II THE REAL ECONOMY

MACROECONOMIC SCENE

2.1 After recording growth rates of over 7.0 per cent in the preceding three years with a high of 7.5 per cent in 1996-97, the overall growth momentum slackened in 1997-98 with agricultural sector posting a negative growth and industrial sector continuing to be sluggish. Real GDP growth in 1997-98 was placed at 5.1 per cent as per the *Revised Estimates* of the Central Statistical Organisation (CSO) (Appendix Table II.1). 'Agriculture and allied activities' showed a negative growth of 1.5 per cent in 1997-98 as against a substantially high growth of 7.9 per cent in 1996-97. The last time the sector showed a negative growth rate was in 1995-96 at 3.0 per cent. Industrial growth, according to national income statistics, decelerated to 5.8 per cent in 1997-98 from 6.6 per cent in 1996-97, with manufacturing sector recording a lower growth of 5.8 per cent than that of 7.4 per cent experienced in the preceding year. However, the performance of 'mining and quarrying' showed a turnaround from (-)0.3 per cent in 1996-97 to a growth rate of 4.0 per cent in 1997-98. The growth rate of 'electricity, gas and water supply' improved from 5.0 per cent in 1996-97 to 6.6 per cent in 1997-98. Services sector also improved its growth to 8.3 per cent in 1997-98 from 7.8 per cent in 1996-97, mainly on account of 'financing, insurance, real estate and business services' and 'community, social and personal services'.

Saving and Investment

2.2 Firm saving data for the year 1997-98 are not yet available. As per the CSO's *Quick Estimates*, the rate of gross domestic saving (GDS) scaled a high - a new peak - of 26.1 per cent in 1996-97 compared with 25.3 per cent of GDP at current market prices in 1995-96. This was rendered possible by an increase in bank deposits held by the household sector contributing to a sharp enlargement of the sector's saving in financial assets. Consequently, the household sector's saving as

Table 2.1 : Household Saving in Financial Assets

(Amount in Rupees crore)

Item	1997-98#	1996-97P	1995-96P
1	2	3	4
A. Gross Financial Assets	1,80,643	1,57,236	1,24,872
a)	12.8	12.3	11.2
1. Currency	12,532	13,643	16,525
a)	0.9	1.1	1.5
b)	6.9	8.7	13.2
2. Deposits@	98,891	79,118	53,587
a)	7.0	6.2	4.8
b)	54.7	50.3	42.9
3. Claims on Government	13,918	11,916	9,473
a)	1.0	0.9	0.8
b)	7.7	7.6	7.6
4. Investment in shares and debentures+	3,248	10,123	9,101
a)	0.2	0.8	0.8
b)	1.8	6.4	7.3
5. Contractual Saving **	52,055	42,436	36,186
a)	3.7	3.3	3.2
b)	28.8	27.0	29.0
B. Financial Liabilities	19,277	19,353	25,466
a)	1.4	1.5	2.3
C. Saving in Financial Assets (Net) (A-B)	1,61,366	1,37,883	99,406
a)	11.4	10.8	8.9

P Provisional. # Preliminary.

@ Comprise bank deposits, non-bank deposits and trade debt (net).

\+ Including units of UTI and other Mutual Funds.

** Comprise Life Insurance, Provident and Pension Funds.

a) Indicates per cent of GDP at current market prices.

b) Indicates per cent of gross financial assets.

Note: 1. These data are compiled/revised in June 1998 and hence, may not tally with the Quick Estimates of CSO released in February 1998.

2. Components may not add up to the totals due to rounding off.

a percentage of GDP improved appreciably from 18.8 per cent in 1995-96 to 20.3 per cent in 1996-97. As regards the other two institutional sectors, private corporate sector's saving rate moved down from 4.2 per cent of GDP in 1995-96 to 3.9 per cent in 1996-97 while public sector's saving rate dropped from 2.3 per cent to 1.9 per cent during the same period (Appendix Table II.2).

2.3 On the basis of latest information, the rate of household financial saving is estimated to increase from 8.9 per cent of GDP in 1995-96 to 10.8 per cent of GDP in 1996-97 (Table 2.1). Preliminary estimates for 1997-98 point to a further increase in the household financial saving rate to 11.4 per cent. This is primarily on account of an increase in bank deposits and contractual saving mobilised from the household sector. On the other hand, there has been a deceleration in the sector's financial saving in the form of currency and investment in shares and debentures.

