Macroeconomic and Monetary Developments in 2000-2001

I. Growth, Saving and Investment

Growth Rates

According to the advance estimates of the Central Statistical Organisation, real GDP growth decelerated to 6.0 per cent in 2000-01 from 6.4 per cent in 1999-2000 and 6.6 per cent in 1998-99. The growth rate of GDP originating from 'agriculture and allied activities' rose marginally to 0.9 per cent in 2000-01 from 0.7 per cent in 1999-2000. The prospects of shortfalls from kharif targets being bridged by the rabi output remain uncertain. The growth in GDP from 'industry' remained at 6.1 per cent, the same as in the preceding year. ‘Manufacturing' decelerated to 6.4 per cent in 2000-01 from 6.8 per cent in 1999-2000; on the other hand, there was improvement in 'mining and quarrying', supported by 'electricity, gas and water supply'. Service sector GDP growth slackened from 9.4 per cent in 1999-2000 to 8.4 per cent in 2000-01. Given the preponderant share of services in GDP, the deceleration in service sector GDP held down the overall GDP growth. The slowdown in the growth of the services sector was evident in major categories, i.e., 'financing, insurance, real estate and business services' and ‘community, social and personal services'. ‘Construction’ recorded an acceleration in growth (Table 1).

Table 1: Growth Rates and Sectoral Composition of GDP(at 1993-94 prices)

(Per cent)

Items	Growth Rate			Share in GDP		
	1998-99@	1999-00*	2000-01#	1998-99@	1999-00*	2000-01#
1	2	3	4	5	6	7
1. Agriculture and Allied Activities	7.1	0.7	0.9	26.6	25.2	24.0
1.1 Agriculture	7.9	0.3	-	24.6	23.2	-
2. Industry	2.8	6.1	6.1	21.9	21.8	21.9
2.1 Manufacturing	2.5	6.8	6.4	17.0	17.1	17.1
2.2 Mining and Quarrying	1.3	1.7	4.5	2.4	2.3	2.3
2.3 Electricity, Gas and Water Supply	6.4	5.2	5.6	2.5	2.5	2.4
3. Services	8.0	9.4	8.4	51.5	53.0	54.2
3.1 Trade, Hotels, Restaurants, Transport and Communication	7.1	8.0	8.0	21.6	21.9	22.4
3.2 Financing, Insurance, Real Estate and Business Services	8.4	10.1	9.6	12.3	12.7	13.2
3.3 Community, Social and Personal Services	9.9	11.8	7.6	12.6	13.2	13.4
3.4 Construction	6.1	8.1	8.7	5.0	5.1	5.2
4. GDP at Factor Cost	6.6	6.4	6.0	100.0	100.0	100.0

@ Provisional estimates. * Quick estimates. # Advance estimates.

Source: Central Statistical Organisation.

Quarterly data on real GDP growth indicate a slowdown in the first quarter of 2000-01 in relation to the fourth quarter of 1999-2000, closely mirroring the deceleration in industrial activity as well as in services. The absolute decline in real GDP from ‘agriculture and allied activities’ recorded in the later half of 1999-2000 was, however, reversed. In the second quarter of 2000-01, the deceleration in real GDP growth levelled off with the services sector growth compensating for the continuing slowdown in industry. The growth rate of real GDP in the third quarter of 2000-01 showed a decline mainly due to lower growth in the services sector (Chart 1).

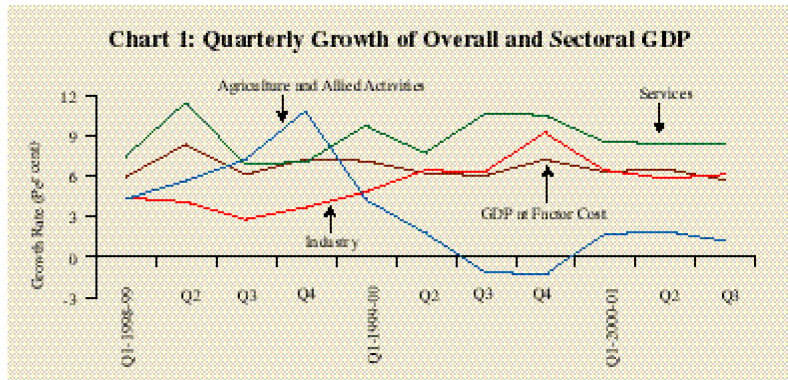


Chart 1: Quarterly Growth of Overall and Sectoral GDP

The overall saving-investment gap remained at 1.0 per cent of GDP in 1999-2000, the same as in the preceding year. The rate of gross domestic saving (GDS) edged up to 22.3 per cent in 1999-2000 from 22.0 per cent a year ago, mainly on account of an improvement in the rate of household saving in physical assets. On the other hand, the rate of financial saving by households declined from 10.9 per cent in 1998-99 to 10.5 per cent in 1999-2000. The rate of saving of the private corporate sector remained unchanged at 3.7 per cent. The rate of dissaving of the public sector rose from 0.8 per cent in 1998-99 to 1.2 per cent in 1999-2000. The rate of gross domestic capital formation (GDCF) tracked the gross domestic saving rate, moving up to 23.3 per cent in 1999-2000 from 23.0 per cent in the preceding year. The rate of capital formation in the household sector and in the public sector improved to 9.2 per cent and 7.1 per cent, respectively, in 1999-2000 from 8.2 per cent and 6.4 per cent, respectively, a year ago.

The rate of final consumption expenditure improved from 76.7 per cent in 1996-97 to 77.5 per cent in 1999-2000, mainly due to a rise in the rate of government final consumption expenditure. On the other hand, the rate of private final consumption expenditure declined from 66.1 per cent in 1996-97 to 64.7 per cent in 1999-2000. Within a consolidation of the overall saving-investment balance during the 1990s, there have been adverse compositional shifts in the macro balances. While the public sector saving-investment deficit has widened in recent years, there has been a steady erosion of the private sector's saving-investment surplus (Table 2).

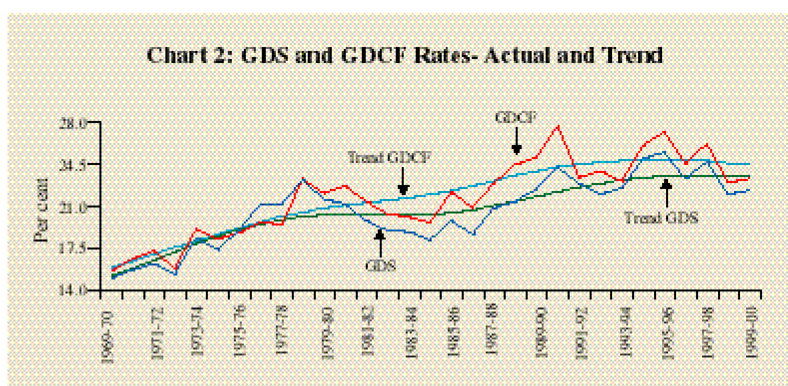
Table2: Gross Domestic Saving, Investment and Consumption Expenditure

	Item	Per cent of GDP (at current market prices)				Amount in Rupees crore			
		1996-97@	1997-98@	1998-99@	1999-2000*	1996-97@	1997-98@	1998-99@	1999-2000*
	1	2	3	4	5	6	7	8	9
1.	Household Saving	17.1	19.0	19.1	19.8	2,33,508	2,88,550	3,36,469	38,6913
	1.1 Financial Assets	10.4	10.4	10.9	10.5	1,41,627	1,57,526	1,92,511	20,5898
	1.2 Physical Assets	6.7	8.6	8.2	9.2	91,881	1,31,024	1,43,958	1,81,015
2.	Private corporate sector	4.5	4.3	3.7	3.7	61,101	64,786	64,608	71,879
3.	Public sector	1.7	1.4	-0.8	-1.2	22,958	21,079	-14,345	-23,220
4.	Gross Domestic Saving (GDS)	23.3	24.7	22.0	22.3	3,17,567	3,74,415	3,86,732	435,572

5.	Net capital inflow	1.3	1.5	1.0	1.0	17,738	22,302	18,087	19,656
6.	Gross Domestic Capital Formation (GDCF)	24.6	26.2	23.0	23.3	3,35,305	3,96,717	4,04,819	4,55,228
7.	Total Consumption Expenditure	76.7	75.8	76.9	77.5	10,45,182	11,49,206	13,52,977	15,16,948
	7.1 Private Final Consumption Expenditure	66.1	64.5	64.9	64.7	8,99,575	9,77,684	11,41,207	12,65,432
	7.2 Government Final Consumption Expenditure	10.7	11.3	12.0	12.9	1,45,607	1,71,522	2,11,770	2,51,516
	Memo Items								
I.	Saving-Investment Gap (4-6)	-1.3	-1.5	-1.0	-1.0	-17,738	-22,302	-18,087	-19,656
	Public Sector	-5.3	-3.4	-7.2	-8.2	-72,452	-51,605	-1,26,414	-1,61,406
	Private Sector	6.8	10.5	8.0	7.8	91,950	1,59,572	1,41,128	1,52,556
	Private Corporate Sector	-3.6	-2.1	-2.9	-2.7	-49,677	-31,642	-51,383	-53,342
	Household Sector	10.4	12.6	10.9	10.5	1,41,627	1,91,214	1,92,511	2,05,898
II.	ICOR	3.6	5.9	4.2	3.6	—	—	—	—

@ Provisional Estimates. * Quick Estimates.
Note : Incremental capital output ratio (ICOR) is calculated as a ratio of the investment rate and growth rate of real GDP.
Source : Central Statistical Organisation.

The growth experience since the second half of the 1990s is characterised by the co-existence of variability in output growth and in the rate of investment. The capacity of the economy to sustain a real output growth of over 6 per cent in the face of a fall in the investment rate from its peak of 27.2 per cent in 1995-96 has drawn attention to productivity changes as a source of growth in recent years. Studies conducted on developing countries in Asia estimate that contribution to growth on account of improvement in total factor productivity ranges between 10-30 per cent. The predominant contribution comes from capital accumulation -60 to 70 per cent – and the remaining 10 per cent can be attributed to human capital deepening. In India, mobilisation of resources for investment has occurred mainly in the form of domestic saving, with external resources accounting for barely 1 per cent of GDP or 8 per cent of domestic investment. The Indian experience over the past three decades suggests a close association between the trend components of domestic saving and investment (Chart 2).



Agricultural Situation

The GDP growth in ‘agriculture and allied activities’ slowed down to 1.7 per cent in the first quarter of 2000-01 but increased to 1.9 per cent during the second quarter, as compared with the corresponding quarters of 1999-2000. In the third quarter of 2000-01, the growth rate of 1.2 per cent was an improvement over the absolute decline of 1.1 per cent recorded in the third quarter of 1999-2000. The index of agricultural production (base:

triennium ending 1981-82=100) fell by 3.5 per cent in 2000-01 on top of a fractional decline of 0.7 per cent in 1999-2000. During the South-west monsoon season 2000, the country received 92 per cent of the Long Period Average

(LPA) rainfall as compared with 96 per cent received in the previous year. Although this level of precipitation is considered to be statistically normal, the inter-temporal and inter-spatial distribution of rainfall exhibited marked aberrations, affecting the crop prospects in Gujarat, Madhya Pradesh, western Orissa and Rajasthan. The production of coarse cereals and oilseeds output may be adversely affected for the second year in succession.

The Union Ministry of Agriculture estimated the kharif 2000 foodgrain production at 102.3 million tonnes as compared with the previous year's production of 104.9 million tonnes. The fall in production was due to lower output of rice and coarse cereals. Production of kharif pulses is expected to be higher at 5.5 million tonnes compared with the previous year's level of 4.9 million tonnes; however, it still falls short of the target on account of drought in the major pulse-growing States of Gujarat, Madhya Pradesh and Rajasthan. As these States are also the major producers of oilseeds, the production of oilseeds also is likely to be affected. The production of sugarcane and cotton is expected to be higher than in the previous year although well below the target.

The prospects of the rabi crop compensating for the kharif shortfall are not very encouraging in view of drought-like conditions in parts of the country and critically low water availability in major reservoirs in Gujarat, Rajasthan, Madhya Pradesh, Chattisgarh, Himachal Pradesh and Orissa. All meteorological sub-divisions in these States had reported deficient and inadequate rainfall during the South-west monsoon. Cumulative rainfall during the North-east monsoon (October-December) was excess/normal in 4 out of 35 sub-divisions as compared with 28 sub-divisions in 1999 and 34 sub-divisions in 1998. The cumulative area weighted post-monsoon rainfall was deficient, being 50 per cent less than the LPA, and the cumulative rainfall is the lowest in the last five years. Preliminary estimates indicate that rabi foodgrains may reach 93.8 million tonnes only as compared with the record rabi output of 104.0 million tonnes in 1999-2000.

The production of wheat has been estimated much lower at 68.5 million tonnes as compared with the target of 74.0 million tonnes for 2000-01. Total rice output is estimated to be 85.5 million tonnes in 2000-01 as compared with the target of 90.0 million tonnes. Coarse cereals and pulses at 30.4 million tonnes and 11.7 million tonnes, respectively, in 2000-01 are expected to record substantial shortfalls from the production targets for 2000-01. Accordingly, total production of foodgrains is expected to be around 196.1 million tonnes in 2000-01, nearly 12.8 million tonnes below the peak of 208.9 million tonnes recorded in 1999-2000 (Table 3).

Table 3: Crop-wise Targets/Achievements

(Million tonnes/bales)

	1996-97		1997-98		1998-99		1999-00		2000-01	
Crops	T	A	T	A	T	A	T	A	T	E
1	2	3	4	5	6	7	8	9	10	11
Rice	81.00	81.73	83.00	82.54	84.20	86.02	86.00	89.48	90.00	85.50
Wheat	65.00	69.35	68.50	66.35	70.00	71.29	74.00	75.57	74.00	68.50
Coarse cereals	32.50	34.11	33.50	34.40	34.30	31.35	34.50	30.47	33.00	30.36
Pulses	15.00	14.25	15.00	12.87	15.50	14.88	15.50	13.36	15.00	11.70
Total Foodgrains	193.50	199.44	200.00	192.26	204.00	203.55	210.00	208.88	212.00	196.14
Nine Oilseeds	23.00	24.38	25.50	21.30	27.00	24.73	28.00	20.87	28.00	18.70
Sugarcane	270.00	277.56	280.00	279.54	300.00	288.74	305.00	299.23	325.00	301.40

Cotton*	13.00	14.23	14.80	10.85	14.80	12.29	15.00	11.64	14.50	11.50
Jute & Mesta**	9.00	11.13	9.80	11.02	9.80	9.81	11.00	10.53	10.00	10.30

T: Target. A: Achievement. E: Estimated.
* Million bales of170 Kg. each. ** Million bales of 180 Kg. each.
Source: Ministry of Agriculture and Economic Survey, 2000-01.

Procurement of foodgrains (rice and wheat) has been progressively increasing year after year. The procurement of rice and wheat during 2000-01 (upto March 30, 2001) rose by 16.4 per cent. The total off-take of foodgrains (up to February, 2001) declined by 23.4 per cent on account of a substantial fall in the off-take under the targeted Public Distribution System (TPDS) mainly as a consequence of the increase in Central Issue Prices (CIP) under the Public Distribution System (PDS) (Chart 3 and Table 4).

