Half Yearly Report on Management of Foreign Exchange Reserves

April - September 2023



Reserve Bank of India

Department of External Investments and Operations (DEIO)

Central Office, Mumbai

Report on Management of Foreign Exchange Reserves

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Developments during the Half Year ended September 2023

I.1 Introduction

The Reserve Bank of India publishes half-yearly reports on management of foreign exchange reserves as part of its efforts towards enhanced transparency and levels of disclosure. These reports are prepared half yearly with reference to the position as at end-March and end-September each year. The present report (41st in the series) is with reference to the position as at end-September 2023.

The report is divided into two parts: Part I contains the developments regarding movement of foreign exchange reserves, information on the external liabilities vis-à-vis the reserves, adequacy of reserves, *etc.*, during the half-year under review. Objectives of reserve management, statutory provisions, risk management practices, information on transparency and disclosure practices followed by the RBI with regard to reserve management are covered in Part II.

Part-I

I.2 Movement of Foreign Exchange Reserves

I.2.1 Review of Growth of Foreign Exchange Reserves

During the half-year period under review, reserves increased from USD 578.45 billion as at end-March 2023 to USD 587.71 billion as at end-September 2023 (Table 1 and Chart 1).

Although both US dollar and Euro are intervention currencies and the Foreign Currency Assets (FCA) are maintained in major currencies, the foreign exchange reserves are denominated and expressed in US dollar terms. Movements in the FCA occur mainly on account of purchase and sale of foreign exchange by the RBI, income arising out of the deployment of the foreign exchange reserves, external aid receipts of the Central Government and changes on account of revaluation of the assets.

(USD Mill						
Month End	FCA	Gold	SDR	RTP	Forex Reserves	
Manal 22	509691	45200	18392	5165	578449	
March -23			(13667)			
A	520930	45585	18410	5172	590097	
April -23			(13667)			
M 22	522422	44999	18198	5097	590717	
May-23			(13674)			
L	527979	43832	18239	5002	595051	
June-23			(13674)			
1 1 22	537152	45109	18364	5184	605810	
July -23			(13674)			
A ())	529911	45060	18197	5073	598241	
August -23			(13681)			
G (1 22	521366	43342	17990	5016	587714	
September-23			(13681)			
Notes:	- I		· /		•	

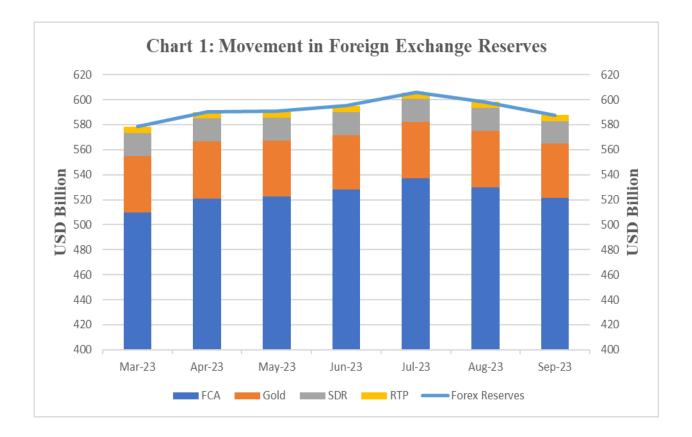
of US dollars.

(ii) FCA excludes (a) investment in bonds issued by IIFC (UK) (b) SDR holdings of Reserve Bank, which is included under SDR and (c) amount lent under SAARC Swap Arrangement.

(iii) SDR (Special Drawing Rights): Values in SDR million have been indicated in parentheses.

(iv) RTP refers to the Reserve Tranche Position in the International Monetary Fund (IMF).

(v) Difference, if any, is due to rounding off.



I.2.2 Sources of Accretion to Foreign Exchange Reserves

On a balance of payments basis (i.e., excluding valuation effects), foreign exchange reserves increased by US\$ 24.4 billion during April-June 2023 as compared with increase of US\$ 4.6 billion during April-June 2022. Foreign exchange reserves in nominal terms (including valuation effects) increased by US\$ 16.6 billion during April-June 2023 as compared with decrease of US\$ 18.2 billion in the corresponding period of the preceding year.