AGRICULTURE

2.4 Agricultural production is expected to decline during 1997-98 with the production index falling significantly by 3.7 per cent as against a remarkable rise of 9.4 per cent registered during the previous year (Appendix Table II.3). Total foodgrains production during 1997-98 is estimated to have declined by 2.6 per cent to 194.1 million tonnes from the previous peak of 199.3 million tonnes in 1996-97. Among the non-foodgrain crops, oilseeds, sugarcane and fibres, comprising both cotton and jute, registered declines in output from their respective levels in the previous year.

2.5 The *rabi* foodgrains output during 1997-98 at 90.4 million tonnes is expected to record a steep fall of 4.7 per cent, compared to the decline of 0.7 per cent for *kharif* foodgrains to 103.7 million tonnes. The excessive north-east monsoon rains during October-December 1997 and long spells of cloudy weather resulted in inordinate delays in the sowing of *rabi* crops, particularly wheat, and also made them susceptible to pest attacks affecting crop-productivity adversely.

2.6 The estimated production of rice at 83.5 million tonnes in 1997-98 would be 2.7 per cent higher than 81.3 million tonnes in 1996-97, while that of wheat at 66.4 million tonnes is anticipated to be lower by 4.2 per cent than the previous year's record output of 69.3 million tonnes (Table 2.2). The decline in wheat output is attributable to lower yield levels resulting from inclement weather conditions at the time of sowing, especially during October-December 1997. The output of coarse cereals and pulses is also likely to be lower than their respective levels attained during the previous year.

Table 2.2 : Agricultural Production

(Million tonnes)

Crop	1997-98A	1996-97P	1995-96
1	2	3	4
All crops: Annual Growth Rate+ (per cent)	-3.7	9.4	-2.4
Foodgrains	194.1	199.3	180.4
Rice	83.5	81.3	77.0
Wheat	66.4	69.3	62.1
Coarse Cereals	31.2	34.3	29.0
Pulses	13.1	14.5	12.3
Non-foodgrains			
Oilseeds	23.7	25.0	22.1
Sugarcane	260.2	277.3	281.1
Cotton @	11.4	14.3	12.9
Jute and Mesta#	9.8	11.0	8.8
Tea*$	810.6	780.3	753.9
Coffee*	228.0	205.0	223.0

A Advance estimate as on April 27, 1998.
P Provisional.
+ Based on the Index of Agricultural Production with base triennium ending 1981-82=100.
@ Million bales of 170 kg. each.
# Million bales of 180 kg. each.
* Million kg.
$ Calendar year.
Source : Ministry of Agriculture, Government of India.

2.7 Production of all major non-foodgrain crops, except tea and coffee, declined during 1997-98. Production of oilseeds at 23.7 million tonnes marked a decline from the peak level of 25.0 million tonnes attained during 1996-97, and a major portion of the fall emanated from decreased output of *rabi* oilseeds, such as rapeseed/mustard, linseed and safflower. Area under oilseeds cultivation remained almost stagnant during the last few years – while the area under groundnut has been falling, that under soyabean has risen significantly. The slowdown in the productivity growth of oilseeds emanated from the absence of technological breakthroughs and stagnant irrigated area.

2.8 Sugarcane output is likely to decrease further to 260.2 million tonnes from the previous year's output of 277.3 million tonnes. The output of sugarcane has been characterised by wide cyclical movements primarily due to cane arrears payment mechanism. After having displayed an upward trend in the preceding three years, production of cotton is expected to decline to 11.4 million bales in 1997-98 from 14.3 million bales in the previous year due to shortfall of output in Maharashtra, Andhra Pradesh and Punjab, on account of untimely rains and pest-attacks. Production of jute and mesta is slated to decline by about 11.0 per cent to 9.8 million bales during 1997-98. In sharp contrast, tea and coffee production is expected to rise by 3.9 per cent to 810.6 million kg. and by 11.2 per cent to 228.0 million kg., respectively.