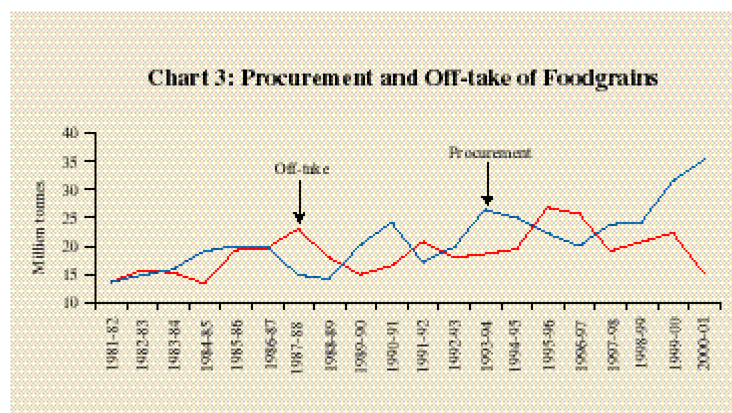


Table 4: Procurement, Off-take and Stocks of Foodgrains

(Million tonnes)

Fiscal year	Procurement			Off-take			Stocks *		
	Rice	Wheat	Total	Rice	Wheat	Total @	Rice	Wheat	Total @
1	2	3	4	5	6	7	8	9	10
1995-96	9.91	12.33	22.24	14.00	12.82	26.82	13.06	7.76	20.82
1996-97	11.86	8.16	20.02	12.44	13.26	25.70	13.17	3.24	16.41
1997-98	14.52	9.30	23.82	11.36	7.76	19.12	13.05	5.08	18.12
1998-99	11.56	12.65	24.22	11.83	8.90	20.73	12.16	9.66	21.82
1999-2000	17.28	14.14	31.43	12.21	10.10	22.31	15.72	13.19	28.91
2000-2001#	20.10	16.35	36.46	9.22	6.01	15.22	23.22	23.30	46.75

* Stocks are as at end-March. @ Includes coarse cereals.
# Data on procurement are up to March 30, 2001 and up to February, 2001 for off-take and stocks.
Source : Ministry of Food, Consumer Affairs and Public Distribution, Government of India.

As a result of the fall in off-take and enhanced procurement, the stock of foodgrains stood at a substantially high level of 46.8 million tonnes at end-February 2001, as compared with 30.5 million tonnes in February, 2000. Stocks of both rice and wheat have registered considerable increases, with stock levels at over two and a half times the quarterly buffer stock norm specified for end-December (16.8 million tonnes). The current unprecedentedly high level of food stocks entail both higher food credit from commercial banks and higher food subsidy (Chart 4).

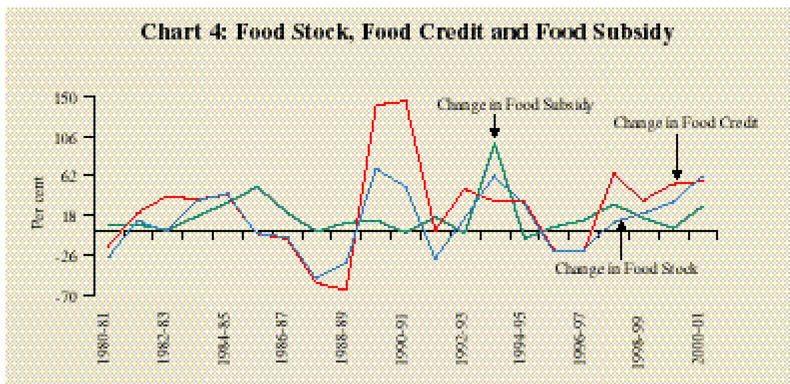


Chart 4: Food Stock, Food Credit and Food Subsidy

The rate of gross capital formation in agriculture in relation to GDP originating in agriculture has declined during the 1990s. The decline has been more pronounced in the share of the public sector's capital formation in agriculture which fell from 3.8 per cent in 1980-81 to 1.7 per cent in 1999-2000. Although private sector investment in agriculture also recorded a modest fall in comparison with the 1980s, there was a perceptible improvement during the second half of the 1990s (Chart 5).

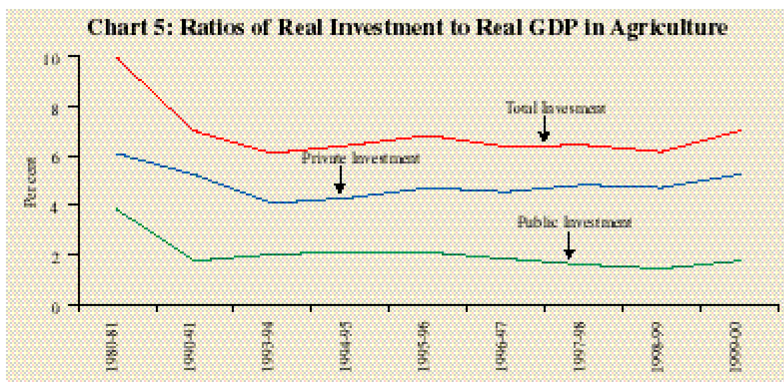


Chart 5: Ratios of Real Investment to Real GDP in Agriculture

Industrial Performance

In terms of the index of industrial production (IIP), industrial output recorded a growth rate of 5.1 per cent in April-February 2000-01, lower than 6.5 per cent in the corresponding period of the previous year. Monthly growth rates of IIP show a steady deceleration up to August 2000 followed by a pick up in September 2000 which continued up to November 2000 (Chart 6). In December 2000, however, the IIP growth rate decelerated to 3.3 per cent and further to 0.6 per cent in February 2001. Manufacturing and electricity generation slowed down while mining sector growth improved (Table 5).

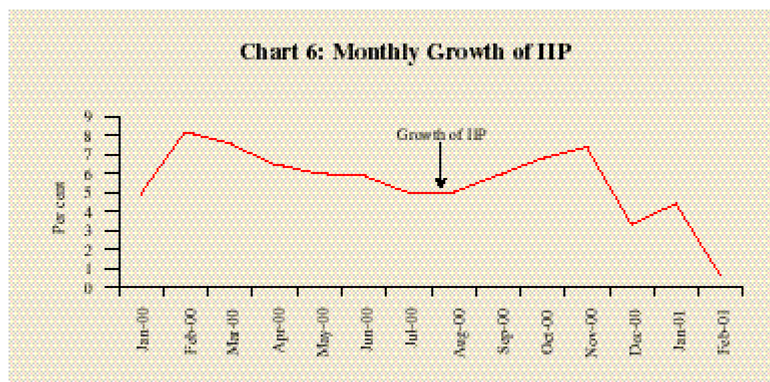


Chart 6: Monthly Growth of IIP

Table 5: Growth of Industrial Production and Relative Contribution of the Sectors (April-February)

(Per cent)

Sector	Weight	Growth		Relative Contribution	
		1999-2000	2000-01	1999-2000	2000-01
1	2	3	4	5	6
General Index	100.00	6.5	5.1	100.00	100.00
Manufacturing	79.36	7.0	5.3	87.7	85.0
Mining	10.47	0.8	4.2	1.1	7.1
Electricity	10.17	7.4	4.1	11.1	7.9

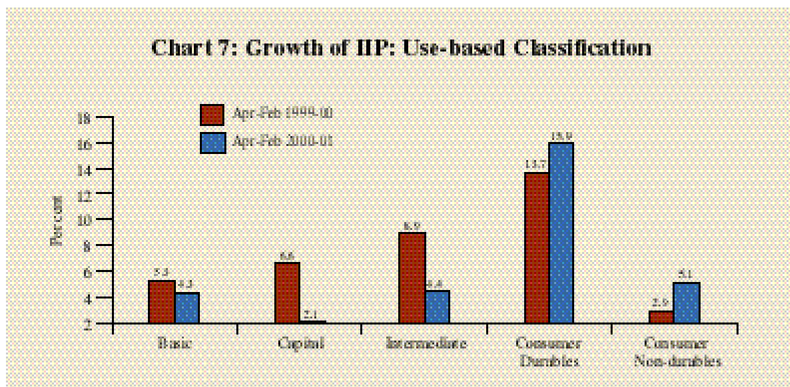
At a disaggregated level, the modal range of growth among the seventeen manufacturing industry groups is 8-10 per cent, emanating largely from food production, machinery and equipment other than transport equipment, other manufacturing industries, leather and leather and fur products, which together accounted for 22.35 per cent weight in the IIP (Table 6).

Table 6: Frequency Distribution of Industry-Groups on the Basis of Growth Rates(April-February, 2000-01)

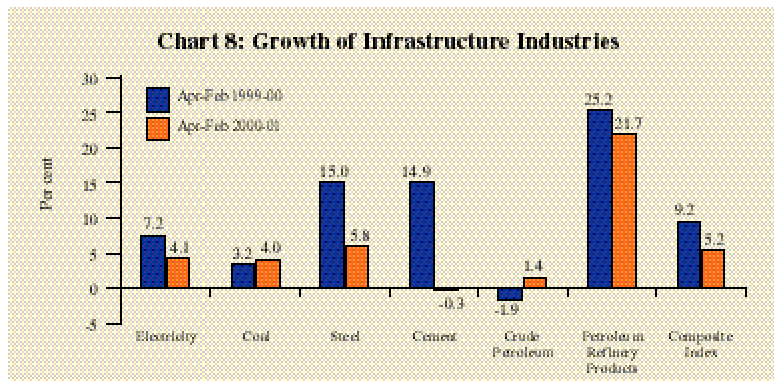
Negative	0-4 per cent	4-6 per cent	6-8 per cent	8-10 per cent	Above 10 per cent
1	2	3	4	5	6
1. Jute and other vegetable fibre textiles (0.59)	1. Basic metal and alloy industries (7.45)	1. Beverages, tobacco and related products (2.38)	1. Basic chemicals & chemical products (except products of petro and coal) (14.00)	1. Machinery and equipment other than transport equipment (9.57)	1. Rubber, plastic, petroleum and coal products (5.73)
2. Transport equipment and parts (3.98)	2. Textile products including wearing apparel (2.54)	2. Wood and wood products, furniture & fixtures (2.70)		2. Food Products (9.08)	2. Metal products and parts (except machinery and equipment) (2.81)
3. Non-metallic mineral products (4.40)	3. Cotton textiles (5.52)	3. Wool, silk and man-made fibre textiles (2.26)		3. Other manufacturing industries (2.56)	
4. Paper and paper products and printing, publishing and allied industries (2.65)				4. Leather and leather & fur Products (1.14)	

Note: Figures in brackets indicate weights in the IIP.

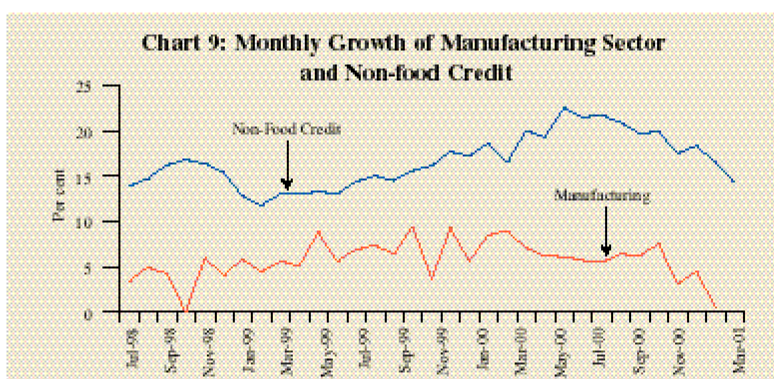
The use-based classification shows that the pattern of industrial growth has tilted towards the consumer goods sector (both durables and non-durables); on the other hand, growth of basic, capital and intermediate goods sectors decelerated, reflecting the general sluggishness in investment demand (Chart 7).



The infrastructure sector also registered a lower growth as compared with the previous year (Chart 8). The deceleration in the infrastructure sector is mainly due to low capacity utilisation, low productivity, stock piling of coal and undue delay in project implementation.



During the first three quarters of 2000-01, while there was sustained growth in non-food credit, the growth in manufacturing sector was relatively subdued. This trend reflected, inter alia, carrying cost of inventories in a number of industries such as fertilisers, sugar, petroleum and automobiles. In addition, credit flow to infrastructure had shown substantial increase which would not immediately reflect in the industrial production index due to gestation lags. Moreover, retail credit had increased significantly in line with higher production of consumer durables. The pace of credit growth since December 2000 moderated in line with decelerating manufacturing activity (Chart 9).



Sales of a sample of 1,060 non-government non-financial public limited companies rose by 15.3 per cent in the first half of 2000-01 as against a growth of 12.1 per cent (for 921 companies) in the corresponding period of the previous year. There was, however, a decline in the number of companies reporting post-tax profits. There was a deceleration in the growth of both gross profits and post-tax profits in comparison with the first half of 1999-2000. Corporate sales growth decelerated in the third quarter; however, post-tax profits showed improvement. As in the first half, number of companies reporting post-tax profits also declined in the third quarter of 2000-01.

Impact of Gujarat Earthquake

The earthquake which struck Gujarat on January 26, 2001 is widely regarded as unprecedented in its intensity measuring 7.7 on the Richter scale as per the US Geological Survey. It has caused extensive loss of life, property and economic activity. There has been massive damage to both private property and public property such as roads, railways, port and telecommunications networks. Initial estimates of the Earthquake Control Room of the State Government place the loss of property, both public and private, at Rs.21,262 crore. Infrastructure and utilities have suffered losses of Rs.1,080 crore while damages to industrial and corporate enterprises are estimated at Rs.8,000 crore. The joint assessment of the World Bank and the Asian Development Bank (ADB) under the Gujarat Earthquake Recovery Programme estimates a loss of Rs.9,900 crore (US $ 2.1 billion) in assets, which would entail reconstruction costs of Rs.10,600 crore (US $ 2.3 billion) and an output loss between Rs.2,300-3,000 crore (US $ 491-655 million) or 2 to 3 per cent of the State Domestic Product of Gujarat in aggregate over three years. It needs to be mentioned that these estimates are tentative and are likely to be revised significantly as more detailed assessment becomes available.

The contribution of Gujarat to the all-India foodgrains production is around 2.7 per cent. Oilseeds, cotton and tobacco are the major commercial crops, accounting for nearly 24 per cent, 32.3 per cent and 26.4 per cent, respectively, of the all-India production levels. According to the preliminary estimates prepared by the State Government, the damage to the agricultural sector on account of the earthquake has been estimated to be around Rs.730 crore. As per initial assessment reports, castor, cotton, groundnut, jowar and bajra crops were affected. The loss on account of the damages to storage houses and godowns have also been included in the estimates. The number of cattle deaths is placed at around 21,600. The earthquake has exacerbated deteriorating agricultural conditions which the State has been experiencing for the second consecutive year. Sixteen of the 25 districts in the State received deficient rains during the 2000 South-west monsoon with the entire Saurashtra region receiving no rain. The adverse agro-climatic conditions have resulted in a drop in rabi acreage under wheat, pulses and oilseeds. The total crop area during the rabi season up to February 5, 2001 was down by about 36 per cent.

Over 3,000 small-scale industries were affected, with the loss estimated at Rs.198 crore. Around 970 SSI units in ceramic, mosaic tile, roofing, refractory, powerloom, engineering and salt industries were severely affected. It is estimated that medium, and large-scale industrial units have suffered a loss of about Rs.2,000 crore. Around 24 medium and large-scale units have reported damages to their facilities amounting to Rs.122 crore. Large plants such as refineries, pharmaceutical and chemical units were, however, reported to be safe after the earthquake.

Gujarat is a major exporter of diamonds and gems and jewellery (about 70 per cent of total exports) and textiles. Moreover, the port of Kandla, which handles bulk container trade of almost 4 lakh tonnes, has been damaged. The loss for trade and industry is estimated at Rs.2,000 crore, as per the Earthquake Control Room reports.

Preliminary estimates of the damage indicate that there would be pressures on the fiscal position of the State over the medium term. In the joint World Bank - ADB assessment, the impact on the State's fiscal deficit has been estimated at Rs.10,100 crore (US $ 2,170 million) in aggregate over three years. The Central Government introduced an additional 2 per cent surcharge on incomes of individuals and corporates to mitigate the financial strain on the State. The Union Budget 2001-02 has announced that the Government of Gujarat could raise funds additionally by the issue of tax-free earthquake relief bonds for individuals (including non-resident Indians) and others through the Reserve Bank.

Several measures have been taken by the Reserve Bank to address this situation. A package of special relief measures for Gujarat announced by the Reserve Bank included sanction of special limits up to Rs.1 lakh for restoration/ rehabilitation of businesses of small trades, self-employed and road transporters, etc.; grant of loans up to Rs.2 lakh for repairs/reconstruction of house/shops; stipulating additional limits/rescheduling existing limits for small scale industry (SSI), business and trade; relaxation in interest rates; allowing loans up to Rs.10 lakh at PLR and interest rates for loans exceeding Rs.10 lakh to be determined at the discretion of the financing bank; reckoning credit extended for repairs/ construction of houses/shops and to small trades, small business, self-employed and small road transporters etc. under the relief package as part of priority sector lending; delaying recovery of principal and interest for a period of two years in case of agricultural loans and rescheduling of the amounts not collected during two years for a period up to 7 years; and allowing consumption loan up to Rs.2,000 per eligible beneficiary.