Table 2 provides details of sources of variation in foreign exchange reserves during April-June 2023 vis-à-vis the corresponding period of the previous year. The valuation loss amounted to US\$ 7.8. billion during April-June 2023 as against a valuation loss of US\$ 22.7 billion during April-June 2022.

II. Capital Account (net) (a to f) 22.6 33.6 a. Foreign Investment -1.2 20.8 (i) Foreign Direct Investment 13.4 5.1 (ii) Portfolio Investment, [(of which)] -14.6 15.7 (iii) Portfolio Investment, [(of which)] -14.7 16.1 ADR/GDR 0.0 0.0 b. Banking Capital, [(of which)] 19.0 12.9 NRI Deposits 0.3 2.2 c. Short term credit 5.1 -5.0 d. External Assistance 1.8 1.5 e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4	Table 2: Sources of Variation to Foreign Exchange Reserves*						
ItemsJune 2022June 2023 **I.Current Account Balance-18.0-9.2II.Capital Account (net) (a to f)22.633.6a.Foreign Investment-1.220.8(i)Foreign Direct Investment13.45.1(ii)Portfolio Investment, [(of which)]-14.615.7FII-14.716.1ADR/GDR0.00.0b.Banking Capital, [(of which)]19.012.5c.Short term credit5.1-5.0d.External Assistance1.81.5e.External Commercial Borrowings-2.85.8f.Other items in capital account0.7-2.2III.Valuation change-22.7-7.8Total (I+II+III) @ Increase in reserves (-)-18.216.6*:Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/		(USD billion					
2022 $2023 **$ I.Current Account Balance-18.0-9.2II.Capital Account (net) (a to f) 22.6 33.6 a.Foreign Investment-1.2 20.8 (i)Foreign Direct Investment 13.4 5.1 (ii)Portfolio Investment, [(of which)]-14.6 15.7 FII-14.716.1ADR/GDR0.00.0b.Banking Capital, [(of which)]19.0 12.5 c.Short term credit 5.1 -5.6 d.External Assistance 1.8 1.5 e.External Commercial Borrowings -2.8 5.8 f.Other items in capital account 0.7 -2.4 III.Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-) -18.2 16.6 *:Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/			April-	April-			
I.Current Account Balance-18.0-9.2II.Capital Account (net) (a to f)22.633.6a.Foreign Investment-1.220.8(i)Foreign Direct Investment13.45.1(ii)Portfolio Investment, [(of which)]-14.615.7FII-14.716.1ADR/GDR0.00.0b.Banking Capital, [(of which)]19.012.9NRI Deposits0.32.2c.Short term credit5.1-5.0d.External Assistance1.81.5e.External Commercial Borrowings-2.85.8f.Other items in capital account0.7-2.2III.Valuation change-22.7-7.8Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-)-18.216.6*: Based on the old format of BoP which may differ from the new format(BPM6) in the treatment of transfers under the current account and ADRs/		Items					
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(i)Foreign Direct Investment13.45.1(ii)Portfolio Investment, [(of which)]-14.615.7(iii)Portfolio Investment, [(of which)]-14.716.1ADR/GDR0.00.00.0b.Banking Capital, [(of which)]19.012.9NRI Deposits0.32.2c.Short term credit5.1-5.0d.External Assistance1.81.5e.External Commercial Borrowings-2.85.8f.Other items in capital account0.7-2.4III.Valuation change-22.7-7.8Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-)-18.216.6*:Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	II.	Capital Account (net) (a to f)	22.6	33.6			
(ii)Portfolio Investment, [(of which)]-14.615.7FII-14.716.1ADR/GDR0.00.0b.Banking Capital, [(of which)]19.012.9NRI Deposits0.32.2c.Short term credit5.1-5.0d.External Assistance1.81.5e.External Commercial Borrowings-2.85.8f.Other items in capital account0.7-2.4III.Valuation change-22.7-7.8Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-)-18.216.6*:Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	a.	Foreign Investment	-1.2	20.8			
FII-14.716.1ADR/GDR0.00.0b. Banking Capital, [(of which)]19.012.9NRI Deposits0.32.2c. Short term credit5.1-5.0d. External Assistance1.81.5e. External Commercial Borrowings-2.85.8f. Other items in capital account0.7-2.4III. Valuation change-22.7-7.8Total (I+II+III) @-18.216.6*: Based on the old format of BoP which may differ from the new format(BPM6) in the treatment of transfers under the current account and ADRs/	(i)	Foreign Direct Investment	13.4	5.1			
ADR/GDR0.00.0b.Banking Capital, [(of which)]19.012.9NRI Deposits0.32.2c.Short term credit5.1-5.0d.External Assistance1.81.5e.External Commercial Borrowings-2.85.8f.Other items in capital account0.7-2.4III.Valuation change-22.7-7.8Total (I+II+III) @Increase in reserves (+) / Decrease in reserves (-)-18.216.6*:Based on the old format of BoP which may differ from the new format(BPM6) in the treatment of transfers under the current account and ADRs/	(ii)	Portfolio Investment, [(of which)]	-14.6	15.7			
b. Banking Capital, [(of which)] 19.0 12.9 NRI Deposits 0.3 2.2 c. Short term credit 5.1 -5.0 d. External Assistance 1.8 1.5 e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/ 16.6		FII	-14.7	16.1			
NRI Deposits 0.3 2.2 c. Short term credit 5.1 -5.0 d. External Assistance 1.8 1.5 e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/		ADR/GDR	0.0	0.0			
c. Short term credit 5.1 -5.0 d. External Assistance 1.8 1.5 e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	b.	Banking Capital, [(of which)]	19.0	12.9			
d. External Assistance 1.8 1.5 e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+IIII) @ Increase in reserves (+) / Decrease in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/		NRI Deposits	0.3	2.2			
e. External Commercial Borrowings -2.8 5.8 f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+III) @ -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	c.	Short term credit	5.1	-5.0			
f. Other items in capital account 0.7 -2.4 III. Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	d.	External Assistance 1.8 1.					
III. Valuation change -22.7 -7.8 Total (I+II+III) @ Increase in reserves (-) -18.2 16.6 *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/ ADRs/	e.	External Commercial Borrowings	-2.8	5.8			
Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-)-18.216.6*: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/16.6	f.	Other items in capital account	0.7	-2.4			
Increase in reserves (+) / Decrease in reserves (-)-18.216.6*: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/	III.	Valuation change	-22.7	-7.8			
 Increase in reserves (+) / Decrease in reserves (-) *: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/ 		Total (I+II+III) @	10.2	16.6			
(BPM6) in the treatment of transfers under the current account and ADRs/		Increase in reserves (+) / Decrease in reserves (-)	-18.2	10.0			
GDRs under portfolio investment	(BPM6) in the treatment of transfers under the current account and ADRs/						
ODIts under portiono investment.							

