

# VIII

## CURRENCY MANAGEMENT

*The thrust of currency management during the year was to make available adequate quantity of clean notes in circulation. The year witnessed a higher than average increase in banknotes in circulation primarily due to precautionary holding of cash by the public induced by the COVID-19 pandemic, and its prolonged continuance. The Reserve Bank continued its efforts towards upgrading the infrastructure for currency management.*

VIII.1 The Reserve Bank's currency management function is guided by the goal of ensuring adequate supply of clean banknotes of various denominations in the economy. During the year, when the precautionary demand for cash surged in the economy with the onset of the COVID-19 pandemic, the Reserve Bank endeavoured to meet the increased demand for banknotes. Concerted efforts were made to ensure that Currency Chests (CCs) remain adequately stocked with all denominations of banknotes in order to maintain timely supply of fresh banknotes across the country.

VIII.2 Against this backdrop, the rest of the chapter is organised into five sections. The next section presents the important developments in currency in circulation during the year. Section 3 covers the implementation status of agenda for 2020-21 and section 4 presents the work profile of Bharatiya Reserve Bank Note Mudran Private Ltd. (BRBNMPL), a wholly owned subsidiary of the Reserve Bank. Section 5 sets out the agenda for 2021-22, while concluding observations are set out in the last section.

### 2. Developments in Currency in Circulation

VIII.3 Currency in Circulation (CiC) includes banknotes and coins. Presently, the Reserve Bank issues notes in denominations of ₹2, ₹5, ₹10,

₹20, ₹50, ₹100, ₹200, ₹500 and ₹2,000. Coins in circulation comprise 50 paise and ₹1, ₹2, ₹5, ₹10 and ₹20 denominations.

#### Banknotes

VIII.4 The value and volume of banknotes in circulation increased by 16.8 per cent and 7.2 per cent, respectively, during 2020-21 as against an increase of 14.7 per cent and 6.6 per cent, respectively, witnessed during 2019-20. In value terms, the share of ₹500 and ₹2,000 banknotes together accounted for 85.7 per cent of the total value of banknotes in circulation as on March 31, 2021, as against 83.4 per cent as on March 31, 2020. In volume terms, ₹500 denomination constituted the highest share at 31.1 per cent followed by ₹10 denomination banknotes which constituted 23.6 per cent of the total banknotes in circulation as on March 31, 2021 (Table VIII.1). Whereas the share of ₹500 denomination banknotes in the total volume of banknotes showed an increasing trend from 19.8 per cent as on March 31, 2019 to 25.4 per cent as on March 31, 2020 and to 31.1 per cent as on March 31, 2021, the share of ₹10 denomination banknotes in the total volume showed a declining trend from 28.7 per cent as on March 31, 2019 to 26.2 per cent as on March 31, 2020 and to 23.6 per cent as on March, 31, 2021.

**Table VIII.1: Banknotes in Circulation (end-March)**

Denomination (₹)	Volume (pieces in lakh)			Value (₹ crore)		
	2019	2020	2021	2019	2020	2021
1	2	3	4	5	6	7
2 and 5	1,13,025 (10.4)	1,12,203 (9.7)	1,11,728 (9.0)	4,372 (0.2)	4,331 (0.2)	4,307 (0.2)
10	3,12,598 (28.7)	3,04,022 (26.2)	2,93,681 (23.6)	31,260 (1.5)	30,402 (1.3)	29,368 (1.0)
20	87,127 (8.0)	82,994 (7.2)	90,579 (7.3)	17,425 (0.8)	16,599 (0.7)	18,116 (0.6)
50	86,015 (7.9)	86,009 (7.4)	87,524 (7.0)	43,007 (2.0)	43,004 (1.8)	43,762 (1.5)
100	2,00,738 (18.5)	1,99,021 (17.2)	1,90,555 (15.3)	2,00,738 (9.5)	1,99,021 (8.2)	1,90,555 (6.7)
200	40,005 (3.7)	53,646 (4.6)	58,304 (4.7)	80,010 (3.8)	1,07,293 (4.4)	1,16,608 (4.1)
500	2,15,176 (19.8)	2,94,475 (25.4)	3,86,790 (31.1)	10,75,881 (51.0)	14,72,373 (60.8)	19,33,951 (68.4)
2,000	32,910 (3.0)	27,398 (2.4)	24,510 (2.0)	6,58,199 (31.2)	5,47,952 (22.6)	4,90,195 (17.3)
<b>Total</b>	<b>10,87,594</b>	<b>11,59,768</b>	<b>12,43,671</b>	<b>21,10,892</b>	<b>24,20,975</b>	<b>28,26,863</b>