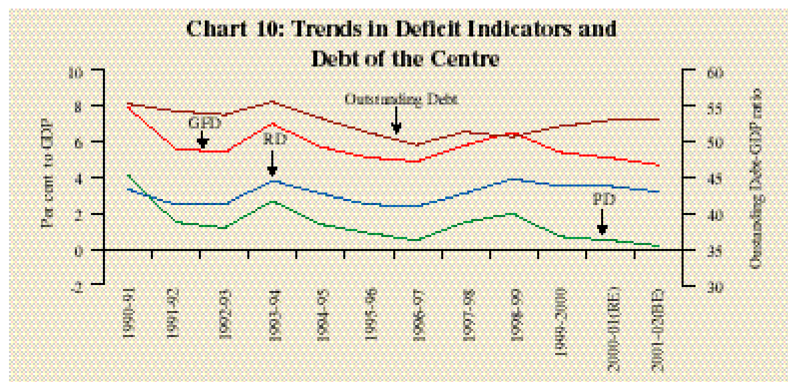
Gujarat's limits for ways and means advances (WMA) have been completely relaxed and the terms of overdraft regulations for Gujarat have been eased for three months till end-April 2001. The normal WMA limit of Gujarat

has been revised upwards to Rs.393 crore from the earlier limit of Rs.243 crore. With a view to assisting exporters affected by the earthquake in Gujarat, banks have been advised (i) to extend the period of packing credit at concessional rate even beyond 360 days in deserving cases where the goods are likely to be exported (the concessional rate ranges between 10-13 per cent); (ii) to convert the overdue packing credit into term loans after taking into account the availability of Export Credit Guarantee Corporation (ECGC) claim, repayable in suitable instalments; and (iii) not to classify the overdue loans as non-performing assets (NPA) in respect of i) and ii) above but to treat as NPA if interest and instalment of principal remains unpaid for 180 days, after it has become overdue, taking into account the revised due date fixed by the banks. Instructions are already in place for rescheduling/rephasing of existing loans and for extending fresh loans to agricultural borrowers affected by natural calamities. The rescheduled loans and the fresh facilities granted to such borrowers will be treated as current dues and need not be classified as NPA as per the income recognition, asset classification and provisioning norms. A special remittance of funds has been arranged for the Ahmedabad office of the Reserve Bank whose fresh note stock position is being constantly monitored. The Reserve Bank sanctioned soft loans of Rs.1,000 crore to the National Housing Bank (NHB) to provide financial assistance for construction of houses damaged in the earthquake. These loans were granted at 6 per cent rate of interest per annum and are repayable over 18 years, inclusive of a moratorium period of 3 years.

II. Fiscal Situation

Centre's Fiscal Position

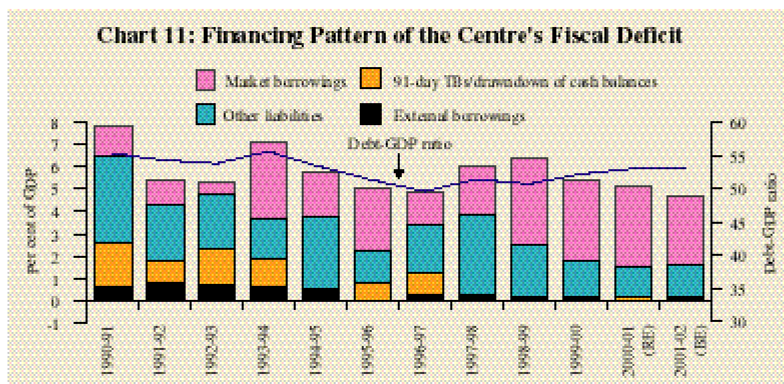
The strategy of fiscal consolidation envisaged in the Union Budget 2000-01 focused upon bringing down the Centre's gross fiscal deficit (GFD) and revenue deficit (RD) to 5.1 per cent and 3.6 per cent of GDP, respectively. According to the revised estimates for 2000-01, both the revenue deficit and fiscal deficit were contained at the budgeted levels. The primary deficit (PD) is placed at Rs.11,305 crore (0.5 per cent of GDP) as against the budget estimate of Rs.10,009 crore (Chart 10). The deficit targets were achieved due to buoyancy in revenue receipts and reining in of expenditure, despite a shortfall in the realisation from disinvestments.



The revenue receipts (net to Centre) registered an increase of Rs.2,493 crore (1.2 per cent) mainly on account of non-tax revenue. Net tax revenue, however, suffered a decline of Rs.1,806 crore, primarily due to the shortfall in indirect taxes, viz., customs and union excise duties. Expenditure reduction was effected under both non-Plan and Plan categories. Aggregate expenditure was kept below the budget estimates by Rs.2,964 crore (0.9 per cent). The reduction in non-Plan expenditure by Rs.1,103 crore, despite the significant rise in expenditure on subsidies (Rs.5,569 crore), was on account of the reduction under pensions (Rs.1,311 crore), interest payments (Rs.599 crore), grants to States and Union Territories (UTs) (Rs.1,532 crore) and defence (Rs.4,126 crore). The plan expenditure was less than the budgeted level by 2.1 per cent (Rs.1,862 crore). The realisation from disinvestments was only Rs. 2,500 core as against the budgeted target of Rs. 10,000 crore.

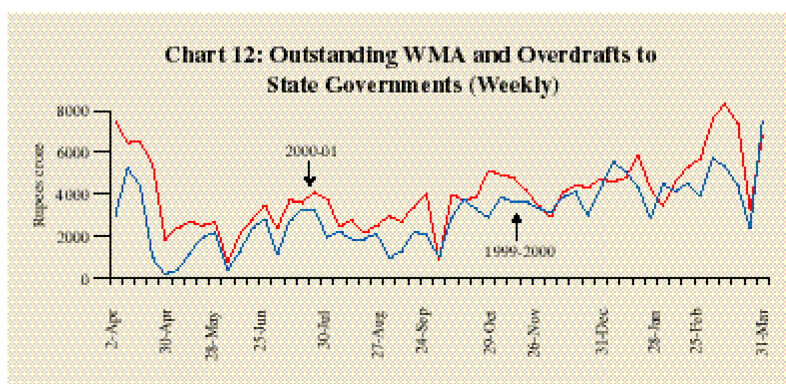
The Union Budget projects the major deficit indicators for 2001-02 lower than their levels in the revised estimates for 2000-01. The gross fiscal deficit (GFD), budgeted at Rs.1,16,314 crore, is placed lower at 4.7 per cent of GDP as compared with 5.1 per cent for 2000-01. The revenue deficit is estimated at Rs.78,821 crore or 3.2 per cent of GDP as against 3.6 per cent in the revised estimate for 2000-01. The primary deficit is projected at Rs.4,014 crore, declining to 0.2 per cent of GDP from 0.5 per cent in 2000-01. The financing pattern of GFD indicates that during 2001-02, net market borrowing would finance 66.5 per cent of GFD, marginally lower than 69.0 per cent in the revised estimate for 2000-01. At the same time, financing through other liabilities would

increase to 31.9 per cent from 27.5 per cent in 2000-01 and external finance would contribute 1.6 per cent as against 0.5 per cent in the previous year (Chart 11). The debt-GDP ratio is also placed marginally higher at 53.2 per cent as at end-March 2002 as against 53.0 per cent as at end-March 2001, although it is lower than the level of 55.3 per cent as at end-March 1991.



State Finances

The State Governments' budgets for 2000-01 aimed at fiscal stabilisation mainly through limiting revenue imbalances. The revenue deficit was estimated to be lower at 2.1 per cent of GDP as compared with 2.9 per cent in 1999-2000 and the fiscal deficit was budgeted to decline to 4.1 per cent as against 4.8 per cent in 1999-2000. The fiscal outturn of the State Governments during 2000-01 is not yet clear. The recourse to WMA by States has been generally higher during 2000-01 as compared with the previous year. As on March 31, 2001, State Governments' outstanding WMA and overdrafts from the Reserve Bank amounted to Rs.6,811 crore as against Rs.7,519 crore at the end of March 2000 (Chart 12).



Market Borrowing

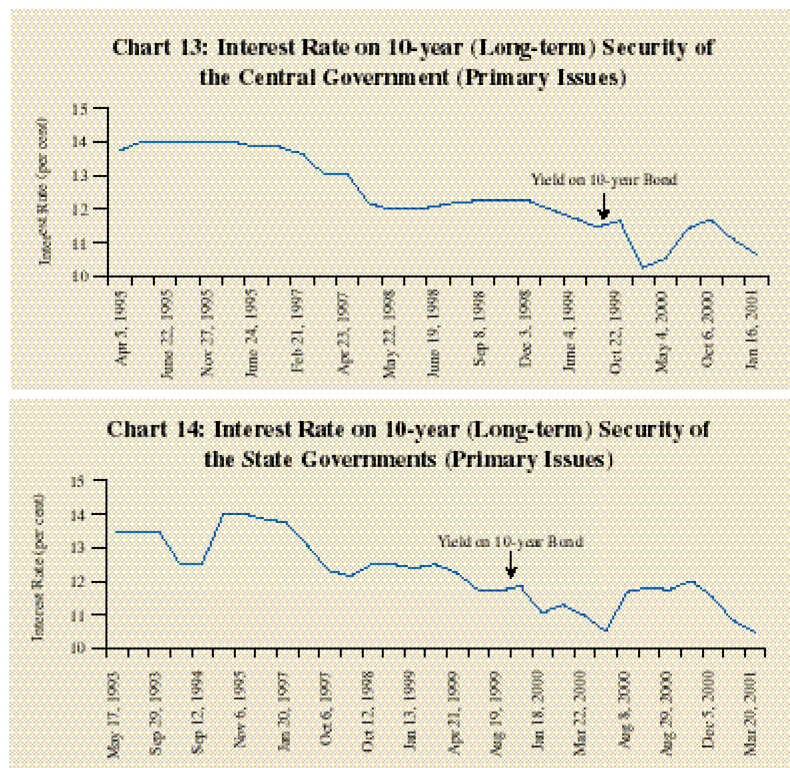
The Centre's net market borrowings for 2000-01 were budgeted at Rs.76,383 crore (gross, Rs.1,17,704 crore), financing 69 per cent of the Centre's gross fiscal deficit. The Central Government raised net borrowings of Rs.73,787 crore (Rs.1,15,183 crore, gross), lower than the budgeted borrowing programme for the full fiscal year.

The Reserve Bank's initial gross subscription to the Central Government's borrowing programme by way of devolvement/private placements of dated securities and 364-days Treasury Bills amounted to Rs.32,978 crore. While the liquidity impact of these operations was limited on account of net open market sales amounting to Rs.21,892 crore which helped in smoothening the yield curve and reducing the portfolio risks to market participants under uncertain market conditions during the year. The primary yields in Treasury Bills of various maturities which had increased from a range of 6.26-9.29 per cent in April 2000 to close to 11.0 per cent in August 2000, declined to a range of 6.78-8.96 per cent by March 2001. The primary yield on 10-year government securities reduced from 11.69 per cent in October 2000 to 10.67 per cent in January 2001. The secondary market yields moved in tandem with the primary market. The weighted average cost of primary issuance of Central Government dated securities declined to 10.95 per cent from 11.77 per cent in 1999-2000. The market borrowings of the Central Government are budgeted at Rs.1,18,852 crore (gross) and Rs.77,353 crore (net) for fiscal 2001-02.

The net market borrowings initially allocated for all States during 2000-01 amounted to Rs.11,230 crore (gross, Rs.11,650 crore), which was completed by end-January 2001. The amount mobilised through pre-announced issues aggregated Rs.9,980 crore and through auction route, Rs.1,670 crore. An additional allocation of Rs.1,650 crore was raised by 10 State Governments through a pre-announced 10-year loan on March 20, 2001. Thus, the total market borrowings of State Governments for 2000-01 amounted to Rs.13,300 crore (gross) and Rs.12,880 crore (net). The interest rate on State Governments' 10-year maturity loans rose from 10.52 per cent on April 25, 2000 (i.e., 48 basis points lower than the similar maturity loan issued in March 2000) to 12.0 per cent in the second tranche of loans issued on September 26, 2000. The cut-off yield on borrowings through auctions settled higher in the range of 11.70-11.80 per cent (Andhra Pradesh, Maharashtra, Tamil Nadu and West Bengal) on August 8, 2000 and 11.75 per cent (Kerala) on August 29, 2000. With general moderation in interest rates, the cut-off yield fell to 11.57 per cent for loans raised by Karnataka on December 5, 2000. The interest rate on the 10-year pre-announced security was reduced to 10.82 per cent on January 30, 2001 and further to 10.50 per cent on March 20, 2001.

Public Debt

The high order of borrowings by the Centre and States and the consequential overhang of public debt poses challenges for debt management as it leaves little flexibility for the debt management authority to minimise borrowing costs in the face of continuous increases in bond supply. Despite the downward rigidity in the level of Government borrowings, debt management operations played an effective role in moderating the interest rate on Government borrowings and facilitated a downward movement in long-term interest rates in the recent years (Charts 13 and 14). Further moderation and stability in the long-term interest rates in the future would depend upon the efforts to achieve sustainable levels of fiscal deficits and debt.



The principal issue governing the conduct of debt management policy is to evolve an optimum of maturity structure and interest rate. The Fiscal Responsibility and Budget Management Bill 2000, which aims at correcting the deficit and debt in the medium-term to sustainable levels, is expected to impart credibility to fiscal management and facilitate debt management. The objectives of the Bill, inter alia, include elimination of the revenue deficit by March 31, 2006, bringing down the fiscal deficit to 2 per cent of GDP in the same period, prohibition of direct borrowings by the Central Government from the Reserve Bank after three years except by way of advances to meet temporary cash needs.

III. Monetary and Liquidity Conditions

Monetary Trends

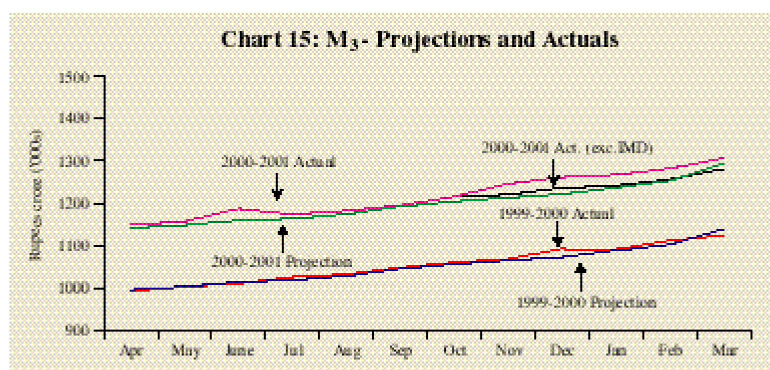
Broad money (M_3) increased by 16.2 per cent during 2000-01 as compared with 14.6 per cent during 1999-2000. The (net of IMDs), however, registered a growth rate of 13.9 per cent which was well within the 15.0 per cent projection announced in the April 2000 monetary and credit policy statement (Table 7 and Chart 15). On a monthly average basis, the (net of RIBs/IMDs) growth rateM_3 decelerated to 14.7 per cent during 2000-01 from 16.7 per cent during 1999-2000 and 18.2 per cent during 1998-99. Currency with the public increased by 10.8 per cent during 2000-01 as compared with 11.7 per cent during the previous year. Scheduled commercial banks' aggregate deposits registered a higher growth of 17.8 per cent as compared with 13.9 per cent during 1999-2000, driven largely by IMD inflows. Demand deposits increased by 10.5 per cent as compared with 8.5 per cent during the previous year. Time deposit growth, at 15.4 per cent, net of IMDs, was comparable with 15.0 per cent in 1999-2000.

