

II

THE REAL ECONOMY

MACROECONOMIC SCENE

2.1 The Indian economy exhibited resilience in an uncertain global environment dominated by the worsening of the slowdown in economic activity in several parts of the world. Benefiting from an unusually strong rebound in agricultural production, India's real GDP growth accelerated to 5.4 per cent during 2001-02 as against a deceleration to 4.0 per cent in 2000-01 from 6.1 per cent in 1999-2000. Foodgrains output touched a record high of 211.3 million tonnes in 2001-02 while the production of non-foodgrains increased significantly, except for sugarcane. Stocks of foodgrains touched 51.02 million tonnes at the end of March 2002, well above thrice the prevailing norm. On the other hand, industrial production suffered a pronounced and fairly wide-spread deceleration, led by a marked slowdown in the manufacturing sector. Capital goods and crude petroleum production recorded absolute declines. Real GDP originating in the services sector rose by 6.2 per cent in 2001-02, up from 5.0 per cent in 2000-01, reflecting an improved performance of financial services, particularly financing, insurance, real estate and business services (Table 2.1 and Appendix Table II.1).

2.2 The services sector continues to 'lead' the economy, accounting for over 54 per cent of GDP and contributing 62.2 per cent of the growth of real GDP in 2001-02 (Chart II.1). The contribution of agriculture and allied activities to overall GDP growth has generally been subdued since 1997-98 with negative contribution in that year and again in 2000-01. Despite its contribution to overall growth turning positive in 2001-02 engendered by a distinct improvement in production, the share of agriculture and allied activities in GDP steadily deteriorated from 28.5 per cent in 1996-97 to 24.3 per cent in 2001-02. Contemporaneously, the share of industry in GDP also declined along with its contribution to overall GDP growth.

Quarterly Profile

2.3 Coincident peaks - Q₂ of 2000-01 and Q₄ of 2001-02 - and troughs - Q₃ and Q₄ of 2000-01 - in real GDP and GDP from agriculture for 2000-01 and 2001-02 suggest that fluctuations in agricultural activity mainly influenced and set the pattern for the overall GDP growth path (Chart II.2 and Appendix Table II.2).

2.4 The sharp slowdown in growth after the third quarter of 2000-01 in the industrial sector plateaued in

Table 2.1 : Growth Rates and Sectoral Composition of GDP (at 1993-94 prices)

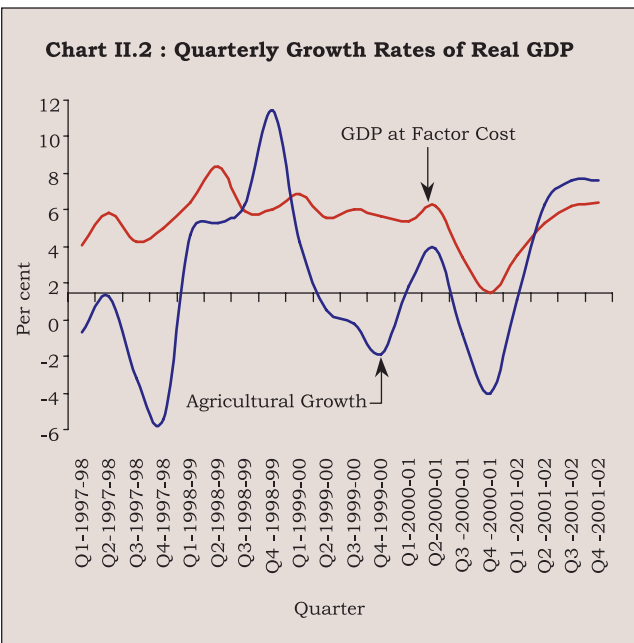
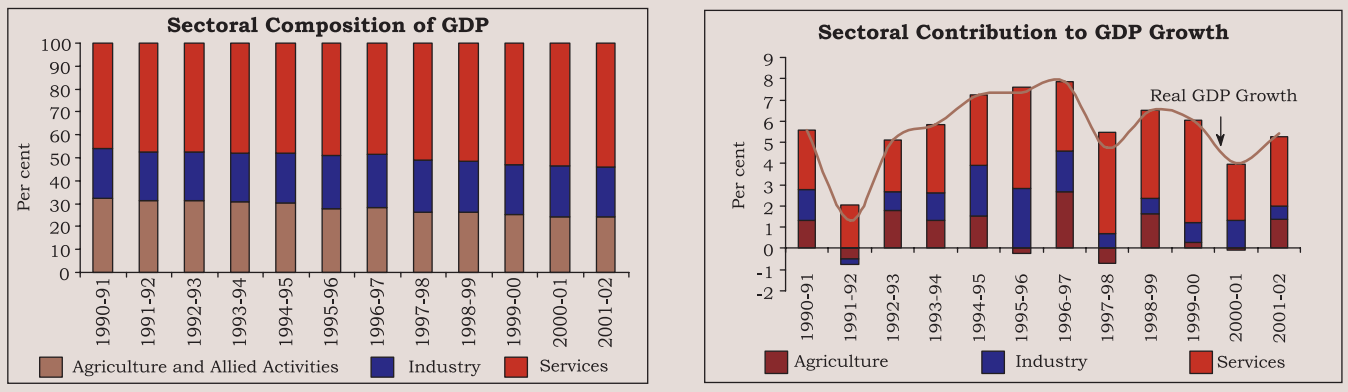
(Per cent)

Sectors	Growth Rate			Share in GDP		
	2001-02#	2000-01*	1999-00@	2001-02#	2000-01*	1999-00@
1	2	3	4	5	6	7
1. Agriculture & allied activities	5.7	-0.2	1.3	24.3	24.2	25.2
1.1 Agriculture	-	-0.4	1.0	-	22.2	23.2
2. Industry	2.9	6.2	4.2	21.5	22.1	21.6
2.1 Mining and quarrying	1.8	3.3	2.0	2.2	2.3	2.3
2.2 Manufacturing	2.8	6.7	4.2	16.8	17.2	16.8
2.3 Electricity, gas and water supply	4.6	6.2	6.1	2.5	2.5	2.5
3. Services	6.2	5.0	9.4	54.1	53.7	53.2
3.1 Construction	3.6	6.8	8.1	5.2	5.3	5.1
3.2 Trade, hotels, restaurants, transport, storage and communication	6.2	5.3	7.6	22.5	22.3	22.1
3.3 Financing, insurance, real estate and business services	7.8	2.9	10.6	12.9	12.6	12.7
3.4 Community, social and personal services	5.9	6.0	11.6	13.6	13.5	13.3
4. GDP at factor cost	5.4	4.0	6.1	100.0	100.0	100.0

Revised Estimates. * Quick Estimates. @ Provisional Estimates. - Not Available.

Source : Central Statistical Organisation.

Chart II.1 : Sectoral Distribution of Economic Activity



2001-02. Industrial growth increased marginally from 2.5 per cent in Q₁ of 2001-02 to 3.4 per cent in Q₄ of 2001-02. The quarterly growth rate of the services sector fluctuated between 2.9 per cent and 7.0 per cent during Q₄ of 2000-01 and Q₄ of 2001-02 (Table 2.2).

AGGREGATE DEMAND

2.5 The distribution of aggregate demand in nominal terms indicates a marginal compositional shift from private final consumption expenditure towards government final consumption expenditure in 2000-01. On the other hand, the rate of government fixed capital formation in relation to GDP which had fallen by over a percentage point during 1997-98 to 1999-2000 from the average of 7.8 per cent during the high growth period of 1994-95 to 1996-97, registered a modest increase in 2000-01. The rate of private fixed capital formation has remained sluggish since the 1990s at around 15 per cent of GDP. The rate of change in stocks

Table 2.2 : Quarterly Estimates of Gross Domestic Product (at 1993-94 prices)

Sector	Percentage change over the corresponding quarter of the previous year							
	2001-02				2000-01			
	Q ₁	Q ₂	Q ₃	Q ₄	Q ₁	Q ₂	Q ₃	Q ₄
1	2	3	4	5	6	7	8	9
1. Agriculture and allied activities	1.1	6.3	7.6	7.6	1.8	3.9	-0.8	-4.0
2. Industry	2.5	2.7	3.0	3.4	7.6	6.4	7.0	4.1
2.1 Mining & quarrying	-0.3	0.7	3.1	3.5	4.8	3.6	4.3	0.9
2.2 Manufacturing	2.7	2.6	2.9	3.1	8.1	7.1	7.1	4.6
2.3 Electricity, gas and water supply	3.9	5.4	3.8	5.4	7.1	4.5	9.3	4.0
3. Services	5.1	6.0	6.6	7.0	6.3	6.9	4.4	2.9
3.1 Construction	-0.2	2.7	4.4	7.5	12.4	10.0	7.2	-1.2
3.2 Trade, hotels, transport, storage and communication	4.5	6.3	6.6	7.2	8.1	6.3	4.8	2.4
3.3 Financing, insurance, real estate and business services	7.0	7.6	8.1	8.3	3.7	3.9	2.1	2.0
3.4 Community, social and personal services	6.5	5.4	6.2	5.6	3.2	9.8	5.0	5.8
4. GDP at factor cost	3.5	5.3	6.2	6.4	5.4	6.2	3.4	1.5

Note : Data are provisional.
Source : Central Statistical Organisation.

decelerated substantially to 1.0 per cent in 2000-01 from 1.7 per cent in 1999-2000, indicating improved inventory management. Net exports (exports *minus* imports) rose from (-)2.0 per cent of GDP in 1999-2000 to (-)0.8 per cent in 2000-01 reflecting sluggish domestic demand for imports (Table 2.3).

**Table 2.3 : Demand Distribution of Nominal Gross Domestic Product
(As percentage of GDP at current market prices)**

Item	2000-01*	1999-00@	1998-99@	1997-98	1994-95 to 1996-97 (Average)
1	2	3	4	5	6
1. Private Final Consumption	64.2	65.4	65.1	64.1	64.9
2. Government Final Consumption	13.2	12.9	12.3	11.3	10.7
3. Private Fixed Capital Formation	15.1	15.2	15.1	15.3	15.3
4. Government Fixed Capital Formation	6.8	6.4	6.5	6.4	7.8
5. Change in Stocks	1.0	1.7	-0.1	0.9	0.9
6. Exports net of Imports	-0.8	-2.0	-1.7	-1.3	-0.9
Of which: Exports	13.9	11.8	11.2	10.9	10.5
Imports	14.7	13.8	12.9	12.1	11.4

* Quick Estimates. @ Provisional.

Source : Central Statistical Organisation.

2.6 In real terms, the growth rate of final consumption expenditure declined sharply to 2.9 per cent in 2000-01, well below the average of 6.0 per cent during the high growth period of 1994-95 to 1996-97. The slowdown in real final consumption demand affected both private and government sectors. Significantly, the growth in real gross domestic capital formation witnessed a pronounced deceleration from 15.7 per cent in 1999-2000 to 2.0 per cent in 2000-01, mirroring the slackening of both public and private investment. The large fluctuations in real investment reflect mainly the volatility in the behaviour of stocks. Variations in real gross fixed capital formation have been relatively moderate (Table 2.4).