**Note:** 1. Figures in parentheses represent the percentage share in total volume/value. They may not add up to 100 due to rounding-off of numbers.

2. Figures may not add up to total due to rounding-off of numbers.

**Source:** RBI.

### Coins

VIII.5 The total value of coins in circulation increased by 2.1 per cent in 2020-21, while the total volume increased by only 1.0 per cent. As on

March 31, 2021, coins of ₹1, ₹2 and ₹5 together constituted 83.8 per cent of the total volume of coins in circulation, while in value terms, these denominations accounted for 77.6 per cent (Table VIII.2).

**Table VIII.2: Coins in Circulation (end-March)**

Denomination (₹)	Volume (pieces in lakh)			Value (₹ crore)		
	2019	2020	2021	2019	2020	2021
1	2	3	4	5	6	7
Small coins	1,47,880 (12.3)	1,47,880 (12.1)	1,47,880 (12.0)	700 (2.7)	700 (2.7)	700 (2.6)
1	5,03,260 (41.8)	5,08,878 (41.8)	5,12,597 (41.7)	5,033 (19.5)	5,089 (19.3)	5,126 (19.1)
2	3,31,540 (27.6)	3,35,158 (27.5)	3,37,863 (27.5)	6,631 (25.6)	6,703 (25.5)	6,757 (25.1)
5	1,71,510 (14.2)	1,75,992 (14.4)	1,79,360 (14.6)	8,575 (33.2)	8,800 (33.5)	8,968 (33.4)
10	49,050 (4.1)	50,130 (4.1)	51,391 (4.2)	4,905 (19.0)	5,013 (19.1)	5,139 (19.1)
20	-	-	896 (0.1)	-	-	179 (0.7)
<b>Total</b>	<b>12,03,240</b>	<b>12,18,038</b>	<b>12,29,988</b>	<b>25,844</b>	<b>26,305</b>	<b>26,870</b>

-: Not Applicable.

**Note:** 1. Figures in parentheses represent the percentage share in total volume/value. They may not add up to 100 due to rounding-off of numbers.

2. Figures may not add up to total due to rounding-off of numbers.

**Source:** RBI.

### Currency Management Infrastructure

VIII.6 The functions relating to issuance of currency (both banknotes and coins) and their management are performed by the Reserve Bank through its issue offices, currency chests and small coin depots spread across the country. As on March 31, 2021, the State Bank of India accounted for the highest share (55.0 per cent) in the currency chests network (Table VIII.3).

### Indent and Supply of Currency

VIII.7 The indent of banknotes was lower by 9.7 per cent in 2020-21 than that of a year ago. The supply of banknotes was also marginally lower by 0.3 per cent during 2020-21 than in the previous year (Table VIII.4).

VIII.8 During 2020-21, the indent and supply of coins were lower by 11.8 per cent and 4.7 per cent, respectively, from their levels in the previous year (Table VIII.5).

**Table VIII.3: Currency Chests and Small Coin Depots (as at end-March 2021)**

Category	No. of Currency Chests	No. of Small Coin Depots
1	2	3
State Bank of India	1,679	1,432
Nationalised Banks	1,151	886
Private Sector Banks	210	173
Cooperative Banks	5	5
Foreign Banks	4	3
Regional Rural Banks	4	4
Reserve Bank of India	1	1
<b>Total</b>	<b>3,054</b>	<b>2,504</b>

Source: RBI.

