Report of the Central Board of Directors on the working of the Reserve Bank of India for the year ended June 30, 2013 submitted to the Central Government in terms of Section 53(2) of the Reserve Bank of India Act, 1934

RESERVE BANK OF INDIA ANNUAL REPORT 2012-13

भारतीय रिज़र्व बैंक
RESERVE BANK OF INDIA
www.rbi.org.in

गवर्नर
GOVERNOR

LETTER OF TRANSMITTAL

Ref. No. SYD. 800 / 02.16.001 /2013-14

August 22, 2013
Shravana 31, 1935 (Saka)

The Finance Secretary
Government of India
Ministry of Finance
New Delhi – 110 001

Dear Sir:

In pursuance of Section 53(2) of the Reserve Bank of India Act, 1934, I have the pleasure in transmitting the following documents:

(i) A copy of the Annual Accounts for the year ended the June 30, 2013 signed by me, the Deputy Governors and the Chief General Manager, and certified by the Bank's Auditors; and

(ii) Two copies of the Annual Report of the Central Board on the working of the Bank during the year ended June 30, 2013.

Yours faithfully

[D. Subbarao]

केन्द्रीय कार्यालय भवन, शहीद भगतसिंह मार्ग, मुम्बई - 400 001, भारत
फोन: +91 22 2266 0868 / 2266 1872 / 2266 2644 फैक्स: +91 22 2266 1784 ई-मेल: governor@rbi.org.in
Central Office Building, Shahid Bhagat Singh Marg, Mumbai - 400 001, India
Tel: +91 22 2266 0868 / 2266 1872 / 2266 2644 Fax: +91 22 2266 1784 E-mail: governor@rbi.org.in

हिंदी आसान है, इसका प्रयोग बढ़ाइए

CENTRAL BOARD / LOCAL BOARDS

GOVERNOR

D. Subbarao

DEPUTY GOVERNORS

K. C. Chakrabarty

Anand Sinha

H. R. Khan

Urjit R. Patel

DIRECTORS NOMINATED UNDER SECTION 8 (1) (b) OF THE RBI ACT, 1934

Anil Kakodkar

Kiran S. Karnik

M. V. Rajeev Gowda

Nachiket M. Mor

DIRECTORS NOMINATED UNDER SECTION 8 (1) (c) OF THE RBI ACT, 1934

Y. H. Malegam

Azim Premji

Dipankar Gupta

G. M. Rao

Ela Bhatt

Indira Rajaraman

Y.C. Deveshwar

Damodar Acharya

DIRECTOR NOMINATED UNDER SECTION 8 (1) (d) OF THE RBI ACT, 1934

Arvind Mayaram

Rajiv Takru

MEMBERS OF LOCAL BOARDS

WESTERN AREA

Kiran Karnik

K. Venkatesan

Dattaraj V. Salgaocar

Jayantilal B. Patel

EASTERN AREA

Nachiket M. Mor

Ms Anila Kumari

Sharif Uz-zaman Laskar

NORTHERN AREA

Anil Kakodkar

Ram Nath

Kamal Kishore Gupta

Mihir Kumar Moitra

A. Naveen Bhandary

SOUTHERN AREA

M.V.Rajeev Gowda

K. Selvaraj

Kiran Pandurang

As on August 8, 2013

PRINCIPAL OFFICERS

(As on August 8, 2013)

EXECUTIVE DIRECTORS	G. Gopalakrishna
	Deepak Mohanty
	S. Karuppasamy
	R. Gandhi
	P. Vijaya Bhaskar
	B. Mahapatra
	G. Padmanabhan
	Jasbir Singh
	Deepali Pant Joshi
CENTRAL OFFICE	
Central Vigilance Cell	Kaza Sudhakar, Chief Vigilance Officer
Customer Service Department	Supriya Pattnaik, Chief General Manager
Department of Banking Operations and Development	Chandan Sinha, Principal Chief General Manager
Department of Banking Supervision	G. Jaganmohan Rao, Principal Chief General Manager
Department of Communication	Alpana I. Killawala, Principal Press Relation Officer
Department of Currency Management	B.P. Vijayendra, Principal Chief General Manager
Department of Economic and Policy Research	B.M. Misra, Officer-in-Charge
Department of Expenditure and Budgetary Control	S. Ganesh, Principal Chief General Manager
Department of External Investments and Operations	M. Sarkar Deb, Chief General Manager
Department of Government and Bank Accounts	S. Ganeshkumar, Chief General Manager-in-Charge
Department of Information Technology	A.S. Ramasastri, Chief General Manager-in-Charge
Department of Non-Banking Supervision	N. S. Vishwanathan, Principal Chief General Manager
Department of Payment and Settlement Systems	Vijay Chugh, Chief General Manager
Department of Statistics and Information Management	A.B. Chakraborty, Officer-in-Charge
Financial Markets Department	G. Mahalingam, Principal Chief General Manager
Financial Stability Unit	R.G. Warriar, Chief General Manager
Foreign Exchange Department	R.N. Kar, Chief General Manager
Human Resource Management Department	U. S. Paliwal, Principal Chief General Manager
Inspection Department	M. Sebastian, Principal Chief General Manager
Internal Debt Management Department	K.K. Vohra , Principal Chief General Manager
Legal Department	G.S. Hegde, Principal Legal Adviser
Monetary Policy Department	M. D. Patra, Principal Adviser
Premises Department	K.R. Ananda, Principal Chief General Manager
Rajbhasha Department	Ramakant Gupta, General Manager
Risk Monitoring Department	M. Rajeshwar Rao, Chief General Manager
Rural Planning and Credit Department	A. Udgata, Principal Chief General Manager
Secretary's Department	Bazil Shaikh, Principal Chief General Manager & Secretary
Urban Banks Department	A. K. Bera, Principal Chief General Manager
COLLEGES	**PRINCIPALS**
College of Agricultural Banking, Pune	Meena Hemchandra
Reserve Bank Staff College, Chennai	Uma Subramaniam
OFFICES	**REGIONAL DIRECTORS**
Chennai	J. Sadakkadulla
Kolkata	B.P. Kanungo
Mumbai	J.B. Bhoria
New Delhi	Deepak Singhal
BRANCHES	
Ahmedabad	Sudarshan Sen
Bangalore	Uma Shankar
Bhopal	P.R. Ravi Mohan
Bhubaneswar	P. K. Jena
Chandigarh	M. K. Singh
Guwahati	Pradyumna K. Jena
Hyderabad	K.R. Das
Jaipur	Sathyan David
Jammu	K.K. Saraf
Kanpur	Shekhar Bhatnagar
Lucknow	Arun Pasricha
Nagpur	Phulan Kumar
Patna	M.K. Verma
Thiruvananthapuram	Salim Gangadharan
	OFFICERS-IN-CHARGE
Agartala	A.K. Pandey, General Manager
Belapur	Ajay Michyari, General Manager
Dehradun	R.L. Sharma, General Manager
Gangtok	E.E. Karthak, General Manager
Kochi	C.V. George, General Manager
Panaji	Jaikish, General Manager
Raipur	Nirmal Chand, General Manager
Ranchi	Saurav Sinha, General Manager
Shillong	P. Shyam Sunder, Chief General Manager
Shimla	I. S. Negi, General Manager
Srinagar	Ramesh Chand, Deputy General Manager

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LIST OF ABBREVIATIONS

ACP - Annual Credit Plan
ACP (Ch VI) - Autorité de Contrôle Prudentiel
ADF - Automated Data Flow
ADR - American Depository Receipt
ADWDRS - Agricultural Debt Waiver and Debt Relief Scheme
AEs - Advanced Economies
AFA - Additional Factor of Authentication
AGL - Aggregate Gap Limit
AIFI - All India Financial Institutions
AIRB - Advanced Internal Rating – Based
ASA - Alternative Standardised Approach
ASBA - Applications Supported by Blocked Amount
AMA - Advanced Measurement Approach
AMC - Asset Management Company
AML - Anti Money Laundering
ANBC - Adjusted Net Bank Credit
APMC - Agricultural Produce Marketing Committee
ARCH - Autoregressive Conditional Heteroskedasticity
ARMS - Auditing and Risk Management Sub-Committee
ATBs - Auction Treasury Bills
ATM - Automated Teller Machine
BC - Business Correspondent
BCBS - Basel Committee on Banking Supervision
BCM - Bank for Currency Management
BCPs - Basel Core Principles
BCSBI - Banking Codes and Standards Board of India
BE - Budget Estimates
BFS - Board for Financial Supervision
BIC - Bayesian Information Criteria
BKC - Bandra Kurla Complex
BIA - Basic Indicator Approach
BO - Banking Ombudsman
BoJ - Bank of Japan
BoP - Balance of Payments
BPM6 - Balance of Payments Manual 6
BPO - Business Process Outsourcing
BSBDA - Basic Savings Bank Deposit Account
BSE - Bombay Stock Exchange
CAB - College of Agricultural Banking
CAD - Current Account Deficit
CAFRAL - Centre for Advanced Financial Research and Learning
CBLO - Collateralised Borrowing and Lending Obligation
CBS - Core Banking Solution
CCB - Central Cooperative Bank
CCI - Cabinet Committee on Investments
CCIL - Clearing Corporation of India Ltd.
CCP - Cheque Collection Policies
CD - Certificate of Deposit
CDS - Credit Default Swaps
CDS - Centre for Development Studies
CERC - Central Electricity Regulatory Commission
CERSAI - Central Registry of Securitisation Asset Reconstruction and Security Interest of India
CEO - Chief Executive Officer
CFSA - Committee on Financial Sector Assessment
CFT - Combating Financing of Terrorism
CFM - Carbon Footprint Mapping
CIC - Central Information Commission
CIC - Core Investment Company
CISO - Chief Information Security Officer
CIT - Cash in Transit
CNP - Card Not Present
CNX - CRISIL NSE Index
CoR - Certificate of Registration
CP - Commercial Paper
CP (Ch IX) - Card Present
CPGRAMS - Centralised Public Grievances Redressal and Monitoring System
CPI - Consumer Price Index
CPSS - Committee on Payments and Settlements System
CRAR - Capital to Risk Weighted Assets Ratio
CROMS - Clearcorp Repo Order Matching System

LIST OF ABBREVIATIONS

CRR	- Cash Reserve Ratio
CSD	- Customer Service Department
CSF	- Consolidated Sinking Fund
CSO	- Central Statistics Office
CTS	- Cheque Truncation System
CVA	- Credit Valuation Adjustment
CWC	- Central Warehousing Corporation
DARPG	- Department of Administration Reforms and Public Greviences
DBT	- Direct Benefit Transfer
DCC	- District Consultative Committee
DCCB	- District Central Cooperative Bank
DCCO	- Date of Commencement of Commercial Operations
DFC	- Dedicated Freight Corridor
DGCA	- Director General of Civil Aviation
DICGC	- Deposit Insurance and Credit Guarantee Corporation
DIF	- Deposit Insurance Fund
DLRC	- District Level Review Committee
DMIC	- Delhi Mumbai Industrial Corridor
DOTS	- Direction of Trade Statistics
DP	- Dynamic Provisions
DR	- Disaster Recovery
DRG	- Development Research Group
DTA	- Domestic Tariff Area
DTC	- Direct Tax Code
DTL	- Demand and Time Liabilities
DvP	- Delivery versus Payment
EBT	- Electronic Benefit Transfer
ECB	- European Central Bank
ECBs	- External Commercial Borrowings
ECCS	- Express Cheque Clearing System
ECM	- Error Correction Model
ECS	- Electronic Clearing Service
EEFC	- Exchange Earners Foreign Currency
EGARCH	- Exponential Generalised Autoregressive Conditional Heteroskedasticity
EKP	- Enterprise Knowledge Portal
EMDEs	- Emerging Market and Developing Economies
EL	- Expected Loss
EOI	- Expression of Interest
EOU	- Export Oriented Unit
EPC	- Engineering, Procurement and Construction
EPZ	- Export Processing Zone
ERM	- Enterprise-wise Risk Management
ETC	- Electronic Toll Collection
ETF	- Exchange Traded Fund
EWG	- Early Warning Group
EU	- European Union
F & O	- Future & Options
FAO	- Food and Agriculture Organisation
FASB	- Financial Accounting Standards Board
FCCB	- Foreign Currency Convertible Bonds
FCNR(B)	- Foreign Currency Non-Resident(B)
FC-XIII	- Thirteenth Finance Commission
FCs	- Financial Conglomerates
FCI	- Food Corporation of India
FDI	- Foreign Direct Investment
FED	- Foreign Exchange Department
FEMA	- Foreign Exchange Management Act
FETERS	- Foreign Exchange Transactions Electronic Reporting System
FIAC	- Financial Inclusion Advisory Committee
FII	- Foreign Institutional Investor
FIMMDA	- Fixed Income Money Market and Derivatives Association
FIP	- Financial Inclusion Plan
FIRB	- Foundation Internal Rating-Based
FLC	- Financial Literacy Centre
FMCG	- Fast Moving Consumer Goods
FRA	- Forward Rate Agreement
FSA	- Fuel Supply Agreement
FSAP	- Financial Sector Assessment Programme
FSB	- Financial Stability Board
FSDC	- Financial Stability and Development Council
FSI	- Financial Soundness Indicator
FSLRC	- Financial Sector Legislative Reforms Commission

LIST OF ABBREVIATIONS

FSR - Financial Stability Report
G20 - Group of 20
GAAR - General Anti-Avoidance Rule
GARCH - Generalised Autoregressive Conditional Heteroskedasticity
GDCF - Gross Domestic Capital Formation
GRF - Guarantee Redemption Fund
GDP - Gross Domestic Product
GDR - Global Depository Receipt
GDS - Gold Deposit Scheme
GFCE - Government Final Consumption Expenditure
GFCF - Gross Fixed Capital Formation
GFD - Gross Fiscal Deficit
GHG - Green House Gas
GoI - Government of India
GSDP - Gross State Domestic Product
G-sec - Government Securities
GST - Goods and Services Tax
GVA - Gross Value Added
HCL - Hindustan Copper Ltd.
HLFC - High Level Steering Committee
HP - Hodrick Prescott
HTM - Held to Maturity
IASB - International Accounting Standards Board
IBAN - International Bank Account Number
IBPS - India Bill Payment System
ICCL - Indian Clearing Corporation Ltd.
ICERT - Indian Computer Emergency Response Team
ICT - Information and Communication Technology
IDRBT - Institute for Development and Research in Banking Technology
IFC - Indian Financial Code
IFRS - International Financial Reporting Standards
IFSC - Indian Financial System Code
IGIDR - Indira Gandhi Institute of Development Research
IIB - Inflation Indexed Bond
IIBM - Indian Institute of Bank Management
IIM - Indian Institute of Management
IIP - Index of Industrial Production
IMA - Internal Models Approach
IMF - International Monetary Fund
INR - Indian Rupee
Ind AS - Indian Accounting Standards
IOSCO - International Organisation of Securities Commissions
IP - Internet Protocol
IPA - Issuing and Paying Agent
IPO - Initial Public Offering
IRAC - Income Recognition and Asset Classification
IRB - Internal Ratings-Based
IRDA - Insurance Regulatory and Development Authority
IRF - Impulse Response Function
IRF - Interest Rate Futures
IRF - Inter Regulatory Forum
IRS - Interest Rate Swaps
IS - Information Systems
ISACA - Information Systems Audit and Control Association
ISO - International Organisation for Standardisation
iSOC - Information Security Operations Centre
IT - Information Technology
ITBs - Intermediate Treasury Bills
ITEs - Inter-group Transactions and Exposures
ITP - India-IMF Training Programme
ITSC - Information Technology Sub-Committee
IVRS - Interactive Voice Response System
JV/WOS - Joint Venture/Wholly Owned Subsidiary
KAs - Key Attributes
KCC - Kisan Credit Card
KYC - Know Your Customer
LAB - Local Area Bank
LAF - Liquidity Adjustment Facility
LBS - Lead Bank Scheme
LCR - Liquidity Coverage Ratio

LIST OF ABBREVIATIONS

LGD - Loss Given Default
LIC - Life Insurance Corporation of India
LPA - Long Period Average
LPG - Liquefied Petroleum Gas
LRM - Liquidity Risk Management
LSAP - Large Scale Asset Purchase
LTV - Loan to Value
MA & ST - Management Audit & System Inspection
MCA - Ministry of Corporate Affairs
MCX-SX-CCL - MCX-SX Clearing Corporation Limited
MDR - Merchant Discount Rate
MF - Mutual Fund
MIBOR - Mumbai Interbank Offer Rate
MICR - Magnetic Ink Character Recognition
MoU - Memorandum of Understanding
MMoU - Multilateral Memorandum of Understanding
MSCI - Morgan Stanley Capital International
MSE - Micro and Small Enterprises
MSF - Marginal Standing Facility
MSME - Micro, Small and Medium Enterprises
MTSS - Money Transfer Service Scheme
NABARD - National Bank for Agriculture and Rural Development
NACH - National Automated Clearing House
NALCO - National Aluminium Company Ltd.
NBCC - National Buildings Construction Corporation Ltd.
NBFC-IFC - Non-Banking Financial Companies-Infrastructure Finance Companies
NBFC-MFI - Non-Banking Financial Companies-Microfinance Institutions
NBFCs - Non-Banking Financial Companies
NCD - Non-Convertible Debenture
NCFE - National Centre for Financial Education
NDF - Non-Deliverable Forward
NDS-OM - Negotiated Dealing System- Order Matching System
NECS - National Electronic Clearing Service
NEER - Nominal Effective Exchange Rate
NEFT - National Electronic Fund Transfer
NGO - Non-Governmental Organisation
NG-RTGS - Next Generation RTGS
NHAI - National Highway Authority of India
NHB - National Housing Bank
NIBM - National Institute of Bank Management
NIM - Net Interest Margin
NIMZ - National Investment and Manufacturing Zone
NMDC - National Mineral Development Corporation
NMP - National Manufacturing Policy
NOC - No Objection Certificate
NOF - Net Owned Funds
NOFHC - Non-Operative Financial Holding Company
NOOP - Net Overnight Open Position
NOOPL - Net Overnight Open Position Limited
NPA - Non Performing Asset
NPCI - National Payments Corporation of India
NPV - Net Present Value
NR(E)RA - Non-Resident (External) Rupee Account
NRE - Non Resident External
NREGA - National Rural Employment Guarantee Act
NRI - Non Resident Indian
NRO - Non Resident Ordinary
NSCCL - National Securities Clearing Corporation Ltd.
NSE - National Stock Exchange
NSFE - National Strategy for Financial Education
NSM - Note Sorting Machine
NSSO - National Sample Survey Organisation
NTPC - National Thermal Power Corporation
OBC - Other Backward Class
OBE - Off-Balance sheet Exposure
OBO - Offices of the Banking Ombudsman
OD - Overdraft
OEA - Office of Economic Adviser
OECD - Organisation for Economic Cooperation and Development
OIL - Oil India Ltd.

LIST OF ABBREVIATIONS

OIS	- Overnight Index Swap
OMC	- Oil Marketing Companies
OMO	- Open Market Operation
OPEC	- Organisation of Petroleum Exporting Countries
OFRS	- Online Return Filing System
OTC	- Over the Counter
OVL	- Oil and Natural Gas Corporation Videsh Ltd.
PACS	- Primary Agricultural Credit Societies
PAN	- Permanent Account Number
PB	- Price to Book
PDO-NDS	- Public Debt Office-Negotiated Dealing System
PD	- Primary Dealer
PE	- Price Earnings
PFCE	- Private Final Consumption Expenditure
PFMIs	- Principles for Financial Market Infrastructures
PPRDA	- Pension Fund Regulatory and Developmental Authority
PIO	- Persons of Indian Origin
PLF	- Plant Load Factor
PMLA	- Prevention of Money Laundering Act
PMO	- Prime Minister's Office
POL	- Petroleum, Oil and Lubricants
POS	- Point of Sale
PPI	- Producer Price Index
PPI	- Prepaid Payment Instrument
PPP	- Public Private Partnership
PSB	- Public Sector Bank
PSS	- Perimeter Security Solution
PSU	- Public Sector Undertaking
QE	- Quantitative Easing
QARC	- Qualified Audit Report Review Committee
QIP	- Qualified Institutional Placement
QRB	- Quality Review Board
R&D	- Research and Development
RBI	- Reserve Bank of India
RBIA	- Risk Based Internal Audit
RBIQ	- RBI Inter-school Quiz
RBI WPS	- RBI Working Paper Series
RBS	- Risk Based Supervision
RBSC	- Reserve Bank Staff College
RCF	- Rashtriya Chemicals and Fertilisers Ltd.
RD	- Revenue Deficit
RE	- Revised Estimates
RECS	- Regional Electronic Clearing Service
REER	- Real Effective Exchange Rate
RFP	- Request for Proposal
RIDF	- Rural Infrastructure Development Fund
RMA	- Royal Monetary Authority
RoA	- Return on Asset
RoE	- Return on Equity
RRB	- Regional Rural Bank
RTGS	- Real Time Gross Settlement System
RTI	- Right to Information
S&P	- Standard and Poor's
SAARC	- South Asian Association for Regional Cooperation
SAIL	- Steel Authority of India Ltd.
SBC	- Schwarz Bayesian Criterion
SBS	- Shredding and Briquetting System
SCB	- Scheduled Commercial Bank
SDL	- State Development Loans
SEACEN	- South East Asian Central Banks
SEBI	- Securities and Exchange Board of India
SEZ	- Special Economic Zone
SHG	- Self Help Group
SIDBI	- Small Industries Development Bank of India
SIFI	- Systemically Important Financial Institution
SLBC	- State Level Bankers' Committee
SLR	- Statutory Liquidity Ratio
SME	- Small and Medium Enterprise
SMM	- Standardised Measurement Method
SOFTEX	- Software Export Declaration
SP	- Specific Provisions
StCB	- State Cooperative Bank
STCCS	- Short Term Cooperative Credit Structure

LIST OF ABBREVIATIONS

STCRC	- Short Term Cooperative Rural Credit
STPI	- Software Technology Parks of India
SWC	- State Warehousing Corporation
SWIFT	- Society for Worldwide Interbank Financial Telecommunication
T-bill	- Treasury Bill
TERI	- The Energy and Resources Institute
TFYP	- Twelfth Five Year Plan
TSA	- The Standardised Approach
UAE	- United Arab Emirates
UCBs	- Urban Cooperative Banks
UCIC	- Unique Customer Identification Code
UID	- Unique Identification Number
UNCTAD	- United Nations Conference on Trade and Development
US	- United States
UVI	- Unit Value Indices
VA-PT	- Vulnerability Assessment-Penetration Testing
VAR	- Vector Autoregression
VaR	- Value at Risk
VC	- Video Conferencing
VECM	- Vector Error Correction Model
WADR	- Weighted Average Discount Rate
WAEIR	- Weighted Average Effective Interest Rate
WDRA	- Warehousing Development and Regulatory Authority
WEF	- World Economic Forum
WLAs	- White Label ATMs
WMA	- Ways and Means Advances
WPI	- Wholesale Price Index
XBRL	- eXtensible Business Reporting Language
XML	- Extreme Markup Language
YTM	- Yield to Maturity
ZTC	- Zonal Training Centre

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*For the Year July 1, 2012 to June 30, 2013**

PART ONE: THE ECONOMY - REVIEW AND PROSPECTS

I ASSESSMENT AND PROSPECTS

Macroeconomic conditions deteriorated during 2012-13, posing several challenges in 2013-14 so far. Growth slowed further in 2012-13, due to structural constraints and weak external demand. Also, vulnerabilities surfaced with the widening current account deficit (CAD), high fiscal deficit earlier in the year and deterioration in asset quality. Reflecting these developments, the Reserve Bank undertook calibrated monetary easing, allowing transmission to complete from the past two years of monetary tightening. Consequently, headline inflation moderated in the later part of the year, helped in part by the negative output gap. Concerted efforts in the second half of the year helped correct fiscal deficit to a significant extent. However, macroeconomic risks have since amplified, as the global interest rate cycle is reversing following the US Fed's indications of likely tapering of quantitative easing (QE). Emerging market economies, particularly those with CAD, have come under pressure due to capital outflows. The Reserve Bank and the Government have taken several steps to address volatility in the foreign exchange market and narrow the CAD. However, global risks coupled with domestic structural impediments have dampened prospects of a recovery in 2013-14 and posed immediate challenges for compressing CAD and staying on the fiscal consolidation path. In this milieu, it is important to preserve macro-financial stability to rebuild growth on a sustainable basis.

I.1 Growth decelerated further in 2012-13 to a 10-year low of 5.0 per cent. The slowdown also became more pervasive across sectors, including services. Growth had averaged 8.8 per cent during 2005-06 to 2010-11, despite a low of 6.7 per cent in 2008-09 due to the external shock. The subsequent slowdown was primarily exacerbated by structural bottlenecks and governance issues, although high inflation, monetary tightening and global factors also played a role.

I.2 In terms of industrial performance, mining output contracted for the second consecutive year, as structural constraints came to fore with the clampdown on illegal mining and an inadequate compensatory supply response in the short run amid unclear regulatory environment. Mining of coal and iron ore were particularly affected and the consequent coal shortages spilled over as an input supply constraint for the power sector, adversely impacting both its current output and investments. Manufacturing output nearly stagnated, recording a dismal 1.0 per cent growth y-o-y during 2012-13, as structural constraints and governance issues clogged production activity. Growth also slowed due to cyclical factors in both external and domestic demand. Subdued growth in world trade kept export demand low. Domestic demand deceleration was partly due to the lagged impact of monetary tightening during January 2010–October 2011 in

* While the Reserve Bank of India's accounting year is July-June, data on a number of variables are available on a financial year basis, *i.e.*, April–March, and hence, the data are analysed based on the financial year. Where available, the data have been updated beyond March 2013. For the purpose of analysis and to provide proper perspective on policies, reference to past years as also prospective periods, wherever necessary, has been made in this Report.

response to high inflation. Agricultural growth also decelerated to below trend, due to the spatially and temporally deficient monsoon that impacted *kharif* production. Two years of industrial slowdown and dampened demand has slowed down services sector activity as well.

I.3 The negative output gap that emerged with growth staying below potential and past monetary tightening helped moderate headline wholesale price index (WPI) inflation towards the end of the year. Headline inflation, which had risen sharply in H2 of 2009-10 to reach double digits had prompted Reserve Bank to assume an anti-inflationary monetary policy stance. As inflation averaged close to double digits during 2010-11 and 2011-12, the Reserve Bank persisted with this stance. During January 2010 and October 2011, monetary policy was tightened through a cumulative increase in effective policy rate by 525 basis points (bps) (from reverse repo rate of 3.25 per cent to repo rate of 8.5 per cent) and an increase in the cash reserve ratio (CRR) by 100 bps from 5.0 per cent to 6.0 per cent. Monetary tightening was spread over an extended period, as policy rates had to be raised from the low levels that they reached consequent to the crisis-driven stimulus and inflation expectations remained elevated.

I.4 Though growth began decelerating in H1 of 2011-12, inflation stayed near double digits, prompting Reserve Bank to keep monetary policy in tightening mode. However, with inflation projections suggesting that it would start receding in Q4 of 2011-12, the Reserve Bank paused tightening in its December 2011 mid-Quarter Review. With signs that inflation was moderating in line with projections and with demand-side pressures starting to ebb, the Reserve Bank prepared grounds for a policy-easing cycle by imparting more liquidity through aggressive CRR cuts of 125 bps in Q4 of 2011-12. This was followed up with 100 bps cuts in the policy rate, another 75 bps reduction in the CRR on a cumulative basis during 2012-13 and a 100 bps reduction in the SLR besides a liquidity injection of ₹1.5 trillion through OMOs. The accentuation of risks to macroeconomic stability arising from the twin deficits in the form of wide fiscal and current account deficits and inflation persistence inhibited the Reserve Bank from taking a more pro-active growth-supportive stance despite growth slowing down more than anticipated, mainly on account of structural constraints and governance issues. The expected fiscal correction came later in the year, by which time worries on the CAD front had mounted and emerged as the biggest macro-economic risk.

I.5 The Reserve Bank cut the repo rate by another 25 bps to 7.25 per cent in early May 2013 in continuation of its growth-supportive monetary policy stance. However, the Federal Reserve Chairman's comments subsequent on May 22, indicating likely tapering of quantitative easing (QE) altered global financial conditions in a significant way. It triggered global bond sell-offs that generated large capital outflows from emerging markets, including India, and imparted significant downward pressures on emerging market currencies across the world. Considering the global and domestic macro-financial conditions and the risks to the CAD, the Reserve Bank paused in its mid-quarter review on June 17, 2013. Financial market pressures exacerbated after further indications from the Fed that it could completely wind down QE by the middle of 2014 precipitating sudden stop and a reversal of portfolio investment flows. With continued capital outflows, mounted concerns over the financing of the CAD during 2013-14. Amid these strains, the rupee depreciated by 7.5 per cent against the US dollar during May 22–July 15 and large volatility was observed in the foreign exchange market. There have been significant FII outflows of about US$ 14.6 billion during May 27 to August 9, 2013 which extended sharp downwards pressure on exchange rate.

I.6 In response, on July 15, 2013, the Reserve Bank announced a package of liquidity tightening measures to contain volatility in the foreign

exchange market. It also announced additional measures on July 23, 2013 and on August 8, 2013. The measures included increasing the marginal standing facility (MSF) rate and the bank rate by 200 bps to 10.25 per cent, announcing an auction of ₹120 billion in open market sales of government securities, capping LAF borrowing access for each individual bank at 0.5 per of its NDTL and increasing the minimum daily maintenance of CRR from 70 per cent to 99 per cent of the daily average requirement on a fortnightly basis. Further, on review of the earlier measures, the Reserve Bank on August 8, 2013 announced auction of Government of India Cash Management Bills (CMBs). Accordingly, ₹220 billion of CMBs were auctioned in the following week.

I.7 The strategy to restrain domestic liquidity had the immediate impact of stabilising the rupee, although interest rates in the money and debt markets rose. During July 15-29, the rupee appreciated by 1.3 per cent. Against this backdrop, the Reserve Bank continued to hold policy rates and its stipulation on reserve requirements in its First Quarter Review on July 30, 2013. In its forward guidance it indicated its intention to roll back the liquidity tightening measures in a calibrated manner as stability is restored to the foreign exchange market, so that the monetary policy could revert to supporting growth with continued vigil on inflation. Post-policy review, the rupee came under fresh pressure and it depreciated by 3.0 per cent within two days till end-July 2013.

I.8 Amidst continuing rupee volatility in August and easing liquidity conditions during July and early August 2013 along with forward looking assessment of liquidity conditions, the Government and Reserve Bank decided to auction CMBs.

I.9 The intensification of exchange market volatility has prompted the Reserve Bank to undertake unconventional measures in order to restore stability in the currency market so that macro-financial conditions remain supportive of sustainable growth. It is in this context that the measures should be seen as part of an integrated package comprising policies to create a conducive environment for capital inflows and to discourage imports of gold. However, complementary action to push forward structural reforms to reduce the CAD and accelerate growth, while increasing savings and investment, will be needed to move towards internal and external balance.

ASSESSMENT OF 2012-13

I.10 The year 2012-13 was marked by slowing growth, lingering inflation, large fiscal and current account gaps and deteriorating asset quality. Thus, monetary policy was faced with a Hobson's choice. With growth decelerating further and staying below trend for the second consecutive year, ordinarily the policy response would have been an accommodative monetary policy. The Reserve Bank did ease monetary policy, but in a calibrated manner. There was clearly a demand from industry and financial markets for a more aggressive easing. At the same time, there were worries that consumer price inflation was hurting people and that the Reserve Bank was not able to subdue inflation. Persisting inflation was eroding the competitive efficiency of the economy and lowering the financial savings of households with its adverse consequences for the CAD, investment and long-term growth. The Reserve Bank did carefully weigh all information and options and, as the year progressed, it calibrated monetary policy in line with the evolving macroeconomic dynamics.

I.11 In assessing the developments of 2012-13 it is important to understand (i) why growth slowed further in 2012-13, (ii) why inflation, after a modest decline towards the end of 2011-12, continued to linger above its growth-neutral threshold, (iii) why the fiscal deficit widened in H1 of 2012-13 before the fiscal retrenchment in H2 and (iv) why the CAD widened and how external sector fragilities impacted the economy.

Causes for economic slowdown

I.12 Growth slowdowns are typically associated with cyclical or structural shocks that are often called real business cycle shocks in economics. The former are transitory, while the latter are more persistent because by nature they last until newer, lasting shocks take growth to a different level of output in either direction. Cyclical shocks are in the nature of upswings and downswings in growth or in terms of booms and busts. Permanent shocks are generally associated with real business cycle proponents, such as productivity changes, demographic changes, wars, natural calamities, structural deficits and other structural factors.

I.13 Over the past two years, although part of the slowdown has been driven by cyclical factors, structural constraints have played a major role in the slowdown (see Box II.1). Mining activity was impacted adversely by governance factors. The slack in manufacturing activity was largely due to poor investment on the back of structural issues facing the infrastructure sector. In addition, global factors played an important role in the current growth slowdown. Global growth decelerated to 3.1 per cent in 2012, the lowest since the 2009 contraction that followed the global financial crisis. Likewise, global trade decelerated sharply to 2.5 per cent from 6.0 per cent in the preceding year and 12.5 per cent a year ago. Consequently, external demand fell and revival was difficult.

I.14 Growth slowdown to a substantial extent has been the result of investment downturn. Investment climate for the private corporate sector remained weak in 2012-13. The cost of new projects planned during 2012-13 which was sanctioned financial assistance by banks/FIs or funded through ECBs/FCCBs/capital market issuances in the domestic market, aggregated to ₹2,634 billion as against that of ₹2,509 billion in 2011-12. In addition, many projects sanctioned in the past had been cancelled in the recent years. The investment plan in 2012-13 was led by high value projects in power and metal & metal products industries.

I.15 Based on the time phasing details of expenditure on such projects envisaged at the proposal stage, it is estimated that actual capital expenditure made during 2012-13 was lower than that in 2011-12 and available indication, so far, points that it would further decline in 2013-14.

I.16 Monetary policy encountered difficulties in supporting revival in the face of the predominant role of non-monetary factors in the slowdown and the persistence of high inflation. It is generally recognised that monetary policy can best impact growth by providing a reasonable degree of price stability. Loose monetary policy can have a lasting influence on inflation and inflation expectations and, in turn, can cause actual as well as potential growth to fall. On the other hand, its direct impact on growth is limited in that it can influence the level of output in a counter-cyclical way. If there is a cyclical fall in output to below potential, monetary policy can try to lift aggregate demand by easing monetary policy. If the economy gets overheated and operates at a level above the potential output, it is important to tighten monetary policy and bring it back to potential to counter acceleration in inflation. Long-run changes in growth are mainly driven by technology, productivity shocks and fiscal policies that affect thrift and investments. The greater focus of monetary policy on inflation relative to growth is also because inflation has distributional consequences and welfare costs that can hurt the poor the most. These considerations affected the Reserve Bank's mix of growth-inflation trade-offs in its policies, even as growth decelerated.

Persistence of Inflation

I.17 The year 2012-13 was marked by headline WPI inflation ruling at a lower level than in the previous two years. On an average basis, headline inflation came down to 7.4 per cent from 8.9 per cent in 2011-12 and 9.6 per cent a year ago. Headline inflation, after receding in Q4 of 2011-12, exhibited persistence at that relatively lower level. This persistence mainly reflected high food and fuel

inflation almost throughout the year. So, although non-food manufacturing inflation receded further during H2 of 2012-13 due to softer global commodity prices and a fall in demand-side pressures, the overall WPI inflation exhibited a fair degree of persistence. The year saw the negative output gap helping to moderate inflation, but encountering resistance amid supply-side constraints.

I.18 Food inflation originated from an unusual spike in vegetable prices during February–April 2012, a rise in cereal prices later in the year due to the delayed monsoon and a significant increase in minimum support prices (MSPs). Fuel inflation largely reflected the impact of administered price changes during the year, with some of the suppressed inflation coming to the fore. A marked growth slowdown and past monetary tightening along with softer global commodity prices contributed to manufactured non-food products inflation declining sharply in H2 of 2012-13 and further in Q1 of 2013-14. Consequently, despite the pressures of food and fuel inflation, headline WPI inflation remained range bound between 7–8 per cent for the first 11 months of 2012-13, before it declined sharply in March 2013 to 5.7 and below 5 per cent during Q1 of 2013-14. Non-food manufactured products inflation has declined further in 2013-14 and stood at 2.4 per cent in July 2013.

Fiscal imbalances and the reversal: a story of two halves

I.19 Fiscal developments during 2012-13 were split into two halves. The period H1 of 2012-13 was characterised by a fiscal slippage to a degree that it could have undermined macro-stability. However, H2 of 2012-13 was marked by an equally remarkable fiscal retrench, although in the face of a significant overshooting of subsidies from the budget estimate, the burden of adjustment fell disproportionately on plan revenue expenditure and on plan and non-plan capital expenditure. At a time when private investment in the economy was slack, the reduction in the government's capital expenditure had adverse implications for aggregate investment and growth in the economy. The importance of fiscal correction carried out during H2 has to be judged in the context of the twin deficit risks that the country faced.

I.20 The fiscal correction in the second half of the year resulted in a significant reduction in the gross fiscal deficit (GFD) to 4.9 per cent of GDP in 2012-13 from 5.7 per cent in 2011-12. In the process, the actual fiscal deficit in 2012-13 turned out to be lower than that envisaged in the Union Budget.

I.21 The containment of the GFD in 2012-13 in the face of a shortfall in tax and non-tax revenues was largely brought about by scaling down expenditure. Total expenditure was lower than the budget estimates (BE) mainly on account of lower plan expenditure (79.5 per cent of BE). The share of capital expenditure in total expenditure declined. In fact, the capital outlay to GDP ratio was lower in 2012-13 than in 2011-12. While the compositional shift might have been dictated by the expediency to reduce the headline deficit, it does raise concerns about the quality of fiscal consolidation. Over the medium term, efforts should be to contain revenue expenditure, raise tax revenue buoyancy and contain subsidies to enable durable fiscal consolidation.

External sector vulnerabilities come to the fore in 2012-13

I.22 External sector vulnerabilities came to the fore in 2012-13, as the CAD widened to a historic peak of 4.8 per cent of GDP on top of an already high level of 4.2 per cent in the previous year. The widening of the CAD was largely the result of high oil and gold imports and moderation in export growth.

I.23 In order to contain gold imports, import duties on gold were doubled from 2 per cent to 4 per cent in March 2012, raised further to 6 per cent in January 2013 and then hiked to 8 per cent in June 2013. Further, in August 2013, custom duties on gold, platinum, refined gold bars and silver bars were hiked by 2 percentage points each, taking the import duty on gold to 10 per cent. Besides, the Reserve Bank has been tightening gold imports

through a series of regulatory steps. In March 2012, it issued directions to NBFCs to maintain a Loan-to-Value (LTV) ratio not exceeding 60 per cent for loans against collateral of gold jewellery. In May 2012, it asked banks to reduce their regulatory exposure ceiling on a single NBFC that had gold loans in excess of 50 per cent of their financial assets. In November 2012, it asked banks to stop financing NBFCs for purchase of gold in any form, except by way of working capital finance.

I.24 In 2013, the Reserve Bank restricted the facility of advances against the security of gold coins per customer to gold coins weighing up to a maximum of 50 gms. In June 2013, it extended the restrictions to all nominated agencies/ premier/ star trading houses that were permitted to import gold. Further, it stipulated that all letters of credit (LCs) could be opened only on a 100 per cent cash margin basis on imports of gold and would have to be on a document against payment (DA) basis. In July 2013, it revised the scheme of gold imports in consultation with the government, based on the principle that 20 per cent of the imported quantity by nominated banks/ agencies had to be retained in customs bonded warehouses and fresh imports could only be undertaken after at least 75 per cent of the gold remaining in the customs bonded warehouses were exported. With this, the Reserve Bank withdrew extant instructions with regard to gold on consignment basis, LC restrictions, *etc.* These instructions were further clarified/modified in August 2013 and import of gold in the form of coins and medallions was prohibited. Further, release of gold for domestic use was made contingent on the full upfront payment.

I.25 Meanwhile, with a view to restraining fiscal subsidies and to allow price responses to work to curtail demand for oil and help bring about a CAD correction, the government hiked the price of diesel and capped the supply of subsidised LPG cylinders in September 2012. Later in January 2013, it partially deregulated diesel prices by allowing a monthly reset. These measures are expected to help contain oil demand to some degree. However, oil and gas prices are yet to be fully market-determined and in the absence of free pricing the reduction in demand may not be enough to shrink the trade deficit to the desired extent.

I.26 With a view to moderate foreign currency outflows, the Reserve Bank undertook certain measures on August 14, 2013. These included (i) reduction in limit for overseas direct investment (ODI) under automatic route from 400 per cent to 100 per cent (except for Navratna PSUs, ONGC Videsh Limited and Oil India in overseas unincorporated entities and incorporated entities, in the oil sector) (ii) reduction in remittances by resident individuals under the Liberalised Remittance Scheme (LRS) from US$ 200,000 to US$ 75,000 per financial year, and (iii) prohibition on use of LRS for acquisition of immovable property outside India directly or indirectly. However, the Reserve Bank would continue to consider genuine requirements above the revised limits under approval route. Also, with a view to augment NRI deposit flows, (i) incremental FCNR(B) and NRE deposit were exempted from CRR and SLR counting from the base date of July 26, 2013; these deposits were also excluded from adjusted net bank credit for computation of priority sector lending targets; (ii) interest rates on NRE deposits were deregulated by removing the cap, that they cannot exceed interest rates on comparable rupee deposits.

I.27 With slowing growth over the past two years, external sector sustainability concerns came on the horizon. During 2012-13, India's external debt rose by about US$ 45 billion to US$ 390 billion. Its net international investment position worsened by US$ 57 billion to US$ (-) 307 billion. On a residual maturity basis, the short-term external debt constituted 44.2 per cent of total external debt and 59 per cent of foreign exchange reserves at end-March 2013. Thus, maintaining external sector sustainability poses an important challenge going forward.

PROSPECTS FOR 2013-14

I.28 The year 2013-14 has begun with tumultuous changes. After early signs that growth was picking up in the US and Japan, the indication by the Fed that it would unwind part of the monetary stimulus earlier than anticipated, has led to tightening in financial conditions. Bond yields firmed up across the curve and across geographies, and brought further changes in other asset prices. Currencies of the Emerging Markets and Developing Economies (EMDEs) depreciated speedily, not just of the current account deficit economies but also for some current account surplus economies. This, in turn, led to a decline in equity prices as portfolio shifts occurred from EMDEs to US markets. Global commodity prices, which had exhibited a softer bias during February–April 2013, firmed up temporarily. Political unrest in parts of the Middle East also put upward pressure on global oil prices.

I.29 These global spillovers affected India, like many other EMDEs. After the Fed Chairman's comments on May 22, until July 15, 2013 foreign institutional investors (FIIs) on a net basis disinvested US$ 8.3 billion of their bond portfolio and US$ 2.1 billion of their equity portfolio in cash markets in India. The resultant net outflows brought the rupee under immense pressure. Considering the heightened exchange rate volatility, the Reserve Bank announced measures to stabilise the rupee on July 15, 2013 which were later modified in July 23, 2013 (see paragraph I.5).

I.30 The emerging macroeconomic scenario for the year 2013-14 is challenging amid the wide CAD, risks to fiscal targets, persistence of high consumer price inflation, risk of exchange rate depreciation feeding into inflation, slowing growth and deteriorating asset quality. As such, macroeconomic and monetary policies need to be carefully calibrated to achieve the immediate objective of maintaining stability without compromising growth.

Growth Outlook for 2013-14

I.31 Recovery is possible and can take shape later in 2013-14, but is predicated on better governance, the removal of supply constraints and maintenance of stability. Despite the new risks, as a baseline the real GDP growth outlook for 2013-14 is better than that in 2012-13, following the growth-supportive measures taken by the Government of India and the south-west monsoon that has performed well so far. The Annual Monetary Policy Statement for 2013-14 of May 3, 2013 projected the baseline GDP growth for 2013-14 at 5.7 per cent conditional upon a normal monsoon, revival in domestic investment and global growth. While the risks to the first of these conditions have since diminished, the risks to the latter have increased. Weakness in industrial activity has persisted and global growth has been tepid. Considering these factors, the First Quarter Review of Monetary Policy at end-July 2013 scaled down its growth projection from 5.7 per cent to 5.5 per cent.

I.32 Normal and spatially well-distributed rainfall so far during the south-west monsoon augurs well for the agriculture sector and is expected to boost rural demand for industrial goods and services. Until August 13, 2013, 85 per cent of the country's area had received excess or normal rainfall, with the remaining 15 per cent falling in Haryana and parts of the East and North-East region receiving deficient rainfall. The Reserve Bank's foodgrain production weighted index showed that rainfall was 10 per cent above normal in the current monsoon season till August 13, 2013. Ample rainfall has resulted in an improvement in the water storage levels in reservoirs.

I.33 Water storage in 85 major reservoirs till August 8, 2013 was 66 per cent above the last year's level and 55 per cent above the average of last 10 year's storage. This would benefit the *Kharif* and the *Rabi* crops, as also hydropower generation. Crop prospects are also encouraging as the area sown under *kharif* crops till August 9, 2013 was 11 per cent higher than last year and 7 per cent higher than the normal area sown till date. Encouraging prospects for crop also augurs well for rural demand. The current slowdown in any case, has

impacted economic activity in urban areas more than in rural areas. As such, the rural economy could provide some buffer on the back of satisfactory monsoon.

I.34 Industrial growth has been nearly stagnant for two years now, with signs that the stagnation has extended into 2013-14. Corporate performance continues to weaken as a result of slowing activity levels in industry and services sectors. Results of a sample of 1,149 listed non-government and non-financial companies available till August 12, 2013 for Q1 of 2013-14 indicated that sales had decelerated further. The expenditure on consumption of raw materials had contracted and at the aggregate level profits recorded moderate growth. The operating profit margin (EBITDA to sales ratio) was maintained at the level observed in the previous quarter but the net profit margin declined due to higher interest to sales ratio. However, the downward spiral could get arrested with some uptick later in the year as improved rural demand and better project execution supports activity. The low inventory levels of finished goods may enable expansion in output levels if rural consumption demand improves. If construction activity also improves as public investment in road, urban housing projects and execution of mega projects pick up, it will generate more demand across the industrial sector.

I.35 However, in attempting to revive demand, it is important to reduce the current high consumer price inflation. This is necessary to arrest the flagging growth rate of private final consumption expenditure. The positive orientation of the Union Budget 2013-14 and measures to arrest macroeconomic deterioration and stabilise the economy are expected to have some favourable impact on investment with a lag. The effects of government efforts to incrementally resolve key policy impediments to investment, such as land acquisition, environmental clearances and raw material shortages, particularly coal, should translate into ground-level execution. These include actions taken by the Cabinet Committee on Investments (CCI) since January 2013 that are aimed at fast-tracking the stalled mega investment projects. Evidently, it takes a mobilisation time of around six to eight months between project approval and actual investment, implying that the results would be visible towards the end of 2013. Recent steps to increase in-bound FDI could also provide a fillip to domestic investments.

I.36 However, recovery has to be earned in this difficult economic environment through concerted action. The economy is currently cruising in slow-speed mode along a rough road. Strategically, it is necessary to first patch the rough spots by putting in place a set of complementary policies to address the structural constraints.

Inflation Outlook for 2013-14

I.37 Although headline inflation had moderated in Q1 of 2013-14 to an average of 4.7 per cent, risks on the inflation front are still significant. First, this is evident in a rebound in inflation to 5.8 per cent in July 2013. Creeping inflation pressures are visible arising from rising food and fuel prices, the latter in large part due to exchange rate depreciation. Second, while WPI inflation has moderated, CPI inflation remains close to double digits. Third, although food inflation came down from its high of January 2013, it has resurfaced since May 2013. While moderate MSP increases this year and a good monsoon give hope that inflation will be contained, if high food inflation persists into H2 of 2013-14, the risks of generalised inflation could become large. In this context, there is a need for close attention to food management and for taking policy action to address structural factors that constrain agricultural supply response. Fourth, the pass-through of the depreciation of the rupee exchange rate by about 11 per cent in the first four months of 2013-14 is incomplete and will put upward pressure as it continues to feed through to domestic prices. The exchange rate pass-through

has declined in recent years. However, increase in inflation could occur, given the significant depreciation of the rupee.

I.38 Overall, the inflation outlook appears to be better than in the previous year. Non-food manufactured products inflation at 2.4 per cent in July 2013 remained within comfortable limit. In its Annual Policy Statement of Monetary Policy on May 3, 2013, the Reserve Bank projected WPI inflation to be range-bound around 5.5 per cent during 2013-14, keeping in view the domestic demand-supply balance, the outlook for global commodity prices and the forecast of a normal monsoon. The projected path of inflation suggested some moderation in the first half of the year on account of past policy actions, although there could be some increase in inflation during the second half that largely reflects base effects. Headline inflation since then has moved in line with the projected path. As communicated at the time of the Annual Policy, the Reserve Bank will endeavour to condition the evolution of inflation to a level of 5.0 per cent by March 2014, using all instruments at its command. Its objective is to contain headline WPI inflation at around that level in the short term and 3.0 per cent over the medium term.

I.39 On the demand-supply balance, the supply may turn out to be slightly weaker than assessed earlier. Demand deceleration continues, but rural demand may stay robust in the wake of a likely good crop on the back of a normal monsoon. The outlook for global commodity prices largely remains benign, but risks of price increase on-shore have increased following the rupee depreciation and firming up of global crude prices during July 2013. Therefore, some price pressures may build up in the latter half of 2013-14. The normal monsoon, however, has taken a major risk off the horizon, although the renewed upsurge in food prices in the first four months of 2013-14 implies that a close vigil is necessary so that the relative price change does not affect the general level of prices.

Need to stay focused on controlling twin deficit risks

I.40 The budget estimates for 2013-14 and the rolling targets set for 2014-15 and 2015-16 indicate a continuation of the momentum of fiscal consolidation, although slight deviations in revenue and fiscal deficits from the path envisaged by the Kelkar Committee could persist.