Table 7: Monetary Indicators

(Per cent)

	Variable	Point-to-point basis			Monthly Average basis		
		1999-2000	2000-2001	Average during 1990s	1999-2000	2000-2001	Average during 1990s
	1	2	3	4	5	6	7
I.	Reserve Money	8.1	8.3	13.9	12.0	8.1	14.4
II.	Narrow Money (M_1)	10.5	10.7	15.6	14.7	11.2	15.9
III.	Broad Money (M_3)	14.6	16.2	17.3	17.2	15.4	17.4
	III.1 $M_{3,}$ net of RIBs				16.7		
	III.2 $M_{3,}$ net of IMDs		13.9			14.5	
	III.3 NM_3*	13.3	12.7	16.4	17.3		16.6
IV.	Components of Broad Money						
	a) Currency with the Public	11.7	10.8	15.2	16.3	9.1	15.9
	b) Aggregate Deposits (i+ii)	15.3	17.2	17.8	17.3	16.8	17.8
	i) Demand Deposits	9.7	9.9	16.3	13.1	14.1	15.8
	ii) Time Deposits	16.4	18.6	18.1	18.2	17.3	18.2
V.	Sources of Broad Money						
	a) Net Bank Credit to the Government (i+ii)	14.1	16.2	14.2	15.1	13.7	14.6
	i) Net Reserve Bank Credit to the Government	-2.8	4.9#	7.5	5.3	1.0	8.9
	Of which: to Centre	-3.8	6.5#	7.1	4.3	0.4	8.8
	ii) Other Banks' Credit to the Government	25.2	22.0	21.2	21.7	20.0	21.1
	b) Bank Credit to Commercial Sector	18.3	14.3	14.6	16.4	19.3	14.4
	Of which: Scheduled Commercial Banks' Non-food Credit	16.5	14.3	15.4	15.5	15.4	15.3
	c) Net Foreign Exchange Assets of the Banking Sector	15.6	18.8	44.7	21.1	17.6	46.4

Data are provisional.
* Up to February 9, 2001 and February 11, 2000, respectively.
# Before closure of Government accounts as on March 31, 2001.



In pursuance of the recommendations of the Working Group on Money Supply (Chairman: Dr. Y.V. Reddy), it is necessary to adjust the M_3 aggregate for India Millennium Deposits (IMDs) so that the monetary impact of such capital flows depends on their net effect on the monetary base (Table 8).

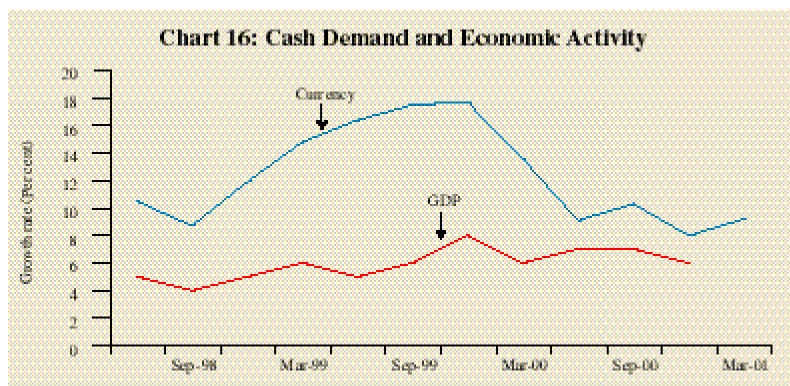
Table 8: Monetary Impact of India Millennium Deposits

Transaction	Reserve Bank				CommercialBanks			Monetary Impact	
Foreign		Govt	Reserve	Foreign	Foreign	Govt.	Bank	NM_3	M_3
	Assets	Securities	Money	Liabilities	Assets	Securities#	Credit		
1	2	3	4	5	6	7	8	9	10
Purchase by	RBI								
Unsterilised		↔			↔	↔			IMD+
Purchase								effect	M 0
									effect
Sterilised purchase		↓	↔		↔		↔	↔	IMD
Retained by	banks								
Invested									
abroad	↔	↔	↔			↔	↔	↔	IMD

Note : indicates increase, ↓ decrease and ↔ no change.
Excluding Secondary market transactions with the non-bank sector. M_0: Reserve money.

It is necessary to recognise that the comparison of monetary flows between 1999-2000 and 2000-01 is complicated by two factors: i) the dip in the end-March 2000 position, because of the gap between the last reporting Friday of March (March 24) and the balance sheet date muting the impact of the year-end bulge in bank deposits and credit and ii) proceeds under the IMD scheme.

The monthly average year-on-year currency growth rate decelerated to a single digit (9.1 per cent) - for the first time since 1975-76 - from 16.3 per cent during 1999-2000. A slower cash demand has three implications. First, it reduces the currency to deposit ratio and thereby pumps up the money multiplier so that a relatively small increase in the monetary base could support a larger monetary expansion. Second, to the extent currency drawals are a leakage from the banking system, changes in cash demand, ceteris paribus, impact on bank liquidity. Third, currency essentially depends on the public demand for liquid transaction balances which, in turn, is a function of the level of economic activity, banking habits and the availability of alternate liquid monetary assets (Chart 16).



Credit Trends

Domestic credit (adjusted for scheduled commercial banks' investments in non-SLR securities) decelerated to 15.4 per cent during 2000-01 from 16.9 per cent during 1999-2000. The ratio of incremental (adjusted) non-food credit in incremental (adjusted) domestic credit at 42.4 per cent during 2000-01 was lower than 45.3 per cent during 1999-2000.

Net bank credit to the Government accelerated to 16.2 per cent from 14.1 per cent last year. The share of the Reserve Bank's incremental net credit to the Government in the increase in net bank credit to the Government shot up to 48.5 per cent as on November 3, 2000 with the tightening of liquidity conditions and thereafter fell to an average of 7.6 per cent during the last quarter of 2000-01, once the return of comfortable liquidity conditions revived the market interest in government paper. Scheduled commercial banks' investments in government securities decelerated to 21.8 per cent during 2000-01 from 24.7 per cent during 1999-2000.

Bank credit to the commercial sector moved contrary to the real activity conditions over the greater part of 2000-01. The year-on-year growth rate of scheduled commercial banks’ non-food credit was markedly high in the first half of the year, running, on average, at nearly 700 basis points above the growth rate in the first half of the previous year. By March 2001, however, the growth rate of non-food credit dipped by over 200 basis points below the corresponding growth rate recorded in March 2000. Scheduled commercial banks’ non-food credit amounted to only Rs. 11,294 crore in the last quarter of 2000-01, almost half of the off-take of Rs. 20,688 crore in the last quarter of 1999-2000. For the year 2000-01 as a whole, bank credit to the commercial sector decelerated to 14.3 per cent from 18.3 per cent in 1999-2000.

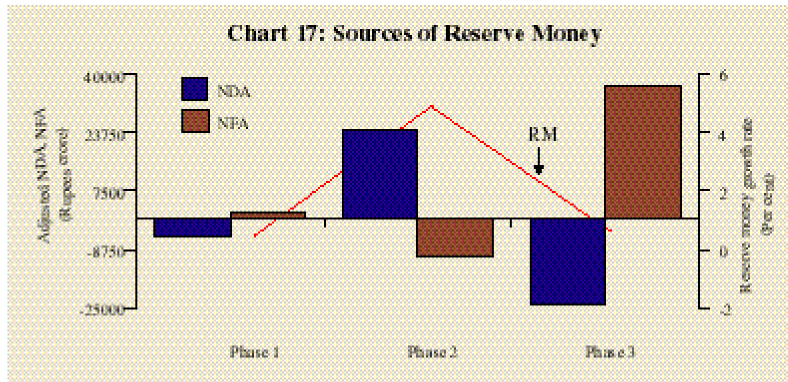
Net foreign assets of the banking sector increased by 18.8 per cent in 2000-01 as against an increase of 15.6 per cent during 1999-2000, bolstered by IMD inflows.

Reserve Money

Reserve money expanded by only 8.3 per cent during 2000-01, as against the long-term average growth rate of 13.9 per cent. In 1999-2000, reserve money growth was even lower at 8.1 per cent, muted by the first round release of resources, as a result of CRR changes, of about Rs.13,000 crore. The net RBI credit to the Centre increased by 6.5 per cent (Rs.9,023 crore) (before closure of accounts) during 2000-01 in sharp contrast to the decline of 3.8 per cent (Rs.5,587 crore) (after closure of accounts) during 1999-2000, mainly on account of the RBI's net subscription to the Centre's fresh dated securities (Rs.29,504 crore at face value) partly offset by net open market sales (Rs.19,218 crore, of which Rs.11,388 crore was to commercial banks). The commercial bank drawals from the Reserve Bank declined by Rs.4,471 crore in contrast to the increase of Rs.3,256 crore during 1999-2000, partly reflecting the reduction in refinance limits. The Reserve Bank’s credit to commercial sector declined by Rs.1,983 crore in contrast to the increase of Rs.3,044 crore in 1999-2000 essentially on account of the decline in availment of liquidity support by primary dealers. The Reserve Bank's foreign currency assets increased by Rs.27,463 crore (adjusted for revaluation) during 2000-01 as against an increase of Rs.27,382 crore (adjusted for revaluation) during 1999-2000, mainly on account of IMD inflows. The monetary impact of IMDs was, by and large, moderated by several measures impinging on liquidity.

The Reserve Bank modulated the domestic and external sources of monetisation during the year (Chart 17). In the first phase (till April 21, 2000), primary liquidity generated by capital inflows was more than offset by a decline in

the Reserve Bank's net domestic assets. In the second phase (i.e., April 21-November 3, 2000), the Reserve Bank's foreign currency assets declined by Rs.10,676 crore (adjusted for revaluation). Monetary policy action reduced liquidity in the form of a 0.5 per cent CRR hike and a reduction in banks' standing facilities. The gap was filled by the increase in the Reserve Bank's net credit to the Centre (Rs.17,783 crore), reflecting the net effect of the Reserve Bank's private placements and devolvements and repo operations under the Liquidity Adjustment Facility (LAF). In the third phase (November 3, 2000 onwards), liquidity generated by the Reserve Bank's absorption of IMD proceeds and the revival of capital inflows resulted in renewed interest in government paper, reducing the net RBI credit to the Centre by Rs.20,545 crore (before closure of accounts).

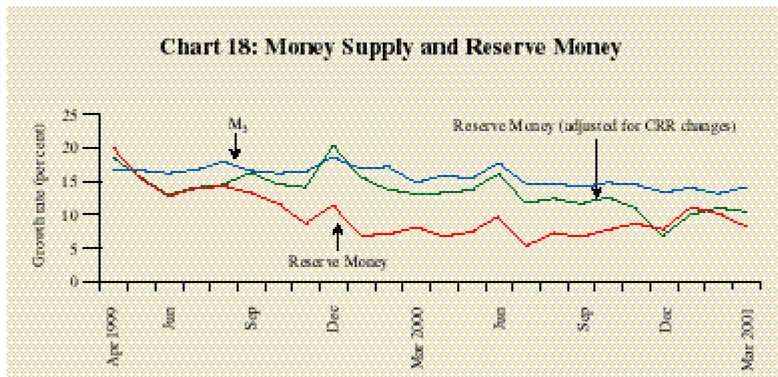


In a regime of frequent CRR changes, it is useful to adjust bank reserves and thus reserve money for changes in reserve requirements. Adjusted for cumulative first round changes in reserve requirements[1], the reserve money growth rate followed an inverted U curve during 1999-2000 and 2000-01 in contrast to the path of the unadjusted reserve money growth rate (Chart 18). The deceleration in the average adjusted reserve money growth rate to 11.7 per cent during 2000-01 from 15.3 per cent during 1999-2000 pulled down monetary growth rate.

This is a simplified method of adjusting reserve money, which could be technically computed following Rangarajan C., and Anoop Singh, (1984), "Reserve Money : Concepts and Policy Implications Implications for India", RBI Occasional Papers, June:

$M_0^* = M_0 - \{ (r_t - r_0) D + IR - DF \}$

where M_0^* is adjusted reserve money, M_0 reserve money, r_t current cash reserve ratio, r_0 base period cash reserve ratio, D demand and time liabilities relevant for computation of CRR, IR incremental reserve requirements and DF net CRR default for all commercial banks.



Monetary policy regimes all over the world have undergone fundamental shifts in their operational settings, reflecting the sweeping changes in their environment brought on by globalisation and financial restructuring. The progressive downgrading of monetary targets in several countries has ushered in a transitional phase during which the analytics and evidence are being re-examined in the search for a new operational framework for monetary policy. Some countries have chosen to develop institutional settings and operating procedures which enable them to directly target inflation. Operational independence for the monetary authority mandated by an act of legislature has usually formed part of the institutional apparatus for inflation targeting, consistent with the rule of 'one target, one instrument'. For many countries, however, strict pursuit of the assignment rule poses some problems. There is the absence of fully integrated financial markets which provide transmission channels for policy impulses and also allow for adjustments between the outcomes of independently deployed policy instruments. Furthermore, structural changes in the financial system have caused shifts in the transmission channels so that even in countries

with well-developed financial markets, the transmission channels for monetary policy remain uncertain. In countries where monetary policy is also burdened with quasi-fiscal responsibilities such as debt management, deficit financing and the rationing of credit, the precise effects of monetary policy are difficult to estimate. Moreover, there is a high degree of uncertainty about the lags in monetary policy, and therefore, its impact on the future. Consequently, confronted with the short run trade-off between growth and inflation, the dilemma of having to pursue both becomes live and real. In such situations, target flexibility and balancing of conflicting goals is unavoidable. It is perhaps for this reason that central banks have to pursue multiple objectives in practice (Table 9).

In India also, monetary policy decisions are time-, context- and environment-specific with elements of sound judgement and objective/ quantitative analysis reinforcing each other. While rules serve the interest of transparency, they are not meant to be so binding as to preclude discretionary actions by the authorities. While inflation control and financial stability have been accorded prime importance, growth and employment are equally matters of policy concern. These issues become even more relevant when authorities have to contend with variable transmission lags in the effects of monetary policy and when conflicting signals emanate from various macroeconomic aggregates and render the inflation outcome uncertain. There may be compelling conditions in the current period to ease the policy stance in the interest of growth. The conflict becomes sharper in countries characterised by large unorganised agricultural sectors, credit-constrained informal sectors and lack of depth in financial markets. The problem gets compounded during periods of domestic or external uncertainties when the trade-off at the margin assumes importance.

Table 9: Monetary Policy Operating Procedures in Selected Emerging Market Economies

Country	Target	Intermediate/ Operating Target	Instruments	Supporting Indicators
1	2	3	4	5
Brazil	Sustainable growth and price stability	Money, credit and interest rates	OMO, CRR and financial assistance for liquidity	
Indonesia	Exchange rate and price stability	Monetary base and real effective exchange rate	CRR, discount rate, OMO & moral suasion	Interest rates, exchange rate
Malaysia	Inflation and growth	Intervention rate, inter-bank rates	Direct borrowing/ lending, selective credit and administrative measures, CRR, OMO and moral suasion	Real interest rates, inflation and inflation indicators, asset prices, credit and money
Mexico	Purchasing power of currency		Money and foreign exchange market operations	Money and monetary base, inflation indicators, employment, exchange rate and balance of payments

Liquidity Management

The Reserve Bank strategically offset changes in autonomous liquidity with changes in discretionary liquidity in order to stabilise money market conditions in 2000-01 (Chart 19). The cost of discretionary liquidity influenced the spectrum of short-term market interest rates.