Capital Formation

2.7 The rate of gross domestic capital formation (GDCF) at current prices decelerated from 24.3 per cent in 1999-2000 to 24.0 per cent in 2000-01 primarily on account of the rate of private corporate investment which decelerated from 6.5 per cent in 1999-2000 to 5.9 per cent in 2000-01. The public sector investment rate remained stable at 7.1 per cent for the years 1999-2000 and 2000-01 (Table 2.5, Chart II.3 and Appendix Table II.3).

Table 2.4 : Growth in Select Sources of Real Effective Demand #

Item	2000-01*	1999-00@	1998-99@	1997-98	1994-95 to 1996-97 (Average)
1	2	3	4	5	6
1. Total Final Consumption Expenditure	2.9	6.5	7.4	3.8	6.0
Of which :					
Private Final Consumption	2.2	5.5	6.4	2.6	6.2
Government Final Consumption	6.5	12.0	12.9	11.1	4.6
2. Total Investment +	2.0	15.7	1.3	7.7	11.0
Private Investment ++	1.1	18.1	2.6	16.4	16.3
Public Investment ++	3.0	16.2	7.3	-0.8	1.4
3. Total Fixed Investment	4.7	8.6	8.7	2.1	10.9
Of which :					
Private Fixed	2.4	10.0	8.4	4.1	16.3
Public Fixed	10.9	4.9	9.4	-2.8	1.9

Based on select disposition of real GDP at market prices.

* Quick Estimates.

@ Provisional.

+ Adjusted for errors and omissions.

++ Unadjusted for errors and omissions.

Source : Central Statistical Organisation.

Table 2.5 : Sector-wise Rates of Gross Capital Formation

Item	(as percentage of GDP at current market prices)		
	2000-01*	1999-00@	1998-99
1	2	3	4
1. Household Sector	9.9	9.6	8.4
2. Public Sector	7.1	7.1	6.6
3. Private Corporate Sector	5.9	6.5	6.4
4. Gross Domestic Capital Formation (GDCF)#	24.0	24.3	22.7

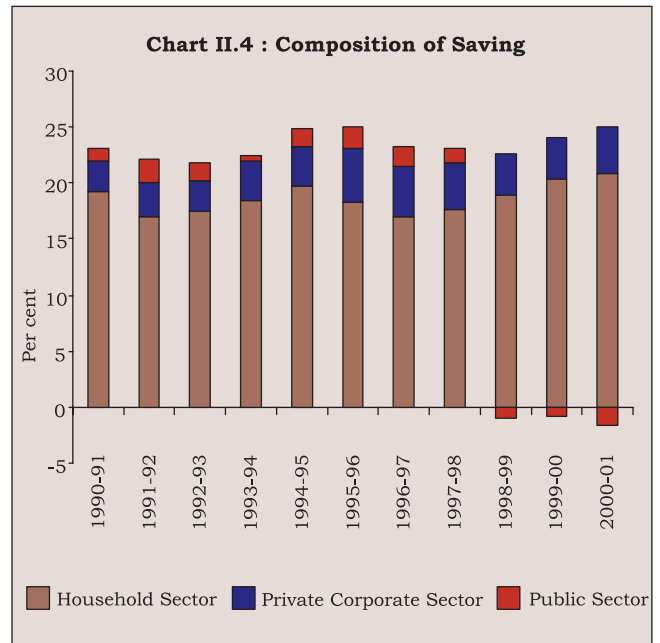
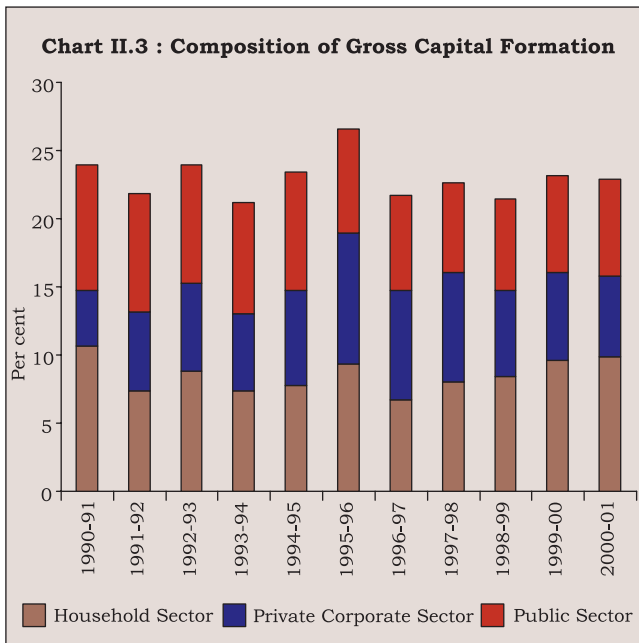
* Quick Estimates. @ Provisional.

As GDCF is adjusted for errors and omissions, the sector-wise capital formation figures do not add up to the GDCF.

Source : Central Statistical Organisation.

Saving

2.8 The rate of gross domestic saving (GDS as percentage of GDP at current market prices) edged up from 23.2 per cent in 1999-2000 to 23.4 per cent in 2000-01 (Table 2.6 and Appendix Table II.3). All the constituent sectors registered improvement in saving rates except the public sector which increased its dissaving rate from 0.9 per cent in 1999-2000 to 1.7 per cent in 2000-01 (Chart II.4).



2.9 The saving rate of the dominant constituent - the household sector - increased by 0.6 percentage point in 2000-01. Saving in both physical assets and financial assets contributed to this increase. While the household sector continued to show preference for saving in the form of financial assets in keeping with the general trend in the 1990s, the divergence between rates of saving in financial assets and physical assets has been narrowing in recent years.

2.10 The improvement in the financial saving of the household sector in 2000-01 occurred in the forms of bank deposits, claims on government and insurance funds. Provident and pension funds, currency holdings and shares and debentures, on the other hand,

attracted lower accretions than in the preceding year (Chart II.5 and Appendix Table II.4).

2.11 Tentative estimates of the Reserve Bank, based on latest available data, place the rate of household financial saving at 10.9 per cent in 2001-02 as against the revised estimate of 10.8 per cent in 2000-01 (Table 2.7). Instrument-wise, this marginal improvement in household financial saving is primarily attributable to currency and claims on government held by the household sector. In contrast, the rate of household financial

Table 2.6 : Gross Domestic Saving and Sectoral Saving Rates

Item	(as percentage of GDP at current market prices)		
	2000-01*	1999-00@	1998-99
1	2	3	4
1. Household Saving	20.9	20.3	18.9
1.1 Financial Assets	11.0	10.8	10.5
1.2 Physical Assets	9.9	9.6	8.4
2. Public Sector Saving	-1.7	-0.9	-1.0
3. Private Corporate Saving	4.2	3.7	3.7
4. Gross Domestic Saving (1+2+3)	23.4	23.2	21.7

* Quick Estimates. @ Provisional.

Source : Central Statistical Organisation.

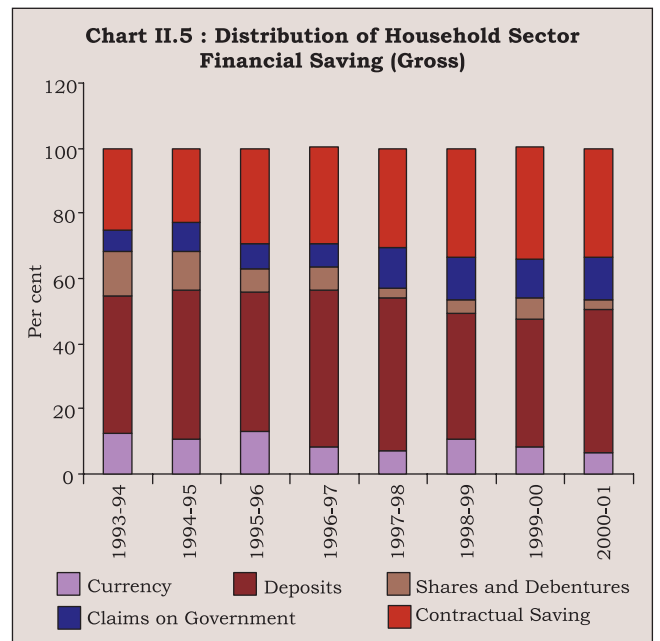


Table 2.7 : Household Saving In Financial Assets

(Amount in rupees crore)

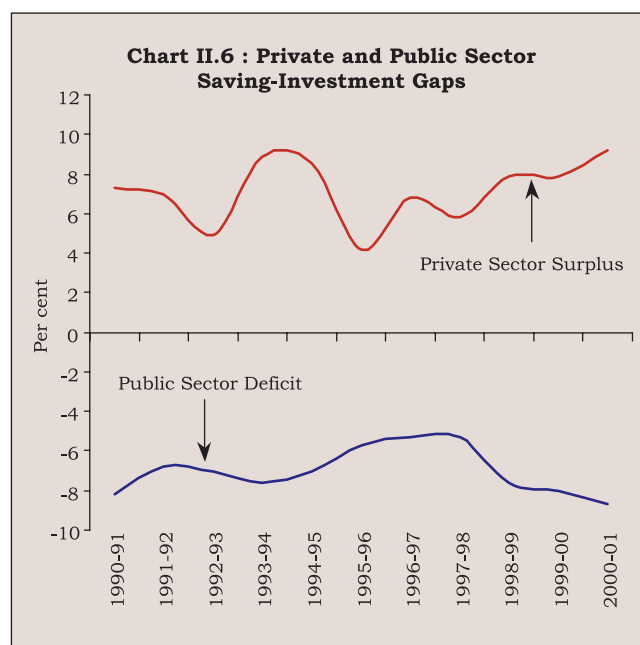
Item	2001-02#	2000-01P	1999-00P	1998-99
1	2	3	4	5
A. Financial assets (gross)	2,91,405	2,56,734	2,39,058	2,07,390
a) As per cent of GDP at current market prices	12.7	12.3	12.4	11.9
1. Currency	28,192	17,686	20,845	21,822
a) As per cent of GDP at current market prices	1.2	0.8	1.1	1.3
b) As per cent of financial assets (gross)	9.7	6.9	8.7	10.5
2. Deposits@	1,12,517	1,05,078	89,598	80,520
a) As per cent of GDP at current market prices	4.9	5.0	4.6	4.6
b) As per cent of financial assets (gross)	38.6	40.9	37.5	38.8
3. Claims on government	49,923	39,008	28,985	28,220
a) As per cent of GDP at current market prices	2.2	1.9	1.5	1.6
b) As per cent of financial assets (gross)	17.1	15.2	12.1	13.6
4. Investment in shares and debentures+	6,946	6,135	17,045	6,992
a) As per cent of GDP at current market prices	0.3	0.3	0.9	0.4
b) As per cent of financial assets (gross)	2.4	2.4	7.1	3.4
5. Contractual saving**	93,827	88,828	82,585	69,836
a) As per cent of GDP at current market prices	4.1	4.3	4.3	4.0
b) As per cent of financial assets (gross)	32.2	34.6	34.5	33.7
B. Financial liabilities	40,451	32,229	35,275	26,773
a) As per cent of GDP at current market prices	1.8	1.5	1.8	1.5
C. Saving in financial assets (Net) (A-B)	2,50,954	2,24,505	2,03,783	1,80,617
a) As per cent of GDP at current market prices	10.9	10.8	10.6	10.4

Preliminary. P Provisional.
 @ Comprise bank deposits, non-bank deposits and trade debt (net).
 + Including units of Unit Trust of India and other Mutual Funds.
 ** Comprise Life Insurance, Provident and Pension Funds.