I.41 The planned reduction in the GFD to 4.8 per cent of GDP in 2013-14 (BE) is expected to be achieved through higher mobilisation of disinvestment proceeds, tax revenues, telecommunications receipts and reduction in expenditure on subsidies. However, as the Budget relies largely on revenue-led fiscal consolidation, its success would depend on the revival of investment climate and growth. The budget estimates of gross tax revenue were based on estimated nominal GDP growth of 13.4 per cent. However, with growth likely to be lower, it may be difficult to achieve the budgeted tax-GDP ratio of 10.9 per cent even with the budgeted tax buoyancy of 1.4 per cent during 2013-14. Gross tax revenue growth during the first quarter of 2013-14 was lower than a year ago due to deceleration/decline in major tax revenues. Among the other major items of government revenue, disinvestment receipts are budgeted at ₹400 billion in 2013-14. An additional amount of ₹140 billion is expected from disinvestment of its residual shareholdings in non-government companies. Given the emerging conditions in the financial markets, it would be challenging to raise the budgeted disinvestment proceeds. Against this backdrop, strategic planning is necessary. The possibility of larger dividends from cash-rich public sector undertakings (PSUs) and further stake sales in PSUs, which are likely to get investor interest and consequently better price realisation, need to be explored fully.

I.42 On the expenditure side, both capital and plan expenditure are budgeted for a sharp rise in

2013-14. The re-prioritisation of expenditure in favour of capital expenditure indicates an increase in the capital outlay to GFD ratio to 38.5 per cent in 2013-14 from 28.1 per cent in 2012-13 (RE). Although plan expenditure in 2013-14 is budgeted higher, the budgetary support extended to central plan outlay during the first two years of the plan (*i.e.*, 2012-13 and 2013-14) works out to only 27.2 per cent of the total budgetary support envisaged for the entire five-year period of the Twelfth Plan.

I.43 A positive feature on the non-plan expenditure front is the envisaged containment of expenditure on subsidies at 2 per cent of GDP in 2013-14. However, while the phased deregulation in diesel prices would help to keep the fuel subsidy under control, the volatility in the exchange rate may exert upward pressure on fuel and fertiliser subsidies in 2013-14. The under-recoveries of oil companies have risen sharply due to exchange rate depreciation and a rise in global crude oil prices, combined with lagged adjustment of prices and vestiges of administered price mechanisms prevailing in the sector. While the impact of National Food Security Ordinance on the food subsidies is manageable for 2013-14, in the years to come it will add to the fiscal pressures. The key concern is that it is difficult to contain food subsidies within budgeted amount even in 2013-14 when the Act will just begin to get implemented. Over the next few years the growing subsidies could restrict investment opportunities, including those in agricultural sector.

I.44 Regarding finances of the state governments, while several states have limited their deficit and debt in recent years within the targets set by the Thirteenth Finance Commission, finances of the states participating in the Financial Restructuring Plan (FRP) would be under pressure due to additional debt and interest burden linked to issuance of bonds/special securities by state power distribution companies (discoms) under the scheme. It is imperative that the mandatory conditions and recommended suggestions of the FRP are implemented in the true spirit by the discoms and state governments if these utilities are to become financially viable. Going by the magnitude of financial implications on states' finances, the state governments have to ensure that debt restructuring does not become a perpetual feature, considering its downside risks to the stability of state finances.

I.45 Even though CAD is expected to widen during Q1 of 2013-14 on account of higher trade deficit, it is likely to moderate thereafter. After sharp increase in first two months of the current fiscal year, trade deficit has narrowed considerably in the months of June and July 2013. Going forward, the CAD is expected to see correction due to trade policy measures taken to curb gold imports and price adjustments effected to moderate consumption of fuel products. Besides, there may still be scope for curbing non-essential imports as well to improve the trade balance. CAD in 2013-14 is expected to be lower than the historic high of 2012-13.

I.46 Nevertheless, CAD may continue to be much above the sustainable level, which is estimated at around 2.5 per cent of GDP, underscoring the importance of medium-term correction aimed at improving export competitiveness, discouraging avoidable imports and to improve more stable capital inflows.

Need to preserve financial stability with possibilities that financial accelerator may increase asset quality risks

I.47 Over the current year and the next, utmost attention is needed to contain financial stability risks that are rising with the deteriorating asset quality of banks. Although the average leverage ratio for the corporate sector remains comfortable, stress is building up in some sectors, especially infrastructure, where firms are finding it hard to raise fresh equity given an already high net debt to equity ratio. If infrastructure sector issues are not quickly resolved, it can have a domino effect on the asset quality of banks.

I.48 Given the current fluid situation with respect to key asset prices in currency, equity, bond and commodity markets, the external finance premium facing a firm could go up and impact access to finance. These effects could get magnified, because a change in collateral valuations could emasculate a firm's ability to borrow. The conventional interest rate effects could propagate, with balance sheet effects being transmitted beyond an individual firm in an inter-connected world. Therefore, it is important for firms to use appropriate strategies to mitigate these risks by hedging them to the extent possible.

I.49 In the aftermath of the global financial crisis, when the asset quality of banks in most advanced and emerging economies was adversely affected, the bad loans in the books of Indian banks, particularly public sector banks, appear to be contained. The ratio of gross Non-Performing Assets (NPAs) to gross advances for scheduled commercial banks in India rose marginally immediately after the crisis, but declined thereafter to remain flat at around 2.5 per cent during 2008-11. The asset quality of banks has deteriorated significantly thereafter, due to the slowdown in the economy and the emergence of sector-specific issues amid structural bottlenecks in the economy. The ratio of gross NPA to gross advances for scheduled commercial banks increased markedly, from 2.36 per cent in March 2011 to 3.92 per cent in June 2013. Public sector banks account for a disproportionate share of this increase, with the new private sector banks managing to lower their NPA ratio in this difficult climate. The amount of restructured advances has been considerable during this period. For the system as a whole, restructured standard assets as a percentage of gross advances more than doubled, from 2.6 per cent in December 2010 to 6.1 per cent in June 2013. The slippage ratio, which captures fresh NPAs, increased from 2.1 per cent in March 2011 to 3.1 per cent in September 2012, but declined subsequently to 2.8 per cent in March 2013.

I.50 Macro stress tests suggest that under a severe stress scenario the gross NPA ratio may rise to 4.4 per cent by March 2014, but even under such a scenario, the system-level CRAR of SCBs could decline to 12.2 per cent by March 2014, yet remain above the regulatory requirement of 9 per cent.

I.51 During the economic downturn, the Reserve Bank had taken several measures to tackle asset quality issues. Standard asset provisioning on commercial real estate (CRE) exposures was increased and a provision coverage ratio for banks was introduced. In the aftermath of the crisis, following the recommendations of the Mahapatra Committee report, the Reserve Bank has sought to do away with regulatory forbearance regarding asset classification on restructuring of loans and advances (except in cases of change of date of commencement of commercial operations for infrastructure and non-infrastructure projects), generally in line with international prudential measures. However, while moving in that direction, it has adopted a more balanced approach, allowing a two year adjustment window in view of the current domestic and global macroeconomic situation. Further, provisioning requirement on standard restructured assets have also been increased in a gradual way spread over a period of three years. The revised restructuring guidelines have also increased the promoter's sacrifice and personal guarantees in all cases. This is expected to mitigate the moral hazard problems associated with restructuring.

I.52 Apart from the deterioration in asset quality, a medium/long-term challenge for the Indian banking sector is the smooth transition to the Basel III framework for improved risk assessment and management. India is one of the first countries to come out with the final guidelines on Basel III capital regulations, which are effective from April 1, 2013 in a phased manner to be fully implemented by

end-March 2018. In this context, the need for India to adopt stringent capital requirements stems from its growing involvement in the global banking system, both as a market and as a service provider, and its vulnerability to global contagion. The Reserve Bank has prescribed a minimum capital ratio (CRAR) of 9 per cent, which is higher than the regulatory minimum prescribed by the Basel Committee on Banking Supervision (BCBS), as was also the case under Basel II.

I.53 Despite the fact that Indian banks appear well-capitalised with an overall CRAR at 13.5 per cent (at end-June 2013), the challenges in implementing Basel III cannot be underestimated. First, Basel III would significantly increase capital requirements for Indian banks. The credit needs to finance growth could go up over the years and, accordingly, the capital needs of the banking sector would be higher. Second, given the strong presence of public sector banks, the fiscal burden of Basel III cannot be overruled if majority shareholding by the government is to be maintained.

I.54 The available broad estimates suggest that the full implementation of Basel III by end-March 2018 would require common equity of ₹1.4-1.5 trillion on top of internal accruals, in addition to ₹2.65-2.75 trillion in the form of non-equity capital for public sector banks alone.

I.55 Infusing bank capital would enable banks to perform better in its core business of lending to support growth. The banking sector faces a challenging task in near term to support recovery in the economy through improved credit off-take, while at the same time reversing the asset quality deterioration. They also need to remove obstacles to financing for financially excluded segment, especially through more credit to SMEs and extension of a range of financial services to the low-income households. Apart from expanding the reach of financial services, gaining more financial depth is also necessary to improve savings, investment and growth in the economy.

Looking Ahead

I.56 Indian economy is currently going through a difficult period. However, the problems are not unique to India. Growth has also slowed down in many other EMDEs. What is important at this stage is to preserve India's growth potential by arresting the downtrend and maintaining stable macro-economic conditions. For this, the focus need to be on implementation of measures aimed at removing structural constraints so that production and investment activity could gather momentum. This is important, because spillovers from global growth and financial market conditions can only account for a part of the slowdown. Current slowdown has been accentuated by structural factors that have come in the way of smooth adjustment through pure demand management policies. With consumer price inflation, fiscal deficit and current account deficit being amongst the highest in EMDEs, the need to preserve macroeconomic stability has emerged as a binding constraint. As such the momentum of recovery could come from reengineering focus on unclogging the stalled investment projects, giving an impetus to investments in key infrastructure sectors, supporting productivity enhancements by technology enhancements, bringing in more managerial efficiencies and supporting research and development.

I.57 Inherently, the Indian economy has several strengths including its natural endowment and demographic dividends. Simple institutional reforms such as better regulation of natural resources, improved harnessing of water resources, investing more in skill formation, digitalising land records, land consolidation, better integration of regional agricultural markets, freer labour markets and more competitive domestic markets can go a long way in improving India's potential as well as actual growth. As such, efforts in the direction of macroeconomic stability and structural reforms can pave the way for the recovery.

I.58 The Rest of the report covers the Economic Review in Part I and the functions and operations of the Reserve Bank in Part II.

II ECONOMIC REVIEW

The year 2012-13 was marked by slowing growth, lingering inflation pressures and risks from persisting twin deficits. Policy efforts helped contain fiscal deficits and moderate inflation towards the later part of the year. However, significant challenges remain ahead for reviving growth while maintaining macro-financial stability. In this context, it becomes important to address structural constraints to growth, improve governance, address asset quality concerns and correct external imbalances.

II.1 THE REAL ECONOMY

Growth slows further, revival contingent on addressing structural issues

II.1.1 India's real GDP growth continued to moderate for the second successive year in 2012-13 and dropped to 5.0 per cent, the lowest in the past 10 years (Appendix Table 1). A combination of factors has contributed to growth moderation over past two years. These include structural impediments, high inflation for three years and cyclical slowdown in both global and domestic economies. Consequently, activity in all major sectors of the economy decelerated during the year, with the industrial sector suffering the most (Appendix Table 2 and Chart II.1a). While the agriculture sector slowed for the second consecutive year in 2012-13 due to the weak monsoon, industrial and services sector growth decelerated for the third consecutive year after the recovery from the global crisis in 2009-10. Nevertheless, India's growth continued to remain service-led with the highest contribution (90.0 per cent) to GDP growth during the year (Chart II.1b).

II.1.2 Contraction in the mining sector, slack in manufacturing activity due to slowing external and domestic demand and deceleration in electricity generation on the back of coal shortages compounded to result in stagnating industrial activity. Domestic policy uncertainties, governance concerns and earlier monetary tightening adversely impacted growth in the industrial and services sectors.

II.1.3 Multi-faceted problems that have emerged in the infrastructure sectors have dampened "animal spirits" and impacted the investment climate. Shortages in coal supply, slack in capacity addition and the delayed and skewed distribution of the monsoon led to slower growth in 'electricity, gas and water supply'. Legal, regulatory and environment issues also adversely impacted the

Chart II.1: Real GDP Growth

output growth of the mining sector. On the other hand, a slowdown in the services sector during 2012-13 was visible in all sub-sectors except 'community, social and personal services'.

Sluggish consumption and investment demand for the second consecutive year

II.1.4 The growth rate of GDP at market prices nearly halved during 2012-13 due to a reduction of growth in consumption (both private and government) and fixed investment (Chart II.2). Private consumption expenditure, which accounts for around 60 per cent of real GDP at market prices, continued to decelerate for the second consecutive year due to the persistence of high consumer price inflation. Supply bottlenecks and weak demand further dragged fixed investment growth for the second consecutive year.

Decline in savings and investment rates is a major concern

II.1.5 Amid high inflation, the problem of the falling savings rate due to low or negative real returns and disintermediation emerged as an important contributor to growing macro-economic imbalances in the Indian economy. The domestic savings rate declined sharply to 30.8 per cent in 2011-12 from 34.0 per cent in the previous year (Appendix Table 3 and Chart II.3). All three sectors registered a decline in the savings rate, with the public sector accounting for the largest share of the decline. The household sector savings rate declined for the second consecutive year in 2011-12, after touching a record high in 2009-10. Within household savings, while the financial savings rate declined, the physical savings rate increased in 2011-12 because of households' preference for the latter in the high inflationary environment.

II.1.6 There was a decline in the rate of investment (GDCF) during 2011-12 in respect of the private and public sectors, even as the household investment rate improved over the previous year. Investment in valuables, such as gold and precious stones, continued to remain high at 2.4 per cent of GDP during 2011-12. This largely reflects households' preference for valuables, especially gold, during the recent period due to relatively low real interest rates on deposits and financial instruments such as small savings and uncertain stock market conditions.

II.1.7 Given the huge resource requirements for infrastructure development, one of the basic prerequisites for growth is to increase the rate of capital formation in the economy, especially in construction and machinery & equipment.

Household financial savings rate increased marginally during 2012-13

II.1.8 Preliminary estimates indicate that there has been a marginal increase in the household financial savings rate to 7.7 per cent of GDP in

Chart II.2: Expenditure Side of GDP

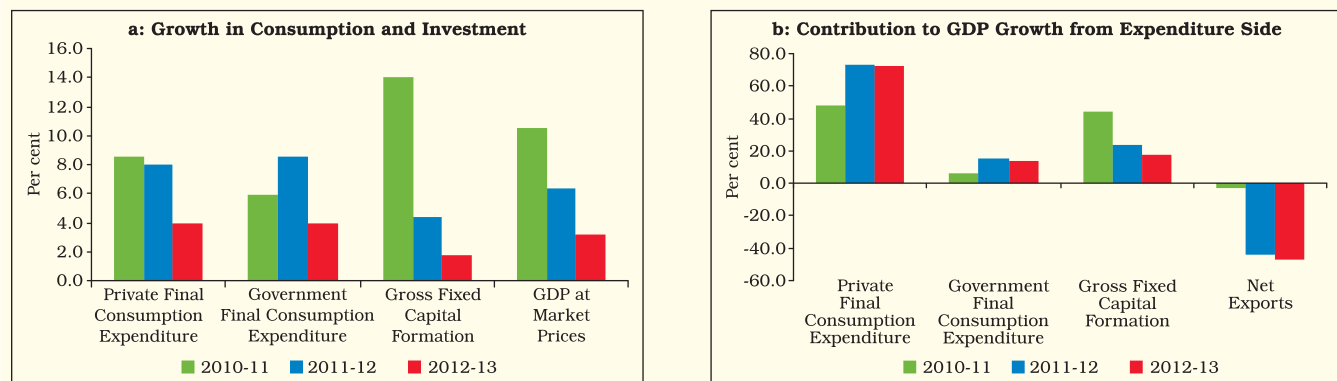
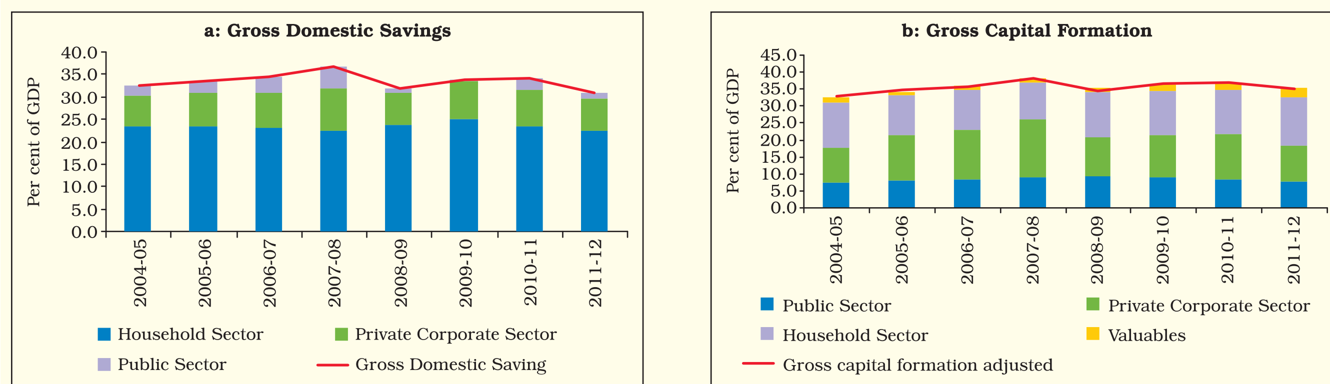


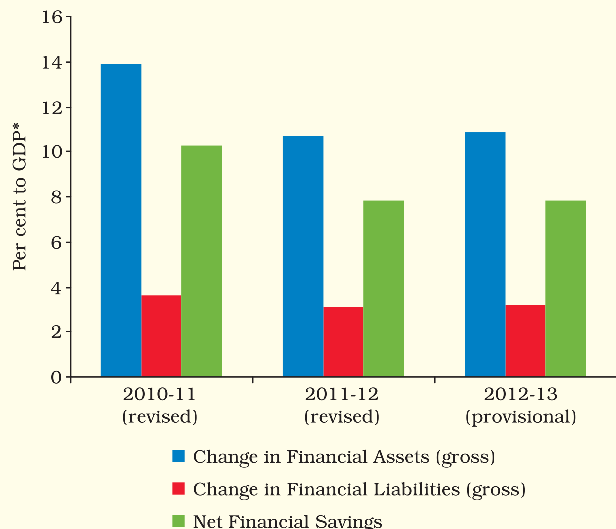
Chart II.3: Rate of Saving and Investment



2012-13 from 7.5 per cent of GDP in the revised estimates of the previous year, although it was lower than 10.3 per cent of GDP in 2010-11 (Appendix Table 4 and Chart II.4).

II.1.9 The marginal increase in the household financial savings rate during 2012-13 emanated from the higher growth in savings under bank deposits and mutual funds even as life insurance funds remained sluggish and outflows under small savings persisted. Moreover, investment in valuables, essentially gold, declined to 2.0 per cent of GDP in 2012-13 from 2.4 per cent in 2011-12. This could have helped somewhat to buttress household financial savings in 2012-13 and may even show up in an increase in household physical savings. At the same time, the financial liabilities of households increased, largely driven by acceleration in personal loans and retail credit, which dampened household financial savings on a net basis but may get reflected in higher household physical savings during 2012-13.

Chart II.4: Household Financial Savings



* At current market prices

Weak south-west monsoon affected agriculture output

II.1.10 The south-west monsoon, the major source of rainfall in the country, was 8 per cent below the Long Period Average (LPA) in 2012, while the north-east monsoon during the year was 21 per cent below the LPA. The delayed onset of the south-west monsoon, coupled with its uneven progress and distribution, especially during the *kharif* sowing months of June and July, dented *kharif* production significantly. The impact of the deficient north-east monsoon on *rabi* crops was relatively mild. As a result, most *kharif* crops witnessed a decline in production, while *rabi* pulses, oilseeds and coarse cereals registered a significant increase in production over the previous *rabi* season. *Rabi* pulses achieved record production during 2012-13, although the production of wheat, which is the main *rabi* foodgrain, has declined during 2012-13 mainly due to lower area coverage. As per the Fourth Advance Estimates, foodgrains production during

2012-13 is placed at 255.4 million tonnes, which is 1.5 per cent lower than in the previous year (Appendix Table 5). However, as on July 31, 2013 foodgrain stocks in India are at a comfortable level (69.65 million tonnes) (Appendix Table 6).

II.1.11 The performance of agriculture during 2012-13 showed that even though the sector in recent years has become more resilient, the whimsical monsoon still affects its output. Only 45.0 per cent (2009-10) of the total cropped area is under irrigation, while around 16 per cent of the country's geographic area, mostly arid, semi-arid and sub-humid, is drought-prone. Rain-fed agriculture accounts for around 56 per cent of the total cropped area, with 77 per cent of pulses, 66 per cent of oilseeds and 45 per cent of cereals grown under rain-fed conditions. Consequently, if there is a shortfall in rainfall, crop production is adversely affected (Chart II.5).

II.1.12 While agriculture output is still subject to vagaries of monsoon, it has become more drought resistant than in earlier decades. This has partly been the result of improved technology and irrigation and partly due to diversification of rural economic activities away from pure farm activity. Livestock, forestry and logging and fishery are important sub-sectors of the agriculture economy. Livestock contributes over one-fourth to the agricultural gross domestic product and engage about 9 per cent of the agricultural labour force. Forestry and logging contributed around 1.5 per cent of the total GDP and around 10 per cent of agricultural GDP, while fishery output was around 0.8 per cent of the GDP and 5.5 per cent of agricultural GDP.

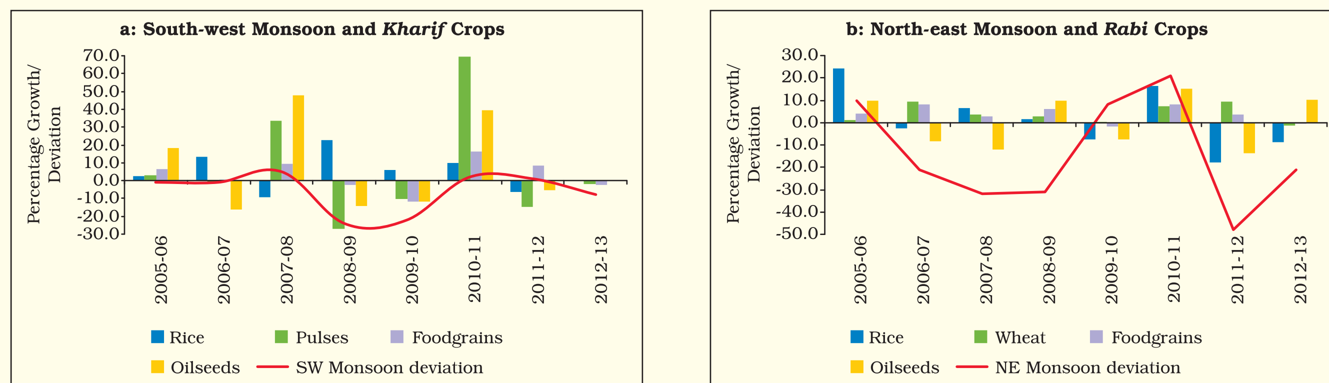
Supply chain and marketing inefficiencies are affecting food availability

II.1.13 With the diversification in agricultural activity, as also the continued pressure on food prices, there is an urgent need to address supply chain and marketing inefficiencies. A substantial portion of the cereals and horticulture produce is lost every year due to inadequate post-harvest facilities. Losses with respect to dairy and other animal husbandry and fish products are also substantial. These losses could be reduced along with intermediary costs by creating market at the doorstep of the farmers, both for input supplies and marketing of the product.

II.1.14 With growing demand and the consumption pattern changing from cereal-based food to protein-based products, it is important to provide cold storage facilities for these products. At the same time, inadequate storage facilities for foodgrains continues to be a challenge.

II.1.15 The Report of the Working Group on Warehousing Development and Regulation for the

Chart II.5: Rainfall Deficiency and Agricultural Production

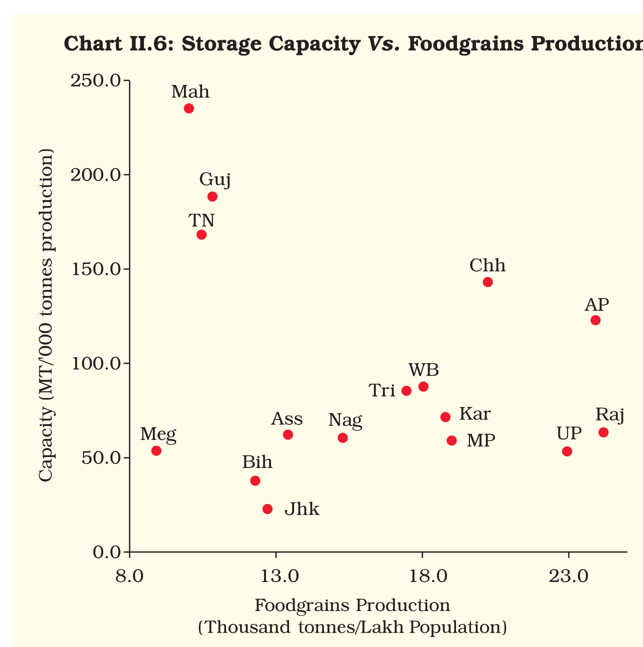


Twelfth Plan Period (2012-17) estimated that while the warehousing capacity available in India in the public, co-operative and private sectors is about 109 million tonnes; an additional 35 million tonnes of warehousing capacity needs to be created during the Twelfth Plan period for the storage of major crops.

II.1.16 A recent Reserve Bank study shows that the distribution of warehouses and storage capacity relative to the population[1] as well as the volume of foodgrains production[2] is uneven across states. Kerala has the highest storage capacity (10.2 MT per lakh tonne of foodgrains production), but ranks 21st among 28 states in terms of foodgrains production, contributing only 0.3 per cent of all-India production. Tripura with relatively thin population tops the list in warehouse availability (3.2 warehouses per lakh population). The major foodgrains-producing states, which are highly populated, have very low warehousing availability (one warehouse serves nearly 10 lakh population). The percentage of storage capacity for foodgrains production across the states is significantly low, particularly for the high foodgrains-producing states (Chart II.6). The inter-state disparities in warehousing availability is largely attributed to the variations in the availability of state warehousing corporations (SWCs), while the availability of the Central Warehousing Corporation (CWC) and the FCI appear to be uniformly distributed across states.

II.1.17 In view of the need for impetus to warehousing, the government, NABARD and the Reserve Bank have taken steps to promote its financing. Out of the RIDF XVIII (2012-13) of ₹200 billion, an amount of ₹50 billion was earmarked for creation of warehousing infrastructure. The Union Budget 2013-14 has proposed a separate fund for financing warehouse infrastructure with a corpus of ₹50 billion.

Chart II.6: Storage Capacity *Vs.* Foodgrains Production



Industrial growth witnessed sharp moderation

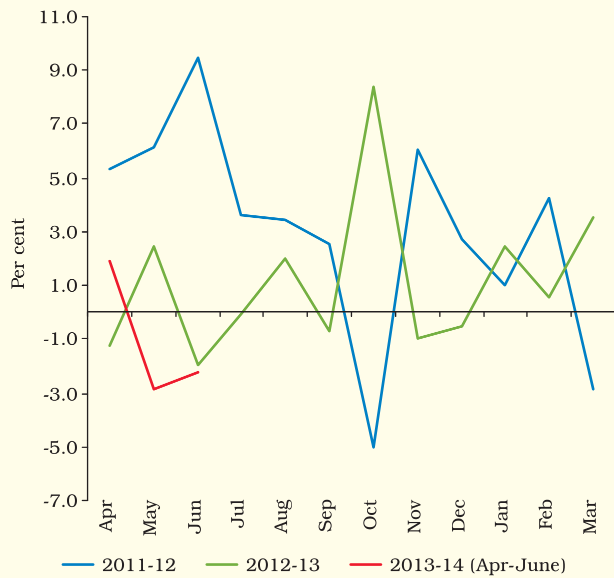
II.1.18 Industrial growth faced near-stagnation in the past two years due to a combination of factors (Appendix Table 7). The current phase of industrial slowdown started in July 2011, coinciding with the period of high inflation. Part of the slowdown has been due to global factors, with weak external demand impacting activity levels, especially in the manufacturing sector. Industrial growth was further weakened by poor domestic infrastructure, input bottlenecks and moderation in demand. Index of industrial production (IIP) witnessed further decline in the first quarter of 2013-14 (Chart II.7).

II.1.19 The overall slowdown in industrial growth was reflected across all sub-sectors. The mining sector witnessed contraction during the year due to regulatory impediments and environment issues. This, in turn, affected the supply of crucial industrial inputs such as coal, iron ore and natural gas. Shortage of power also emerged as a major constraining factor for the growth of the industrial

[1] Census 2011.

[2] Data pertains to 2008-09.

Chart II.7: Growth in IIP (Y-o-Y)



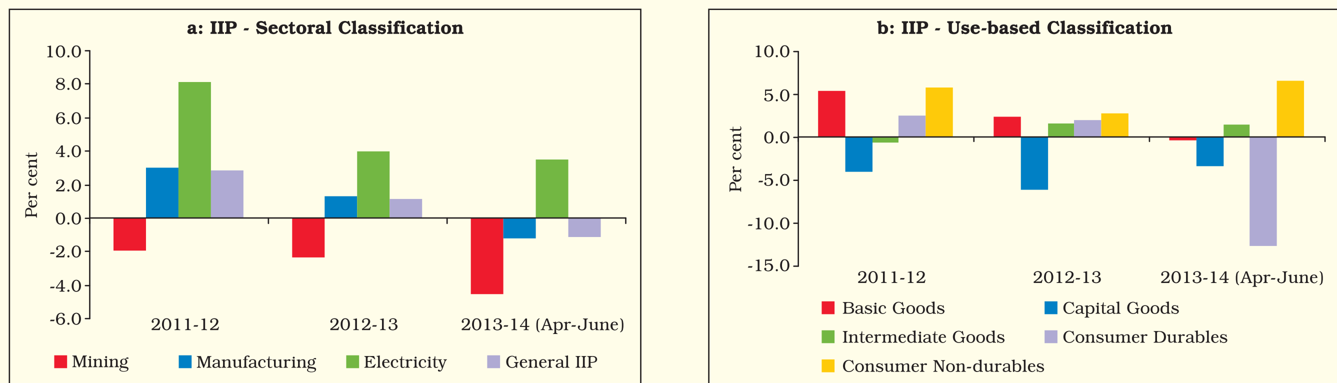
sector. Both thermal and hydel power generation decelerated during 2012-13 due to shortages in coal supply, under-utilisation of existing capacity and the weak monsoon.

II.1.20 The performance of the manufacturing sector has been severely affected by both the global slowdown as well as domestic infrastructure bottlenecks, including shortage of energy and short supply of raw material. The manufacturing sector grew by only 1.3 per cent during 2012-13. Among manufacturing sector industries, capital goods industries such as machinery & equipment, electrical machinery, computing machinery and motor vehicles were affected the most during the year.

II.1.21 At the core of the waning performance of the industrial sector is the sharp decline in investment activity. This is reflected in the decline in the production of capital goods by 6.0 per cent during 2012-13. Several factors have contributed to the slowdown in investment activity. Rising costs and falling demand led to reduction in corporate profitability, which, in turn, affected the investment decisions of firms. Delays in land acquisitions and environment clearances also contributed to the slowdown in investment activity. A number of central sector infrastructure projects costing ₹150 crore and above have been delayed for the reasons stated above in addition to financial constraints and contract issues.

II.1.22 Use-based classification of the Index of Industrial Production (IIP) also reveals widespread slowdown in the industrial sector. The consumer goods sector moderated, reflecting weakening consumer demand. The lower growth in basic goods was mainly due to the contraction of the mining sector and the poor performance of electricity and basic metals. However, the intermediate goods segment registered marginal improvement (Chart II.8).

Chart II.8: Industrial Growth



II.1.23 Going forward, industrial growth will largely be determined by a combination of factors, *viz.*, the unfolding of the global economic situation, moderation in domestic inflation and recovery in core industrial sector growth (Box II.1).

Revival of core industries and exports are essential to support industrial growth

II.1.24 The core industries that provide crucial inputs to the industrial sector faced major supply bottlenecks, resulting in sharp deceleration in the

Box II.1
Industrial Slowdown: Causes and Remedies

The sharp slowdown in industrial growth in recent years has been attributed to factors such as the global slowdown, infrastructure bottlenecks, delays in environment clearances and land acquisition for projects, constraints on the availability of core inputs such as power, coal and iron ore, high inflation and interest rates.

In general, empirical studies on India have suggested a range of factors such as demand and supply as well as macroeconomic, financial and trade factors, to explain industrial growth. Some of the earlier works found that in the pre-liberalisation as well as the post-liberalisation periods, output growth in manufacturing industry was mainly driven by domestic demand expansion followed by the contribution of export expansion.

Using the data from Annual Survey of Industries (ASI) from 1973 to 2003, Gupta et al (2008) found that industries dependent on infrastructure or external finance, and labour-intensive industries have not been able to reap the maximum benefits of reforms. According to them, weak provision of infrastructure and finance has constrained the growth of the Indian manufacturing sector.

Gupta (2011), using an unbalanced panel of 15 Indian states and 22 industries for the period 1992-2002, found that while financial depth eased working capital constraints, it did not directly benefit industries that were dependent on external source of finances or ease investment constraints. Using the instrumental variables method for a panel of Indian states for 1965–1984, Rud (2012) found that electrification had a significant effect on manufacturing output.

The present analysis revisits the issue of eliciting the determinants of industrial growth in the context of the ongoing concern about deceleration in industrial growth that is perceived as being, *inter alia*, due to structural bottlenecks, the global slowdown, high inflation and interest rates.

The study analyses both long-term and short-term determinants of industrial growth. Controlling for outliers, the de-seasonalised monthly data for IIP, the index of eight core industries, global IIP, real call rate, 36-country trade weighted real effective exchange rate and WPI for the period January 2006 to February 2013 have been used to identify the long-term equilibrium relationship based on Johansen's cointegration methodology.[1] The lag selection criteria based on AIC and SBC inferred that only one lag was sufficient for estimating the VECM. Empirical evidence suggests that a one per cent increase in core output leads to an increase of 1.96 per cent in IIP, while a similar increase in global IIP output increases domestic IIP by 0.61 per cent in the long run. On the other hand, a one per cent increase in WPI causes the IIP to contract by 1.10 per cent in the long run. The long run elasticities of the real interest rate and the real exchange rate at 0.03 and 0.13, respectively, are both negative and have a relatively smaller impact on the IIP. It is, therefore, evident that domestic factors, namely, core industrial output and inflation, play key roles in determining industrial growth in the long run, while global industrial growth is also important.

The error correction model (ECM) with errors conditional on the long-term cointegrating vector is presented below:

$$\Delta \log IIP = \underset{(-3.57^*)}{-0.20} + \underset{(3.75^*)}{0.59}\, \Delta \log Core - \underset{(-3.61^*)}{0.15}\, EC_{t-1}$$

$$\bar{R}^2 = 0.31;\ SEE = 0.02;\ DW = 2.18$$

* : Statistically significant at 1%

where,

Δ log IIP = *M-o-M per cent change in the log of general IIP*

Δ log Core = M-*o-M per cent change in the log of Index of Eight Core Industries*

EC = *Error Correction Term conditional on long-term cointegrating vector*

The estimates from the ECM suggest that short-run IIP growth is significantly dependent on the performance of the core industries. In particular, a 1.0 percentage point increase in core industry growth results in the acceleration of IIP

(Contd...)

[1] The core index is a composite of output of eight core industries that comprise the supply side of the economy. Core industries are coal, crude oil, natural gas, petroleum refinery products, fertilisers, steel, cement and electricity. The data for the empirical analysis has been taken from the Ministry of Statistics and Programme Implementation, Ministry of Commerce & Industry, CPB World Trade Monitor and Reserve Bank of India. The standard Johansen's VECM was estimated using I(1) variables.

growth by about 0.59 percentage points. Further, inflation, real interest rate and real exchange rate do not significantly influence IIP growth in the short term. A 'financial access' variable that captures the extent of the access to credit in relation to output growth, proxied by the stationary gap between the monthly growth rate of IIP and real non-food credit, was also introduced in the ECM. This variable, however, also turned out to be statistically insignificant in the short run. As is the standard practice, all variables not significant at 1% level were dropped while reporting the ECM to maintain parsimony.

The short-run ECM is observed to correct the disequilibrium at the rate of 0.15 basis points per month. Thus, from the policy perspective, a turnaround in overall industrial growth can be achieved by improving the performance of core industries.

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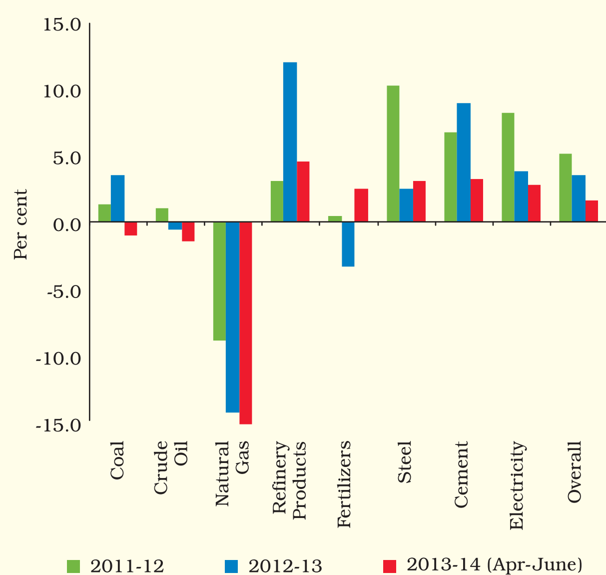
growth of the index of eight core industries during 2012-13 (Chart II.9). A contraction in the output of natural gas and fertilisers and deceleration in the production of steel and electricity led to overall lower growth of the core industries.

II.1.25 The production of coal in the country has fallen short of demand due to issues relating to coal block allocations, as also regulatory and environmental factors. During 2012-13, 138 million tonnes of coal was imported, of which 62.5 million tonnes was used for power generation. The coal shortage reduced the plant load factor (PLF) of thermal power plants to 69.9 per cent during 2012-13 from 73.5 per cent in the previous year. Decline in the production of natural gas has affected the performance of gas based thermal power plants. Stoppage of iron ore mining in some states reduced the availability of iron ore for steel plants. Unless these supply constraints are addressed, core industries will continue to underperform, thereby adversely affecting overall industrial growth.

Chart II.9: Growth in the Index of Eight Core Industries



II.1.26 Recent reform measures by the government are expected to help reduce supply constraints, encourage fresh investment and put the industry back on a high growth trajectory. The formation of the Cabinet Committee on Investment (CCI) is intended to expedite investment clearances of large projects. The CCI has already cleared 157 projects with investments worth ₹1,609 billion. The investment allowance of 15 per cent over and above depreciation for investments exceeding ₹1 billion in plant and machinery in the Union Budget 2013-14 is also expected to improve the investment climate. Significant tax incentives for investments in infrastructure bonds have made such bonds popular vehicles and helped in easing financing constraints for infrastructure firms. Consequent upon the National Manufacturing Policy (NMP) in 2011, eight National Investment and Manufacturing Zones (NIMZs) have been announced along the Delhi Mumbai Industrial Corridor (DMIC) and four

more NIMZs outside the DMIC have been granted 'in-principle' approval. In addition, steps to expedite the implementation of the Delhi-Mumbai Industrial Corridor (DMIC) are expected to provide a major fillip to investment activity.

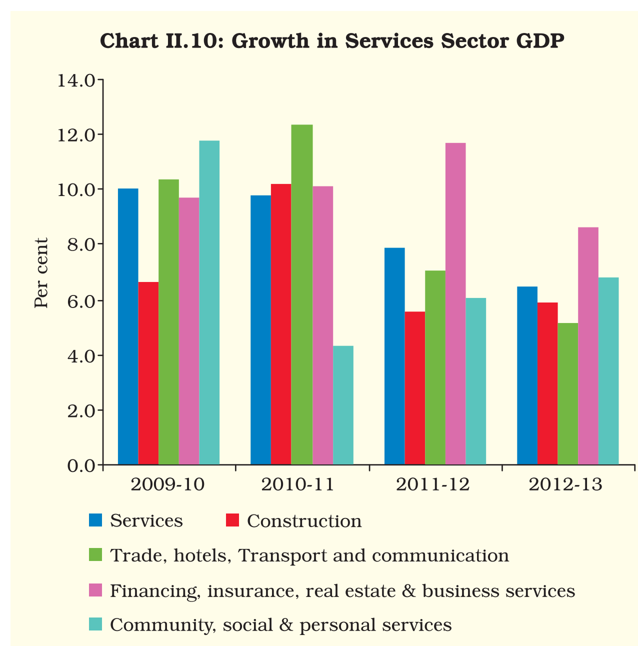
Longer-term paradigm shift in policy needed for a more competitive industrial sector

II.1.27 While the above initiatives are expected to shore up industrial output, a paradigm shift in overall industrial policy is needed to not only push growth, but to make India's industrial sector more competitive. The reform process will need to be carried forward and enlarged to enable a gradual return to the high growth path. As part of this, focus is needed on reforming the labour market rigidities in India which are affecting growth in organised manufacturing. There is a need to consolidate and rationalise the multiple labour laws at the national and sub-national levels to bring about a more comprehensive legislation. This would enable a transparent legal framework that is easy to regulate, provides sufficient flexibility to producers and reasonable protection and compensation to workers.

II.1.28 Industrial reforms can not only improve growth but also create employment opportunities. This is necessary in order to realise the demographic dividend of the increasingly young population. The manufacturing sector employed only 12.6 per cent of the total workers in the country during 2011-12.

II.1.29 Apart from the structural impediments in the core infrastructure sector, the recent lacklustre growth of the manufacturing sector has been also attributed to low technological depth, lack of a supportive environment for R&D and lack of institutional measures, such as skill development, regulation and standardisation. Apart from improving the state of physical infrastructure, particularly power and transport, there is a need to improve the business regulatory environment and to incentivise technological upgrading in the manufacturing sector.

Chart II.10: Growth in Services Sector GDP



Services sector exhibits moderation in growth

II.1.30 The services sector remains the major contributor to the overall economic growth of the Indian economy, although it recorded the lowest growth in 11 years at 6.5 per cent during 2012-13 (Chart II.10). Among the sub-sectors, 'financing, insurance, real estate & business services' and 'trade, hotels, restaurant, transport & communications' were the worst performers during the year, reflecting weak business sentiments, both domestically and globally. The slowdown in services associated with trading activity reflects the sluggish domestic industrial scenario. The export performance of business services was affected by weak global demand conditions.

II.1.31 The sluggish growth in lead indicators of the services sector, such as automobile sales, cargo movement and foreign tourist arrivals, signals further slowdown in the sector. The Reserve Bank's Services Sector Composite Indicator dipped in April-May 2013. However, the recent reform measure to allow FDI in multi-brand retail, aviation, cellular services and other sectors is likely to provide a boost to the sector in the medium to long

term. Any improvement in global economic conditions will have a favourable impact on the growth prospects of the services sector.

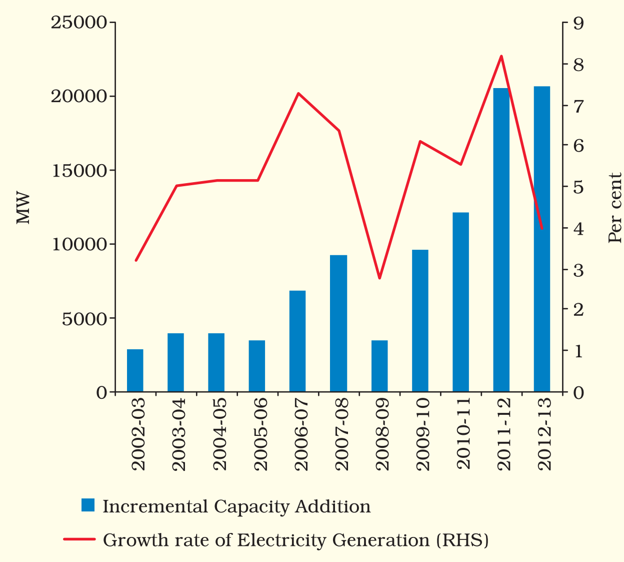
Need to address infrastructure bottlenecks in various sectors to revive growth

II.1.32 Over the past couple of years, India's infrastructure sector has been facing a series of problems that need to be addressed immediately to revive growth. The major factors that constrain timely implementation of projects are delays in regulatory approvals/land acquisition/site handover, lack of strong rehabilitation and resettlement policies, weak project planning and monitoring, pre-commissioning teething troubles, geological surprises and contractual disputes.

II.1.33 As on June 1, 2013, of the 569 central sector projects (₹1.5 billion and above), delays in implementation were reported for nearly half (277) of these projects, resulting in cost overruns of about 18.8 per cent. This marks a slight increase in the number of delayed projects when compared with the corresponding period last year. While cost overruns have been high in sectors, such as railways (135 per cent), water resources (119 per cent) and petro chemicals (63 per cent), time overruns have been high in road transport and highways (90 projects), power (51 projects) and railways (35 projects). Measures to reduce time overruns include rigorous project appraisal, setting up Standing Committees in the ministries to fix responsibility for time and cost overruns, regular review of the infrastructure projects by the concerned administrative ministries and setting up Central Sector Project Co-ordination Committees in the states under the Chief Secretaries to remove bottlenecks and to facilitate the speedy implementation of major projects.

II.1.34 In order to put infra-projects on a fast track, in addition to the CCI, the PMO has set up a Project Monitoring Group to track stalled mega projects. There is an urgent need for all these committees/ groups to work in co-ordination so that clearance of the different stalled projects is expedited.

Chart II.11: Incremental Capacity Addition and Growth Rate of Electricity Generation



II.1.35 Currently, the power sector seems to be in crisis with the solution remaining elusive. There has been a persistent, huge gap between power demand and supply, which is associated with constraints in the availability of natural gas and coal. Although there has been a continuous increase in installed capacity of electricity generation over the years, the growth rate of electricity generation has not been encouraging (Chart II.11). Despite government initiatives, the coal sector has been facing numerous problems for quite some time (Box II.2). The poor financial health of distribution companies (discoms) is another major issue to be resolved in the power sector. In this context, the recent decision by the Central Electricity Regulatory Commission (CERC) to allow several private power sector producers to raise tariffs needs to be appreciated. Overall, it is essential to adopt a multi-pronged strategy to resolve issues in the power sector.

II.1.36 In the roads sector, concerted efforts by the government after the recession led to an increase in the number of awards of road projects by National Highway Authority of India (NHAI) from 639 km in 2008-09 to 6,491 km in 2011-12. However, in 2012-13 there was a significant drop

Box II.2
Indian Coal Sector: Issues & Strategies

Coal shortages in India are likely to remain at elevated levels in the medium term due to following factors. First, the current coal production level falls short of the requirements for coal. The total production of raw coal in the country during 2012-13 was 558 million tonnes (MT). As per the 12th Plan document, this gap is projected to increase to 185 million tonnes by 2016-17. To meet the gap between overall demand and domestic availability of coal, 138 million tonnes of coal was imported during 2012-13. Many coal-based thermal plants are running much below the installed capacity due to fuel shortages and transmission constraints. Further, shortage of domestic natural gas supplies and lower appetite for expensive imports has compounded the problem. Second, regulatory hurdles linked to land acquisition problems and environment and forest clearances have led to inordinate delays in coal mining projects. Third, although coal block allocations for captive mining by the private sector was started in 1992, not many of the 195 coal blocks allocated have started production. Several of these allocations are now being de-allocated. Constraints on rail infrastructure have further impacted coal production. As a result of all these factors, captive coal miners have failed to live up to their commitment of production of coal from blocks allocated to them.

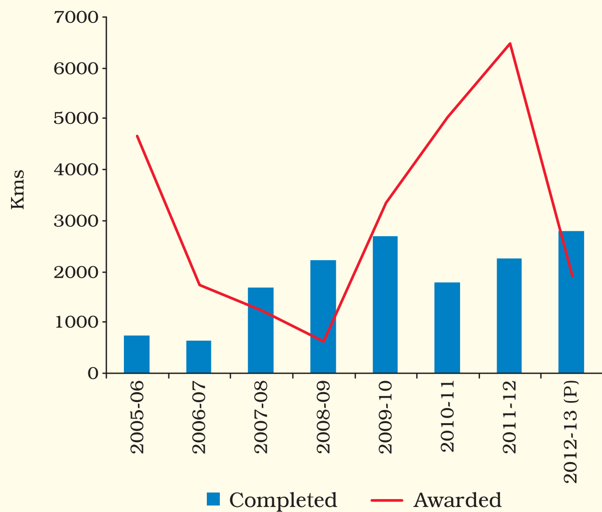
To reduce the dependence on imports and to step up domestic production, the government has taken several steps, including setting up a committee to devise a PPP policy framework with Coal India Limited (CIL), periodic review of the development of coal blocks as well as ongoing projects and plans, expeditious implementation of critical rail lines and improved supply of rakes. Regular interactions are held by the Ministry of Coal (MoC) with the Ministry of Environment and Forests (MoEF) to address pending issues concerning environment and forest clearances. The Cabinet Committee on Investment, set up by the government to expedite the decision-making process for clearance of projects in the infrastructure sector, has given environment clearance for 14 projects and Stage 1 forest clearance for 4 projects of CIL as on May 1, 2013. The MoC holds interactions with the concerned state governments to sort out issues related to land acquisition and the rehabilitation and resettlement of project-affected persons.

Pressure on coal demand has come from large capacity additions in the power sector, especially from independent power producers (IPPs). The Fuel Supply Agreements (FSAs) signed with IPPs and state power utilities since April 2012 aim to mitigate the problem of coal supplies. The FSAs also provide for payment of penalty by the supplying coal company in the event of shortfall in supply. However, given the chronic shortage of coal supplies in relation to demand, only limited comfort can be drawn from these FSAs. Substantial dependence on imports to meet the coal demand in the country has emerged, but imported coal is much more expensive notwithstanding a decline in global prices in the recent period.

The option of price pooling between domestic and imported coal was considered, but is likely to have gainers and losers with attendant legal issues. As such, the option to adopt marginal cost pricing and price coal at import-parity emerged, although it has inflationary implications, as it requires regulatory increases in power tariffs. The Cabinet Committee on Economic Affairs (CCEA) in June 2013 approved a mechanism for supply of coal to power producers. It was decided that CIL would sign FSAs with the Thermal Power Plants (TPPs) for a total capacity of 78GW, by which the CIL will supply 65 per cent of the Assured Coal Quantity (ACQ) from domestic production for the next two years, later to be increased to 75 per cent by the terminal year of the Twelfth Plan. It also provides for coal imports through CIL or directly by willing TPPs with pass-through in the form of increased power tariffs as per the modalities suggested by the Central Electricity Regulatory Commission (CERC). The Union Cabinet has also announced in June 2013 the setting up of an independent regulatory authority for the coal sector that would go a long way in ensuring better regulation and conservation of coal resources.

