

## **XII - Currency Management**

### Developments During 2000-01 Institutional Measures

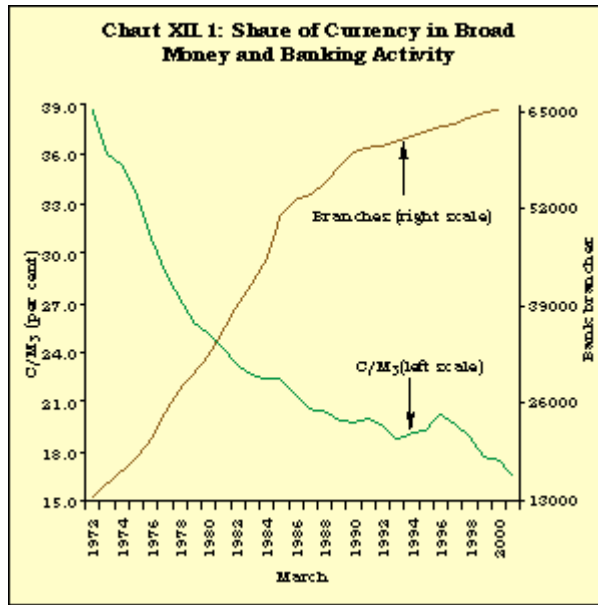
#### **Introduction**

12.1 The Reserve Bank is entrusted with the function of note issue and currency management by the preamble to the Reserve Bank of India Act, 1934 and by the specific provisions of Section 3 of the Act. It acts as the sole currency authority under Section 22 for the issue of bank notes. Section 38 requires the Government to put one rupee coins and one rupee notes into circulation only through the Reserve Bank. The function of note issue and currency management is discharged through 18 regional Issue offices/sub-offices and a wide network of currency chests maintained by banks and Government treasuries spread across the country. Consequent upon the formation of the new States of Chattisgarh, Jharkhand and Uttaranchal, the jurisdiction of currency operations in the newly created States has been retained as hitherto with the Issue offices of Nagpur and Bhopal, Patna and Kanpur, respectively, and necessary arrangements have been made for currency distribution and accounting.

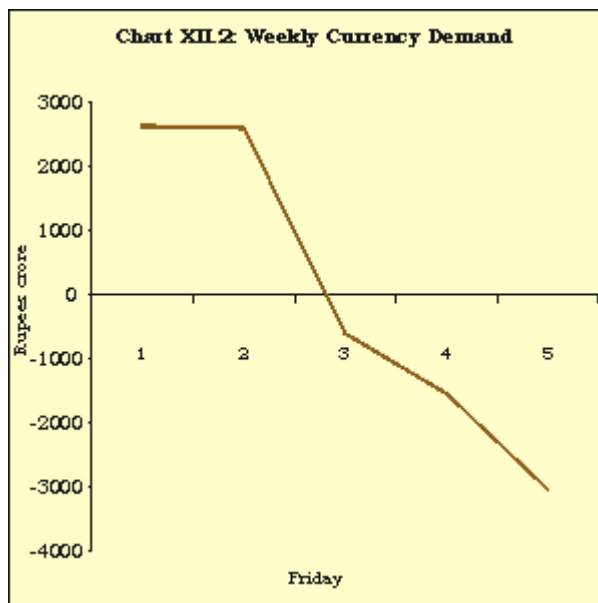
12.2 There has been a phenomenal growth both in the value and volume of currency in circulation over the years. The value of currency, including coins, rose from Rs.172 crore in March 1935 to Rs.2,18,205 crore as at end-March 2001. During the same period, the number of notes in circulation (Re.1 and above) increased from 124 million pieces to over 38,000 million pieces. Currency management has involved efforts to achieve self-sufficiency in the production of currency notes and coins with a judicious denomination-mix, improvement in the efficiency of distribution networks and withdrawal and destruction of notes, technology upgradation and enhancement in the security features of currency notes.