Notes : 1. Based on the latest available information, these data are revised in July 2002 and hence may not tally with the data published in the Quick Estimates of the Central Statistical Organisation released in January 2002.
 2. Components may not add up to the total due to rounding off.
 3. Data on GDP at current market prices for 2001-02 are not yet available from the CSO. In this Table, GDP at current market prices for 2001-02 has been estimated on the basis of the revised estimates of GDP at factor cost at current prices for 2001-02 released by the Central Statistical Organisation in June 2002.

saving in deposits is estimated to have shown a marginal decline from 5.0 per cent in 2000-01 to 4.9 per cent in 2001-02 on account of the non-bank deposits; household saving in the form of bank deposits increased from 4.5 per cent to 4.8 per cent. The household saving in the form of contractual instruments (life insurance fund and provident and pension funds) declined from 4.3 per cent in 2000-01 to 4.1 per cent in 2001-02 partly reflecting the lowering of the rate of return on these instruments.

2.12 The overall saving-investment gap narrowed to 0.6 per cent of GDP in 2000-01 from 1.1 per cent in the previous year, mainly on account of the continuing upward movement in the gross domestic saving rate. Underlying the behaviour of the macro-balance is a deterioration in the public sector deficit since 1997-98. On the other hand, the private sector surplus has improved since 1998-99 (Chart II.6).



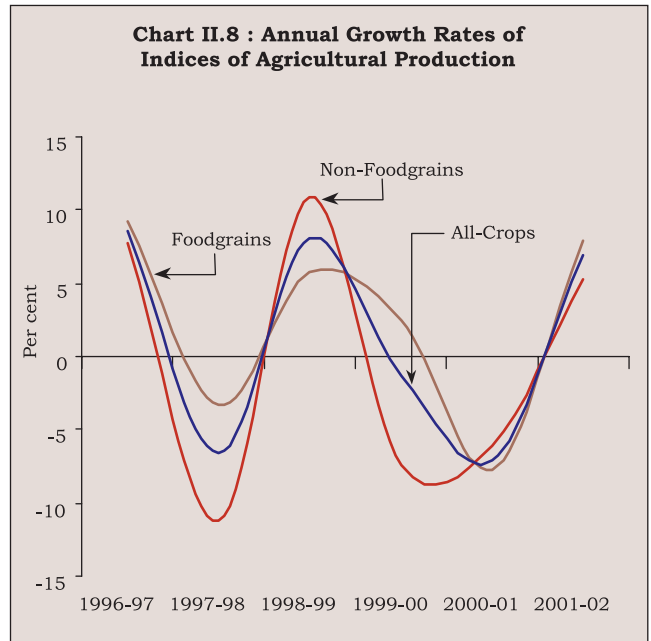
AGGREGATE SUPPLY

2.13 Aggregate supply conditions received a favourable impetus from the robust revival of agriculture during 2001-02. This augurs well for a more broad-based recovery in the current year. Inter-sectoral analysis of agriculture, industry and services indicates that an upturn in agricultural output in 2001-02 is likely to have favourable implications for industry with a pick up in rural demand, especially for consumer goods (Chart II.7). The higher growth of the services sector in 2001-02 could also have a positive impact on industry.

2.14 Global economic conditions are providing incipient signs of recovery. Within the domestic economy, credit flow is picking up in some infrastructure sectors like ports, telecommunications, roads and construction. The cement sector recorded an improved performance during 2001-02, giving lead indications of increased activity in the construction and housing sectors. The Economic Times - National Council for Applied Economic Research (ET-NCAER) business confidence index has improved by 9.3 per cent to 102.3 points in the June 2002 round from 93.6 points in the April 2002 round.

Agriculture

2.15 Foodgrains production increased by 15.4 million tonnes during 2001-02, scaling a new peak at 211.3 million tonnes. The production of non-foodgrain crops such as oilseeds and cotton also showed improvement (Chart II.8). The index of agricultural



production (base : triennium ending 1981-82=100) increased sharply by 7.5 per cent in 2001-02 in contrast to a fall of 6.6 per cent in the previous year (Appendix Table II.5). In consonance, real GDP originating from agriculture and allied activities surged up by 5.7 per cent in contrast to a decline of 0.2 per cent in 2000-01.

Rainfall Conditions

2.16 The rejuvenation of agricultural production in 2001-02 is attributable to better spatio-temporal distribution of rainfall. The South-West monsoon was normal for thirteen years in a row with precipitation at 90 per cent of the Long Period Average (LPA) in the 2001 season and 30 (highest in the last seven years) out of 35 meteorological sub-divisions reporting excess/normal rainfall (Chart II.9). There was adequate rainfall in 71 districts of 11 states, viz., Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh, which had experienced drought conditions in 2000. Following better precipitation, the maximum storage attained in 70 major reservoirs in the country in 2001 at 87.5 billion cubic metres was significantly higher than the previous year's level of 82.7 billion cubic metres, despite the lower starting storage level. Consequent to the good monsoon, *kharif* foodgrains production posted a new peak at 111.5 million tonnes. *Kharif* non-foodgrains production also recorded considerable improvement.

2.17 The North-East monsoon season also turned out to be satisfactory in 2001-02 with excess/normal

Chart II.7 : Cyclical Component of Value Added from Agriculture, Industry and Services

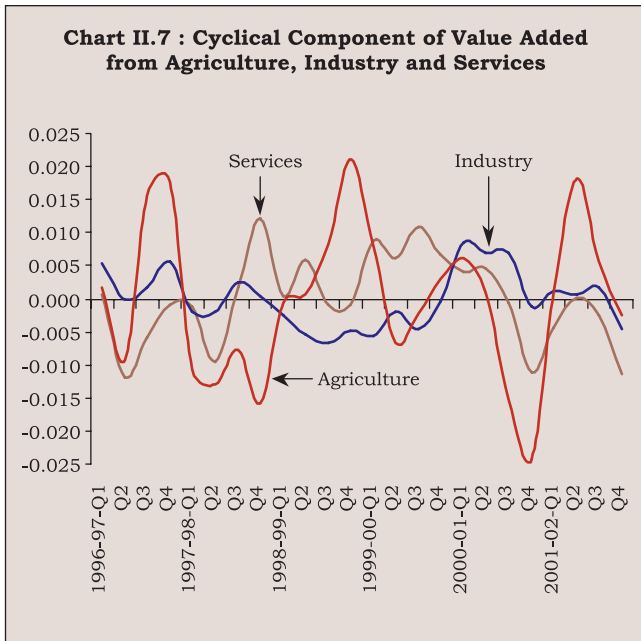
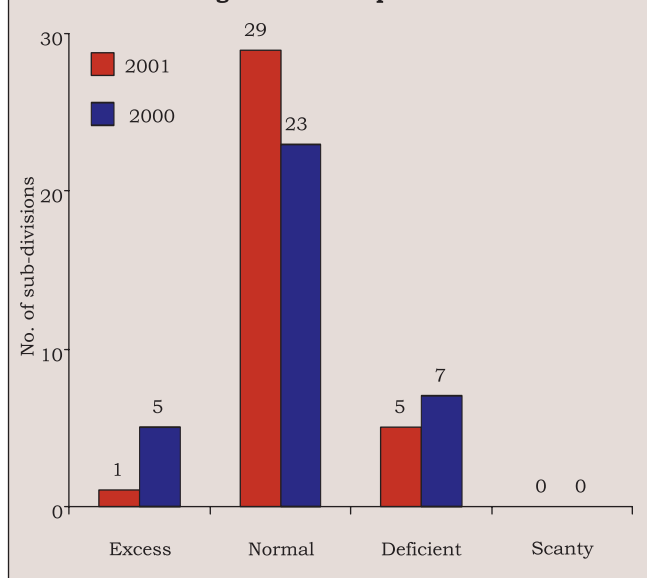


Chart II.9 : South-West Monsoon Cumulative Rainfall during June 1 to September 30



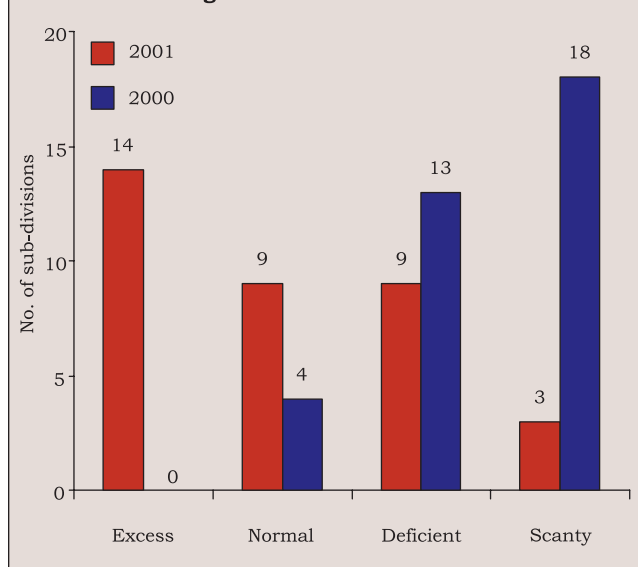
rainfall in 23 out of 35 sub-divisions as compared with only 4 sub-divisions in 2000-01 (Chart II.10).

2.18 Despite significant advances in technology, Indian agriculture continues to be rain-dependent and fluctuations in agricultural production continue to be driven by variations in spread and intensity of monsoon. Consequently, even transient aberrations in spatio-temporal distribution of rainfall exacerbate moisture stress leading to drought-like conditions. In this regard, an appropriate assessment of drought conditions is critical (Box II.1).

Production

2.19 The production of rice at 91.6 million tonnes was a new record. The late rains in the North-East

Chart II.10 : North-East Monsoon Cumulative Rainfall during October 1 to December 31



monsoon during early February 2002 and a prolonged cold spell facilitated an increase in wheat output to 71.5 million tonnes during 2001-02. The production of pulses increased to 13.5 million tonnes in 2001-02 from 10.7 million tonnes in the previous year. The output of coarse cereals also increased, *albeit* moderately.

2.20 The index of non-foodgrains (base: triennium ending 1981-82=100) rose by 5.7 per cent in 2001-02 in contrast to a fall of 5.7 per cent in the previous year. The improvement in non-foodgrains output was mainly due to the increased output of oilseeds, cotton and jute and mesta, even as sugarcane suffered a moderate decline mainly on account of moisture stress in the States of Maharashtra,

Box II.1

Assessment of Drought: Some Analytical Issues

Drought generally refers to deficiency of precipitation over an extended period of time leading to moisture stress. The consequent adverse effect on agricultural production, livestock and human beings is reflected in loss of output and fall in farm incomes. Further, prolonged periods of droughts may result in desertification of land. There is no unanimity on the measurement of the severity of drought. Various measurements ranging from deviance of precipitation from Long Period Average (LPA) to complex indices incorporating factors like rainfall, surface and ground water availability, prevailing temperatures, etc., are being used in estimating the severity of drought in various countries. The India Meteorological Department (IMD) defines a meteorological drought as one in which the rainfall

is deficient by 25 per cent or more of the LPA; a deficiency of 50 per cent is characterised as a severe meteorological drought. IMD does not take into account the temporal distribution of rainfall in its definition; however, this assumes importance in assessing the impact of deficient rainfall.

