# Half Yearly Report on Management of Foreign Exchange Reserves

**October-March 2018-19** 



**Reserve Bank of India** 

# **Department of External Investments and Operations (DEIO)**

Central Office, Mumbai

# Report on Management of Foreign Exchange Reserves

Part-I: Developments during the Half-year1.1 Introduction1.2 Movement of Foreign Exchange ReservesI.2.1 Review of Growth of Foreign Exchange ReservesI.2.2 Sources of Accretion to Foreign Exchange Reserves1.3 Forward Outstanding1.4 External Liabilities vis-à-vis Foreign Exchange Reserves1.5 Adequacy of Reserves1.6 Management of Gold Reserves1.7 Investment Pattern of the Foreign Currency Assets1.8 Other Related Aspects1.8.1 Financial Transaction Plan (FTP) of the IMF1.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMF1.8.3 SAARC Swap Arrangement between India and Bhutan1.8.4 SAARC Swap Arrangement between India and Maldives1.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and Disclosure11.1 Objectives of Reserve Management11.2 Legal Framework and Policies11.3.1 Credit Risk11.3.2 Market Risk
<ul> <li>1.2 Movement of Foreign Exchange Reserves</li> <li>I.2.1 Review of Growth of Foreign Exchange Reserves</li> <li>I.2.2 Sources of Accretion to Foreign Exchange Reserves</li> <li>I.3 Forward Outstanding</li> <li>I.4 External Liabilities vis-à-vis Foreign Exchange Reserves</li> <li>I.5 Adequacy of Reserves</li> <li>I.6 Management of Gold Reserves</li> <li>I.7 Investment Pattern of the Foreign Currency Assets</li> <li>I.8 Other Related Aspects</li> <li>I.8.1 Financial Transaction Plan (FTP) of the IMF</li> <li>I.8.2 Investments under New Arrangements to Borrow and Note</li> <li>Purchase Agreement (NPA) with IMF</li> <li>I.8.3 SAARC Swap Arrangement between India and Bhutan</li> <li>I.8.4 SAARC Swap Arrangement between India and Maldives</li> <li>I.8.5 Investment in Bonds issued by IIFC (UK)</li> <li>Part-II: Objectives of Reserve Management, Legal Framework,</li> <li>Risk Management</li> <li>II.3 Risk Management</li> <li>II.3 Risk Management</li> </ul>
I.2.1 Review of Growth of Foreign Exchange ReservesI.2.2 Sources of Accretion to Foreign Exchange ReservesI.3 Forward OutstandingI.4 External Liabilities vis-à-vis Foreign Exchange ReservesI.5 Adequacy of ReservesI.6 Management of Gold ReservesI.7 Investment Pattern of the Foreign Currency AssetsI.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3.1 Credit Risk
I.2.2 Sources of Accretion to Foreign Exchange ReservesI.3 Forward OutstandingI.4 External Liabilities vis-à-vis Foreign Exchange ReservesI.5 Adequacy of ReservesI.6 Management of Gold ReservesI.7 Investment Pattern of the Foreign Currency AssetsI.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