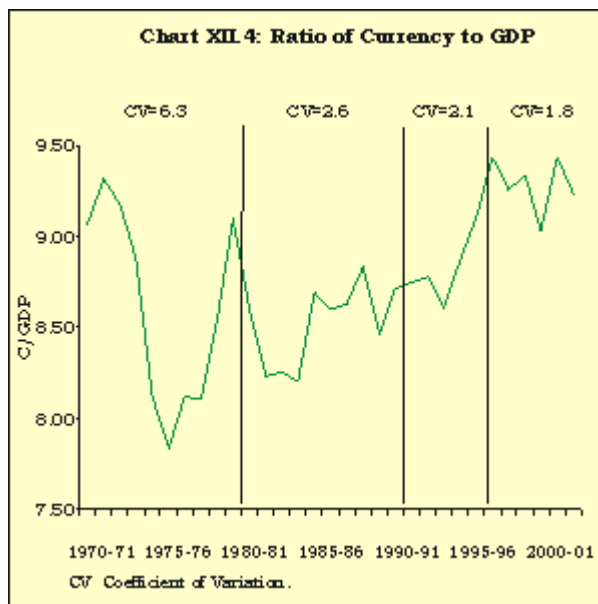
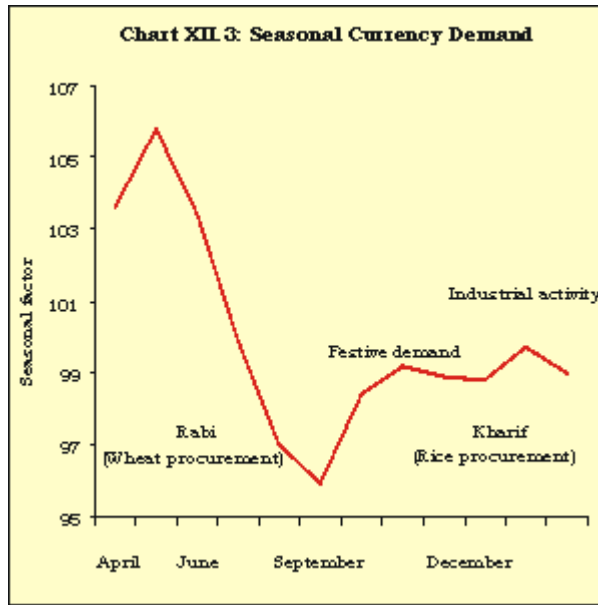
12.3 Developments during the year in the conduct of currency management focus on the importance of currency in overall economic activity, patterns of the behaviour of cash demand, the composition of currency in circulation in terms of denomination, activities of currency chests and developments in note issue. Security features in bank notes are discussed in the context of the monitoring of counterfeit notes. The sub-section on institutional measures with medium-term implications covers the policy for clean notes circulation, mechanisation and technology upgradation and the currency museum.

#### **DEVELOPMENTS DURING 2000-01**



12.4 Cash remains an important mode of payment in the Indian economy, notwithstanding the persistent decline in the share of currency in broad money during 1970-2000 following the spread of the bank branch network after bank nationalisation ([Chart XII.1](#)). Currency is an important indicator of economic activity, especially in rural India and its behavioural pattern throws up many interesting insights. Cash demand tends to increase in the beginning of the month when salaries are spent and tapers off at the end of the month when consumer spending returns to business accounts ([Chart XII.2](#)). Similarly, currency seasonality, by and large, mirrors the seasonality in economic activity ([Chart XII.3](#)). The variance of the ratio of currency to GDP at current market prices, an indicator of the role of currency in economic activity, has stabilised since the mid-1980s ([Chart XII.4](#)).





12.5 Average cash demand, represented by currency in circulation (*i.e.*, the issue of notes from the Reserve Bank *plus* the currency liabilities of the Government) decelerated to 9.1 per cent during 2000-01 - a single digit growth rate for the first time since 1975-76 - from 16.3 per cent during the previous year, partly reflecting the slowdown in economic activity. Currency in circulation increased, on a year-on-year basis, by 11.8 per cent as on August 10, 2001 as compared with 10.5 per cent as on August 11, 2000.

