

VIII

CURRENCY MANAGEMENT

Banknotes and coins continued to be in high demand in 2014-15. The Reserve Bank intensified its efforts to strengthen further the security features to improve integrity of banknotes. The Reserve Bank entered into agreements with banks to expand the currency management base. In consultation with the Government of India, the Reserve Bank made efforts towards the indigenisation of banknotes.

VIII.1 In line with the core statutory functions envisaged for it as per the Preamble and Section 22 of the Reserve Bank of India Act, 1934, the approach adopted by the Reserve Bank for currency management operations during 2014-15 focused on ensuring an adequate supply of clean banknotes and coins of various denominations to meet legitimate business requirements of members of the public, and creating, stocking and distributing banknotes and coins and destruction of soiled, mutilated notes and uncurrent coins.

TRENDS IN CURRENCY

VIII.2 Demand for banknotes and coins increased in 2014-15, notwithstanding the use of technology driven non-cash modes of payment.

Banknotes in Circulation

VIII.3 The value of banknotes in circulation increased by 11.4 per cent to ₹14,289 billion as at end-March 2015 over the previous year. Further, the volume of banknotes in circulation increased by 8.1 per cent to 83.6 billion pieces over the same period. Notes of denominations of ₹500 and ₹1,000 together accounted for approximately 85 per cent of the total value of banknotes in circulation at end-March 2015. Notes of ₹10 and ₹100 together accounted for 54 per cent of the volume at end-March 2015 (Table VIII.1).

Coins in Circulation

VIII.4 Coins in circulation witnessed sustained increase in demand in 2014-15. While the total

Table VIII.1: Banknotes in Circulation

Denomination (₹)	Volume (million pieces)			Value (₹ billion)		
	Mar 2013	Mar 2014	Mar 2015	Mar 2013	Mar 2014	Mar 2015
1	2	3	4	5	6	7
2 and 5	11,624 (15.8)	11,698 (15.1)	11,672 (13.9)	46 (0.4)	46 (0.4)	46 (0.3)
10	25,168 (34.2)	26,648 (34.5)	30,304 (36.3)	252 (2.2)	266 (2.1)	303 (2.1)
20	3,825 (5.2)	4,285 (5.5)	4,350 (5.2)	77 (0.6)	86 (0.7)	87 (0.6)
50	3,461 (4.7)	3,448 (4.5)	3,487 (4.2)	173 (1.5)	172 (1.3)	174 (1.2)
100	14,421 (19.6)	14,765 (19.1)	15,026 (18.0)	1,442 (12.4)	1,476 (11.5)	1,503 (10.5)
500	10,719 (14.6)	11,405 (14.7)	13,128 (15.7)	5,359 (46.0)	5,702 (44.4)	6,564 (46.0)
1,000	4,299 (5.9)	5,081 (6.6)	5,612 (6.7)	4,299 (36.9)	5,081 (39.6)	5,612 (39.3)
Total	73,517	77,330	83,579	11,648	12,829	14,289

Note: Figures in parentheses represent share in total volume/value.

value of coins in circulation increased by 12.1 per cent, in volume terms the increase was 8.0 per cent (Table VIII.2).

Increased Demand for Coins and Supply-enhancing Measures

VIII.5 In recent years, demand for coins has increased at a faster pace *vis-à-vis* supply mainly due to several toll plazas operating in the country,

Table VIII.2: Coins in Circulation

Denomination	Volume (million pieces)			Value (₹ billion)		
	Mar 2013	Mar 2014	Mar 2015	Mar 2013	Mar 2014	Mar 2015
1	2	3	4	5	6	7
Small Coin	14,788 (17.4)	14,788 (16.1)	14,788 (14.9)	7 (4.6)	7 (4.1)	7 (3.6)
₹1	35,884 (42.4)	38,424 (41.9)	41,627 (42.1)	36 (23.5)	38 (21.9)	42 (21.7)
₹2	22,113 (26.1)	24,823 (27.1)	27,038 (27.3)	44 (28.8)	50 (28.9)	54 (27.8)
₹5	10,675 (12.6)	11,577 (12.7)	12,761 (12.9)	53 (34.6)	58 (33.5)	64 (33.0)
₹10	1,267 (1.5)	2,017 (2.2)	2,750 (2.8)	13 (8.5)	20 (11.6)	27 (13.9)
Total	84,727	91,629	98,964	153	173	194

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

structure of bus/auto/train/taxi fares, rising affluence of rural and urban poor, especially in view of Government sponsored schemes like Mahatma Gandhi National Rural Employment Guarantee Scheme and increased use of fast-moving consumer goods (FMCG) in small sachets. Mismatch in indent and supply of coins during the past few years is given in Table VIII.3.