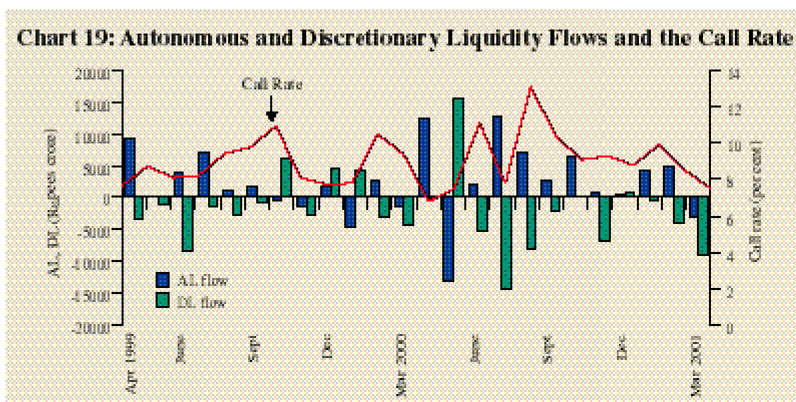


Chart 19: Autonomous and Discretionary Liquidity Flows and the Call Rate

Liquidity Adjustment Facility

The Liqudity Adjustment Facility (LAF) has provided a mechanism for central banks to modulate liquidity in the system and thereby influence short-term interest rates consistent with monetary policy objectives. Operating procedures under LAF range from exclusive use of market-based instruments like open market operations including repos to the availibility of a discount window facility. In India, the LAF operates through repo and reverse repo auctions, thereby setting a corridor for the short-term interest rates, consistent with the policy objectives. The LAF, which was introduced on June 5, 2000, enabled the Reserve Bank, to modulate short-term liquidity under varied financial market conditions in order to ensure stability in call money rates during 2000-01. The LAF was operated both as a tool for liquidity management and for interest rate signaling depending upon market conditions. During June 2000, the commencement of LAF operations coincided with tight liquidity conditions resulting mainly from foreign currency sales by the Reserve Bank in the wake of currency market uncertainties and advance tax outflows. The reverse repo auctions under LAF were employed to arrest overshooting in the call money rates. Initially, the cut-off reverse repo rate was shifted upwards from 9.0 to 14.0 per cent with a view to ensuring orderly conditions in the foreign exchange market. Subsequently, with restoration of stable conditions in the foreign exchange market and improvement in liquidity, the cut-off repo rate was gradually brought back to 9.0 per cent by mid-July 2000. Thereafter, the LAF was largely employed to supplement direct monetary measures taken by the Reserve Bank on July 21, 2000 in response to uncertainties in financial market conditions. Repo auctions were used for absorption of liquidity and for signaling interest rates. Additional repo auctions with maturity ranging from 3 to 7 days were also undertaken from August 3, 2000. The cut-off rates on daily repo auctions were gradually raised from 8.0 per cent to a peak of 15.0 per cent on August 18, 2000. With the return of stable conditions in financial markets, the cut-off repo rates were gradually brought down to 10.0 per cent on September 30, 2000 and further to 8.5 per cent on October 20, 2000. In contrast to similar situations in the past, no spike in call rates occurred during July-October 2000. Together with open market operations (OMO), repo auctions were effectively used in November-December 2000 to absorb excess liquidity largely emanating from the proceeds of India Millennium Deposits (IMD). The repo rate, at 8.0 per cent, provided a floor to call money rates. Towards the end of December 2000, advance tax payments and increased interest in government paper in the secondary market led to hardening of call rates. Reverse repo operations, injecting liquidity at 10.0 per cent, were used from end-December 2000 to end-January 2001 to ensure stability in the call money rate. Thereafter, liquidity conditions eased with a 50 basis point cut in the CRR. Towards the end of March 2001, balance sheet considerations and bunching of holidays led to hardening of call rates. The Reserve Bank responded by conducting a special auction under LAF on March 31, 2001, apart from the regular auctions (Chart 20).

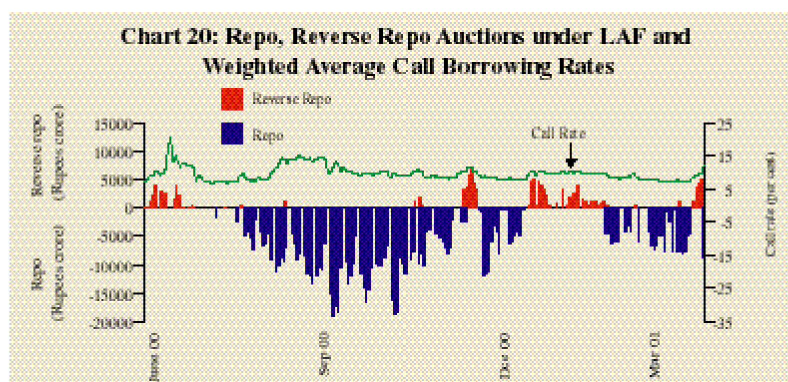
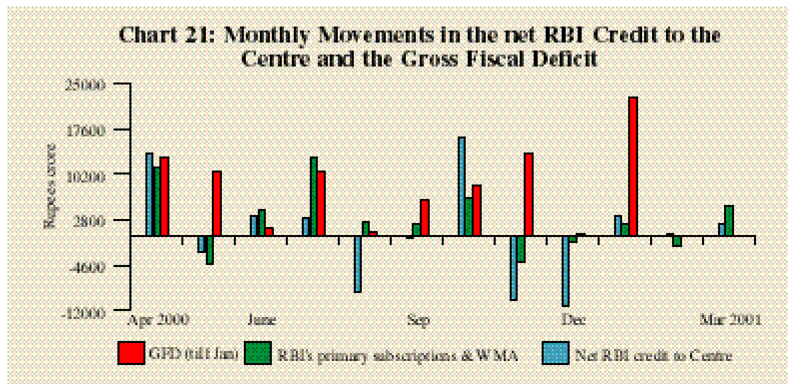


Chart 20: Repo, Reverse Repo Auctions under LAF and Weighted Average Call Borrowing Rates

LAF operations were combined with strategic open market operations and devolvement/private placements consistent with market liquidity conditions in the context of the financing of the Centre's fiscal deficit (Chart 21).

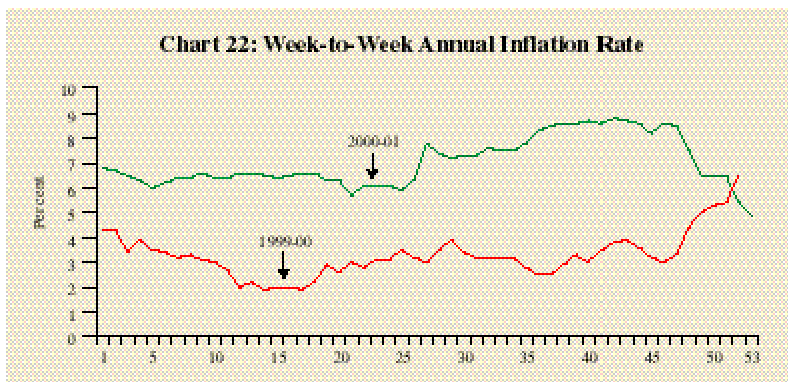


IV. Price Situation

Inflation Indicators

The upward drift imparted to inflation by three successive rounds of administered price revisions receded towards the close of 2000-01. By the end of February 2001, wholesale price inflation began to decline, partly reflecting base effects since the first two rounds of revisions in the administered items had been effected in February and March 2000 and partly, completion of the pass-through of administered price hikes into the general price level.

Headline inflation, measured by the variation in the Wholesale Price Index (WPI), on a point-to-point basis, ruled generally above 6 per cent throughout the year touching a peak of 8.8 per cent on January 13, 2001, as against 3.8 per cent in the corresponding week of 1999-2000. By the first week of March 2001, however, the headline inflation moderated to 6.5 per cent and fell sharply to 4.9 per cent by the end of March - the lowest during the year 2000-01 - as compared with 6.5 per cent in 1999-2000 (Chart 22).



Among the major groups, manufacturing inflation increased by 3.3 per cent during 2000-01, on an average basis, comparable with 2.7 per cent a year ago, while primary articles inflation inched up to 3.0 per cent from 1.1 per cent. Fuel group inflation, on the other hand, shot up to 28.4 per cent from 9.0 per cent a year ago. The fuel group contributed the maximum to the price rise during 2000-01, with a share of 62.9 per cent as against 41.4 per cent in the preceding year, reflecting the impact of administered price hikes (Table 10). The share of the manufactured products group fell to 27.6 per cent from 49.9 per cent during 1999-2000. On the other hand, the weighted contribution of the primary articles group increased marginally to 10.0 per cent from 8.1 per cent in 1999-2000 (Chart 23).

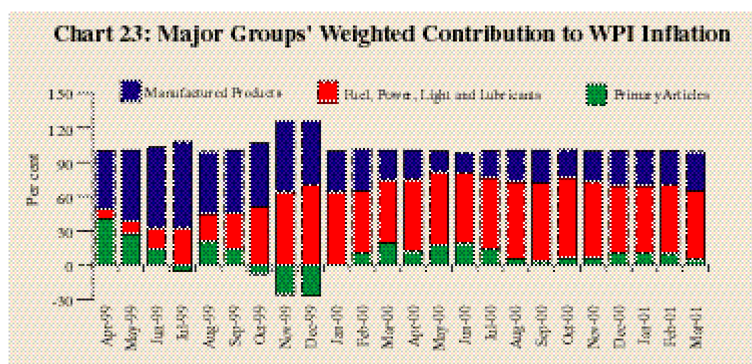


Table 10 : Administered Price Hikes

(Per cent)

	Electricity	Kerosene	Urea-N-Content	Liquefied Petroleum Gas (LPG)	Aviation Turbine Fuel (ATF)	Diesel	Petrol
1	2	3	4	5	6	7	8
February 2000	15.1	-	14.0	-	-	-	-
March 2000	-	100.9	-	30.2	18.2	-	-
September 2000	-	50.0	-	19.0	20.0	19.0	10.0

Core Inflation

In the recent period, the focus on core inflation among central banks as a guide for the conduct of monetary policy is expanding into a more broad based approach in which measures of core inflation are assessed in conjunction with other indicators of monetary and aggregate demand conditions. Typically, central banks invested with a mandate to independently pursue an inflation target have chosen to separate out exogenous influences on their inflation targets. Food and energy price changes are examples of such exogenous effects which do not normally reflect changes/shifts in domestic demand. The limited experience gained from dealing with issues relating to construction of core inflation measures, the loss of information content due to exclusion of certain commodity price effects and lack of public acceptance suggest that these measures are useful in indicating the underlying medium-term trends in the inflationary process under normal output conditions rather than as policy targets. Inflation targets, therefore, continue to be defined in terms of aggregate consumer price inflation in almost all economies.

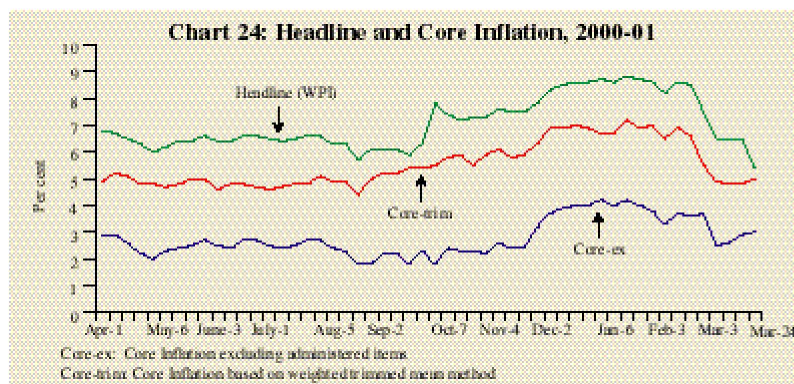
The concept of core inflation is closely associated with the methodology adopted for its construction. One approach defines core inflation as the common element in the expected behaviour of different price indices. The more standard approach is to employ time series techniques - filters or smoothers, structural vector autoregressions - to separate transient elements from more permanent components of inflation. An alternative method is the stochastic or limited influence estimators which remove or reduce the weights of extreme price changes. The most common approach in this class of core inflation measures is the trimmed mean which excludes a proportion of each tail of the distribution of price changes to arrive at a central tendency which represents core inflation. The most widely used core inflation measures are based on the exclusion principle by which core inflation is derived by excluding prices of those commodities which are subject to seasonal supply shocks and/or administrative controls (Table 11).

Table 11 : Core Inflation - Selected Cross-Country Indices

Country	Price Index	Items Excluded
1	2	3
Canada	CPI	Food, energy and first round effects of indirect taxes with a weight of 26.3 per cent.
France	CPI	Tax changes, energy, food and regulated items.
New Zealand	Weighted median CPI inflation rate	-
Portugal	CPI (exclusion) (first principal component) (10.0 per cent trimmed mean)	Energy and non-processed food, with a weight of 21.9 per cent.

An ideal measure of core inflation should be efficient in distinguishing between 'core' and 'non-core' components of inflation. It should be unbiased with respect to measured inflation. It should also be robust in terms of coverage. Timeliness and credibility are other pre-requisites of an ideal measure of core inflation.

In India, the impact of supply side factors such as food prices in 1998-99 and administered price changes of electricity and petroleum products in 2000-01 suggests that it will be useful to estimate and monitor underlying inflation excluding the impact of changes in prices of such items. Preliminary work conducted in this area indicates that core inflation measured by excluding prices of administered items (which account for 16.4 per cent of the total weight of the WPI) rose marginally to 3.0 per cent, on a point-to-point basis, as on March 24, 2001 from 2.6 per cent in 1999-2000. On the other hand, core inflation measured by the weighted trimmed mean method worked out to 5.0 per cent as on March 24, 2001 as compared with 4.9 per cent at the end of March 2000 (Chart 24). It needs to be stressed that these are extremely preliminary results, and further research is needed before the utility of the concept of core inflation for monetary policy formulation in India can be judged.



Retail price inflation, as measured by the annual variation in consumer price index for industrial workers (CPI-IW), on a point-to-point basis, moderated to 3.0 per cent by February 2001 from 3.6 per cent during the corresponding period of the preceding year. On an average basis, however, the CPI-IW inflation rate which started the year at 3.2 per cent (as against 13.1 per cent last year) has trended up to 4.0 per cent by February 2001, as against 3.7 per cent in the corresponding period of 2000.

In general, there is considerable co-movement between the WPI and CPI in India with the CPI tending to follow the WPI with a lag. The co-movement between WPI and CPI is best depicted by the behaviour of their trend or filtered components. During the second half of the 1990s, a degree of divergence has set in with opposing movements becoming more discernible (Chart 25). While the WPI reflects the cost-push impact of administered price revisions, the CPI appears to track the sluggishness in demand conditions.

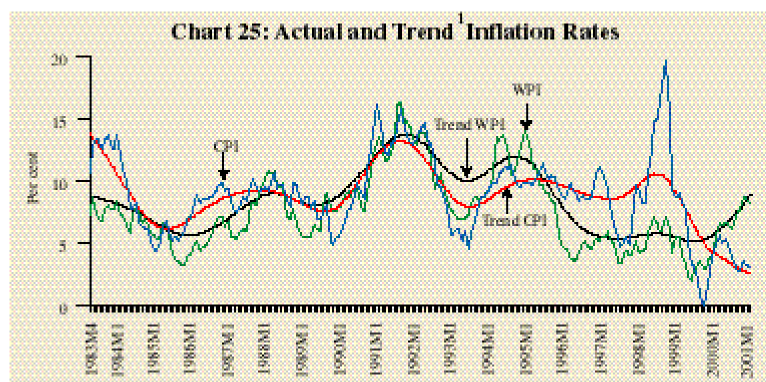


Chart 25: Actual and Trend[1] Inflation Rates

V. Domestic Financial Markets

Financial markets, particularly money, foreign exchange, government securities and credit markets, exhibited a distinct co-movement during 2000-01. In turn, this necessitated active management of market liquidity; as a consequence, liquidity operations conducted during 2000-01 were enmeshed in market developments (Table 12 and Chart 26). Three phases can be distinguished in this growing integration: (i) easy liquidity conditions in April - mid-May, 2000 i.e. Phase I, (ii) tightening of market conditions in May - October 2000 i.e. Phase II and (iii) improvement in market sentiment in November 2000 onwards, i.e. Phase III.

