sources: 1. Ministry of Industry, Office of the Economic Adviser.
2. Centre for Monitoring Indian Economy, Trends in Inflation (April 1993).

Table A9.1(b)
INDEX NUMBERS OF WHOLESALE PRICES - BY YEARS
(Base 1970/71=100)

	WEIGHTS	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	[a]	1987	1988	[b]
TOTAL FOOD ARTICLES	298.0	207.9	235.1	249.6	283.1	297.4	317.7	338.7	367.3	408.0	11.1	358.2	396.2	10.6
Food Grains	129.2	216.7	237.4	248.8	273.8	276.2	295.8	298.6	331.9	389.9	17.5	318.6	376.4	18.1
Other Food	168.8	201.2	233.3	250.2	290.3	313.6	334.5	369.4	394.6	421.9	7.0	388.5	411.4	5.9
INDUSTRIAL RAW MAT.	118.7	311.5	338.1	369.3	356.6	392.8	365.1	373.0	420.8	418.8	-0.5	402.8	424.9	5.5
Non-Food Articles	106.2	217.7	240.5	282.9	281.6	319.6	287.0	305.4	385.6	380.1	-1.4	365.9	387.9	6.0
Minerals	12.5	1110.2	1168.6	1105.6	994.0	1015.1	1030.2	948.8	720.5	748.7	3.9	717.5	739.9	3.1
FUEL, POWER & LUB.	84.6	354.3	427.5	459.7	494.8	518.6	579.9	619.2	642.0	677.4	5.5	632.0	669.3	5.9
MANUF. PRODUCTS	498.7	257.3	270.6	272.1	295.8	319.5	342.6	359.4	384.6	414.4	7.8	376.2	407.1	8.2
Food Products	133.2	308.7	298.9	260.0	298.9	323.8	346.2	381.8	412.7	419.2	1.6	404.8	422.1	4.3
Beverage & Tobacco	27.1	210.7	217.4	218.7	246.2	254.0	296.9	348.0	360.4	379.0	5.2	358.1	372.6	4.1
Textiles	110.3	212.7	223.9	232.8	249.6	280.1	275.8	271.3	298.3	329.6	10.5	291.0	319.8	9.9
Chemicals and Chemical Products	55.5	241.3	260.2	269.2	281.6	292.1	310.9	329.0	352.7	374.1	6.1	345.6	368.6	6.7
Basic metals & Products	59.7	272.1	317.1	354.6	381.0	419.8	477.1	478.7	511.9	598.6	16.9	493.5	578.4	17.2
Machinery and Transport Eqpt.	67.2	239.4	265.1	277.9	289.6	303.6	337.9	355.8	372.2	413.0	11.0	365.8	398.4	8.9
ALL COMMODITIES	1000.0	257.3	281.3	288.7	316.0	338.4	357.8	376.8	405.4	435.3	7.4	395.7	428.1	8.2

[a] Percent change in fiscal year 1988/89 over 1987/88.
[b] Percent change in calendar year 1988 over 1987.
Note : This WPI series based 1970/71 has been discontinued as of July 1989.

Sources: 1. Ministry of Industry, Office of the Economic Adviser.
2. H.L. Chandok, Wholesale Price Statistics 1947-1978, published by the Economic and Scientific Research Foundation, 1979.

Table A9.2
CONTRIBUTION OF SELECTED COMMODITIES TO
INCREASE IN WPI IN CALENDAR YEAR 1992(a)