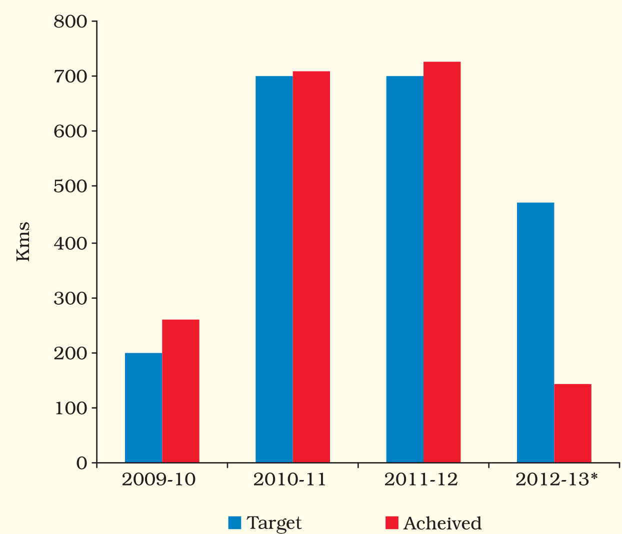
in the number of awards of road projects to 1,933 km (Chart II.12). The underachievement has been largely due to environmental clearance issues. The rising leverage of firms engaged in the road sector added to the constraints. These two factors have affected their financing as well. Despite this dip, the government's concerted focus on the construction of previously awarded highway projects resulted in the completion of about 2,800 km of highways in 2012-13. However, the dip in the award of new projects in the year 2012-13 is likely to have an impact on construction of highways in the medium term. This apart, a large number of projects in this sector are also affected by time over-runs, mainly due to delays in land acquisition, shifting of utilities, obtaining environment and forest clearances and railway approvals and the poor performance of contractors in several cases.

Chart II.12: Road Projects Awarded/Completed by NHAI



P: Provisional.
Source: National Highway Authority of India (NHAI), Government of India.

Chart II.13: Target Achieved for New Railway Lines



* Achievement figure is upto January 2013.

II.1.37 The government has taken several reform measures recently to address these issues, *viz.*, adopting the Engineering, Procurement and Construction (EPC) mode for building roads; delinking environmental and forest clearance for road projects and exempting linear str*etc*hes from requirement of NOC from *Gram Sabhas*. With these measures, the government has set a target of awarding 7,300 km of National Highway projects in 2013-14.

II.1.38 Railway projects are handicapped by the limited availability of resources, huge throw-forward of ongoing projects, delay in meeting land acquisition and forest clearance, law and order problems and contract failures, due to which achievement was much below the target set for new railway lines in 2012-13 (Chart II.13). The Kakodkar committee to review the safety of Indian Railways (2012) and the Sam Pitroda committee on modernisation of Indian Railways (2012) have underscored the significance of PPP models for the expansion and growth of this sector. The Indian Railways has identified PPP investment in railways in the 12th Five-Year Plan in several areas that include an elevated rail corridor, high-speed corridors, re-development of stations, logistics parks, private freight terminals and dedicated freight corridors (DFCs). The commissioning of DFC projects by the government is expected to provide opportunities for industrial development and employment generation. The first major civil contract covering a length of about 343 km has recently been awarded and the authorities are in an advanced stage of awarding another contract for about 650 km. It is estimated that contracts will be awarded to cover over 1,500 km by the end of 2013-14. Land acquisition for these DFCs is almost complete.

II.1.39 Private investment in the seaport sector has not picked up in a significant manner. In recent times, growing resource requirements and the concern for managerial efficiency and consumer responsiveness have led to the active involvement of the private sector in Indian ports. In 2012-13, 32 projects with an estimated investment of around ₹67 billion were awarded in this sector, which is much higher than in 2011-12. The Committee set up by the Government of India to increase private investment in the inland waterways sector is expected to undertake a systematic effort to identify new areas for private investment, in both infrastructure and transportation. To avoid delays

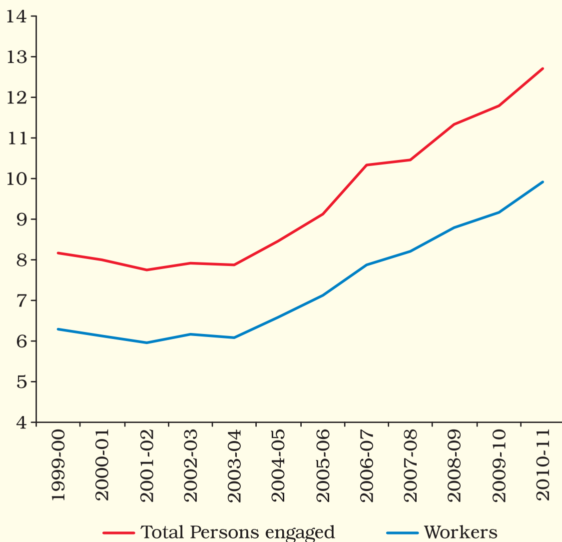
in the award of PPP projects, the CCI recently approved a proposal to delegate enhanced financial powers to the Ministry of Shipping for Port Projects in the PPP mode in line with NHDP in the roads sector. The enhanced delegation of financial powers to the Ministry of Shipping for clearing PPP projects up to ₹5 billion (from ₹3 billion) is expected to accelerate investment approvals and facilitate speedy development of port capacity.

Job creating growth in organised industrial sector in the 2000s

II.1.40 As per the Annual Survey of Industries (ASI) data, during the 2000s about 4.7 million jobs were created in the organised industrial sector, with more than 75 per cent of these being created in the second half of the decade (Chart II.14). This reflects a pick-up in growth in organised employment in relation to the past two decades.

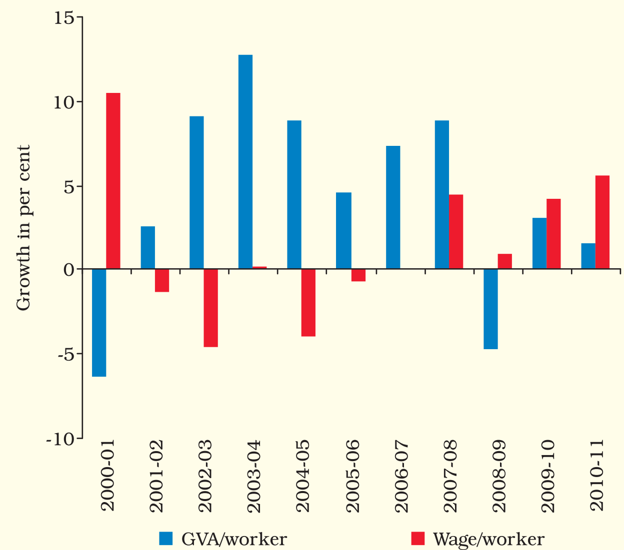
II.1.41 Employment elasticity, which reflects the change in employment growth for a percentage change in growth of output, was observed to be reasonable for the organised industrial sector at 0.2 during this period as per the ASI data. Even during the global financial crisis, the Indian organised industrial sector witnessed positive employment elasticity, *albeit* with some moderation. However, there was variation across industries in employment generation during the decade.

Chart II.14: Total Employment and Workers (in millions)



Source: ASI, MOSPI, GoI.

Chart II.15: Gross Value Added per Worker and Wages per Worker at Constant Prices



II.1.42 In tandem with employment growth in the organised sector, wages also went up at a higher rate particularly in the second half of the 2000s. Wage growth surpassed labour productivity growth during 2008-09 to 2010-11, possibly adding to inflationary pressures (Chart II.15).

Employment generation remained weak in 2012-13

II.1.43 According to the periodic quick employment surveys conducted by the Labour Bureau for select export-oriented industries, employment generation that remained robust during 2010-11 and 2011-12 has moderated since Q4 of 2011-12. This trend continued during 2012-13, resulting in a significant decline in employment generation in the organised sector in 2012-13 compared with the previous year (Table II.1). Except for textiles and leather, all sectors recorded a moderation in employment generation during 2012-13 *vis-à-vis* the previous year. Among industries, the IT/BPO sector witnessed the maximum moderation in employment growth.

Table II.1: Changes in Employment

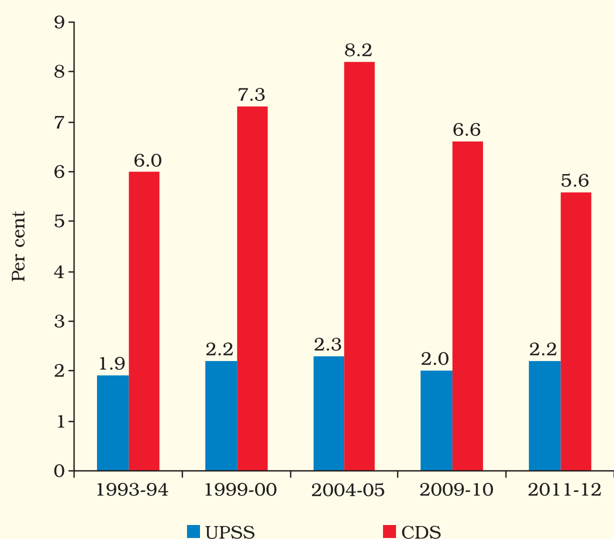
(in million)

Industry	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5
Textiles	0.06	0.10	0.09	0.14
Leather	0.01	0.03	-0.02	0.01
Metals	0.09	0.09	0.08	0.04
Automobiles	0.08	0.11	0.03	0.02
Gems & Jewellery	0.07	0.00	0.03	0.02
Transport	-0.01	0.00	0.04	0.00
IT-BPO	0.69	0.67	0.58	0.12
Handloom-Power loom	0.07	-0.01	0.00	0.00
Overall	**1.07**	**0.98**	**0.83**	**0.35**

Source: Labour Bureau.

II.1.44 The latest round of the NSSO Survey (68th Round) on employment and unemployment for 2011-12 shows that the unemployment rate that fell in 2009-10 in terms of usual principal and subsidiary status (UPSS) has risen in 2011-12 to 2.2 per cent from 2.0 per cent in 2009-10 (Chart II.16). In terms of current daily status (CDS), the unemployment rate continued its fall from 6.6 per cent in 2009-10 to 5.6 per cent in 2011-12, which implies a decline in unemployed person days. Labour force participation rates declined in 2011-12 *vis-à-vis* previous rounds, particularly for females.

Chart II.16: Unemployment Rate



Source: NSSO, MOSPI.

Poverty Ratio marks a decline in 2011-12

II.1.45 As per the Planning Commission estimates based on the 68th Round Household Consumption Expenditure Survey conducted by NSSO, there has been a significant decline in the poverty ratio from 37.2 per cent in 2004-05 to 21.9 per cent in 2011-12. During the seven-year period, the number of people below the poverty line came down by 137 million persons, from 407 million in 2004-05 to 270 million in 2011-12.[3] While the rural poverty ratio declined to 25.7 per cent in 2011-12 from 41.8 per cent in 2004-05, the urban poverty ratio has gone down to 13.7 per cent from 25.7 per cent. In fact, the average rate of decline during most recent seven year period is much higher (2.2 percentage points per year) than during the11-year period of 1993-94 to 2004-05 (0.74 percentage points per year). The poverty estimates could undergo revisions once the Rangarajan Committee completes its review of the existing methodology, but the Planning Commission expects the broad trend of declining poverty to be maintained.

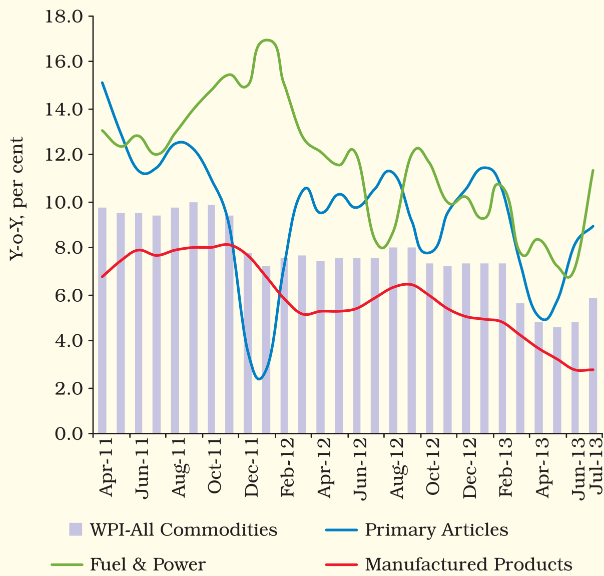
II.2 PRICE SITUATION

Headline inflation moderated to below 6 per cent towards the end of 2012-13

II.2.1 After remaining persistently high for three consecutive years (2010-13), headline wholesale price index (WPI) inflation (y-o-y) came down to 5.7 per cent in March 2013. During Q1 of 2013-14 WPI inflation came down further to an average of 4.7 per cent before firming up to 5.8 per cent in July 2013. For most part of 2012-13 headline inflation remained above the threshold level at which it becomes inimical to growth. During H1 of 2012-13, it averaged 7.7 per cent and peaked at 8.1 per cent

[3] For 2011-12, the national poverty line using the Tendulkar methodology is estimated at ₹816 per capita per month for rural areas and ₹1,000 per capita per month in urban areas.

Chart II.17: Trends in Inflation: Wholesale Price Index



in September 2012. From October, inflation remained around 7.3 per cent for five consecutive months before declining to 5.7 per cent in March 2013 (Chart II.17).

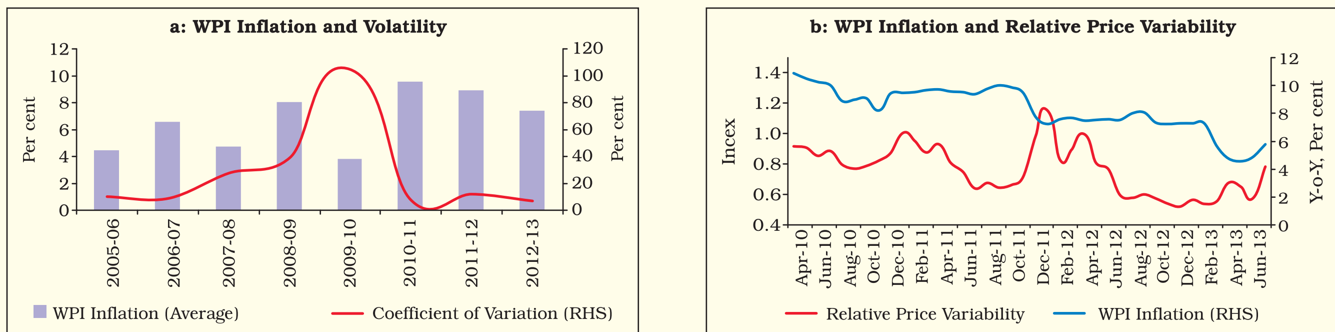
II.2.2 The persistence of inflation was due to factors that included administered price revisions in fuel products, sustained pressure on food prices from the delayed and uneven monsoon and pass-through from global commodity prices and exchange rate changes. The decline in inflation in March 2013 was driven by softening global commodity prices and fall in food inflation. Non-food manufactured products inflation came down from 5.8 per cent in August 2012 to 2.0 per cent by June 2013 before edging up to 2.4 per cent in July 2013. The decline in inflation in this segment reflects the impact of growth moderation and the weak pricing power of firms as well as past monetary policy actions aimed at containing inflation and anchoring inflation expectations.

II.2.3 The headline inflation exhibited low levels of volatility, which indicates its persistence (Chart II.18a). There has also been a gradual decline in the variability of inflation across major groups, which indicates that the moderation of inflation became generalised in the recent period (Chart II.18b).

Relative price changes added persistence to inflation

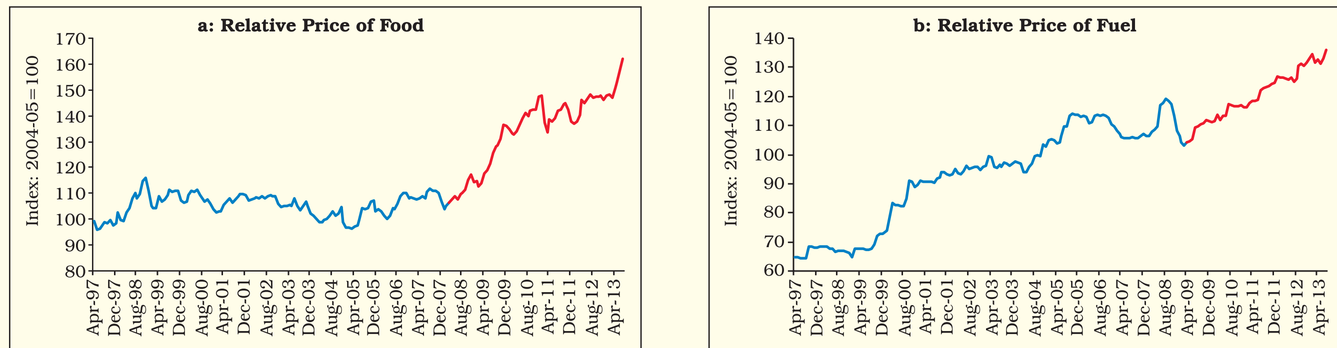
II.2.4 The nature of inflation can also be gauged by looking at trends in the relative prices of major supply-driven items, such as food and fuel. If commodity price increases are driven by supply shocks that are temporary, the impact on inflation could be short-lived and monetary policy can discount such one-off shocks. However, if the supply shock is persistent, the impact on inflation could be more prolonged and difficult to control until the relative price changes bring out the desired supply response or the resource re-allocation. Trending relative prices could, therefore, limit the efficacy of monetary policy, as they indicate the persistent

Chart II.18: Inflation Volatility and Variability



Note: Volatility is defined as coefficient of variation of monthly inflation (y-o-y) during the year.
The index of relative price variability (RPV) is measured as the weighted sum of deviations in commodity group inflation from overall inflation: $RPV_t = \sqrt{\sum_{i=1}^{n} w_{it}(\pi_{it} - \pi_t)^2}$ (where π_{it} is the inflation in commodity sub-group i at period t, π_t is the average rate of inflation at period t and w_{it} is the weight of commodity sub-group i in price index).

Chart II.19: Relative Price of Food and Fuel (WPI)



Note: Relative price of food and fuel is defined as Index of food/fuel group divided by index of non-food manufactured products.

contribution of supply-side factors to overall inflation.

II.2.5 Recent trends in the relative prices of food and fuel indicate that the relative price of food remained stable up to the beginning of 2008 and then exhibited a significant upward trend (Chart II.19a). This has contributed to the persistence of inflation and also a divergence between food and non-food inflation. The trend in the relative price of fuel also shows a secular upward trend, particularly in the recent period (Chart II.19b). While the upward trending relative price of food could reflect the role of both domestic demand and supply factors in keeping food inflation persistent, the relative price of fuel has trended upwards in line with rising global crude prices and the gradual adjustment of administered prices.

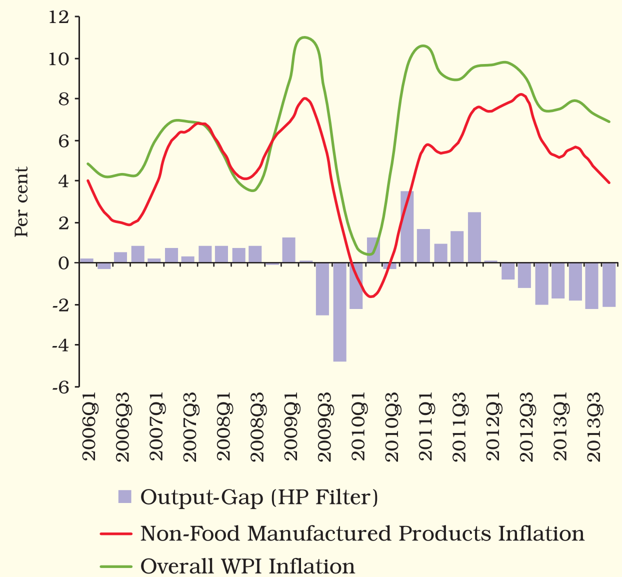
Slowdown in growth also contributed to inflation moderation

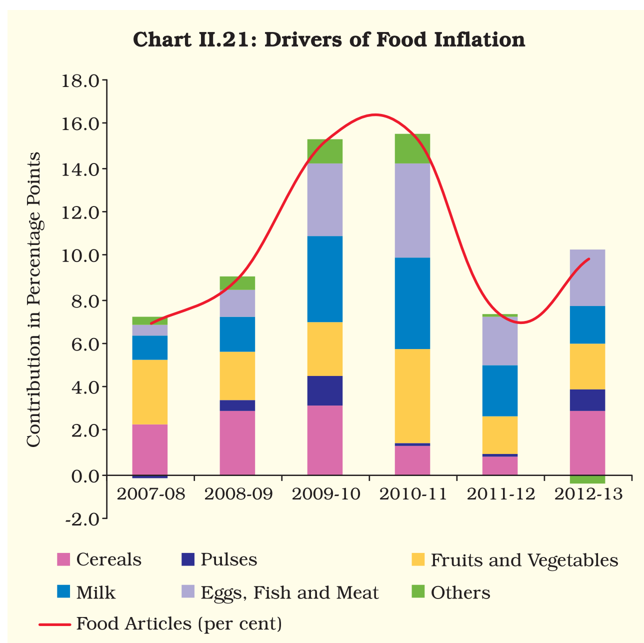
II.2.6 The trajectory of inflation seen along with the trends in overall economic activity indicate that the moderation in inflation in the recent period has been associated with below-potential growth as indicated by the persistent negative output gap for more than a year (Chart II.20). The shift in monetary policy stance towards calibrated easing during 2012-13 also factored in this major development, as with a persistent negative output gap the demand pressures remained muted, which provided the space for monetary policy to support growth.

Food inflation remains high, but the drivers have changed

II.2.7 Despite the moderation in overall inflation, food inflation continued to remain a source of concern during 2012-13, as the average food articles inflation increased to 9.9 per cent from 7.3 per cent in the previous year (Appendix Table 8). The drivers of food inflation also changed significantly during the year. In the initial months of the year, food inflation was driven by vegetables and edible oils, besides protein-based items. Subsequently, the delayed and skewed south-west monsoon had a significant impact on food prices. This was reflected

Chart II.20: Trends in Inflation and Output Gap





in double-digit inflation in cereals and pulses, which became a major pressure point (Chart II.21). Despite the presence of large stocks that were much above buffer norms, inflation in cereal prices remained persistent. Protein-based food inflation saw some moderation towards the end of the year, largely driven by a decline in inflation in milk. Inflation in manufactured food products also moderated towards the end of the year, driven by dairy products, edible oils and sugar. However, inflation in grain mill products tracked the trends in cereal prices and increased in the latter months.

II.2.8 The persistence of food inflation reflects a combination of demand, supply and structural factors. Increasing demand with rising income and changes in dietary patterns towards protein-rich items could explain part of the persistence of food inflation. The results of the NSSO household consumption expenditure survey indicate that, in rural areas, the share of protein-rich items in overall food consumption has increased from 27.1 per cent in 2004-05 to 32.5 per cent in 2011-12. In urban areas, it increased from 29.9 per cent to 33.0 per cent during the same period.

II.2.9 On the supply side, there has been a significant increase in input costs as also a substantial rise in farm wages in recent years (Table II.2). This has also resulted in increases in Minimum Support Prices (MSPs) for most crops as MSP calculation follows a cost-plus approach, further fuelling food inflation. The dominant contributor to the increase in agricultural cost of production in recent years has been rising wages. The increase in wages has been much higher than the increase in prices, leading to increases in real wages. Further, with the increase in income, real consumption expenditure has grown significantly, particularly in rural areas. The NSSO 68th Round Survey (2011-12) on household consumption expenditure indicates that real per capita consumption expenditure in rural areas increased at an average rate of 8.4 per cent during 2009-10 to 2011-12 compared with 1.4 per cent during 2004-05 to 2009-10. Similarly, urban real per capita consumption expenditure growth increased to 6.2 per cent from 2.7 per cent during the same period.

Releasing suppressed inflation kept fuel inflation firm during the year

II.2.10 During 2012-13, crude oil prices (Indian basket) marginally eased to US$108.0 per barrel from US$111.9 per barrel in 2011-12. This led to some moderation in inflation in freely priced mineral oil products. However, with the revision in administered prices being lower than international oil price increases in the recent past, significant

Table II.2: Increases in Select Farm Input Prices

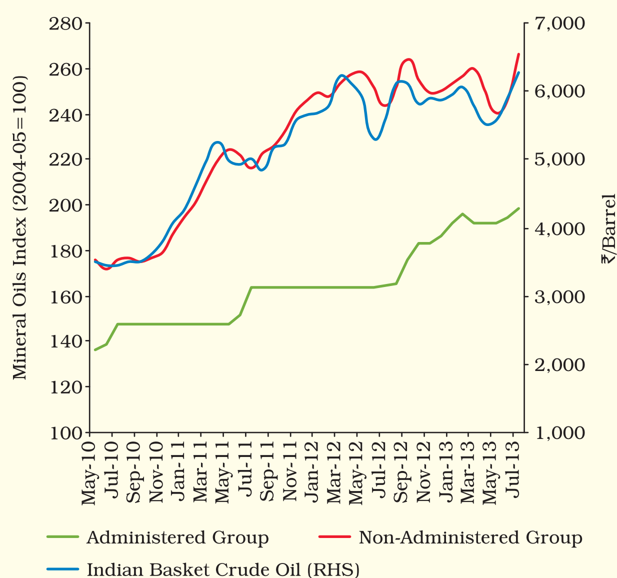
(Annual average, per cent)

	2004-05 to 2007-08	2008-09 to 2012-13
1	2	3
Food Articles	**7.3**	**11.4**
Fertilisers and Pesticides	1.7	7.8
Fodder	1.3	19.5
Gola (Cattle Feed)	12.2	10.2
High-speed Diesel	4.5	8.0
Electricity (Agricultural)	2.3	8.7
Tractors	3.6	5.4
Wages (Average)	6.2	17.3

Source: Ministry of Commerce and Ministry of Labour.

under-recoveries had accumulated. To overcome the fiscal burden of unsustainable under-recoveries, diesel prices were revised upwards by ₹5 per litre in September 2012. Further, on January 17, 2013, Oil Market Companies (OMCs) were allowed to charge bulk consumers of diesel non-subsidised prices and raise the retail price of diesel in a staggered manner. The government also decided to cap the number of subsidised LPG cylinders (of 14.2 kg) per consumer to six in a financial year, which was later raised to nine. Despite these measures, some moderation in oil prices and a stable exchange rate for most of the year, the total reported under-recoveries for OMCs remained large at ₹1.61 trillion. The revisions in administered fuel prices have led to some decline in suppressed inflation and narrowed the gap between administered and non-administered fuel prices (Chart II.22). While the increase in diesel prices could lead to higher price levels in the near term, the reduction in fiscal burden as prices get adjusted would help price stability in the medium term.

II.2.11 The gradual revision of diesel prices as well as decline in global crude oil prices led to significant reduction in under-recoveries during April-May 2013. Since June 2013, exchange rate depreciation and increases in global crude prices have led to increase in both prices of freely priced products and increase in under-recoveries for administered price products.



II.2.12 Shortages in domestic coal production in recent years has led to significant reliance on imports for meeting the growing demand (see Box II.2). The international price of coal remains significantly higher than the domestic prices, though the gap has come down of late on account of falling global prices. To meet the Fuel Supply Agreement (FSA) obligations, the Government has allowed the Coal India Limited (CIL) to import coal and supply the same to the Thermal Power Plants (TPPs) on a cost plus basis. This could lead to increase in input cost for power generation leading to pressure on electricity prices. Also, CIL revised upwards the coal prices in the last week of May 2013 which could add further pressure.

II.2.13 Several states have already implemented power tariff hikes, which was reflected in a 13 per cent increase in the electricity price index in May 2013. The debt restructuring of state electricity boards to facilitate a turnaround of the state distribution companies (discoms) would lead to better financial positions and, thereby, improve their sustainability. However, as the debt restructuring is also conditional on significant increases in prices to make them financially viable, there could be further pressure on consumer tariffs. Since 57 per cent of the electricity is produced by coal-based thermal power plants, electricity prices are significantly conditioned by the price of coal.

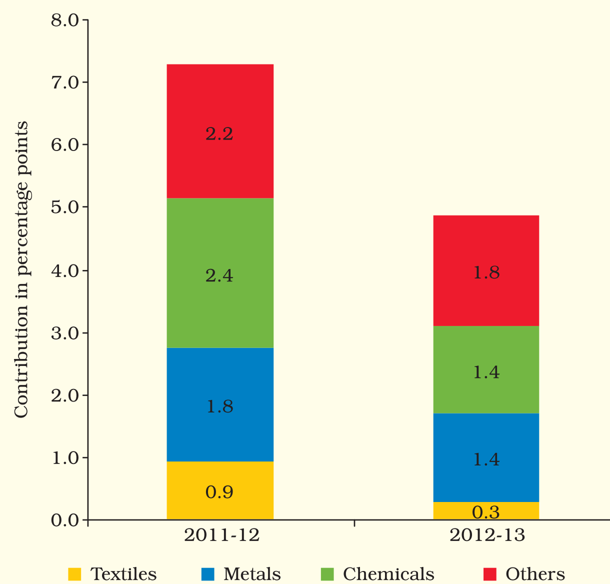
Generalised inflationary pressures moderated significantly

II.2.14 Inflation in non-food manufactured products, which is seen as an indicator of generalised inflationary pressures, eased considerably during the second half of the year and reached 3.6 per cent by March 2013. It further moderated to 2.0 per cent by June 2013 before increasing to 2.4 per cent in July 2013. The decline in inflation in this group

has been due to a significant decline in the contribution of metals, textiles and chemicals, whose prices moderated in line with declining global prices (Chart II.23). The moderation in inflation in this segment also indicates the weakening of pricing power of firms, as the significant decline in growth has led to a slowdown in demand. Empirical estimates on pricing power and its impact on inflation in India indicate that pricing power significantly impacts inflation in the case of intermediate goods (Box II.3).

II.2.15 A major challenge for monetary policy is to identify the appropriate price index that could be targeted in pursuing its objective of price stability. Overall inflation includes several items that are significantly volatile and driven by short-term supply

Chart II.23: Inflation in Non-food Manufactured Products



Box.II.3
Pricing Power and Inflation

Pricing power, at a micro level, can be regarded as the extent to which the price of a commodity can be raised without significantly affecting its demand. Thus, for a given level of demand, pricing power measures the degree to which a business can pass on increase in the input costs to consumers through increase in the prices of finished goods. From this perspective, profit margin of a single or a group of firms could be considered as a proxy measure of pricing power. Empirical estimates indicate that the degree to which firms pass-through both price increases at competing firms and cost increases due to exchange rate movements or other factors also depend upon the level of inflation (Taylor, 2000). Lower and more stable inflation could lead to lower perceived persistence of cost changes and therefore lead to lower pass-through. Thus, in a declining pricing power scenario, it is expected that inflation will follow the trend in pricing power as pass through of increase moderates.

Output is also likely to get impacted by the movements in pricing power. Widening of profit margins during an expansionary phase could be caused by a fall in input cost, a rise in output prices, or both and vice versa. Further, market structure affects pricing behaviour. The research, however, does not offer a clear conclusion whether higher market concentration always enhances the ability to freely set higher prices and, thereby, render inflation sticky (Asplund and Nocke, 2006). Standard economic theory suggests that in an expansionary phase when firms use labour, capital and other inputs intensively, production costs tend to rise and firms have greater scope to pass along those cost increases in the form of higher product prices due to rising demand conditions. In contrast, when that level of intensity is relatively low, production costs tend to rise more slowly (or even fall) and firms have less scope for raising prices. This suggests that market power as well as the level of economic activity impacts pricing power and has relationship with inflation and output.

In India, there has been a reduction in the operating profit margin *viz.*, 'Earnings Before Interest Tax Depreciation and Appropriation' (EBITDA) margin since 2009. The data of 995 listed non-food manufacturing companies shows that from a peak of 17.4 per cent in 2009-10:Q1 the EBITDA margin declined to 11.1 per cent in Q1 of 2012-13. The decline in pricing power, measured by EBIDTA margin, is broad based, though is not of similar magnitude across industries. Monetary policy remained contractionary during this period in the form of repeated interest rate hikes. However, the wholesale price index (WPI) inflation for non-food manufacture products (NFMP) had not shown a similar downward shift and was rather sticky until the recent period. On the other hand, manufacturing industrial growth rate started moderating since Q3 of 2010-11.

The relationship among pricing power (measured by EBITDA margin), inflation and manufacturing output (measured by IIP growth) was studied in an econometric framework using a structural vector auto regression (SVAR)

(Contd....)

methodology and controlling the effects of market power (measured by Herfindahl - Hirschman Index calculated as the sum of square of the share of firms' sales) and level of economic activity (measured by OECD Composite Leading Indicator for India). The analyses were done for NFMP group of companies as well as separately for the use-based categories *viz.*, basic goods, capital goods, intermediate goods, consumer durables and consumer non-durables.

Empirical results indicate that pricing power has statistically significant, positive and lagged impact on output growth for the NFMP group of companies at the aggregate level. The impact of declining pricing power on inflation is also found to be positive but relatively subdued. Further, the fall in pricing power was reflected sooner in the moderation of output growth than on inflation. Among the use-based groups, however, the impact of pricing power on inflation and output growth is significant and positive only in the case of intermediate goods.

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disturbances, which makes it difficult to distinguish underlying price trends from short-term volatility. Usually a measure of core inflation (which excludes such volatile items) is used by many central banks to assess the underlying price trends. In the Indian case, recent experiences indicate that the alternate measures of core inflation have generally been as volatile as headline inflation and, therefore, the use of any particular measure could, at best, be context-specific (Box II.4).

Box II.4
Core Inflation: Alternate Methodologies

Usually, a measure of core inflation that can be effectively monitored and controlled using various monetary instruments is identified for policy purposes. The persistent component of inflation is termed 'core inflation', which exhibits long-run properties and has the predictive power of future inflation. As noted by Mishkin (2007), "core measures often are much better than headline indexes at providing a first approximation of the permanent changes to inflation". It also attempts to measure the component of inflation determined by demand conditions (Mohanty *et al.*, 2000).

Despite wide-spread use of the term 'core inflation', there is no unanimity among researchers about its definition. The literature suggest that core inflation ideally should be (a) a good indicator of long-term trends in inflation, b) a good measure of inflation for empirical work and (c) a viable target for monetary policy (Silver, 2006). For computation of core inflation, various methodologies have been proposed. Some methods are based on the nature of commodities, while others are based on price volatility as set out below:

Exclusion-based core inflation

A simple way to estimate core inflation is to exclude items like food and energy which show volatile price movement mainly due to supply shocks. These measures are easily understood and timely. However, the choice of excluded components is arbitrary and fails to address relative price shocks within included components. Also, the excluded components may not be more volatile than the included ones and some of them may contribute to long-run effects on inflation. In countries like India, where food and fuel are a major part of the consumption basket, these exclusion-based measures may lead to the core inflation not being a good representative of changes in the cost of living.

Median-based core inflation

Median-based core inflation has the advantage that it does not require the arbitrary selection or de-selection of commodities in advance. It is also insensitive to large shocks in individual commodities; its use can, therefore, be statistically more robust. Its use can also be justified by the economic argument of sticky prices and presence of menu costs. However, the median excludes components that experience relatively large price changes and, when used as a measure of core inflation, may miss price changes that provide useful information on trend inflation.

Trimmed mean-based core inflation

Closely related to median-based measures are trimmed mean measures, which are the means of the ordered, weighted component inflation rates with the upper and lower tails excluded. The trimmed mean has the potential to eliminate the most volatile items and gives the persistent

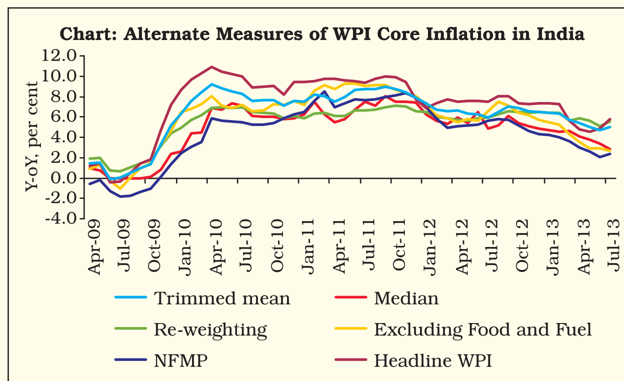
(Contd....)

inflation. However, trimmed measures suffer from the same problems as the median.

Historical standard deviation-based core inflation

Another method relates to measuring core inflation by re-weighting according to historical variability rather than excluding the current volatile components.

Finding the ideal measure of core inflation is not straightforward and empirical research in India shows that different measures of core inflation yield different results (Chart). Hence, the choice of a core inflation measure should, in principle, be data-driven, based on appropriate criteria selected to suit the situation (Das *et al.*, 2009).



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II.2.16 There have been improvements in price statistics in terms of the availability of a nation-wide consumer price index, which has significantly increased the information set that is available for monetary policy. Most central banks in the advanced as well as the emerging economies use CPI inflation as the target for their monetary policy even though some central banks do monitor other price indices, *viz.*, producer price index (PPI) and GDP deflator. The development of a producer price index (both for inputs and output) could further strengthen the statistical base for price analysis (Box II.5).

Box II.5
Producer Price Index: The Concept and Measurement

The Producer Price Index (PPI) is designed to measure the average change in the price of goods and services as they leave the place of production or as they enter the production process. In other words, the PPI measures the rate of change in the prices of goods and services bought and sold by producers. Thus, there are two types of PPIs. An output PPI measures the rate of change in the prices of products sold as they leave the producer, and an input PPI measures the rate of change in the prices of the inputs of goods and services purchased by the producer. More generally, PPI may be considered a family of Stage of Processing (SOP) price indices (IMF, 2004).

The PPI differs from the Consumer Price Index (CPI) on account of the following factors: (1) the composition of the set of goods and services and (2) the types of prices collected for the included goods and services. While the PPI includes all marketed output of producers, the CPI includes the set of goods and services purchased for consumption by households. The price collected for an item included in the PPIs is the revenue received by its producer, which does not include sales tax, excise duties and transportation costs. The price collected for an item included in the CPI is the expenditure by a consumer for the item, which include the taxes and transportation costs. The PPI also differs from the Wholesale Price Index (WPI), because the WPI measures price changes of domestically consumed products at one stage prior to final demand, *i.e.*, the wholesale level, whereas the PPI measures the price changes for all domestically produced products for both domestic consumption and export. In addition, the WPI measures transactions at purchasers' prices, which include delivery charges, transportation costs and taxes on products.

(Contd....)

Being a SOP index, the PPI can provide insights into the links between different price measures and, by allowing analysts to track price build up through the economy and acts as a short-term indicator of inflationary trends. Further, PPIs can play a major role in preparing the national account, as it can be the appropriate deflator of nominal values of output for the compilation of production volumes and for the deflation of nominal values of capital expenditure and inventory data. In addition, the overall PPI and PPIs for specific products are often used to adjust the prices of inputs in long-term purchase and sales contracts. The export and import prices, which are an important extension of domestic PPIs, can also be used in the deflation to obtain the volumes of external trade.

As of now, India does not have a PPI. However, India's WPI is partly a hybrid of consumer and producer price quotes. Apart from theoretical differences in the sellers' and purchasers' prices due to taxes and distribution costs, in the Indian case these prices could be very divergent due to government subsidies for certain commodities. For these reasons, it is desirable to develop a PPI that measures the average change over time in the sale prices of domestic goods and services (Subbarao, 2012). However, several issues need to be addressed in compiling a PPI for India. The main issue is to obtain the pricing methodology, which comprises identification of commodities and specifications and their availability for repeat pricing. In specifying the products, care should be taken to ensure that they are fully defined in terms of all the characteristics that influence their transaction prices (Kolli, 2007). Designing a weighting diagram for the PPI is also more difficult than for other price indices. For the CPI, the weights (for consumption) are obtained from the consumer expenditure surveys, while WPI weights are based on the gross value of output of various groups/sub-groups/items. In the case of the PPI, it is necessary to construct detailed input-output tables based on the national accounts data in order to construct the net sector weights.

While the issue of constructing a PPI for India is being dealt with at the conceptual level, considerable work remains to be done on its compilation. In particular, an appropriate price collection system needs to be put in place. In this context, the WPI for manufactured products resembles a type of output PPI, so the existing system can be augmented and fine-tuned instead of developing an entirely new data collection system. Also, the National Sample Survey Office (NSSO) surveys collect the first-point transaction price of several basic commodities. These systems need to be examined and integrated with the existing price collection mechanism. Therefore, a holistic view of all price collection mechanisms across offices such as the Office of the Economic Adviser (OEA), Central Statistics Office (CSO), NSSO and the Labour Bureau may help rationalise the price collection mechanism of the PPI (Chakraborty *et al.*, 2013).

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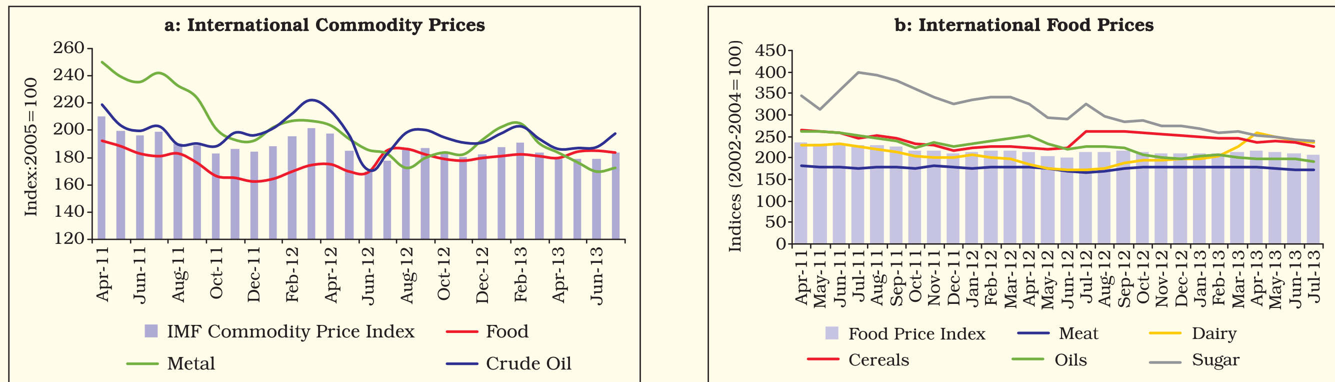
Global commodity prices moderated in 2012-13

II.2.17 There was significant moderation in global commodity prices during Q1 of 2012-13 on account of sovereign debt concerns in the euro area weighing on demand prospects, but witnessed some recovery during Q2 of 2012-13 (Chart II.24). Global commodity prices generally eased during the year driven by a slow recovery and the easing of geo-political tensions. The extent of correction, however, was partly constrained by easy monetary policy of near-zero nominal interest rates and the liquidity impact of quantitative easing. In most advanced economies, inflation remained below the tolerable level and allowed central banks to continue with accommodative monetary policy to support economic recovery. Crude oil prices moderated in 2012-13, as supply prospects improved and geo-political tensions eased in the Middle East, although some upward pressure was visible due to lower production by the Organisation of the Petroleum Exporting Countries (OPEC) and some pick-up in demand from emerging markets. Metal prices continued to show signs of weakening, as demand

Chart II.24: Trends in Global Commodity Prices



had slowed significantly in advanced and emerging market economies, especially from China. Since H2 of 2012-13, the FAO's Food Price Index largely remained stable due to improved supply prospects, although the moderation was somewhat constrained by input price pressures exerted by fuel and fertilisers.

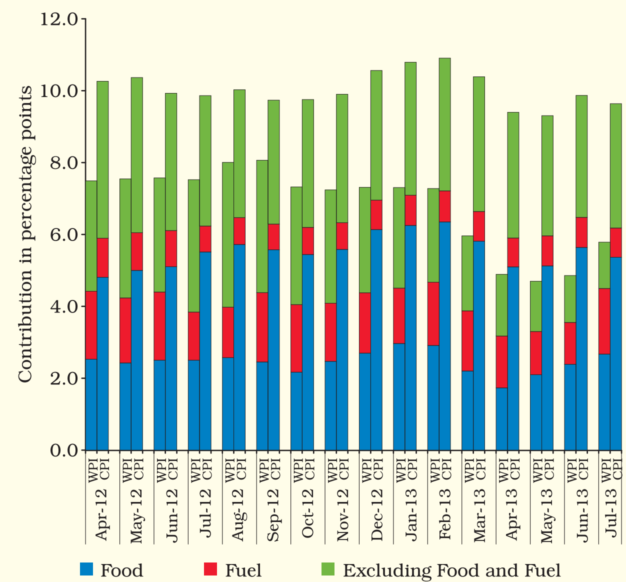
II.2.18 Commodity prices, except crude oil, have generally softened during 2013-14 so far, reflecting improved supply prospects in most commodities and weak demand on account of slowing growth, especially in emerging economies. Crude oil prices increased during June-July 2013 driven by political uncertainties in Middle East and expectation of stronger demand from the US. Global commodity prices continue to remain vulnerable to supply disturbances.

The divergence between WPI and CPI continues to remain significant

II.2.19 Even as WPI inflation moderated significantly, inflation based on the all-India new Consumer Price Index (CPI-combined: rural + urban) remained elevated, widening the gap between the two during 2012-13 (Chart II.25). Since the weights assigned to food items are much higher in the CPI than in the WPI, food inflation has a larger impact on the CPI. Besides, inflation in housing, which is included in the CPI but not in the WPI, has consistently remained above 10 per cent since January 2013. The impact of increases in transportation costs on the CPI is also expected to be greater than that on the WPI. Also trends in retail margins as well as tax changes in the chain between wholesale and retail level could influence consumer price inflation.

II.2.20 By construct, the CPI and the WPI differ on several counts, such as purpose and use, coverage of commodity/service, weighting diagram, the stage at which price quotations are collected, associated market (*i.e.*, wholesale market, retail market) and base year. However, as consumption is the end-use, price changes in wholesale markets

Chart II.25: WPI and New CPI Inflation



represented by the WPI are expected to be reflected in price changes in retail markets (CPI). In that sense, one expects some congruence between them with some lead-lag relationships. Empirical evidence indicates that for a longer period, the divergence between the CPI-IW and the WPI is a stationary series (*i.e.*, deviations are around the mean), with zero mean implying that there is no secular upward or downward movement in the difference between the CPI and the WPI.

Consumer price inflation diverges between rural and urban areas

II.2.21 Inflation based on CPI-Rural and CPI-Urban largely moved in tandem; however, large divergences in inflation continued to persist at the commodity group level during 2012-13. The fuel & light group witnessed higher inflation in urban areas. Inflation in clothing, bedding and footwear was higher in urban areas during H1 of 2012-13, but the trend was reversed in the second half of the year. Although food inflation was at almost similar levels across rural and urban areas, within food groups there was significant divergence in inflation trends. Inflation was higher in cereals, pulses, 'eggs, fish and meat' and prepared meals in urban areas, while 'milk & milk products', 'condiments & spices', sugar and edible oils recorded higher inflation in rural areas. Inflation in the miscellaneous group, which represents various products and services, displayed large volatility across rural and urban areas. Supply-chain inefficiencies and problems in intermediation may be major factors in these divergences, which needs further examination.

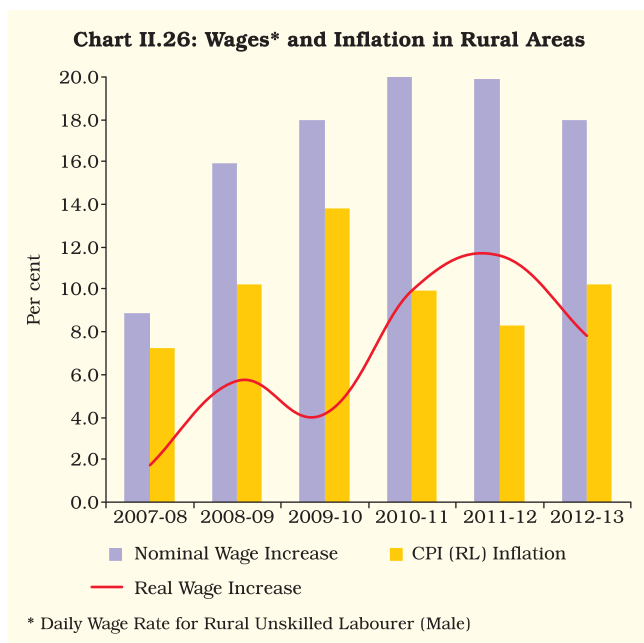
II.2.22 The Reserve Bank also monitors trends in wholesale and retail prices of select food items through its price monitoring survey at various regional offices on a fortnightly basis. This helps in obtaining quicker information about the movement of prices in the wholesale and retail markets. The selected commodities include cereals, pulses, vegetables, fruits, condiments & spices, fish, meat, non-alcoholic beverages and edible oils. The evidence from the surveys indicates that both wholesale and retail prices usually move in the same direction, though with occasional divergence. The mark-up analysis suggests a lower mark-up for non-perishable commodities than for perishable commodities.

Need for improvements in supply chain management – warehousing and others

II.2.23 Apart from high and persistent food inflation, large inter-regional differences in prices also exist. This could be on account of a host of factors that include inefficiencies in the supply chain and state-specific policies such as taxes and restrictions on supply/movement of goods. The competiveness of agriculture producers and the pricing of their products depend on efficient storage and processing capabilities along with effective market institutions. However, the infrastructure for post-harvest management of farm products to ensure proper storage and smooth supply to market is fairly weak in India. India is the world's largest producer of fruit and vegetables, but storage and transportation losses for several crops are estimated to be about 30–40 per cent. There is also considerable scope to improve the information system to provide multiple choices and efficient market channels for farmers. At the micro-level, small farmers could be linked with the value chain so that they can be integrated with the entire supply chain. Going forward, efficient market infrastructures, improved storage capacity and faster transportation from producers to customers are vital areas that need greater attention.

Real wage growth moderates in rural areas, driven by higher inflation

II.2.24 Significant increases in rural wages have been a critical factor influencing the inflation trajectory in the recent period. During 2012-13, while nominal wage growth in rural areas exhibited some moderation, increasing inflation in rural areas led to significant moderation in real wage growth (Chart II.26).



II.2.25 Information from the Annual Survey of Industries (up to 2010-11) indicates that for organised manufacturing, the pace of increase in nominal wages remained in the double digits. Rising wages in a period of slowing growth and high inflation could indicate that the increases in wages are unmatched by productivity growth, leading to a potential wage–price spiral.