#### *Denomination-wise Currency in Circulation*

12.6 Denomination-wise, Rs.50 and above constituted 93.0 per cent of the total notes in circulation in value terms and 51.7 per cent in terms of volume at the end of March 2001 ([Table](#)

[12.1](#)).

**Table 12.1 : Denomination-wise Notes and Coins Issued (as at end-March 2001)**

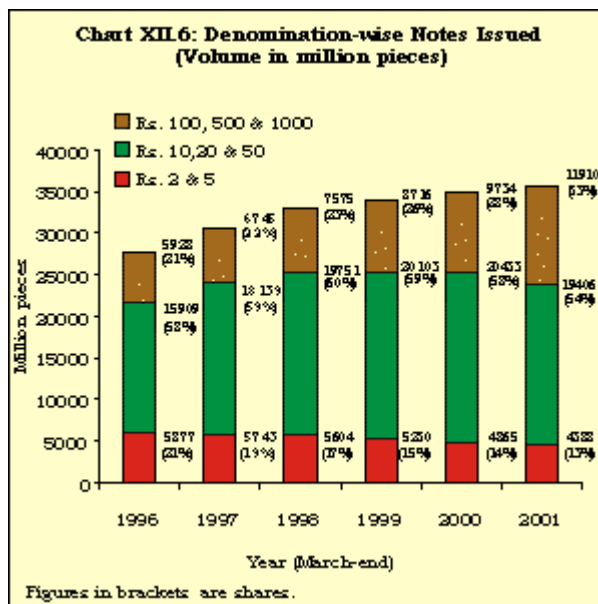
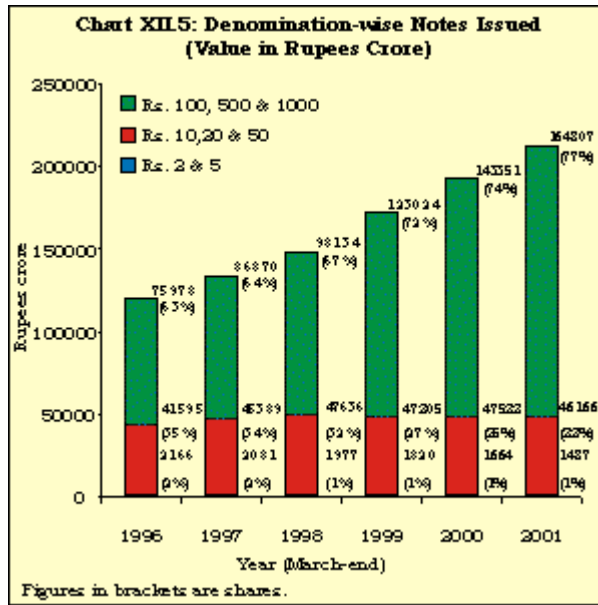
Denomination	Value		Volume	
	Rupees crore	Share (per cent)	Million pieces	Share (per cent)
1	2	3	4	5
<b>Notes</b>				
Rs.2, Rs.5	1,487	0.7	4,388	12.3
Rs.10	12,336	5.8	12,336	34.6
Rs.20	1,012	0.5	506	1.4
Rs.50	32,818	15.4	6,564	18.4
Rs.100	1,08,141	50.9	10,814	30.3
Rs.500	5 2,947	24.9	1,059	2.9
Rs.1000	3,719	1.8	37	0.1
<b>Total#</b>	<b>2,12,460</b>	<b>100.0</b>	<b>35,704</b>	<b>100.0</b>
<b>Coins</b>				
Re.1 notes	307	5.9	3,066	4.2
Re.1 coins	1,389	26.5	13,890	18.8
Rs.2 coins	814	15.5	4,070	5.5
Rs.5 coins	1,544	29.4	3,088	4.2
Small coins@	1,188	22.7	49,667	67.3
<b>Total*</b>	<b>5,242</b>	<b>100.0</b>	<b>73,781</b>	<b>100.0</b>

\*. Excluding Rs. 10 commemorative coins valued at Rs. 4 crore

@ Excluding 1p, 2p, 3p and *anna*-pie coins valued at Rs.112 crore.