2.9 Despite successive normal monsoons, the momentum of growth in agricultural production during the 1990s so far has been weak as compared to the higher growth witnessed during the 1980s. Moreover, the yield levels have been comparatively low in India. In the case of paddy, the yield level in India in 1997 estimated at 2,830 kg. per hectare was lower compared with Myanmar (3,212 kg.), Indonesia (4,397 kg.), Japan (6,191 kg.) and China (6,283 kg.). For wheat, the yield threshold of 2,705 kg. per hectare in India was lower than that of Mexico (4,301 kg.), Egypt (5,545 kg.) and China (5,930 kg.)[1]. In respect of coarse cereals and pulses, the comparative yield performance in India is still lower; there is, in addition, wide variation in the yield levels of the crops across different regions in the country. While these comparisons may not be strictly valid due to crop rotations, crop intensities and agro-climatic differences, they nevertheless provide some indications of the efforts that may have to be made to improve crop yield rates.

2.10 Total procurement of wheat and rice during 1997-98 amounted to 23.81 million tonnes, showing an increase of 18.9 per cent over 20.02 million tonnes during 1996-97, aided by higher production of *kharif* rice in 1997-98 and wheat in the previous cropping season 1996-97, coupled with remunerative support prices (Appendix Table II.4). Procurement of rice totalled 14.51 million tonnes, 22.3 per cent higher than 11.86 million tonnes in the previous year, while total procurement of wheat amounted to 9.30 million tonnes, 14.0 per cent higher than 8.16 million tonnes in 1996-97. But the total offtake of rice and wheat in 1997-98 at 19.12 million tonnes was lower by 25.6 per cent than 25.70 million tonnes in the previous year; the drop principally emanating from a 13.2 per cent decline in offtake under Public Distribution System (PDS)/Targeted Public Distribution System (TPDS) and also from reduction in open market sales of foodgrains to 0.06 million tonnes in 1997-98 from 4.65 million tonnes in the previous year. The decline in offtake under TPDS was on account of improved availability and easy price situation of foodgrains in the open market arising from the bumper harvest during 1996-97 and also the imports of wheat. Higher procurement of foodgrains coupled with lower offtake resulted in a higher level of stocks of 18.12 million tonnes at the end of March 1998, compared with 16.41 million tonnes at the end of March 1997.

2.11 Notwithstanding the decline in wheat production in 1997-98, the procurement of wheat during the quarter April-June 1998 increased by as much as 3.34 million tonnes (36.0 per cent) to 12.63 million tonnes as compared with 9.29 million tonnes procured during the corresponding period of the previous year. The increase in procurement of wheat largely emanated from relatively higher support price including bonus. However, total offtake of rice and wheat at 4.16 million tonnes during April-June 1998 was lower than that of 5.14 million tonnes in the corresponding quarter of the previous year. At the end of June 1998, total stock of rice and wheat aggregated 28.52 million tonnes, compared with 22.37 million tonnes a year ago, and it was above the stipulated norm of 22.3 million tonnes.

2.12 In view of the inelastic supply of area available for crop cultivation, agricultural growth would depend critically on the increases achieved in productivity and cropping intensity. These measures would warrant substantial and consistent accretions in investments for improvement in water and land resources as well as development, dissemination and adoption of appropriate technology at farm level.

1. The international comparison is based on the data available in *Quarterly Bulletin of Statistics*, Food and Agricultural Organisation, *Vol.10, No.3/4, 1997.*

Box II. 1

High Powered Fertilisers Pricing Policy Review Committee

The central aspect of the government's fertiliser pricing policy is the Retention Pricing Scheme (RPS). The RPS has achieved its broad objective, *viz.*, growth in production and consumption, but there is little incentive for improvement in efficiency. The differences in the retention prices between different units cannot be explained adequately on the basis of variance in the underlying factors such as feedstock costs and age of the plant. There is general absence of transparency in implementing the scheme. In the absence of a capital cost benchmark, there is little incentive to cut project costs. The RPS effectively constrains internal generation of funds and this, in turn, shuts off the flow of external resources. The RPS needs to be revamped so as to provide a greater role for incentives towards greater efficiencies and increased output.

In this context, a High Powered Fertiliser Pricing Policy Review Committee was constituted in January 1997 (Chairman: Prof. C.H.Hanumantha Rao) to take a fresh look at the problems of the fertiliser sector, pertaining to RPS, decontrol of fertilisers, balanced use of fertilisers, energy efficient feedstock, pricing policy and subsidy, cohesiveness of policies in the fertiliser sector, *etc.* The Committee submitted its Report in April 1998.