Table 12: Developments in the Money, Gilt and Foreign Exchange Markets, 2000-01

Month	Commercial Banks' Borrowings from the RBI* (Rs. crore)	Average Daily Inter-bank Foreign Exchange Turnover (US$ mn)	Turnover in Central Govt. Dated Securities Market £ (Rs. crore)	Exchange Rate (Rs. per US Dollar) Purchase(+)	RBI's Net Foreign Currency Sale(-)/ (US$ mn)	Net OMO Sales(-)/ Pur-chase (+) # (Rs. crore)	Average Daily Repos (LAF) out-standing (Rs. crore)	Average Daily Reverse Repo (LAF) out-standing (Rs. crore)	Liquidity Support to PDs** (Rs. crore)	Average Daily Call/ Notice Turnover (Rs. crore)	Average Call Money Borrowing Rate (per cent)	3-month Forward premia (per cent)
1	2	3	4	5	6	7	8	9	10	11	12	13
2000												
April	5,068	3,802	79,072	43.6388	368	-36	-	-	466	44,687	6.79	2.59
May	10,341	4,781	78,198	43.9829	-897	-1,479	-	-	1,543	39,214	7.48	2.29
June	8,713	5,115	37,602	44.6893	-1,051	-510	0	1,327	4,136	27,089	11.08	3.32
July	5,847	4,253	86,571	44.7788	-408	-6,299	1,150	34	3,972	28,418	7.77	3.69
August	6,251	5,213	36,490	45.6800	-467	1,197	8,807	36	5,614	21,809	13.06	5.10
September	5,292	4,603	45.660	45.8883	-287	-1,335	10,672	2	5,141	23,981	10.31	5.19
October	6,225	4,344	50,930	46.3445	-494	-66	8,321	166	4,716	30,218	9.07	4.40
November	5,624	4,282	1,07,696	46.7789	3,686	-11,565	2,634	1403	1,229	32,148	9.28	4.05
December	6,692	4,173	87,004	46.7496	-155	-1,671	1,206	565	5,519	30,159	8.76	3.48
2001												
January	6,099	4,670	1,51,498	46.5439	832	-87	0	1,762	5,333	38,530	9.89	4.24
February	5,130	5,156P	1,41,793	46.5167	623	-2	2,802	160	3,788	33,412	8.51	4.15
March	3,896	5,339P	1,15,710P	46.6205		-40	3,952	650	5,010	36,217	7.52	4.44

P: Provisional. * Outstanding as on last reporting Friday of the month. £ Outright only.
** As at the end of the month. # Inclusive of Treasury Bills.

In April 2000, easy liquidity conditions, buoyed by strong capital flows brought stability to the foreign exchange market and enabled an easing of monetary conditions. There was a softening of interest rates across the spectrum. Commercial banks and primary dealers reduced their refinance drawals from the Reserve Bank. The government securities market witnessed a small rally. The yield curve shifted downwards, with a more pronounced steepening at the short end. Scheduled commercial banks' deposit and lending rates also declined. Prime lending rates of public sector banks (PSBs) eased to 11.25-12.50 per cent as on April 7, 2000 from 12.0-13.5 per cent as on February 25, 2000.

In the second phase, the return of excess demand conditions in the foreign exchange market was tackled with monetary tightening. The exchange rate depreciated and the turnover in the inter-bank segment of the foreign exchange market increased significantly. Money markets began to firm up, reflecting the twin impact of the monetary measures and heightened market activity. With the tightening of liquidity conditions, the turnover in the Central Government dated securities market plummeted. The rupee, which was range bound during the first half

of July 2000, fell to Rs.45.02 per US dollar on July 21, 2000. Repo auctions hardened call rates, setting off a general firming up of interest rates. Scheduled commercial banks' deposit and lending rates began to edge upwards.

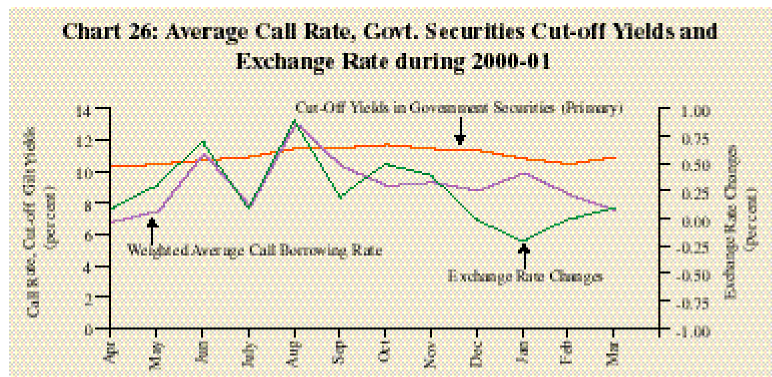


Chart 26: Average Call Rate, Govt. Securities Cut-off Yields and Exchange Rate during 2000-01

In the third phase, easy liquidity conditions prevailed due to the inflow of proceeds under the India Millennium Deposit (IMD) scheme from abroad. The return of comfortable liquidity conditions generated interest in gilts. This enabled the market off-take of government paper either through government securities auctions or through the OMO window. The exchange rate stabilised from November 2000. There was a softening of interest rates across the spectrum.

Credit Market

The deposit and lending rates of banks were also influenced by the phases of monetary and liquidity conditions during 2000-01. The reduction of the savings deposit rate by 0.5 percentage point to 4.0 per cent in the beginning of 2000-01 reduced the cost of funds in the banking system. The easing of interest rates in term deposits, however, commenced in June 2000 across all the maturity periods for public sector, private sector and foreign banks. The dynamics, however, depended on the maturity period of the deposits. The interest rates on one-year deposits were decreased by the PSBs from 5.0-9.0 per cent in May 2000 to 4.0-8.0 per cent in December 2000 and by foreign banks from 4.0-11.0 per cent to 4.0-10.5 per cent, albeit with some increase in August-September for both the bank groups. The interest rates on such deposits remained almost unchanged for PSBs but declined for foreign banks to 4.25-10.75 per cent during the last quarter of 2000-01. The private banks reduced the interest rates on deposits under this tenor from 5.0-10.5 per cent to 4.5-10.25 per cent during May-December 2000 with some firming up during September-October as well as during the last quarter of 2000-01. In case of deposits for a maturity period of 1-3 years, only the peak interest rates came down by 100 basis points and 25 basis points over May-December 2000 for PSBs, and private sector and foreign banks, respectively. During the fourth quarter of 2000-01, while the interest rates on deposits of 1-3 years of private sector banks remained more or less unchanged, those for public sector and foreign banks firmed up. In case of deposits above 3-year maturity, interest rates for PSBs declined from 9.75-11.0 per cent and those for private sector banks moved from 10.0-12.5 per cent to 9.50-10.25 and 9.25-11.5 per cent, respectively, during May-December 2000. In the case of foreign banks, only the trough interest rates decreased for these deposits by 50 basis points since November 2000. During the fourth quarter of 2000-01, the interest rate on such deposits for public sector banks declined but remained unchanged for private and foreign banks.

Under easy liquidity conditions prime lending rates (PLRs) of the PSBs and foreign banks declined from 12.0-13.5 per cent and 10.5-17.5 per cent in March 2000 to 11.25-12.5 per cent and 9.75-17.50 per cent, respectively, in April 2000. As monetary conditions tightened in August 2000, the PLRs of the PSBs and foreign banks also rose to 11.75-13.0 per cent and 10-17.5 per cent, respectively. However, during September-December 2000, while the PLR range for the PSBs remained around 11.75-13.00 per cent, the PLRs of foreign banks decreased by 75 basis points at the lower end by November 2000. The private banks, however, responded with some lag to the conditions, easing their interest rates only in July and August 2000 and hiking them since September 2000. During the fourth quarter of 2000-01, the PLR was reduced at the lower end from 11.75 per cent to 10.0 per cent by PSBs and 10.25 per cent to 8.0 per cent by private sector banks but remained unchanged for foreign banks.

The year-on-year growth of non-food bank credit during 2000-01 kept above the growth rates recorded in the previous year up to January 2001 (Chart 27). A sectoral deployment analysis of non-food gross bank credit of 50 reporting banks up to January 2001 shows that the expansion of credit was absorbed by medium and large industry (Rs.16,127 crore), followed by the priority sector (Rs.15,464 crore), other sectors (Rs.9,232 crore) and

wholesale trade (Rs.2,394 crore). The increase in bank credit partly reflected build up inventories of fertilisers, sugar, petroleum and automobiles. In addition, there was significant increase in credit for infrastructure such as power, telecommunications, roads and ports. Credit flow to petroleum, electricity, gems and jewellery and retail segments was also relatively high. At the same time, other textiles, vegetable oils and coal registered moderate decline in credit (Chart 28). The pace of credit expansion decelerated since December 2000 in line with subdued industrial activity. For the year as a whole, the rate of expansion of non-food credit at 14.3 per cent (Rs.58,664 crore) was lower as compared with that of 16.5 per cent (Rs.58,246 crore) in the corresponding period of the previous year.

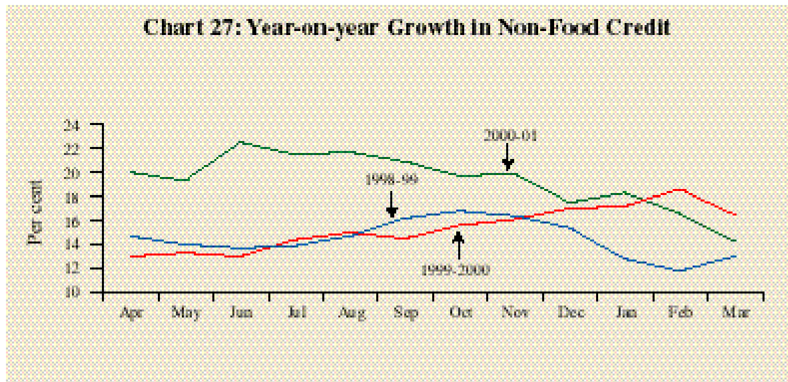


Chart 27: Year-on-year Growth in Non-Food Credit

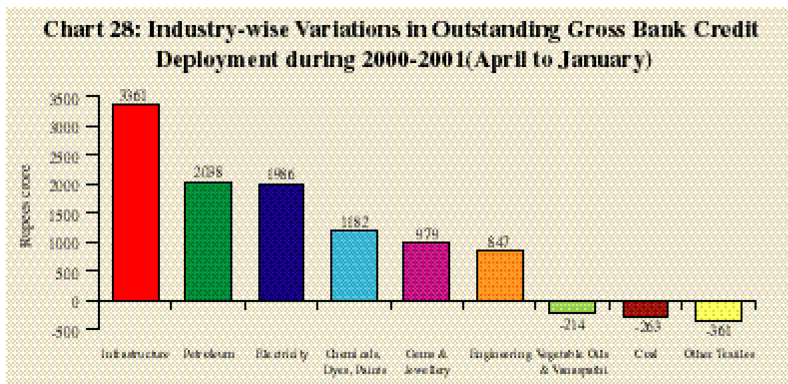


Chart 28: Industry-wise Variations in Outstanding Gross Bank Credit Deployment during 2000-2001(April to January)

The investments by scheduled commercial banks in government and other approved securities showed a higher increase of Rs.60,889 crore during 2000-01 than Rs.54,349 crore during 1999-2000. Investments by scheduled commercial banks in non-SLR securities recorded lower increase of Rs.12,367 crore (up to March 9, 2001) than Rs.13,161 crore deployed during 1999-2000.

As per provisional information available so far, the resource flow from bank and non-bank sources, inclusive of capital issues, GDRs/ADRs/FCCBs, CPs subscribed by non-banks and borrowings as well as bills rediscounted with financial institutions, to the commercial sector increased by Rs.1,47,420 crore during 2000-01 as compared with Rs.1,59,935 crore during the preceding year (Table 13).

Table 13: Total Flow of Non-Food Resources to Commercial Sector

(Rupees crore)

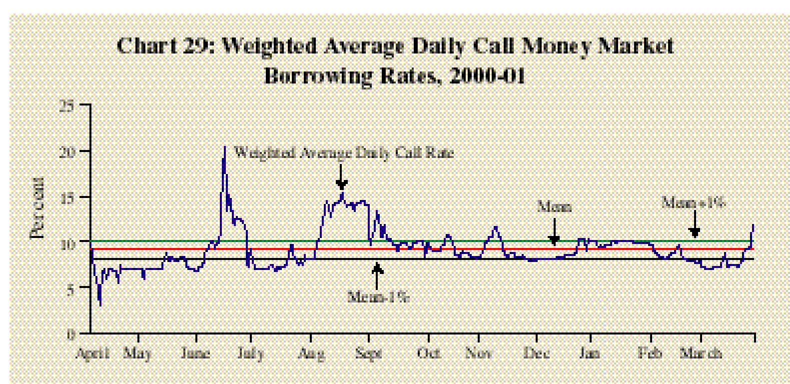
	Item	1999-2000	2000-01P
	1	2	3
I.	Scheduled Commercial Banks (I.1+I.2)	71,407	71,191
	I.1. Non-food credit	58,246	58,824
	I.2. Other Investments (2.1+2.2+2.3)	13,161	12,367*
	2.1. Commercial Paper (CP)	1,030	2,196
	2.2. Bonds/Debentures/Preference Shares Issued by	11,635	9,818
	2.2.1 Public Sector Undertakings (PSU)	6,430	6,322
	2.2.2 Private Corporate Sector	5,205	3,496
	2.3 Equity Shares issued by PSUs and Private Corporate Sector	497	353

II. Other Banks	20,395	11,913@
III. Other Sources (III.1+III.2+III.3+III.4+III.5)	68,133	64,316
III.1 Bills rediscounted with financial institutions	-96	291**
III.2 Capital Issues $ (2.1+2.2)	-617	1,815***
2.1 Non-Government Public Companies	-617	1,815
2.1.1 Debentures and Preference Shares	-2,804	-371
2.1.2 Equity shares	2,187	2,186
2.2 PSU and Government Companies	0	0
III.3 Global Depository Receipts (GDRs) and Foreign Currency Convertible Bonds (FCCBs)	1,721	5,549**
III.4 Issue of CPs #	-137	-869@@
III.5 Borrowings from Financial Institutions (FIs) ##	67,264	57,531**
Total Flow of Non-food Resources (I+II+III)	1,59,935	1,47,420
Memo Items		
1. Loans to Corporates against shares held by them to enable Them to meet the promoters' contribution to equity of new companies in anticipation of raising resources	-44	-5*
2. Private Placements	61,259	46,241$$

P Provisional.
$ Adjusted for banks' investments in shares and debentures.
# Excluding CPs issued to banks.
Excludes bills rediscounted with FIs.
* Up to March 9, 2001.
*** Up to January 2001@ Preliminary Estimate.
** Up to February, 2001.
@@ Up to March 15, 2001. $$ Up to December 2000.

Money Market

Money market conditions during 2000-01 were determined, to a large extent, by the interplay between the short-term influences from exchange market developments and the Reserve Bank's liquidity operations. Inter-bank call money borrowing rates generally remained easy during 2000-01 except for spurts in June and in August (Chart 29). The volatility in the daily weighted average call money borrowing rates was also high in June and August.



Easy liquidity conditions prevailing in April-mid-May 2000 kept the call rates moving generally in a range defined by the fixed repo rate (5 per cent) and slightly above the Bank Rate (7 per cent). Devolvement of government securities upon the Reserve Bank absorbed pressures on market liquidity and call rates ruled easy up to the first week of June 2000. Advance tax payments and volatility in the foreign exchange market in the second week caused a spurt in call rates to 20.34 per cent on June 17, 2000. Spot sales of foreign exchange and reverse repo auctions, averaging about Rs.1,327 crore, at increasing interest rates (9.05 per cent on June 9 to 10.85 per cent on June 14) under the newly introduced Liquidity Adjustment Facility (LAF) helped to ease liquidity conditions. The call rate tended to move in tandem with the reverse repo rates (Table 14).

Table 14: Inter-bank Call Money Borrowing Rates: 2000-01

	Average (%)	Standard Deviation (%)	Coefficient of Variation
1	2	3	4
April	6.79	1.21	0.18
May	7.48	0.67	0.09
June	11.08	3.67	0.33
July	7.77	0.86	0.11
August	13.06	2.12	0.16
September	10.31	1.28	0.12
October	9.07	0.77	0.08
November	9.28	1.27	0.14
December	8.76	0.84	0.10
January	9.89	0.20	0.02
February	8.51	0.59	0.07
March	7.52	0.55	0.07

The inflow of funds in the form of coupon payments and redemption of zero coupon bonds enabled easy market conditions in July 2000 except for some edging up of the rates associated with measures to counter foreign exchange market pressures. After August 3, however, with pressures resuming in the foreign exchange market, liquidity was absorbed through repo (including multi-period repo) auctions. The call rates spurted for the second time during 2000-01, remaining in two digits during August 4-31, 2000 with the monthly average call money borrowing rate at 13.06 per cent.