VIII.6 To meet the enhanced demand, the Reserve Bank has increased the indent with the Government of India mints and taken the following additional steps to further streamline distribution:

- (i) Shopkeepers and other business establishments, tollgate agencies, etc., have been linked to the nearest currency chest for their requirements of coins;

Table VIII.3: Indent and Supply of coins

(pieces in million)

Year	Indent	Supply
1	2	3
2012-13	9,554	6,878
2013-14	12,033	7,677
2014-15	13,840	7,907

- (ii) Banks were advised to organise coin melas for issue of coins directly to members of the public;
- (iii) Bulk users of coins, such as large retailers and toll plazas have been advised to increase the usage of point of sale (POS) terminals/cards/e-tokens in order to reduce their dependence on coins; and
- (iv) Banks were being incentivised for establishing coin vending machines (CVMs) and machines which extend cash related services to the public.

VIII.7 The Reserve Bank has suggested to the Central Government to permit import of coins as a short term measure till the production capacity of the mints is augmented; consider allowing minting of coins by private parties as enabled under the Coinage Act, 2011; and increase the present production capacity of mints/ set up new mints as a medium term measure. The Reserve Bank is also working on ways to encourage recirculation of coins by members of the public.

CURRENCY MANAGEMENT INFRASTRUCTURE

VIII.8 Currency management infrastructure consists of a network of 19 issue offices, 4,132 currency chests (including sub-treasury offices and a currency chest of the Reserve Bank at Kochi) and 3,813 small coin depots of commercial, cooperative and regional rural banks spread across the country (Table VIII.4). The procedure for opening currency chests was simplified during the year by introducing a single layer approval system instead of the multiple layers of approvals.

Lead Bank Scheme

VIII.9 The Lead Bank Scheme for currency management was introduced on a pilot basis in 2013 by identifying one district of each state and

Table VIII.4: Currency Chests and Small Coin Depots as at end-March 2015

Category	No. of Currency Chest	No. of Small Coin Depot
1	2	3
State Bank of India	2,033	1,930
SBI Associate Banks	763	733
Nationalised Banks	1,162	987
Private Sector Banks	153	149
Co-operative Banks	4	4
Foreign Banks	4	4
Regional Rural Banks	5	5
State Treasury Offices (STOs)	7	0
RBI	1	1
Total	4,132	3,813

assigning the same to a lead bank, which, in turn, is responsible for ensuring that genuine needs of members of the public for clean notes and coins are met through coordination with currency chests and small coin depots situated in that area. The lead bank as a nodal bank for currency management (BCM) attends to issues, such as linkage of non-currency chest branches to currency chests, facilitation of supply and issue of banknotes and coins to and from bank branches in the area, prompt routing of diversion requests and redressal of public grievances. The nodal BCM undertakes functions relating to spreading awareness/literacy campaigns on security features of genuine notes and exchange of mutilated notes. After a year of operation, the scheme was reviewed and it was decided to continue it in 2014-15; it is under review for 2015-16.

CLEAN NOTE POLICY

Demand Estimation and Supply of Banknotes and Coins

VIII.10 Demand for currency is estimated using econometric models *inter alia*, factoring in real GDP growth prospects, rate of inflation and disposal rate of soiled notes denomination-wise. Accordingly, the

Table VIII.5: Indent and Supply of Banknotes by BRBNMPL and SPMCIL to the Reserve Bank

Denomination (₹)	Volume (million pieces)				
	2013-14		2014-15		2015-16
	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6
5	0	0	0	0	0
10	12,164	9,467	6,000	9,417	4,000
20	1,203	935	4,000	1,086	5,000
50	994	1,174	2,100	1,615	2,050
100	5,187	5,131	5,200	5,464	5,350
500	4,839	3,393	5,400	5,018	5,600
1,000	975	818	1,500	1,052	1,900
Total	25,362	20,918	24,200*	23,652	23,900

*: The figures published in the Annual Report 2013-14 were subsequently revised.

BRBNMPL: Bharatiya Reserve Bank Note Mudran Private Limited.
SPMCIL: Security Printing and Minting Corporation of India Limited.

total supply of banknotes was raised to 23.7 billion in 2014-15 from 20.9 billion pieces (an increase of 13.1 per cent) in 2013-14 (Table VIII.5). The supply of coins was also increased by 3.0 per cent in 2014-15 as compared to 11.6 per cent in 2013-14 (Table VIII.6).

Disposal of Soiled Notes

VIII.11 During 2014-15, around 15.1 billion pieces of soiled banknotes were disposed of as against a target of around 17.1 billion pieces and 14.2 billion pieces disposed during 2013-14.