The National Commission of Agriculture identifies two kinds of droughts – agricultural and hydrological. Agricultural drought is a situation of

- four consecutive weeks of severe meteorological drought or weekly rainfall of 5 cm. or less during the kharif season; or
- six weeks of severe meteorological drought during the rest of the year.

(Contd....)

(Concl....)

Hydrological drought refers to prolonged meteorological drought resulting in depletion of surface water and a fall in ground water level, causing severe shortage of water for livestock and human needs.

In India, State Governments declare drought on judgements based on information on rainfall, water shortage and the consequent percentage crop loss. Generally, if 50 per cent or more of standing crop in a particular district is estimated to be destroyed or damaged due to insufficient rainfall or irrigation water, that district is declared drought-hit. Arguably, the major factor in declaring any area as drought-hit in India is the percentage deviation from the LPA. It is necessary to recognise, however, that this approach suffers from the lacuna that the mean precipitation (as reflected in LPA) is not a true representative of normal, as rainfall does not follow a normal distribution.

In some countries, severity of drought is identified by more scientific drought indices that assimilate data on rainfall, stream flows, water supply, reservoir levels. These indices take into account the temporal distribution of rainfall and also incorporate the impact of the rainfall deficiency on soil moisture, duration of drought. Drought indices such as Palmer Drought Severity Index (PDSI), Crop Moisture Index (CMI), Surface Water Supply Index (SWSI), or the Standardised Precipitation Index (SPI) are in use to determine grant of emergency drought assistance. In the USA, PDSI, which measures the departure of moisture supply and the duration of drought while incorporating the temporal distribution of rainfall and is not unduly impacted by brief spells of rainfall or its deficiency, is commonly used for identifying drought. The PDSI is more suitable for regions of homogenous topological conditions. The SPI is the most recently developed index and is considered superior to the PDSI. The SPI reflects the impact of drought on the availability of different water sources and soil moisture conditions that respond to anomalies of rainfall over multiple time-scales. One of the major advantages of SPI is that it helps to predict the occurrence of drought months before it actually occurs and hence provides adequate time to plan for public intervention. SPI is suited to regions with

varied climatic conditions and is currently in use in Colorado, USA, which has varied topography. It is noteworthy that a comprehensive Drought Severity Index is developed by scientists at Anna University, Chennai, though it is not yet used for identifying drought-hit areas in the country.

Currently, the policy response to natural disasters can be reactive (*i.e.*, recovery from disasters), or anticipatory (*i.e.*, prevention and mitigation of disasters by reducing the risk of occurrence of disasters) and planned adaptiveness. The Food and Agriculture Organisation suggests some agriculture-specific prevention and mitigation measures which include: crop and livestock diversification; plant breeding for short cycle crops resistant to drought, diseases and pest attacks; pest and disease control measures; improved rangeland and water management; floodplain zoning and control; land terracing; soil conservation; planting of shelterbelts or windbreaks; improved coastal fishing practices; afforestation; forest management; sand dune stabilisation; improved food storage and preservation; *etc.*

The World Health Organisation opines that the strategies to deal with the impacts of climate change need inter-sectoral and cross-sectoral adaptive measures such as (i) increasing the robustness of infrastructural designs and long-term investments, (ii) increasing the flexibility and adaptability of vulnerable natural systems, (iii) reversing the trends that increase vulnerability, and (iv) improving social awareness and preparedness. Scientists at the International Food Policy Research Institute opine that developing capacity to acquire, generate, manage and interpret special information is of crucial importance. They recommend investment in programmes and methods that foster the build-up of human and technical capacity to generate problem-specific schema.

References:

1. Food and Agriculture Organisation (1998), "The Emergency Sequence : What FAO Does – How FAO Does it", Rome
2. World Health Organisation (2000), "Climate Change and Human Health : Impact and Adaptation", Geneva.

Karnataka and Tamil Nadu and parts of Andhra Pradesh (Table 2.8).

2.21 Eastern States continued to improve their performance as Assam, Bihar, Jharkhand, Orissa and West Bengal together contributed an additional 5.5 million tonnes of foodgrains to the national kitty. Haryana, Himachal Pradesh and Jammu and Kashmir also achieved appreciable increases in output. Haryana's wheat output is estimated to have crossed the ten million tonne mark for the first time.

2.22 There has been a shift in the cropping pattern from pulses and coarse cereals towards the cultivation of superior cereals. The share of acreage under rice and wheat in total area covered under foodgrains increased steadily. On the other hand, the shares of acreage under pulses and coarse cereals have declined since 1990-91 (Table 2.9). There has also been a steady improvement in yields of rice and wheat. On the other hand, yields of coarse cereals and pulses fluctuated widely, leading to unstable output of these crops.

Table 2.8 : Agricultural Production

(Million tonnes)

Crop	2001-02	2000-01	1999-00
1	2	3	4
All crops: Annual Growth Rate+ (per cent)	7.5	-6.6	-1.4
Foodgrains	211.3	195.9	209.8
Rice	91.6	84.9	89.7
Wheat	71.5	68.8	76.4
Coarse Cereals	34.7	31.6	30.3
Pulses	13.5	10.7	13.4
Non-Foodgrains			
Oilseeds++	20.7	18.4	20.7
Of which : Groundnut	7.1	6.2	5.3
: Soyabean	5.8	5.3	7.1
Sugarcane	292.2	299.2	299.3
Cotton @	11.7	9.7	11.5
Jute and Mesta#	10.8	10.5	10.6
Tea*	823.4	823.4	805.6
Coffee*	317.0	301.2	292.0

+ Based on the Index of Agricultural Production with base: triennium ending 1981-82=100.

++ For nine oilseeds out of eleven in all.

@ Million bales of 170 kg. each.

Million bales of 180 kg. each.

* Million kg. and data for tea on a calendar year basis.

Table 2.9 : Share of Acreage Under Different Foodgrains

(Per cent)

	Rice	Wheat	Coarse Cereals	Pulses	Total Food-grains
	1	2	3	4	5
1990-91	33.39	18.90	28.41	19.29	100.00
1991-92	34.99	19.09	27.42	18.50	100.00
1992-93	33.92	19.97	27.95	18.16	100.00
1993-94	34.65	20.49	26.73	18.13	100.00
1994-95	34.56	20.75	25.97	18.59	100.00
1995-96	35.40	20.67	25.52	18.41	100.00
1996-97	35.15	20.95	25.74	18.16	100.00
1997-98	35.08	21.56	24.90	18.47	100.00
1998-99	35.79	21.99	23.44	18.78	100.00
1999-00	36.69	22.33	23.83	17.16	100.00
2000-01	37.03	20.93	25.32	16.72	100.00
2001-02	35.84	20.95	24.34	18.87	100.00

increased from 38.8 million tonnes in 1983-84 to 81.0 million tonnes in 2000-01 (averaging 1.9 per cent per annum). Similarly, India is the world's fifth largest producer of eggs with the production of eggs increasing from 12.8 billions to 32.4 billions (2.2 per cent per annum) during the same period. India ranked seventh in meat production. Fish production increased from 2.51 million tonnes in 1983-84 to 5.7 million tonnes in 2000-01 (2.2 per cent per annum). India is also the world's second largest producer of fruits and vegetables.

Procurement, Off-take and Food Stocks

2.24 Total procurement of foodgrains reached a new peak of 41.3 million tonnes in 2001-02 mainly on account of increases in Minimum Support Prices (MSP) of rice and wheat, even as the stage is being set for vacation of interventions in the determination of the prices of foodgrains (Box II.2).

Box II.2

Withdrawing Price Interventions : The Supply Side Response

Price intervention in agriculture in the form of Minimum Support Prices (MSP) and Central Issue Prices (CIP) under the Public Distribution System (PDS) has been made with the objective of providing remunerative prices to producers, on one hand, and food security to the poor, on the other. In the absence of these interventions, farmers have to resort to distress sales due to weak bargaining power and monopsony practices by market functionaries. Restrictions on movement of various agricultural commodities under the Essential Commodities Act (ECA), 1955, have indirectly controlled the prices of these commodities, forcing the farmers to depend on the procurement mechanism for market clearance. These controls on agriculture seem to have biased the cropping patterns in favour of certain crops like rice and wheat. Even in years of bumper production, the MSP mechanism has helped to maintain the prices of rice and

wheat at a high level making the cultivation of these two crops more remunerative than pulses and coarse cereals. MSPs announced for rice and wheat are always higher than the market prices and the cost of cultivation. In case of crops such as oilseeds and pulses, however, the MSPs barely cover the cost of cultivation and are always lower than the market prices, and hence fail to provide incentives for cultivation of these crops.

On the input front, the administered pricing of fertilisers involving heavy subsidies accorded to urea manufacturing by way of the retention price scheme has contributed to the skewed consumption in favour of nitrogenous fertiliser (urea) and increased soil salinity. Subsidised availability of water has led to cultivation of irrigation intensive crops

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such as rice and wheat. Subsidised availability of electricity has led to proliferation of water extraction structures like borewells, with adverse implications for the water table.

Withdrawal of public intervention in agricultural commodities began with the removal of various commodities, including rice and wheat, from the purview of the Essential Commodities Act. Overlap with State legislation including in respect of Public Distribution System has stood in the way of decentralising procurement operations.

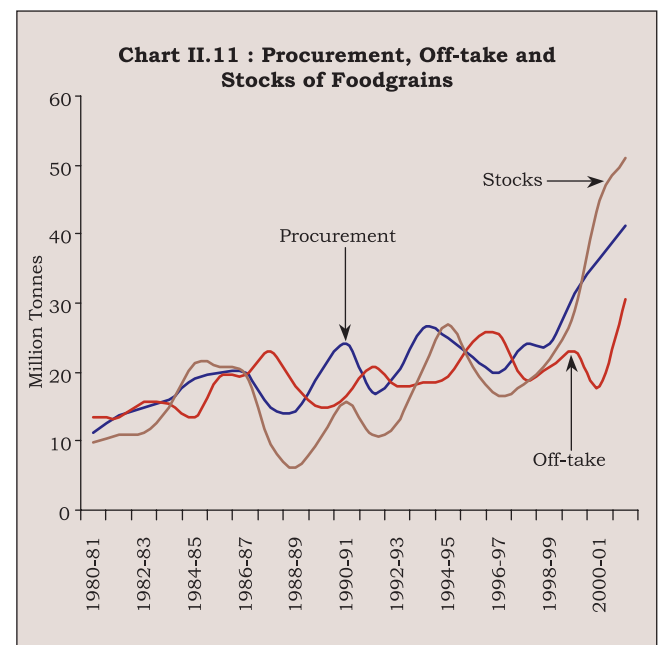
Higher subsidies accorded to urea on the basis of the retention price scheme is proposed to be replaced by a group concession scheme, in line with the recommendations of the High Powered Committee on fertiliser pricing (Chairman: Prof. C.H. Hanumantha Rao). Some measures were taken

in the Union Budget 2002-03 to rationalise the prices of various fertilisers and to reduce the skewness in the consumption pattern of fertilisers.