Inflation expectations remain high with some moderation

II.2.26 Forward-looking monetary policy would have to take into account the trends in agents' inflation expectations, which is a major determinant of future inflation (Box III.2). In recent years, the Reserve Bank has been assessing the state of inflation expectations in the Indian economy, both through household inflation expectation surveys and the survey of professional forecasters. The household survey results indicate that households' mean inflation expectations for three months ahead remained higher than the current WPI inflation since September 2008. Notably, households' expectations of inflation three months ahead have been tracking WPI turning points (*ex post*) quite closely. There is a dominance of food inflation in shaping overall household inflation expectations. The professional forecasters surveys suggest that long-term WPI inflation expectations have always been lower than the medium-term expectations, except during Q2 of 2011-12 (Table II.3).

Inflation to remain low in 2013-14, but risks remain

II.2.27 Although headline inflation moderated to an average of 4.7 per cent during Q1 of 2013-14, it rebounded to 5.8 per cent in July 2013 driven by pressures from spike in food prices and pass-through of exchange rate depreciation, especially in fuel product prices. With the progress of the monsoon so far remaining satisfactory the pressure on food inflation is expected to be transitory. However, the persistent rise in rural wages and food inflation with feedback effects witnessed during the recent period could impart rigidity in consumer price inflation. High consumer price inflation has several adverse macroeconomic dynamics and so remains a concern. In the medium term, augmenting supply through farm productivity-enhancing measures and strengthening the supply chain by removing

Table II.3: Professional Forecasters' WPI and CPI Inflation Median Forecast for 5 and 10 Years Ahead

Quarter		Actual in the quarter		Inflation in next 5 & 10 years			
		WPI	CPI-IW	Next 5 years		Next 10 years	
				WPI	CPI-IW	WPI	CPI-IW
1		2	3	4	5	6	7
2010-11	Q1	10.5	13.7	6.0	7.0	5.0	6.5
	Q2	9.3	10.3	6.0	7.0	5.5	6.5
	Q3	8.9	9.2	6.0	7.0	5.3	6.5
	Q4	9.6	9.0	6.4	7.0	5.4	6.3
2011-12	Q1	9.6	8.9	6.3	7.0	5.7	6.5
	Q2	9.7	9.2	6.0	7.0	6.0	6.2
	Q3	9.0	8.4	6.0	7.0	5.9	6.5
	Q4	7.5	7.2	6.1	7.0	5.8	6.3
2012-13	Q1	7.5	10.1	6.2	7.3	6.0	6.8
	Q2	7.9	9.8	6.5	7.3	6.0	6.5
	Q3	7.3	10.1	6.5	7.8	6.0	6.5
	Q4	6.7	11.7	6.3	7.3	6.0	6.8
2013-14	Q1	4.7	10.7	6.2	7.5	5.9	6.5

inefficiencies and facilitating better logistics could be critical in achieving the goal of stable food prices. Non-food manufactured products inflation moderated in tandem with the negative output gap with some lag and past monetary policy actions. Despite the latest marginal increase, it remained within the comfort zone. However, some risks could be expected from the lagged pass-through of rupee depreciation.

II.2.28 Given the present cycle of commodity prices, risks from global inflation remain muted, except in the case of crude oil. The pass-through effects of rupee depreciation could offset the favourable impact of a fall in global non-oil commodity prices. Developments in the domestic economy indicate that the risks from demand pressures to inflation remain benign. As such, the inflation path is likely to be shaped by the evolving trend in food prices, implementation of administered price changes during the year and global commodity price and exchange rate movements. Policy efforts to unlock supply constraints and bring enduring improvements in productivity and competitiveness are needed to accelerate growth with low and stable inflation.

II.3 MONEY AND CREDIT

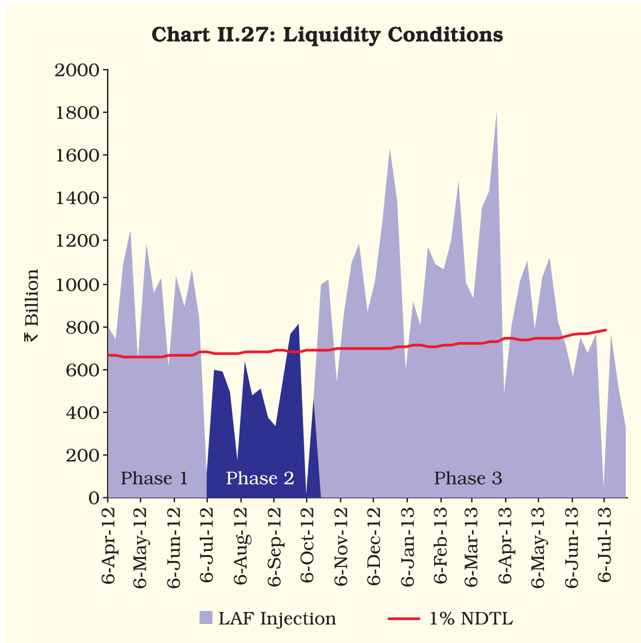
The Reserve Bank used a slew of measures to address macroeconomic concerns

II.3.1 Monetary and liquidity conditions during 2012-13 can be divided into three broad phases. In the first phase until June 2012, although the liquidity deficit gradually declined, it remained above the Reserve Bank's comfort zone. Despite a widening gap between deposit growth and credit growth during Q1 of 2012-13, the liquidity situation improved compared with the severe pressure observed during Q4 of 2011-12 mainly due to OMO purchases, reduction in the government cash balances and the lagged effect of reduction in the CRR. The enhancement of the export credit refinance limit by the Reserve Bank from 15 per cent of eligible outstanding export credit of banks to 50 per cent in order to increase credit flow to the export sector also provided additional liquidity support to banks and helped easing liquidity pressure.

II.3.2 With a significant reduction in government cash balances with the Reserve Bank, a decline in currency in circulation and the impact of policy measures taken by the Reserve Bank, liquidity conditions improved and the deficit moved within the Reserve Bank's comfort zone of (±)1 percent of NDTL of SCBs by July 2012, which marked the beginning of the second phase. The reduction in the Statutory Liquidity Ratio (SLR) by 100 bps with effect from August 11, 2012 also helped improve liquidity conditions. Anticipating possible pressure on liquidity in the subsequent period on account of advance tax payments, seasonal pick-up in credit demand and transitory pressure from increased currency demand during the festive season, the Reserve Bank in September 2012 reduced the CRR by 25 bps, injecting primary liquidity of ₹170 billion into the banking system. The phase of comfortable liquidity lasted until mid-October 2012.

II.3.3 The third phase began in mid-October 2012 when, despite the easing measures taken by the Reserve Bank, persistently high government cash balances, a widening gap between credit and deposit growth and strong currency demand kept the inter-bank liquidity deficit above the Reserve Bank's comfort zone. To alleviate the liquidity pressure, the Reserve Bank reduced the CRR in November 2012, and resumed outright OMOs on December 4, 2012 after a gap of more than five months. The average daily liquidity injection under the LAF increased substantially from mid-October 2012 and the liquidity pressure continued until end-March 2013 (Chart II.27).

II.3.4 During Q4 of 2012-13, the Reserve Bank proactively lowered the CRR by 25 bps effective from the fortnight beginning February 9, 2013 in order to manage liquidity pressures. Additionally, the Reserve Bank conducted four OMO purchase



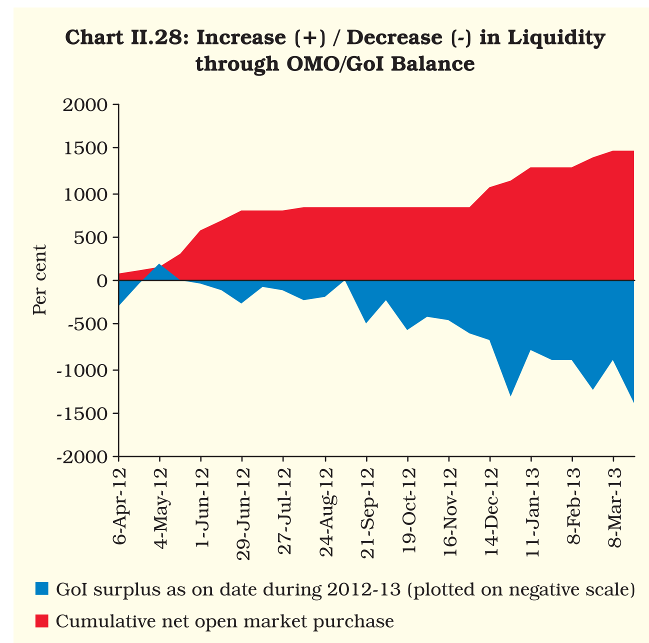
auctions during the quarter, taking the total amount of liquidity injection through this instrument to ₹1.5 trillion in 2012-13. In view of the anticipated large volume of banking transactions during the annual closing of accounts of banks for 2012-13, the Reserve Bank conducted additional liquidity operations at end-March 2013, which facilitated the smooth conduct of banking operations.

II.3.5 During the current financial year 2013-14 so far, liquidity conditions have generally improved, especially since June 2013, mainly because of drawdown of government cash balances and the narrowing of the wedge between deposit and credit growth. To manage liquidity pressure, the Reserve Bank conducted two OMO purchase auctions and one OMO sale auction, which resulted in net injection of liquidity of around ₹139.3 billion during the current financial year so far.

II.3.6 In view of the increased exchange rate volatility in the domestic forex market in the recent period, the Reserve Bank announced a number of policy measures since mid-July 2013. These measures, though intended to stem the volatility in the forex market, primarily operate through their effect on liquidity in the banking system by making it relatively scarce and increasing its cost, thereby reducing the demand for foreign currency. As a contingency measure, the Reserve Bank decided on July 17, 2013 to open a special 3-day repo window at an interest rate of 10.25 per cent for a notified amount up to ₹250 billion with a view to enabling banks to meet the liquidity requirements of mutual funds. Such a window will be in operation until further notice. No bids have been received so far in the auctions under the facility.

Reserve money adjusted for CRR recorded stable growth

II.3.7 Large primary liquidity injections generally lead to expansion in reserve money. During 2012-13, however, reserve money growth decelerated despite large liquidity injections. Two major factors dampened the growth of reserve money. First, the increase in OMO purchases during the year was matched by a similar and persistent increase in government cash balances with the Reserve Bank, which neutralised the increase in credit to the centre and, thereby, somewhat arrested reserve money expansion (Chart II.28). The net credit to the centre during 2012-13 increased by around ₹560 billion compared with an increase of around ₹1,400 billion during 2011-12.



II.3.8 Second, during 2012-13 there was a reduction in the CRR by 75 basis points, which also contributed to the deceleration in reserve money expansion. Adjusted for the first-round effect of the CRR change, reserve money during the year grew at a stable pace of 9.5 per cent. Currency in circulation, which is the largest component of reserve money, recorded growth deceleration; there was a decline in the growth of bankers' deposits with the Reserve Bank, mainly due to CRR reductions during 2012-13 (Chart II.29, Appendix Table 9).

Although broad money growth remained in line with the indicative trajectory, sluggish credit off-take remains a concern

II.3.9 By reducing the reserve-deposit ratio, CRR cuts generally lead to an increase in the value of money multiplier since banks use the surplus funds for credit creation, which in turn leads to broad money expansion. Broad money growth was at 13.8 per cent during 2012-13, which was higher than the Reserve Bank's indicative trajectory. Credit growth, however, decelerated significantly during 2012-13, mainly because of dampened demand emanating from decelerated domestic growth and macroeconomic uncertainties. The lack of credit demand to some extent arrested the increase in multiplier that generally boosts M3 growth subsequent to CRR cuts. On the component side, the y-o-y growth rate for aggregate deposit was marginally higher in 2012-13 compared with the previous year. Despite low off-take, credit growth remained above deposit growth for most of 2012-13. However, the divergence between credit growth and deposit growth has tapered since the end of the financial year (Chart II.30, Appendix Table 10).

II.3.10 The sectoral deployment of credit based on data from select banks (which covers 95 per cent of total non-food credit extended by all SCBs) reveals that the slowdown in growth witnessed in the economy was manifested in the deceleration of non-food credit during 2012-13, with the deceleration being spread over all major sectors except personal loans (Appendix Table 11). The y-o-y growth of bank credit to industry moderated considerably, declining to 14.9 per cent in March 2013 from 20.3 per cent in March 2012. Deceleration in credit growth to industry was observed in all the major sub-sectors, barring leather, chemicals, wood products, food processing, textiles, glass and vehicles.

Chart II.29: Money Supply, Reserve Money Growth (y-o-y) and Money Multiplier

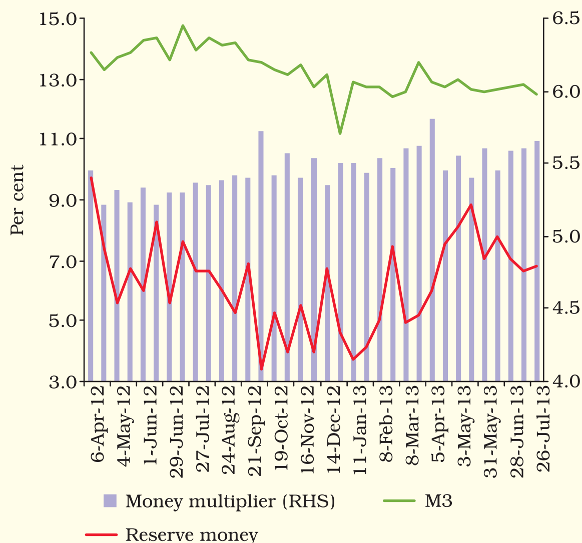


Chart II.30: Wedge between Credit and Deposit Growth

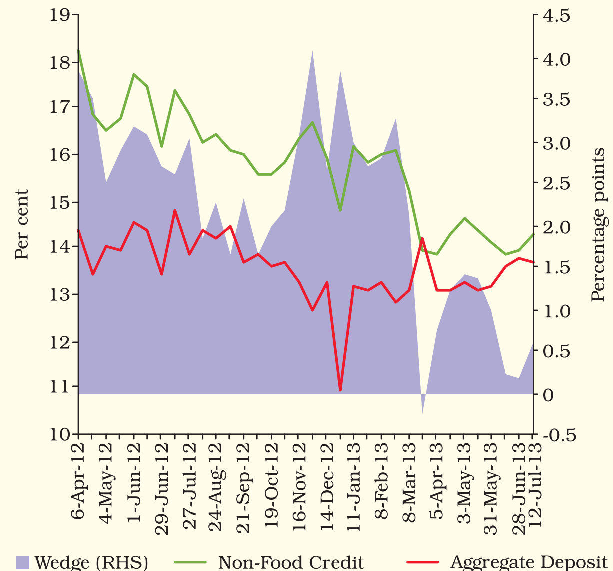


Table II.4: Bank Group-Wise Asset Quality Indicators

	End-March	All Banks	Foreign Banks	New Private Sector Banks	Old Private Sector Banks	Public Sector Banks
1	2	3	4	5	6	7
Gross NPAs to Gross Advances (%)	2012	2.94	2.68	2.18	1.80	3.17
	2013	3.42	2.97	1.91	1.91	3.84
Net NPAs to Net Advances (%)	2012	1.24	0.61	0.44	0.59	1.47
	2013	1.68	1.00	0.44	0.74	2.02
Restructured Std. Asset to Gross Advances (%)	2012	4.69	0.10	1.06	3.54	5.74
	2013	5.83	0.16	1.20	4.00	7.21
CRAR	2012	14.24	16.75	16.66	14.12	13.23
	2013	13.84	17.49	17.52	13.72	12.38
Slippage Ratio %	2012	2.55	2.31	1.17	1.12	2.95
	2013	2.79	1.60	1.24	1.45	3.24

Source: Latest updated off-site returns, domestic operations. Slippage Ratio based on the data collected from banks for special analysis.

Deteriorating asset quality and consequent risk aversion remain as major concerns

II.3.11 Besides sluggish demand, a major factor that led to the low credit growth of the banking sector over the past year is the deterioration in its asset quality. Asset quality indicators of the banking sector, which had suffered significantly during 2011-12, have worsened further in 2012-13. Although data indicate worsening asset quality across bank groups during 2012-13, it continued to be led by public sector banks (PSBs), which account for the major portion of bank advances (Table II.4). Against the backdrop of growth deceleration, deterioration in banks' asset quality increased risk aversion, which supplemented demand-side factors and augmented deceleration in credit growth across bank groups (refer to Chapter VI).

II.3.12 Taking cognisance of the decelerating growth, the Reserve Bank lowered policy interest rates and the SLR by 100 bps each, and the CRR by 75 bps in 2012-13. It also undertook durable liquidity injections through outright purchases of G-secs as part of open market operations (OMOs). During 2013-14, carrying forward the measures put in place since January 2012 to support growth in the face of gradual moderation in headline inflation, the Reserve Bank reduced policy rates by another 25 bps in May 2013, using the space generated by lower headline inflation and a modest decline in inflation expectations as revealed by Reserve Bank surveys (Box II.6).

Box II.6
Role of Forward-looking Surveys in Monetary Policy Formulation

Over the past few years, the Reserve Bank has instituted several statistical surveys to aid monetary policy formulation. The surveys used in monetary policy formulation are the following: (i) Industrial Outlook Survey, (ii) Order Books, Inventories, Capacity Utilisation Survey, (iii) Consumer Confidence Survey, (iv) Survey of Professional Forecasters and (v) Inflation Expectations Survey of Households. The survey results are disseminated every quarter on the Reserve Bank's website under the broad head of publications.

The importance of these surveys for monetary policy is mainly in terms of the forward-looking information that they provide. The primary objective of monetary policy is to maintain price stability. Because of lags in the effects of monetary policy on aggregate demand and inflation, monetary policy actions are often forward-looking. As observed long ago by Keynes (1923), "If we wait until a price movement is actually afoot before applying remedial measures, we may be too late". This warrants the need for forward-looking information for the

(Contd....)

conduct of monetary policy. Reserve Bank, therefore, conducts three broad types of surveys to obtain forward-looking information: a) Surveys of consumers/households, b) Business outlook surveys and c) Surveys of economic forecasts.

As household/consumer are the eventual private-sector drivers of market economies, proper understanding of their behaviour and expectations is an important input to the policy makers. The Reserve Bank collects information on household sentiments with respect to inflation expectations and consumer confidence. These provide insights into the expected path of inflation and other important macroeconomic variables, help gauge consumer confidence and provide insights into specific policy and operational issues. The Inflation Expectations Survey provides households' expectations of future inflation over a spectrum of horizons and, hence, is crucial for the conduct of monetary policy. The Consumer Confidence Survey measures the current and expected confidence based on their perceptions of general economic conditions and personal financial situation, employments, income and spending, and thus helps gauge overall household confidence, which can, in turn, affect real activities.

Business surveys provide an insight into the nature of market disequilibria and capture the formation of expectations in the private corporate sector. This information provides up-to date quantitative and qualitative indicators and can be used to gain forward looking insights into the economic activities.

The Industrial Outlook Survey obtains qualitative information for use in monitoring the current business situation and forecasting short-term developments. It collects information from company managers on the status of business and on their plans and expectations for the near future. Although respondents are not required to provide precise information on the levels of output, sales, investment or employment, the information can be used to predict changes in these aggregates and, hence, are useful for some insights on business cycles.

Expectations about the development of macroeconomic variables play a fundamental role in the consumption and investment decisions of economic agents and in the handling of monetary policy by central banks. Since expectations are not directly observable, they are determined through surveys directed at economists and investors, among others (Gismondi, 2009). The Survey of Professional Forecasters gives an idea of select forecasters' views on economic agents' perceptions of growth, inflation, fiscal sector, financial markets and external sector indicators with annual and quarterly frequency.

While surveys conducted by the Reserve Bank provide quick and useful information, such survey results are only indicative. The survey results are based on responses from respondents who have willingly participated and provided their views without committing any obligations; to that extent, these views may not be entirely accurate reflections of their rational actions leading to economic transactions. The surveys also suffer from a small sample bias, since they cover a fraction of the economic agents spread across the country. Hence, the survey data merely fill data gaps and cannot substitute for relevant macroeconomic aggregate. Moreover, the problem of naturally skewed distribution of economic aspects makes it difficult to aggregate the survey responses, particularly in stressed situations such as an economic slowdown. To examine these issues on a regular basis, the Reserve Bank has constituted a Technical Advisory Committee on Surveys.

It is clear that economic agents' beliefs about the future economic outlook is an important factor in shaping monetary policy. However, it is not clear how these expectations are formed—whether purely on the basis of past experience, or in a forward-looking manner after processing all information, or as a combination of both (Mohanty, 2012). Various surveys conducted by the Reserve Bank suggest that expectations are formed adaptively with learning, and such behaviour underscores the need for the Reserve Bank to continue to monitor an array of measures, both overall and disaggregated components, to assess the underlying economic outlook.

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Keynes, J. M. (1923). *A tract on monetary reform*. Macmillan.

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II.3.13 Since April 2013, liquidity conditions have improved considerably and broad money growth has broadly remained in line with the indicative trajectory. Credit growth decelerated with the slack in economic activity and deterioration in asset quality. Beginning in late May, following comments by the US Fed, apprehensions of likely tapering of QE in the US triggered outflows of investment from EMDEs. Faced with exchange rate volatility, the Reserve Bank instituted measures to stabilise the currency market. These measures included: (i) a hike in the Marginal Standing Facility rate/Bank Rate; (ii) restriction on banks' access to funds under LAF repo; (iii) OMO sales; (iv) maintenance of

minimum daily CRR balances by SCBs at 99 per cent of the requirement; (v) capping of Primary Dealers' (PD) access to LAF at 100 per cent of their individual net owned funds; (vi) restrictions on gold imports; and (vii) auctions of cash management bills (refer to Chapter III). These measures were taken with a view to providing a window of opportunity to put in place policies to bring the CAD down to sustainable levels. The recent liquidity tightening measures are intended to be rolled back in a calibrated manner as stability is restored to the foreign exchange market, enabling monetary policy to revert to supporting growth while continuing vigil on inflation.

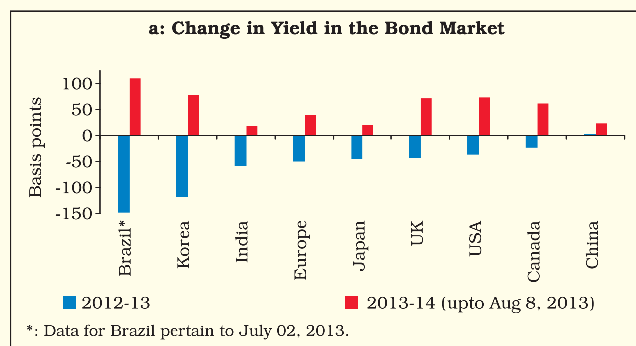
II.4 FINANCIAL MARKETS

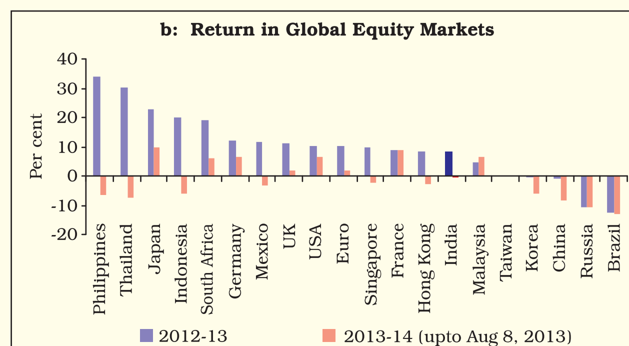
Global financial market volatility returns with spillovers from exit

II.4.1 Volatility has returned to the global financial markets since May 2013 after receding in H2 of 2012 and in Q1 of 2013. The return of volatility was sparked by spillovers from the US Fed Chairman's communications on May 22, 2013 indicating the intention to taper off bond purchases that are being currently undertaken at a monthly rate of US$ 85 billion. After the June FOMC meeting, the Fed indicated a plan to wind down the bond purchase starting later in 2013 and ending in mid-2014. Despite the projections by majority of FOMC members suggesting that the first increase in the target Federal Funds rate could occur not before 2015, the Fed communications triggered massive bond sell-offs across emerging market and developing economies (EMDEs) leading to increase in yields (Chart II.31a). It also led to a sharp fall in gold prices, as also global equities after the June FOMC meeting. EMDEs currencies witnessed sharp exchange rate depreciation on both occasions. Consequently, financial vulnerabilities have increased in EMDEs. The subsequent testimony by the Fed in July appears to have calmed the markets to some extent. As such, financial market participants need to be prepared for the possibility of further volatility ahead with future announcements in this regard.

II.4.2 Earlier, global financial market conditions improved in H2 of 2012-13 following significant policy actions in troubled geographies which reduced acute risks of full-scale financial crises. Following the statement by the ECB President on July 26, 2012 that within its mandate, the ECB was ready to do "whatever it takes" to preserve the euro, stress in the financial markets in Q3 of 2012 considerably declined, especially since end-July. Significant monetary easing measures by advanced economies (AEs) such as "sterilised" outright monetary transactions (OMT) by the ECB and "open-ended" quantitative easing (QE-3) by the US Fed as well as the European Union measures such

Chart II.31: Movements in the International Financial Markets





Source: Bloomberg.

as European Stability Mechanism (ESM) launched on October 8, 2012 provided a fillip to market sentiments.

Risky assets buoyed by global liquidity glut

II.4.3 Unconventional monetary policies and perceived reduction in tail risks to the global economy led to rally in riskier assets such as corporate bonds and equities (Chart II.31b). Yields on safe assets such as government bonds declined to historical lows, forcing investors to search for yield elsewhere for further investments (Box II.7)

II.4.4 The *Global Financial Stability Report* (GSFR) of April 2013 noted that the euro area funding conditions for sovereigns, banks and corporate debt have improved as acute near-term stability risks have significantly reduced. With the reduction in tail risk perception, CDS spreads and government securities (G-secs) yields came down for affected countries in the euro area. The equity markets performed well during 2012-13 as search for yield resulted in substantial rebalancing of private investor portfolios towards riskier assets. The US stock markets reached all-time highs on

Box II.7
Unconventional Monetary Policy by Central Banks in Developed Economies: Impact on Financial Markets

Central banks in the developed world have engaged in unconventional policy measures to counter the crisis. The basic aim of these unconventional measures has been to restore growth and ensure job creation. Several studies have examined the impact of these measures and their possible consequences.

One of the earliest studies by Gagnon *et al.* (2011) observed that the Fed's large-scale asset purchases (LSAP) between December 2008 and March 2010 exerted a statistically significant impact on long-term interest rates of securities, including treasuries and corporate bonds. Subsequent studies (D'Amico and King, 2010) found that US LSAP also had substantial effects on international long-term interest rates. Event study by Swanson (2011) on Operation Twist during the 1960s found that it was qualitatively similar to the current QE2 and detected effects on Treasury rates in the range of 10-17 basis points, for maturities from 5-30 years.

For the UK, it has been found that the first-round impact of Bank of England's asset purchases had economically significant impact on gilt yields. According to estimates, the initial Impact of Quantitative Easing (QE) announcements lowered gilt yields by 35-60 basis points. Others estimated that medium-to long-term gilt yields declined by 100 basis points; similar falls were also registered in corporate bond yields.

Although the magnitude of the estimates differ, most studies veer around the conclusion that central bank asset purchases had economically significant effects, at least on government bond yields. There is however, limited consensus on the transmission channel linking asset purchases with asset prices and on the persistence of reduction in yields. Some authors have emphasised the role of risk premia, whereas others infer that it was the signalling channel that was more important.

Most empirical studies suggest that unconventional monetary policy was somewhat effective as asset purchases lowered yields and long-term interest rates. This, in turn, exerted a positive impact on financial markets. However, its impact on growth is yet to be convincingly established. There is much less consensus on the size and duration of the effect and the channels of influence. The recent BIS Annual Report notes that despite all the monetary accommodation by leading central banks, economic growth has remained sluggish. Additionally, the low interest rates create spillovers, including capital flows to fast growing emerging economies and even several advanced economies, hampering their domestic stabilisation efforts. It appears that the cost-benefit calculus is reaching a tipping point wherein further gains from pursuing such policy appear less convincing.

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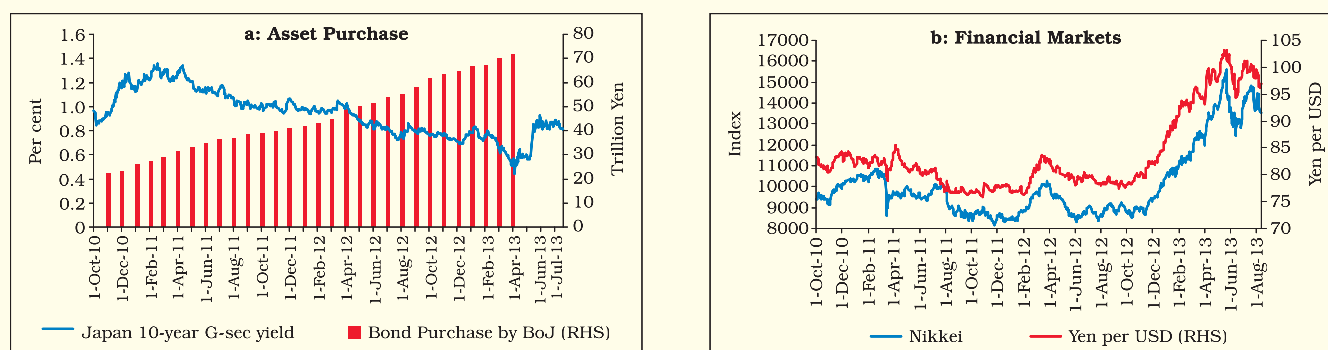
Swanson, E.T. (2011), 'Let's twist again: A high-frequency event-study analysis of Operation Twist and its implications for QE2", *Brookings Papers on Economic Activity* (Spring) 151–207.

Chart II.32: Bank of Japan Asset Purchase and Japanese Financial Markets



Source: Bloomberg.

the back of better payroll report, better positive earnings per share of companies and the US Fed's open-ended asset purchase programme amid strong positive sentiments.

II.4.5 Asset purchase programme of even larger size is in place in Japan. In January 2013, the Bank of Japan (BoJ) decided to achieve the price stability target of 2 per cent (CPI-inflation). In order to pursue quantitative monetary easing, the BoJ in April 2013 decided to change the main operating target for money market operations from the uncollateralised overnight call rate (*i.e.*, interest rates) to the monetary base (*i.e.*, quantity) and conduct money market operations aimed to double the monetary base in two years.

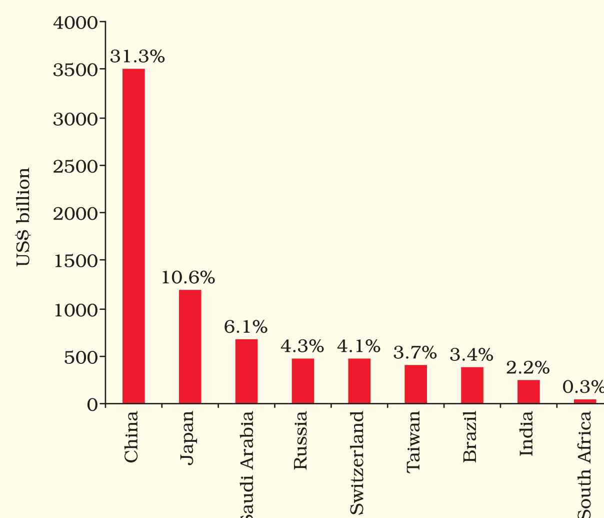
II.4.6 Following the aggressive monetary easing by the BoJ, the yen has depreciated substantially against both the US dollar and the euro, aided by news that many Japanese investors have become net buyers of foreign assets for the first time in a long time (Chart II.32).

Rise in forex reserves with EMDEs expected to provide added buffers against spillovers from exit

II.4.7 The sheer size of balance sheet expansions by AE central banks has led to a surfeit of global liquidity, at times causing surges in capital flows to EMDEs. This has prompted some EMDEs to employ soft capital controls or even reduce their policy rates. However, given the safe haven status of the US dollar, the net effects of QE can at times work in the reverse as investors take flight to dollar assets on safety considerations, which could exert downward pressure on EMDEs currencies.

II.4.8 Despite volatile capital flows, EMDEs have become net buyers of foreign currencies in recent years. Data on international reserve assets shows an increase of 6.2 per cent (year-on-year) as on August 9, 2013. China accounted for 31.3 per cent (around US$ 3.5 trillion) of the stock of international reserve assets (Chart II.33).

Chart II.33: Total international reserve assets – Amount and Per cent share



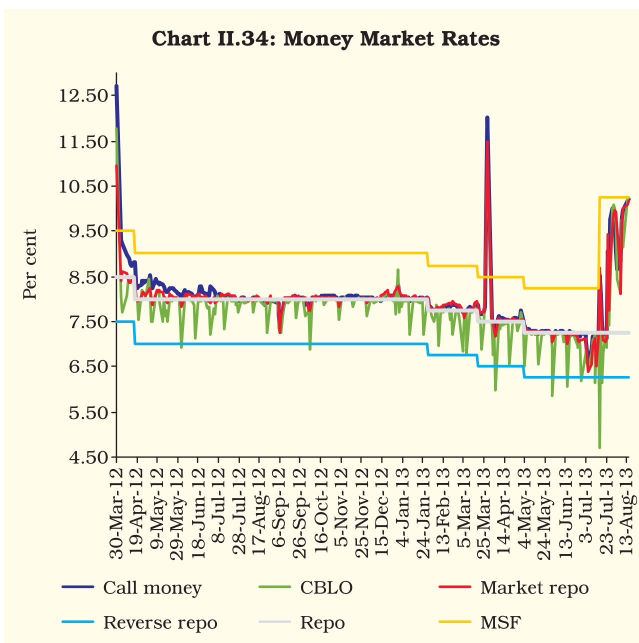
Source: Bloomberg.

Global markets sell-off following Fed exit comments impacted Indian markets

II.4.9 Spillovers from the US Fed's communication on May 22, 2013 and thereafter on June 19, 2013 had substantial impact on Indian financial markets. The Sensex and Nifty declined by 2.7 per cent and by 2.9 per cent, respectively on June 20, 2013 over the previous close. Other Asian equity markets, such as China, Hong Kong, Indonesia and Philippines also declined. The prospective change in the US monetary policy also put the currency under pressure, with the rupee depreciating by nearly 1.6 per cent in a single day. Over the period beginning May 22 to August 14, rupee depreciated by as much as 9.7 per cent in nominal terms. In the bond market, the difference between the 10-year US and GoI bonds narrowed from over 600 bps at the beginning of May 2013 to around 500 basis points (on July 15, 2013).

Developments in money market segment

II.4.10 The money markets remained orderly during 2012-13 with the money market rates (call, CBLO and market repo rate) hovering within the LAF corridor set by the reverse repo and MSF rate, and call rate remaining close to the repo rate (Chart II.34). The call rate generally exhibited declining trend during the year with the average call rate declining to 7.91 per cent during Q4 from 8.40 per cent during Q1 of 2012-13.



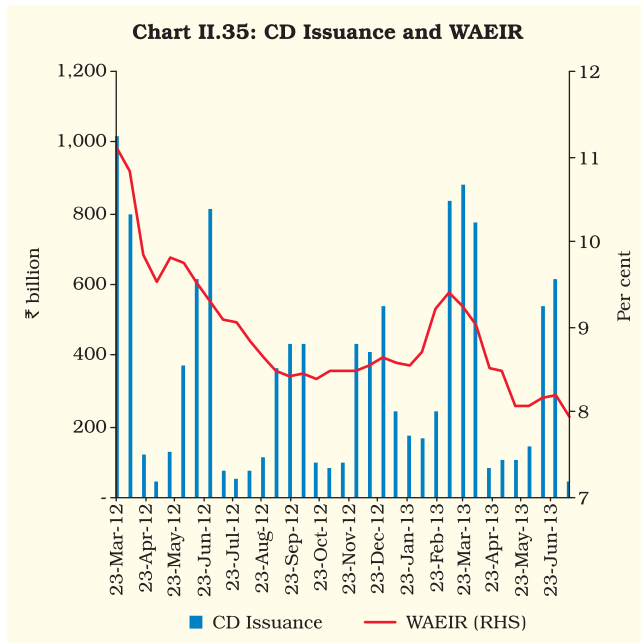
II.4.11 During Q1 of 2013-14, the call money rate remained largely around the policy repo rate. The measures taken by the Reserve Bank in July 2013 to contain exchange rate volatility impacted the money market. The call rate, which stood at 7.21 per cent before the Reserve Bank's policy measure on July 15, 2013, initially increased to 8.53 per cent, although it receded subsequently. The additional measures announced on July 23 and August 8, 2013 led to the hardening of call rates to 10.21 per cent on August 13, 2013.

II.4.12 The rates in the collateralised segment (*i.e.*, CBLO and market repo) also hardened, with the CBLO rate increasing from 7.18 per cent on July 15, 2013 to 10.23 per cent on August 13, 2013. Banks continued to be the major group of borrowers in the collateralised segments. Mutual funds (MFs) continued to be the major group of lenders in the CBLO segment and banks were the major group of lenders in the market repo segment during 2012-13. The collateralised segment continued to remain the predominant part of the overnight money market; and its share was around 80 per cent during 2012-13 and 84 per cent during Q1 of 2013-14.

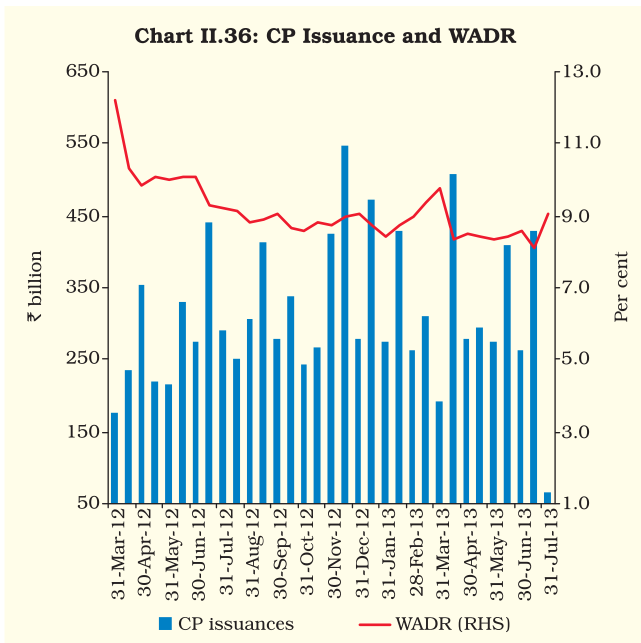
II.4.13 The average fortnightly issuance of certificates of deposit (CDs) decreased to ₹333 billion during 2012-13 (Chart II.35). The outstanding amount of CDs stood at ₹3,896 billion at end-March 2013. During Q1 of 2013-14, the average fortnightly CD issuance increased marginally to ₹340 billion. The outstanding amount of CDs stood lower at ₹3,571 billion as on July 12, 2013.

II.4.14 In tandem with the decline in policy rates, the weighted average effective interest rate (WAEIR) of aggregate CD issuances declined to 9.24 per cent at end-March 2013 from 11.1 per cent at end-March 2012 and further to 7.96 per cent as on July 12, 2013.

II.4.15 The average fortnightly issuance of commercial papers (CPs) increased by 31 per cent



to around ₹319 billion during 2012-13, and further to ₹338 billion during Q1 of 2013-14. Consequently, the outstanding amount of CPs, which stood at ₹1,093 billion at end-March 2013, increased to ₹1,496 billion as at end-July 2013 (Chart II.36). The weighted average discount rate (WADR) of CPs decreased to 9.77 per cent at end-March 2013 from 12.19 per cent at end-March 2012 and further to 9.03 per cent as on July 31, 2013.



Yield curve flattens incorporating future macroeconomic expectations

II.4.16 G-sec yields generally softened during 2012-13. While the yields eased during April to mid-June 2012 in response to the reduction in the policy rate and easing of crude oil prices, they remained range bound thereafter until mid-December 2012. Subsequently, yields fell sharply until mid-January 2013 on expectations of a reduction in policy rate, reduced primary issuances and announcement of measures to rein in fiscal deficit. Thereafter, yields remained range-bound before hardening towards end-March 2013.

II.4.17 During April-May 2013, G-sec yields softened taking cues from the lower reading of CPI and WPI numbers for March and April 2013, the softening of international commodity prices and the decision to reduce withholding tax on FII interest income on G-secs to 5 per cent from 20 per cent. However, the yield started hardening towards end-May 2013 as part of the global bond sell-off that followed the US Fed Chairman's response in May 2013 and the subsequent forward guidance in June 2013. As part of the global bond sell-off, FIIs also pulled out money from Indian government bonds, which contributed to the hardening of yields. As a result, the 10-year G-sec generic yield hardened from 7.12 per cent on May 24, 2013 to 7.45 per cent as on June 28, 2013. In response to the measures taken by the Reserve Bank since mid-July, the generic yield hardened further to 8.42 per cent on August 13, 2013 from 7.60 per cent on July 15, 2013 (Chart II.37).

II.4.18 The daily average volume in the G-sec market, which stood at ₹130 billion during 2011-12, rose to around ₹243 billion in 2012-13 and further rose to ₹570 billion during Q1 of 2013-14. The volume generally varied inversely with the movement of the 10-year yield (Chart II.38).

II.4.19 The gross market borrowings of the central government through dated securities during 2012-13 was ₹5,580 billion (net borrowings of

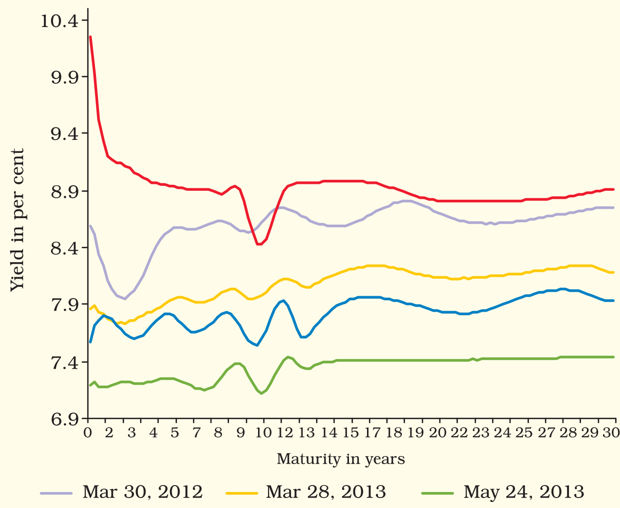


Chart II.37: Yield curve for Government Securities

Source: FIMMDA.

₹4,674 billion). These numbers were higher by around 9 per cent and 7 per cent, respectively, compared with the previous year. During 2013-14, the gross market borrowings of the central government (up to August 5, 2013) amounted to ₹2,400 billion (net borrowings of ₹2,272 billion). The weighted average maturity of dated securities stood at 14.49 years, while the bid-cover ratio stood in the range of 1.41-6.09.

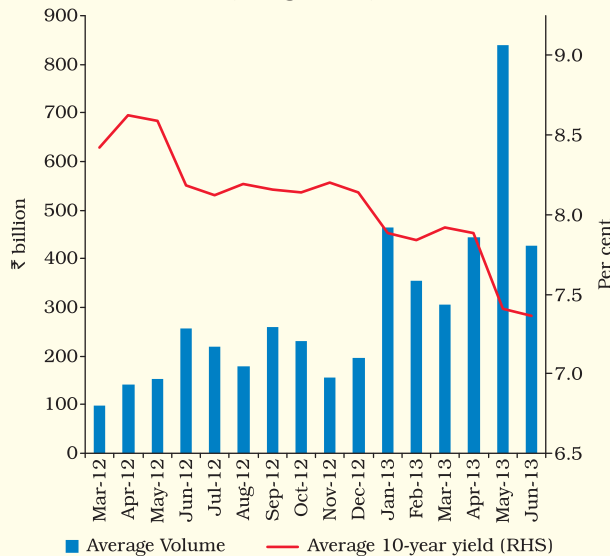


Chart II.38: Average daily volume and 10-year generic yield

Volume in corporate bond market witnessed an increase

II.4.20 During 2012-13, the traded value in the corporate bond market increased to ₹7,386 billion, recording an increase of 24.4 per cent. During the year, the number of trades also increased by 28.8 per cent to 66,383. The yield spread between the benchmark 5-year AAA-rated corporate bond and 5-year G-secs narrowed (Chart II.39). However, when compared to central government securities market, in 2011-12, the trading value of corporate bonds was roughly one-fifth; in 2012-13, it was even lower (Chart II.40). During 2013-14 (up to end-June), trading in central government securities at ₹36,324 billion has been more than 10-times the number obtaining for corporate bonds (₹3,200 billion).

Resource mobilisation in the domestic primary market remained lacklustre

II.4.21 The resource mobilisation in the primary market through initial public offerings (IPOs) increased marginally to ₹65 billion through 33 equity issues during 2012-13, compared with ₹59 billion mobilised through 34 issues last year. The amount raised through IPO issues is very low compared to

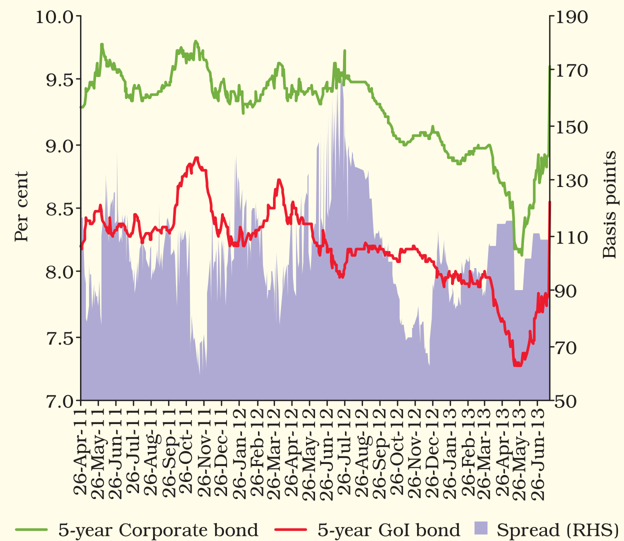
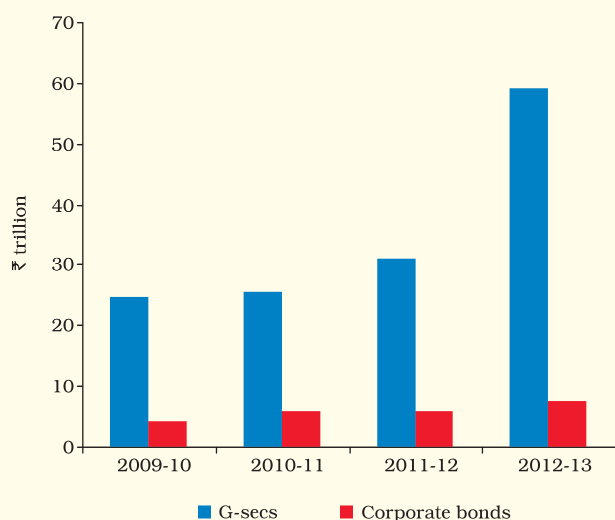


Chart II.39: Yield of 5-year Corporate Bond

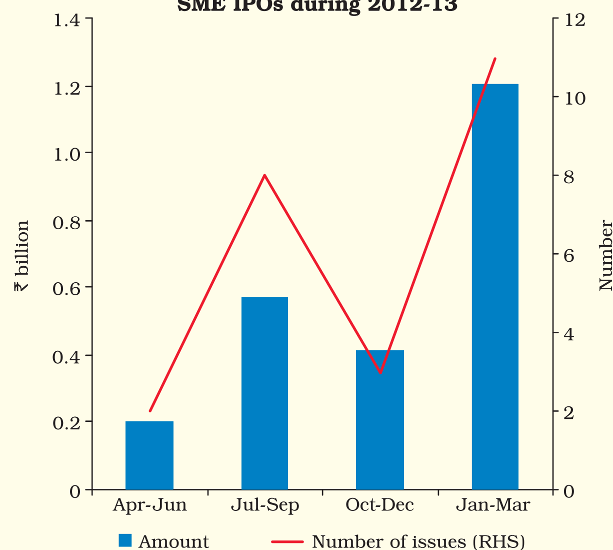
Source: Bloomberg.

Chart II.40: Trading Value of the Central Government dated Securities and Corporate Bonds



Source: CCIL and SEBI

Chart II.41: Resource Mobilisation through SME IPOs during 2012-13



Source: SEBI.

the peak resource mobilisation of ₹426 billion in 2007-08. The primary equity market remained dormant mainly because of the lower risk appetite of investors following negative returns on a number of IPOs and not-too-encouraging scenario in the secondary market (Appendix Table 12).

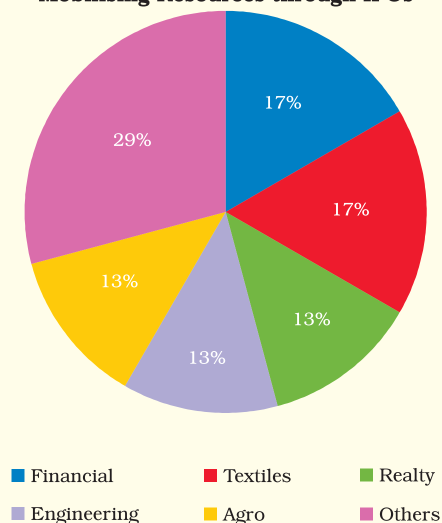
II.4.22 Taking its cue from global markets, India also paved the way for equity financing for SMEs. The BSE SME Exchange was launched on March 13, 2012 followed by NSE Emerge, in order to provide SMEs with an opportunity to raise equity capital. During 2012-13, ₹2.4 billion - which is 3.7 per cent of the total amount mobilised through IPOs - was mobilised through 24 SME IPOs (Chart II.41). The SMEs that mobilised resources through IPO issues belong to sectors such as financial services, realty, agro, textile and engineering (Chart II.42).

II.4.23 Resource mobilisation in the debt market through public issues and ADR/GDR remained muted, while mutual funds witnessed a pick-up, led by private sector mutual funds in 2012-13 (Table II.5). Resources mobilised in the corporate debt market by way of private placement for the 2012-13 were higher by 38 per cent at ₹3.6 trillion raised through 2,489 issues. After a period of lacklustre performance in 2011-12, ₹160 billion was mobilised from 45 issues through Qualified Institutional Placement (QIP) during 2012-13.

Mobilisation through disinvestment programme witnessed a revival

II.4.24 The union government embarked on its disinvestment programme with higher mobilisation of about ₹240 billion during 2012-13 as compared with ₹139 billion in the previous year. During 2013-

Chart II.42:Sectoral Pattern of SME Companies Mobilising Resources through IPOs



Source: SEBI.