# Adjusted for notes in transit within the Reserve Bank.

The growth in the share of various denomination groups of notes during 1996 to 2001 in terms of value and volume shows a gradual shift towards higher denomination notes ([Charts XII.5](#) and [6](#)).



### Currency Chests

12.7 The number of currency chests operated by commercial banks and Government treasuries increased to 4,386 in March 2001 from 4,242 in March 2000 (Table 12.2). With a view to expanding the network for currency management, 144 additional currency chests were established/upgraded from repositories during the year. In order to exercise a greater control on currency chest operations, it is proposed to reduce the number of repositories either by converting them into currency chests or closing them down.

**Table 12.2 : Number of Currency Chests**

Name of agency	No. of Currency Chests as on March 31	
	2001	2000
1	2	3
Treasuries	453	425
SBI and its Associates	3,050	2,945
Nationalised Banks	842	832
Private Sector Banks	22*	21*
Co-operative Banks	0	0
Reserve Bank	19	19
<b>Total</b>	<b>4,386</b>	<b>4,242</b>

\* Including 5 chests of the Jammu & Kashmir Bank Limited.

### Note issue

12.8 During 2000-01, the Reserve Bank issued new notes in the Mahatma Gandhi series with a portrait of Mahatma Gandhi in the watermark. With a view to meeting the need for settlement of high value transactions, the Reserve Bank reintroduced bank notes of the Rs.1,000 denomination in unregistered form in October 2000 following an amendment to the High Denomination Bank Notes Demonetisation Act, 1978. It may be mentioned that the Rs.1,000 denomination notes along with Rs.5,000 and Rs.10,000 notes in registered form had been demonetised in 1978 under the aforesaid Act. Further, new Rs.500 notes with a revised colour scheme were introduced in November 2000 to facilitate easy distinction from Rs.100 notes. In addition to the usual security features, both these notes incorporate additional overt security features such as optically variable ink (colour shifting ink) and readable security threads ([Box XII.1](#)). The Reserve Bank has also reintroduced the issue of Rs.5 notes in the existing design with the Ashoka Pillar watermark to supplement the supply of coins.

### Box XII.1 Overt Security Features in Indian Bank Notes

Bank notes issued by different countries throughout the world contain distinct, easily recognisable security features to facilitate the detection of genuine notes *vis-a-vis* forgeries. Indian bank notes issued by the Reserve Bank have certain common overt security features, *viz.*, watermark, security thread, *intaglio* printing, *etc.* The Reserve Bank, like other central banks the world over, changes the design of bank notes from time to time, *inter alia*, as an anti-counterfeit measure.

The Reserve Bank has introduced bank notes in the Mahatma Gandhi series since 1996 and has so far issued Rs.1,000, Rs.500, Rs.100, Rs.50 and Rs.10 notes in this series. These have been designed with a number of salient security features:

- *Watermark*: These notes contain the Mahatma Gandhi watermark with a light and shade effect and multi-directional lines in the watermark window.
- *Security Thread*: The Rs.1,000 notes introduced in October 2000 contain a readable, windowed security thread alternately visible on the obverse with the inscriptions, '1000' and 'RBI', but totally embedded on the reverse. The Rs.500 and Rs. 100 notes have a security thread with similar visible features and the inscriptions and 'RBI'.

When held against the light, the security threads on the Rs.1000, Rs.500 and Rs. 100 notes can be seen as one continuous line. The Rs.10 and Rs.50 notes contain a readable, fully embedded windowed security thread. Notes issued prior to the introduction of the Mahatma Gandhi series have a plain, non-readable fully embedded security thread.