(a): Difference, if any, is due to rounding off.

Note: 'Other items in capital account' apart from 'Errors and Omissions' includes SDR allocation, leads and lags in exports, funds held abroad, advances received pending issue of shares under FDI and capital receipts not included elsewhere and rupee denominated debt.

**: Updated figures available only up to June 2023.

I.3 Forward Outstanding

The net forward asset (receivable) of the Reserve Bank stood at USD 4.64 billion as at the end of September 2023.

I.4 External Liabilities vis-à-vis Foreign Exchange Reserves

India's International Investment Position (IIP), which is a summary record of the stock of country's external financial assets and liabilities as at end-June 2023, is furnished in **Table 3**. During the period between end-June 2022 and end-June 2023, the external assets increased by USD 35.2 billion and external liabilities increased by USD 59.7 billion.

	Table 3: International Investment Position of India *				
	(USD Billion)				
	Item	End-June 2022	End-June		
	Item	(PR)	2023 (P)		
A.]	Fotal External Assets	891.6	926.8		
1.	Direct Investment	214.5	227.8		
2.	Portfolio Investment	10.6	11.3		
3.	Other Investment	77.3	92.6		
4.	Foreign Exchange Reserves	589.2	595.1		
В. 7	Total External Liabilities	1246.8	1306.5		
1.	Direct Investment	517.3	532.3		
2.	Portfolio Investment	245.0	258.6		
3.	Other Investment	484.5	515.6		
C.	Net IIP (A-B) @	(-) 355.2	(-) 379.7		
P: Provisional, PR: Partially revised.					
@I					
*: L	*: Updated figures available only up to June 2023.				