Table II.5: Primary Market Trends

(₹ billion)

Category	2011-12 (Apr-Mar)	2012-13 (Apr-Mar)	2012-13 (Apr-Jun)	2013-14 (Apr-Jun)
1	2	3	4	5
a. Public Issue (i) + (ii)	461	219	5	11
i) Public Issue (Equity)	105	65	5	9
of which: IPOs	59	65	4	9
FPOs	46	0	0	0
ii) Public Issue (Debt)	356	154	0	1
b. Rights Issue	24	89	1	4
Total Equity Issues (i+b)	129	155	5	14
c. Euro Issues (ADR/ GDR)	27	10	2	1
d. Mutual Fund Mobilisation (net)	-220	765	1340	455*
1. Private Sector	-154	638	1050	258*
2. Public Sector	-66	127	290	198*
e. Private Placement in corporate debt market	2,613	3,615	738	1108
f. QIP	22	160	5	43
g. Disinvestment	139	240	N.A.	13#

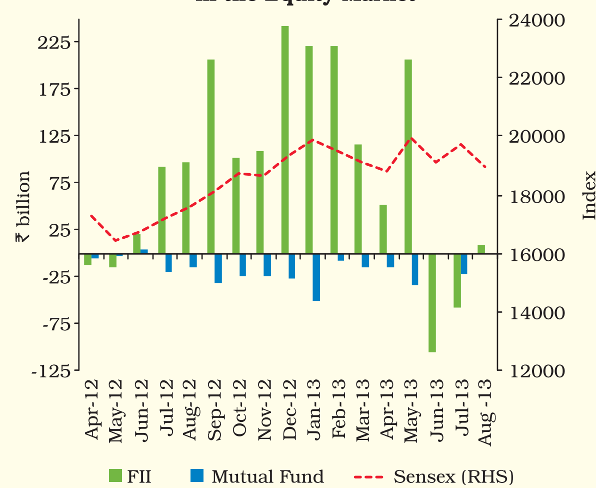
* : April-July. #: Upto August 13, 2013.
Source: SEBI and Department of Disinvestment, Ministry of Finance.

14, against a budgeted amount of ₹400 billion, an amount of ₹13 billion has been raised thus far.

Equity markets continued their uptrend

II.4.25 During 2012-13, Indian equity prices continued their rising trend. As at end-March 2013, the BSE Sensex and S&P CNX Nifty recorded a year-on-year growth of 8.2 per cent and 7.3 per cent, respectively. Strong FII inflows, reform measures relating to administered fuel prices, foreign direct investment in retail and aviation sectors as well as in infrastructure announced by the union government boosted investors' sentiments (Chart II.43). The BSE Sensex and Nifty crossed 20,000 and 6,000, respectively, in January 2013. During 2013-14 so far (up to Aug 14, 2013), the BSE Sensex and NSE Nifty have recorded increases of 2.8 per cent and 1.1 per cent, respectively.

Chart II.43: FII and Mutual Fund Investment in the Equity Market



Note: Data for Sensex up to Aug 8, 2013;
Data for FII and mutual fund up to Aug 7, 2013.
Source: SEBI and BSE.

II.4.26 An analysis of the performance of stock market during 2012-13 indicates that the benchmark index, *i.e.*, Sensex, outperformed the broader indices (Chart II.44). Among sectoral indices, FMCG and healthcare were the best performing indices, while metals and power were the worst performing. Better corporate earnings and uncertain macroeconomic environment led to increase in FMCG and healthcare sectors.

Chart II.44: Movement of Sectoral Indices of BSE

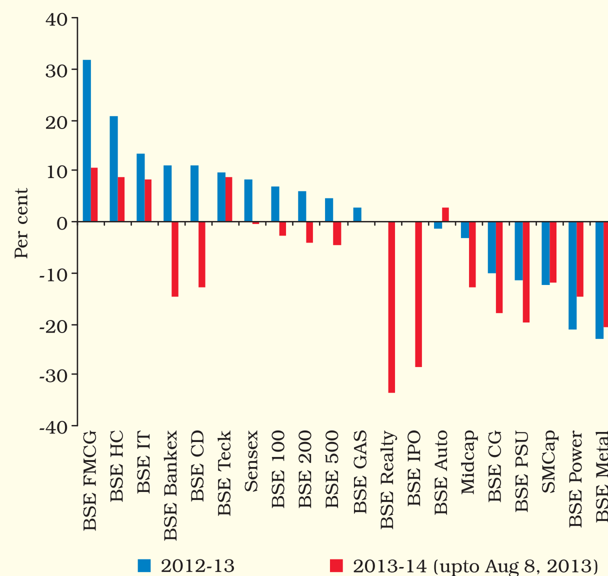


Table II.6: Key Stock Market Indicators

Indicators	BSE Sensex			NSE Nifty		
	2011-12	2012-13	2013-14 (up to Aug 14)	2011-12	2012-13	2013-14 (up to Aug 14)
1	2	3	4	5	6	7
Sensex / Nifty						
i. End Period	17404.2	18835.8	19367.6	5295.6	5682.6	5742.3
ii. Average	17422.9	18202.1	19398.7	5242.7	5520.3	5850.6
Coefficient of Variation (%)	6.2	6.4	2.9	6.3	6.4	3.1
PE ratio@	17.8	16.9	17.5*	18.7	17.6	17.0*
PB ratio@	3.5	2.9	3.0*	3.0	3.0	2.8*
Gross Turnover (₹ billion)	6,675	5,488	415#	28,109	27,083	2434 #
Market Capitalisation (₹ billion)	62,149	63,879	60959 #	60,965	62,390	60988 #

@: end period. *: As on Aug. 14,2013. #: As at end-July 2013.
Source: BSE and NSE.

Turnover in Equity Market

II.4.27 During 2012-13, turnover in the cash segment of the equity market at ₹32,571 billion recorded a decline of 6.4 per cent, while market capitalisation of the BSE increased by 2.8 per cent to ₹63,879 billion. The PE ratio of the BSE Sensex declined (Table II.6).

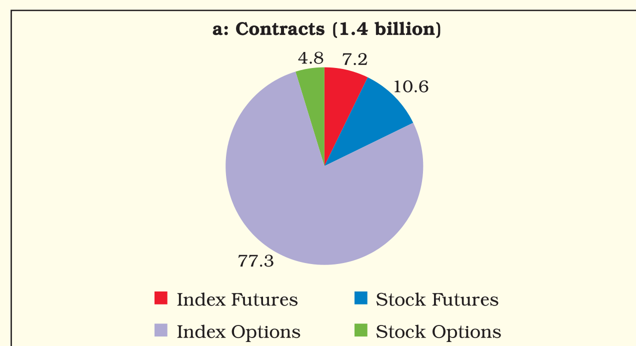
Derivative segment witnessed a surge

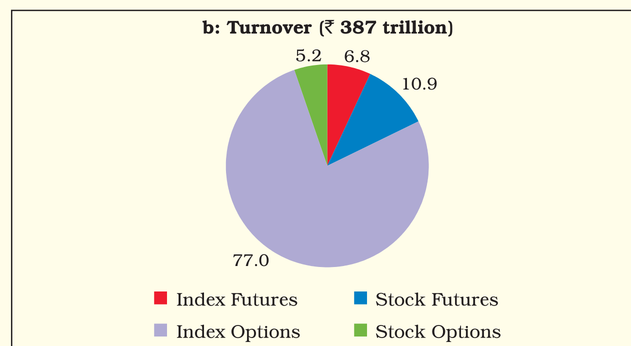
II.4.28 During 2012-13, turnover in the equity derivative segment, in value terms, increased to ₹387.0 trillion from ₹321.6 trillion in 2011-12, registering an increase of 20.4 per cent. In terms of the number of contracts, the turnover in 2012-13 increased by 12.7 per cent to 1.4 billion contracts. Further, in the derivatives, index options segment consolidated its share to 77 per cent in 2012-13 from 72.6 per cent in the previous year (Chart II.45). On the other hand, the share of futures declined to 17.8 per cent from 24.4 per cent during the same period (Appendix Table 13).

Volatile exchange rates reflect domestic and global concerns

II.4.29 The rupee exhibited volatile movements during 2012-13. At the beginning of the year, the rupee depreciated sharply amid concerns about the widening current account and fiscal deficits. Global uncertainties also added to the pressure. Accordingly, the Reserve Bank undertook several policy measures to facilitate capital flows.

Chart II.45: Turnover in Equity Derivative Segment in 2012-13





Source: SEBI

II.4.30 Given the volatility of exchange rates observed over the past year, an analysis was undertaken to examine its inter-linkage with futures trading (Box II.8).

Box II.8
Relationship between Exchange Rate Volatility and Futures Trading in India

Currency futures trading in USD-INR started on August 29, 2008. Since then, the exchange-traded currency derivatives segment in India has grown steadily in volume. The value of transactions in Rupee terms, on an average, increased from ₹2.6 billion in September 2008 to ₹234.4 billion in June 2013. This period has also shown an increase in volatility in exchange rates.

To analyse the impact of currency futures trading on exchange rate volatility, following Chatrath *et al* (1996), exchange rate volatility was examined by fitting a conditional volatility model in the daily spot exchange rate returns data (here USD-INR) from August 29, 2008 (day of introduction of currency futures in India). The volatility is obtained as the estimated variance from the GARCH (1,1) model.

To measure the extent of speculation in the futures market, daily levels of trading volume and open interest for the currency futures were obtained. Each contract was followed for the interval in which it was the most traded contract until the trading day prior to the expiration day, at which point the next contract is considered. Information about the most traded currency futures contract was collected from the 'daily activity report' of the National Stock Exchange (NSE). It was found that USD-INR currency futures were the most traded contracts in the currency derivatives segment. Daily trading volume divided by the daily open interest of the most traded currency futures contract was used as a proxy for the level of speculative trading activity (Chatrath *et al*, 1996; Robles *et al,* 2009).

A VAR model was estimated on the exchange rate volatility and the proxy for speculation to investigate the relationship of exchange rate volatility and trading activity in the currency futures market. Granger causality tests showed that there is causality running from the speculation to exchange rate volatility. However, the Granger causality from exchange rate volatility to speculation was not significant. The impulse response functions (Chart I and II) from the estimated VAR show that the response of exchange rate volatility to a one time shock in the speculation is positive and significant for first seven periods after which it dies down. However, the response of speculation to a one time shock in the exchange volatility is not significant.

While introducing currency futures, the Reserve Bank and the Securities and Exchange Board of India (SEBI) had put in place various safeguard mechanisms to monitor positions, prices and volumes in real time so as to control excessive speculation. The Reserve Bank recently banned proprietary trading by banks in the currency futures/exchange-traded currency options markets. Such trading is allowed only on behalf of clients. SEBI also tightened exposure norms for currency derivatives to check excessive speculation by increasing margin requirements and curtailing open positions on currency derivatives. The Reserve Bank remains vigilant and is committed to orderly development of different segments of the foreign exchange market in India.

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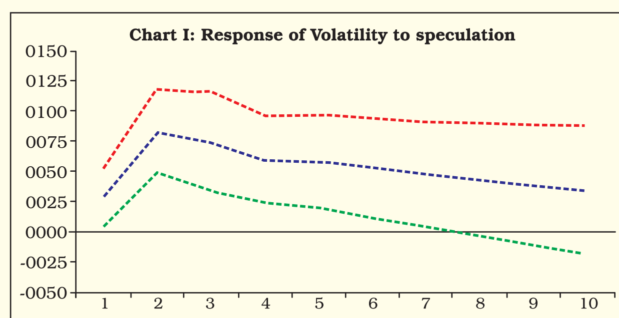
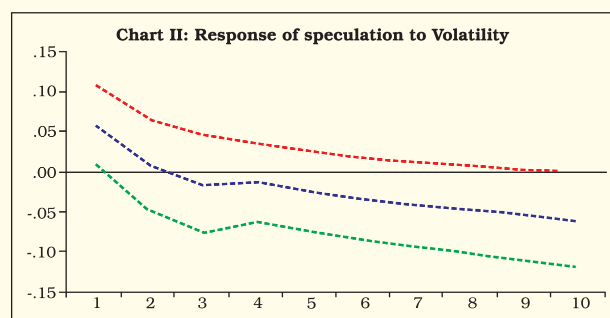
Impulse Response from VAR Estimation





II.4.31 The rupee value is at times influenced by trading in non-deliverable forwards (NDF) – foreign exchange derivative instruments that are based on non-convertible currencies such as the rupee and traded in international financial centres. Importantly, being an offshore market, the NDF market remains outside the regulatory purview of local authorities. An empirical exercise was undertaken to examine the issue (Box II.9).

House prices firmed up further

II.4.32 In order to track real estate price movements, the Reserve Bank has been compiling quarterly house price indices for nine major cites (Mumbai, Delhi, Chennai, Kolkata, Bengaluru, Lucknow, Ahmedabad, Jaipur and Kanpur) as well as an aggregate all-India Index (base Q4:2008-09=100). These indices are compiled based on official data

Box II. 9

Non-Deliverable Forward Market and Onshore INR Market: Evidence on Inter-linkages

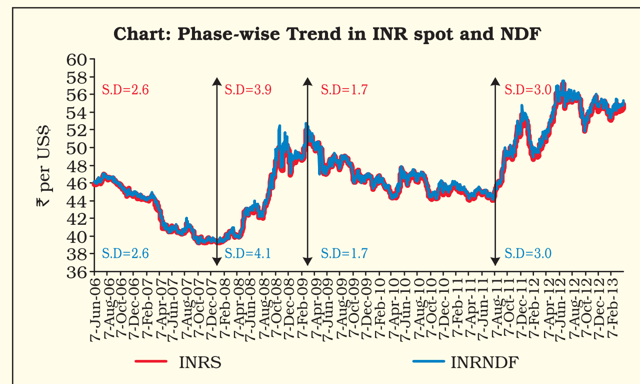
Non-Deliverable Forwards (NDF) is a foreign exchange derivative instrument traded over-the-counter and is operated in currencies that are not freely convertible. NDF contracts enable hedging of exchange rate risk, irrespective of any restrictions arising in the country of origin. Even though an NDF contract is similar to a regular forward foreign exchange contract, it does not require physical delivery of currencies at maturity and is typically settled in an international financial centre in foreign currency. Importantly, being an offshore market, the NDF market remains outside the regulatory purview of local authorities.

In the Indian context, onshore financial institutions are not allowed to transact in the NDF markets. However, since domestic banking entities are allowed specific open position and gap limits for their foreign exchange exposures, there is scope for domestic entities to participate in the NDF markets to take advantage of any arbitrage. Further, foreign banks and corporate entities with an international presence can participate in NDF market.

Recognising the fact that information flows between off-shore NDF and on-shore market can affect movements in both market, a few studies have been undertaken in the case of emerging market economies. For instance, in the case of the Korean won, Park (2001) finds that the on-shore market seems to have been mainly driven by the off-shore NDF market in the more recent period. Similarly, Cadarajat and Lubis (2012) report significant volatility spillover from the NDF market to the spot market for the Indonesian rupiah for the period 2008-11. In the Indian context, Guru (2009) also argues that NDF markets for the rupee are now exerting an increased influence on domestic currency markets through spillover effects. A recent study by Behera (2011) finds that shocks and volatility in the NDF market influence onshore markets.

An attempt was made to study the information transmission between the off-shore and on-shore segment of the INR market. Daily closing data on the INR-US$ rate in the NDF and onshore markets for the period June 6, 2006 to April 3, 2013 were sourced from the Thomson Reuters datastream database. The period was divided into four sub-periods based on the trend in INR as shown in Chart.

Chart: Phase-wise Trend in INR spot and NDF



To examine the direction of transmission between onshore and NDF markets, Vector Error Correction and augmented GARCH model were estimated. Following Park (2001), the specification for the GARCH model is as under:

$$\mu_{i,t} = a_i + b_1\mu_{j,t-1} + b_2\varepsilon_{i,t-1} + \varepsilon_{i,t}$$
$$h_{i,t}^2 = \alpha_{0i} + \alpha_{1i}\varepsilon_{i,t-1}^2 + \beta_{1i}h_{i,t-1}^2 + \gamma_{1i}\varepsilon_{j,t-1}^2$$

where $\mu_{j,t-1}$ represents the previous period return in the counterpart market and $\varepsilon_{j,t-1}^2$ is the squared residual derived from the MA (1) - GARCH (1,1) model applied to $\mu_{j,t-1}$. Therefore, the significance of coefficients b_1 and γ_1, reflects the probable existence of any spill-over effect from one currency market to another through return and volatility spillovers.

The analysis suggests that there is a long-term relationship between the spot and NDF markets for the INR. The VEC model suggests that during the periods of rupee appreciation (sub-periods 1 and 3 in Table), the NDF market and the INR spot market exhibit a bi-directional relationship as both error correction terms (ECT) are statistically significant. However, during the period of depreciation (*i.e.*, during sub-periods 2

(Contd....)

and 4), the relationship turns unidirectional from NDF to the on-shore market. These results are corroborated by the dynamics of spill-overs between two markets studied through GARCH models. It would seem that during the period of depreciation, shocks originating in the NDF market may carry more information, which gets reflected in on-shore segments of the market through mean and volatility spillovers.

Table: Various Phases of Trend in Rupee Exchange Rate

Period 1:	June 6, 2006 to January 2008	Appreciation	Prior to Global financial crisis
Period 2:	January 2008 to March 2009	Depreciation	Global financial crisis
Period 3:	March 2009 to August 2011	Appreciation	Recovery from global crisis
Period 4:	August 2011 to April 3, 2013	Depreciation	Post US rating downgrade

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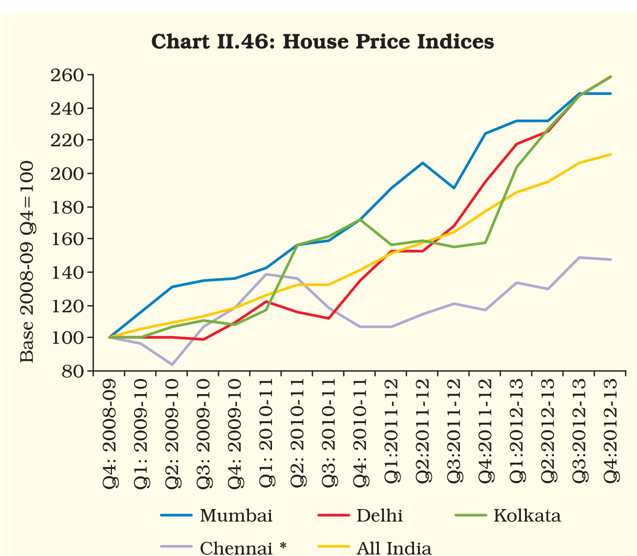
on property transactions received from registration authorities of the respective state governments.

II.4.33 Based on this, house prices increased by nearly 20 per cent year-on-year at the all-India level during Q4 of 2012-13 over Q4 of 2011-12 (Chart II.46). The increase was the highest in Kolkata (over 60 per cent) and the lowest for Mumbai (10.6 per cent). At the all-India level, the index of house prices increased annually on an average by 21 per cent during the past four years.

Chart II.46: House Price Indices



Note : *Chennai index is based on both residential and commercial properties. All-India index is a weighted average of city indices; weights based on population proportion.

II.5 GOVERNMENT FINANCES

Fiscal risks lowered as the government meets revised gross fiscal deficit target in 2012-13 despite the growth slowdown

II.5.1 Despite the slowdown in economic growth, the gross fiscal deficit (GFD) of the central government was contained at 5.2 per cent of GDP in 2012-13 (RE), which was marginally higher than the budget estimate of 5.1 per cent but lower than the revised roadmap target of 5.3 per cent (Appendix Table 15). The provisional accounts for 2012-13, released by the Controller General of Accounts, placed the GFD lower at 4.9 per cent of GDP due to lower expenditure coupled with higher non-tax revenues. Higher interest receipts and receipts from social and economic services contributed to higher non-tax revenue than in the revised estimates. The revenue deficit (RD) to GDP ratio, at 3.6 per cent (provisional accounts), was also lower than 3.9 per cent in the revised estimates, but was marginally above the budget estimate of 3.4 per cent.

II.5.2 The containment of GFD in the face of shortfall in revenues was largely brought about by scaling down plan expenditure and capital expenditure. According to the provisional accounts, gross tax revenues recorded a shortfall over the

budget estimates due to lower collections under Union excise duties, customs duties, corporation tax and wealth tax. Collections under income tax and services, tax, however, showed an improvement. Disinvestment proceeds were lower by ₹41 billion in 2012-13 than in the budget estimates for the year.

Key deficit indicators for 2013-14 broadly in line with the path envisaged by the Kelkar Committee but risk of slippage remains

II.5.3 Expansionary fiscal policy is usually advocated as a counter-cyclical measure to promote growth (Box II.10). However, macroeconomic imbalances may emanate from higher fiscal deficits due to a sustained high level of expenditure for a prolonged period, and have an adverse impact on growth. Keeping in view the rising trend in the fiscal deficit, the Government of India implemented fiscal correction measures in the second half of 2012-13, based on the recommendations of the Committee on Roadmap for Fiscal Consolidation (Chairman: Dr. Vijay L. Kelkar).

II.5.4 The government's commitment to fiscal consolidation continues in 2013-14, with the GFD-GDP ratio estimated to progressively decline to 4.8

Box II.10
Cyclicality of Fiscal Policy: The Indian Experience

Cyclicality of fiscal policy refers to the direction in which the government's revenues and expenditures move in relation to output. Fiscal policy is said to be pro-cyclical if it is expansionary during economic booms and contractionary during economic recessions. From a Keynesian perspective, public expenditure should act as a stabilising force and move in a counter-cyclical direction. This implies that ideally, fiscal policy should lower taxes and increase expenditure during a downswing in the business cycle, so as to augment aggregate demand. On the other hand, it should reduce expenditure and increase savings during an upswing of the business cycle.

Empirical studies have, in general, found evidence of variation in the cyclicality of fiscal policy, both across different instruments of fiscal policy as well as between different economies and groups of economies. There is strong evidence from the extant literature that fiscal policy among developed countries is counter-cyclical, while high pro-cyclicality is observed in the case of less developed economies.

In the empirical literature, there is no consensus on how fiscal cyclicality should be measured, with researchers having used different methods. The simplest way to measure fiscal cyclicality is to work out the correlation between the cyclical component of output and that of the relevant fiscal variable, generally extracted using the Hodrick Prescott (HP) filter method. It has been observed that HP-based measures of cyclicality may be misleading when variables have different levels of volatility. Hence, many researchers have preferred regression-based measures.

To examine the cyclicality of different components of central and general government (centre and states combined) expenditure in India, the co-movements between the relevant fiscal variables and output were estimated adopting the two-stage method employed by Akitoby *et al* (2004), which distinguishes between co-movements that are temporary in nature from the co-movements that reflect a steady-state or long-run path. All variables were found to be non-stationary and integrated of order 1. In the presence of a cointegration relation, the following linear equations would indicate the long-run and short-run relationships between fiscal and monetary variables:

Long-run relationship:

$\text{Log } G = \alpha + \delta \log Y$---(1)

where G represents the fiscal variable in real terms and Y represents real output. α is the constant term. δ is the long run constant elasticity of fiscal variable with respect to output.

Short-run relationship using error correction model:

$D(\log G_t) = \mu + \beta D(\log Y_t) + \gamma [\log G_{t-1} - \delta \log Y_{t-1}] + \varepsilon_t$ --- (2)

where $\beta D(\log Y_t)$ may be interpreted as the short-term impact of output on government spending and β as the short run elasticity of the relevant fiscal variable with respect to output. A positive β indicates pro-cyclicality and a negative β indicates counter-cyclicality of the fiscal variable. The error correction term, $\gamma [\log G_{t-1} - \delta \log Y_{t-1}]$, captures the deviations from the long-run equilibrium, where γ is the rate at which government spending adjusts to past disequilibrium.

If γ is insignificant, there exists no steady state (long run) relationship between the fiscal variable and output. Hence, in such cases the error correction term was omitted and the short-term relationship was estimated through the equation below.

$D(\log G_t) = \mu + \beta D(\log Y_t) + \varepsilon_t$ ---- (3)

(Contd....)

All the fiscal variables were converted into real terms using GDP deflator. In the first stage, equation (1) was estimated using ordinary least squares (OLS) for each of the fiscal variables for the period 1970-71 to 2011-12. In the second stage, residuals of OLS estimation were included as the error correction term in equation (2) and the equation was estimated incorporating correction for first order autoregressive error term. In cases where γ was found to be insignificant, equation 3 was estimated to obtain the short-run elasticity of the relevant fiscal variable. The estimation results are presented in the table below.

Among the components of central government expenditure, capital outlay displays the highest degree of pro-cyclicality in the short run. This implies that the government cuts and expands capital expenditure more than proportionately to output during times of recession and expansion, respectively. In contrast, primary revenue expenditure is fairly inelastic in the short run, reflecting the underlying rigidity in adjusting these expenditures during expansionary and recessionary phases of growth. However, in the long run, primary revenue expenditure is more responsive to output changes compared to the short run. Government consumption, which mainly comprises wages, salaries and pensions behaves mostly in line with primary revenue expenditure, with less than proportionate increase/decrease in response to output during the expansion/ recession in the short run. Government investment, which mainly includes its expenditure on construction, machinery and capital equipments, shows a relatively higher degree of pro-cyclicality compared to government consumption. The relationship between general government expenditure variables and output is broadly similar to that of the central government.

Table: Long Run and Short Run Elasticity of Government Expenditure

Variables	Elasticity			
	Central Government		General Government	
	Short Run	Long Run	Short Run	Long Run
1	2	3	4	5
Primary Revenue Expenditure	0.66	1.11*	0.24	1.05*
Capital Outlay	2.66*	0.81*	2.02*	@

***Memo Items:* Aggregate demand components**

	Short Run	**Long Run**
Government Consumption	0.40*	0.33
Government Investment	0.88**	0.86*

Note: 1. *and ** denote significant at 1% and 5% level, respectively.

2. Primary revenue expenditure indicates revenue expenditure excluding interest payments.

3. The period of analysis for general government expenditures is 1980-81 to 2011-12.

4. @: In case of capital outlay of the general government, a steady-state relation with output was not found.

These results are broadly in conformity with the evidence in the literature showing that fiscal policy in India has been procyclical over a long period. This procyclicality may have, however, reduced in more recent period, especially as the central government undertook significant counter-cyclical measures during the 2008 downturn accompanying the global financial crisis (RBI, 2013; Mukherjee, 2013).

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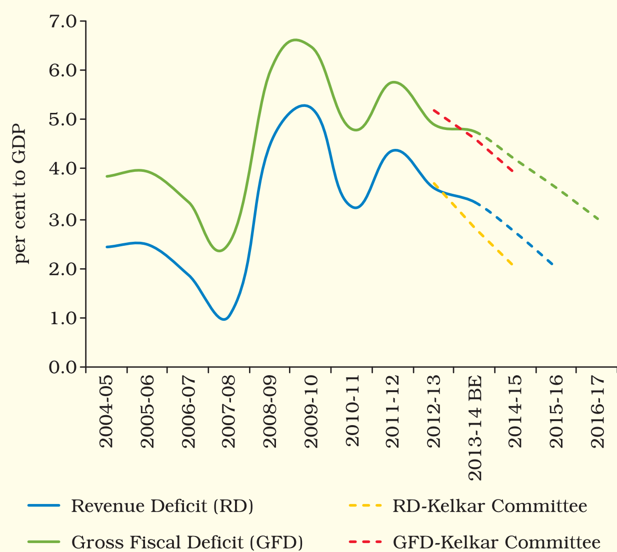
per cent in 2013-14 (BE) and reach 3.0 per cent by 2016-17 (Chart II.47). However, both the RD-GDP ratio and the GFD-GDP ratio budgeted for 2013-14 are higher than the roadmap suggested by the Kelkar Committee. The outcome of budgeted deficits for 2013-14 would largely depend on the growth performance of the economy as the budget has proposed revenue-led fiscal consolidation. The scope for expenditure reduction is limited by large interest payments, salaries and pension. Such spending is committed in nature. The revenue expenditure-GDP ratio at 12.6 per cent in 2013-14 (BE) is higher than that recommended by the Kelkar Committee (11.7 per cent).

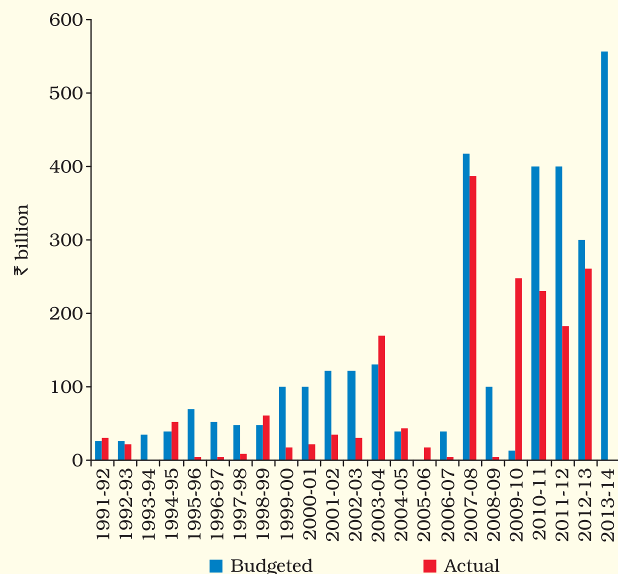
II.5.5 The Union Budget 2013-14 has budgeted to raise ₹558 billion through disinvestment of public sector undertakings (Chart II.48). However, going by past experience and given the current macroeconomic situation, it would be challenging to meet the disinvestment target for the year.

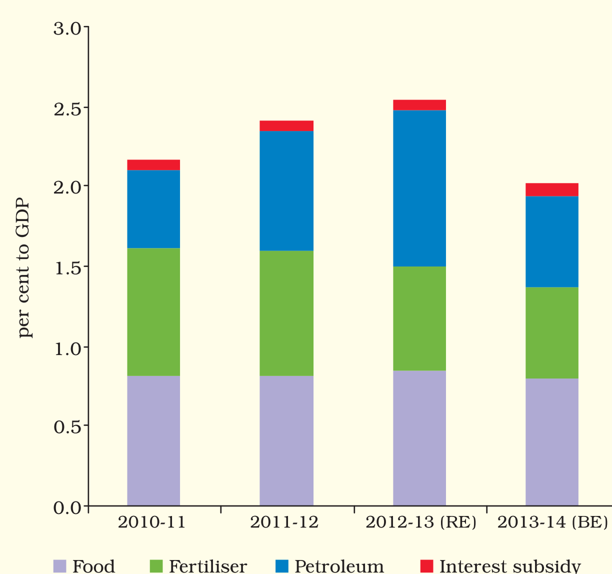


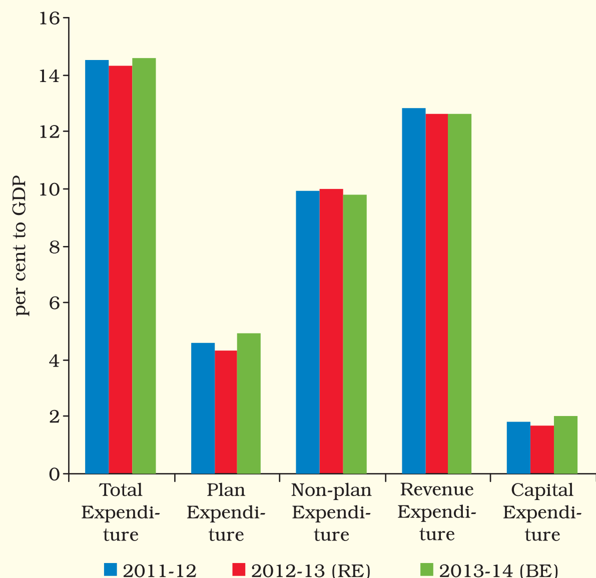
Budget 2013-14 attempts to rebalance spending from current to capital

II.5.6 One important feature of Union Budget 2013-14 is the sharp increase in plan and capital expenditure. In 2013-14 (BE), plan expenditure and capital expenditure are budgeted to grow by 29.4 per cent and 36.6 per cent, respectively, over 2012-13 (RE). The sectors in which the budgetary support to central plan outlay would increase sharply are rural development (20.2 per cent), transport (33.1 per cent), general economic services (50.4 per cent) and social services (27.6 per cent). Non-plan expenditure as a ratio to GDP, on the other hand, is budgeted to decline by 0.2 percentage points to 9.8 per cent on account of significant decline in non-plan revenue expenditure. Within non-plan revenue expenditure, subsidy expenditure is budgeted to decline to 2.0 per cent of GDP, mainly on account of a decline in petroleum subsidy (Chart II.49). However, in view of the recent depreciation of the Indian rupee and its likely impact on the under-recoveries of the oil-marketing companies (OMCs), there is a need for further reform in subsidies to meet the budgetary targets.

II.5.7 The decline in non-plan revenue expenditure facilitated a proportionate increase in plan revenue expenditure, keeping the total revenue expenditure unchanged at 12.6 per cent of GDP in 2013-14 (BE) (Chart II.50). The shift in expenditure pattern is reflected in the higher capital outlay-GDP ratio, which is budgeted to increase to 1.8 per cent in 2013-14 from 1.5 per cent in 2012-13 (RE).







Tax reforms process to move forward in 2013-14

II.5.8 The revenue receipts-GDP ratio is budgeted to increase by 0.6 percentage points to 9.3 per cent, which would be achieved largely through higher tax revenues. The gross tax revenue as a proportion of GDP is budgeted to increase by 0.5 percentage points to 10.9 per cent, mainly on account of higher revenues from corporation tax, income tax and service tax. While the revenues from corporation tax and personal income tax as ratios to GDP are budgeted to increase by 0.1 percentage points, each, service tax-GDP ratio is budgeted to increase by 0.3 percentage points during 2013-14. Improvement in tax revenues can be achieved through tax reforms. The Union Cabinet has approved the setting up of a Tax Administration Reform Commission in line with the Budget announcement, to review the application of tax policies and tax laws so as to strengthen the capacity of the tax system. The modified provisions of General Anti-Avoidance Rules (GAAR) based on the Expert Committee Report will come into effect from April 1, 2016.

State finances stay on fiscal consolidation track

II.5.9 Fiscal consolidation at the state level continued in 2012-13 (RE), with the consolidated GFD-GDP ratio remaining within the target set by the Thirteenth Finance Commission, despite a marginal increase over the previous year. The states at the consolidated level[1] continued to post surplus in the revenue account, *albeit* lower than budgeted. Notwithstanding the growth slowdown, the revenue receipts-GDP ratio has shown a marginal improvement in 2012-13 (RE) over the budget estimate, with an increase in own revenues more than offsetting the decline in current transfer from the centre.

Improvement in revenue account budgeted for 2013-14

II.5.10 The consolidated position of state governments for 2013-14 reveals an increase in the revenue surplus-GDP ratio along with a decline in the GFD-GDP ratio. Surplus in revenue account is budgeted to increase in 2013-14 (BE) primarily through reduction in revenue expenditure; revenue receipts-GDP ratio is also budgeted to be marginally higher than in 2012-13 (RE). The expenditure pattern of the states show that while development expenditure as ratio to GDP is budgeted to decline during 2013-14, the non-development expenditure-GDP ratio is budgeted to increase despite the committed expenditure-GDP ratio (comprising interest payments, administrative services and pension) remaining unchanged. The capital outlay-GDP ratio is budgeted to be higher in 2013-14 than in 2012-13 (RE), indicating efforts to improve the quality of expenditure (Appendix Table 16).

Combined fiscal deficit shows improvement on account of reduction in combined revenue deficit

II.5.11 The combined finances of the centre and states showed improvement in 2012-13 (RE) over the previous year. The combined gross fiscal deficit

[1] Based on budget documents of 27 State governments for 2013-14.

of the centre and states is placed marginally lower at 7.5 per cent of GDP in 2012-13 (RE) than 7.6 per cent in 2011-12. The correction in combined gross fiscal deficit during 2012-13 (RE) was entirely on account of a decline in the revenue deficit by 0.4 percentage points to 3.7 per cent. The decline in the fiscal deficit of the central government during 2012-13 contributed to the lower combined fiscal deficit, even though the fiscal deficit of states as a ratio to GDP increased by 0.4 percentage points to 2.3 per cent.

II.5.12 In 2013-14, the combined fiscal position is budgeted to improve further, reflecting commitment to the fiscal consolidation process both at the central as well as state government levels. The combined fiscal deficit in 2013-14 (BE) is placed lower at 6.9 per cent of GDP due to the budgeted reduction in revenue deficit to 2.9 per cent of GDP. Although the combined finances show improvement in recent years, the revenue deficit and fiscal deficit as ratios to GDP are still higher than the levels achieved in 2007-08.

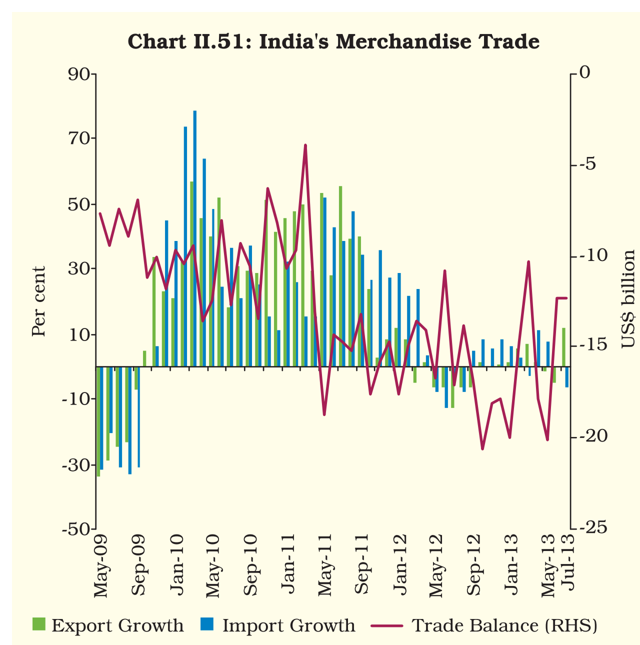
II.6 EXTERNAL SECTOR

CAD stays unsustainable though trade deficit narrowed in June and July 2013

II.6.1 The deterioration in the external sector, which began in Q3 of 2011-12, persisted throughout 2012-13. Although there was improvement in the current account deficit (CAD) in Q4 of 2012-13, it stayed above the sustainable level. Merchandise exports declined, particularly in the first half of 2012-13, mainly due to sluggish global demand conditions. Merchandise imports rose marginally in 2012-13. Increase in gold imports during H2 of 2012-13 contributed significantly to an increase in imports. This, along with a contraction in exports, led to a widening of the trade deficit at US$ 190.9 billion during 2012-13 compared with US$ 183.4 billion in 2011-12 (Chart II.51, Appendix Table 17).

II.6.2 The larger merchandise trade deficit coupled with the significant deceleration in services exports and higher income payments led to a further widening of the CAD in 2012-13. Net investment income has worsened in recent past reflecting lower interest/discount earnings on foreign exchange reserves and rise in interest payments on growing foreign debt including NRI deposits, ECBs and short term trade credits. The CAD-GDP ratio reached a historical high of 6.5 per cent in Q3 of 2012-13 before moderating to 3.6 per cent in Q4. With this, the cumulative CAD rose to 4.8 per cent of GDP during 2012-13 compared with 4.2 per cent in 2011-12. The high level of CAD, which is clearly unsustainable under the present growth scenario, emerged as a key macroeconomic risk factor during 2012-13.

Chart II.51: India's Merchandise Trade



II.6.3 The trade deficit continued to widen in first two months of 2013-14 (April-May 2013) and reached a seven-month high of US$ 20.1 billion in May 2013 compared with US$ 16.9 billion in the previous year. However, it declined to US$ 12.2 billion and US$ 12.3 billion in June and July 2013, respectively. Contraction in trade deficit was mainly due to decline in gold imports (in June and July). Similarly, export growth turned positive in July 2013.

Need to remove structural impediments to moderate CAD

II.6.4 The widening of the CAD despite a slowdown in the domestic economy suggests that the CAD deterioration was not just on account of global cyclical slowdown but also due to structural factors. India's CAD has persisted at above 3 per cent of GDP since Q1 of 2011-12 (Appendix Table 18). Factors underlying the rising CAD seem to reflect various structural weaknesses in the economy that are reflected in the stickiness of the trade deficit on account of inelastic demand for certain imports. Foremost among these are gold and POL imports, which remained at an elevated level of around US$ 53.8 billion and US$ 169.4 billion, respectively, in 2012-13, accounting for nearly 45 per cent of India's merchandise imports and around 117 per cent of the trade deficit. Non-oil non-gold imports slowed in 2012-13 but it could not sufficiently offset the persistent demand for oil and gold imports (Chart II.52).

II.6.5 India's import of POL has grown steadily, irrespective of the trend in international crude oil prices in recent years (Chart II.53). This may have happened due to an incomplete pass-through of international oil prices that contributed to growing energy consumption. Gold imports showed a transitory decline up to October 2012, which was attributed to various measures by the government and the Reserve Bank. However, the resurgence in gold imports in subsequent months (except in March 2013) without a concomitant rise in exports from this sector raises concerns about the size of the CAD. Finally, even though India's exports performed better during the period of conducive global growth and demand conditions, the loss of momentum in export growth during the downturn in the global economy may partly reflect lack of competitiveness and hence, is a matter of concern.

Chart II.52: GDP Growth and Import

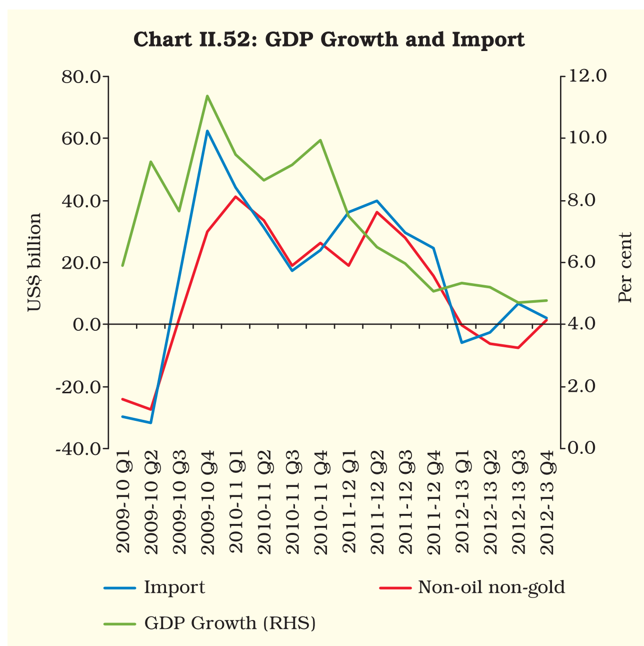
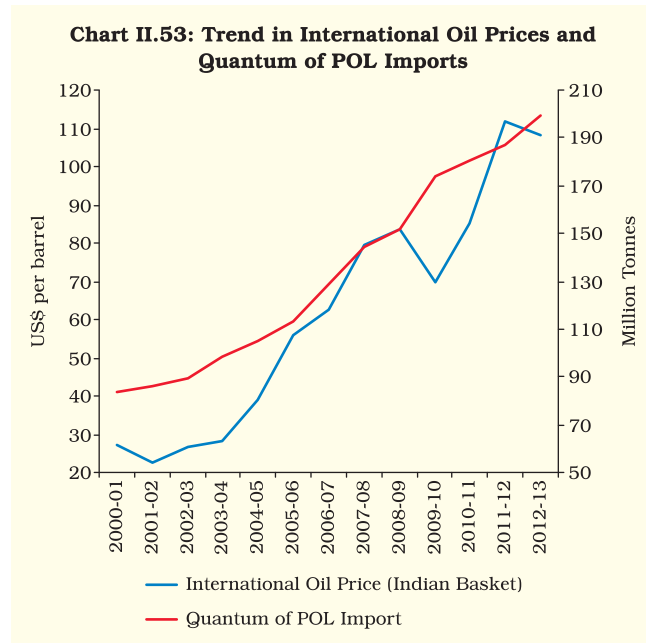


Chart II.53: Trend in International Oil Prices and Quantum of POL Imports



II.6.6 To address these concerns, the government took various policy measures in 2012-13. The most important of these was the partial deregulation of diesel prices, which may gradually reduce its consumption. Recognising the implications of gold imports for external sector stability, the Reserve Bank set up a working group to study issues relating to gold imports which recommended modifications to the extant regulations (Box II.11).

Box II.11
Recommendations by the Working Group to Study the Issues relating to Gold Imports and Gold Loan NBFCs in India

In the past couple of years, despite higher prices, there was an unabated rise in gold imports leading to high CAD and posing a risk to external sector stability. Concomitantly, there has been a sharp rise in the gold loan business by the NBFCs as also a quantum jump in bank borrowings by them, which pose a risk to domestic financial stability. Against these macroeconomic concerns, a Working Group was set up to study issues related to Gold Imports and Gold Loan NBFCs in India in 2012 (Chairman: Shri K.U.B. Rao). In its terms of reference, the Committee was explicitly asked to analyse the implications of gold imports on external and financial stability and review extant regulatory norms relating to gold loans and recommend modifications, if any.

The draft report of the Working Group was placed on the Reserve Bank's website. After incorporating comments and suggestions from experts, stakeholders and the general public, the Group submitted the final report on February 6, 2013. The recommendations of the Working Group come under two heads, *viz.*, (a) macro recommendations to moderate the demand for gold imports considering its impact on the CAD, and (b) institutional and prudential issues relating to gold loan NBFCs, *etc.* To moderate the demand for gold imports, the Group proposed various measures to reduce demand, manage supply and enhance the monetisation of gold. Among the demand reduction measures, the Group, *inter alia,* suggested fiscal measures, introduction of innovative gold-backed financial products and inflation index bonds, and limiting the use of bank finance to purchase gold bullion. The Group also suggested setting up Bullion Corporation of India that would pool idle stocks of gold besides undertaking related functions.

In view of rapid growth of the gold loan NBFCs and its implication for financial stability, the Group suggested that their activities may be closely monitored through frequent collection and analysis of relevant financial data. The Group observed that high leverage of the gold loan NBFCs is a cause for concern and there is a need to monitor transactions between gold loan NBFCs and unincorporated bodies. Some measures suggested by the Group have already been implemented.

Progress on implementation of the recommendations:

- All the SCBs, RRBs, urban cooperative banks, and NBFCs have been advised not to finance purchase of gold in any form, including primary gold, gold bullion, gold jewellery, gold coins, units of gold exchange traded funds (ETFs) and units of gold mutual funds.
- With a view to moderate demand for gold, extant instructions with regard to import of gold on consignment basis, *etc.* have been withdrawn and 20/80 principle has been set for import of gold under any scheme, implying that it would be incumbent on all nominated banks/ agencies to ensure that at least one-fifth of every lot of import of gold (in any form/ purity) is exclusively made available for the purpose of export and the same is retained in the customs bonded warehouses. Nominated entities are permitted to undertake fresh imports of gold only after the exports have taken place to the extent of at least 75 per cent of gold remaining in the customs bonded warehouse. Besides, they shall make available gold in any form for domestic use only to entities engaged in jewellery business/ bullion dealers supplying gold to jewellers. Further, entities/ units in the SEZ and EoUs, Premier and Star trading houses are permitted to import gold exclusively for the purpose of exports only.
- SCBs, RRBs and the State & Central co-operative banks have been advised that while granting an advance against the security of specially minted gold coins sold by them, they should ensure that the weight of the coin(s) does not exceed 50 grams per customer and the amount of loan to any customer against gold ornaments, gold jewellery and gold coins (weighing up to 50 grams) should be within the limit approved by the bank's board.
- The Government has raised the import duty on gold in three stages during 2013 so far, from 4 per cent to 10 per cent.
- With the amendment of Sec 206C of Income Tax Act, 1961 (w.e.f June 01, 2013) the sale of coins/ articles weighing 10 grams or less is treated as the sale of bullion, which is subject to tax collected at source (TCS) of 1 per cent, in case the cash sale exceeds ₹2 lakh.
- The first tranche of Inflation-Indexed Bonds for institutional investors (including 20 per cent to retail investors) was issued in June 2013.
- SEBI has directed MFs/ AMCs to set aside funds to increase investor awareness about gold-backed financial instruments.
- Gold ETFs have also been permitted to invest in Gold Deposit Schemes (GDS) of banks to the extent of 20 per cent of total asset under management.
- The Reserve Bank has issued a revised fair practices code to gold loan NBFCs to be put in place with the approval of their respective boards.
- The extant GDS was modified and revised guidelines were issued on February 14, 2013. Under the revised guidelines, banks are required to provide details of the scheme, including the names of branches operating the same, and report the gold so mobilised on a monthly basis in the designated format to the Reserve Bank.

The available data indicate that these measures are having some impact on moderating the quantum of gold imports into the country.

II.6.7 The Reserve Bank and the government took various policy measures including, *inter alia*, (i) an increase in the customs duty on gold, (ii) instructions to all nominated banks/nominated agencies to ensure that atleast one fifth of every lot of import of gold (in any form/purity including import of gold coins/dor) is exclusively made available for the purpose of export and (iii) issuance of inflation-linked bonds to wean away investors from gold to other savings instruments. In addition, it is felt that concerted policy actions are needed to enhance domestic supply of oil, gas and coal, besides developing unconventional energy sources. Efforts are also necessary to gradually build export competitiveness. These steps would help to reduce the CAD to sustainable levels. Further, certain sector-specific structural issues need to be addressed. For instance, despite being one of the major coal producers in the world, India had to import 135 million tonnes during 2012-13, showing a rise of 29 per cent compared with 49 per cent in the previous year. The gap in domestic demand and supply of coal has widened in recent years (see Box II.3). Similarly, owing to domestic structural problems including environment concerns, iron ore exports have gradually declined from US$ 6.0 billion in 2009-10 to US$ 1.6 billion in 2012-13. Therefore, from the perspective of the CAD, specific issues in these sectors need to be addressed.

Efforts needed to raise export competitiveness

II.6.8 Indian exports have been adversely impacted by global demand conditions. In this tough climate, there is a need to enhance export competitiveness to remain resilient and gain a more durable share in global trade. Other EMDEs such as China, Korea, Mexico and Turkey have exhibited much less pro-cyclicality in exports in relation to India. In fact, China's merchandise trade surplus, which showed increase in 2012 (y-o-y), was only marginally lower in Q1 of 2013. As such, efforts are warranted to ensure that India's exports can withstand global cyclical fluctuations. As India continues to lag behind in terms of high technology intensive manufacturing exports, policy thrust is needed to incentivise R&D expenditure and reduce obstacles to the competitiveness of India's exports.