- *Latent Image*: On the obverse side of the Rs.1000, Rs.500, Rs.100 and Rs.50 notes, a vertical band on the right side of the Mahatma Gandhi's portrait contains a latent image showing the respective denominational value in numeral. The latent image is visible only when the note is held horizontally at the eye level.
- *Microletterings*: This feature appears between the vertical band and the Mahatma Gandhi portrait. It contains the word 'RBI' in Rs.10. The notes of denominations Rs.50 and above also contain the denominational value of the notes in micro-letters. This feature can be seen better under a magnifying glass.
- *Intaglio Printing* : The portrait of Mahatma Gandhi, the Reserve Bank seal, guarantee and promise clause, the Ashoka Pillar emblem on the left, and the Governor's signature are printed in *intaglio*, i.e., in raised prints, which can be felt by touch, in the Rs.50, Rs.100, Rs.500 and Rs.1000 notes.
- *Identification Mark*: A special feature in *intaglio* print has been introduced on the left of the watermark window on all notes except the Rs.10 note. This feature is in different shapes for various denominations (Rs.50-Square, Rs.100-Triangle, Rs.500-Circle, Rs.1000-Diamond) and helps the visually impaired to identify the denomination.
- *Fluorescence* : Number panels of the notes are printed in fluorescent ink. The notes also have optical fibres. Both can be seen when the notes are exposed to an ultra-violet lamp.
- *Optically Variable Ink*: This is a new security feature incorporated in the Rs.1000 and Rs.500 notes with the revised colour scheme introduced during this year. The numerals 1000 and 500 on the obverse of Rs.1000 and Rs.500 notes, respectively, are printed in optically variable ink, i.e., a colour-shifting ink. The colour of the numeral 1000/500 appears green when the note is held flat but would change to blue when the note is held at an angle.
- The notes in the denominations of Rs.10, Rs.20, Rs.50 and Rs.100 issued prior to the Mahatma Gandhi series contain the Ashoka Pillar watermark and the Ashoka Pillar effigy. The Rs.500 notes issued in 1987 bear the Ashoka Pillar watermark and the Mahatma Gandhi portrait.

### *Exchange of Mutilated Notes*

12.9 During 2000-01, various offices of the Reserve Bank settled claims with respect to mutilated notes under the Reserve Bank's Note Refund Rules involving 168 lakh pieces as compared with 188 lakh pieces in 1999-2000. The currency chest branches of the State Bank of India and its associates and other public sector banks, which have been delegated full powers for the exchange of mutilated notes under the Note Refund Rules, settled claims for the exchange of 237 lakh pieces during the year as compared with 328 lakh pieces in 1999-2000. The decline in the exchange under the Note Refund Rules is, *inter alia*, due to the Reserve Bank's decision to redefine a note in two pieces as a soiled note, which was hitherto treated as a mutilated note for exchange. A large number of such notes are now being exchanged across the counters of the Issue offices and bank branches.

### *Counterfeit Notes*

12.10 During 2000-01, 1,02,687 pieces of counterfeit notes were detected at the Reserve Bank's regional offices and branches of commercial banks as compared with 37,523 pieces during 1999-2000 ([Table 12.3](#)).

12.11 Although the counterfeit notes detected were minuscule as compared with the notes in circulation, the widespread appearance of comparatively good quality counterfeit notes in higher denominations became an issue of attendant public concern. Various anti-counterfeit measures were taken to counter forged notes. First, the Reserve Bank launched a public awareness campaign through print and the electronic media all over the country regarding the security features in bank notes. Second, additional security features like optically variable ink (colour-shifting ink) in the denominational numeral in notes of denominations of Rs.1,000 and Rs.500 with a revised colour-scheme were introduced. Banks were instructed to freely accept Rs.500 notes. Thirdly, the old design Rs.500 notes in the Ashoka Pillar series in which counterfeiting was noticed are being phased out from circulation. Banks are instructed to equip their branches with ultraviolet detectors and the staff from banks, Government departments, the police and other enforcing agencies are being regularly trained on security features in bank notes to facilitate the detection of forgeries.