The major recommendations of the Committee, *inter alia*, are :

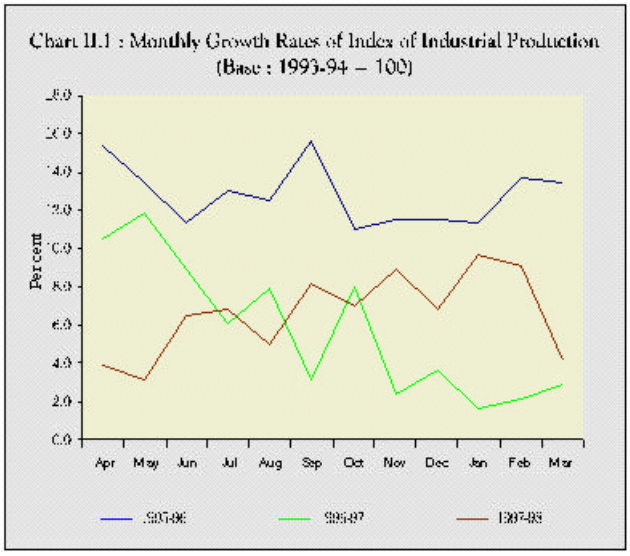
- The unit-wise RPS for urea units should be discontinued.
- Promoting balanced use of fertilisers should be a major objective through relative pricing of fertilisers to reflect the desirable NPK ratio.
- In the light of the current relative pricing of different feedstocks, future fertiliser production should be appropriately based on domestic natural gas and Liquefied Natural Gas (LNG).
- Existing plants based on naptha, fuel oil and coal should be encouraged to restructure themselves to move over to more energy efficient feedstock.
- Fertiliser industry should be deregulated and units be allowed to fix their retail prices subject to ceiling farmgate prices (FGP).
- Ceiling FGP should be notified annually to make fertilisers available to farmers at affordable prices.
- Normative referral price (NRP) should be determined based on Long Run Marginal Cost (LRMC) method for existing units for the purpose of arriving at subsidy to be paid on the sale of fertilisers within notified ceiling FGP.
- Subsidy should be given through the manufacturers uniformly per metric tonne (PMT) of fertiliser sold to the extent of the gap between NRP plus dealers' margin and average freight, and FGP.
- Imports of urea should be canalised for a period of five years.
- Distribution of fertilisers should be deregulated from *rabi* 1998-99.
- The farmgate price of fertilisers other than nitrogen (N) be derived from the price of 'N' in urea with reference to their relative productivities.
- Subsidy on complex fertilisers, low analysis fertilisers, and Single Super Phosphate (SSP) should be derived on the above basis with reference to their nutrient contents.
- Credit availability for fertiliser for small and marginal farmers should be enhanced.
- Gradual move towards subsidy disbursal directly to farmers.
- A guaranteed price for a period of fifteen years of production of new units should be announced by the government well in advance, related to LRMC principle for projects based on the most efficient feedstock and operating on attainable efficient norms.

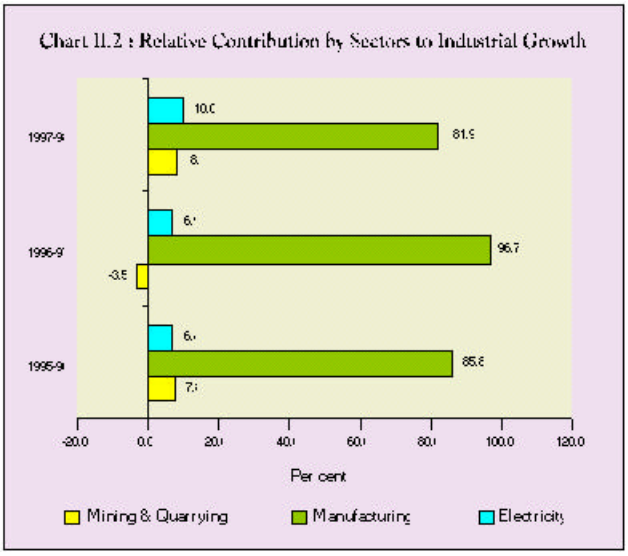
Adequate provision of irrigation water and balanced use of inputs, particularly chemical fertilisers are crucial for raising productivity on a widespread basis in different agro-climatic regions. Retention Price Scheme (RPS) in respect of fertiliser industry has, over the years, led to near-absence of competition, efficiency and transparency in the production and pricing of fertilisers. Further, in the wake of partial decontrol of fertilisers since 1992, there has been an imbalance in the consumption of fertilisers resulting from excessive use of urea compared to phosphatic and potassic fertilisers. In this context, a committee on fertiliser pricing policy made a number of recommendations (Box II.1). Appropriate fertiliser pricing measures coupled with suitable policy actions for creating and maintaining rural infrastructure could form the most important components of a long-term agricultural development strategy.