With capital flows turning volatile, financing the CAD will be a major policy challenge

II.6.9 Even though the CAD widened to unprecedented levels in 2012-13, it was fully financed through net capital inflows and there was net accretion to foreign exchange reserves of US$ 3.8 billion in 2012-13. Inflows under FII investment remained important sources of financing despite witnessing volatile trends during the year. After recording net outflows in Q1 of 2012-13, FII inflows turned positive in the next three quarters amid outflows during some intervening weeks. During December 2012 to February 2013, FII inflows surged on the back of abundant global liquidity and domestic policy measures. FII investment limits in government securities and corporate bonds were raised by US$ 5 billion each, taking the total investment limit in domestic debt (including corporate debt for infrastructure) to US$ 75 billion. On June 12, 2013, the FII limit in government dated securities was enhanced further by US$ 5 billion (for long-term investors only). With this, the present limits for investments by FIIs, QFIs and long-term investors in government securities and corporate debt stand at US$ 30 billion and US$ 51 billion, respectively.

II.6.10 In 2013-14 so far, net FII flows remained positive until the third week of May 2013 before turning negative amid concerns that the US Fed may taper off the quantitative easing by the end of the year. The withdrawal of FIIs, especially from the debt market, due to currency depreciation and narrowing yield differential, does not augur well for CAD financing.

II.6.11 After witnessing a sequential surge during Q1 and Q2 of 2012-13, FDI to India moderated during Q3 to pick-up again during Q4 on the back of improved perceptions of the domestic economy on account of the reform measures undertaken by the government (Appendix Table 19).

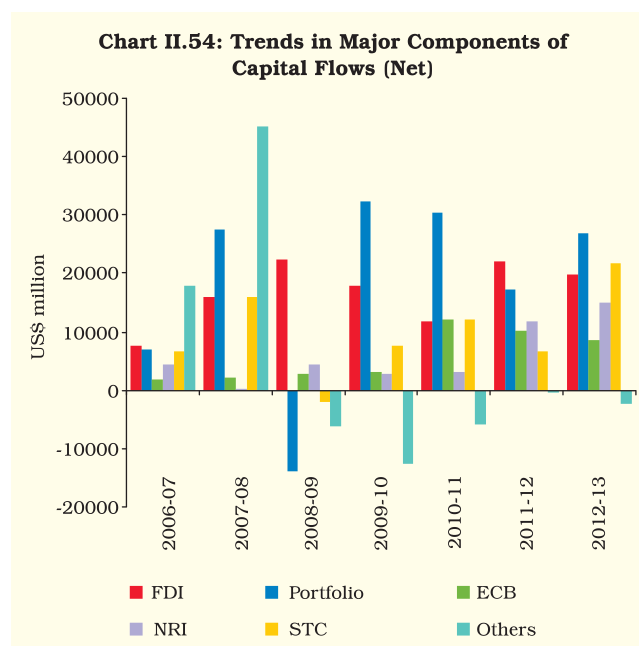
II.6.12 ECBs remained subdued during first two quarters of 2012-13 since disbursement during this period declined significantly over the same period in the previous year. However, net inflows increased during the second half, as disbursement picked up significantly in Q3 and Q4. The effects of the deregulation of interest rates on NRI deposits seem to be tapering off. Inflows under NRI deposits have been positive, but declined from US$ 6.6 billion during Q1 to average quarterly inflows of US$ 2.5 billion in the subsequent periods. Short-term trade credits have been robust throughout the year.

II.6.13 Even though in 2012-13 the capital flows were sufficient to finance the CAD, these flows have turned volatile and unpredictable in recent months, mainly reflecting the global macroeconomic environment. The current level of the CAD is much higher than the sustainable level of CAD, which is assessed to be around 2.5 per cent of GDP with slower growth (Reserve Bank Annual Report 2011-12, para II.6.2, p. 66). Going forward, the high level of CAD and its financing against the backdrop of possible reversals in capital flows has emerged as a major macroeconomic challenge.

Need to encourage stable capital flows

II.6.14 Improved global liquidity as well as various domestic policy measures taken since September 2012 boosted foreign investor confidence in the economy. This led to a rise in capital inflows in subsequent months. The domestic policy reforms included liberalised FDI norms for the retail, insurance and pension sectors, a roadmap for fiscal consolidation, increasing FII limits in debt securities (both corporate and government), postponing implementation of the General Anti-Avoidance Rule (GAAR) by two years, gradual deregulation of diesel prices, simplification of the 'Know Your Customer (KYC)' registration rules for overseas investors and removal of separate limits for FIIs on different types of corporate bonds. Moreover, owing to the deregulation of interest rates, flows in NRI deposits increased during 2012-13 compared with the previous year which were mainly evident in NRE deposits (Chart II.54).

Chart II.54: Trends in Major Components of Capital Flows (Net)



II.6.15 These policy initiatives augured well for the pick-up in equity flows, which facilitated financing of the CAD. While net FDI inflows increased marginally in 2012-13 compared with the previous year, FII equity flows increased sharply to US$ 23.3 billion in 2012-13 from US$ 8.8 billion in 2011-12. The proportion of non-stable flows, comprising FIIs and short-term credit, to total capital flows accounted for over half of the total capital flows in 2012-13 compared with one-third in 2011-12. This reflects a continued dependence on short-term flows to meet the widening CAD, which can enhance the vulnerability of the economy in a scenario of adverse global financial conditions.

Rupee under pressures on the back of the wide CAD and volatile capital flows

II.6.16 Along with the wide CAD, financing pressures emerged intermittently, with spells of moderation in capital flows or large dollar demands by importers. Owing to weak portfolio flows, domestic policy uncertainty and apprehensions about the future of the euro area, the rupee

depreciated by 7.2 per cent against the dollar in Q1 of 2012-13 (over average of previous quarter). Between July and August 2012, the rupee continued to remain weak because of both domestic and global economic conditions. However, after the announcement of QE3 by the US Federal Reserve and the surge in capital inflows following various domestic policy measures, the rupee started showing some recovery against the dollar from September 2012. However, the appreciation was short-lived as the rupee resumed its depreciating trend in October 2012 mainly due to a demand for dollars by oil-importing firms, concerns over the widening CAD and uncertainty about domestic growth. During November 2012 to April 2013, the rupee fluctuated in the range of ₹53.3 to 55.7 against the US dollar.

II.6.17 Signs of strengthening recovery in the US economy as also on the Fed's indication that it may taper off bond purchases led to renewed pressure on rupee. The latter led to US treasury yields firming up and consequently to a decline in the interest rate differential, triggered the exit of FIIs from the domestic bond market (Chart II.55).

Chart II.55: Spread between 10-year Sovereign Yield of India and USA

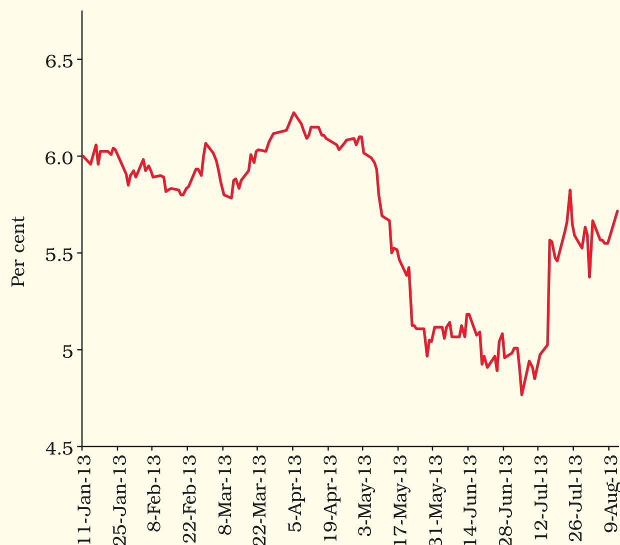
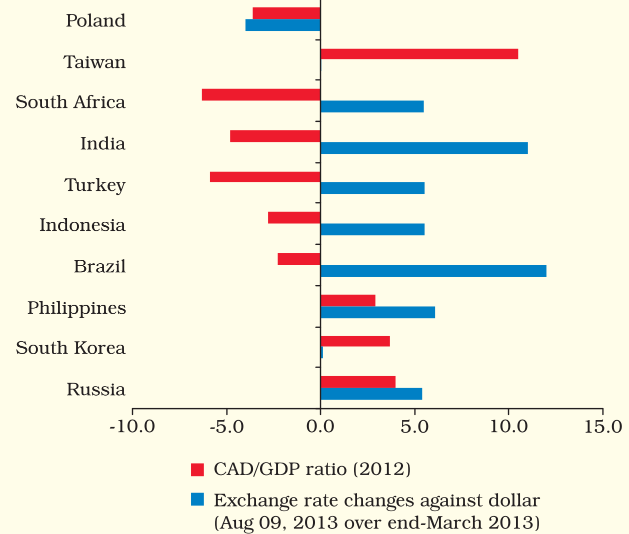
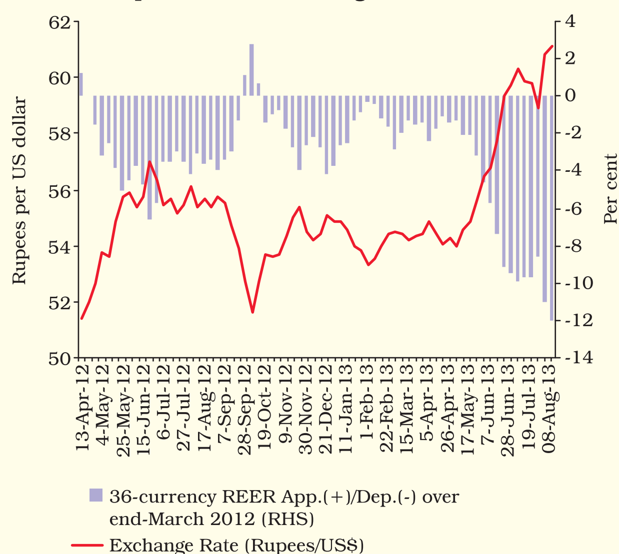


Chart II.56: Exchange Rate Movements and Current Account Deficit (Per cent)



As on August 13, 2013 the rupee showed depreciation of 10.4 per cent over May 21, 2013. Rupee touched an all-time low of 61.54 (reference rate) against the dollar on August 8, 2013. Such a currency depreciation is, however, not unique to India; other emerging market currencies have witnessed similar trends. It also includes major currencies like the euro, which has depreciated against the US dollar in this period. Even EMDEs with current account surplus have depreciated against the dollar (Chart II.56). Continuing concerns relating to the elevated level of the CAD and its financing coupled with weakness in FII flows have played a major role in weakening the rupee. In order to reduce the delays in repatriation of forex earnings, the Reserve Bank advised units located in SEZs to realise and repatriate the full value of goods/software/services to India within a period of 12 months from the date of export.

II.6.18 Partly reflecting the trend of the rupee in nominal terms, REER indices based on both 6-and 36-currency also depreciated by 5.8 per cent and 6.7 per cent, respectively, in 2012-13 over the preceding year (average basis) (Chart II.57, Appendix Table 14).



Despite significant volatility in the forex market and high CAD, forex reserves remained largely stable

II.6.19 During 2012-13, the foreign exchange market remained turbulent with a tendency for two-way movements on the back of higher demand for foreign currency emanating from the high CAD and volatile trends in FII flows. The rupee went through various phases and there was considerable volatility in some months owing to concerns about the growing trade deficit, domestic policy uncertainty and apprehensions about the euro area. To ensure orderly conditions, the Reserve Bank intervened in the foreign exchange market mainly in the months of July and August 2012 to restore stability. However, with the emergence of concerns about the high CAD and uncertainty regarding domestic growth, the rupee again showed considerable volatility during October and November 2012. India's foreign exchange reserves, although lower than in the pre-crisis period, is adequate to finance about seven months of imports (Appendix Table 20). The IMF in its recent report on India (February 2013), based on the IMF composite reserve measure and taking into account country-specific circumstances, has assessed India's reserves as adequate.

Vulnerability parameters weakened further

II.6.20 The major indicators for assessing India's external sector vulnerability continued to show deterioration through 2012-13 (Table II.7).

Table II.7: External Sector Vulnerability Indicators

(Per cent)

Indicator	End-March 2011	End-March 2012	End-March 2013
1	2	3	4
1. Ratio of Total Debt to GDP	17.5	19.7	21.2
2. Ratio of Short-term to Total Debt (Original Maturity)	21.2	22.6	24.8
3. Ratio of Short-term to Total Debt (Residual Maturity)#	42.2	42.6	44.2
4. Ratio of Concessional Debt to Total Debt	15.5	13.9	11.7
5. Ratio of Reserves to Total Debt	99.7	85.2	74.9
6. Ratio of Short-term Debt to Reserves	21.3	26.6	33.1
7. Ratio of Short-term Debt (Residual Maturity) to Reserves#	42.3	50.1	59.0
8. Reserves Cover of Imports (in months)	9.5	7.1	7.0
9. Debt Service Ratio (Debt Service Payments to Current Receipts)	4.4	6.0	5.9
10. Net International Investment Position (NIIP) (US$ billion)	-207.0	-249.5	-307.3
11. NIIP/GDP ratio	-11.9	-14.0	-16.7

#: RBI Estimate.

II.6.21 With increasing external debt and its shortening maturity, debt servicing requirements may pose a concern for the CAD (Appendix Table 21). In fact, income payments, which mainly reflect payments on account of debt servicing, have shown a significant increase in recent quarters. Reflecting the widening CAD, the net international investment position (NIIP) as a ratio to GDP increased to (–)16.7 per cent at end-March 2013 from (–)14.0 per cent at end-March 2012. Hence, deterioration in external vulnerability indicators points to the need for reducing the CAD and encouraging the non-debt creating flows to finance the CAD.

II.6.22 The CAD has remained high and above the sustainable level during 2012-13. Current indications suggest that while the CAD may be somewhat lower in 2013-14, it will continue to stay above the sustainable level. In this context, to mitigate external vulnerability, short-term debt needs to be contained, imports of oil and gold need to be moderated and structural impediments need to be removed in areas such as coal and iron ore. Improving export competitiveness is crucial to address the issue of the high CAD in the medium term. In the short term, however, it is necessary to encourage stable capital flows to finance the CAD on a durable basis.

PART TWO: THE WORKING AND OPERATIONS OF THE RESERVE BANK OF INDIA

III MONETARY POLICY OPERATIONS

Monetary policy in 2012-13 had to continue to address the risk to growth while guarding against the risks of inflation pressures re-emerging and adversely impacting inflation expectations. With the liquidity deficit remaining above the comfort level for most of the year due to a mix of structural and frictional factors, the Reserve Bank had to undertake active liquidity management to inject durable primary liquidity through OMOs, and reduction in the CRR and the SLR to ensure adequate credit flow to productive sectors of the economy. After a frontloaded reduction in the policy rate at the beginning of the year and active liquidity management during the year, with the ebb in inflation, the Reserve Bank reduced policy rate further since January 2013 in a calibrated manner taking into account the evolving growth-inflation dynamics. During 2013-14, the Reserve Bank eased monetary policy further in early May, but undertook liquidity tightening measures subsequently to address macro-financial risks from exchange rate volatility.

III.1 The monetary policy stance during 2012-13 sought to balance the evolving growth-inflation dynamics through calibrated easing in the face of a significant growth slowdown, persistent inflationary pressures and rising macro-economic and financial vulnerabilities in the economy. Even as the year started off with a front-loading of the policy rate reduction in April amid concerns of a slowdown in growth, persistent and broad-based inflationary pressures constrained the Reserve Bank in continuing with further monetary easing. The tightening of liquidity conditions due to frictional as well as structural factors during the second half of the year warranted active liquidity management in the form of reductions in the cash reserve ratio (CRR) and statutory liquidity ratio (SLR), and liquidity injections through open market operations (OMOs). By Q4 of 2012-13, with signs of softening of inflationary pressures opening up space for monetary policy, the stance shifted towards addressing the growth risks.

MONETARY POLICY OPERATIONS: CONTEXT AND RATIONALE

III.2 At the start of the financial year, monetary policy had to address a macro-economy where growth had fallen below its pre-crisis trend and inflation, though moderating, was well above the tolerance level of the Reserve Bank. Considering the need to support the growth impulses, the key policy (repo) rate was reduced by 50 basis points to 8 per cent on April 17, 2012. To provide a greater liquidity cushion the borrowing limit of scheduled commercial banks under the marginal standing facility (MSF) was raised from 1 per cent to 2 per cent of their net demand and time liabilities (NDTL).

III.3 By June 2012, it was becoming increasingly clear that inflation would continue to remain sticky and broad-based. Moreover, even as growth continued to decelerate there was growing evidence that the post-crisis trend rate of growth had fallen and that the difference between the actual and trend rate of growth, was relatively small. In such a

scenario, there were significant risks of a resurgence of inflationary pressures if a quick upturn in demand materialised. Further, concerns about macro-economic stability that emanated from the risks of rising fiscal and current account deficits took centre stage in policy analysis. With concerns that lowering of policy rates, without first addressing supply-side gaps and the risks emanating from the twin deficits, would only aggravate inflationary impulses without necessarily stimulating growth, the Reserve Bank paused in its policy rate reductions from June to December 2012.

III.4 Keeping in view that liquidity conditions play an important role in transmission of monetary policy signals, managing liquidity within the comfort zone remained a primary objective of monetary policy through much of 2012-13. In August 2012, the SLR was reduced by 100 bps to ease credit and liquidity conditions followed by a cumulative reduction in the CRR by 75 bps during September 2012 – February 2013 as liquidity conditions became increasingly tight. Further, liquidity support through outright OMOs of ₹1.5 trillion was carried out during 2012-13.

III.5 In Q3 of 2012-13 inflation moderated with indications of further easing in Q4. Further, the low pricing power of corporates, excess capacity in some sectors and indications of softening of international commodity prices suggested that inflationary pressures had peaked. Space for monetary policy to address growth risks was further opened up by fiscal measures to rationalise administered fuel prices as well as by the renewed commitment to adhere to fiscal consolidation roadmap. Hence, key repo rates were lowered in a calibrated manner, by 25 bps each in January and March 2013. However, in March, the Reserve Bank also noted that headroom for further monetary easing was quite limited considering the slow-paced reduction in inflation that could remain range-bound in 2013-14 and the risks emanating from a widening of current account deficit (CAD).

III.6 The Annual Policy Statement for 2013-14 was presented on May 3, 2013 against the backdrop of sharp deceleration of growth in 2012-13 which was much worse than anticipated and the prospects of slow recovery through 2013-14. Headline WPI inflation registered significant moderation by March 2013 and came close to the Reserve Bank's tolerance threshold of 5.0 per cent, although retail inflation as measured by the CPI continued to remain elevated. Keeping in view the accentuated risks to growth along with the gradual softening of inflationary pressures, the key policy rate was reduced by 25 basis points to 7.25 per cent. However, the Reserve Bank also noted that, going forward, the balance of risks coming from an assessment of the growth-inflation dynamics showed little space for further monetary easing considering the significant upside risk to inflation in the near term as also the risks emanating from the CAD and its financing.

III.7 Beginning late May, apprehensions of likely tapering of QE following the comments of the US Fed triggered outflows of portfolio investment, particularly from the debt segment. Several measures were instituted to contain the ensuing exchange market volatility and to reverse unidirectional expectations. First, to curb import demand, import of gold on consignment basis was restricted on June 4 and customs duty was raised on June 5. Second, this was followed up on July 8 with further measures, including restricting banks to trade only on behalf of their clients in currency futures/options markets, tightening of exposure norms, and raising margins on currency derivatives to check speculative activities.

III.8 On July 15, the Reserve Bank put in place additional measures to restore stability to the foreign exchange market. They included raising the MSF rate by 200 bps to 10.25 per cent, restricting the overall access by way of repos under the LAF to ₹750 billion and undertaking open market sales of government securities of ₹25 billion on July 18, 2013. As a contingency measure and in anticipation of redemption pressures on mutual funds, the Reserve Bank opened a dedicated Special Repo window for a notified amount of ₹250 billion for

liquidity support to mutual funds.

III.9 On July 22, the Reserve Bank rationalised import of gold by making it incumbent on all nominated banks/entities to ensure that at least one fifth of imported gold is exclusively made available for the purpose of exports. Any import of gold under any type of scheme will have to follow this 20/80 formula. Consequent to this, the earlier instructions banning the import of gold on consignment basis were withdrawn.

III.10 On July 23, the Reserve Bank modified the liquidity tightening measures by regulating access to LAF by way of repos at each individual bank level and restricting it to 0.5 per cent of the bank's own NDTL. This measure came into effect from July 24, 2013. The cash reserve ratio (CRR), which banks have to maintain on a fortnightly average basis subject to a daily minimum requirement of 70 per cent, was modified to require banks to maintain a daily minimum of 99 per cent of the requirement.

III.11 Considering the need to be ready to pro-actively respond to risks to the economy from external developments as well as taking into account the evolving growth inflation dynamics the Reserve Bank in its First Quarter Review of July 30, 2013 kept its key policy rates unchanged. The continuing weakness in economic activity, particularly in industry and services, made Reserve Bank to revise downwards the growth projections for 2013-14 from 5.7 per cent to 5.5 per cent. Reflecting on the monetary policy stance the Statement indicated the intent of the Reserve Bank to roll back the liquidity tightening measures in a calibrated manner conditional on signs of stability in the foreign exchange market, enabling monetary policy to revert to supporting growth with continuing vigil on inflation.

III.12 The Statement also reiterated that its objective was to contain inflation to a level of 5.0 per cent by March 2014 and to 3.0 per cent over the medium-term

III.13 On August 8, the Reserve Bank augmented its measures to curb foreign exchange market volatility by announcing the decision to auction Government of India Cash Management Bills for a notified amount of ₹ 220 billion once every week.

Liquidity Management

III.14 Liquidity conditions remained in deficit mode throughout 2012-13. Liquidity conditions eased gradually during the first half of 2012-13 and came under stress since mid-November 2012. The average daily net borrowing under the liquidity adjustment facility (LAF), which was 2.2 per cent of average net demand and time liabilities (NDTL) in Q4 of 2011-12, declined sharply to 1.3 per cent in Q1 of 2012-13 and further to 0.7 per cent in Q2 but increased to 1.4 per cent in Q3 and subsequently to 1.5 per cent in Q4. The deficit liquidity conditions were mainly on account of persistent rise in government balances, strong currency demand, the widening gap between deposit and credit growth and advance tax outflow from the banking system. In order to ease the tight liquidity condition, the Reserve Bank initiated several timely and pre-emptive policy measures, such as reducing the CRR and SLR, making purchases under OMO, increasing the limit on the Export Credit Refinance (ECR) facility for scheduled banks (excluding RRBs) and introducing a special export credit refinance facility.

III.15 With the significant reduction in the Government balances with the Reserve Bank and narrowing wedge between credit growth and deposit growth, liquidity conditions improved gradually in Q1 of 2013-14. The Reserve Bank conducted two OMO purchase auctions during Q1 of 2013-14 injecting primary liquidity of ₹165 billion into the banking system. Liquidity conditions eased significantly in June 2013 with the average net borrowings under LAF falling to less than ₹0.7 trillion.

III.16 However, since mid-May, pressure in foreign exchange market began to increase. In order to curb the excess volatility in forex market, the Reserve Bank instituted various liquidity tightening measures on July 15, 2013 and further on July 23, 2013. As a result of these measures, as also the

Government resorting to WMA, LAF deficit declined significantly in July 2013 to less than ₹0.6 trillion. As part of these measures, the Reserve Bank sold ₹25 billion of government securities in open market sales on July 18, 2013.

Monetary Policy Transmission

Call Money Rates and Deposit/Lending Rates of Banks

III.17 During 2012-13, the Reserve Bank reduced the repo rate by 100 bps, the SLR by 100 bps and the CRR by 75 bps. The repo rate was further reduced by 25 bps on May 3, 2013. The impact of these policy measures got transmitted across financial market segments and maturities. As expected, the transmission was faster at the shorter end of the maturity spectrum but slower in the credit market, the latter reflecting the presence of structural imperfections in the market for loanable funds (Table III.1). Also, consistent with the past experience, the speed of transmission was less during the easing phase of monetary policy than during the tightening phase across the various segments of the financial market barring the government securities market; in case of the latter, fiscal consolidation initiatives taken by the Government reducing market apprehension of an excess supply of government securities had the desired impact on G-sec yields during the second half of 2012-13.

III.18 While the Reserve Bank persisted with the easing of monetary conditions through 2012-13, and banks responded by lowering their deposit rates during the first half, the transmission remained weak during Q4, as the number of banks increasing deposit rates across maturities dominated over those that lowered rates during Q4. The government initiatives towards fiscal consolidation resulted in a significant tightening of liquidity conditions during the second half of 2012-13, which pushed up the overnight liquidity deficit under LAF beyond the comfort zone of the Reserve Bank. Banks stepped up efforts to mobilise deposits by raising deposit rates, particularly for shorter term maturity. Real deposit rates, which remained persistently negative since March 2012, turned marginally positive during Q4, reflecting the moderation in inflation. Going forward, a more favourable risk-return ratio in favour of term deposits in the household savings portfolio could improve deposit mobilisation by banks.

Table III.1: Movement in Money Market Rates and Deposit/Lending Rates of Banks

(Per cent)

Items	Mar-10	Mar-11	Mar-12	Jun-12	Sept-12	Dec-12	Mar-13	Jun-13	Variation (percentage points)	
									Tightening Phase	Easing Phase
1	2	3	4	5	6	7	8	9	10	11
I. Policy Rate (Repo Rate)	5.00	6.75	8.50	8.00	8.00	8.00	7.50	7.25	3.75	-1.25
II. Call Rate	3.51	7.15	9.17	8.14	7.92	8.05	7.90	7.24	5.66	-1.93
III. CBLO Rate	3.15	6.46	8.44	7.89	7.83	8.00	7.68	7.10	5.29	-1.34
IV. Market Repo Rate	3.32	6.56	8.69	8.03	7.89	8.09	7.82	7.17	5.37	-1.52
V. 3-Month CP Rate	6.10	10.56	11.61	9.73	8.73	9.03	9.61	8.50	5.51	-3.11
VI. 3-Month CD Rate	5.48	9.92	11.06	9.24	8.38	8.49	9.14	8.11	5.58	-2.95
VII. 5-year Corporate Debt Yield	8.61	9.22	9.47	9.39	9.36	9.08	8.96	8.55	0.86	-0.92
VIII.10-year Corporate Debt Yield	6.61	9.64	9.77	9.65	9.30	8.92	9.01	8.66	3.16	-1.11
IX. 5-year G-Sec Yield	7.54	7.88	8.46	8.22	8.19	8.10	7.94	7.52	0.92	-0.94
X. 10-year G-Sec Yield	7.92	7.98	8.36	8.19	8.18	8.15	7.91	7.34	0.44	-1.02
XI. Modal Deposit Rate	5.00	6.65	7.42	7.40	7.29	7.33	7.31	7.26	2.42	-0.16
XII. Modal Base Rate	8.00*	9.50	10.75	10.50	10.50	10.50	10.25	10.25	2.75	-0.50

*: Data relate to July 2010 as Base Rate was introduced since then.

Note: Policy rate, deposit and base rates are at end-month while money and bond market rates are monthly average. Tightening phase in Table is from March 19, 2010 to April 16, 2012 and easing phase from April 17, 2012.

Source: Bloomberg for CP, CD and bond market rates, and the Reserve Bank for other rates.

III.19 As far as lending rates were concerned, the transmission appeared to be somewhat faster than deposit rates. The modal base rate of banks declined by 25 bps in Q4 on top of a similar reduction in Q1. The weighted average lending rate (WALR) of banks too declined at a faster pace as compared with deposit rates largely reflecting the lower demand for credit owing to deceleration in economic activity (Table III.2).

III.20 During Q1 of 2013-14, the modal term deposit rate of SCBs declined marginally by 5 bps, following reduction in the repo rate by 25 bps on May 3, 2013 and easing of liquidity conditions. Although the modal base rate remained unchanged at 10.25 per cent in Q1, WALR on the outstanding rupee loans of SCBs declined by 6 bps to 12.07 per cent during Q1 (Table III.2)

Sectoral Lending Rates

III.21 The pass-through of monetary policy actions was not uniform across sectors in terms of lending rates during 2012-13. The lending rates declined in the range of 1-63 bps for some of the select sectors, with sharpest decline in education loan (63 bps) and home loan (62 bps). Lending rates in other sectors such as vehicle, SMEs and credit card witnessed only marginal decline (Table III.3). During Q1 of 2013-14, the lending rates declined by 40 bps in credit cards, 32 bps in housing loan and 4 bps in SME loans while it increased for vehicle loan, agricultural loan and educational loan during the same period.

Table III.2: Modal Deposit Rates and WALRs of SCBs (Excluding RRBs)

(per cent)

Month-end	Repo Rate	Modal Deposit Rate	WALR
1	2	3	4
Mar-12	8.50	7.42	12.60
Jun-12	8.00	7.40	12.35
Sep-12	8.00	7.29	12.26
Dec-12	8.00	7.33	12.14
Mar-13	7.50	7.31	12.13
Jun-13	7.25	7.26	12.07

WALR: Weighted average lending rate.

Table III.3: Sectoral Median Lending Rates of Scheduled Commercial Banks
(at which 60 per cent business is contracted)

(Per cent)

Month end	Home	Vehicle	Agri-culture	SME	Credit Card	Education
1	2	3	4	5	6	7
Mar-12	11.87	12.75	11.74	13.00	27.09	13.63
Jun-12	11.63	12.78	11.38	12.88	28.39	13.30
Sep-12	11.63	12.75	11.63	12.84	26.42	13.23
Dec-12	11.43	12.68	11.43	12.99	27.89	13.10
Mar-13	11.25	12.71	11.63	12.99	27.07	13.00
Jun-13 (P)	10.93	12.85	11.67	12.95	26.67	13.12
Variation (March-13 over March-12)	**-0.62**	**-0.04**	**-0.11**	**-0.01**	**-0.02**	**-0.63**

P: Provisional.

Asymmetry in Monetary Policy Transmission

III.22 A liberalised financial system - where banks have freedom in fixing their deposit and lending rates - poses challenge to the monetary authority to ensure effective transmission of its policy signals to the real economy. Such challenge could be in terms of addressing the structural constraints – in addition to the frictional factors - impeding the credit channel. Factors inhibiting transmission, *inter alia*, include interest cost on outstanding deposits, size of government borrowing, level of NPAs and inflation. The administered interest rates on small savings which, though linked to G-sec yields, are reset only at an annual frequency and thus imparts rigidity to the rate fixation by banks.

III.23 During 2012-13, the pace of transmission of monetary policy signals slowed down considerably, particularly during Q4, partly reflecting the asymmetric response of banks to the hardening and the easing phases of policy cycles against the backdrop of tightening of liquidity conditions (Table III.1). Usually, during the upward phase of the interest rate cycle, banks are quick in raising their lending rates while in the downward phase of the interest rate cycle, banks are quick in reducing their deposit rates to protect their NIMs. This is particularly so, as loans, being mostly flexi-

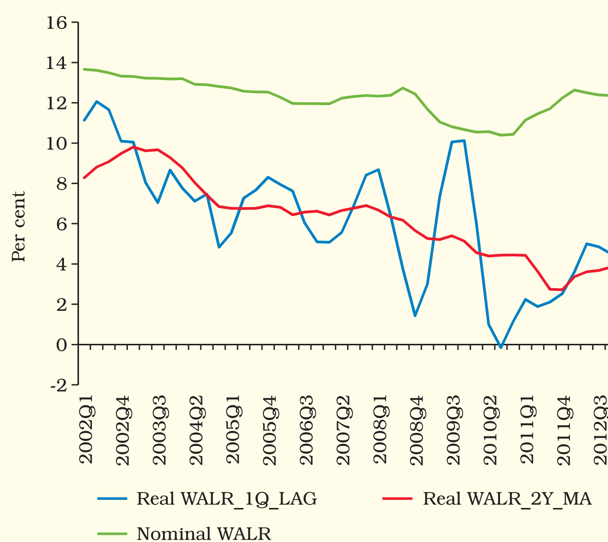
price, are re-priced at a quicker pace than the fixed rate bank deposits. However, in the presence of tight liquidity conditions and structural rigidities, deposit and lending rates did not decline on the expected line unlike other segments of the financial market.

III.24 On the supply side, the change in depositors' preference from financial savings of banking system to gold in search of higher returns, may also be one of the inhibiting factors in the transmission channel of deposit and lending rates.

Real Interest Rate in India

III.25 Reflecting the anti-inflationary stance of monetary policy in 2011 and 2012, the weighted average nominal lending rates increased, with usual transmission lags. Real lending rates (derived alternatively by using two year moving average inflation and one quarter lagged inflation), were lower than the real rates prevailing during the high growth phase of 2003-08 (Chart III.1). This trend in real interest rates brought to the fore the issue of causal relationship between real interest rate, investment and economic growth. Empirical estimates for India suggest that for 100 bps decline in real lending rates (or cost of finance for corporates), investment could be stimulated by about 50 bps, and non-agricultural GDP growth could improve by about 20 bps (Box III.1). Since the second half of 2012-13, with softening of inflation, the ex-post real interest rates have started edging up. If inflation remains range bound around 5.5 per cent in 2013-14, only with stronger transmission of the 125 bps cut in repo rate since April 2012, that the real lending rates may decline to support growth.

Chart III.1: Estimated Weighted Average Lending Rates - Real and Nominal



Box III.1
Sensitivity of Investment and Growth to Change in Real Interest Rate

The real interest rate is an unobservable variable, and firm level investment decisions are generally driven by nominal variables, *i.e.* assessment of nominal cash flows on a new investment project and the nominal hurdle rate relative to the internal rate of return (IRR). IRR is the rate of discount which equates discounted cash flows with the initial investment value of a project, or in other words, it is the rate of discount at which net present value (NPV) of the project is zero. Only if the firm is able to borrow at an interest rate that ensures that the hurdle rate remains less than the IRR, the NPV of the project will be positive and it would make sense to undertake the project. Depending on the assumed inflation expectations implicit in the cash flows and the hurdle rate, there would invariably be a real interest rate, which may not be explicitly recognised. At the level of the overall economy, however, real variables like investment and growth are generally believed to be influenced by the real interest rate. Nominal variables like the policy interest rate can influence the real interest rate in the short-run, and at times the impact may persist if the Fisher effect does not hold. According to the Fisher effect, changes in nominal interest rate reflect only revised inflation expectations, and if the nominal rates do not adjust one for one to changing inflation conditions, real interest rates may vary. For the purposes of policy analysis, thus, two important issues could be: (a) whether the nominal interest rate implicit in the hurdle rate is lower than the IRR in a phase of slowdown in economic activities, rather than whether nominal interest rate is lower relative to the levels prevailing during the high growth phase, and (b) whether the manner in which monetary policy responds to changing inflation situation is a key factor behind time varying real interest rates.

The related empirical issue then is if the real interest rate can be influenced by monetary policy, how sensitive the investment and growth may be to changes in real interest rates. OLS

(Contd...)

estimates suggest that for 100 bps reduction in real lending rate (WALR1QLAG), non-agricultural GDP growth (NAG) could improve by about 9 bps in the short-run and by about 20 bps in the long run (Table 1). The higher value of the coefficient for inflation exceeding a threshold level of 6 per cent (INFLTR) offers a key policy inference, *i.e.* any monetary policy stance of tolerating high inflation to lower real interest rates may fail to stimulate growth, since the positive impact of lower real interest rate on growth would be more than offset by the adverse impact of high inflation on growth.

The OLS results indicate that for 100 bps decline in real lending rate, investment to GDP ratio (IGDP) may get stimulated by 9 bps in the short-run and 51 bps in the long-run (Table 2).

Empirical estimates for India point to the scope for improving growth and investment by lowering real interest rates. Lower real interest rates could result from aggressive easing of monetary policy (which may be constrained by inflation persistence), or faster transmission of the repo rate cuts already effected since April 2012 to lending rates, or higher

Table 1 : OLS Estimates of Non-agricultural GDP Growth (NAG)

	Coefficient	t-Statistic
1	2	3
C	3.77	2.14*
NAG(-1)	0.54	3.27*
WGDP	0.18	4.40*
WALR1QLAG(-1)	-0.09	-2.35*
INFLTR(-1)	-0.12	-2.26*
D(NFCGDP_SA(-4))	0.09	3.80*
D2009Q3	2.45	18.50*
$\bar{R}^2$	0.61	
Durbin's m	0.30	
SE of regression	0.93	
No. of Observations	40	

Note: t-statistics are based on HAC standard errors corrected with Newey-West/Bartlett window and 3 lags.
* : Significant at 5% level.

Table 2 : OLS Estimates of Investment Rate (Dependent Variable: IGDP)

	Coefficient	t-Statistic
1	2	3
C	4.40	4.97*
GDPG(-1)	0.15	2.85*
WALR1QLAG(-1)	-0.09	-3.46*
INFLTR	-0.04	-1.88**
IGDP(-1)	0.83	25.93*
DCRISIS	-1.95	-7.18*
ΔNFCGDP(-4)	0.09	4.33*
$\bar{R}^2$	0.94	
Durbin's h	-0.87	
SE of regression	0.73	
No. of Observations	40	

Note: t-statistics are based on HAC standard errors corrected with Newey-West/Bartlett window and 3 lags.
*, **: Significant at 5% and 10% level, respectively.

inflation tolerance (*i.e.* allowing higher inflation to lower real rates). Of these three possibilities, the first and last ones, which are effectively similar, entail the risk of not improving growth despite delivering lower real interest rates. A low and stable inflation environment, therefore, is more conducive to growth than a lower real interest rate that is attained through higher inflation tolerance.

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Inflation Expectations

III.26 Inflation expectations or perceptions about inflation in the future affect the current behaviour of economic agents. If inflation expectations are unanchored or there is growing uncertainty regarding future price level, individuals may be typically reluctant to spend while corporates may withhold investments. This is detrimental to economic growth in the long run. A central premise of monetary policy is that low and stable inflation and well-anchored inflation expectations contribute to a conducive investment climate and consumer confidence, which is key to sustained growth on a higher trajectory in the medium-term. Hence, measurement of inflation expectations becomes crucial from the monetary policy perspective (Box III.2).

Box III.2
Measurement of Inflation Expectations

Inflation expectations are difficult to measure as they cannot be observed in time. Hence most central banks have in their armoury a range of approaches for gauging inflation expectations, ranging from survey-based methods to extracting them from financial, markets-based indicators.

Among the widely used market-based measures of inflation expectations are 'break-even' expectations based on inflation-indexed bonds or 'links' as they are popularly called. The basic premise is that these bonds provide protection to investors against inflation. Unlike traditional bonds which pay coupon on a fixed principal, inflation-indexed bonds pay coupons and/ or principal that is adjusted for inflation. The difference in the yields on inflation-indexed bonds and those on conventional bonds of same maturity is an indicator of inflation expectations.

In India, capital-indexed bonds of five years maturity were issued in December 1997. However, these bonds provided inflation protection only to the principal by indexing the principal repayments at the time of redemption to inflation. As interest payments were not protected against inflation, there was tepid response to them and no subsequent issuances were made.

The Reserve Bank once again issued inflation-indexed bonds in June 2013. These bonds provide protection to both principal and interest against wholesale price inflation. Inflation protection is offered on the principal by adjusting it by the ratio of the price index on the settlement date to price index on the issue date. Since a real coupon will be paid on the inflation-adjusted principal, interest receipt will also be protected against inflation. Further, the bond will also offer capital protection as on redemption, the higher of the inflation-adjusted principal or face value will be paid to the investor.

The initial tranche of issuances will be for bonds of ten years maturity. The investors have to bid for real yields as against nominal yield in the case of conventional government securities. Based on two issuances, back-of-the envelope calculations suggest that 10-year inflation expectations are close to 5.5 per cent. As and when more issuances take place for various maturities, the bonds will provide more benchmarks.

Another way is to have survey-based measures of inflation expectations of households, corporates and professional forecasters. The survey-based measures of inflation expectations in India are summarised below. All these surveys have a quarterly frequency and form inputs for the quarterly reviews of the monetary policy.

Currently, the survey-based methods have proved useful in guiding the conduct of monetary policy in India. These surveys are being constantly refined in order to boost their usefulness as measures of inflation expectations thereby gleaning vital inputs for monetary policy formulation. Inflation-indexed bonds are just testing the waters, in due course they should emerge as an important toolkit in the measurement of inflation expectations.

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Survey-based Measures of Inflation Expectations in India

Name of the Survey	Commenced in	Coverage	Period for which Expectations Assessed
1	2	3	4
Industrial Outlook Survey	1998	2,000 manufacturing companies approached in each round (response rate is around 70 per cent)	3-month ahead
Inflation Expectations Survey of Households	2005	4,000 urban households across 12 cities (recently increased to 5,000 households across 16 cities)	3-month ahead and 1-year ahead
Survey of Professional Forecasters	2007	About 30 professional forecasters	Quarterly for next 4 quarters; next 5 years and next 10 years
Consumer Confidence Survey	2010	5,400 households across 6 metro cities	1-year ahead

Overall Assessment

III.27 Monetary policy during 2012-13 and 2013-14 so far has sought to maintain a balance between addressing growth risks while not losing sight of the primary objective of managing inflation and anchoring inflation expectations. Low and stable inflation is needed for securing a high and sustainable medium term growth path. Monetary policy tried to use the available space to front-load policy rate reductions and calibrate the easing cycle, being mindful of the macro-economic risks emanating from the twin deficits. With the aim of ensuring efficient transmission of policy actions consistent with the growth-inflation balance, active liquidity management through multiple instruments was also undertaken in 2012-13.

IV CREDIT DELIVERY AND FINANCIAL INCLUSION

Financial inclusion is a flagship programme of the Reserve Bank. Its objective is to bring people, hitherto excluded, under the ambit of formal financial institutions. To push towards universal financial inclusion, the Reserve Bank has taken several initiatives. These include advising banks on devising their Financial Inclusion Plan and constituting a Financial Inclusion Advisory Committee (FIAC). The Committee (Chairman: Dr. K.C. Chakrabarty) is helping banks develop a viable and sustainable model of banking services that focuses on accessible and affordable financial services. To sensitise financially illiterate people, financial literacy programmes have been initiated by the Reserve Bank in collaboration with commercial banks. Opening multiple channels of credit delivery is expected to improve access to institutional credit for excluded people, which, in turn, may help bring them within the ambit of the growth process.

IV.1 The Reserve Bank has taken steps to intensify the credit delivery mechanism and financial inclusion by changing the guidelines for priority sector lending and trying to bring excluded people, both rural and urban, under the coverage of institutional finance. It is now an established fact that without access to formal finance at an affordable cost, inclusive growth is not possible. In order to provide credit to the productive sector, which has the potential for employment generation, the Reserve Bank has taken a host of measures including revising the priority sector lending guidelines, which have been in existence since the 1970s. Apart from providing credit under this scheme, the Reserve Bank has adopted a policy of providing credit through multiple channels, *viz.*, involving self-help groups (SHGs) and micro-finance institutions (MFIs), expanding the scope of the business correspondence (BC) model, simplifying procedures and processes for micro and small enterprises (MSEs) and adopting information and communication technology (ICT) solutions for greater outreach and lower transaction costs.

IV.2 This chapter focuses on two aspects of credit delivery, *viz.*, (i) the progress of credit delivery and financial inclusion, and (ii) the Reserve Bank's policy initiatives in these areas. Credit delivery is discussed under three heads: priority sector lending, the lead bank scheme and rural co-operative credit banks.

CREDIT DELIVERY

Priority Sector Lending

IV.3 The priority sector comprises a vast section of the population in sectors such as agriculture, micro and small enterprises (MSEs), education and housing. As on the last reporting Friday of March 2012 and March 31, 2013, the target set for priority sector advances was 40 per cent of the Adjusted Net Bank Credit (ANBC) or credit equivalent of off-balance sheet exposure (OBE), whichever is higher, as on March 31 of the preceding year for domestic banks and 32 per cent for foreign banks. As on March 31, 2013 domestic banks (both public and private) were below the target of priority sector lending (Table IV.1). During this period, 16 of the 26 public sector banks, 10 of the 20 private sector

Table IV.1: Priority Sector Advances

(Amount in ₹ billion)

As on the last reporting Friday of March	Public Sector Banks	Private Sector Banks	Foreign Banks
1	2	3	4
2012	11,299.93	2,864.19	805.59
	(37.4)	(39.4)	(40.9)
2013*	12,822.12	3,274.06	848.54
	(36.2)	(37.5)	(35.1)

*As on March 31, 2013

Notes: 1. Figures in parentheses are percentages to ANBC or credit equivalent of OBE, whichever is higher, in the respective groups.

2. Data for the year 2013 are provisional.

banks and 2 of the 41 foreign banks could not achieve the target of overall priority sector lending.

IV.4 Scheduled commercial banks, both domestic and foreign, that fail to achieve the priority sector targets/sub-targets are required to deposit the shortfall to the extent of corpus of funds announced by the Government of India in the Rural Infrastructure Development Fund (RIDF) set up with the National Bank for Agriculture and Rural Development (NABARD) and other funds set up with the Small Industries Development Bank of India (SIDBI) and the National Housing Bank (NHB).

IV.5 During the year 2013-14, RIDF XIX, with a corpus of ₹200 billion, has been set up with NABARD. In addition, the MSME (Refinance) Fund with a corpus of ₹100 billion with SIDBI, the Warehouse Infrastructure Fund with a corpus of ₹50 billion, the Short Term Co-operative Rural Credit (STCRC) (Refinance) Fund with a corpus of ₹300 billion, the Short Term RRB Credit Re-Finance Fund with a corpus of ₹200 billion with NABARD and the Rural Housing Fund with a corpus of ₹60 billion with NHB, have been set up during 2013-14. Another fund, *viz.*, the Urban Housing Fund with a corpus of ₹20 billion has been set up this year with NHB.

Flow of credit to the Agriculture Sector

IV.6 A target of ₹5,750 billion for agriculture credit during the year 2012-13 was fixed by the government. Against this target, banks, including co-operative banks and RRBs, disbursed ₹6,073.75 billion[1], which formed 105.6 per cent of the target as at the end of March 2013. For the year 2012-13, the government fixed a target of ₹7,000 billion for disbursement to agriculture by all agencies.

Recovery of Direct Agriculture Advances

IV.7 The data for the past three years (up to June 2012) indicate a marginal decrease in the recovery of direct agriculture advances during 2011-12 (Table IV.2).

Table IV.2: Recovery of Direct Agriculture Advances

(₹ in billion)

Year ended June	Demand	Recovery	Overdue	Per cent of Recovery to Demand
1	2	3	4	5
2010	1,244	922	322	74.09
2011*	1,822	1,383	439	75.90
2012**	1,918	1,429	489	74.51

* Revised/updated figures furnished for 2011.
** Provisional data.

Kisan Credit Card Scheme

IV.8 Based on the recommendations of the Working Group to review the *Kisan* Credit Card scheme (KCC) (Chairman: Shri T.M. Bhasin), the government advised all banks to issue smart cards to all farmers. During 2012-13 (up to December 2012), public and private sector banks issued 1.2 million smart cards as KCCs.

Interest Subvention Scheme

IV.9 The Interest Subvention Scheme, in operation since 2006-07, currently provides interest subvention of 2 per cent for short-term production credit up to ₹3 lakh. With additional interest subvention of 3 per cent for farmers who repay their loans in time, the effective interest rate comes down to 4 per cent per annum. The scheme, hitherto applicable only to public sector banks, regional rural banks and co-operative banks until 2012-13, has been extended to private sector banks for the year 2013-14.

Agricultural Debt Waiver and Debt Relief Scheme, 2008

IV.10 The Government of India had implemented the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS), 2008. Based on the observations in the Performance Audit Report on the scheme carried out by the Comptroller and Auditor General (CAG) and at the instance of the

[1] Provisional

Government of India, banks were advised to undertake a complete verification exercise and take corrective steps.

Flow of credit to Micro, Small and Medium Enterprises

IV.11 Credit to the MSE sector by SCBs registered a growth of 29.8 per cent in 2012-13 over the previous year (Table IV.3).

IV.12 To speed up the process of identifying a unit as sick and detecting incipient sickness and to lay down procedures for banks to adopt before declaring a unit unviable, revised guidelines for the rehabilitation of sick units in the MSE sector were issued on November 1, 2012.

IV.13 In line with the announcement made in the Monetary Policy 2013-14, banks were advised on May 9, 2013 to:

- strengthen their existing systems of monitoring credit growth to the sector and put in place a system-driven comprehensive performance management information system (MIS) at every supervisory level (branch, region, zone, head office), which should be critically evaluated on a regular basis;
- put in place a system of e-tracking of MSE loan applications and monitor the loan application disposal process in banks, giving branch-wise, region-wise, zone-wise and state-wise positions. The position in this regard is to be displayed by banks on their websites; and
- monitor timely rehabilitation of sick MSE units. The progress in rehabilitation of sick MSE units is to be made available on the website of banks.

Table IV.3: Credit to Micro and Small Enterprises by SCBs

As on last Friday of March	Outstanding Credit to MSE sector		MSE credit as per cent of ANBC
	Number of accounts (in million)	Amount outstanding (₹ billion)	
1	2	3	4
2012	9.86 (6.0)	5,276.85 (10.3)	16.5
2013*	11.23 (13.9)	6,847.97 (29.8)	14.7

* : As on March 31, 2013.
Note: 1. Data for 2013 are provisional.
2. Figures in parentheses indicate y-o-y change in per cent.

Lead Bank Scheme

Roadmap for providing banking outlets in villages with population less than 2,000

IV.14 After the completion of the first phase of the roadmap for opening banking outlets in all unbanked villages with a population greater than 2,000, the second phase to provide banking services for unbanked villages with populations less than 2,000 has been rolled out. The objective is to provide a bank account to every household/ person in the country. About 4,90,000 unbanked villages with populations of less than 2,000 have been identified and allotted to various banks for coverage in a time-bound manner. The coverage plan is expected to be completed in the next three years.

IV.15 For financial inclusion to succeed, it is important that quality services are provided through the new ICT-based BC outlets. Therefore, an intermediary low-cost brick-and-mortar structure is required between the base branches and BC locations. This will provide timely support to BC outlets, ensure close supervision of BC operations and give them credibility and increase people's confidence in BC services. Hence, banks have been advised to plan for an increase in the proportion of branches that cover unbanked villages.