### Disposal of Soiled Banknotes

VIII.9 The disposal of soiled banknotes was initially affected due to the COVID-19 pandemic and was expedited during the latter part of the year 2020-21. Despite efforts, the year as a whole still witnessed a 32 per cent decline in the disposal

**Table VIII.4: Indent and Supply of Banknotes by BRBNMPL and SPMCIL (April to March)**

(pieces in lakh)

Denomination (₹)	2018-19		2019-20		2020-21	
	Indent	Supply	Indent	Supply	Indent	Supply
1	2	3	4	5	6	7
5	-	-	-	60	-	-
10	39,200	42,892	14,700	14,702	2,840	2,846
20	460	2,096	12,500	13,390	48,750	38,520
50	42,330	40,401	24,000	23,431	14,000	13,887
100	63,300	64,075	33,000	32,708	40,000	37,270
200	26,150	27,301	20,500	19,588	15,000	15,106
500	1,16,920	1,14,679	1,46,300	1,19,996	1,06,000	1,15,672
2,000	470	467	-	-	-	-
<b>Total</b>	<b>2,88,830</b>	<b>2,91,911</b>	<b>2,51,000</b>	<b>2,23,875</b>	<b>2,26,590</b>	<b>2,23,301</b>

-: Not Applicable.

SPMCIL: Security Printing and Minting Corporation of India Ltd.

Note: Figures in the columns may not add up to the total due to rounding-off of the numbers.

Source: RBI.

**Table VIII.5: Indent and Supply of Coins by Mints (April to March)**

(pieces in lakh)

Denomination (₹)	2018-19		2019-20		2020-21	
	Indent	Supply	Indent	Supply	Indent	Supply
1	2	3	4	5	6	7
1	20,000	25,550	1,000	1,093	1,000	1,000
2	10,000	12,860	8,000	7,993	9,500	6,718
5	11,320	6,779	10,000	9,984	11,000	10,995
10	20,000	16,132	12,000	11,565	5,500	5,852
20	-	-	3,000	458	3,000	5,061
<b>Total</b>	<b>61,320</b>	<b>61,321</b>	<b>34,000</b>	<b>31,093</b>	<b>30,000</b>	<b>29,626</b>

-: Not Applicable.

Source: RBI.

of soiled banknotes as compared to the previous year (Table VIII.6).

#### Counterfeit Banknotes

VIII.10 During 2020-21, out of the total Fake Indian Currency Notes (FICNs) detected in the banking sector, 3.9 per cent were detected at the Reserve Bank and 96.1 per cent by other banks (Table VIII.7).

**Table VIII.6: Disposal of Soiled Banknotes (April-March)**

(pieces in lakh)

Denomination (₹)	2018-19	2019-20	2020-21
1	2	3	4
2000	6	1,768	4,548
1000	22	0	0
500	154	1,645	5,909
200	1	318	1,186
100	37,945	44,793	42,433
50	8,352	19,070	12,738
20	11,626	21,948	10,325
10	65,239	55,744	21,999
Up to 5	591	1,244	564
<b>Total</b>	<b>1,23,935</b>	<b>1,46,530</b>	<b>99,702</b>

Note: Figures in the columns may not add up to the total due to rounding-off of the numbers.

Source: RBI.

**Table VIII.7: Number of Counterfeit Notes Detected (April-March)**

(number of pieces)

Year	Detection at the Reserve Bank	Detected at Other Banks	Total
1	2	3	4
2018-19	17,781 (5.6)	2,99,603 (94.4)	3,17,384 (100.0)
2019-20	13,530 (4.6)	2,83,165 (95.4)	2,96,695 (100.0)
2020-21	8,107 (3.9)	2,00,518 (96.1)	2,08,625 (100.0)

Note: 1. Figures in parentheses represent the percentage share in total.