The impetus to agricultural growth will have to come from demand-driven production and crop diversification. Such a market-driven growth can happen only in the presence of adequate infrastructure like storage, transportation and the development of food processing industry and withdrawal of price interventions. Creation of adequate storage and processing facilities for the perishable horticultural products would encourage diversification. An integrated agricultural marketing strategy is required in order to ensure remunerative prices to farmers and avoid distress sales. Introduction of futures markets would lead to price discovery and provide price signals to farmers for basing their production decisions.

2.25 The total off-take of rice and wheat during 2001-02 at 31.3 million tonnes was higher than 2000-01, reversing the decline in the previous year. This rise in off-take was distributed across all categories, although it was relatively high under the Open Market Sales Scheme (OMSS). Off-take under the Targeted Public Distribution System (TPDS) rose to 13.8 million tonnes in 2001-02, a turnaround from the declining trend of the previous two years. The increase in TPDS off-take was attributable to the downward revision of Central Issue Prices (CIP) of rice and wheat by around 30 per cent for the Above Poverty Line (APL) consumers in July 2001, as also to the Antyodaya Anna Yojana scheme. Off-take under Other Welfare Schemes (OWS) witnessed substantial improvement during the year. Despite the higher off-take and large open market sales, the increased procurement resulted in stocks of foodgrains attaining a new peak of 51.0 million tonnes at end-March 2002 (Chart II.11). The Central issue concerning PDs is that of supply chain management and ensuring prompt delivery of foodgrains in scarcity areas.

2.26 Procurement of rice and wheat at 22.1 million tonnes during the first quarter of 2002-03 was lower by 4.4 per cent than in the corresponding period of the previous year. Procurement of wheat at 18.9 million tonnes was lower than that of 20.5 million tonnes. Rice procurement was higher at 3.2 million tonnes than 2.7 million tonnes during the corresponding period of 2001-02. The total off-take of rice and wheat in the first quarter of 2002-03 (up to end-June 2002) was higher at 10.1 million tonnes than 5.2 million tonnes during the corresponding period in 2001-02. The total stock of foodgrains was higher at 63.1 million tonnes as at end-June 2002 than 62.0 million tonnes, a year ago. The high stocks of foodgrains have serious fiscal and monetary implications for the



economy, as brought out by the study by the Administrative Staff College of India (ASCI), Hyderabad commissioned by the Reserve Bank (Box II.3).

2.27 Although the average share of agriculture and allied activities in GDP has declined from 36.4 per cent in the 1980s to 32.2 per cent in 1990-91 and further to 24.3 per cent in 2001-02, more than two-thirds of the population continues to depend upon agriculture. In India, agriculture provides employment to about 60 per cent of the total productive workforce. Agricultural development has, therefore, rightly come to be regarded as an indicator of the quality of life at the grass root level, especially in generating private consumption demand. All the three basic objectives of economic development, *i.e.*, output and employment growth, price stability and

Box II.3

Fiscal and Monetary Implications of Excess Foodgrains Stocks

The rising level of food stocks in India is engaging policy attention, not only from the point of view of social cost of sub-optimal level of food consumption by a large populace, but also on account of costs of maintaining excess food stocks which impact on the fisc and on the banking system. Within long-term measures to reduce such costs, the medium and short-term strategies entail a gradual reduction of excess food stocks over a five-year period.

The study undertaken by the Administrative Staff College of India (ASCI) looks at monetary and fiscal implications of excess stocks- inflationary effect of cash injections into the economy, fiscal burden on account of the growing food subsidy, with a large section of consumers not gaining the benefit of the subsidy. Furthermore, the marketability of the stock will depend on the quality of foodgrains at the time of procurement and the age of the stock. If, of the 60 million tonnes of current stock, 20 per cent is more than four years old and if it were to be written off, the credit risk to the banking system would be substantial. Since the build-up of food stocks and credit arrangements for such operations was a result of public policy, the burden of this credit risk could devolve either on the Government of India

or the banks or both. The ultimate obligation could well be perceived as sovereign by virtue of the fact that the existing arrangements, under which food credit was extended by the banks with the implicit comfort of the Government of India.

The study suggested a menu of options that could be considered in order to reduce the overhang of stocks. The study also emphasised a need to work out a multi-pronged approach wherein a combination of measures may have to be undertaken. These are: orderly disposal of stocks avoiding major price implications to farmers at harvest time; MSP adjustments in relation to market prices; and a long term strategy of diversification in the main surplus foodgrain growing areas. While measures are necessary to avoid additional costs to the fisc, it is important to aim the whole policy prescription at achieving a "soft landing" which will require that both stock and flow aspects to be dealt with simultaneously.

Reference

1. Administrative Staff College of India (2002), *A Study of the Fiscal and Monetary Implications of Excess Stocks of Food Grains*, Hyderabad.

poverty alleviation are best served by growth of the agriculture sector (Box II.4).

Industry

2.28 The slowdown in industrial activity deepened during 2001-02, affecting all industry groups and symptomatically manifested itself in disinflation of manufacturing prices, low investment activity, persistence of excess capacity, an absolute decline in

the production of capital goods sector and a listless performance of the infrastructure industries. Business sentiment was dampened by the uncertainties characterising the domestic and global environment including specific incidents purveying extreme instability such as the September 11, 2001 terrorist attacks in the US and the recent disturbances in an industrially advanced State like Gujarat. Infrastructural bottlenecks - power, communication, transport and labour laws - continued to be a binding constraint on industrial revival.

Box II.4

Agriculture, Employment and Poverty

According to the 55th Round of the NSSO's sample survey (July 1999 to June 2000), the poverty ratio (on a 30-day recall basis) fell to 26.1 per cent in 1999-2000 from 36.0 per cent in 1993-94. It declined from 37.3 per cent to 27.1 per cent in rural areas and from 32.4 per cent to 23.6 per cent in urban areas. A significant feature is that the number of poor which remained fairly constant at about 320 million for two decades has come down to 260 million in 1999-2000. State-wise poverty ratios have also declined during this period. A significant reductions in poverty was noticed during the period in the States of Kerala, Jammu & Kashmir, Goa, Lakshdweep, Delhi, Andhra Pradesh, Gujarat, Tamil Nadu, Karnataka, West Bengal and Andaman and Nicobar Islands. However, rural-urban and inter-state disparities

continue to exist. The rural poverty ratio is still relatively high in Orissa, Bihar and North-Eastern States.

Growth in the primary and tertiary sectors has the maximum impact on reducing poverty, while the impact of growth in the secondary sector is relatively less. Accordingly, an effective strategy for alleviation of poverty has to be based on rapid and sustained growth of the agricultural and allied sector and rural industrialisation centered around agro-industries. Increasing investment in irrigation and developing marketing infrastructure, diversifying into non-foodgrains, allied activities, development of drought resistant seeds and developing avenues for self employment

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are key elements of employment-oriented growth. This involves suitable labour intensive technologies consistent with different agro-climatic regions and technologies for sustainable utilisation of natural resources.

A Task Force on Employment Opportunities was set up by the Planning Commission (Chairman: Shri M. S. Ahluwalia) to examine the employment scenario in India and to suggest strategies for employment generation. The Task Force recommended, *inter alia*, action in five major areas: (i) accelerating the rate of growth of GDP, with a particular emphasis on sectors likely to ensure the spread of income to the low income segments of the labour force; (ii) pursuing appropriate sectoral policies in individual sectors which are particularly important for employment generation; these sector level policies must be broadly consistent with the overall objective of accelerating GDP growth; (iii) implementing focused special programmes for creating additional employment and enhancing income generation from existing activities aimed at helping vulnerable groups that may not be sufficiently benefited by the more general growth promoting policies; (iv) pursuing suitable policies for education and skill development, which would upgrade the quality of the labour force and make it capable of supporting a growth process which generates high quality jobs and (v) ensuring that the policy and legal environment governing the labour market encourages labour absorption, especially in the organised sector.

A Special Group (Chairman Dr. S.P. Gupta) constituted by the Planning Commission for targeting 10 million jobs annually during the Tenth Plan period estimated the unemployment rate in 1999-2000 at 7.3 per cent of the total labour force. In this context, the Group recommended that suitable measures should be taken to accelerate the growth of the unorganised sector (which provides about 92.0 per cent of employment) to solve the unemployment problem in the country. The Group further observed that deregulated and properly restructured agricultural sector will have high job potential. The Group suggested that dereservation of small scale industrial sector should be done on case-to-case basis rather than complete dereservation at one go. The Group also suggested amendment in the Contract Labour Act with appropriate social security net in place.

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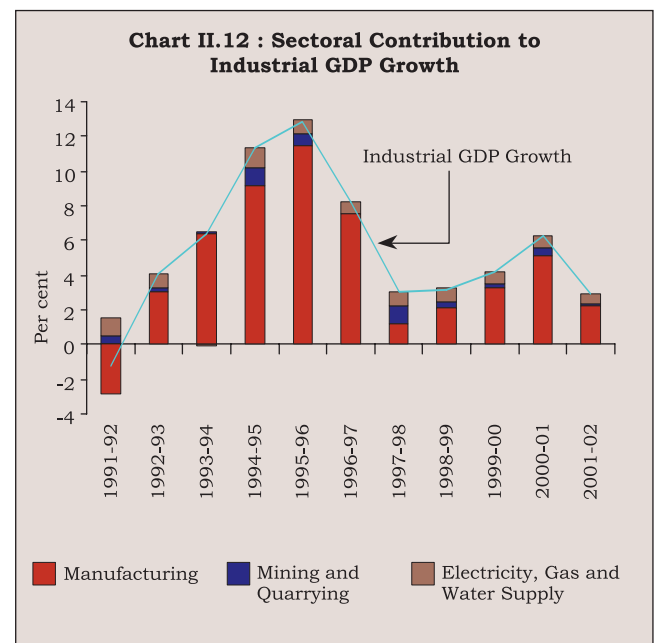
1. Government of India (2001), *Report of the Task Force on Employment Opportunities* (Chairman Shri Montek Singh Ahluwalia), Planning Commission, New Delhi.
2. Government of India (2002), *Special Group on Targetting Ten Million Employment Opportunities per year over the Tenth Plan Period* (Chairman: Dr. S.P. Gupta), Planning Commission, New Delhi.
3. Tendulkar, S.D and L. R. Jain (1996), "Growth, Distributional Change and Poverty Reduction in India - A Decomposable Exercise for Seventeen States of India", *Indian Journal of Agricultural Economics*, Vol. 51, No.1& 2.

2.29 Real GDP originating from the industrial sector grew only by 2.9 per cent in 2001-02 as against 6.2 per cent in 2000-01 and 4.2 per cent in 1999-2000. The growth of real GDP in the manufacturing sector decelerated to 2.8 per cent in 2001-02 from 6.7 per cent in 2000-01 and 4.2 per cent in 1999-2000. The deceleration in industrial GDP growth was contributed by all constituent groups during 2001-02 (Chart II.12).