The call money rates softened during September-October 2000 following the restoration of stability in the foreign exchange market, a reduction in repo cut-off rates and the expectations of inflow of funds through India Millennium Deposits (IMDs). Despite some hardening of call rates around mid-September, the inflows from coupon payments and redemption of government securities effectively balanced the advance tax outflows and subscriptions to government securities. The rates remained range bound at 9.5-10.0 per cent in the latter half of September, declining to 8.21 per cent by end-October as cut-off repo rates were brought down to 8 per cent and the IMD inflows trickled into the system.

While the call rates steadily inched up during the first ten days of November following auction outflows and strong appetite for open market sales, reverse repo operations met the demand for liquidity. With IMD funds and coupon inflows, call rates hovered around the Bank Rate of 8.0 per cent for the most part of November and December. Call rates firmed up towards end-December 2000 in the wake of advance tax payments, the rally in gilts and government securities auctions. They softened in February 2001 with a cut in the Bank Rate by 50 basis points effective February 17, 2001 followed by the injection of liquidity on account of the CRR cuts of 0.25 percentage points each effective February 24 and March 10. Call rates softened further with another cut on the Bank Rate by 50 basis points effective March 2, 2001. Monthly average call rates declined from 8.5 per cent in February 2001 to 7.5 per cent in March 2001.

Treasury Bills

Easy liquidity conditions during April 2000 facilitated a small rally in Treasury Bills, which provided a conducive environment for successful auctions at lower implicit cut-off yields as compared with March 2000. While average cutoff yields of Treasury Bills increased (except for 364-day paper) in May and June (Table 15) due to tightened conditions in the money market, the Reserve Bank took substantial devolvement in June and prevented further rise in primary yields. Easy liquidity conditions in July till the announcement of monetary tightening measures on July 21, 2000 facilitated successful auctioning of Treasury Bills of all durations by the Reserve Bank with no devolvement on the Reserve Bank (except for 364-day Treasury Bills in the July 12 auction). Treasury Bill rates (except for 364-day Treasury Bills) eased further in July. In the later half of July, the Reserve Bank revised the implicit cut-off yields upwards in consonance with the monetary measures on July 21 and there was no devolvement of Treasury Bills on the Reserve Bank during the month. During August 2000, although the Reserve Bank allowed higher cut-off yields in the primary Treasury Bill market, there was devolvement in every Treasury

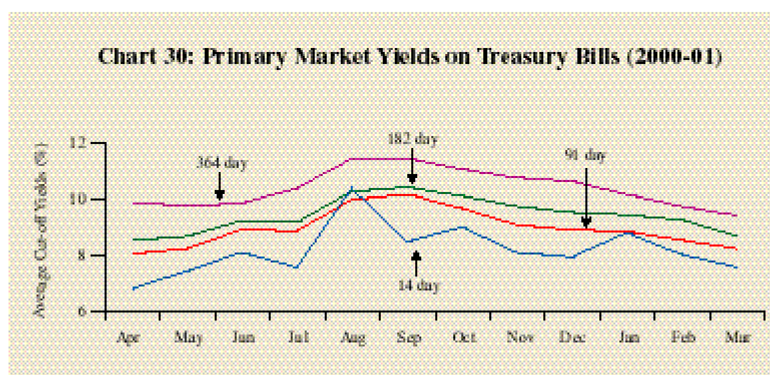
Bill auction on the Reserve Bank during the month on account of inversion of the short-term curve.

Table 15: Average Treasury Bill Cut-off Yields During 2000-01

(Per cent)

	14-day Treasury Bills	91-day Treasury Bills	182-day Treasury Bills	364-day Treasury Bills
1	2	3	4	5
2000-01				
April	6.78	8.05	8.53	9.27
May	7.43	8.23	8.67	9.15
June	8.09	8.91	9.23	9.24
July	7.56	8.86	9.17	9.77
August	10.39	9.97	10.27	10.82
September	8.48	10.17	10.42	10.85
October	9.00	9.67	10.11	10.45
November	8.09	9.08	9.74	10.15
December	7.93	8.90	9.53	10.02
January	8.80	8.85	9.44	9.55
February	8.02	8.53	9.26	9.13
March	7.56	8.23	8.69	8.81

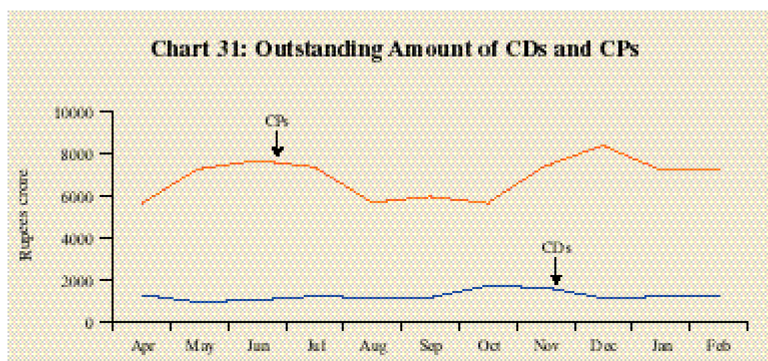
The improved market sentiment and the accompanying decline in repo and call rates during September 2000 was reflected in the bidding amounts exceeding the notified amounts in the Treasury Bill auctions with little or no devolvement on the Reserve Bank and only a slight increase in cut-off yields. With market clearing yields being offered in the auctions in October and November 2000 the cut-off yields reflected the movement in call rates, liquidity conditions and improved price expectations associated with IMD flows. With a view to offering the market increased amount of short-term paper, the notified amount of 364-day Treasury Bills was increased from Rs.500 crore for each auction to Rs.750 crore for the rest of 2000-01 from December onwards. The comfortable medium term outlook was reflected in the declining yields in respect of all Treasury Bills during December 2000 and January 2001 This resulted in flattening the yield curve at the shorter end. Yields of all Treasury Bills declined in February-March 2001 in response to monetary easing (Chart 30).



Other Money Market Instruments

The commercial paper (CP) market slowly started picking up amidst easy liquidity conditions and the outstanding amount of CPs progressively increased from Rs.5,634 crore on April 15 to Rs.7,627 crore on June 30, 2000 with rates of discount easing from a range of 9.58-12.25 per cent to 9.25-11.75 per cent (Chart 31). However, the CP market remained subdued during July-October 2000. The outstanding amount declined to Rs.5,574 crore on October 15, 2000 and the rates of discount hardened due to firming up of interest rates consequent upon monetary tightening measures announced on July 21. Thereafter, as the interest rate situation turned easy with a decline in the cut-off repo rates and softening of call rates, the rates of discount declined and the outstanding amount increased to Rs.8,343 crore on December 31, 2000 but decreased to Rs.7,246 crore on February 28,

2001. Amidst generally comfortable liquidity conditions during 2000-01 (up to February 2001), the outstanding amount of CDs remained low.

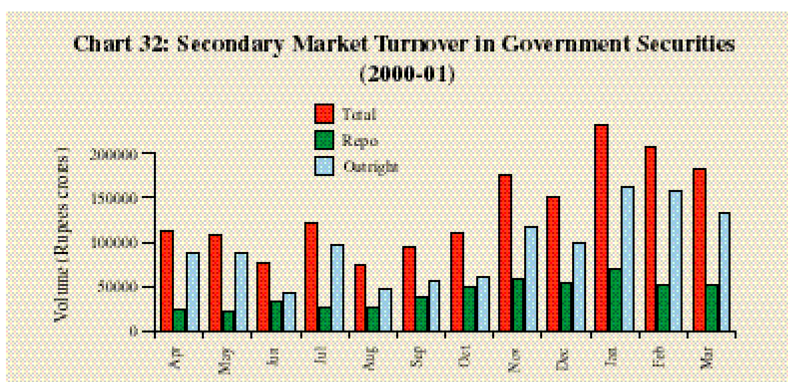


Government Securities Market

During 2000-01, the developments in Government securities market were largely influenced by the size of the Government borrowing programme, foreign exchange market conditions and market expectations of declining yields in the wake of reduction in administered interest rates on small savings and provident funds, and the Bank Rate cut in February 2001. The yield curve shifted upwards and became steeper in the first half of the year, reflecting a greater preference for shorter maturity paper. The yield curve flattened from November 2000 with the inflow of IMD proceeds and the restoration of stability in the foreign exchange market.

The easy liquidity conditions of April 2000 allowed for an overwhelming response to the commencement of the market borrowing programme of the Central Government. The first auction of Rs. 5,000 crore was absorbed at the cut-off yield-to-maturity at 10.26 per cent. The market sentiment turned unfavourable in May with pressures building up in the foreign exchange market. The yields firmed up with expectations of monetary tightening in response to the exchange market developments. Unfavourable market conditions continued in July and August and the Reserve Bank undertook substantial devolvements and private placements during this period in order to assuage market pressures and smoothen the yield curve. Sentiment improved with the IMD inflows and the market absorption became substantial at Rs. 34,625 crore out of a mobilisation of Rs.36,000 crore between September 2000 and March 2001. Interest in longer term paper revived with rate cut expectations and new issuances of muturities beyond 10 years.

Secondary market activity during 2000-01 tracked the sentiment in the liquidity conditions in the primary segment both in terms of yield movements and turnover (Chart 32). In tandem with the easing of call rates during April-mid-May 2000, the government securities market witnessed a small rally and the yield curve shifted downwards, tilting more at the short-end, as the issuance of long tenor securities by the Reserve Bank somewhat contained the price increase at the long end. As the liquidity conditions tightened and foreign exchange market uncertainties surfaced, the yield curve shifted up with shorter maturity paper displaying a relatively higher than proportionate increase. There was some easing of yields during the first half of July 2000 on account of inflows of coupon payments and redemptions of government securities as well as private placement of Government securities with the Reserve Bank.



The gains in Government security prices, however, petered off during the second half of July and August. Yields again crept upwards in face of uncertainties in the foreign exchange market, the impact of monetary measures to counter these movements and the absorbing of liquidity through repos in the second half of July and August. The illiquidity of longer maturity paper prompted the Reserve Bank to offer to PDs, on a temporary basis, switches from three medium to long dated Government securities to 364-day treasury-bills. The higher returns in the repo, call money and the foreign exchange markets encouraged participants to divert their funds away from dated Government securities.

As the foreign currency market stabilised, the cut-off repo rates were progressively brought down during September-October 2000 and interest in the government securities market improved. Yields at the short and medium ends declined. As the proceeds of IMDs entered the system, the exchange market stabilised and activity picked up for the first time in 2000-01 at the longer end of the maturity spectrum. The yields of the longer dated maturities came down in the face of a bullish rally in Government securities. The aggressive auctioning of government securities could arrest this rally temporarily. In December, the rally resumed at the long end with improved sentiment on account of a stable rupee, declining oil prices and expectations of cut in international interest rates. The two-stage cut in the U.S. interest rates by 100 basis points provided the backdrop for a sharp rally in the secondary market for gilts in January 2001. It also fuelled market expectations of an interest rate cut in India to restore the pre-July 2000 position. Reduction in the Bank Rate and CRR by 50 basis points each partly met the market expectations. The Government's resolve to contain the fiscal deficit as also to address structural issues related to administered interest rates on small savings enabled the Reserve Bank to further reduce the Bank Rate by 50 basis points on March 3, 2001. Yields did not fall any further after the second Bank Rate cut, indicating that this reduction had already been discounted. In March 2001, the market remained somewhat volatile for a very brief period on year-end considerations viz. profit booking and reluctance to take fresh positions as also the developments in the capital market.

Foreign Exchange Market

Developments in the foreign exchange market during 2000-01 alternated between conditions of excess supply during April 2000, excess demand conditions on account of higher oil imports and reduced capital flows during mid-May to early November and the return to normalcy thereafter in response to improved supply of foreign exchange led by funds mobilised under India Millennium Deposits (IMDs) and the associated turnaround in market sentiment.

Activity in the inter-bank segment of the market reflected these alternating phases, with heightened inter-bank turnover during periods of market volatility (Chart 33).

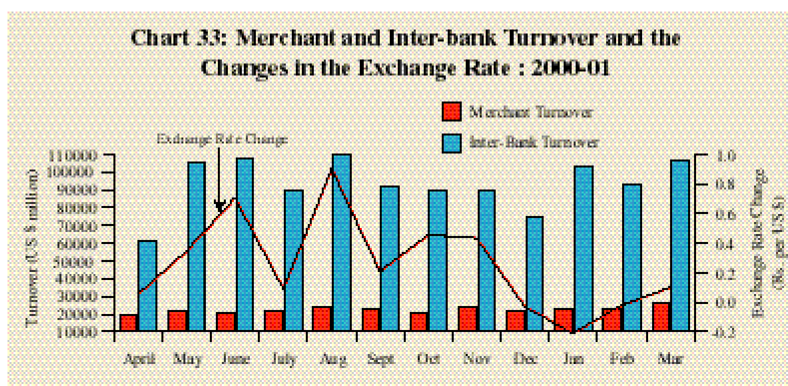


Chart 33: Merchant and Inter-bank Turnover and the Changes in the Exchange Rate : 2000-01

As both market sentiment and liquidity improved the forward premia eased across all maturities during October-December 2000 after rising during May-September 2000. From January 2001 onwards forward premia firmed up reflecting interest rate cuts in the US. The forward premia generally tracked the behaviour of the call money rates (Chart 34).

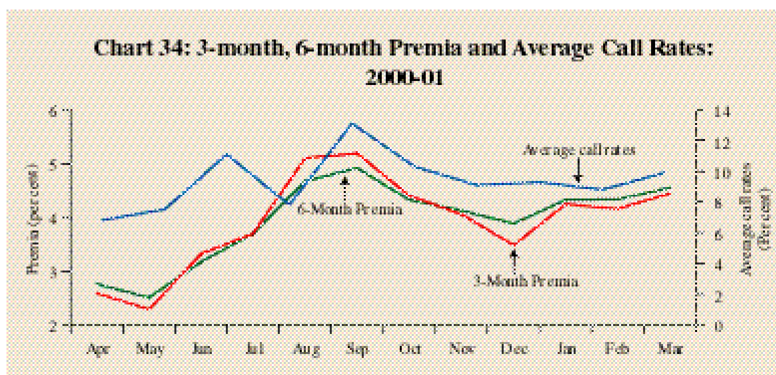


Chart 34: 3-month, 6-month Premia and Average Call Rates: 2000-01

The strengthening of the US dollar vis-a-vis the major international currencies was mirrored in the movements of the rupee vis-a-vis these international currencies. In July 2000, although the rupee depreciated by 0.2 per cent against the US dollar, it appreciated against the Euro (by 0.6 per cent), and the Japanese Yen (by 1.3 per cent). From November 2000 onwards, the rupee depreciated against the Euro and the Pound sterling. Over the year as a whole, while the rupee depreciated by 6.5 per cent and 0.9 per cent vis-a-vis the US dollar and the Euro, it appreciated by 6.2 per cent and 2.3 per cent against the Japanese Yen and the British Pound (Chart 35).

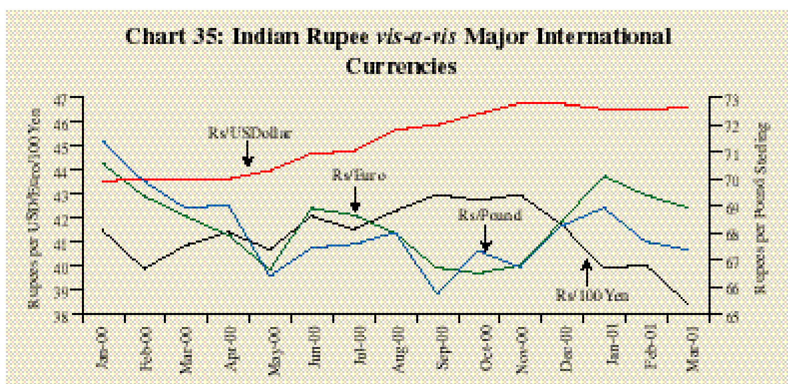


Chart 35: Indian Rupee *vis-a-vis* Major International Currencies

The primary objective of the Reserve Bank in regard to the management of the exchange rate continues to be the maintenance of orderly conditions in the foreign exchange market, meeting temporary supply-demand gaps which may arise due to uncertainties or other reasons, and curbing destabilising and self-fulfilling speculative activities. To this end, as in the past, the Reserve Bank continued to monitor closely the developments in the financial markets at home and abroad, and carefully coordinated its market operations with appropriate monetary, administrative and other measures as was considered necessary from time to time.