The net IIP as at end-June 2023 was negative at USD 379.7 billion as against a negative net IIP of USD 355.2 billion at end-June 2022, implying that the sum of all external liabilities is more than that of the external assets in both periods.¹ There has been an increase in the negative gap on a year-on-year basis.

¹ Partially revised figures and hence may not tally with figures published in the previous reports.

I.5 Adequacy of Reserves

At end of June 2023, foreign exchange reserves cover of imports (on balance of payments basis) increased to 10.2 months from 9.6 months at end-March 2023. The ratio of short-term debt (original maturity) to reserves, which was 22.2 per cent at end-March 2023, decreased to 20.8 per cent at end-June 2023. The ratio of volatile capital flows (including cumulative portfolio inflows and outstanding short-term debt) to reserves remained at 70.3 per cent between end-March 2023 and end-June 2023.

I.6. Management of Gold Reserves

As at end-September 2023, the Reserve Bank held 800.79 metric tonnes of gold (including gold deposits of 39.89 metric tonnes). While 388.06 metric tonnes of gold is held overseas in safe custody with the Bank of England and the Bank of International Settlements (BIS), 372.84 metric tonnes of gold is held domestically. In value terms (USD), the share of gold in the total foreign exchange reserves decreased from about 7.81 per cent as at end-March 2023 to about 7.37 per cent as at end-September 2023.

I.7 Investment Pattern of the Foreign Currency Assets

The foreign currency assets comprise multi-currency assets that are held in multi-asset portfolios as per the existing norms, which conform to the best international practices followed in this regard. As at end-September 2023, out of the total FCA of USD 521.37 billion, USD 424.56 billion was invested in securities, USD 70.31 billion was deposited with other central banks and the BIS and the balance USD 26.50 billion comprised deposits with commercial banks overseas (**Table 4**). With the objective of exploring new strategies and products in reserve management while diversifying the portfolio, a small portion of the reserves is being managed by external asset managers. The investments made by the external asset managers are governed by the permissible activities as per the RBI Act, 1934.

Table 4: Deployment Pattern of Foreign Currency Assets				
		(USD Million)		
	As at end of March 2023	As at end of September		
		2023		
Foreign Currency Assets (FCA) *	5,09,691	5,21,366		
(a) Securities	4,11,653	4,24,563		
	(80.76)	(81.43)		
(b) Deposits with other central banks &	75,514	70,308		
BIS				
	(14.82)	(13.49)		
(c) Deposits with commercial banks	22,524	26,496		
overseas	(4.42)	(5.08)		
* FCA excludes (a) investment in bonds issued by IIFC (UK) (b) SDR				
holdings of Reserve Bank which is included under SDR and (c) amount				
lent under SAARC Swap Arrangement.				
Note: Figures in parenthesis indicate percentage to total FCA.				

I.8 Other Related Aspects

I.8.1 Financial Transaction Plan (FTP) of the IMF

During the half year under review, there was one purchase transaction of USD 148.95 million and three repurchase transactions aggregating USD 139.43 million under the FTP of the IMF.

I.8.2 Investments under New Arrangements to Borrow (NAB) and Note Purchase Agreement (NPA) with IMF

India had committed to provide resources up to SDR 4,440.91 million under the IMF's New Arrangements to Borrow (NAB). Effective January 01, 2021, the size of IMF's NAB has been doubled. India's commitment under NAB now stands at SDR 8,881.82 million as on September 30, 2023. RBI has subscribed to Notes equivalent to SDR 25.59 million under NAB till the end of September 2023, as part of the Government of India's Contribution. In terms of the Note Purchase Agreement (NPA) 2020, entered into between RBI and IMF, RBI has agreed to invest an amount equivalent to USD 3.90 billion in SDR denominated Notes issued by IMF.