	Weights	1991	1992	1992 over 1991 Percent Change	% Contribution to change in WPI
Agriculture	27.467	226.9	253.8	11.9	31.4
Food	17.386	230.35	266.80	15.8	26.9
Cereals	6.824	197.43	242.50	22.8	13.0
Pulses	1.093	244.23	254.60	4.2	0.5
Others	9.469	252.5	285.7	13.2	13.3
Non-Food	10.081	220.88	231.40	4.8	4.5
Minerals	4.828	112.08	115.50	3.1	0.7
Fuel and Power	10.663	193.00	219.30	13.6	11.9
Coal	1.256	234.00	296.50	26.7	3.3
Mineral oils	6.666	175.69	195.60	11.3	5.6
Electricity	2.741	216.29	241.60	11.7	2.9
Manufactured Products	57.042	197.76	220.80	11.7	55.8
Food products	10.143	200.45	221.20	10.6	8.9
Sugar	4.059	157.87	173.50	9.9	2.7
Edible oils	2.445	262.09	270.20	3.1	0.8
Other food products	3.639	206.5	241.5	16.9	5.4
Textiles	11.545	183.00	198.50	8.5	7.6
Cement	0.916	192.98	207.80	7.7	0.6
Iron and Steel	2.441	209.56	227.30	8.5	1.8
Capital goods	6.268	199.68	226.70	13.5	7.2
Others	25.729	201.9	229.1	13.5	29.7
ALL COMMODITIES	100.000	201.11	226.70	11.7	100.0
of which					
Agriculture-based	37.610	219.7	245.0	11.5	40.3
Non-Agricultural	62.390	189.9	212.5	11.9	59.7

(a) Weighted share of each commodity in total absolute change in Wholesale Price Index.

Source: Ministry of Industry, Office of the Economic Adviser.

Table A9.3(a)
NEW PRICE INDICES OF SELECTED AGRICULTURAL COMMODITIES [a]
(Base 1981/82=100)

COMMODITY GROUP	WEIGHT	82/83	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93[e]	[c]	1991	1992
CEREALS	6.824	111.5	114.9	122.4	129.6	139.4	155.7	159.0	171.5	211.3	240.0	13.6	197.5	242.5
Rice	3.685	115.0	121.4	126.9	134.2	145.8	161.2	168.7	178.3	217.1	248.8	14.6	203.2	248.3
Wheat	2.248	111.2	110.8	119.0	127.0	134.5	154.1	148.2	172.1	203.7	226.6	11.2	193.7	229.4
Jowar	0.420	92.0	98.2	101.4	108.5	112.9	126.5	150.8	131.9	199.5	254.1	27.4	174.9	264.4
PULSES	1.093	94.2	130.8	138.0	128.3	153.4	199.7	205.7	227.5	248.5	256.9	3.4	244.8	254.6
Grams	0.410	78.1	126.4	144.9	107.9	123.3	196.3	198.3	210.4	196.5	214.8	9.3	199.4	201.1