Capital Market

Equity Market

The stock market remained generally subdued during 2000-01. The decline in the BSE Sensitive Index (Sensex) reflected large sell-offs in global equity markets particularly in 'new economy' stocks on the NASDAQ, slowdown in Foreign Institutional Investors (FIIs) inflows, deceleration in industrial growth and the increase in international oil prices (Chart 36).

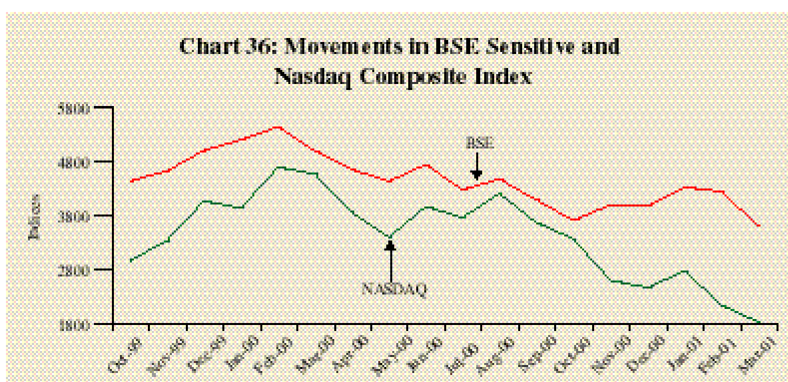


Chart 36: Movements in BSE Sensitive and Nasdaq Composite Index

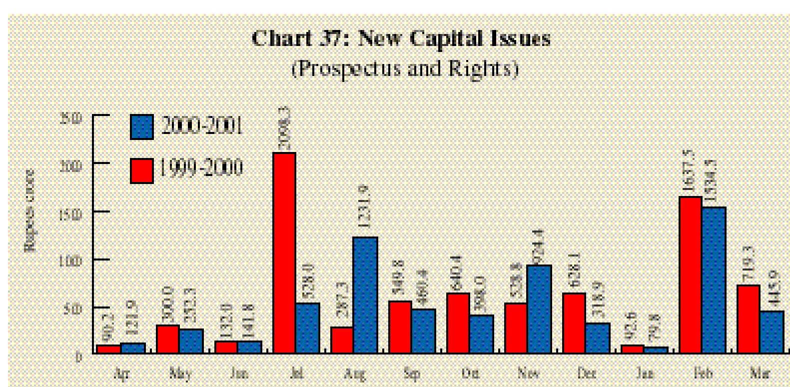
Towards the end of February 2001, the stock market turned buoyant in response to the Union Budget for 2001-02, with the BSE Sensex gaining 4.4 per cent on February 28, 2001 the day of the presentation of the Budget. Market optimism was, however, interrupted during the first week of March 2001 due to the sharp decline in the NASDAQ and certain adverse developments including apprehensions of payment difficulties. The Securities and Exchange Board of India (SEBI) undertook several measures to restore orderly conditions in the stock exchanges including banning of short sales, imposition of additional deposit margins on net outstanding sales of all shares, restraining broker-directors from acting as directors on the Governing Board of the BSE. Settlements in various stock exchanges were completed smoothly with shortfalls of some brokers being met by drawing down the trade/settlement guarantee funds set up by the exchanges. The market responded positively to the measures initiated by the SEBI and stability was restored by the end of the month.

The Reserve Bank has also been monitoring conditions in other segments of the financial markets, which have remained unaffected by the disturbance in the capital market. In the foreign exchange market, there have been net inflows, particularly on account of investment in the stock market by the FIIs. Thus, despite temporary seizures in the capital market, international investor sentiment continued to be positive.

The BSE Sensex (Base: 1978-79 = 100), which stood at 5001.28 at end-March 2000 declined to touch a low of 3540.65 on March 13, 2001. The index recovered to close at 3604.38 as at end-March 2001. Nevertheless, it declined by 1396.90 points (27.93 per cent) over the end-March 2000 level. In terms of monthly averages, the Sensex, which stood at 5,261.77 in March 2000, declined to touch 3807.64 by March 2001, registering a decline of 1454.13 points (27.64 per cent).

The market capitalisation at BSE declined by 21.54 per cent from Rs.9,12,842 crore as at end-March 2000 to Rs.7,16,173 crore as at end-February 2001. The Price/Earnings (P/E) ratio of BSE Sensex based scrips increased marginally from 21.60 as at end-March 2000 to 21.98 as at end-February 2001. The average daily turnover at BSE increased sharply from Rs.4050.64 crore in March 2000 to Rs.5071.36 crore in February 2001. The volatility in share prices as measured by coefficient of variation in respect of BSE Sensex increased to 4.77 per cent during March 2001 from 3.6 per cent during March 2000. Deliveries as a percentage of turnover which was 25.33 per cent during March 2000 declined sharply to 15.90 per cent during February 2001.

The new issue market (public issues) witnessed subdued activity during 2000-01 mainly due to decline in the resource mobilisation by the public sector. Overall resource mobilisation from the primary market declined by 16.4 per cent to Rs.6,439 crore from Rs.7,704 crore during 1999-2000 even as the number of issues floated in the public issues market increased markedly to 146 issues from 83 issues during the previous year (Chart 37). While resource mobilisation by the private sector decreased by 3.6 per cent to Rs.4,966 crore as compared with Rs.5,153 crore during 1999-2000, that by the public sector declined by 42.3 per cent to Rs.1,472 crore. The average size of the issue in the private sector came down to Rs.35 crore from Rs.65 crore primarily due to the marked increase in the small sized issues floated mainly by the information technology sector (80 issues for an aggregate amount of Rs.664 crore).



The private placement market (almost entirely dominated by debt issues) continued to be the primary route of resource mobilisation. Resources mobilised during April-December 2000 at Rs.46,241 crore witnessed an increase of 7.5 per cent as compared with 22.8 during April-December 1999.

The Euro issues market (in the form of ADRs, GDRs and FCCBs) witnessed increased activity during April 2000-February 2001. Eleven issues were floated during this period for an aggregate amount of Rs.3,581.67 crore (US $

799.57 million) as compared with only five issues aggregating Rs.2,835.11 crore (US $ 650.60 million) during April 1999-February 2000.

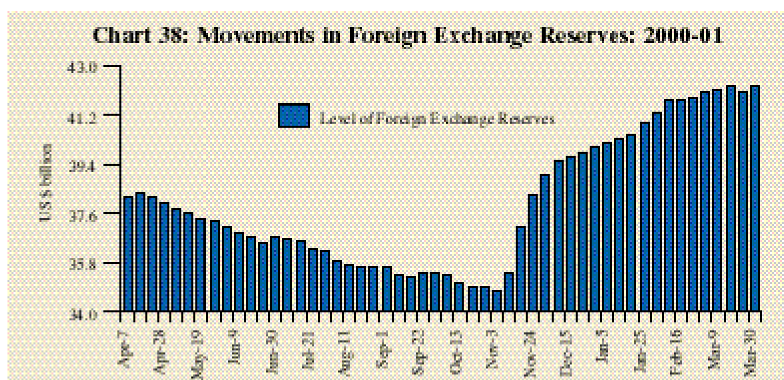
According to the SEBI, net resource mobilisation by all mutual funds during April-February 2000-01 at Rs.10,942 crore declined sharply by 39.1 per cent as compared with Rs.17,966 crore mobilised during the corresponding period of the previous year. The net resource mobilisation by all mutual funds during 1999-2000 at Rs.18,969 crore was the highest ever mobilised in any single financial year mainly due to the tax incentives announced in the Union Budget for 1999-2000.

During April-February 2000-01, financial assistance sanctioned and disbursed by All India Financial Institutions (AIFIs) at Rs.97,658 crore and Rs.57,822 crore witnessed an increase of 12.8 per cent and 13.2 per cent, respectively, over the corresponding period of the previous year. During April-February 1999-2000, sanctions and disbursements grew at marginally higher rates of 15.1 per cent and 16.2 per cent, respectively.

VI. The External Economy

Recent international economic developments have brought about a revision in the global economic outlook. Weakening of domestic demand and output in the US and emerging Asia and the absence of any perceptible improvement in economic activity in the Euro area and Japan have raised fears of a global slowdown. A positive development, however, was the moderation in oil prices from the peak in September 2000, although it is unclear at this stage whether the downturn in oil prices would continue. Therefore, projections of world output growth at 4.8 per cent in 2000 and 3.4 per cent in 2001 have to be tempered with downside risks mainly in the form of macroeconomic and financial imbalances among the major reserve currency areas, inflationary consequences of the hike in oil prices, volatility in equity markets and developments relating to the US economy. World trade is projected to increase by 12.3 per cent in 2000 and 7.4 per cent in 2001 (as against 5.3 per cent in the previous year) while net capital flows to emerging market economies are projected to decline sharply reflecting sizeable debt repayments and a large reduction in banks' external exposure, particularly to Asia.

External sector developments in the Indian economy during 2000-01 were significantly influenced by high international crude prices and the global economic environment. Uncertainty surrounding the equity markets in India affected portfolio inflows. Therefore, despite a robust growth of merchandise exports, software and private remittances, the balance of payments (BoP) came under pressure during the first half of 2000-01. Funds mobilised by the State Bank of India (SBI) under India Millennium Deposits (IMDs) brought about a turnaround, rejuvenating capital inflows in general. Reserve losses during the first seven months of 2000-01 (US $ 3.1 billion) were more than offset by the accretion during November 2000-March 2001 resulting in an overall increase of US $ 4.2 billion in the level of international reserves during 2000-01 (Chart 38).

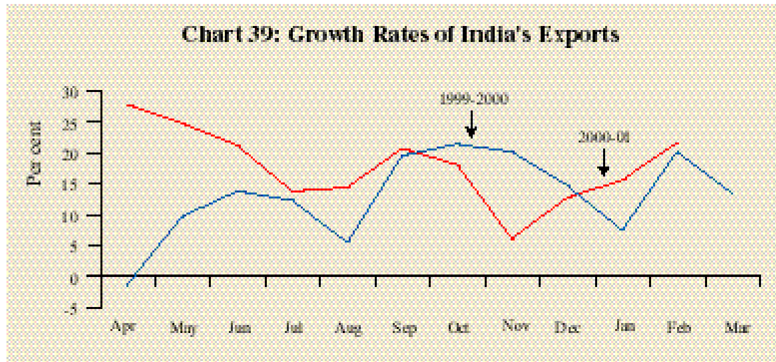


Merchandise Trade

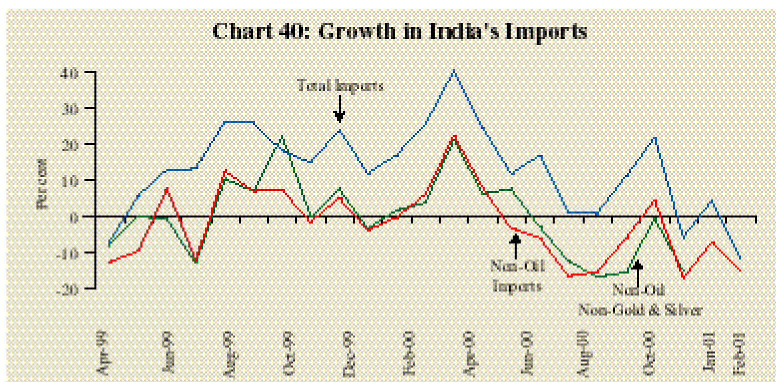
According to the provisional data released by the Directorate General of Commercial Intelligence and Statistics (DGCI&S), the trade deficit during April 2000-February 2001 narrowed to US $ 5.8 billion from US $ 8.7 billion during the corresponding period of the previous year, driven by strong export growth which offset the higher oil import bill.

The export recovery that started during 1999-2000 gained further momentum during the year as exports recorded

an increase of 18.7 per cent during the first eleven months of 2000-01 on top of an increase of 11.1 per cent during the corresponding period of the previous year. The expansion in exports gathered pace in July-September, 2000; although this was interrupted by some moderation in November, 2000 the upturn in export growth resumed in December, 2000 (Chart 39). The increase in India's exports during 2000-01 was mostly on account of manufactured products, mainly engineering goods, leather and manufactures, chemicals and allied products and petroleum products. Exports to the USA, Japan and the UAE rose significantly during 2000-01.



India's imports also increased significantly during 2000-01 (April-February) mainly due to oil imports which surged by 65.9 per cent (Chart 40). International crude oil prices increased by 38 per cent and 63 per cent during 1999 and 2000, respectively. Non-oil imports, on the other hand, declined by 7.4 per cent. The fall in non-oil imports was mainly on account of the decline in the imports of gold and silver, bulk consumption goods and fertilisers. Excluding these three categories, non-oil imports during 2000-01 (April-December) declined by 0.1 per cent over the corresponding period of the previous year.



Current Account

The merchandise trade deficit, on BoP basis, was higher at US $ 13.2 billion during the first three quarters of 2000-01 than that of US $ 11.4 billion during the corresponding period of the 1999-2000. Invisible earnings continued to be an important source of support to the BoP. The surplus on the invisibles account rose from US $ 8.3 billion during the first nine months of fiscal 1999-2000 to US $ 9.2 billion during the first three quarters of 2000-01. Major sources of invisible inflows were software exports (an increase of US $ 1.7 billion to US $ 4.6 billion) and private transfers (an increase of US $ 0.9 billion to US $ 9.8 billion). These were partly offset by higher outgoes on account of travel and transportation (an increase of US $ 0.9 billion to US $ 4.4 billion) and investment income payments (an increase of US $ 0.5 billion to US $ 4.5 billion). In the face of a sizeable widening of the trade deficit, the increase in the invisible surplus helped to contain the current account deficit at US $ 4 billion during April-December 2000 as against US $ 3.1 billion during April-December 1999. It is expected that sustained growth in exports and invisible receipts would keep the current account deficit for 2000-01 at close to 1 per cent of GDP.

Capital Account

In the capital account, the shortfall in normal capital flows was supplemented by inflows of US $ 5.5 billion under India Millennium Deposits (IMDs) launched by the State Bank of India (SBI) during October-November 2000.

Foreign investment inflows stood at US $ 3.3 billion during April 2000 -February 2001 as against US $ 4.4 billion during April 1999 - February 2000 on account of uneven movements in FII flows. Foreign direct investment (FDI) inflows were higher at US $ 2.4 billion than those of US $ 1.9 billion during the same period of the previous year. Amounts raised under ADRs/GDRs of US $ 0.7 billion were broadly the same as during April 1999-February 2000. There was an inflow of US $ 0.1 billion on account of FIIs during April-February 2001 as against an inflow of US $ 1.8 billion during the corresponding period of 1999-2000. Net inflows under non-resident Indian (NRI) deposits of US $ 1.5 billion were also lower than those of US $ 2.0 billion during April 1999-February 2000, reflecting some switching effects related to IMDs. To the extent that these switches were out of FCNR(B) deposits held abroad, there were inflows into the country.

There was a net outflow of US $ 1.1 billion under medium and long-term loans (external assistance and commercial borrowings (excluding IMDs)) during April-December 2000 as against an inflow of US $ 0.4 billion during the corresponding period of 1999. Net flows by way of short-term credits, on the other hand, increased from US $ 0.2 billion during April-December 1999 to US $ 0.5 billion during April-December 2000 reflecting the need to finance higher oil imports.

Reserves

The foreign exchange reserves comprising foreign currency assets, gold and special drawing rights (SDRs) declined by US $ 3.1 billion from US $ 38.0 billion at end-March 2000 to US $ 34.9 billion by end-October 2000. From November, 2000 onwards, the drawdown was fully recouped as the level of reserves rose by US $ 7.3 billion to US $ 42.3 billion as at end-March 2001. The increase in reserves was led by the proceeds under IMDs, merchandise exports, software exports, private transfers and FDI inflows.