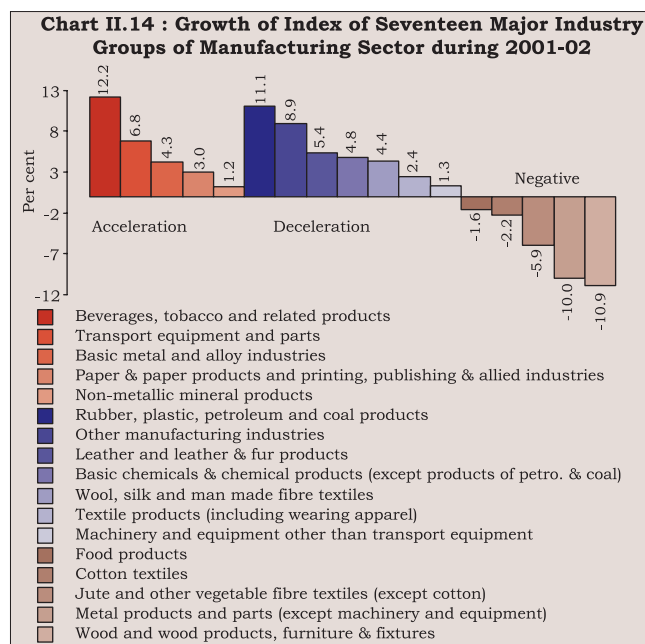
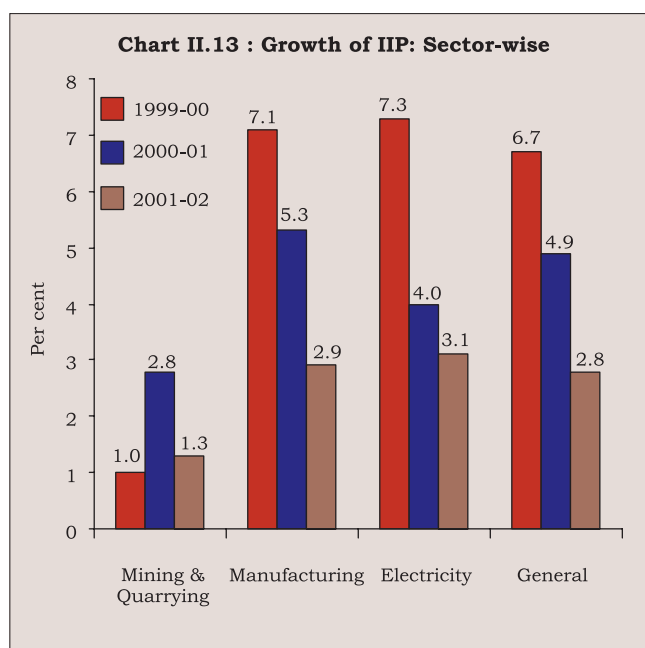
2.30 The Index of Industrial Production (IIP) showed lower growth in each month of 2001-02, except March 2002. During 2001-02, the IIP rose by only 2.8 per cent as compared with 4.9 per cent recorded during 2000-01 and 6.7 per cent during 1999-2000. The slowdown was visible across all constituent sub-sectors (Chart II.13).

Manufacturing Sector

2.31 Dominating the sluggish industrial activity was the poor performance in the manufacturing sector. In the second half of the 1990s, the pace of expansion of manufacturing output fell away from the high growth phase of 1994-96. Although the deceleration levelled off in 1998-99 and a modest recovery set in during

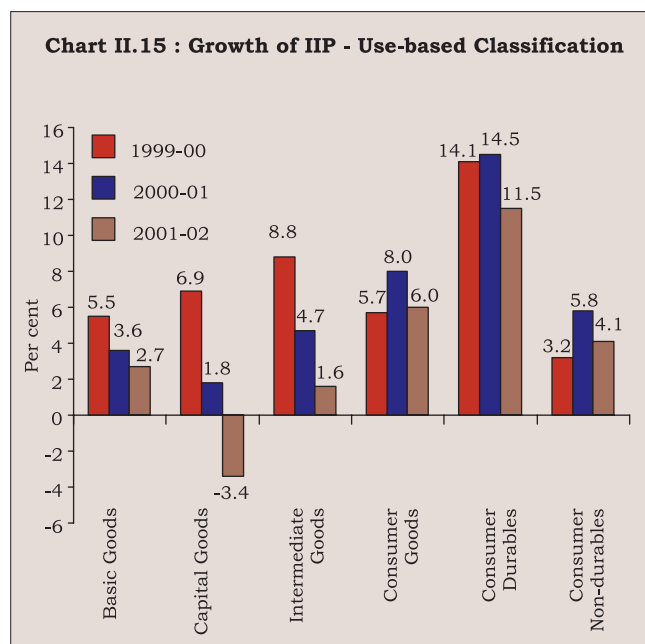


1999-2000, this could not be sustained in the following year. In 2001-02, the slowdown in manufacturing became wide spread, affecting a broad spectrum of constituent industries.



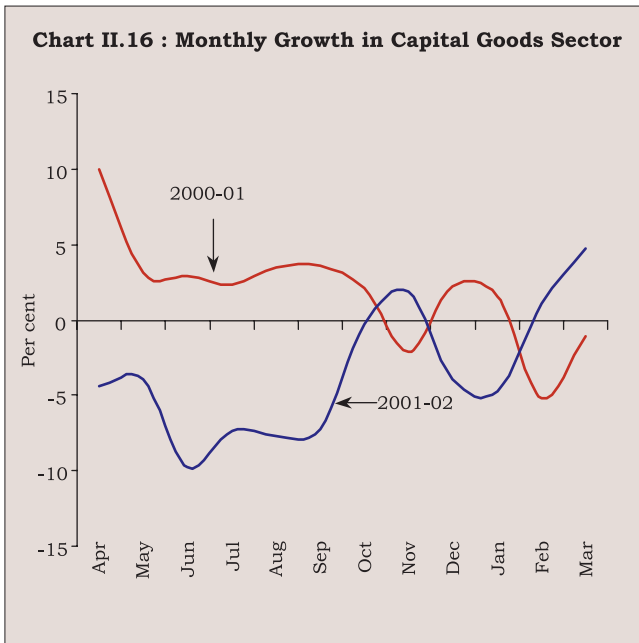
2.32 The relative contribution of the manufacturing sector (with a weight of 79.36 per cent in the IIP) to the growth of IIP declined to 85.3 per cent during 2001-02 from 87.3 per cent during 2000-01 (Appendix Table II.7). At a disaggregated level, 12 out of 17 two-digit industry groups registered positive growth during 2001-02. Out of the 12 industry groups, five groups (20.86 per cent weight in IIP) witnessed an acceleration while the remaining seven groups (37.80 per cent weight in IIP) decelerated, broadly comparable to the group-wise distribution of industrial performance in 2000-01. The other five groups (20.7 per cent weight in IIP) suffered declines as against three such groups during the previous year. Industry groups such as 'beverages, tobacco and related products' and 'rubber, plastic, petroleum and coal products' weathered the slowdown, posting growth rates above 10 per cent. On the other hand, 'food products', 'cotton textiles', 'jute and other vegetable fibre textiles (except cotton)', 'metal products and parts (except machinery and equipment)' and 'wood and wood products, furniture & fixtures', recorded declines (Chart II.14 and Appendix Table II.8). Four industry groups of the manufacturing sector recorded growth rates of above 5 per cent in four out of the five years during 1997-98 to 2001-02 (Appendix Table II.9).

2.33 During 2002-03 (up to June 2002), the IIP recorded a growth of 4.0 per cent as against 2.2 per cent in the corresponding period of the previous year. Manufacturing recorded a growth of 3.7 per cent as compared with 2.6 per cent in the corresponding period of the previous year. Electricity and mining also registered higher growth.



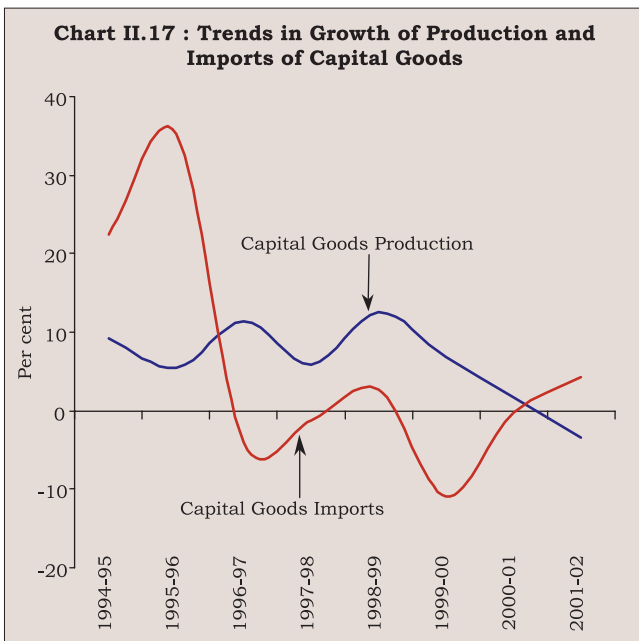
Use-based Classification

2.34 The performance of the capital goods sector deteriorated further during 2001-02 with the growth rate of 1.8 per cent during 2000-01 weakening into an absolute decline of 3.4 per cent during 2001-02. All other sectors, viz., basic goods, intermediate goods and consumer goods recorded lower growth in comparison with the preceding year (Chart II.15 and Appendix Table II.10). In terms of monthly growth rates, the capital goods sector recorded absolute declines in all the months of 2001-02 except November 2001, February 2002 and March 2002 (Chart II.16).



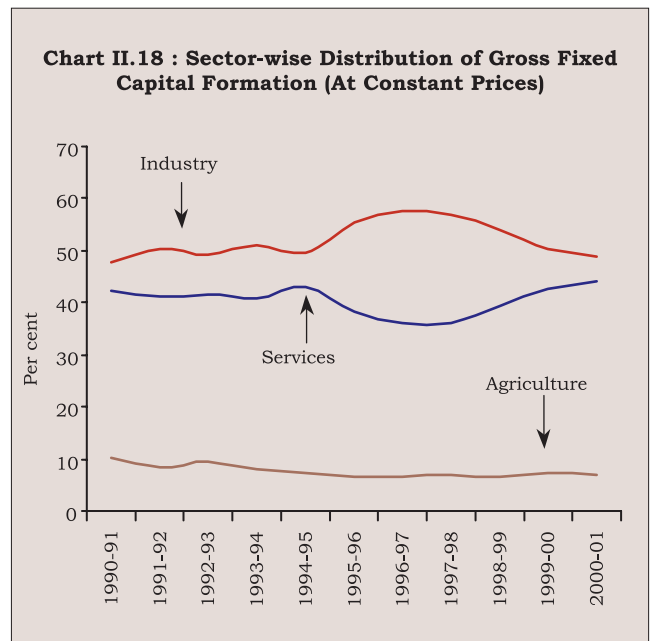
2.35 Since the late 1990s, the trends in domestic production have generally exhibited contrasting movements to those of imports of capital goods reflecting enhanced substitutability in an increasingly competitive environment (Chart II.17).

2.36 Basic and consumer goods sectors registered an accelerated growth of 5.1 per cent and 6.5 per cent, respectively, during April-June 2002-03 as against 1.4 per cent and 4.8 per cent in the corresponding period of the previous year. The capital goods sector too registered an increase by



1.6 per cent during April-June 2002-03 as against a decline of 6.0 per cent during April-June 2001-02. The intermediate goods sector, however, recorded a lower growth of 1.1 per cent during April-June 2002-03 as compared with 3.3 per cent during April-June 2001-02.

