

VIII

CURRENCY MANAGEMENT

During 2015-16, the demand for banknotes and coins remained high notwithstanding the growing shift towards non-cash modes of transactions. The Reserve Bank has, in close coordination with the central government, initiated the process of introducing new series of banknotes with more sophisticated security features having higher levels of resistance to counterfeiting. Sustained efforts were also made towards indigenisation of banknote production.

TRENDS IN CURRENCY

Banknotes in Circulation

VIII.1 At end-March 2016, the value of banknotes in circulation was ₹16,415 billion showing an increase of 14.9 per cent as against 11.4 per cent in 2014-15. The volume of banknotes increased by 8.0 per cent as against 8.1 per cent in 2014-15. In value terms, ₹500 and ₹1,000 banknotes

Table VIII.1: Banknotes in Circulation

Denomination (₹)	Volume (million pieces)			Value (₹ billion)		
	Mar-14	Mar-15	Mar-16	Mar-14	Mar-15	Mar-16
1	2	3	4	5	6	7
2 and 5	11,698 (15.1)	11,672 (13.9)	11,626 (12.9)	46 (0.4)	46 (0.3)	45 (0.3)
10	26,648 (34.5)	30,304 (36.3)	32,015 (35.5)	266 (2.1)	303 (2.1)	320 (1.9)
20	4,285 (5.5)	4,350 (5.2)	4,924 (5.4)	86 (0.7)	87 (0.6)	98 (0.6)
50	3,448 (4.5)	3,487 (4.2)	3,890 (4.3)	172 (1.3)	174 (1.2)	194 (1.2)
100	14,765 (19.1)	15,026 (18.0)	15,778 (17.5)	1,476 (11.5)	1,503 (10.5)	1,578 (9.6)
500	11,405 (14.7)	13,128 (15.7)	15,707 (17.4)	5,702 (44.4)	6,564 (46.0)	7,854 (47.8)
1,000	5,081 (6.6)	5,612 (6.7)	6,326 (7.0)	5,081 (39.6)	5,612 (39.3)	6,326 (38.6)
Total	77,330	83,579	90,266	12,829	14,289	16,415

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

together accounted for 86.4 per cent of the total value of banknotes in circulation; by volume, ₹10 and ₹100 banknotes constituted 53.0 per cent of the total banknotes in circulation (Table VIII.1).

Coins in Circulation

VIII.2 The total value of coins in circulation increased by 12.4 per cent in 2015-16 as against 12.1 per cent last year; in volume terms, the increase was 8.2 per cent which is marginally higher than that in the previous year (8.0 per cent in 2014-15). In terms of volume, coins of ₹1 and ₹2 together constituted almost 70 per cent of the total coins in circulation. In terms of value, coins of ₹2 and ₹5 together accounted for 59 per cent (Table VIII.2).

Table VIII.2: Coins in Circulation

Denomination (₹)	Volume (Million pieces)			Value (₹ billion)		
	Mar-14	Mar-15	Mar-16	Mar-14	Mar-15	Mar-16
1	2	3	4	5	6	7
Small coins	14,788 (16.1)	14,788 (14.9)	14,788 (13.8)	7 (4.1)	7 (3.6)	7 (3.2)
1	38,424 (41.9)	41,627 (42.1)	44,876 (41.9)	38 (21.9)	42 (21.7)	45 (20.6)
2	24,823 (27.1)	27,038 (27.3)	29,632 (27.7)	50 (28.9)	54 (27.8)	59 (27.1)
5	11,577 (12.7)	12,761 (12.9)	14,089 (13.2)	58 (33.5)	64 (33.0)	70 (32.1)
10	2,017 (2.2)	2,750 (2.8)	3,703 (3.4)	20 (11.6)	27 (13.9)	37 (17.0)
Total	91,629	98,964	107,088	173	194	218

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

CURRENCY MANAGEMENT ARCHITECTURE (CMA)

VIII.3 CMA comprises 19 issue offices, 4,075 currency chests (including sub-treasury offices and a currency chest of the Reserve Bank in Kochi) and 3,746 small coin depots at commercial, cooperative and regional rural banks, across India (Table VIII.3).

Strengthening the Currency Management Infrastructure

VIII.4 To strengthen the distribution of currency by leveraging technology, the Reserve Bank is considering a hub and spoke model of mega-currency chests (MCCs), which will meet the currency needs of a designated area (as a district). MCCs will receive fresh notes directly from the banknote printing press for distribution to bank branches and will be equipped with state of the art facilities for processing of notes.