2. Data do not include counterfeit notes seized by the police and other enforcement agencies.

Source: RBI.

VIII.11 Compared with the previous year, there was an increase of 31.3 per cent in counterfeit notes detected in the denomination of ₹500 [Mahatma Gandhi (New) Series]. However, there was a decline in counterfeit notes detected in other denominations (Table VIII.8).

#### Expenditure on Security Printing

VIII.12 The total expenditure incurred on security printing during July 1, 2020 to March 31, 2021 was ₹4,012.1 crore as against ₹4,377.8 crore in the previous year (July 2019 to June 2020).

**Table VIII.8: Denomination-wise Counterfeit Notes Detected in the Banking System (April-March)**

(number of pieces)

Denomination (₹)	2018-19	2019-20	2020-21
1	2	3	4
2 and 5	-	22	9
10	345	844	304
20	818	510	267
50	36,875	47,454	24,802
100	2,21,218	1,68,739	1,10,736
200	12,728	31,969	24,245
500 (MG Series)	971	11	9
500 [MG (New) Series]	21,865	30,054	39,453
1,000	717	72	2
2,000	21,847	17,020	8,798
<b>Total</b>	<b>3,17,384</b>	<b>2,96,695</b>	<b>2,08,625</b>

-: Nil.  
Source: RBI.

### 3. Agenda for 2020-21: Implementation Status

#### Goals Set for 2020-21

VIII.13 Last year, the Department had set out the following goals:

- Automation of banknote handling process (*Utkarsh*) [Para VIII.14]
  - o Upgrade the infrastructure and processes for currency management by inducting modern technology.
- Microsite for banknotes (Para VIII.15)
  - o Continue the process of designing and developing a microsite to host basic information on features of banknotes and information relating to currency management – information on banknotes will be presented through various multimedia with simple and efficient navigation;
  - o Displaying 360-degree view of the design and security features of

banknotes through explanatory videos and animation;

- o Informative material on exchanging banknotes/note refund rules; and
- o Interactive games and posters.

#### **Implementation Status of Goals**

##### *Automation of Banknote Handling Process*

VIII.14 In order to upgrade the infrastructure and processes for currency management, the Reserve Bank is in the process of engaging a consultant to get the technical assistance required for inducting modern technology and automating the processes of banknote handling, in a green-field facility on a pilot basis. This is expected to automate receipt, storage, processing and destruction of banknotes; foster economies of scale; make the currency management function more efficient; and also fulfil the objective of clean note policy of the Reserve Bank (Box VIII.1).

##### *Microsite for Banknotes*

VIII.15 The development of the microsite, which will host basic information on features of banknotes and information relating to currency management is in progress. The microsite shall provide a platform to the public to access information on banknotes such as information on design and security features through 360-degree view of the banknotes, various multimedia (videos and animation) and interactive games, with simple and efficient navigation.

#### **Other Major Activities**

##### *Procurement of New Security Features for Indian Banknotes*

VIII.16 The Reserve Bank is actively involved in taking the process of procurement of security features for banknotes forward.

**Box VIII.1****Automation of Banknote Handling Process**

The issuance and management of currency is enshrined in the preamble of the Reserve Bank. In order to ensure the availability of clean and fit notes in adequate quantities in the system, the Reserve Bank manages the issuance and distribution of good quality genuine notes and retrieval of mutilated/soiled notes from the circulation thereof through around 3,054 Currency Chests (CCs) operated by the scheduled banks under an agency agreement with the Reserve Bank.

The banknotes in circulation have been growing along with the rise in digital payments. The volume of banknotes in circulation has doubled in the last decade, from 5,654.9 crore pieces in 2009-10 to 11,597.7 crore pieces in 2019-20 and reached 12,436.7 crore pieces as on March 31, 2021. Further, with the increase in banknotes in circulation commensurate increase in the requirement for soiled notes processing is anticipated.