I.8.3 SAARC Swap Arrangement between India and Bhutan

Bhutan had availed a swap of ₹16,267.08 million, equivalent to USD 200 million on November 16, 2022, due for maturity on February 16, 2023. The swap was rolled over twice for three months each with the second rollover having matured on August 17, 2023. Further, Bhutan had availed a swap of ₹16,456.66 million, equivalent to USD 200 million on August 01, 2023 due for maturity on November 02, 2023.

I.8.4 SAARC Swap Arrangement between India and Maldives

Maldives has availed a swap of USD 100 million on December 27, 2022 due for maturity on June 27, 2023. The swap was rolled over for six months having due for maturity on December 27, 2023.

I.8.5 SAARC Swap Arrangement between India and Sri Lanka

Central Bank of Sri Lanka (CBSL) had availed a swap of USD 400 million on January 13, 2022 and repaid the interest accrued on the facility till February 28, 2023. The SAARC Swap facility availed by CBSL is being closely monitored.

I.8.6 Investment in bonds issued by IIFC (UK)

The Reserve Bank has the mandate to invest up to USD 5 billion, in the bonds issued by the India Infrastructure Finance Company (UK) Limited. As at end of September 2023, the amount invested in such bonds stood at USD 1.163 billion.

Part-II

Objectives of Reserve Management, Legal Framework, Risk Management Practices, Transparency and Disclosure

II.1. Objectives of Reserve Management

The guiding objectives of foreign exchange reserve management in India are similar to those of many central banks in the world. The demands placed on the foreign exchange reserves may vary widely depending upon a variety of factors including the exchange rate regime adopted by the country, the extent of openness of the economy, the size of the external sector in a country's GDP and the nature of markets operating in the country. While safety and liquidity constitute the twin objectives of reserve management in India, return optimization is kept in view within this framework.

II.2. Legal Framework and Policies

The Reserve Bank of India Act, 1934 provides the overarching legal framework for deployment of reserves in different foreign currency assets and gold within the broad parameters of currencies, instruments, issuers and counterparties. The essential legal framework for reserve management is provided in sub-sections 17(6A), 17(12), 17(12A), 17(13) and 33 (6) of the above Act. In brief, the law broadly permits the following investment categories:

- deposits with other central banks and the BIS;
- deposits with commercial banks overseas;
- debt instruments representing sovereign/sovereign-guaranteed liability with residual maturity for the debt papers not exceeding 10 years;
- other instruments / institutions as approved by the Central Board of the Reserve Bank in accordance with the provisions of the Act; and
- dealing in certain types of derivatives.

II.3 Risk Management

The broad strategy for reserve management including currency composition and investment policy is decided in consultation with the Government of India. The risk management functions are aimed at ensuring development of sound governance structure in line with the best international practices, improved accountability, a culture of risk awareness across all operations, efficient allocation of resources and development of in-house skills and expertise. The risks attendant on deployment of

reserves, viz., credit risk, market risk, liquidity risk and operational risk and the systems employed to manage these risks are detailed in the following paragraphs.

II.3.1 Credit Risk

The Reserve Bank is sensitive to the credit risk it faces on account of the investment of foreign exchange reserves in the international markets. The Reserve Bank's investments in bonds/treasury bills represent debt obligations of highly rated sovereigns, central banks and supranational entities. Further, deposits are placed with central banks, the BIS and commercial banks overseas. RBI has framed requisite guidelines for selection of issuers/ counterparties with a view to enhancing the safety and liquidity aspects of the reserves. The Reserve Bank continues to apply stringent criteria for selection of counterparties. Credit exposure vis-à-vis sanctioned limit in respect of approved counterparties is monitored continuously. Developments regarding counterparties are constantly under watch. The basic objective of such an on-going exercise is to assess whether any counterparty's credit quality is under potential threat.

II.3.2 Market Risk

Market risk for a multi-currency portfolio represents the potential change in valuations that result from movements in financial market prices, viz. changes in interest rates, foreign exchange rates, equity prices and commodity prices. The major sources of market risk for central banks are currency risk, interest rate risk and movement in gold prices. These risks are managed using Value-at-Risk (VaR), Conditional Value-at-Risk (CVaR), scenario analysis, stress testing etc. Further, to manage interest rate risk, duration and permitted deviations from the duration are specified as per the prevailing market conditions.