CLEAN NOTE POLICY

Demand Estimation and Supply of Currency

VIII.5 The Reserve Bank places indent for banknotes with printing presses on the basis

Table VIII.3: Currency Chests and Small Coin Depots as at end-March 2016

Category	No. of Currency Chest	No. of Small Coin Depot
1	2	3
State Bank of India (SBI)	1,965	1,859
SBI Associate Banks	757	725
Nationalised Banks	1,173	993
Private Sector Banks	160	156
Co-operative Banks	3	3
Foreign Banks	4	4
Regional Rural Banks	5	5
State Treasury Offices (STOs)	7	0
RBI	1	1
Total	4,075	3,746

of an econometric model factoring in *inter alia*, real GDP growth prospects, rate of inflation and denomination-wise disposal rate of soiled notes. The total number of banknotes supplied was lower at 21.2 billion pieces in 2015-16 as compared to 23.6 billion pieces in 2014-15 – against an indent of 23.9 billion pieces for 2015-16 and 24.2 billion pieces for 2014-15 (Table VIII.4).

VIII.6 The Indian Statistical Institute (ISI) Kolkata was entrusted with a study to refine the demand estimation model being employed at present.

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

(Million pieces)

Denomination (₹)	2013-14		2014-15		2015-16		2016-17
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
5	0	0	0	0	0	0	0
10	12,164	9,467	6,000	9,417	4,000	5,857	3,000
20	1,203	935	4,000	1,086	5,000	3,252	6,000
50	994	1,174	2,100	1,615	2,050	1,908	2,125
100	5,187	5,131	5,200	5,464	5,350	4,910	5,500
500	4,839	3,393	5,400	5,018	5,600	4,291	5,725
1,000	975	818	1,500	1,052	1,900	977	2,200
Total@	25,362	20,918	24,200	23,652	23,900	21,195	24,550

@: Total excludes ₹1.

BRBNMPL: Bharatiya Reserve Bank Note Mudran Private Limited.

SPMCIL: Security Printing and Minting Corporation of India Limited.

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

(Million pieces)

Denomination	2013-14		2014-15		2015-16		2016-17
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
50 Paise	50	40	40	20	40	30	30
₹1	5,418	3,092	6,000	3,247	6,100	3,753	6,300
₹2	3,546	2,424	4,000	2,367	4,000	2,899	4,200
₹5	1,819	1,393	2,000	1,091	2,100	1,492	2,270
₹10	1,200	728	1,800	1,187	2,000	1,084	2,200
Total	12,033	7,677	13,840	7,912	14,240	9,258	15,000

VIII.7 Keeping pace with the increasing demand for coins, the annual indent placed with the mints has been increasing over the years. However, the mints were able to meet approximately 57 per cent and 65 per cent of the annual indents placed with them in 2014-15 and 2015-16, respectively (Table VIII.5). Mints have been urged to step up production so as to meet the increasing demand.

Disposal of Soiled Notes

VIII.8 During 2015-16, 16.4 billion pieces of soiled notes were disposed as against a target of 17.1 billion pieces (Table VIII.6).

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

(Million pieces)

Denomination (₹)	2013-14	2014-15	2015-16
1	2	3	4
1,000	511	663	625
500	2,405	2,847	2,800
100	4,972	5,173	5,169
50	1,398	1,271	1,349
20	725	801	849
10	4,128	4,338	5,530
Up to 5	48	44	46
Total	14,187	15,137	16,368

COUNTERFEIT NOTES AND SECURITY PRINTING

Trends as Detected in the Banking System

VIII.9 During the year, 632,926 pieces of counterfeit notes were detected in the banking system, of which 95 per cent were detected by commercial banks (Table VIII.7). Denomination-wise, detection of counterfeit notes of ₹100 and ₹1,000 increased in 2015-16 (Table VIII.8).

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

(No. of pieces)

Year	Detection at Reserve Bank	Other Banks	Total
1	2	3	4
2013-14	19,827 (4.1)	468,446 (95.9)	488,273 (100.0)
2014-15	26,128 (4.4)	568,318 (95.6)	594,446 (100.0)
2015-16	31,765 (5.0)	601,161 (95.0)	632,926 (100.0)

Note: 1. Figures in parentheses represent the percentage share in total.
2. Does not include counterfeit notes seized by the police and other enforcement agencies.

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

(No. of pieces)

Denomination (₹)	2014-15			2015-16		
	Number of Counterfeit Notes	Notes in Circulation	FICN as a proportion of NIC	Number of Counterfeit Notes	Notes in Circulation	FICN as a proportion of NIC
1	2	3	4	5	6	7
2 and 5	0	11,672,000,000	0	2	11,626,000,000	0
10	268	30,304,000,000	0.00000001	134	32,015,000,000	0
20	106	4,350,000,000	0.00000002	96	4,924,000,000	0
50	7,160	3,487,000,000	0.00000205	6,453	3,890,000,000	0.0000017
100	181,799	15,026,000,000	0.00001210	221,447	15,778,000,000	0.0000140
500	273,923	13,128,000,000	0.00002087	261,695	15,707,000,000	0.0000167
1000	131,190	5,612,000,000	0.00002338	143,099	6,326,000,000	0.0000226
Total	594,446	83,579,000,000	0.00000711	632,926	90,266,000,000	0.0000070

FICN: Fake Indian Currency Notes. NIC: Notes in Circulation.