This has necessitated a relook at the present system of cash management and a need is felt to automate the handling of banknotes by adopting modern technology, which is in line with the leading global practices.

Globally, many central banks/monetary authorities have proactively adopted suitable re-engineering of their currency management processes and have set up separate facilities to automate handling of banknotes. These countries have since reaped economic benefits due to automated handling

and processing of banknotes, which brought about efficiency in operations, ensured process integrity and improved security. Such countries include France, Germany, Hungary, Japan, USA, to name a few.

In India, the Reserve Bank has initiated the process of automating banknote handling procedure, as a pilot project in a green-field facility, involving the following work:

- Receipt, storage, retrieval, processing of banknotes received from CCs and destruction of soiled banknotes in an automated manner;
- Identification of mutilated/ counterfeit/ defective/ imperfect notes during automated processing of the banknotes on Currency Verification and Processing Systems (CVPS), online and offline shredding and briquetting of soiled banknotes in a mechanised and secure manner and further disposal of the briquettes; and
- Automated receipt and storage of fresh banknotes received from the printing presses, retrieval and despatch of the fresh banknotes to the identified Issue Offices/CCs.

This automation can generate economies of scale, make the currency management function more efficient and enhance the objective of clean note policy of the Reserve Bank for the benefit of public.

**Source:** RBI.

#### *Integration of Currency Management Functions with Core Banking Solution (e-Kuber)*

VIII.17 With the implementation of phase I and phase II of the Currency Management Module (CyM) in *e-Kuber*, the accounting of currency transactions is reflected in the Reserve Bank's books in near real time basis. Some ancillary functionalities of Phase III of CyM module are under various stages of development/implementation.

#### *Introduction of Varnished Banknotes - Field Trial*

VIII.18 The Reserve Bank is in the process of introducing varnished banknotes in ₹100 denomination on a field trial basis with a view to elongate the life of the banknote.

#### **4. Bharatiya Reserve Bank Note Mudran Private Ltd. (BRBNMPL)**

VIII.19 BRBNMPL is a wholly owned subsidiary of the Reserve Bank, which is playing a crucial role in the indigenisation of banknote production processes. The captive Ink Manufacturing Unit (IMU), which was set up by BRBNMPL within its Mysuru press premises, has an installed capacity to manufacture 1,500 metric tonnes (MT) of Offset, Intaglio, Numbering and Colour Shift Intaglio Inks (CSII) per annum in two shift operations. While the production of Offset, Intaglio and Numbering inks commenced from August 2018 and that of CSII from March 2019, the entire requirement of

Offset, Intaglio, Numbering and CSII for the year 2019-20 onwards has been met by the in-house manufacturing unit of BRBNMPL. BRBNMPL is also supplying CSII to the two currency printing presses of Security Printing and Minting Corporation of India Ltd. (SPMCIL). During 2020, with the installation of in-house varnish making plant, the company has become self-sufficient in different type of varnishes required including varnish for CSII. This marks a significant step towards backward integration and achieving its ultimate goal of complete indigenisation of banknote production processes.

### 5. Agenda for 2021-22

VIII.20 During the year, the Department will focus on the following:

- Procurement of new Shredding and Briquetting Systems (SBS) [*Utkarsh*];

- Augmentation of disposal of soiled notes; and
- Establishment of a state-of-the-art facility for conducting cutting edge research to test robustness of security features of currency notes and introduction of new security features.

### 6. Conclusion

VIII.21 In sum, during the year 2020-21, the Reserve Bank remained focused on strengthening the currency management infrastructure, enhancing public awareness on different features of Indian banknotes and making adequate quantity of clean notes available to the public. Going ahead, the Reserve Bank's endeavour would be to enhance the lifespan of banknotes, automate the handling and processing of notes, and rationalise the available infrastructure for maximum utilisation.