INDUSTRY

Overall performance

2.13 Industrial sector continued to show lower growth than the average performance for the preceding three years. The index of industrial production (IIP) – with the new base of 1993-94 which was recently released – registered a growth of 6.5 per cent in 1997-98 compared with that of 5.6 per cent in the previous year (Chart II.1). The manufacturing sector, which accounts for 79.36 per cent in the overall index of industrial production (IIP), registered a growth rate of 6.6 per cent, fractionally lower than 6.7 per cent during 1996-97. However, 'mining and quarrying' and electricity generation, registered accelerated growth rates of 5.7 per cent and 6.8 per cent during 1997-98 as compared with (-)2.0 per cent and 4.0 per cent, respectively, during the previous year





(Appendix Table II.5). The relative contribution[2] of the manufacturing sector in the overall index of industrial production declined to 81.9 per cent during 1997-98 from 96.7 per cent during 1996-97, with corresponding improvements in the relative contribution of 'mining and quarrying' and electricity generation sectors (Chart II.2). In the first quarter of 1998-99, the index of industrial production grew by 5.4 per cent compared with 3.7 per cent in the corresponding period of 1997-98, mainly under the favourable turnaround in manufacturing and electricity sectors.

Manufacturing Sector

2.14 A disaggregated analysis of the manufacturing sector at the two-digit level classification reveals that seven sub-groups accounting for 39.0 per cent of the weight in IIP had recorded accelerated rate of growth during 1997-98. Seven sub-groups with a total weight of 31.2 per cent displayed decelerated growth rates and three sub-groups with a combined weight of 9.2 per cent showed negative growth rates. Among the sub-groups which showed accelerated growth rates, the prominent ones are: 'basic chemicals and chemical products', 'non-metallic mineral products', and 'machinery and equipment other than transport equipment'. Among those which showed decelerated rates of growth, the important ones are 'basic metal and alloys industries', 'cotton textiles' and 'food products'. The sub-groups which showed negative trends are: 'transport equipment and parts', 'wood and wood products, furniture and fixtures' and 'other manufacturing industries' (Appendix Table II.6).

Use-based Classification

2.15 In terms of use-based classification, 'basic goods' registered a revival, the rate of growth almost doubling from 3.1 per cent during 1996-97 to 6.1 per cent during 1997-98. The growth rate of 'consumer goods' also showed an improvement from 5.2 per cent in 1996-97 to 6.0 per cent in 1997-98. The growth performance of 'intermediate goods' during 1997-98 was the same as that during 1996-97. In consumer goods sector, 'consumer durables' displayed a growth rate of 7.7 per cent during 1997-98 as compared with 4.7 per cent during the preceding year, while 'consumer non-durables' exhibited a growth rate of 5.5 per cent during 1997-98 as against 5.3 per cent in 1996-97. This perhaps indicates signs of revival of consumer demand particularly in the consumer durables segment. In contrast, the rate of growth in respect of 'capital goods' dipped from 9.3 per cent during 1996-97 to 0.7 per cent in 1997-98.