<ul> <li>I.3 Forward Outstanding</li> <li>I.4 External Liabilities vis-à-vis Foreign Exchange Reserves</li> <li>I.5 Adequacy of Reserves</li> <li>I.6 Management of Gold Reserves</li> <li>I.7 Investment Pattern of the Foreign Currency Assets</li> <li>I.8 Other Related Aspects</li> <li>I.8.1 Financial Transaction Plan (FTP) of the IMF</li> <li>I.8.2 Investments under New Arrangements to Borrow and Note</li> <li>Purchase Agreement (NPA) with IMF</li> <li>I.8.3 SAARC Swap Arrangement between India and Bhutan</li> <li>I.8.4 SAARC Swap Arrangement between India and Maldives</li> <li>I.8.5 Investment in Bonds issued by IIFC (UK)</li> <li>Part-II: Objectives of Reserve Management, Legal Framework,</li> <li>Risk Management, Transparency and Disclosure</li> <li>II.1 Objectives of Reserve Management</li> <li>II.2 Legal Framework and Policies</li> <li>II.3 Risk Management</li> <li>II.3.1 Credit Risk</li> </ul>
I.4 External Liabilities vis-à-vis Foreign Exchange ReservesI.5 Adequacy of ReservesI.6 Management of Gold ReservesI.7 Investment Pattern of the Foreign Currency AssetsI.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3 Risk Management
I.5 Adequacy of ReservesI.6 Management of Gold ReservesI.7 Investment Pattern of the Foreign Currency AssetsI.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.6 Management of Gold ReservesI.7 Investment Pattern of the Foreign Currency AssetsI.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
<ul> <li>I.7 Investment Pattern of the Foreign Currency Assets</li> <li>I.8 Other Related Aspects</li> <li>I.8.1 Financial Transaction Plan (FTP) of the IMF</li> <li>I.8.2 Investments under New Arrangements to Borrow and Note</li> <li>Purchase Agreement (NPA) with IMF</li> <li>I.8.3 SAARC Swap Arrangement between India and Bhutan</li> <li>I.8.4 SAARC Swap Arrangement between India and Maldives</li> <li>I.8.5 Investment in Bonds issued by IIFC (UK)</li> <li>Part-II: Objectives of Reserve Management, Legal Framework,</li> <li>Risk Management, Transparency and Disclosure</li> <li>II.1 Objectives of Reserve Management</li> <li>II.2 Legal Framework and Policies</li> <li>II.3 Risk Management</li> <li>II.3.1 Credit Risk</li> </ul>
I.8 Other Related AspectsI.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.8.1 Financial Transaction Plan (FTP) of the IMFI.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.8.2 Investments under New Arrangements to Borrow and NotePurchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
Purchase Agreement (NPA) with IMFI.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.8.3 SAARC Swap Arrangement between India and BhutanI.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework,Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.8.4 SAARC Swap Arrangement between India and MaldivesI.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
I.8.5 Investment in Bonds issued by IIFC (UK)Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
Part-II: Objectives of Reserve Management, Legal Framework, Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
Risk Management, Transparency and DisclosureII.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
II.1 Objectives of Reserve ManagementII.2 Legal Framework and PoliciesII.3 Risk ManagementII.3.1 Credit Risk
II.2 Legal Framework and Policies         II.3 Risk Management         II.3.1 Credit Risk
II.3 Risk Management II.3.1 Credit Risk
II.3.1 Credit Risk
II.3.2 Market Risk
II.3.2.1 Currency Risk
II.3.2.2 Interest Rate Risk
II.3.2.3 Liquidity Risk
II.3.3 Operational Risk and Control System
II.4 Transparency and Disclosures