VEGETABLES & FRUITS	4.089	110.5	145.3	135.3	169.4	180.2	185.1	170.5	204.1	252.9	271.8	7.5	244.9	265.6
Potatoes	0.472	115.6	113.3	137.8	261.9	178.3	166.2	170.2	231.1	292.8	246.7	-15.7	289.2	258.4
Bananas	0.468	107.8	118.4	121.7	153.8	155.7	166.6	175.1	183.6	227.0	263.4	16.0	214.8	259.0
Oranges	0.274	129.4	163.6	231.7	184.8	229.4	277.9	173.6	193.5	241.4	244.9	1.4	237.8	233.5
Cashew Nuts	0.115	80.8	108.7	126.6	160.5	166.3	164.5	174.3	193.4	286.8	287.0	0.1	259.9	292.5
CONDIMENTS & SPICES	0.947	120.4	159.5	165.6	193.2	237.6	262.1	226.3	284.6	417.7	513.4	22.9	381.5	505.9
Chillies	0.319	96.2	131.8	136.9	76.7	115.5	260.9	179.0	126.9	333.3	341.9	2.6	279.0	382.1
FIBERS	1.791	92.0	144.7	109.3	96.7	136.1	149.7	165.9	174.4	242.1	216.6	-10.5	226.3	229.1
Raw Cotton	1.335	86.9	116.3	95.0	86.6	133.4	140.9	146.9	145.5	238.0	218.2	-8.3	217.1	230.9
Raw Jute	0.160	119.9	382.8	196.5	124.8	147.0	198.1	271.1	359.9	256.1	203.5	-20.5	287.3	210.2
OILSEEDS	3.861	97.7	120.5	110.1	137.5	179.1	151.3	151.4	194.9	234.7	230.9	-1.6	227.8	238.4
Groundnut	1.296	97.1	118.0	112.3	137.8	168.8	154.5	155.6	208.5	245.2	236.5	-3.5	240.3	246.8
Rape & Mustard	0.661	89.7	109.2	96.8	128.4	178.7	143.0	136.4	199.5	221.4	206.6	-6.7	223.3	212.4
OTHER COMMODITIES	4.944	109.0	130.0	136.5	147.4	159.9	171.9	188.3	212.3	226.1	239.4	5.9	221.3	228.2
Tea	0.564	120.2	198.8	155.4	168.6	172.8	182.7	283.1	300.2	270.4	305.9	13.1	277.7	278.3
Coffee	0.125	102.9	156.7	167.0	168.2	176.5	182.7	191.8	307.6	291.8	278.0	-4.7	310.6	270.4
Sugarcane	2.706	100.9	109.5	121.2	134.0	141.3	149.8	165.4	179.4	190.8	214.2	12.3	185.2	204.2
Tobacco	0.275	117.1	120.9	125.6	138.9	157.9	162.4	181.2	256.3	294.0	280.2	-4.7	300.5	286.5
Rubber	0.114	98.7	112.0	117.0	113.1	121.3	121.4	140.9	143.0	144.4	177.1	22.6	142.1	169.5
Timber	0.571	133.5	164.5	160.4	177.9	204.3	244.1	238.0	245.5	261.9	263.6	0.6	255.2	267.1
TOTAL [b]	23.549	106.6	129.1	127.0	141.5	161.6	169.4	171.3	196.9	237.8	253.9	6.8	227.5	253.0