2.37 There has been a decline in the share of the industrial sector in gross fixed capital formation (GFCF) in the recent years (Chart II.18). This, in turn, has been one of the major factors contributing to the recent industrial slowdown.

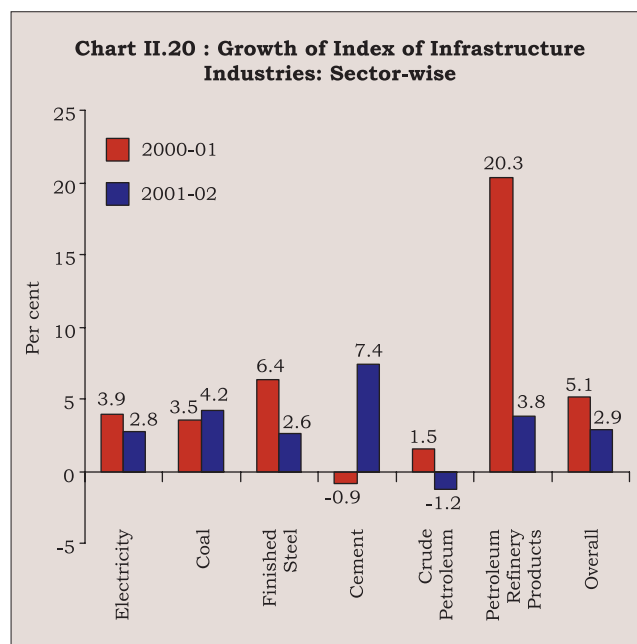
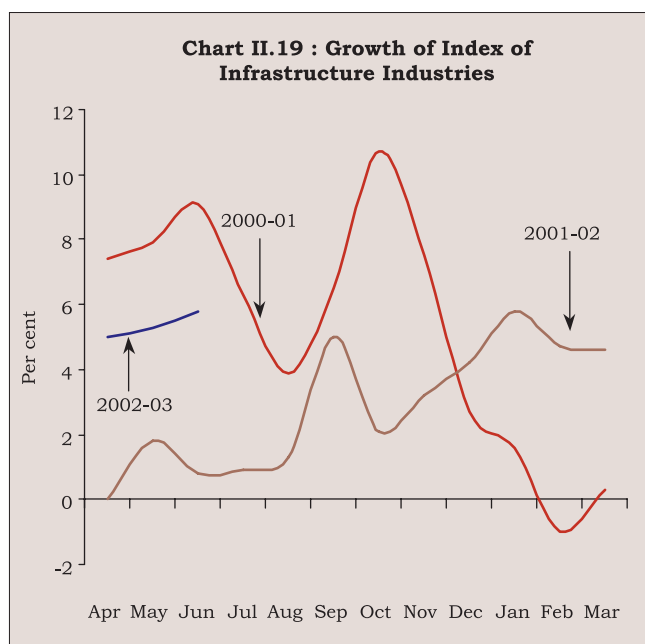


Infrastructure Industries

2.38 The performance of infrastructure industries deteriorated during 2001-02. The composite index of six key infrastructure industries, with a weight of 26.68 per cent in the IIP, rose by 2.9 per cent as compared with 5.1 per cent during 2000-01 (Appendix Table II.11); on a year-on-year basis, however, the growth rate remained higher since December 2001 (Chart II.19).

2.39 Cement production recorded a growth of 7.4 per cent after undergoing a decline of 0.9 per cent in the previous year. Coal also posted a higher growth of 4.2 per cent during 2001-02 than 3.5 per cent during 2000-01. On the other hand, petroleum refinery products, electricity and steel sectors recorded lower growth while the crude petroleum output declined (Chart II.20).

2.40 Out of 10 infrastructure industries including those covered in the composite index of infrastructure



industries, only cement and railways exceeded their targets during 2001-02 (Table 2.10).

2.41 The composite index of six infrastructure industries recorded a higher growth of 5.7 per cent during April-June 2002-03 as against 1.2 per cent in the corresponding period of the previous year reflecting improved growth performance in all infrastructure industries.

2.42 In India, infrastructure has received the highest policy attention since the early 1990s (Box II.5). Considerable success has been achieved over these years in some sectors; however, public sector plan

outlay (as a ratio of GDP at current market prices) registered a significant decline in some of the key infrastructure sectors during the period 1990-91 to 1999-2000. For example, public sector plan outlay in respect of energy declined steadily from 3 per cent of GDP in 1990-91 to 2.2 per cent in 1999-2000 while the outlay for transport remained almost constant, ranging between 1.2 and 1.4 per cent of GDP during 1990-91 through 1999-2000. Investment in the key infrastructure sectors comprising electricity, gas and water supply, and transport, storage and communication has declined from 5.2 per cent of GDP in 1990-91 to 4.5 per cent in 2000-01. The

Table 2.10 : Targets and Achievements of Infrastructure Industries

Sector	Unit	2001-02			2000-01		
		Target	Achievement	Gap (Per cent)	Target	Achievement	Gap (Per cent)
1	2	3	4	5	6	7	8
1. Power	Billion Unit	540	515	-4.5	501	500	-0.2
2. Coal	Million Tonnes	323	323	0	308	310	0.5
3. Finished Steel	Thousand Tonnes	13,569	13,137	-3.2	13,250	12,685	-4.3
4. Railways	Million Tonnes	489	492	0.7	475	474	-0.3
5. Shipping	Million Tonnes	289	288	-0.5	284	281	-1.0
6. Telecommunications	Thousand Lines	7,916	6,957	-12.1	7,235	7,146	-1.2
7. Fertilisers	Thousand Tonnes	16,589	14,628	-11.8	15,208	14,705	-3.3
8. Cement	Million Tonnes	105	107	1.8	107	98	-8.8
9. Crude Petroleum	Million Tonnes	33	32	-1.5	33	32	-0.3
10. Petroleum Refinery Products	Million Tonnes	114	107	-5.4	113	103	-7.6

Source: Ministry of Statistics and Programme Implementation, Government of India.

Box II.5

Reforms in the Infrastructure Sector: Beating a Binding Constraint

A certain minimum investment in infrastructure is required to achieve a sustainable level of growth. In recent years, however, infrastructural bottlenecks, particularly in the areas of highways, ports, telecommunications and power have emerged as binding constraint on the realisation of the growth potential of the Indian economy.

In order to alleviate the constraint, numerous sector-specific measures have been initiated since the 1990s. The Government has already announced a package of financial incentives to encourage private sector participation in the road sector including modification of National Highways Act, 1956 allowing imposition of tolls. In October 1998 the Government launched the National Highway Development Project (NHDP), which envisages a six-lane Golden Quadrilateral linking the Delhi-Kolkata-Chennai-Mumbai-Delhi circuit, a North-South Corridor connecting Kashmir to Kanyakumari and a similar East-West Corridor connecting Silchar to Saurashtra. The Central Road Fund was revamped by crediting a cess of Re.1 per litre of petrol and diesel and by enacting the Central Road Fund Act, 2000 in December 2000.

In the area of ports, the Ministry of Surface Transport issued guidelines for private sector participation in 1996. The Major Port Trusts Act was amended in 2000 for the purpose of joint venture formation. The major initiatives in the area of telecommunications include setting up of the Telecom Regulatory Authority of India (TRAI), increased bandwidth availability, unrestricted entry to the national long distance service, opening up of basic and cellular telephony and introduction of the Communication Convergence Bill, 2001 in the Parliament. Progressive corporatisation of public sector service providers in the area of telecommunications including disinvestment of VSNL and transfer of management to the Tata Group, dilution of VSNL monopoly for international long distance service, permission to internet telephony are among the recent initiatives.

The power sector has witnessed a series of reforms in the recent period. In terms of institutional improvements and transparency practices, the establishment of Central Electricity Regulatory Authority and State Electricity Regulatory Commissions in 18 States so far is expected to ensure rationalisation of tariffs, fair competition and protection of the consumer interest. The State Electricity Boards (SEBs) have been unbundled/corporatised in six

States. A comprehensive Electricity Bill, 2001 has been introduced in the Parliament.

There have been some distinct signs of improvement in select sectors of infrastructure. The Compressed Natural Gas norms for motor vehicles have been updated. Out of the total length of 5,861 kms under the Golden Quadrilateral Project, 1,063 kms have already been completed. The average pre-berthing waiting time, an indicator of port efficiency, has come down from 0.9 days in 1999-2000 to 0.5 days in 2000-01 while the average turn around time has declined from 5.1 days to 4.3 days over the same period. A beginning in phased corporatisation has also been made by registering Ennore Port Company Ltd., for managing Ennore Port.

In the area of telecommunications, fixed telephone lines have more than doubled over the last five years, apart from fast expansion of cellular services covering about 5.5 million subscribers during the period. There has been dramatic reduction in the tariff rate for long distance Subscriber Trunk Dialling and International Subscriber Dialling. The demand-supply gap has narrowed down from 27.9 per cent in 1991-92 to 12.2 per cent in 2000-01. The number of telephones per 100 population in the rural area however, remains only about one as against more than 10 in the urban area.

The demand-supply gap in power, which reached a peak of 11.5 per cent during 1996-97, down to 7.5 per cent during 2001-02. Further improvement on this front is predicated upon, *inter alia*, one-time settlement of outstanding dues of the SEBs and their medium-term capital restructuring in line with the recommendations by the Expert Group (Chairman: Dr. M. S. Ahluwalia) set up by the Union Power Ministry in 2001. Besides, as part of the demand management, conservation of energy as envisaged in the Energy Conservation Act, 2001 needs to be pursued.

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2. _____ (2002), *Annual Reports, 2001-02*, Ministries of power, telecom, road and shipping, New Delhi.
3. 3i Network (2002), *India Infrastructure Report 2002*, Oxford University Press, New Delhi.

investment in these infrastructure sectors as proportion to gross capital formation also declined from 23.6 per cent in 1990-91 to 22.8 per cent in 2000-01.

Mergers and Acquisitions (M & As)

2.43 During 2001-02, there were 1,050 acquisitions involving an amount of Rs.35,360 crore as compared to 1,183 acquisitions involving an amount of Rs.33,649 crore during the previous year. There were 98 open offers involving an amount of Rs.4,788 crore during 2001-02 as compared to 76 open offers involving an amount of Rs.2,626 crore during the previous year. The number of mergers during the year remained unchanged at 294 as in the previous year. Some of the major deals were struck in telecommunications and cement sectors, which included BPL Communications and Birla-AT&T-Tata mega merger to form the largest cellular company in India and the Aditya Birla acquisition of stake in Larsen & Toubro.