Table VIII.6: Indent and Supply of Coins by SPMCIL to the Reserve Bank

Denomination	Volume (million pieces)				
	2013-14		2014-15		2015-16
	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6
50 Paise	50	40	40	20	40
₹1	5,418	3,092	6,000	3,247**	6,100
₹2	3,546	2,424	4,000	2,367	4,000
₹5	1,819	1,393	2,000	1,091	2,100
₹10	1,200	728	1,800	1,187	2,000
Total	12,033	7,677	13,840*	7,912**	14,240

*The figures published in the Annual Report 2013-14 were subsequently revised.

**Includes 5 million pieces of ₹1 currency notes.

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)

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.

COUNTERFEIT NOTES

VIII.12 During 2014-15, 594,446 pieces of counterfeit notes were detected in the banking system, of which 95.6 per cent were detected by commercial banks, while 4.4 per cent were detected at the Reserve Bank offices (Table VIII.7). During 2014-15, the number of counterfeit notes detected increased for all denominations except ₹2 and ₹5 (Table VIII.8).

VIII.13 In accordance with the international practice of not having multiple series of banknotes

simultaneously in circulation, the process of withdrawal of pre-2005 series of banknotes, in phases, was initiated in 2014. Though a majority of these pre-2005 notes have been withdrawn from circulation through bank branches, it was decided to extend the date up to December 31, 2015 to ensure withdrawal of the remaining pre-2005 old design banknotes with least inconvenience to members of the public.

EXPENDITURE ON SECURITY PRINTING AND DISTRIBUTION

VIII.14 Towards faster distribution of notes across the country, the Reserve Bank has been implementing a scheme of direct remittance of banknotes from the note printing presses to currency chests, obviating the need for repeated logistical and security arrangements. Total expenditure incurred on security printing stood at ₹37.6 billion during 2014-15 (July–June) as compared to ₹32.1 billion during 2013-14. The increase was mainly on account of increased supply of banknotes by 13.1 per cent over the previous year. During 2014-15, the Reserve Bank, in

Table VIII.8: Denomination-wise Counterfeit Notes Detected in the Banking System as a Proportion of the Notes in Circulation (in pieces) (April to March)

Denomination (₹)	2013-14			2014-15		
	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	1	11,698,000,000	0.00000000	0	11,672,000,000	0.00000000
10	157	26,648,000,000	0.00000001	268	30,304,000,000	0.00000001
20	87	4,285,000,000	0.00000002	106	4,350,000,000	0.00000002
50	6,851	3,448,000,000	0.00000199	7,160	3,487,000,000	0.00000205
100	118,873	14,765,000,000	0.00000805	181,799	15,026,000,000	0.0000121
500	252,269	11,405,000,000	0.00002212	273,923	13,128,000,000	0.00002087
1000	110,035	5,081,000,000	0.00002166	131,190	5,612,000,000	0.00002338
Total	488,273	77,330,000,000	0.00000631	594,446	83,579,000,000	0.00000711

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

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

Box VIII.1 Efforts for Indigenisation of Currency Printing

India is the largest producer and consumer of currency notes, next only to China. Currency continues to be the dominant means of payment with the banknotes in circulation (in value terms) placed at ₹14.3 trillion as of end March 2015.

Sustained increase in demand for currency notes, exceeded the capacity of government note presses (at Nashik and Dewas) by the late 1980s. The Reserve Bank established two currency presses in 1996 at Mysore and Salboni through a wholly owned subsidiary of the Reserve Bank, the Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL), making the country self-reliant in currency note printing by 1999. Currently, more than 40 per cent of the currency notes circulated in India are printed by government presses while the remaining 60 per cent emanate from Reserve Bank currency presses. However, the Reserve Bank depends largely on imports for the main ingredients required for printing currency. In case of inks, India produces Offset and Intaglio ink while Optically Variable Ink is imported. Some of the security features, such as security thread and water mark used in the current series of banknotes are also imported. With regard to the paper used for banknotes, India produces

only 5 per cent of the paper required annually for currency note printing, necessitating import of the rest. Dependence on imports makes the printing process of currency vulnerable in terms of price, quantity and timeliness.

The Reserve Bank has embarked on a multi-pronged strategy for the indigenisation of currency note printing, keeping in view the associated benefits of backward integration in the form of assured, smooth and timely supply, cost saving (by way of reduction in the import bill), employment generation and effective deterrent to counterfeiting. To enhance the pace of indigenisation, a paper mill is being set up in Mysore, with an annual capacity of 12,000 MT which will substantially meet the paper requirement for currency printing. The Reserve Bank is also making efforts to develop domestic capabilities in the area of security features of banknotes. In order to have a time-bound programme for indigenisation of security features, the Reserve Bank, in consultation with the Government of India has set up a high level steering committee (Chairman: Shri R. Gandhi) which will identify agencies/institutions that could be encouraged to develop indigenous security features over the next few years.

consultation with the Government of India, made concerted efforts towards indigenisation of currency printing (Box VIII.1), elongation of the life of banknotes and resolution of issues associated with the shape and size of coins.