Direct Benefit Transfer

IV.16 The Reserve Bank has played a proactive role in the rollout of the Direct Benefit Transfer (DBT) scheme. State-Level Bankers' Committee (SLBC) Convenor banks were advised to co-ordinate with the authorities to implement Aadhaar-enabled payments. Banks were advised to include the status of the rollout of Aadhaar-enabled payments as a regular agenda item for discussion in SLBC meetings as part of Financial Inclusion/ Electronic Benefit Transfer (EBT) implementation. The DBT

was rolled out in 43 districts in the first phase from January 1, 2013, and will be extended to 78 districts from July 1, 2013. Eventually, all districts in the country will be covered under the scheme. The recent introduction of DBT that validates the identity of the beneficiary through Aadhaar will facilitate the delivery of social welfare benefits by directly crediting beneficiaries' bank accounts, ensuring that there are minimum leakages and providing timely delivery of benefits at the doorstep of beneficiaries. To ensure that the DBT becomes an instrument of social change, careful planning and groundwork by all the stakeholders is required. As a prerequisite to the implementation of the DBT, every eligible individual should have a bank account. Further, to make disbursements at the doorstep through the ICT-based BC model, banking outlets, either through brick & mortar branches or the branchless mode, are needed in all villages across the country.

IV.17 After the workshop on Direct Benefit Transfer (DBT) held at Mysore on June 28, 2013 to review the progress of Aadhaar-based DBT, banks are further advised to:

- take steps to complete account opening and seeding Aadhaar number in all DBT districts.
- closely monitor the progress in seeding Aadhaar numbers in bank accounts of beneficiaries.
- put in place a system to provide acknowledgement to the beneficiary of the seeding request and also send confirmation of seeding the Aadhaar number.
- form a DBT Implementation Co-ordination Committee, along with concerned state government department at the district level and review the seeding of Aadhaar numbers in bank accounts.
- ensure that district- and village-wise names and other details of BCs/other arrangements made by the bank are displayed on the SLBC website.
- set up a Complaint Grievance Redressal mechanism in each bank and nominate a Complaint Redressal Officer in each district, to redress grievances related to seeding of Aadhaar numbers in bank accounts.`

SLBC – Annual Credit Plan

IV.18 The priority sector guidelines were revised in 2012 and the Statements on the revised reporting system for priority sector lending were made effective from December 2012 for monthly and quarterly statements, and from March 2013 for the yearly statement. To align the Annual Credit Plan (ACP) with the broad classification of priority sectors and since data on the ACP is an important element to review the flow of credit in the states and districts, the ACP Statements have been revised. The ACPs will be prepared with sub-sectors of Agriculture & allied activities, Micro and Small Enterprises, Education, Housing and others under the priority sector and Medium Industries, Large industries, Education, Housing and others in the non-priority sectors. Accordingly, the Statement for the ACP target would be LBS-MIS–I, the Statement for disbursement and outstanding will be LBS-MIS-II and ACP achievement *vis-à-vis* ACP target will be LBS-MIS-III. Banks are advised to review the progress as per these statements at all DCC and SLBC meetings.

Lead Bank Responsibility for districts

IV.19 As on end-March 2013, 644 districts in the country have been assigned lead bank responsibility compared with 630 districts as on end-March 2012. In the nine new districts formed in Chhattisgarh, the State Bank of India, Dena Bank and the Central Bank of India were assigned lead bank responsibility. The State Bank of India was assigned lead bank responsibility in one new district in Arunachal Pradesh, while the United Bank of India was assigned responsibility for four new districts in Tripura.

IV.20 At present, the Lead Bank Scheme (LBS) is applicable to all districts in the country, except districts in metropolitan areas. The Monetary Policy

Statement for 2013-14 announced that the challenge of financial exclusion is also widespread in metropolitan areas, especially among the disadvantaged and low-income groups. To facilitate doorstep banking to the excluded segment of the urban poor and provide an institutional mechanism for co-ordination between the government and banks, it has been decided to bring all districts in metropolitan areas under the LBS. Accordingly, lead bank responsibility has been assigned to 16 districts in metropolitan areas, thus bringing the entire country under the fold of the lead bank scheme and covering a total of 659 districts under the lead bank scheme.

Calendar of DCC/DLRC meetings

IV.21 A review of District Consultative Committee (DCC)/ District-Level Review Committee (DLRC) meetings found that members face difficulties attending these meetings because of late receipt/ non-receipt of intimation about the meetings, clashes with other events, *etc.* Therefore, along the lines of the SLBC, which prepares a calendar of its quarterly meetings at the beginning of the year, lead banks were advised in January 2013 to prepare similar calendars for DCC and DLRC meetings in consultation with the Chairperson of the meetings, public representatives (in the case of the DLRC) and the Lead District Officer of the Reserve Bank.

Rural Co-operatives

Streamlining Short-Term Co-operative Credit Structure

IV.22 After recapitalisation of the three-tier short-term co-operative credit structure (STCCS), 41 District Central Co-operative Banks (DCCBs) that had a high level of financial impairment as of end-March 2012 were unable to meet the licensing criteria. To examine structural constraints and to strengthen the rural co-operative credit architecture with institutions and instruments to meet credit needs, a Working Group to review the Short-Term Co-operative Credit Structure (STCCS) was proposed. Accordingly, the Reserve Bank constituted an Expert Committee in July 2012 (Box IV.1).

FINANCIAL INCLUSION

Financial Inclusion Plans of banks for three years

IV.23 In January 2010, the Reserve Bank advised all public and private sector banks to submit a Board-approved three-year Financial Inclusion Plan (FIP) starting in April 2010. They were advised to devise FIPs congruent with their business strategy and comparative advantage and to make FIPs an

Box IV.1
Recommendations of the Expert Committee to examine the Three-Tier Short-Term Rural Co-operative Credit Structure (STCCS)

As per the announcement made in the Monetary Policy Statement for 2012-13, an Expert Committee was constituted (Chairman: Dr. Prakash Bakshi) to review the Short Term Co-operative Credit Structure (STCCS) with a view to reducing the cost of credit and to examine alternatives, including the feasibility of setting up a two-tier STCCS as against the existing three-tier structure. The Committee submitted its report on January 15, 2013.

The major recommendations of the Committee are as under:

i) STCCS, which was primarily constituted for the provision of agricultural credit, must provide at least 15 per cent of the agriculture credit requirements in its operational area, gradually increasing it to at least 30 per cent. CCBs should strive to provide at least 70 per cent of their loan portfolio for agriculture. If an StCB or CCB consistently underperforms and provides less than 15 per cent share of agricultural credit in the operational area, that bank should be declared and treated as an urban co-operative bank.

ii) Deposits of members of PACS are not covered by the DICGC and PACS are not in a position to issue Kisan Credit Cards (KCC) that are transactable/work on ATMs and POS devices since they are not part of the banking system. CCBs should, therefore, provide these services directly by using PACS as their business correspondents (BCs). All depositors and borrowers of PACS, therefore,

(Contd....)

would become normal shareholding members of the CCB with voting rights for all "active" members.

iii) CCBs keep their deposits with StCBs in the form of term deposits for maintenance of their CRR and SLR requirements. However, StCBs lend larger amounts to the same CCBs and also invest in loans, which has generally resulted in higher NPAs. Hence, ways need to be found to keep these investments safe. As a possible measure, StCBs and CCBs may be given a higher share in the food consortium credit.

iv) Of the 370 CCBs in the country, 238 already have a CRAR of 7 per cent or more, and 2/3rd of them would be able to meet the additional capital requirements and sustain CRAR of at least 7 per cent by 2014-15 and of 9 per cent by 2016-17. 209 CCBs will have to mobilise about Rs. 6500 crore by 2016-17 to achieve CRAR of 9 per cent. The Committee has suggested various options for raising additional capital to meet the increased CRAR requirement.

v) Some StCBs and CCBs do not have adequate capital to meet even the relaxed licensing norm of 4 per cent CRAR. March 31, 2013 may be set as the deadline for these banks to mobilise the required capital, either internally or from an external source, so as to achieve 4 per cent CRAR, failing which the Reserve Bank should take necessary regulatory action.

vi) About 58 banks would generally not be able to mobilise the required capital, or their business sizes are so small that they would not be sustainable in the long run and would have to be consolidated with other CCBs. A Working Group may be constituted in each State to work out the details of possible consolidations in dialogue with concerned stakeholders and prepare an action plan.

vii) Most CCBs and StCBs will also have to take concrete steps to improve their internal systems, human resources, and technology adoption. The Committee has also recommended various steps to improve the governance and management in StCBs and CCBs along the lines of the recommendations of the Vaidyanathan Task Force.

viii) The Reserve Bank to modify the banking licence of any CCB to include additional operational areas from which a PACS could work as the BC of a CCB.

ix) 30 September 2013 to be set as the deadline for all StCBs and CCBs to be fully operational on CBS and provide RTGS, NEFT, ATM and POS device-based services.

x) StCBs and CCBs to be fully included in the financial inclusion and EBT drive. Deposits of governments and government agencies to be made in StCBs and CCBs that have achieved 7 per cent CRAR and are on CBS.

xi) CCBs and StCBs to be covered by the Banking Ombudsman or a similar mechanism that may be developed by the Reserve Bank with NABARD.

xii) A Working Group to be set up to make recommendations on the human resources requirements following the transition of StCBs and CCBs to CBS and other ICT platforms.

integral part of their corporate plans. These plans include: self-set targets for rural brick & mortar branches opened; BCs deployed; coverage of unbanked villages with population above and below 2,000 through branches/ BCs/ other modes; no-frills accounts opened, including through BC-ICT; Kisan Credit Cards (KCC) and General Credit Cards (GCC) issued; and other products designed for financially excluded segments. Banks were advised to integrate the Board-approved FIPs with their business plans and to include the criteria on financial inclusion as a parameter in the performance evaluation of their staff. The implementation of these plans was closely monitored by the Reserve Bank on a monthly basis through a quantitative reporting format. The qualitative aspects of the FIPs were monitored through a qualitative report submitted by banks every quarter. Recently, the Reserve Bank has issued guidelines on basic savings bank deposit accounts for financial inclusion (Box IV.2).

IV.24 A snapshot of the progress made by banks under the 3-year FIP (April 2010-March 2013) on key parameters is given below:

i) Banking outlets in villages have increased to nearly 2,68,000 from 67,694 outlets in March 2010.

ii) About 7,400 rural branches have been opened during this 3-year period compared with a reduction of about 1300 rural branches during the last two decades.

iii) Nearly 109 million Basic Savings Bank Deposit Accounts (BSBDAs) have been added, taking the total number of BSBDA to 182 million. The

Box IV.2
Guidelines on Basic Savings Bank Deposit Accounts for Financial Inclusion

Banks have been advised to offer a Basic Savings Bank Deposit Account (BSBDA) that will offer the following minimum common facilities to all their customers:

i) The account should be considered a normal banking service available to all.

ii) This account shall not require any minimum balance.

iii) The account will provide an ATM card or ATM-cum-debit card.

iv) Services will include deposit and withdrawal of cash at bank branches as well as ATMs; receipt/ credit of money through electronic payment channels or by means of deposit/ collection of cheques drawn by central/ state government agencies and departments; and

v) While there will be no limit on the number of deposits that can be made in a month, account holders will be allowed a maximum of four withdrawals in a month, including ATM withdrawals.

These facilities will be provided without any charges. Also, no charge will be levied for non-operation/ activation of an inoperative BSBDA.

Banks would be free to evolve other requirements, including the pricing structure for additional value-added services beyond the stipulated basic minimum services on a reasonable and transparent basis that is applied in a non-discriminatory manner.

The BSBDA would be subject to Reserve Bank instructions on Know Your Customer (KYC)/ Anti-Money Laundering (AML) for opening bank accounts, issued from time to time. If the account is opened on the basis of simplified KYC norms, it would be treated as a 'Small Account' and would be subject to the conditions for such accounts.

If a customer has other savings bank deposit accounts in the bank, he/ she will be required to close it within 30 days of opening a BSBDA.

Existing 'no-frills' accounts should be converted to BSBDA.

share of ICT-based accounts has increased substantially. The percentage of ICT accounts to total BSBDAs increased from 25 per cent in March 2010 to 45 per cent in March 2013.

iv) With the addition of nearly 9.48 million farm sector households during this period, 33.8 million households have been provided with small entrepreneurial credit as at the end of March 2013.

v) With the addition of nearly 2.24 million non-farm sector households during this period, 3.6 million households have been provided with small entrepreneurial credit as at the end of March 2013.

IV.25 About 490 million transactions have been carried out in ICT-based accounts through BCs during the three-year period. The number of transactions through ICT-based BC outlets, though increasing, is still very low when compared with the manifold increase in the number of banking outlets and the number of accounts. The focus on monitoring is now more on the usage of these accounts, which is to be monitored through the number and value of transactions in BSBDAs and on the credit disbursed through ICT-based BC outlets.

Financial Inclusion Plan 2013-16

IV.26 The first three-year Financial Inclusion Plan of banks for the period 2010-2013 has ended (Table IV.4). Although there has been reasonable progress in the penetration of banking services and opening of basic bank accounts, the number of transactions through ICT-based BC outlets is still very low. To continue the process of ensuring access to banking services to the excluded, banks have been advised to draw up a 3-year FIP for the period 2013-16. Banks have now been advised that their FIPs should be disaggregated to the branch level. The disaggregation of the plans is being done to ensure the involvement of all stakeholders in the financial inclusion efforts.

High-Level Financial Inclusion Advisory Committee

IV.27 Given the high priority of the agenda for financial inclusion, moving towards universal

Table IV.4: Financial Inclusion Plan - Summary progress of all banks including RRBs
(Status as on March 31, 2013)

Particulars	Year ended Mar 2010	Year ended Mar 2011	Year ended Mar 2012	Year ended March 2013	Progress April 2010 - March 2013
1	2	3	4	5	6
Banking Outlets in Villages - Branches	33,378	34,811	37,471	40,837	7,459
Banking Outlets in Villages - BCs	34,174	80,802	1,41,136	2,21,341	1,87,167
Banking Outlets in Villages - Other Modes	142	595	3,146	6,276	6,134
Banking Outlets in Villages -TOTAL	67,694	1,16,208	1,81,753	2,68,454	2,00,760
Urban Locations covered through BCs	447	3,771	5,891	27,143	26,696
Basic Savings Bank Deposit A/c through branches (No. in millions)	60.19	73.13	81.20	100.80	40.61
Basic Savings Bank Deposit A/c through branches (Amt. in ₹ billions)	44.33	57.89	109.87	164.69	120.36
Basic Savings Bank Deposit A/c through BCs (No. in millions)	13.27	31.63	57.30	81.27	68.00
Basic Savings Bank Deposit A/c through BCs (Amt. in ₹ billions)	10.69	18.23	10.54	18.22	7.53
BSBDA Total (in millions)	73.45	104.76	138.50	182.06	108.61
BSBDA Total (Amt. in ₹ billions)	55.02	76.12	120.41	182.92	127.90
OD facility availed in Basic Savings Bank Deposit A/c (No. in millions)	0.18	0.61	2.71	3.95	3.77
OD facility availed in Basic Savings Bank Deposit A/c (Amt. in ₹ billions)	0.10	0.26	1.08	1.55	1.45
KCCs - (No. in millions)	24.31	27.11	30.24	33.79	9.48
KCCs - (Amt. in ₹ billions)	1,240.07	1,600.05	2,068.39	2,622.98	1,382.91
GCCs - (No. in millions)	1.39	1.70	2.11	3.63	2.24
GCCs - (Amt. in ₹ billions)	35.11	35.07	41.84	76.34	41.23
ICT A/Cs-BC- Transaction - No. in millions	26.52	84.16	155.87	250.46	490.49
ICT A/Cs-BC- Transactions - Amt. in ₹ billions	6.92	58.00	97.09	233.88	388.97

financial inclusion has been a national commitment as well as a policy priority for the Reserve Bank. In order to spearhead efforts towards greater financial inclusion, the Reserve Bank has constituted a Financial Inclusion Advisory Committee (FIAC) chaired by a Deputy Governor. The FIAC has a few Directors from the Central Board of the Reserve Bank, experts drawn from NGOs and civil society representatives as members. The expertise and experience of the members will be leveraged: to develop viable and sustainable banking service delivery models that provide accessible and affordable financial services; to develop products and processes for rural as well as urban consumers who are currently outside the banking network; and to create an appropriate regulatory framework to ensure that financial inclusion and financial stability move together.

FINANCIAL LITERACY ACTIVITIES

Financial Literacy initiatives

IV.28 Building financial capability through financial literacy is a key component of financial inclusion. It means providing financial education so that individuals can identify and use appropriate financial products and services in order to build and preserve their assets over time. It should make people better informed, better educated and more confident, able to take greater responsibility for their financial affairs and able to play a more active role in the market for financial services.

Financial Literacy Centres

IV.29 Consequent to the revision in the guidelines on June 6, 2012 for setting up Financial Literacy Centres (FLCs), 718 FLCs have been set up as at the end of March 2013. A total of 2.2 million people

have been educated through indoor education to walk-in persons and through outdoor activities such as awareness camps/*choupals*, *ghostis*, seminars and lectures in a one-year period, from April 2012 to March 2013.

IV.30 The Reserve Bank of India has adopted a planned, structured and integrated approach to achieving financial inclusion through financial literacy. It has advised all FLCs and rural branches of scheduled commercial banks to conduct a minimum of one outdoor financial literacy camp every month. To link the financially excluded segment with the banking system, the Reserve Bank has designed a Model Architecture for conducting the literacy camps, which details the operational modalities so that it culminates in effective financial access for excluded people. To ensure consistency in the messages that reach the target audience during these camps, the Reserve Bank of India has prepared comprehensive financial literacy material that consists of a Financial Literacy Guide,[2] a Financial Diary[3] and a set of 16 posters.[4]

National Strategy for Financial Education (NSFE)

IV.31 The National Strategy for Financial Education (NSFE) has been prepared under the aegis of a Technical Group of the FSDC. The Strategy envisages ways of creating awareness and educating people on access to financial services; informing them about the availability of various types of products and their features; changing attitudes so that knowledge is translated into responsible financial behaviour; and making consumers of financial services understand their rights and obligations.

IV.32 The NSFE will be implemented in a time-frame of five years and aims to establish initial contact with 500 million adults and educate them on key savings, protection and investment-related products so that they are empowered to take prudent financial decisions. It also seeks to create awareness about consumer protection and the grievance redressal mechanisms available in the country. These measures will be undertaken through various stakeholders including NGOs and civil society, using all available channels of mass communication. As a first step towards increasing financial education, the NSFE envisages conducting a National Survey on Financial Education to provide a holistic assessment of the need for financial education in the country.

IV.33 Under the NSFE, a National Centre for Financial Education (NCFE) is proposed to be set up as an institutional mechanism to co-ordinate the efforts of all financial sector regulators. The NCFE will launch a common website on financial education for the country.

IV.34 On the whole, intensive efforts are being made and a gamut of measures have been taken to push the financial inclusion agenda. However, the task of universal financial inclusion is colossal. There is a need to intensify efforts in this direction. Also, banks need to develop a more sensitive approach in delivering viable financial inclusion products that may be demanded by the excluded population. It is not enough for the banking system to deliver finance in support of growth. Access to finance for those who are getting crowded out of the credit markets is an equally important element. Therefore, the Reserve Bank has reinforced its efforts to improve financial access, especially for small businesses and individual households.

[2] The *Financial Literacy Guide* explains basic concepts about managing money, the importance of savings, advantages of saving with banks, facilities provided by banks and the benefits of borrowing from banks in a clear manner. This guide is a ready reckoner for trainers involved in financial literacy and financial inclusion.

[3] The Financial Diary has been prepared to enable the target audience to keep a record of their income and expenses, leading to better financial planning and understanding of how they spend.

[4] The set of 16 posters has simple, appealing slogans and visuals for prominent display in camps to communicate messages of money management, savings, borrowings and basic banking products.

V DEVELOPMENT AND REGULATION OF FINANCIAL MARKETS

The Reserve Bank pursued its efforts to impart liquidity to the G-sec market, while trying to diversify the investor base. Measures were also taken to develop the corporate bond market with a view to encouraging wider participation and to enhance liquidity in the repo market. The fluctuations in the foreign exchange market prompted the Reserve Bank to take several measures to contain volatility and encourage stable foreign inflows.

V.1 Keeping in view the rapidly evolving global developments, the Reserve Bank has focussed on ensuring the development of financial markets. Well-developed financial markets are not only important for the critical role they play in the transmission of monetary policy, but they also facilitate price discovery. To ensure that markets function in a non-disruptive manner while ensuring that systemic risks are contained, the Reserve Bank continued to play a key role in nurturing their growth and development.

GOVERNMENT SECURITIES MARKET

V.2 Measures were taken to develop and regulate the activities in the financial market, particularly the Government securities market and the corporate bond market. There has been a concerted effort on the part of the Reserve Bank in furthering the liquidity in Government securities market and related interest rate derivatives. At the same time, in view of the growing needs of the infrastructure sector and also of the overall development of financial markets, the development of the corporate bond market has been high on the agenda for Government of India and the regulators. Several measures have been taken by Government of India, RBI and SEBI to aid growth of corporate bond market in India. Some important measures to develop financial markets, *inter alia,* include (i) implementation of some of the recommendations of the Working Group on Enhancing Liquidity in Government Securities Markets, (ii) phasing out Tier-III capital for PDs, (iii) review of Commercial Paper (CP) and repo guidelines, (iv) ready forward contracts in corporate debt securities - permitting Scheduled Urban Cooperative Banks, (v) relaxation of investment norms to encourage participation of standalone PDs; and (vi) permission to standalone PDs for membership in SEBI-approved Stock Exchanges for trading in corporate bonds. (vii) review of Credit Default Swap (CDS) and repo in corporate bonds guidelines and (viii) standardisation of IRS contracts.

Report of the Working Group on Enhancing Liquidity in the Government Securities and Interest Rate Derivatives Markets

V.3 As announced in the Second Quarter Review of Monetary Policy of 2011-12, a Working Group comprising of market experts, officials from the Reserve Bank and other stakeholders was constituted (Chairman: Shri R. Gandhi). Based on its major recommendations, the following has been implemented:

- Reduction of the auction bid timing to 90 minutes (10:30 AM to 12:00 PM) from 120 minutes (10:30 AM to 12:30 PM);
- Conduct of the G-sec auction as a mix of both Uniform Price and Multiple Price formats;
- Change of the settlement cycle of the primary auction for T-bills from T+2 to T+1 basis;
- Re-issuance of State Development Loans by some of the State Governments;
- Migration of the secondary market reporting of OTC trades in G-Sec (outright and repo)

from PDO-NDS to NDS-OM and CROMS (Clearcorp Repo Order Matching System) respectively;

- Standardisation of OIS (Overnight Index Swap) MIBOR (Mumbai Inter Bank Offer Rate) benchmark in the IRS (Interest Rate Swap) market;
- Announcement of buy back/switching of Government Securities for ₹500 billion in Budget 2013-14 (Box V.1);
- Gradual upward revision of investment limit for FIIs in G-Sec to US$ 30 billion;
- Launch of Inflation-Indexed Bonds;
- Reduction of HTM portfolio progressively by at least 50 bps every quarter, beginning with the quarter ending June 2013, till it reaches a level of 23% of DTL.

Money Market

Revised CP Guidelines

V.4 Existing guidelines on issuance of CP were reviewed. The major changes incorporated have been the following:

- FIIs have been directed to adherence to the various provisions in force for investment in the Indian market.
- Call/put options are not permitted in CPs.
- Eligible participants shall obtain credit rating for issuance of CPs from any one of the SEBI-registered Credit Rating Agencies.
- The minimum credit rating shall be A3 (investment grade).
- The OTC trades in CP shall be settled through the NSCCL (National Securities Clearing Corporation Limited)/ ICCL (Indian Clearing Corporation Limited)/ MCX-SX-CCL (MCX-SX Clearing Corporation Limited).
- The settlement cycle for OTC trades in CP shall be either T+0 or T+1 basis.
- Buyback of CPs by issuers shall be through the secondary market and at prevailing market price.

Box V.1
Buyback/ Switches for Liability Management

Buyback/switches of Government Securities (G-Sec) are used for effective liability management by debt managers in several countries. Besides liability management, buyback/ switch operations provide flexibility for the debt management strategy, enabling it to pursue active and passive consolidation of G-Secs, and issue of G-Sec from annual maturity buckets without upper limit constraint. The active consolidation takes place when illiquid securities with small outstanding amount are swapped with one or more liquid securities, while passive consolidation occurs by reissuing securities. Switches facilitate passive consolidation by enabling on-the-run securities to be reissued with lesser upper limit constraint as redemption of such securities could be managed through swapping a part of their outstanding amount to another security of different maturity.

Another way of making buybacks cash-neutral is by undertaking such transactions intra-year (or even, inter-year), *i.e.*, buying back outstanding G-secs which are due for redemption in the same year. If buybacks of G-Secs are not backed by additional market borrowing of equivalent amount during the year, such transactions would involve net cash outgo. Buybacks with net cash outgo could be possible if either the government is running fiscal surplus or has built cash balances for such transaction. On the other hand, switches of G-secs by nature are always cash neutral as G-Sec of particular maturity is swapped with G-Sec of another maturity simultaneously.

The Reserve Bank has been pursuing a policy of passive consolidation through reissuance/ reopening of existing securities since April 1999 in order to benchmark the securities across the yield curve and improve fungibility and liquidity of securities. In 2003, a debt buyback scheme was introduced on a purely voluntary basis for banks that were in need of liquidity.

The Union Budget 2013-14 has announced buyback/ switches of G-Sec for an amount up to ₹500 billion. The objective of the proposed buyback/ switches is primarily to reduce the redemption pressure from the maturity buckets from 2014-15 to 2018-19.

- The IPAs (Issuing and Paying Agents) shall report the instances of buyback of CPs to the Reserve Bank.

Review of repo guidelines

V.5 In order to further develop the repo in corporate bond market, repo in corporate bond has now been permitted on CP, CD and NCD of less than one year of original maturity. The minimum haircut requirement in corporate debt repo has also been reduced from existing 10%/12%/15% to 7.5%/8.5%/10% for AAA/AA+/AA rated corporate bonds.

Corporate Bond Market

Ready Forward Contracts in Corporate Debt Securities- Permitting Scheduled Urban Cooperative Banks

V.6 With a view to encouraging wider participation and to enhance liquidity in repo in corporate bond market, scheduled UCBs have been permitted to participate from October 2012 in the repo market subject to adherence to conditions prescribed by the relevant department of the Reserve Bank of India.

Relaxation of investment norms to encourage participation of Standalone PDs in corporate bonds

V.7 With a view to enhancing the role of standalone PDs in corporate debt market, the following measures have been taken: (i) allow PDs a sub-limit of 50 per cent of net owned funds (NOF) for investment in corporate bonds within the overall permitted average fortnightly limit of 225 per cent of NOF as at the end of March of the preceding financial year for call /notice money market borrowing; (ii) permit PDs to invest in Tier-II bonds issued by other PDs, banks and financial institutions to the extent of 10 per cent of the investing PD's total capital funds; and (iii) permit PDs to borrow to the extent of 150 per cent of NOF as at the end of March of the preceding financial year through inter-corporate deposits.

Permission to standalone PDs for membership in SEBI approved Stock Exchanges for trading in corporate bonds

V.8 With a view to further developing the debt market in India, SCBs and standalone PDs have been allowed to become limited members of SEBI approved stock exchanges for the purpose of undertaking proprietary transactions in corporate bonds.

FOREIGN EXCHANGE MARKET

V.9 Given the volatility in the forex market, the Reserve Bank focused its attention on stemming the volatility. The policy initiatives were directed at rationalising and simplifying procedures and providing incentives to encourage foreign inflows, besides maintaining sustainability of the liberalisation process.

Foreign Investment

Foreign Direct Investment (FDI)

V.10 In order to further liberalise the regulatory framework to encourage foreign investors, the Reserve Bank took the following steps during the year 2012-13.

V.11 NBFCs (i) having foreign investment more than 75 per cent and up to 100 per cent, and (ii) with a minimum capitalisation of US$ 50 million, were allowed to set up step-down subsidiaries for specific NBFC activities, without any restriction on the number of operating subsidiaries and without bringing in additional capital. The regulation would enable even the NBFC with foreign investment of less than 100 per cent but more than 75 per cent to set up step-down subsidiaries without bringing in additional funds once minimum capitalisation requirements are met.

V.12 To further liberalise the FDI policy, 100 per cent FDI in single-brand retail, 51 per cent FDI in multi-brand retail and 49 per cent FDI in power exchanges have been permitted under the

government route. Further, foreign airlines have been allowed to invest in the capital of Indian companies and operate scheduled and non-scheduled air transport services up to the limit of 49 per cent of their paid-up capital under the government route.

V.13 In cases where non-residents (including NRIs) invest in an Indian company in compliance with the provisions of the Companies Act, 1956 by way of subscription to Memorandum of Association, the investments may be made at face value subject to their eligibility to invest under the FDI scheme. The relaxation of pricing norms would facilitate the setting up of a company as required by law.

V.14 A person who is a citizen of Pakistan or an entity incorporated in Pakistan has been permitted, with the prior approval of the Foreign Investment Promotion Board, to purchase shares and convertible debentures of an Indian company under Foreign Direct Investment (FDI) Scheme provided the Indian company receiving such FDI is not engaged or shall not engage in sectors/activities pertaining to defence, space and atomic energy and sectors/activities prohibited for foreign investment.

Foreign Portfolio Investment

V.15 The existing debt limits on investments by FIIs and long-term investors in government securities and corporate debt have been merged into two categories, *viz*., (i) government debt limit (government securities of US$ 25 billion) and (ii) corporate debt limit (corporate debt securities of US$ 51 billion). The requirements of minimum lock-in period and residual maturity have been removed. The limit for foreign investment in Government dated securities has been enhanced by US$ 5 billion to US$ 30 billion. The enhanced limit of US$ 5 billion will be available only for investment in Government dated securities by insurance/ Endowment Funds, Foreign Central Banks.

V.16 FIIs have been permitted to use their investments in corporate bonds as collateral in the cash segment and use government securities and corporate bonds as collateral in the F&O segment. Thus, FIIs are eligible to offer government securities/ corporate bonds, cash and foreign sovereign securities with AAA ratings in both the cash and F&O segments.

V.17 FIIs have been allowed to approach any AD Category I bank to hedge their currency risk on the market value of the entire investment in equity and/ or debt in India as on a particular date, subject to terms and conditions. An FII intending to hedge the currency risk of one of its sub-account holders needs to obtain a mandate from the sub-account holder for this purpose. AD banks have been advised to verify the same along with the eligibility of the contract *vis-à-vis* the market value of the securities held in the concerned sub-account. Further, if an FII wishes to enter into a foreign exchange hedge contract for the exposure relating to that part of the securities held by it against which it has issued any PN/ODI, it must also have a mandate from the PN/ODI holder for the purpose.

V.18 It has been decided to allow limited two-way fungibility for IDRs, which is similar to the limited two-way fungibility facility available for ADRs/ GDRs.

Report of the Committee to Review the Facilities for Individuals under the Foreign Exchange Management Act (FEMA), 1999

V.19 Pursuant to the announcement in the Annual Monetary Policy Statement for 2011-12 and recognising the need to facilitate genuine foreign exchange transactions by individuals—Residents/ Non-Resident Indians (NRIs) and Persons of Indian Origin (PIOs)—under the current regulatory framework of FEMA, the Reserve Bank constituted a Committee (Chairperson: Smt. K.J. Udeshi). The Committee comprised external experts, representatives from select Authorised Dealer (AD) banks, the Foreign Exchange Dealers Association of India and the Indian Banks' Association.

V.20 The Committee made 31 recommendations and the Reserve Bank has implemented 20 of them; eight recommendations have not been implemented so far, and the remaining are being implemented in consultation with the government.

V.21 Banks can now grant fund and non-fund-based facilities (Rupee loans in India and foreign currency loans in India/ outside India) against NR(E)RA and FCNR(B) deposits to depositors or to third parties without any ceiling, subject to the usual margin requirements.

Opening of NRO accounts by individuals of Bangladeshi nationality

V.22 Authorised banks have been permitted to open NRO accounts for individual/s of Bangladeshi nationality without the approval of the Reserve Bank of India, subject to certain conditions.

Rationalisation of guidelines on position limits of ADs

Guidelines on NOOPL and AGL

V.23 According to the new guidelines, the Net Overnight Open Position Limit (NOOPL) may be fixed by the bank's Board and communicated to the Reserve Bank immediately. However, such limits should not exceed 25 per cent of the total capital (Tier I and Tier II capital) of the bank.

V.24 Further, for the present, it has been decided to withdraw the restrictions placed on open position limit of the Authorised Dealers involving Rupee as one of the currencies, (on both overnight and intra-day open positions).

V.25 The following instructions, however, continue to be effective. The positions in the exchanges (both futures and options) cannot be netted/ offset by undertaking positions in the OTC market and *vice versa*. The positions initiated in the exchanges shall be liquidated/ closed in the exchanges only.

V.26 The position limit for the trading member AD Category I bank in the exchanges for trading currency futures and options shall be US$100 million or 15 per cent of the outstanding open interest, whichever is lower. Further, AD Category – I banks have now been advised not to carry out any proprietary trading in the currency futures / exchange traded currency options markets. Transaction by the AD Category – I banks in the Currency Futures markets will have to be necessarily on behalf of their clients.

Off-shore exposures

V.27 For banks with overseas presence, the off-shore exposures should be calculated on a standalone basis as per the above method and should not be netted with onshore exposures. The aggregate limit (on-shore plus off-shore) may be termed the Net Overnight Open Position (NOOP) and will be subject to capital charge. The accumulated surplus of foreign branches need not be reckoned for calculation of the open position.

Aggregate Gap Limit (AGL)

V.28 As per the new guidelines, the AGL may be fixed by the Boards of the respective banks and communicated to the Reserve Bank immediately. However, such limits should not exceed 6 times the total capital (Tier I and Tier II capital) of the bank.

V.29 Authorised Dealers that have instituted superior measures such as tenor-wise PV01 limits and VaR to aggregate foreign exchange gap risks are allowed to fix their own PV01 and VaR limits based on their capital, risk-bearing capacity, *etc.* in place of the AGL and communicate the same to the Reserve Bank. The procedure and calculation of the limit should be clearly documented as an internal policy and strictly adhered to.

V.30 Cost-reduction structures have been allowed for hedging the exchange rate risk arising out of foreign currency loans availed of domestically against FCNR (B) deposits.

V.31 The facility of cancellation and rebooking is not permitted for forward contracts, involving Rupee

as one of the currencies, booked by residents to hedge current and capital account transactions.

V.32 However, if forward contract(s) booked by residents to hedge capital account transactions for tenors greater than one year are cancelled with one AD Category I bank, they can be rebooked with another AD Category I bank, subject to the following conditions:

i) the switch is warranted by competitive rates on offer, termination of the banking relationship with the AD Category I bank with whom the contract was originally booked;

ii) the cancellation and rebooking are done simultaneously on the maturity date of the contract; and

iii) the responsibility for ensuring that the original contract has been cancelled rests with the AD Category I bank that undertakes rebooking of the contract.

V.33 On review, it was decided to extend the flexibility to switch AD Category banks in regard of rollover of contracts to all hedge transactions undertaken by residents.

Money Transfer Service Scheme (MTSS) - Revised Guidelines

V.34 The Reserve Bank has recently issued revised MTSS guidelines including the necessary KYC/ AML/ CFT measures, which will help new Indian agents to operate under MTSS. This will ensure increased competition with the objective of bringing down both the cost of remittance and time.

Exchange Earners Foreign Currency (EEFC) accounts

V.35 EEFC account holders have been permitted to retain 100 per cent of their forex earnings subject to the condition that the sum total of accruals in the account during a calendar month are converted into Rupees on or before the last day of the succeeding calendar month after adjusting for utilisation of the balances for approved purposes or forward commitments.

Technical Committee on Services/ Facilities for the Exporters

V.36 Given the importance of export sector, especially in the current scenario, the Reserve Bank constituted a Technical Committee on Services/ Facilities for the Exporters (Chairman: Shri G. Padmanabhan). The terms of reference of the Committee included, among others, reviewing the existing policies/procedures relating to bank finance for exports and suggest measures to ensure timely, adequate and hassle-free flow of credit towards working capital, capital expenditure and other requirements of the sector, and, in particular SME units. In addition, measures to simplify and rationalise the existing procedures including the documentation, matters relating to transaction cost/ transition period, to examine specifically the special needs of exporting units located in SEZ were also part of the Committee's terms of reference.

V.37 In its Report submitted in April 2013, the Committee, among others, made recommendations relating to (i) reviewing of Gold Card Scheme for extension of export credit to exporters, (ii) inclusion of export finance under the priority sector advances for scheduled commercial banks, as appropriate; (iii) raising of foreign currency loans on pool basis for extension of export credit to exporters; (iv) allowing factoring on non-recourse basis; (v) financing to units in Domestic Tariff Area (DTA) / Special Economic Zone (SEZ); (vi) denomination of export credit limit in foreign currency; and, (vii) simplification of hedging procedure.

ECB Policy

V.38 In the case of corporates under investigation, it has been decided to permit all entities to avail of ECBs under the automatic route as per the current norms, despite the pending investigations/ adjudications/ appeals by the law-enforcing agencies, without prejudice to the outcome of such investigations/ adjudications/ appeals. Accordingly, in the case of applications where the borrowing entity has indicated the pending investigations/

adjudications/ appeals, Authorised Dealers while approving the proposal should intimate the concerned agencies by endorsing a copy of the approval letter. The same procedure will be followed by the Reserve Bank while approving such proposals.

V.39 Companies in the infrastructure and manufacturing sectors were allowed to avail of ECBs to repay outstanding Rupee loan(s) availed of from the domestic banking system and/ or for fresh Rupee capital expenditure, under the approval route. The overall ceiling for such ECBs is US$10 billion. The maximum limit of ECBs that can be availed of is 75 per cent of the average foreign exchange earnings realised during the immediate past three financial years or 50 per cent of the highest foreign exchange earnings realised in any of the immediate past three financial years, whichever is higher. The maximum ECB that can be availed by an individual company or group, as a whole, under this scheme is limited to US$3 billion.

V.40 Special Purpose Vehicles (SPVs) that have completed at least one year from the date of incorporation were also brought within the ambit of the above scheme. The maximum permissible ECB that can be availed of was fixed at 50 per cent of the annual export earnings realised during the previous financial year.

V.41 Companies in the infrastructure sector were allowed to avail of trade credit up to a maximum of five years to import capital goods, subject to certain conditions.

V.42 Refinancing of bridge finance (if it is buyers'/ suppliers' credit) to import capital goods with a long-term ECB was allowed to companies in the infrastructure sector under the automatic route.

V.43 It was decided to include Indian companies in the hotel sector (with a total project cost of ₹250 crore or more), irrespective of geographic location, as eligible borrowers under this scheme. ADs may certify the project cost at the time of forwarding the ECB application to the Reserve Bank.

V.44 It was decided to enhance the ECB limit for NBFC-IFCs under the automatic route from 50 per cent of their owned funds to 75 per cent of their owned funds, including the outstanding ECBs. NBFC-IFCs desirous of availing of ECBs beyond 75 per cent of their owned funds require the approval of the Reserve Bank and will, therefore, be considered under the approval route. It was also decided to reduce the hedging requirement for currency risk from 100 per cent of their exposure to 75 per cent of their exposure.

V.45 MFIs have been permitted to raise ECBs up to US$10 million or equivalent during a financial year for permitted end-uses, under the automatic route. ECBs by MFIs/NGOs should be fully hedged. The designated AD has to ensure at the time of drawdown that the forex exposure of the borrower is fully hedged.

Scheme for FCCBs

V.46 The FCCB buyback procedure was simplified. Buy-back of FCCBs has been allowed under the approval route at a minimum discount of 5 per cent on the accreted value. The buyback/ prepayment of FCCBs which expired on March 31, 2013 will be continued till December 31, 2013 and shall stand discontinued thereafter. This is in addition to the existing measures that allow fresh ECB/FCCB under the automatic route for redemption of FCCBs and the restructuring of FCCBs under the approval route.

Low-cost affordable housing

V.47 ECBs have been allowed for low-cost affordable housing projects as a permissible end-use, under the approval route. ECBs can be availed of by reputed developers/ builders (with minimum 3 years experience) for low-cost affordable housing projects, as well as Housing Finance Companies (HFCs) with minimum NOF of ₹ 3 billion and the National Housing Bank (NHB) to finance prospective

owners of low-cost affordable housing units. An overall limit of US$ one billion each has been prescribed for such ECBs for the financial years 2013-14 and 2014-15.

Bridge finance / long-term ECB facility for 2G spectrum

V.48 The successful bidders of the upcoming 2G spectrum allocation can avail of bridge finance for making upfront payment to the Government for spectrum allocation and replace the same with a long term ECB, both under the automatic route. The successful bidders making the upfront payment for the award of 2G spectrum initially out of Rupee loans availed of from the domestic lenders would be eligible to refinance such Rupee loans with a long-term ECB, under the automatic route. The successful bidders in the 2G auction will be allowed to avail of ECB under the 'automatic route' from their ultimate parent company without any maximum ECB liability-equity ratio subject to the condition that the lender holds minimum paid-up equity of 25 per cent in the borrower company, either directly or indirectly.

Period of realisation and repatriation to India

V.49 The period of realisation and repatriation to India of the amount representing the full export value of goods or software had been enhanced from 6 months to 12 months from the date of export up to March 31, 2013. The issue has been reviewed and it has been decided, in consultation with the government, to bring down the realisation period from 12 months to 9 months from the date of export, with immediate effect, valid until September 30, 2013.

V.50 A software exporter either under STPIs or SEZs/ EPZs/ 100 per cent EOU/ DTA, whose annual turnover is at least ₹10 billion or who files at least 600 SOFTEX forms annually on an all-India basis, will be eligible to submit statements in the revised format from January 1, 2013.

Import of Gold by nominated banks/agencies

V.51 The Working Group on Gold (Chairman: Shri K.U.B. Rao) had recommended aligning gold import regulations with the rest of the imports. The bulk of the gold imported by nominated banks is on consignment basis, whereby nominated banks do not have to fund these stocks. To moderate the demand for gold for domestic use, it was decided to limit the import of gold on consignment basis by banks for meeting the genuine needs of exporters of gold jewellery. Accordingly, gold imports on Documents against Acceptance (DA) basis were not permitted. All Letters of Credit (LC) opened by nominated banks/ agencies for import of gold under all categories was only on 100 per cent cash margin basis. This was followed up on July 8 with further measures, which restricted banks to trade only on behalf of their clients in currency futures/ options market. Thereafter, on July 22, the Reserve Bank rationalised the import of gold by making it incumbent for nominated banks/ nominated agencies to ensure that at least one-fifth of every lot of import of gold is made available for the purpose of export.

"Write-off" of unrealised export bills

V.52 Earlier, exporters were given limited powers of write-off, and AD Category I banks were permitted to accede to the requests for "write-off" made by the exporters, subject to the condition, *inter alia*, that the exporter had to surrender proportionate export incentives, if availed of, in respect of the relative shipments. To simplify and liberalise the procedure and to provide greater flexibility to exporters as well as Authorised Dealer banks, the instructions have been reviewed and the following liberalisation made in the limits of "write-offs" of unrealised export bills with certain terms and conditions.

Overseas Direct Investment

V.53 Overseas Direct Investment in Pakistan by Indian parties has been permitted under the approval route from September 7, 2012.

V.54 Earlier, *Navratna* Public Sector Undertakings (PSUs), ONGC Videsh Ltd (OVL) and Oil India Ltd (OIL) were allowed to invest in overseas unincorporated entities in the oil sector (for exploration and drilling for oil and natural gas, *etc.*), which was approved by the government without any limits under the automatic route. On review, it has been decided that the facility should be extended to overseas investments in incorporated joint ventures and wholly-owned subsidiaries in the oil sector (for exploration and drilling for oil and natural gas, *etc.*) by the *Navratna* PSUs, OVL and OIL, to be approved by the government, under the automatic route.

V.55 It has been observed that eligible Indian parties are using the overseas direct investments (ODI) automatic route to set up structures that facilitate trading in currencies, securities and commodities. Further, the Reserve Bank found that such structures have started offering financial products linked to the Indian Rupee (*e.g.*, non-deliverable trades involving foreign currency, rupee exchange rates, stock indices linked to Indian market, *etc.*).

V.56 It has been clarified that any overseas entity that has equity participation directly/ indirectly should not offer such products without the specific approval of the Reserve Bank given that currently the Rupee is not fully convertible and such products could have implications for the exchange rate management of the country. Any incidence of such product facilitation would be treated as a contravention of FEMA regulations and would attract action under the relevant provisions of FEMA, 1999.

DERIVATIVES MARKET

Review of Credit Default Swap (CDS) guidelines

V.57 To encourage participation in CDS, the existing guidelines were reviewed. Some of the measures taken are: (i) in addition to listed corporate bonds, CDS has also been permitted on unlisted but rated corporate bonds even for issues other than infrastructure companies; (ii) users have been permitted to unwind their CDS bought position with original protection seller at mutually agreeable or FIMMDA price. If no agreement is reached, then unwinding has to be done with the original protection seller at FIMMDA price; and (iii) permitting CDS on securities with original maturity up to one year like Commercial Papers, Certificates of Deposit and Non-Convertible Debentures with original maturity less than one year as reference / deliverable obligations.

Standardisation of IRS contracts

V.58 To improve tradability and facilitate centralised clearing and settlement of IRS contracts in future, IRS contracts have been standardised. The standardisation of IRS contracts has been achieved in terms of minimum notional principal amount, tenors, trading hours, settlement calculations, *etc.* To begin with, standardisation has been made mandatory for INR Mumbai Inter Bank Offer Rate (MIBOR)-Overnight Index Swap (OIS) contracts which are most liquid. The standardisation requirement is mandatory for all IRS contracts other than client trades.

Reserve Bank synergising development and regulation agenda

V.59 The Reserve Bank has been adopting a synergetic approach to push forward both the development of the financial markets and their regulation. As part of this approach, structural rigidities are being removed for better price discovery and for increasing both the depth and width of the financial markets. Effort has been made to develop and strengthen inter-linkages between market segments, fostering competition, increasing menu choices through innovations in products and market practices. Regulatory, legal, institutional and technological infrastructure are also being strengthened for orderly market activity. With increasing sophistication and probabilities of spillovers across markets and geographies, strengthening market regulation assumes importance so that balance sheet impact of financial volatilities are limited.

VI REGULATION, SUPERVISION AND FINANCIAL STABILITY

Focussed regulation and supervision of the financial system is a key tool for maintenance of financial stability. Taking this into consideration, the Reserve Bank continued to pay significant attention to pro-active regulation and supervision. The commercial banking sector presently remains well-capitalised, although reduced profitability, rising delinquent loans and future capital requirements to comply with Basel III requirements are challenges that need to be addressed. A slew of regulatory and supervisory initiatives have been undertaken to improve the overall functioning of the sector. The legal framework governing banks has also been revamped in line with modern market practices. Reflecting the growing complexity of NBFCs, a new category was created during the year. The Financial Sector Legislative Reforms Commission has made several recommendations on the legal and regulatory architecture governing the financial sector. These will need to be carefully examined.

VI.1 Weaknesses in the regulation and supervision of both banks and non-bank financial entities were identified as a prime cause of the global financial meltdown in 2008. The overt reliance by regulators on market discipline, including the excessive dependence on credit rating agencies, led to 'light touch' regulation. Financial innovations were used to shift some financial practices outside the regulatory perimeter. The culmination of these actions was the build-up of a significant amount of risks that ultimately led to a financial collapse. Taking these lessons into account, regulators have become more proactive by instituting regulatory mechanisms that are macroprudential in scope, forward-looking in nature and analytical in approach.

VI.2 In India, the Reserve Bank has adopted a proactive approach to prudential regulation, which was in place even before the outbreak of the crisis. Taking into account the lessons learnt during the crisis, the Reserve Bank has been fine-tuning its regulatory strategy to ensure that it fosters a stable financial environment where the credit requirements of the productive sectors are adequately met without stifling innovation.

FINANCIAL STABILITY ASSESSMENT

Current Assessment of Risks to Financial Stability in India

VI.3 Risks to the Indian economy from global developments remain elevated especially in the face of domestic vulnerabilities, although the risk of tail events materalising in the advanced economies has reduced on the back of policy action. Newer risks have emerged from prolonged unconventional monetary policies and speculation on the exit from such policies, amidst an environment of uncertain global growth. Financial stability risks are particularly significant from increasing external vulnerabilities and the dependence on volatile capital flows to fund the high CAD. According to the results of the latest Systemic Risk Survey (Financial Stability Report, June 2013) domestic macroeconomic risks and global risks were the most important factors affecting the stability of Indian financial system.

VI.4 The overall risks to the banking sector have increased during 2012-13, owing to the tight liquidity conditions, deteriorating asset quality, and reduced profitability. However, there was marginal improvement in asset quality and soundness as

also some sign of easing in 'distress dependencies' among banks in the March 2013 quarter. The macro stress tests show that the credit quality of commercial banks is a concern. However, the comfortable capital adequacy position has provided resilience to most banks as shown by the various stress testing exercises.

Working of the FSDC Sub-Committee

VI.5 The Sub-Committee of the Financial Stability and Development Council (FSDC) continues to coordinate discussions and actions on various issues relating to systemic stability and development of India's financial sector, under the guidance of the FSDC. The Committee made progress in identification of regulatory gaps in areas like wealth management services and collective investment schemes, addressing the conflict of interest in distribution of financial products, among other things. Besides, the Sub-Committee has also been taking stock of implementation of the G20/FSB post-crisis reforms. It has also been approving the FSR since 2011 and since then, the report reflects the collective views of its members.

VI.6 Based on the IMF Board's decision in September 2010, it was decided to include 25 systemically important economies, including India, under the Financial Stability Assessment Programme (FSAP) for members with systemically important financial sectors. As part of this process, a joint IMF-World Bank team had conducted the FSAP for India in 2011. Subsequently, the Financial Sector Stability Assessment for India, the final report of the FSAP, was released by the IMF in January 2013 (Box VI.1).

Box VI.1
India: Financial Sector Stability Assessment

The assessment report recognised that the India has made remarkable progress towards developing a stable financial system by steady improvements in the legal, regulatory and supervisory framework. Regulatory and supervisory regime for banks, insurance, and securities markets was found to be well developed and largely in compliance with international standards. It added that the Indian financial system's vulnerabilities appeared manageable.

The assessment, however, identified some gaps. The major issues raised in the Report, authorities' response and the progress made in this regard are highlighted below:

Autonomy of regulators: The report suggested enhancing formal statutory basis for the autonomy of regulators in carrying out their regulatory and supervisory functions. The extant position is that financial sector regulators in India operate within statutory frameworks that aim at balancing the role of Government in policymaking with autonomy and independence for regulatory bodies to transparently perform their functions. Steps are underway to accord a statutory basis to the pension regulator as well.