2.16 During April-June 1998, 'capital goods' as well as 'consumer goods' have shown a turnaround by registering impressive growth rates of 11.0 per cent and 4.1 per cent, respectively, as against negative growth rates

2. Relative contribution of a sector during a given time period is measured by the ratio of incremental change in the index of the sector to incremental change in the overall index of industrial production, adjusted for the relevant sector's weight in the overall index.

of 1.3 per cent and 1.8 per cent during April-June 1997. 'Intermediate goods' recorded a decelerated growth of 7.0 per cent as against 7.3 per cent in April-June 1997. Consumer non-durable goods registered a positive growth rate of 3.7 per cent as against a negative growth rate of 3.8 per cent during April-June 1997. Consumer durables have shown a decelerated growth of 5.9 per cent in April-June 1998 as against 6.5 per cent recorded during April-June 1997. Basic goods sector registered a decelerated growth rate of 3.9 per cent in comparison with 6.8 per cent during the corresponding period of the preceding year.

2.17 The relatively unimpressive performance of the industrial sector during the fiscal 1997-98 is attributed to both domestic and external factors. Among the domestic factors, inadequate investment in infrastructure sectors like power and transport, slowdown in investment in the creation of new capacities, and mismatch in capacity creation and its utilisation of some dynamic industries are notable. On the external side, export growth had been sluggish. There had been a slowdown in the corporate investment partly owing to industrial restructuring process in some industries.

Infrastructure

2.18 The growth in the composite index of infrastructure industries (Base : 1980-81=100), namely electricity, coal, saleable steel, cement, petroleum crude and refinery products, was 4.9 per cent during 1997-98 as compared with 3.6 per cent recorded during the previous year (Appendix Table II.7). The actual production was lower than the targets for the respective industries except cement, and petroleum refinery products (Table 2.3). The poor performance of Singareni Collieries Company Limited had seriously dampened the overall production of coal. Demand recession too has led the steel industry to cut back on production during the year.

2.19 The infrastructure industries provide vital inputs to industrial production. An analysis of the performance of the composite index of six infrastructure industries reveals a generally decelerating trend over time. The growth of composite index decelerated from an average of 9.6 per cent during the early 1980s to 6.6 per cent during the latter half of the 1980s and further to 5.8 per cent during 1990s so far (Chart II.3).

Table 2.3 : Targets and Achievements of Infrastructure Industries

Industry	Weight*	Unit	1997-98 P			1996-97		
			Target	Achieve-ment	Gap (%)	Target	Achieve-ment	Gap (%)
1	2	3	4	5	6	7	8	9
Electricity	11.43	Bill. Units	429.00	420.41	-2.0	400.00	394.49	-1.4
Coal	6.61	Mill.Tonnes	297.45	295.86	-0.5	288.65	285.63	-1.0
Saleable Steel (main Plants)	5.21	Mill.Tonnes	15.27	14.30	-6.4	14.87	14.21	-4.4
Cement	1.60	Mill.Tonnes	81.00	83.16	2.7	76.00	76.22	0.3
Petroleum Crude	2.41	Mill.Tonnes	34.02	33.83	-0.6	34.11	32.90	-3.5
Petroleum Refinery Products@	1.52	Mill.Tonnes	58.50	60.57	3.5	55.80	58.47	4.8

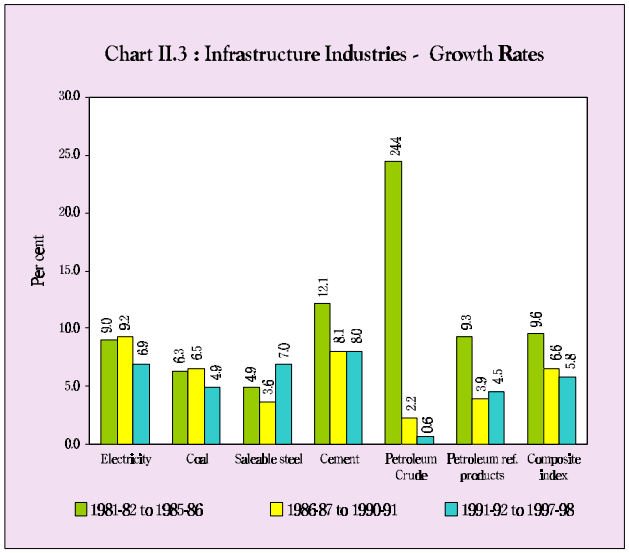
P Provisional.

* Weight in the overall Index of Industrial Production with Base : 1980-81=100.

@ Represent 93 per cent of refinery throughput.

Note : A negative sign indicates shortfall.

Source : Ministry of Planning and Programme Implementation.