Note: Does not include counterfeit notes seized by the police and other enforcement agencies.*Withdrawal of pre-2005 Series Banknotes and Expenditure on Security Printing*

VIII.10 The process of withdrawal of banknotes of pre-2005 series commenced in May 2013. This was done in phases to preclude any inconvenience to the public. From July 01, 2016 onwards, the facility for exchange of pre-2005 banknotes will be available only at Issue Offices of the Reserve Bank (including Kochi). The legal tender status of pre-2005 banknotes will remain unchanged.

VIII.11 The total expenditure incurred on security printing stood at ₹34.2 billion during 2015-16 (July-June) as against ₹37.6 billion during 2014-15.

DEPARTMENT OF CURRENCY MANAGEMENT

VIII.12 Currency management is a core central banking function. The Department of Currency Management plays a critical role in meeting the legitimate demands of the public for notes and coins. The core concern of the department relates to increased indigenisation of production and procurement of security features for banknotes

while also elongating their life. During 2015-16, the department also endeavoured to facilitate better customer services.

Agenda for 2015-16: Implementation Status*Plastic Banknotes*

VIII.13 A billion pieces of banknotes in denomination of ₹10 were to be printed on all available plastic substrates and issued to the public in five cities having different climatic zones, viz., Kochi, Mysuru, Shimla, Jaipur and Bhubaneswar, on a field trial basis. The Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL) and the Security Printing and Minting Corporation of India Limited (SPMCIL) have taken up this project.

Customer Service

VIII.14 The scheme of incentives and penalties for bank branches including currency chests was introduced in 2008 and expanded in 2014-15 by the Reserve Bank so as to enable bank branches to provide efficient and effective customer service to members of the public for supply and exchange of notes and coins. During 2015-16, the Reserve

Box VIII.1**Banknotes: New Numbering Pattern and Visually Impaired-Friendly**

During 2015-16, the Reserve Bank issued banknotes in the Mahatma Gandhi Series 2005 with a new numbering pattern in all denominations excepting ₹20. The numerals of both the number panels ascend in size from left to right, whereas the first three alphanumeric characters (prefix) remain constant in size. Printing the numerals in ascending size is a visible security feature in the banknotes, which enables the public to distinguish a genuine Indian banknote from a counterfeit one and hence safeguards against counterfeiting.

Additional special features such as bleed lines and enhancement of existing features for the visually impaired

have also been introduced in banknotes of denominations of ₹100, ₹500 and ₹1,000. The size of the current identification marks in ₹100, ₹500 and ₹1,000 denomination notes (circle, triangle, diamond) has been increased by 50 per cent for easy identification. Angular bleed lines have been introduced: 4 lines in 2 blocks in ₹100, 5 lines in 3 blocks in ₹500 and 6 lines in 4 blocks in ₹1,000 denominations. The design of banknotes of ₹100, ₹500 and ₹1000 denomination is similar in all other respects to the current design of banknotes of the Mahatma Gandhi Series 2005. The legal tender status of all the banknotes of these denominations issued earlier which do not contain these features will remain unchanged .

Bank reviewed this scheme and revised certain incentives and segregated incentives from penalties. The new scheme, 'Currency Distribution & Exchange Scheme' (CDES) which contains modified incentives for banks will continue to facilitate exchange of banknotes in line with the Clean Note Policy. An internal group of the Reserve Bank is reviewing the Reserve Bank (Note Refund) Rules, 2009. Taking a cue from advanced practices of inventory management in various central banks, the process of vault automation is being initiated on a pilot basis with mechanised vaults at the Reserve Bank's new centres along with the automation of the existing vault at Belapur (Mumbai).

Agenda for 2016-17

VIII.15 Central banks worldwide adopt a standardised practice of periodic up-gradation of security features of banknotes to stay ahead of counterfeiters. While in India, the last such up-gradation was done in 2005 with a new 2005 series of banknotes, certain new features such as bleed lines and exploding numbers were introduced during 2015-16 (Box VIII.1). Furthermore, the Government of India approved

the procurement of new security features for Indian banknotes. The process of procurement of new security features is presently underway while banknotes with new designs are also proposed to be introduced.

BHARATIYA RESERVE BANK NOTE MUDRAN PRIVATE LIMITED (BRBNMPL)

VIII.16 BRBNMPL is a wholly owned subsidiary of the Reserve Bank which runs two banknote printing presses in Mysuru and Salboni. It is proposed to set up an ink manufacturing unit within BRBNMPL as part of efforts towards the 'Make in India' programme.

VIII.17 During 2015-16, BRBNMPL produced 14,714 million pieces of banknotes of different denominations as against its annual target of 15,700 million pieces. The Bank Note Paper Mill India Private Limited (BNPMIPL) in Mysuru which is a joint Venture between BRBNMPL and SPMCIL, with a production capacity of 12,000 million tonnes has commenced commercial production. This is a significant step towards the indigenisation of production of new banknotes.