# Contents

#### **Developments during the Half Year ended March 2019**

# 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 ( $32^{nd}$  in the series) is with reference to the position as at end-March 2019.

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 and 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

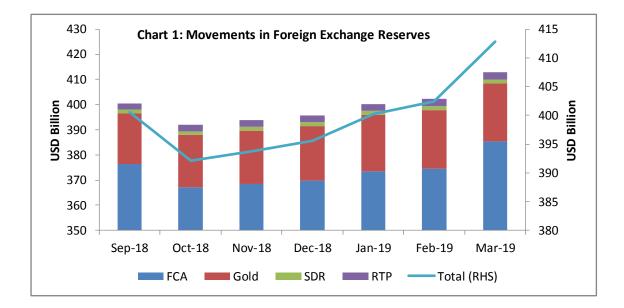
# I.2 Movement of Foreign Exchange Reserves

# I.2.1 Review of Growth of Foreign Exchange Reserves

The foreign exchange reserves stood at USD 400.53 billion as at end-September 2018. During the half-year period under review, reserves declined to USD 392.08 billion as at end-October 2018, and thereafter registered an increasing trend reaching USD 412.87 billion as at end of March 2019 (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.

Table 1 : Movement in Foreign Exchange Reserves						
(USD Million)						
Month End	FCA	Gold	SDR	RTP	Forex Reserves	
September -18	376243	20343	1471	2468	400525	
			(1054)			
October -18	367189	20816	1457	2624	392085	
			(1054)			
November -18	368488	21150	1455	2626	393718	
			(1052)			
December -18	369799	21690	1463	2640	395592	
			(1052)			
January -19	373372	22686	1473	2659	400190	
			(1052)			
February -19	374635	23253	1467	3007	402362	
			(1049)			
March -19	385357	23071	1457	2986	412871	
			(1049)			
Notes:						
(i) FCA (Foreig portfolio compris Japanese yen, etc	sing major cur	rencies, such	n as, US dolla			
(ii) FCA exclud				J IFC (U	K) (b) SDR	
holdings of Rese						
under SAARC S				( <b>v</b> )	uniouni iene	
(iii) SDR (Spec parentheses.			ues in SDR 1	have been	indicated in	
(iv) RTP refers to	o the Reserve	Franche Posi	tion in the IM	IF.		
(v) Difference, if						



# I.2.2 Sources of Accretion to Foreign Exchange Reserves

On a balance of payments basis (i.e., excluding valuation effects), the foreign exchange reserves decreased by US\$ 17.5 billion during April-December 2018 as against an increase of US\$ 30.3 billion during April-December 2017. The foreign exchange reserves in nominal terms (including the valuation effects) decreased by US\$ 29.0 billion during April-December 2018 as against an increase of US\$ 39.1 billion during the same period of the preceding year

Table 2 provides details of sources of variation in foreign exchange reserves during April-December 2018 vis-à-vis the corresponding period of the previous year. The valuation loss, mainly reflecting the appreciation of the US dollar against major currencies, amounted to US\$ 11.5 billion during April-December 2018 as against a gain of US\$ 8.8 billion during the same period of the preceding year.

Table 2: Sources of Variation to Foreign Exchange Reserves*				
		(US	D billion)	
		April-	Apr-	
	Items	Dec	Dec	
		2017	2018 \$	
I.	Current Account Balance	-35.7	-51.9	
II.	Capital Account (net) (a to f)	66.0	34.4	
a.	Foreign Investment	43.7	14.8	
(i)	Foreign Direct Investment	23.9	24.8	
(ii)	Portfolio Investment, [(of which)]	19.8	-10.1	
	FII	19.8	-13.7	
b.	Banking Capital, (of which)	11.6	15.5	
	[(of which)]			
	NRI Deposits	5.0	7.0	
c.	Short term credit	9.4	0.6	
d.	External Assistance	1.5	2.2	
e.	External Commercial Borrowings -0.2 2.8			
f.	Other items in capital account 1.0 -1.4			
III.	Valuation change 8.8 -11.5			
	Total (I+II+III) @	39.1	-29.0	
	Increase in reserves (+) / Decrease in			
	reserves (-)			
*.	Based on old format	of	BoP.	
@: Difference, if any, is due to rounding off.				
Note: 'Other items in capital account' apart from 'Errors and				
Omissions' include SDR allocations, 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 December 2018.				

# I.3 Forward Outstanding

The net forward liability (payable) of the Reserve Bank in domestic foreign exchange market stood at USD 13.77 billion as at the end of March 2019.

# 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-December 2018, is furnished in **Table 3.** During the period between end-December 2017 and end-December 2018, the external assets decreased by USD 9.7 billion and external liabilities increased by USD 0.6 billion.

Table 3: International Investment Position of India *					
(USD Billion)					
Item	<b>End-December</b>	<b>End-December</b>			
	2017 (R)	2018 (P)			
A. Total External Assets	613.5	603.8			
1. Direct Investment	155.2	166.2			
2. Portfolio Investment	2.9	2.7			
3. Other Investment	46.3	39.3			
4. Foreign Exchange Reserves	409.1	395.6			
B. Total External Liabilities1034.91035.5					
1.         Direct Investment         377.3         386.4					
2.         Portfolio Investment         267.4         245.8					
3. Other Investment	390.2	403.4			
C. Net IIP (A-B)@ (-) 421.4 (-) 431.7					
P: Provisional, R: Revised;					
@ Difference, if any, is due to rounding off.					
*: Updated figures available only up to December 2018.					