Sources: 1. Ministry of Industry, Office of the Economic Adviser.
2. Centre for Monitoring Indian Economy, Trends in Inflation (April 1993).

Notes: [a] Excludes fisheries, livestock and dairy products.
[b] Total food articles (17.386) plus non-food industrial raw materials (10.081) less weightage of milk and milk products, fisheries and hides & skins (3.918).
[c] Percentage change in fiscal year 1992/93 over 1991/92.
[d] Percentage change in calendar year 1992 over 1991.
[e] Provisional.

This WPI series based 1981/82 was introduced as of July 1989.

Table A9.3(b)
PRICE INDICES OF SELECTED AGRICULTURAL COMMODITIES [a]
(Base 1970/71=100)

COMMODITY GROUP	WEIGHT	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	[c]	1987	1988	[d]
CEREALS	107.43	195.1	216.9	237.9	258.3	244.9	261.7	276.4	299.0	333.1	11.4	289.3	325.4	12.5
Rice	51.31	205.6	226.1	256.9	290.7	273.3	284.4	302.1	325.9	363.7	11.6	316.3	357.4	13.0
Wheat	34.17	176.2	191.6	214.1	217.4	209.6	225.9	238.6	258.9	292.0	12.8	250.4	281.7	12.5
Jowar	8.39	194.2	241.5	221.5	241.1	241.5	240.1	260.7	273.6	311.4	13.8	272.0	286.8	5.4
PULSES	21.79	323.2	338.7	302.2	346.7	430.6	463.4	408.2	494.4	669.7	35.5	463.4	619.3	33.6
Grams	10.39	369.5	382.2	301.8	328.0	489.2	561.6	412.7	475.2	754.9	58.9	441.2	673.8	52.7
VEGETABLES & FRUITS	61.32	213.0	243.1	250.0	300.8	304.0	358.1	429.8	439.7	449.5	2.2	437.8	442.9	1.2
Potatoes	10.12	182.5	137.8	150.9	216.2	163.4	183.1	360.1	259.0	221.7	-14.4	270.6	226.0	-16.5
Bananas	6.48	213.9	263.4	258.7	296.3	350.1	362.8	432.3	449.0	472.7	5.3	444.2	477.4	7.5
Oranges	4.30	163.5	194.2	204.6	281.7	271.0	438.5	358.0	409.4	512.7	25.2	388.8	499.0	28.3
Cashew Nuts	3.10	399.3	493.6	397.8	442.7	542.1	625.7	803.9	833.5	829.6	-0.5	845.8	807.8	-4.5
CONDIMENTS & SPICES	10.94	122.2	170.6	186.3	198.8	279.6	260.2	204.5	275.2	376.3	36.7	251.6	356.0	41.5
Chillies	5.02	116.2	211.0	168.9	121.9	278.5	262.9	138.3	206.2	446.0	116.3	173.6	396.8	128.6
FIBERS	31.73	179.7	215.7	199.8	227.5	303.4	231.3	194.7	286.8	306.4	6.8	264.3	309.5	17.1
Raw Cotton	22.46	182.9	227.3	199.5	221.6	261.0	215.5	184.7	299.1	306.3	2.4	271.7	317.6	16.9
Raw Jute	4.29	129.4	137.3	162.8	234.1	519.5	273.2	174.7	203.5	259.4	27.5	197.6	235.1	19.0
OILSEEDS	42.01	230.7	253.8	250.0	302.5	322.4	285.3	347.4	444.6	396.2	-10.9	423.3	422.6	-0.2
Groundnut	18.21	224.8	270.5	264.6	302.0	323.2	307.5	372.4	459.3	427.8	-6.9	429.9	459.7	6.9
Rape & Mustard	8.22	269.9	265.1	243.7	321.8	278.2	247.0	334.6	470.9	367.0	-22.1	453.5	397.4	-12.4
OTHER COMMODITIES	45.59	207.2	225.9	262.2	324.9	353.8	335.9	349.3	368.4	399.9	8.5	361.5	387.9	7.3
Tea	11.49	226.6	242.9	286.2	440.6	494.3	412.9	423.6	420.5	438.7	4.3	429.0	416.2	-3.0
Coffee	1.61	129.0	139.0	142.1	173.0	216.8	221.9	228.1	249.8	263.2	5.4	249.4	252.3	1.2
Sugarcane	16.42	188.6	189.9	190.6	200.0	208.1	229.6	251.4	265.0	282.2	6.5	259.4	277.5	7.0
Tobacco	8.07	147.0	138.8	188.0	238.9	190.0	200.8	230.0	297.0	285.9	-3.7	280.2	281.9	0.6
Rubber	1.28	255.0	301.2	296.7	359.4	333.6	349.2	336.5	358.8	379.9	5.9	358.7	374.4	4.4
Timber	3.34	407.1	555.8	739.5	847.1	945.6	826.1	868.3	956.4	1183.1	23.7	907.3	1101.4	21.4
TOTAL [b]	320.81	209.6	234.6	244.1	282.6	301.4	304.4	323.8	366.1	394.8	7.8	353.6	388.9	10.0

Sources: 1. Ministry of Industry, Office of the Economic Adviser.
2. H.L. Chandhok, Wholesale Price Statistics, 1947-1978 published by the Economic and Scientific Research Foundation, 1979.

Notes: [a] Excludes fisheries, livestock and dairy products.
[b] Total food articles (297.99) plus non-food industrial raw materials (106.21) less weightage of milk and milk products, fisheries and hides & skins (83.39).
[c] Percentage change in fiscal year 1988/89 over 1987/88.
[d] Percentage change in calendar year 1988 over 1987.

This WPI series based 1970/71 has been discontinued as of July 1989.