DEPARTMENT OF CURRENCY MANAGEMENT

VIII.15 On issues in currency management, the Department of Currency Management (DCM) plays a pivotal role in ensuring continuous supply and circulation of adequate quantities of clean banknotes and good coins of various denominations across the country. During 2014-15, the goals set for the Reserve Bank included field trial of plastic banknotes, exploring alternatives for extending the life of banknotes, harnessing technological advancements in the area of storage, transport, distribution; setting up a fully automated cash processing centre (CPC) on a pilot basis, introduction of new series of banknotes to leverage the latest innovations of currency note printing technology to

stay ahead of counterfeiters, redesigning coins to make them user friendly and long lasting, and improving banknote packaging to facilitate handling and making operational processes more labour friendly.

Agenda for 2014-15: Implementation Status

Field Trial of Plastic Banknotes

VIII.16 The request for proposal for supply of plastic Indian banknotes in the denomination of ₹10 was issued and its technical evaluation undertaken. However, certain technical infirmities emerged and the process could not be taken further.

Exploring Alternatives for Extending the Life of Banknotes

VIII.17 A committee comprising stakeholders and research institutions was constituted to evaluate means to elongate the life of banknotes. A study on the subject has been taken up and is expected to be completed in 2015-16.

Fully Automated Cash Processing Centres

VIII.18 It was felt that a hub and spoke model would lead to greater efficiency. Accordingly, commercial banks were encouraged to set up such processing centres and two banks have commenced establishment of CPCs.

Staying Ahead of Counterfeiters

VIII.19 Banknotes in the denomination of ₹100 with a new numbering pattern were introduced during the year. The new numbering pattern will be introduced in a phased manner in all other denominations. In June 2015, the process of introduction of new security features was taken forward through issuance of a global pre-qualification bid for supply of security features.

Redesigning Coins and Improving Banknote Packaging

VIII.20 The Government of India has decided to constitute a committee to look into the shape and size of coins. The Reserve Bank will be associated with the same. It was decided, in consultation with stakeholders, to introduce corrugated fibre boxes for packing of banknotes in accordance with the International Labour Organisation (ILO) Convention 127 and recommendation 128 (wherein, maximum weight to be carried by an adult workman should not exceed 55 kg). Such boxes will be more environment friendly than wooden boxes which are presently in use. Two of the printing presses have commenced supplies of banknotes in the new corrugated fibre boxes.

Agenda for 2015-16

VIII.21 Taking forward the activities initiated in 2014-15 in the areas of introduction of new series of banknotes, new numbering pattern, braille like signs for the differently abled, and clean note policy, the Reserve Bank plans the following initiatives during 2015-16: towards elongating the life of

banknotes, a development tender on plastic banknotes will be considered. Further, the project of exploring other alternatives for increasing the life of banknotes will be taken forward.

Customer Service

VIII.22 The scheme of incentives and penalties for banks for provision of banknotes and coin related services will be rationalised. The distribution network of banknotes and coins will be strengthened by encouraging alternate means, including leveraging technology. Further, note refund rules which were last reviewed in 2009, will be taken up for further refinement. The Reserve Bank will continue with its medium/long term objective of indigenisation of security features for Indian banknotes.

BHARATIYA RESERVE BANK NOTE MUDRAN PRIVATE LIMITED (BRBNMPL)

VIII.23 To augment the production of banknotes and to bridge the gap between their demand and supply in the country, BRBNMPL was established by the Reserve Bank as its wholly owned subsidiary on February 3, 1995. The company manages two presses, one in Mysore in Karnataka and the other in Salboni in West Bengal.

VIII.24 BRBNMPL produces 60 per cent of the annual requirement of banknotes and had supplied 15,515.88 million banknotes to the Reserve Bank as at end-March, 2015. It recorded a net profit after tax of ₹1.38 billion during 2014-15 as against a net profit after tax of ₹1.33 billion in the previous year.

VIII.25 The company has been continually enhancing productivity and operational efficiency through research and development activities and process innovations. It has established testing and research facilities at its laboratories in Mysore and Salboni for ensuring strict quality controls. These laboratories are currently focused on enhancing the life of banknotes, selection and

evaluation of substrates for banknotes, comparison of various materials and their properties, and evaluation of security features.

VIII.26 The Bank Note Paper Mill India Private Limited (BNPMIPL) in Mysore, with a capacity of 12,000 tonnes per annum was established in October 2010 as an equal joint venture between the Government of India owned SPMCIL and the

Reserve Bank subsidiary BRBNMPL. However, glitches arising out of the processes and modalities of securing statutory approvals from the concerned agencies impeded operationalisation of the facility. It is expected to commence production in 2015-16. This facility is expected to lead to self-sufficiency in manufacturing of paper for banknotes, substantially reducing imports.