The net IIP as at end-December 2018 was negative at USD 431.7 billion as against a negative net IIP of USD 421.4 billion at end-December 2017, implying that the sum of all external liabilities is more than that of the external assets in both periods.<sup>1</sup> There has been a slight increase in the negative gap on a year-on-year basis.

<sup>&</sup>lt;sup>1</sup> Partially revised figures and hence may not tally with figures published in the previous reports.

## **I.5 Adequacy of Reserves**

At the end of December 2018, the foreign exchange reserves cover of imports stood at 9.1 months compared to 9.5 months at end-September 2018. The ratio of short-term debt (original maturity) to reserves, which was 26.1 per cent at end-September 2018, increased to 26.4 per cent at end-December 2018. The ratio of volatile capital flows (include cumulative portfolio inflows and outstanding short-term debt) to reserves increased from 88.4 per cent at end-September 2018 to 88.7 per cent at end-December 2018.

# I.6. Management of Gold Reserves

As at end-March, 2019, the Reserve Bank held 612.56 tonnes of gold, with 320.26 tonnes being held overseas in safe custody with the Bank of England and the Bank for International Settlements, while the remaining gold is held domestically. In value terms (USD), the share of gold in the total foreign exchange reserves increased marginally from about 5.08 per cent as at end-September, 2018 to about 5.59 per cent as at end March, 2019.

# 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-March 2019, out of the total foreign currency assets of USD 385.35 billion, USD 237.07 billion was invested in securities, USD 117.93 billion was deposited with other central banks and the BIS and the balance USD 30.36 billion comprised deposits with overseas branches of commercial banks (Table 4).

Table 4 : Deployment Pattern of Foreign Currency Assets					
(USD Million)					
As at end of As at end of					
	September March				
	2018	2019			
Foreign Currency Assets (FCA) *	376,243	385,357			
(a) Securities	239,375	237,068			
	(63.62)	(61.52)			
(b) Deposits with other central banks &	106,975	117,929			
BIS	(28.43)	(30.60)			
(c) Deposits with commercial banks 29,893 30,30					
overseas (7.95) (7.88)					
* 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 were two Purchase Transactions aggregating USD 532.13 million. Four repurchase transaction aggregating USD 154.46 million was made under the FTP of the IMF.

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

The IMF's amended and expanded New Arrangements to Borrow (NAB) is effective from March 11, 2011. India had committed to provide resources up to SDR 8,740.82 million to the IMF under this arrangement. Consequent to the payment of quota increase to IMF under the Fourteenth General Review of Quotas in February 2016, India's commitment under NAB was reduced to SDR 4,440.91 million. RBI has subscribed to Notes equivalent to SDR 336.91 million under NAB till the end of March 2019, as part of Government of India's Contribution.

In terms of the Note Purchase Agreement (NPA) 2016, entered into between RBI and IMF, RBI has agreed to invest an amount equivalent to USD 10 billion in SDR denominated Notes issued by IMF.

# I.8.3 SAARC Swap Arrangement between India and Bhutan

Bhutan had availed ₹ 7113 million, equivalent to USD 100 million on January 28, 2019 for three months which was repaid on April 30, 2019.

# I.8.4 SAARC Swap Arrangement between India and Maldives

Maldives had availed USD 100 million on December 19, 2018 for three months. The same was repaid by Maldives on March 19, 2019.

# I.8.5 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-March 2019 the amount invested in such bonds stood at USD 1.86 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 optimisation 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 Bank for International Settlements (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 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 overseas branches of commercial banks. 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, for example, 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. 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. Foreign dated securities are valued at market prices prevailing on the last business day of each month 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 longterm exposure to different currencies, depending on the likely movements in exchange rates and other considerations in 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.3.2.3 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 need for a highly liquid portfolio is a necessary constraint in the investment strategy. 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.3.3 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, 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 periodically, 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.

#### **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 is among the 61 central banks across the globe which 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.