Gains/losses on valuation of FCA and gold due to movements in the exchange rates and/or price of gold are booked under a balance sheet head named the Currency and Gold Revaluation Account (CGRA). The balances in CGRA provide a buffer against exchange rate/gold price fluctuations. The dated foreign securities are valued at market prices at the end of each business day and the appreciation/depreciation arising therefrom is transferred to the Investment Revaluation Account (IRA). The balance in IRA is meant to provide cushion against changes in the security prices over the holding period.

II.3.2.1 Currency Risk

Currency risk arises due to movements in the exchange rates. Decisions are taken on the long-term exposure to different currencies depending on the likely movements in exchange rates and other considerations over the medium and long-term. The decision-making procedure is supported by reviews of the strategy on a regular basis.

II.3.2.2 Interest Rate Risk

The crucial aspect of the management of interest rate risk is to protect the value of the investments as much as possible from adverse impact of interest rate movements. The interest rate sensitivity of the portfolio is identified in terms of the benchmark duration and the permitted deviation from the benchmark.

II.3.3 Liquidity Risk

Liquidity risk involves the risk of not being able to sell an instrument or close a position when required without facing significant costs. The reserves need to have a high level of liquidity at all times in order to be able to meet any unforeseen and emergency needs. Any adverse development on the external front would pose a demand on our forex reserves and, hence, the investment strategy needs a highly liquid portfolio. The choice of instruments determines the liquidity of the portfolio. For example, in some markets, treasury securities could be liquidated in large volumes without much distortion of the price in the market and, thus, can be considered as liquid. Except fixed deposits with the BIS/ commercial banks overseas / central banks and securities issued by supranationals, almost all other types of investments are highly liquid instruments which could be converted into cash at short notice. The Reserve Bank closely monitors the portion of the reserves which could be converted into cash at a very short notice to meet any unforeseen/ emergency needs.

II.3.4 Operational Risk and Control System

In tune with the global trend, close attention is paid to strengthen the operational risk control arrangements. Key operational procedures are documented. Internally, there is total separation of the front office and the back-office functions and the internal control systems ensure several checks at the stages of deal capture, deal processing and settlement. The deal processing and settlement system,

including generation of payment instructions, is also subject to internal control guidelines. There is a system of concurrent audit for monitoring compliance in respect of the internal control guidelines. Further, reconciliation of accounts is done regularly. In addition to internal audit and independent monitoring, the financial accounts are audited by external statutory auditors. There is a comprehensive reporting mechanism covering significant areas of activity/ operations relating to reserve management. These are provided to the senior management at frequent intervals, depending on the type and sensitivity of information. The Reserve Bank uses SWIFT as the messaging platform to settle its trades and send financial messages to its counterparties, custodians of securities and other business partners. International best practices with respect to usage and security of SWIFT system are followed. All the necessary upgrades were implemented in in a timely manner in the SWIFT Alliance Access system along with strict compliance with all the mandatory security control measures as recommended by SWIFT. The SWIFT infrastructure was successfully upgraded including the hardware and software components to the latest version. Further, Reserve Bank of India has successfully migrated to SWIFT ISO 20022 standards. Its system is now enabled to interact with MX messaging formats having enhanced security features.

II.4 Transparency and Disclosures

The Reserve Bank has been making available in the public domain data relating to Foreign Exchange Reserves, its operations in foreign exchange market, position of the country's external assets and liabilities and earnings from deployment of Foreign Currency Assets and gold through periodic press releases of its Weekly Statistical Supplements, Monthly Bulletins, Annual Reports, etc. The Reserve Bank's approach with regard to transparency and disclosure closely follows international best practices in this regard. The Reserve Bank has adopted the Special Data Dissemination Standards (SDDS) template of the IMF for publication of the detailed data on Foreign Exchange Reserves. Such data are made available on monthly basis on the Reserve Bank's website.