**Table 12.3 : Counterfeit Notes Detected**

Denomination	2000-01	1999-2000
1	2	3
Rs.1,000	6	0
Rs.500	56,888	16,781
Rs.100	43,082	19,001
Rs.50	1,832	887
Rs.20	127	125
Rs.10	752	729
<b>Total (pieces)</b>	<b>1,02,687</b>	<b>37,523</b>
Value (Rs.)	3,28,59,860	1,03,44,700

**Note:** Does not include the counterfeit notes seized by the police and other enforcement agencies.

#### *Currency Note Presses*

12.12 Bank notes are printed at four note presses, of which the Currency Note Press, Nashik and Bank Note Press, Dewas are owned by the Central Government and the presses at Mysore and Salboni are owned by the Bharatiya Reserve Bank Note Mudran Limited, a wholly owned subsidiary of the Reserve Bank. The presses at Mysore and Salboni were made fully operational during 1999-2000. Following modernisation of the presses at Nashik and Dewas the combined capacity of the four presses has been augmented considerably so as to meet future requirements, besides current demand, with the flexibility to achieve an appropriate denomination mix. The combined installed capacity of these note presses is about 18,000 million pieces per annum. During 2000-01, an expenditure of Rs.1,121 crore was incurred towards printing of currency notes, as compared with Rs. 1,066 crore in 1999-2000.

#### *Gujarat Earthquake*

12.13 Following the Gujarat earthquake in January 2001, arrangements were made for meeting



the cash requirements arising out of the relief operations. Additional remittances were despatched to the Reserve Bank's Ahmedabad office for the purpose. A few currency chests in the worst affected districts suffered damages. Appropriate salvage operations were launched with the help of the local administration. No loss of treasure was reported.

## INSTITUTIONAL MEASURES

### *Clean Note Policy*

12.14 The Reserve Bank has initiated various measures to usher in clean notes in circulation. The printing capacity at the four notes presses has been augmented with a view to meeting the demand-supply gap in currency. While the Government has been importing Rupee coins to supplement indigenous production, there is a need to augment production in order to achieve the medium-term objective of self-sufficiency in currency production.

12.15 The distribution of notes through the banking system has improved with the increased supply and augmentation of stock of fresh notes. The feasibility of expanding the channels for distribution of coins beyond the banking system is being explored. Automatic coin dispensing machines are being commissioned at select regional offices of the Reserve Bank on pilot basis to cater to low volume requirements.

### *Mechanisation*

12.16 The Reserve Bank has embarked upon mechanisation of currency processing operations in the Issue offices. For handling the increasing quantum of notes received for examination, the Reserve Bank has commissioned Currency Verification and Processing (CVP) systems at the Bhopal and Chandigarh Issue offices as a pilot project. These systems can sort the notes into issuable and non-issuable categories, detect counterfeit notes and destroy the non-issuable notes in an eco-friendly manner through shredding and briquetting systems. Six more offices are proposed to be equipped with such systems for examination and disposal of soiled notes. The Kolkata, Mumbai, Navi Mumbai and New Delhi offices have been equipped with shredding and briquetting systems for destruction of notes and similar systems are being commissioned in other offices. Note processing will be mechanised in the remaining offices in a phased manner with the Issue accounting function computerised in 14 offices.

### *Currency Museum*

12.17 The Reserve Bank has undertaken the task of setting up a Currency Museum in Mumbai with display and archival facilities of contemporary and ancient monetary artefacts and coins for preserving and educating the public about the currency history in India. The design layout for the Museum has been prepared by the National Institute of Design, Ahmedabad. The Reserve Bank has set up a web site for the proposed museum, which covers aspects related to Indian currency, coinage and banking and gives the security features of contemporary banknotes.

### *Outlook*

12.18 The medium-term agenda of the Reserve Bank would be to continue its effort to provide clean notes and even out supply-demand mismatches through self-sufficiency in production capacity and by improving the efficiency and network of distribution channels. The present system of arrangement of distribution of fresh notes and coins and withdrawal of soiled notes would be reviewed for establishing a more effective distribution network for currency management. The strategy would be to reap efficiency gains through the mechanisation of note processing in all the Issue offices in a phased manner to supplement the manual system for a quicker disposal of notes. The shredding and briquetting systems compatible with the CVP systems in the offices would be put in place in a phased manner for the eco-friendly disposal of soiled notes. Increasing emphasis would be placed on computerisation of cash operations in the Reserve Bank offices in a phased manner for effective and efficient handling of increasing volumes of cash demand across geographical areas. Necessary measures would be taken to improve the longevity of notes by obviating multiple stapling of bank note packets which along with other measures would help realise the objective of clean and efficient notes circulation.