Table A9.4
SELECTED PRICE INDICES

Year	Wholesale Price Index (1970/1=100)	Wholesale Price Index (1981/2=100) [a]	Consumer Price Index for Industrial Workers (1960=100)	Consumer Price Index for Industrial Workers (1982=100) [a]	Implicit Price Deflator for Private Consumption Expenditure (1970/1=100)	Implicit Price Deflator for Private Consumption Expenditure (1980/1=100) [b]	Implicit Price Deflator for Gross Domestic Capital Formation (1970/1=100)	Implicit Price Deflator for Gross Domestic Capital Formation (1980/1=100) [b]
1950/51	35.7	-	-	-	-	-	40.1	-
1951/52	50.4	-	86	-	-	-	42.4	-
1952/53	44.1	-	86	-	-	-	42.0	-
1953/54	46.2	-	87	-	-	-	42.7	-
1954/55	43.0	-	81	-	-	-	45.3	-
1955/56	40.8	-	79	-	-	-	44.2	-
1956/57	46.5	-	88	-	-	-	45.9	-
1957/58	47.9	-	92	-	-	-	45.1	-
1958/59	49.3	-	97	-	-	-	52.8	-
1959/60	51.7	-	101	-	-	-	53.4	-
1960/61	55.1	-	102	-	56.4	-	56.2	-
1961/62	55.2	-	104	-	58.0	-	58.9	-
1962/63	57.3	-	108	-	59.8	-	60.6	-
1963/64	60.9	-	113	-	65.2	-	64.3	-
1964/65	67.5	-	129	-	71.3	-	66.9	-
1965/66	72.7	-	139	-	77.7	-	71.2	-
1966/67	82.8	-	157	-	89.3	-	81.5	-
1967/68	92.4	-	175	-	99.9	-	86.9	-
1968/69	91.3	-	174	-	97.0	-	88.8	-
1969/70	94.8	-	177	-	101.5	-	94.1	-
1970/71	100.0	-	186	-	100.0	-	100.0	-
1971/72	105.6	-	162	-	104.5	-	105.7	-
1972/73	116.2	-	207	-	116.8	-	114.0	-
1973/74	139.7	-	250	-	139.0	-	129.9	-
1974/75	174.9	-	317	-	167.1	-	162.2	-
1975/76	173.0	-	313	-	158.3	-	174.9	-
1976/77	176.6	-	301	-	163.5	-	179.4	-
1977/78	185.8	-	324	-	171.6	-	183.7	-
1978/79	185.8	-	331	-	178.6	-	197.2	-
1979/80	217.6	-	360	-	203.8	-	229.3	-
1980/81	257.3	-	401	-	221.3	100.0	257.4	100.0
1981/82	281.3	100.0	451	-	243.7	108.6	289.3	111.5
1982/83	288.7	104.9	486	-	258.9	116.7	315.7	120.0
1983/84	316.0	112.9	547	-	285.6	124.4	347.3	133.6
1984/85	338.4	120.1	582	-	301.8	133.3	378.4	146.7
1985/86	357.7	125.4	620	-	328.7	141.4	413.9	159.6
1986/87	376.8	132.7	674	-	-	149.3	-	169.3
1987/88	405.4	143.6	736	-	-	165.4	-	179.0
1988/89	435.3	154.3	803	163	-	177.1	-	194.9
1989/90	-	165.7	-	173	-	176.3	-	215.2
1990/91	-	182.7	-	193	-	213.7	-	240.2
1991/92	-	207.8	-	219	-	236.1	-	294.2
1992/93	-	228.5	-	240	-	-	-	-

Notes:

[a] New Series on Price Indices with the respective base years.
[b] New Series on National Accounts Statistics with 1980/81 as Base Year.

Sources: 1. Ministry of Industry, Office of the Economic Adviser.
2. H.L. Chandok, Wholesale Price Statistics 1947-1978,published by Economic and Scientific Foundation,1979.
3. Ministry of Labor, Labor Bureau, Simla.
4. Central Statistical Organisation, National Accounts Statistics, various issues.
5. World Bank staff estimates.