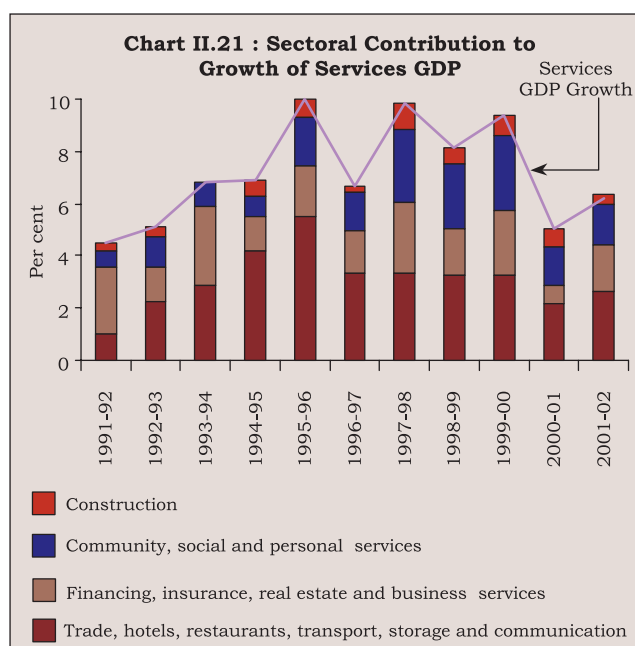
2.44 In order to facilitate and rationalise the process of industrial restructuring through M&As, a number of initiatives were undertaken during the year including relaxation of buy-back norms, enhancement of the limit for creeping acquisition, and withdrawal of tax exemption on 'non-compete' payments in an acquisition deal.

Small Scale Industries

2.45 Small Scale Industries (SSIs) perform a significant role in terms of production, employment and exports. During 2001-02, the number of SSI units was estimated to have increased to 34.4 lakh from 33.1 lakh in the previous year. During the period, the value of production by the SSI units also increased by 8.1 per cent to Rs.6,90,522 crore at current prices, and by 6.0 per cent to Rs.4,77,870 crore at constant prices, while the real GDP from the industrial sector as a whole posted a growth of 2.9 per cent during the year. Employment in the SSI sector went up to 192.2 lakh from 185.6 lakh during the period. On the other hand, exports from the sector increased by 5.0 per cent from US \$ 12.51 billion in 1999-2000 to US \$ 13.13 billion in 2000-01, which constituted about 35 per cent of direct exports from the country.

Services

2.46 The services sector has been facing a deceleration of growth in recent years in comparison

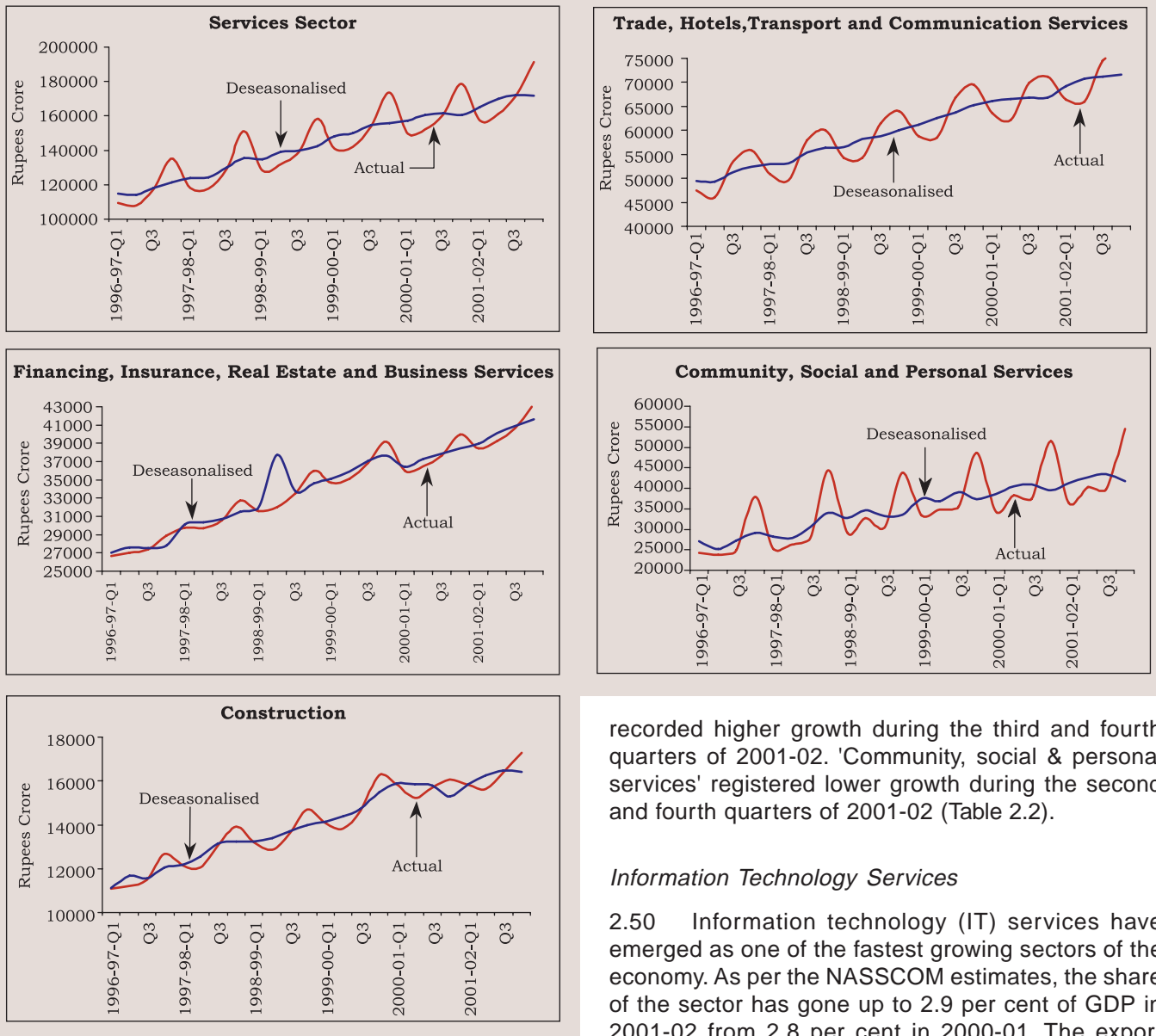


with the annual average growth of 7.7 per cent attained during the period 1997-2002. As per the revised estimates, the growth of real GDP from the services sector rose to 6.2 per cent in 2001-02, up from 5.0 per cent during 2000-01 but well below that of 9.4 per cent during 1999-2000. The share of services was estimated to be 54.1 per cent of GDP in 2001-02 as against 53.7 per cent in 2000-01. Sectors like 'financing, insurance, real estate and business services' and 'trade, hotels, restaurants, transport, storage and communication' were the major contributors to growth in 2001-02 (Chart II.21).

2.47 On an annual basis, the services sector has exhibited a strong trend component which has provided an element of stability to the growth process. Quarterly data suggest the presence of seasonal elements particularly in the fourth quarter. A sub-sectoral analysis of quarterly estimates for 1996-97 through 2001-02 shows that the major source of seasonality is the category of 'community, social and personal services' perhaps reflecting the increase in government spending on such services in the last quarter of the financial year (Chart II.22).

2.48 In the recent period, the behaviour of services sector has been considerably influenced by 'financing, insurance, real estate & business services'. The improvement in the growth rate of the services sector GDP in 2001-02 was bolstered by an expansion of 7.8 per cent in this category. In the preceding year, the deceleration of the sectoral growth was mainly due to a sharp deceleration in

Chart II.22 : Services GDP and its Components (Actual and Deseasonalised)



'financing, insurance, real estate & business services'. The non-banking financial institutions were primarily responsible for the poor performance, with GDP from 'banking & insurance' registering an absolute decline of 2.2 per cent in 2000-01 from as high as 13.4 per cent in 1999-2000.

2.49 During 2001-02, the growth of services was higher in the third and fourth quarters than that in the corresponding quarters of 2000-01. 'Construction' recorded higher growth during the fourth quarter of 2001-02. 'Financing, insurance, real estate and business services' witnessed an acceleration in all the quarters. 'Trade, hotels, transport and communication'

recorded higher growth during the third and fourth quarters of 2001-02. 'Community, social & personal services' registered lower growth during the second and fourth quarters of 2001-02 (Table 2.2).

Information Technology Services

2.50 Information technology (IT) services have emerged as one of the fastest growing sectors of the economy. As per the NASSCOM estimates, the share of the sector has gone up to 2.9 per cent of GDP in 2001-02 from 2.8 per cent in 2000-01. The export revenue from IT software and services at Rs.36,855 crore during 2001-02 is estimated to have grown by 30.0 per cent over the export revenue of Rs.28,350 crore during 2000-01.

2.51 A notable feature of the structural transformation of the Indian economy in recent years has been the rising contribution of skill intensive services with high value addition such as information technology, to the overall output in the economy. The services sector has emerged as the fastest expanding sector with implications for other sectors especially manufacturing in terms of productivity, employment and trade (Box II.6).

Box II.6

Direct and Indirect Contribution of Services to Manufacturing

The sectoral inter-linkages and the extent of synergies and feedback effects between industrial and services sectors underpin the dynamics of growth. Increasing global integration and competitive pressures have expanded the demand for technology intensive and knowledge-based services. This has led to application of improved management techniques in the production process, speeding up production and marketing and reaping economies of scale. The 'externalisation' of a large number of services which are important inputs in production and distribution of goods is reflected in a rise in 'outsourcing' of services and evolution of subsidiaries of production enterprises selling services both to the parent enterprise and other enterprises. Intermediate services, similar to intermediate material goods, are indispensable to the production process and are often a major source of comparative advantage in manufacture for exports.

Apart from providing inputs, services contribute to the outward shift of the industrial sector's production frontier by enhancing productivity growth. The rapid diffusion of information and communication technologies, which are an important segment of producer services, has been widely credited as the driving force behind the acceleration in U.S. labour productivity growth achieved during the 1990s. Social infrastructure services such as education, health and other social services are also considered as critical for improving labour productivity in manufacturing.

In the Indian context, producer services such as trade, transport and communication, financing, insurance, real estate and business services account for 70 per cent of the total services, reflecting the strong inter-linkages between services and goods producing sectors of the economy. The empirical estimate of income elasticity of producer services at 1.2 reveals that a major part of demand for services emanates from the income generated in other sectors of the economy. The demand for producer and government services, which constitutes mainly intermediate consumption, has strong multiplier effects on real GDP. With regard to the producer services and manufacturing output, the causality is bi-directional.

Service intensity is found to be high for Indian industries. One of the indicators of direct contribution of services to the manufacturing in India is financial intermediation

services indirectly measured (FISIM) used up in the manufacturing. The FISIM as per cent of manufacturing gross value added increased from 5.7 per cent in 1990-91 to 7.6 per cent in 1999-2000.

Empirical evidence suggests that the contribution of services to the production process of all the sectors has continuously increased over time. The expansionary impact of the services sector on non-services industries is also measured with the help of the index of vertical integration in an input-output framework. Trade provides the strongest stimulus to the rest of the economy and the value added indirectly is over fourteen times higher than the direct value added. Other services have the next strongest effect on the rest of the economy as the value added indirectly induced is over nine times higher than the direct contribution.

The contribution of information technology related services to the manufacturing sector in India is also growing. A segment-wise break up of the software industry's focus on vertical segments shows that 72 per cent of manufacturing companies use software applications, accounting for 40 per cent of the product and packages sales of the IT software and services. Infrastructure services such as transport and communication, are also critical inputs in manufacturing and inadequate supply of such services is operating as a constraint on output growth. Besides, concentration of these services has emerged as an important determinant of the pattern of industrial location. Transport and communication services play a dominant role in explaining the growth variations in India. The existence of significant demand-supply gaps in basic infrastructure services in India continues to pose challenges for realising higher output growth in the goods producing sectors, particularly in manufacturing.

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