Industrial Restructuring – Mergers and Acquisitions

2.20 One of the distinguishing features of the year is that the corporate sector has been gearing itself to improving its performance by improving scale economies as well as scope economies. The challenge of increasing competition from firms of both Indian and foreign origin was sought to be addressed by resorting to mergers and acquisitions (M&As) as well as by technological upgradations. M&As entail advantages in terms of synergy, economies of scale, resource optimisation, improved market share and increased shareholder value. While the numbers of M&As are not firm, indications are that there were as many as 127 during 1997-98. In India, it has been observed that corporate entities opt more for mergers and amalgamations for consolidation of their business activities and diversification into new areas than for take-overs by substantial acquisition of shares. The year 1997-98 witnessed such M&A activities particularly in industries relating to electrical/ electronics, finance, agricultural products and pharmaceuticals with respect to take-overs,

Box II.2

Major Recommendations of the Committee on Substantial Acquisitions of Shares and Take-overs

The major recommendations of the Committee (Chairman: Justice P.N. Bhagwati) to review the Securities and Exchange Board of India (Substantial Acquisition of Shares and Take-overs) Regulations, 1994 *inter alia* are:

- It enlarged/redefined certain conventional terms used in this field like acquirer, persons acting in concert, offer period, promoters, public share holding and the target company.
- It proposed that not only acquisition of shares but also voting rights in a company or control over a company must be covered under the Regulations.
- There is not much significant difference between negotiated and open market acquisition and hence the provisions should be combined into a single provision.
- The Committee has retained the present threshold limit of investment of 10 per cent for public offer by an individual in a company.
- It is for SEBI to decide whether there has been a violation of regulations in a given situation of a take-over.
- Public announcement offer should be released in all editions of an English national daily, one Hindi national daily with wide circulation and also a regional language daily depending upon the location the target company.
- The highest and average price paid by the acquirer of the shares of the target company during the 12 month period prior to the date of the public announcement be disclosed in public announcement offer besides the future plans of the acquirer during the succeeding 2 years.
- The acquirer shall make firm arrangements for the finance required and disclose full details of the arrangements both in the public announcement and in the letter of offer, and that an obligation to open a separate bank account may be cast on the acquirer and the procedure for payment of consideration may be laid down in the Regulations.
- If an offer made by an acquirer has been withdrawn, the acquirer should not be allowed to make a bid for the same company within a period of 6 months from the date of public announcement.
- The target company shall be precluded from inducting any person or persons nominated by the acquirer or belonging to his group into the board of the target company or in the management of the target company during the offer period.
- A competitive bid can be for some or all of the shares of the target company with the outer time limit of 21 days.
- SEBI Act be amended to expand the scope of adjudication and levy of monetary penalties.
- Acquisition of shares made in violation of the Companies Act, 1956 or any conditions imposed by SEBI to be rendered null and void.

while merger activities have been significant in textiles, electrical/electronic industries, steel and engineering industries, aluminium, diamond, cement, financial and consumer industries. Take-overs by open offers were pronounced in industrial groups like computer software, electrical/electronic industries, fertilisers and finance followed by agriculture and agricultural products and heavy engineering. It would seem that mergers so far in India provided generally an opportunity for enhancing shareholders' value and gave companies an option to re-structure their business in order to move out of non-core activities. Since industrial restructuring needs to be such as to promote fair competition and benefit ultimately the consumer, regulations would become necessary. It is against this background the Securities and Exchange Board of India (SEBI) felt the need to make the process of acquisitions and take-overs more transparent and comprehensive. A Committee was accordingly constituted by SEBI and the report was notified in February 1997 (Box II.2).

Foreign collaborations and Joint Ventures

2.21 Technological upgradation was sought to be achieved through foreign technology collaborations and joint ventures. The number of such collaborations has increased in recent years. During 1997 the total number of foreign collaboration approvals was 2,325 as compared with 950 approvals in 1991. Many of the collaborations were concentrated in modern industries such as fuel and power generation, telecommunication, computer software and hardware, engineering and services *viz*., consultancy, tourism, *etc*. Moreover, domestic R&D expenditures, seem to have gone up in recent years. Data on finances of large public limited companies indicate that R&D expenditure as a percentage of total expenditure increased from 0.27 per cent in 1995-96 to 0.31 per cent in 1996-97.