TABLE A9.5

CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS, URBAN NON-MANUAL EMPLOYEES AND AGRICULTURAL LABORERS

Year (April-March)	Industrial Workers				Urban Non-Manual Employees		Agricultural Laborers [b]	
	Food Index		General Index				Food Index (1960/61=100)	General Index (1960/61=100)
	OLD	NEW	OLD	NEW	OLD	NEW		
1960/61	108	-	102	-	100 [a]	-	100	100
1970/71	201	-	186	-	174	-	206	192
1975/76	342	-	313	-	277	-	345	317
1977/78	346	-	324	-	298	-	349	323
1978/79	347	-	331	-	306	-	340	317
1979/80	373	-	360	-	330	-	390	360
1980/81	419	-	401	-	369	-	448	409
1981/82	476	-	451	-	413	-	491	448
1982/83	508	-	486	-	446	-	527	481
1983/84	581	-	547	-	492	-	573	522
1984/85	607	-	582	-	532	-	569	525
1985/86	638	-	620	-	568	-	600	555
1986/87	700	-	674	-	613	-	623	578
1987/88	767	-	736	-	668	-	706	650
1988/89	839	168	803	163	724	136	791	724
1989/90	-	177	-	173	-	145	814	752
1990/91	-	199	-	193	-	161	900	803
1991/92	-	-	-	219	-	183	-	958
Average of weeks								
1990								
March	-	178	-	177	-	149	789	736
June	-	189	-	185	-	155	817	759
September	-	197	-	191	-	159	856	792
December	-	207	-	199	-	165	898	828
1991								
March	-	207	-	201	-	169	931	858
June	-	219	-	209	-	174	949	876
September	-	234	-	221	-	184	1072	975
December	-	n.a	-	225	-	187	n.a	1008
1992								
March	-	n.a	-	229	-	192	n.a	1046
June	-	n.a	-	236	-	197	n.a	1068
September	-	n.a	-	243	-	204	n.a	1112
December	-	n.a	-	243	-	205	n.a	1067
Average compound growth rate (% per annum)								
1950/1-1975/6	5.6	-	5.4	-	5.2 [c]	-	6.4	5.9[c]
1970/1-1980/1	7.6	-	8.0	-	7.8	-	8.1	7.9
1985/86	5.1	-	6.5	-	6.8	-	5.4	5.7
1986/87	9.7	-	8.7	-	7.9	-	3.8	4.1
1987/88	9.6	-	9.2	-	9.0	-	13.3	12.5
1988/89	9.4	-	9.1	-	8.3	-	12.0	11.4
1989/90	-	5.1	-	6.3	-	6.6	2.9	3.9
1990/91	-	12.4	-	11.6	-	11.0	10.6	6.8
1991/92	-	n.a	-	13.5	-	13.7	-	19.3
Percentage Change in Index over the corresponding month of previous year								
1991								
March	-	16.3	-	13.6	-	13.4	18.0	16.6
June	-	15.9	-	13.0	-	12.3	16.2	15.4
September	-	18.8	-	15.7	-	15.7	25.2	23.1
December	-	n.a	-	13.1	-	13.3	n.a	n.a
1992								
March	-	n.a	-	13.9	-	13.6	n.a	21.9
June	-	n.a	-	12.9	-	13.2	n.a	21.9
September	-	n.a	-	10.0	-	10.9	n.a	14.1
December	-	n.a	-	8.0	-	9.6	n.a	5.9

Note: OLD Index refers to the 1960=100 series. New series are based 1982 and 1984/85 respectively for the series on Industrial Workers & Urban Non-manual Workers.

[a] Relates to the period January to March.

[b] Indices relate to Agricultural Years (July-June).

[c] Relates to the period 1955/56-1975/76.

Sources: 1. Ministry of Labor, Labor Bureau, Simla.
2. Central Statistical Organization.
3. Economic Survey, various issues.