Information sharing and coordination amongst regulators: With regard to the information sharing and co-ordination among domestic regulatory authorities, several arrangements have been made at various levels. The FSDC, under the chairmanship of Finance Minister, serves as an apex forum for effective regulatory co-ordination. A Sub-Committee of the FSDC, under the Chairmanship of the Reserve Bank Governor, provides for the next layer of co-ordination that takes place on a more frequent basis. Under the aegis of the Sub-Committee of the FSDC, a Memorandum of Understanding (MoU) was signed by RBI, SEBI, IRDA and PFRDA in March 2013 to forge greater cooperation in the field of consolidated supervision and monitoring of financial conglomerates.

Information sharing with other jurisdictions: Recognising its importance, information sharing mechanisms with various jurisdictions in which Indian banks are operating have been put in place. Information-sharing MoUs have already been signed by Reserve Bank with 16 jurisdictions and correspondence for the same is in progress with another 28 jurisdictions. Besides, Reserve Bank has carried out overseas inspections of Indian bank branches in five countries covering almost 60 per cent of total overseas assets of Indian banks, while inspection is underway in another six jurisdictions covering another 20 per cent of total overseas assets of Indian banks. The Reserve Bank has also hosted supervisory colleges for State Bank of India and ICICI Bank limited.

Likewise, other regulators are also addressing issues relating to sharing of information at the international level.

Group borrower limits: The report recommended tightening the definition of large and related party concentration and gradually reducing exposure limits to make them more consistent with international practices. However, the authorities' view is that this would severely constrain the availability of bank finance to some of the major corporate groups and hamper growth.

(Contd....)

Nominee on banks' board: The issue of moral hazard posed by a nominee director on the banks' board prompted suggestion for greater clarity regarding their role. This system, however, has served India well and ensured more effective compliance by banks with regulations. Nevertheless, the matter has been taken up with the Government of India for amendment of the enabling legal provisions.

Statutory Liquidity Ratio: The assessment recommends that Statutory Liquidity Ratio (SLR) be gradually reduced in line with evolving international liquidity requirements. This will support deeper capital markets, systemic liquidity management and monetary transmission. The authorities' perspective on this is that the SLR, apart from mandating investments in government securities, has served liquidity, monetary and financial stability needs. SLR requirement has been brought down over time. Government market borrowings are at market-determined interest rates and monetary policy transmission is not impeded by SLR holdings. The holding of government bonds could help banks to better cope with financial stress situations by giving greater access to liquidity.

Securities market regulation: The assessment made certain recommendations regarding securities market regulation in India after employing higher standards than IOSCO principles. In this regard, SEBI has taken several steps to improve the mutual fund regulation. In August 2013, SEBI decided to bring under its ambit fraudulent and unfair trade practices regulations and clamp down on front running practices.

Auditing and accounting standards: The assessment suggested improved mechanisms for ensuring better auditing and accounting standards in the securities market. Several initiatives have been taken recently to strengthen the existing mechanisms. The government has set up Quality Review Board (QRB) for reviewing the quality of auditors, while the SEBI has set up a Qualified Audit Report Review Committee (QARC). The Companies Bill 2012 as passed by *Lok Sabha* contains provisions for establishment of an independent quasi-judicial agency - the National Financial Reporting Authority - to oversee the functions of auditors.

Independent Risk Committee in Central Counterparties (CCPs): Regarding this recommendation in April 2012, SEBI had decided that CCPs will constitute a risk committee comprising independent members which shall report to the Board of the CCP as well as directly to SEBI on relevant issues.

Early Warning Group: The report suggested strengthening early warning mechanisms. Recently, an inter-regulatory Early Warning Group (EWG) for financial markets has been constituted under the FSDC sub-committee.

Regulation of Insurance Industry: In the Report, the IRDA has clarified that there is complete oversight over the Life Insurance Corporation of India (LIC) with regard to both market conduct and prudential regulations. The issues relating to inadequacy of reserves in case of non-life insurance industry have also been addressed with directions to increase the premium in the Motor-Third Party segment. The enforcement powers are being strengthened in the proposed Insurance Laws (Amendment) Bill. Further, the IRDA is also examining various issues relating to moving towards the risk-based approach to solvency.

ASSESSMENT OF THE BANKING SECTOR

Core Financial Soundness Indicators (FSIs) of SCBs

VI.7 The capital position of SCBs remains well in excess of the regulatory requirements, although both the CRAR (13.8 per cent) and the core CRAR (10.3 per cent) are a bit lower than in the previous year (Table VI.1). Driven by a lacklustre domestic environment, the asset quality of SCBs deteriorated further during 2012-13. In terms of magnitude, the gross NPAs of SCBs increased from 2.9 per cent in 2011-12 to 3.4 per cent in 2012-13. The higher provisioning, in turn, meant a lower net profit, which grew by 12.8 per cent during 2012-13 compared with 14.6 per cent a year ago. Accordingly, the RoE and RoA of SCBs also registered declines. The NIM also declined from 3.1 per cent to 3.0 per cent during the same period. SCBs, however, continue to hold around a third of their assets in liquid form, which stood at 28.9 per cent at end-March 2013.

VI.8 Given the drag that NPAs exert on bank profitability, an attempt was made to ascertain the magnitude of the impact (Box VI.2).

Sensitivity Analysis

VI.9 A number of single factor sensitivity stress tests were carried out at the system as well as at the bank level (for the sample of 60 banks comprising 99 per cent of total banking sector assets) to assess their vulnerabilities and resilience under various scenarios. The resilience of the commercial banks in respect of credit, interest rate and liquidity risks were studied through sensitivity analysis by imparting extreme but plausible shocks.

Table VI.1: Select Financial Indicators

(Per cent)

Item	End-March	Scheduled Commercial Banks	Scheduled Urban Co-operative Banks	All India Financial Institutions	Primary Dealers	Non-Banking Financial Companies-D	NBFCs-ND-SI
1	2	3	4	5	6	7	8
CRAR	2012	14.2	12.8	21.0	53.8	20.4	27.5
	2013	13.8	12.7	19.0	39.4	22.3	28.0
Core CRAR	2012	10.4	N.A.	N.A.	N.A.	16.8	24.6
	2013	10.3	N.A.	N.A.	N.A.	19.0	24.3
Gross NPAs to Gross Advances	2012	2.9	5.2	0.4	N.A.	2.7	3.1
	2013	3.4	4.5	0.7	N.A.	2.5	3.5
Net NPAs to Net Advances	2012	1.2	0.9	0.1	N.A.	0.8	1.8
	2013	1.5	0.8	0.2	N.A.	0.8	1.6
Return on Total Assets	2012	1.1	1.0	1.0	0.8	2.8	1.8
	2013	1.0	0.9	1.0	1.5	2.7	2.1
Return on Equity	2012	13.4	N.A.	9.2	4.4	16.7	7.0
	2013	12.8	N.A.	9.6	10.1	15.4	8.6
Efficiency (Cost/Income Ratio)	2012	45.3	50.6	18.1	44.1	73.3	77.7
	2013	46.3	50.4	17.1	27.2	72.2	73.9
Interest Spread (per cent)	2012	3.1	N.A.	2.1	N.A.	3.3	2.3
	2013	3.0	N.A.	2.1	N.A.	3.6	5.3
Liquid Asset to total assets	2012	28.9	N.A.	N.A.	N.A.	16.1	4.9
	2013	28.9	N.A.	N.A.	N.A.	9.1	4.8

N.A.: Not Available.

Note: 1. Data for 2013 is unaudited and provisional.
2. Data for SCBs covers domestic operations, except for CRAR.
3. Data for CRAR of SCBs excludes Local Area Banks and pertains to Basel II norms.
4. Audited data for NABARD, SIDBI, and EXIM Bank for the year ended March 31, 2012 and audited data for NHB for June 30, 2012.
5. Audited data for NABARD, SIDBI and EXIM Bank for the year ended March 31, 2013, unaudited data for NHB for the year ended June 30, 2013.
6. Data on Scheduled UCBs exclude Madhavpura Mercantile Co-operative Bank Ltd.
7. Liquid assets include cash and bank balances and investments in government securities
8. ND-SI = Non deposit Systemically Important (*i.e.*, NBFCs with asset size of ₹1 billion and above

Source: 1. SCBs: Off-site supervisory returns.
2. AIFIs: OSMOS returns and data received from FIs.
3. UCBs: Off-site surveillance returns.

The results based on March 2013 data are available in the Financial Stability Report, June 2013. They indicate that while some banks would fail to maintain CRAR under stress scenarios for credit

Box VI.2
Impact of NPAs on profitability of banks

The quality of assets is an important indicator of banks' financial health. It also reflects the efficacy of banks' credit risk management and the recovery environment. A study of the asset quality of banks was carried out based on data submitted by banks, covering their domestic operations, through off-site returns.

The study indicated that gross non-performing assets, which declined from ₹700 billion at end-March 2003 to ₹500 billion at end-March 2007, recorded an average growth of 24.7 per cent during the last six years to reach to ₹1,839 billion at end-March 2013. Similarly, net NPAs have recorded an average growth of 29.0 per cent since March 2007 and reached ₹883 billion by end-March 2013. The gross NPA and net NPA ratios have been increasing since March 2008, except during 2010-11, and reached 3.42 per cent and 1.46 per cent, respectively, by end-March 2013. The high level of NPAs cost the banks by way of loss of interest income, besides provisioning, recovery and litigation costs.

According to the analysis, the loss to banks due to NPAs has been more than 60 per cent of their net profit since March 2010. In addition, about 18 per cent of banks' net interest income is used for making risk provisions and write-offs of NPAs. Had the NPAs not been there, banks would have improved their yield on advances, on an average, by 124 basis points (considering the position since March 2009).

risk, at the system level, CRAR would remain above the required minimum of 9.0 per cent.

MAJOR DECISIONS TAKEN BY BOARD FOR FINANCIAL SUPERVISION

VI.10 Constituted in 1994, the Board for Financial Supervision (BFS) remains the principal guiding force behind the Reserve Bank's supervisory and regulatory initiatives. The BFS currently has Shri Y.H. Malegam, Ms. Ela Bhatt, Dr. Rajeev Gowda and Shri Kiran Karnik as Director-members.

VI.11 The BFS had ten meetings during the period July 2012 to July 2013. The BFS considered, *inter alia*, the performance and the financial position of banks and financial institutions. The entire process of the inspection cycle for 2011-12 for all banks / LABs / AIFIs programmed for inspection was completed and the relevant Annual Financial Inspection (AFI) memoranda were submitted to the BFS by April 2013. The format of the inspection report has been made more risk-focussed and banks issued with Monitorable Action Plans (MAPs) with a timeline for completion. This has resulted in focussed attention on key supervisory concerns.

VI.12 Based on the issues raised during the 2011-12 inspection cycle, the BFS gave directions on several issues. Some of the major issues pertain to accurate reckoning of pension liabilities, accounting / disclosing commitments/ liabilities under ASBA, deficiencies in compliance with KYC/ AML guidelines, trading of Indian Rupee overseas, governance issues relating to private sector banks, concerns about the increasing number of fraud cases, misclassification of priority sector loans, disparity in pricing of loans, *etc.* Based on the directions / guidance of the BFS, thematic reviews were conducted in certain areas such as the KYC/ AML environment in banks, banks' exposure to real estate/ housing sector, major frauds above a threshold, *etc.* Under directions from the BFS, a revised compensation structure has been issued for private and foreign banks.

VI.13 Regarding the supervision of NBFCs, the BFS dealt with concerns such as the supervisory rating framework, lending against gold and gold ornaments, the fair practices code *etc.* Besides, the BFS considered various proposals based on recommendations of the Working Group to study issues and concerns in the NBFC sector. Inspection report of NBFC-ND-SIs with asset size of ₹1 billion and above were also placed before the BFS.

VI.14 During this period, the BFS also reviewed 49 summaries of inspection reports pertaining to scheduled urban co-operative banks (UCBs), 40 summaries of financial highlights pertaining to scheduled UCBs rated between A+ and B- and 11 summaries of financial highlights pertaining to scheduled UCBs rated between C+ and D. As regards supervision over UCBs, the BFS approved the revised graded supervisory action, financial restructuring of UCBs under directions and made the rating model for UCBs less complex. In addition, the BFS reviewed the regulations over rural credit institutions and approved a proposal to issue directions to unlicenced DCCBs.

COMMERCIAL BANKS

Regulatory Initiatives

Current Status of Implementation of Basel III Guidelines

VI.15 The Reserve Bank issued final guidelines regarding implementation of Basel III capital regulations on May 2, 2012. These guidelines are effective from April 1, 2013 with the exception of Credit Valuation Adjustment (CVA) risk capital charge for OTC derivatives which will become effective from January 1, 2014. This has been done keeping in view the impending introduction of mandatory forex forward guaranteed settlement through a central counterparty.

VI.16 Out of the 27 jurisdictions that comprise Basel Committee on Banking Supervision (BCBS) 25 have issued final Basel III based capital regulations. Further, Basel III capital rules have

become effective in 11 member jurisdictions while others have issued final rules but have not yet brought them into force. The remaining two members have issued draft rules.

Status of Implementation of Basel II Advanced Approaches in India

VI.17 Currently, scheduled commercial banks are required to compute capital using simpler approaches available under the Basel II framework. The Standardised Approach for Credit Risk, the Basic Indicator Approach for Operational Risk and the Standardised Measurement Method for Market Risk have been implemented for banks in India. The current status with respect to the implementation of the advanced approaches is detailed below.

VI.18 With regard to credit risk, the guidelines for Internal Rating-Based (IRB) approach to credit risk for regulatory capital calculation were issued in December 2011, in terms of which banks could apply to the Reserve Bank for adoption of either Foundation Internal Rating-Based (FIRB) or Advanced Internal Rating-Based (AIRB) depending on their preparedness, between April and June 2012. Fifteen banks desirous of applying for IRB submitted the letter of intention by June 2012 and subsequently, fourteen banks submitted the gist of self-assessment on their preparedness for the FIRB/AIRB approach by September 2012.

VI.19 Based on the applications received and subsequent information obtained, a preliminary study of the status of preparedness of the banks has been carried out. The applicant banks that are better prepared may be taken for the parallel run under the IRB framework.

VI.20 With regard to market risk, banks in India have been using the Standardised Measurement Method (SMM) since March 2005. The guidelines for the advanced Internal Models Approach (IMA) to market risk assessment for regulatory capital calculation were issued by Reserve Bank in April 2010. Reserve Bank has already undertaken the process of validation of market risk models in respect of two banks. These banks have been suggested to upgrade their market risk management systems and processes before the migration to IMA is allowed. Further, two more banks have submitted their plans for migrating to IMA and Reserve Bank will be undertaking detailed model validation exercise in respect of these banks in due course.

VI.21 With respect to operational risk, the Basel II framework presents three methods to calculate the capital charge for operational risk along continuum of increasing sophistication and risk sensitivity *viz.* the Basic Indicator Approach (BIA), the Standardised Approach (TSA)/ Alternative Standardised Approach (ASA) and Advanced Measurement Approaches (AMA).

VI.22 The guidelines on implementation of The Standardised Approach (TSA) and Alternative Standardised Approach (ASA) for calculating capital charge for operational risk were issued in March 2010. TSA is a more advanced method in comparison to the BIA for determining the capital required for covering operational risk losses. Thirteen banks have submitted applications/ intention to migrate to TSA. Currently, while two banks have been granted permission for migrating to TSA on a parallel run basis with BIA for calculation of operational risk capital charge, three banks have been advised to enhance their operational risk management framework. Applications of the other eight banks are at various stages of assessment.

VI.23 The guidelines on implementation of the AMA were issued in April 2011. Under the AMA, the regulatory capital requirement will equal the risk measure generated by the bank's internal operational risk measurement system (ORMS), using quantitative and qualitative criteria.

VI.24 So far, nine banks have conveyed their intention to apply for AMA, four of which have also submitted a preliminary self-assessment of their preparedness for migration to AMA. The Reserve Bank, after making a preliminary assessment of a bank's risk management system and its modeling

process, may allow the bank to make a formal application for migrating to AMA.

Dynamic Provisioning

VI.25 Provisions against loan losses can be broadly divided into two categories: general and specific. The present provisioning policy, consisting of general and specific provisions, has several limitations. First, the rate of provisions on standard assets is not based on any scientific analysis. Second, banks make floating provisions without any pre-determined rules. Third, the provisioning framework does not have cycle smoothening elements built into it. A need was, therefore, recognised for introducing a comprehensive provisioning framework that has dynamic and countercyclical elements.

VI.26 In this regard, a Discussion Paper was released by Reserve Bank on March 30, 2012 for public comments. Based on the analysis in the paper, it was proposed that the dynamic provisioning framework for loan loss provisions for banks in India would consist of two components: a) *Ex-post* Specific Provisions (SP) made during a year as required under Reserve Bank guidelines. These provisions would be debited to the Profit and Loss account; and b) Dynamic Provisions (DP) equal to the difference between the expected loss of the portfolio for one year based on downturn Loss Given Default (LGD) and the incremental specific provisions made during the year.[1] In short, under the proposed framework, banks will accumulate provisioning buffer during the period when the economy is growing and their credit losses are lower than the long-run average. The accumulated buffer would be utilised during the slow /negative growth phase when the banks' credit losses increase.

VI.27 Ideally, calibration of Expected Loss (EL) should be based on forward-looking through-the-cycle probability of default of various asset classes/ rating classes. Further, it should be based on the credit history of individual banks and reflect their own credit risk profile. Banks which have capability to calibrate their own parameters could be allowed, with the prior approval of Reserve Bank, to introduce dynamic provisioning framework based on their own data set. Those banks, which are not able to introduce dynamic provisioning based on their own data set, may use the standardised calibration carried out by the Reserve Bank. The final guidelines, containing the final calibration of EL, are proposed to be issued shortly.

Guidelines on Liquidity Risk Management

VI.28 The Reserve Bank had issued draft guidelines on Liquidity Risk Management (LRM) and Basel III framework on liquidity standards in February 2012 for comments and feedback. After taking into account the feedback received from stakeholders, the guidelines on LRM were issued in November 2012. These included enhanced guidance on liquidity risk governance, and measurement, monitoring and reporting to the Reserve Bank on liquidity positions.

VI.29 The Reserve Bank has indicated in the LRM guidelines that the guidelines on Basel III liquidity standards will be issued once the Basel Committee finalises the relevant framework. The Basel Committee has issued *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools* in January 2013 and is in the process of finalising the Liquidity Coverage Ratio (LCR) disclosure requirements and Net Stable Funding Ratio (NSFR). The LCR is to be implemented from January 1, 2015 and the NSFR from January 1,

[1] This will generally ensure that every year the charge to profit and loss on account of specific provisions and DP is maintained at a level of αC_t.
α = Expected Loss Rate based on downturn Loss Given Default (LGD)
= Long Run Average Probability of Default (PD) *x* Downturn LGD
C_t= Gross Loans and Advances

2018. The Reserve Bank will issue the final guidelines on Basel III liquidity standards and liquidity risk monitoring tools, taking into account the revisions by the Basel Committee.

Restructuring of Advances by Banks and Financial Institutions

VI.30 Against the background of an increase in restructured standard advances, a Working Group was constituted (Chairman: Shri B. Mahapatra) to review the prudential guidelines on restructuring of advances by banks/financial institutions and to suggest revisions. The report of the Working Group was submitted in July 2012 and was placed on the website of the Reserve Bank to invite comments from the stakeholders (Box VI.3).

VI.31 Draft guidelines on restructuring of advances were placed on the Reserve Bank website on January 31, 2013 inviting comments from the stakeholders by February 28, 2013. Reserve Bank also issued a circular on the same date, rationalising the disclosure requirements of 'restructured accounts' as per the recommendation of the Working Group. The final guidelines have since been issued on May 30, 2013 taking into account the recommendations of the Working Group and the feedback from stakeholders.

VI.32 The major changes in the guidelines as a consequence are the following. (i) regulatory forbearance regarding asset classification on restructuring will be withdrawn from April 1, 2015; (ii) during the interregnum, standard restructured accounts will attract higher provisioning requirement of 5 per cent – immediately for fresh cases of restructuring (flow) with effect from June 1, 2013 and in a phased manner over three years for stock of standard restructured accounts as at end-May 2013; (iii) asset classification benefit on change of date of commencement of commercial operations (DCCO) of infrastructure and non-infrastructure projects will, however, continue to be available beyond April 1, 2015 until further review; (iv) promoters will have to make a sacrifice of 20 per cent of banks' sacrifice or 2 per cent of the restructured debt, which is higher, as against the earlier requirement of 15 per cent of banks' sacrifice; (v) conversion of debt into preference shares should be done only as a last resort and such conversion of debt into equity/ preference shares should, in any case, be restricted to a cap (say 10 per cent of the restructured debt);

Box VI.3
Review of prudential guidelines on restructuring of advances by banks and financial institutions – Major recommendations of the Working Group

The regulatory forbearance available on asset classification on restructuring presently needs to be withdrawn after two years.

During the interregnum, provision on standard restructured accounts which get the asset classification benefit on restructuring be increased from the present 2 per cent to 5 per cent, in a phased manner in case of existing accounts (stock) and immediately in case of newly restructured accounts (flow).

In view of the importance of infrastructure sector, asset classification benefit on restructuring may however be allowed for a longer period in cases where restructuring is due to change in date of commencement of commercial operation of infrastructure projects.

A cap of, say 10 per cent, to be prescribed on amount of restructured debt which can be converted into preference/ equity shares.

Reserve Bank may prescribe the broad benchmarks for viability parameters based on those used by CDR Cell; and banks may adopt them with suitable adjustments, if any, for specific sectors.

Compulsory promoters stake in the restructured accounts to be increased by way of higher sacrifice and personal guarantee.

Right of recompense may be made mandatory in all cases.

Disclosure requirements to be made comprehensive but to exclude standard restructured accounts which have shown consistent satisfactory performance.

(vi) promoters' personal guarantee should be obtained in all cases of restructuring and corporate guarantee cannot be accepted as a substitute for personal guarantee; (vii) criteria for upgradation of a downgraded restructured account, *i.e.*, an account classified as NPA on restructuring, has been tightened; and (viii) banks would be required to incorporate the 'right to recompense' clause in all cases of restructuring.

Management of Intra-Group Transactions and Exposures

VI.33 As the capital adequacy framework is not sufficient to fully mitigate the microprudential risk of exposures that are larger than a bank's capital resources, various prudential exposure limits are put in place to limit the maximum loss a bank could face in the event of default of a third party or a group of such parties. However, a bank's stability and solvency can also be jeopardised by parties that are related to the bank through organic links, generally termed as group entities. The possibility that large losses could arise due to Intra-Group Transactions and Exposures (ITEs) and threaten the on-going business operations of a banking group motivates supervisory concern that risk concentrations within the Group be identified, monitored and subjected to an adequate management strategy.

VI.34 The Reserve Bank issued draft guidelines in August, 2012 for limiting banks' transactions and exposures to the group entities. The draft guidelines had proposed both quantitative limits for the financial ITEs and prudential measures for the non-financial ITEs to ensure that the banks engage in the ITEs in safe and sound manner.[2] These measures are aimed at ensuring that banks, at all times, maintain an arm's length relationship in their dealings with the Group entities, meet minimum requirements with respect to Group risk management and group-wide oversight, and adhere to prudential limits on intra-group exposures. The comments received on the draft guidelines are being examined and the final guidelines will be issued shortly.

International Financial Reporting Standards (IFRS)

VI.35 The International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) are increasingly being recognised as a global standard for financial reporting. At present, they are followed in more than 100 jurisdictions including the European Union, Canada, Australia, New Zealand and South Korea.

VI.36 The Ministry of Corporate Affairs (MCA), Government of India (GoI) issued a roadmap in January 2010 envisaging a phased convergence from April 1, 2011 for corporates. However, the implementation date was kept in abeyance pending the resolution of various issues including those relating to taxation. Consequently, entities which were to have migrated to IFRS converged Indian Accounting Standards (Ind AS) from April 1, 2011 onwards have not done so.

VI.37 In the Indian banking sector, a delayed convergence schedule of April 1, 2013 was envisaged in the MCA's roadmap taking into account the project of the IASB to replace the existing standard on financial instrument *viz. IAS 39 Financial Instruments: Recognition and Measurement* with a new standard *IFRS 9: Financial Instruments* in order to reduce the complexity in IAS 39 as well as incorporate lessons learned from the financial crisis. However, the process has been substantially delayed due to lack of agreement between the IASB and the Financial Accounting Standards Board (FASB) of the US on certain issues with particular reference

[2] Non-financial ITEs refer to operations arising out of 'matrix' management facilitating control/ effective risk management over a business segment or a line of activity across a number of legally independent entities. Examples are back-office arrangements, IT support, *etc.* Financial ITEs are those whose outcomes can be associated with financial flows manifesting in the form of assets, liabilities and/ or revenue transactions. Examples are fund-based and non-fund based transactions.

to impairment. The uncertainty in the finalisation of IFRS 9 has impeded Indian efforts at convergence.

Licensing of new banks in the private sector

VI.38 In pursuance of the announcement made by the Hon'ble Finance Minister in his Budget Speech for the year 2010-11, the Reserve Bank had placed draft guidelines on the licensing of new banks in the private sector on its website on August 29, 2011 for public comments. The final guidelines were prepared and released on Reserve Bank's website on February 22, 2013, consequent to the amendments to the *Banking Regulation Act* 1949 in December 2012 (Box VI.4). Subsequently, 26 applications for new bank licenses in the private sector have been received till the closing date of July 1, 2013.

Supervisory Initiatives

High Level Steering Committee to Review the Supervisory Policies, Procedures and Processes for Commercial Banks

VI.39 One of the main recommendations of the High-Level Steering Committee (HLSC) to review of supervisory processes (Chairman: Dr. K. C. Chakrabarty) was the adoption of a Risk-Based Approach for supervision of commercial banks from the supervisory cycle beginning April 2013. In this connection, the Board for Financial Supervision (BFS) has recommended migration to Risk Based Supervision (RBS) in a phased manner for scheduled commercial banks from 2012-13. Accordingly, a list of 30 banks has been identified to be taken up under RBS (Phase I). The selected banks account for 52 per cent of the total banking sector assets.

VI.40 To enable banks to gear up to the challenges of a smooth transition to RBS, the Reserve Bank has been endeavouring to sensitise the banks on the changed process of supervision. The Reserve Bank has also conducted sensitisation programs for 180 senior officers and 50 top management officials of the banks under RBS. The Reserve Bank has also initiated the process of collating additional data from banks from April 2013 to facilitate finalisation of the RBS framework.

Bilateral Memorandum of Understanding (MoU) with its Overseas Counterparts for Improved Cross Border Supervision and Cooperation

VI.41 The earlier informal process of sharing of information between "Home" and "Host" supervisors is being formalised though the mechanism of Memorandum of Understanding (MoU). This channel is becoming all the more important since the cross-border operations of Indian banks are increasing at a rapid pace. However, the FSAP team (2011) assessed the Reserve Bank as 'Materially Non compliant' in respect of 3 BCPs (out of a total of 29 BCPs), including BCP 25 (Revised Principle 13) on 'Home- Host relationships'.

VI.42 Against this backdrop, the Reserve Bank has executed MoUs with sixteen overseas supervisors *i.e.*, China Banking Regulatory Commission (CBRC), Dubai Financial Services Regulatory Authority (DFSA), South African Reserve Bank (SARB), Qatar Financial Centre Regulatory Authority (QFCRA), Qatar Central Bank (QCB), Central Bank of Bahrain (CBB), Jersey Financial Services Commission (JFSC), Financial Services Authority (FSA) UK, Finanstilsynet (FSA of Norway), Central Bank of Russian Federation (CBRF), State Bank of Vietnam (SBV), Bank of Mauritius (BoM), Reserve Bank of Fiji (RBF), National Bank of Belgium (NBB), BaFin and ACP and Banque de France. Besides, proposals in respect of 28 other overseas supervisors are in various stages of reaching a mutually agreeable format for a MoU. The MoU provides a formal, yet legally non-binding, gateway of information between supervisors.

MoU with financial sector regulators to monitor Financial Conglomerates

VI.43 One of the mandates assigned to the Financial Stability Development Council (FSDC) is

Box VI.4
Licensing of new banks in private sector

As per the guidelines, entities / groups in the private sector which are owned and controlled by residents and entities in public sector shall be eligible to set up a bank. Non-Banking Financial Companies (NBFCs) shall also be eligible to set up a bank.

The guidelines set out 'fit and proper' criteria for the Promoters/ Promoter Groups. The Promoters/Promoter Groups should be financially sound with a successful track record of 10 years and have a past record of sound credentials and integrity. For this purpose, Reserve Bank may seek feedback from other regulators and enforcement and investigative agencies. Promoters/Promoter Groups' business model and business culture should not be misaligned with the banking model and their business should not potentially put the bank and the banking system at risk on account of group activities such as those which are speculative in nature or subject to high asset price volatility.

The new banks in the private sector would be set up through a wholly-owned Non-Operative Financial Holding Company (NOFHC). NOFHC shall be wholly-owned by the Promoters/ Promoter Group. NOFHC shall hold the bank as well as all the other financial services entities, in which the Promoters/ Promoter Group have significant influence or control. The guidelines stipulate that only the non-financial services companies/entities and non-operative financial holding company in the Group and individuals belonging to Promoter Group will be allowed to hold shares in the NOFHC. Financial services entities whose shares are held by the NOFHC cannot be shareholders of the NOFHC. NOFHC will be registered as an NBFC and comply with the corporate governance standards and prudential norms set out by Reserve Bank.

The aggregate non-resident shareholding from FDI, NRIs and FIIs in the new private sector bank shall not exceed 49 per cent of the paid-up voting equity capital for the first 5 years from the date of licensing of the bank and no non-resident shareholder will be permitted to hold 5 per cent or more of the paid-up voting equity capital of the bank for a period of 5 years from the date of commencement of business of the bank. The non-resident shareholding will be as per the extant FDI policy, after the expiry of the initial five year period.

The bank as well as the financial entities under the NOFHC cannot take credit and investment exposure to Promoters/ Promoter Group entities or individuals associated with the Promoter Group or the NOFHC. Banks promoted by Groups having 40 per cent or more assets income from non-financial business will require Reserve Bank's prior approval for raising paid-up voting equity capital beyond ₹10 billion for every block of ₹5 billion.

The business plan should be realistic and viable and should address how the bank proposes to achieve financial inclusion. The bank shall open at least 25 per cent of its branches in unbanked rural centres (population up to 9,999 as per the latest census). The bank shall comply with the priority sector lending targets and sub-targets as applicable to existing domestic banks. The bank will operate on the core banking system and will have a high powered customer grievances cell to handle complaints.

The eligible applications for the proposed new bank will be referred to a High Level Advisory Committee to be set up by Reserve Bank, comprising of eminent persons with experience in banking, financial sector and other relevant areas.

The High Level Advisory Committee will set up its own procedures for screening the applications and will submit its recommendations to Reserve Bank for consideration. The decision to issue an 'in-principle' approval for setting up of a bank will be taken by Reserve Bank, which would be final.

the macroprudential supervision of large financial conglomerates. In this context, in terms of FSDC sub-Committee directions, an institutional structure for the oversight and monitoring of Financial Conglomerates (FCs) in the form of an Inter Regulatory Forum (IRF) modelled around the "lead regulator" principle has been set up under the aegis of the sub-Committee of the FSDC. The IRF is headed by the Deputy Governor, Reserve Bank (in-Charge of banking supervision) and comprises of senior representatives from the sectoral regulators (Reserve Bank, SEBI, IRDA and PFRDA).

VI.44 As part of formalising the institutional mechanism, a MoU for facilitating data/information sharing and formalising other co-operation arrangements like coordinated inspection, recovery and resolution planning *etc.* has been signed among the regulators. Based on criteria for identification of FC and financials of 2011-12, the IRF for FC monitoring has identified 12 such FCs.

Supervisory College

VI.45 Supervisory Colleges refer to multilateral working groups of relevant supervisors that are constituted for the purpose of enhancing effective consolidated supervision of an international banking group on an ongoing basis. These are permanent, although flexible, structures of coordination that bring together regulatory authorities involved in the supervision of a banking group. In practice, the colleges are a mechanism for the exchange of information between home and host authorities, for the planning and performance of key supervisory tasks in a coordinated manner and also for the preparation and handling of emergency situations. Thus supervisory college is a process for regulatory co-operation.

VI.46 With a view to benchmarking the Indian banking system with the best practices across the globe and in its capacity as the home country supervisor, the Reserve Bank has established supervisory college for two major financial entities in India – State Bank of India and ICICI Bank Ltd. - considering their expanse of overseas operations spreading across several supervisory jurisdictions. The first meeting of the supervisory college was held in December 2012. The meeting brought together a number of host country supervisors/ regulators.[3]

CUSTOMER SERVICE

Complaints received and disposed

VI.47 The Reserve Bank introduced the Banking Ombudsman Scheme 2006, as a cost-free, apex level grievance redressal mechanism for bank customers. During the year 2012-13, fifteen offices of the Banking Ombudsman (OBOs) situated across the country received 70,541 complaints from customers about deficiency in banking services. There were 4,642 complaints pending at the beginning of the year. OBOs disposed of 69,705 complaints during the year clocking a disposal rate of 93 per cent. During the year, 312 awards were passed by the Banking Ombudsmen.

VI.48 The Deputy Governor in-charge of Customer Service Department (CSD), who is the Appellate Authority appointed under the Banking Ombudsman Scheme 2006 receives appeals against the Award issued or decision given by the Banking Ombudsman. During the year 2012-13, the Appellate Authority received 359 appeals. There were 13 appeals pending disposal at the beginning of the year. Of the appeals received, 307 appeals were non-maintainable. Of the remaining 65 maintainable appeals, 29 were disposed in favour of customers and 26 in favour of banks. As on June 30, 2013, 10 maintainable appeals were pending disposal.

VI.49 In addition to the Banking Ombudsman, the Reserve Bank received 6,226 complaints against banks pertaining to deficiency in customer services. All the complaints were disposed of during the year.

VI.50 The Reserve Bank also receives complaints through Centralised Public Grievances Redressal and Monitoring System (CPGRAMS) Portal of the Department of Administrative Reforms and Public Grievances (DARPG), Government of India. During the year, 5,251 such complaints were received through this portal out of which, 4,980 complaints were disposed as on June 30, 2013.

Position of applications and appeals received under RTI Act, 2005

VI.51 The Customer Service Department (CSD) receives applications under RTI Act pertaining to complaints dealt with by BO offices and also

[3] The host country supervisors/ regulators included Bangladesh Bank, Central Bank of Bahrain, National Bank of Belgium, Dubai Financial Services Authority, Bank of Russia, Financial Services Authority (London), Federal Financial Services Authority (BaFin), Bank of Mauritius, Nepal Rastra Bank and Monetary Authority of Singapore.

other activities of the department. During the year 2012-13, the CSD handled 689 RTI applications which were duly disposed. During the year 2012-13, 123 appeals under RTI Act were received of which, 110 were disposed by June 30, 2013.

Damodaran Committee Report

VI.52 Of the 232 recommendations made by the Damodaran Committee on customer service in banks, 155 have been implemented. The important recommendations that have been implemented include abolition of foreclosure charges on floating rate home loans, introduction of basic savings bank deposit account, Unique Identification No. (UID) to be used as KYC for opening basic bank accounts, differential merchant discount/ fee for debit cards, multi-factor authentication for card transactions and blocking of cards through SMS.

Spreading Awareness about Banking Ombudsman Scheme

VI.53 The popularity of the Banking Ombudsman (BO) scheme is evidenced by the large number of complaints received by the offices of the Banking Ombudsman. Spreading awareness about this apex-level grievance redressal mechanism, especially in rural areas, is the key to empowering this segment of the population. In this direction, the Reserve Bank has been organising outreach programmes focussed on financial inclusion and financial literacy in rural areas. The offices of the BO organise awareness campaigns in rural areas within their jurisdiction. Documentary films, publicity through local newspapers and radio, setting up stalls at various *melas*, fairs and live interactive programmes on *Doordarshan* are some of the measures that were initiated by the Reserve Bank and the offices of the Banking Ombudsman during the year.

VI.54 The offices of the Banking Ombudsman also organise Town Hall Events in tier-II cities in co-ordination with the leading banks in the area. Students, bank customers, NGOs, consumers associations and pensioners associations in the area are involved in these events. The events are conducted in local languages to ensure wider reach. The Banking Ombudsman and relevant bank officials respond to the participants' queries during these events.

Working Group for Revision and Updation of the Banking Ombudsman Scheme 2006

VI.55 An internal Working group for revision and updation of the Banking Ombudsman Scheme 2006 was constituted by the Reserve Bank in July 2012. The Working Group was also asked to examine the implementability of the Banking Ombudsman Scheme related recommendations of the Damodaran Committee. The Working Group has submitted its report and its recommendations are being examined for implementation.

BANKING CODES AND STANDARDS BOARD OF INDIA

VI.56 The Banking Codes and Standards Board of India (BCSBI) is an autonomous and independent body set up by the Reserve Bank, which sets minimum standards for banking services in India for individuals and Micro and Small Enterprises (MSEs). Banks register themselves with BCSBI as its member and voluntarily agree to abide by Codes of Commitment of BCSBI. BCSBI monitors and assesses the compliance with the codes and standards. The BCSBI presently has 125 banks as members.

VI.57 During the year, BCSBI continued its efforts to increase awareness about the codes by conducting workshops, Town Hall meets and customer awareness programmes.

URBAN CO-OPERATIVE BANKS

Declaration of Dividend by UCBs

VI.58 UCBs were advised about the revised criteria for declaring dividend without the permission of the Reserve Bank. The criteria included compliance with prescribed CRAR, net NPAs below

5 per cent of net advance, no default in CRR/SLR and the bank having made all provisions as per IRAC norms and statutory provisions. UCBs complying with all parameters except net NPAs and desirous of declaring dividend were advised to approach the respective Regional Office for permission to declare dividend provided the net NPAs is less than 10 per cent.

Intra-bank Deposit Accounts Portability and KYC related advise to UCBs

VI.59 UCBs were advised that once KYC is done by one branch of the bank, it should be valid for transfer of the account within the bank as long as the KYC procedure for the concerned account is complete. UCBs were also advised to complete the process of risk categorisation and compiling/ updating profiles of all of their existing customers in a time-bound manner, and in any case not later than March 31, 2013.

VI.60 Following the announcement in the Monetary Policy Statement 2012-13 on April 17, 2012, UCBs have been granted time up to March 31, 2014 for allotting Unique Customer Identification Code (UCICs) to existing customers.

Know Your Customer (KYC)/ (AML)/ (CFT) / Simplification

VI.61 The existing KYC norms were reviewed and simplified. The salient features of the new norms include the following:

a) *Proof of identity and address:* If address on the document submitted as identity proof is same as that declared by customer, the document may be accepted as valid proof for both identity and address.

b) *Introduction:* Since introduction is not necessary for opening of accounts under PML Act and Rules, banks should not insist on an introduction for opening of accounts.

c) *Acceptance of Aadhaar letter for KYC purposes:* If the address provided by account holder is same as that on the *Aadhaar* letter, it may be accepted as proof of both identity and address

d) *Acceptance of NREGA Job Card as KYC for normal accounts:* Banks may accept the NREGA Job Card as an officially valid document for opening bank accounts without the limitation applicable to 'Small Accounts'.

e) *Small accounts:* Banks were advised to open small accounts for all persons who so desire, subject to limitations applicable to 'Small Accounts'.

KYC /AML / CFT / Obligations of Banks under Prevention of Money Laundering Act (PMLA), 2002 – Identification of beneficial owner

VI.62 The Government of India had specified the procedure for determining beneficial ownership where the client of bank/ financial institution is a person other than an individual or a trust. The procedure as advised by the Government of India for identifying the beneficial owner was advised to UCBs.

Financial Restructuring of UCBs

VI.63 UCBs were advised that the Reserve Bank would, henceforth, consider financial restructuring proposals submitted by UCBs that involve conversion of deposits into equity/IPDI, even if the net worth of the bank does not become positive after such a conversion, provided that the depositors voluntarily agree to the conversion.

Financial Inclusion – Access to Banking Services – Basic Saving Bank Deposit Account

VI.64 In supersession of earlier instructions on financial inclusion, UCBs were advised to offer 'Basic Saving Bank Deposit Account' with the minimum common facilities to their customer at no charge, subject to compliance with Reserve Bank instructions on KYC/AML for opening a bank account. UCBs were also advised to convert the existing 'no frill' accounts of customers into 'Basic Saving Bank Deposit' accounts.

Premature Repayment of Term/Fixed Deposits in banks with "Either or Survivor" or" Former or Survivor" mandate – Clarification

VI.65 It was reiterated that in case of term deposits with 'Either or Survivor' or 'Former or Survivor' mandate, UCBs are permitted to allow premature withdrawal of the term deposits by the surviving joint depositor on the death of the other, only if, there is a joint mandate from the joint depositors to this effect.

Interest Rate on Deposits

VI.66 It was observed that there was wide variation in the interest rates offered by banks on single term deposits of ₹1.5 million and above and those offered on other deposits (*i.e.* less than ₹1.5 million) of corresponding maturities. Further, banks were offering significantly different rates on deposits with very little difference in maturities suggesting inadequate liquidity management systems and pricing methodologies. UCBs were advised to put in place a transparent Board-approved policy on pricing of liabilities and were advised to ensure that the difference in interest rates on single term deposit of ₹1.5 million and other term deposits (*i.e.* deposits less than ₹1.5 million) was minimal for corresponding maturities.

Setting up Central Electronic Registry under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002

VI.67 In connection with the request from the Central Registry of Securitisation Asset Reconstruction and Security Interest Act of India (CERSAI), UCBs were advised to voluntarily file records of equitable mortgages created by them with CERSAI.

Migrating to CTS 2010 Standards – Submission of Compliance Report

VI.68 UCBs were advised to ensure withdrawal of non-CTS -2010 Standard cheques within the extended time limit *i.e.* by March 31, 2013. The date has been extended to July 31, 2013.

Frauds - Classification and Reporting

VI.69 As part of rationalisation of the process and procedures, UCBs have been advised to discontinue the practice of reporting attempted fraud, where likely loss would have been ₹2.5 million or higher, to the Reserve Bank of India. UCBs were also advised to place information relating to frauds on a quarterly basis before the Audit Committee of the Board during the month following the quarter. In addition, UCBs have been advised to conduct an annual review of frauds and place a note before their Board of Directors, for information.

Implementation of Core Banking Solutions (CBS) by Urban Co-operative Banks (UCBs)

VI.70 UCBs were advised to implement CBS in all their branches before December 31, 2013 for better customer service, effective regulatory reporting and generating MIS reports.

Unsecured Exposure Norms for UCBs

VI.71 In order to promote lending to priority sectors and to provide impetus to financial inclusion, UCBs that fulfil certain conditions (such as the entire loan portfolio of the bank is covered under priority sector, all sanctioned loans should be of small value *i.e.*, up to ₹20,000 in a single account, their assessed CRAR should be 9 per cent and their assessed gross NPAs should be less than 10 per cent of gross advances) were permitted to grant unsecured loans (with or without surety) up to 25 per cent of their total assets, with the prior approval of the Reserve Bank.

KYC /AML / CFT / Obligations of Banks under Prevention of Money Laundering Act (PMLA), 2002-Simplifying Norms for Self Help Groups

VI.72 To address the difficulties faced by Self Help Groups (SHGs) in complying with KYC norms when opening savings bank accounts and credit linking their accounts, the norms were simplified and UCBs

were advised that (i) KYC verification of all the office bearers would suffice while opening the savings bank account of the SHG and (ii) since KYC would have already been verified when opening the savings bank account and the account to be used for credit linkage would continue to be in operation, separate KYC verification of the members or office bearers was not necessary.

Bank finance for purchase of gold

VI.73 UCBs were advised that they should not grant any advance for purchase of gold in any form, including primary gold, gold bullion, gold jewellery, gold coins, units of gold Exchange Traded Fund and units of gold mutual funds.

Ready forward transactions in corporate debt securities

VI.74 Scheduled UCBs with CRAR of 10 per cent or more, gross NPAs of less than 5 per cent, continuous record of profits for last three years and having in place sound risk management practices and mandatory concurrent audit of its investment portfolio were permitted to undertake ready forward contracts in corporate debt securities with SCBs/ PDs, subject to certain conditions.

Consolidation of UCBs through mergers/ acquisitions

VI.75 As part of the process of strengthening the sector, a process of consolidation was set in motion through transparent and objective guidelines issued in February 2005. Another set of guidelines was issued by the Reserve Bank in January 2009 for the merger / acquisition of UCBs that have a negative net worth. Guidelines for transfer of assets and liabilities of UCBs to commercial banks were issued in February 2010. Pursuant to the issue of guidelines on merger, the Reserve Bank received 177 proposals for merger up to March 2013 and issued 130 NOC/sanctions of which 111 have been notified for mergers by respective RCS/CRCS (Table VI.2).

Table VI.2 : Year-wise progress in mergers/ acquisitions as on March 31, 2013

Financial year	Proposals received in the Reserve Bank	NOCs issued by the Reserve Bank	Merger effected (Notified by RCS)
1	2	3	4
2005-06	24	13	4
2006-07	32	17	16
2007-08	42	26	26
2008-09	16	26	22
2009-10	26	17	13
2010-11	17	15	13
2011-12	10	11	14
2012-13	10	5	3
Total	**177**	**130**	**111**

VI.76 The maximum number of mergers took place in Maharashtra, followed by Gujarat and Andhra Pradesh (Table VI.3).

Table VI.3 : State-wise progress in mergers/acquisition of UCBs

States	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	**Total**
1	2	3	4	5	6	7	8	9	**10**
Maharashtra	2	12	14	16	6	7	8	1	**66**
Gujarat	2	2	6	2	2	2	4	1	**21**
Andhra Pradesh	-	1	3	1	3	2	1	-	**11**
Karnataka	-	-	2	1	-	-	-	-	**03**
Punjab	-	1	-	-	-	-	-	-	**01**
Uttarakhand	-	-	1	1	-	-	-	-	**02**
Chhattisgarh	-	-	-	1	-	1	-	-	**02**
Rajasthan	-	-	-	-	2	-	1	-	**03**
Madhya Pradesh	-	-	-	-	-	-	-	-	**-**
Uttar Pradesh	-	-	-	-	-	1	-	1	**02**
Total	**4**	**16**	**26**	**22**	**13**	**13**	**14**	**3**	**111**

RURAL CO-OPERATIVES

Licensing of Rural Co-operatives Banks

Licensing of State and Central Co-operative Banks-Present Status

VI.77 The Committee on Financial Sector Assessment (CFSA) (Chairman: Dr. Rakesh Mohan) had recommended that no unlicensed cooperative bank may be allowed to operate in the cooperative space beyond March 31, 2012. However, this would need to be attained in a non-disruptive manner.

VI.78 As there were a large number of cooperative banks functioning without license [17 out of 31 State Cooperative Banks (StCBs) and 296 out of 371 District Central Cooperative banks (DCCBs)], the Reserve Bank relaxed the licensing norms. Accordingly, only two parameters based on the latest inspection by NABARD were prescribed for licensing *viz.*: (i) CRAR – minimum 4 per cent, and (ii) no default in CRR/SLR for the past one year (default on one/two occasions could be overlooked).

VI.79 The relaxed licensing norms helped in granting licenses to a large number of cooperatives and as at the end of March 31, 2012, only 43 banks (one StCB and 42 DCCBs) remained unlicensed. These banks were issued Directions prohibiting them from acceptance of fresh (new) deposits and advised to draw up a Monitorable Action Plan to achieve the licensing norms by September 30, 2012. Following the infusion of capital by some State Governments, 17 banks (one StCB and 16 DCCBs) became eligible for license, but the remaining 26 banks failed to achieve the licensing norms, even after the extension.

VI.80 Notices were issued on March 7, 2013 to all 26 unlicensed DCCBs for not complying with the licensing criteria to show cause as to why the licence application submitted to the Reserve Bank to carry on banking business should not be rejected. In Maharashtra, two DCCBs attained licensing norms after the State Government released funds and a third DCCB achieved the licensing norms on its own; licenses were issued to these three DCCBs in Maharashtra. Thus, as on date, the number of unlicensed banks remains at 23 in four states (16 in Uttar Pradesh, 3 in Maharashtra, 3 in Jammu & Kashmir and 1 in West Bengal).

Developments in Regional Rural Banks

Amalgamation of RRBs

VI.81 The consolidation of RRBs was initiated in the year 2005. In the first phase of amalgamation of RRBs which took place between September 2005 and March 2010, RRBs of the same sponsor banks within a state were amalgamated bringing down their number to 82 from 196. In the current phase which started from October 1, 2012, the Government of India (GoI) plans to mainly amalgamate geographically contiguous RRBs within a state under different sponsor banks to have just one RRB in medium-sized states and 2 or 3 RRBs in large states. As on date, 36 RRBs have been amalgamated by the GoI to create 15 new RRBs in 10 states bringing down their effective number to 61. The process of scheduling has been initiated in respect of the newly amalgamated RRBs.

Recapitalisation of RRBs

VI.82 The Central Government had, in September 2009, constituted a committee (Chairman: Dr. K.C. Chakrabarty) to study the current level of CRAR of RRBs and to suggest a roadmap for enhancing the same to 9 per cent by March 31, 2012. The committee submitted its report to the Government on April 30, 2010. The committee has assessed that 40 RRBs will require capital infusion to the extent of ₹22 billion. The NABARD has reported that 36 RRBs have been recapitalised fully, whereas in 4 RRBs, the recapitalisation process is yet to be completed. The recapitalisation scheme has been extended up to 2013-14 to complete the process.

DEPOSIT INSURANCE AND CREDIT GUARANTEE CORPORATION

VI.83 The Deposit Insurance and Credit Guarantee Corporation (DICGC) is a wholly-owned subsidiary of Reserve Bank of India. The number of insured banks as on March 31, 2013 stood at 2,167 comprising 89 commercial banks, 67 RRBs, 4 LABs and 2,007 co-operative banks. With the present limit of deposit insurance in India at ₹0.1 million, the number of fully protected accounts at 1,393 million (as on March 31, 2013) constituted 94 per cent of the total number of accounts (1,482 million) as against the international benchmarks of 80 per cent. Amount-wise, insured deposits at ₹21,584 billion constituted 32.6 per cent of assessable deposits at ₹66,211 billion against the international benchmark of 20-40 per cent[4]. At the current level, the insurance cover works out to 1.45 times per capita income as on March 31, 2013.

VI.84 The DICGC builds up its Deposit Insurance Fund (DIF) through transfer of its surplus, *i.e.*, excess of income (mainly comprising premia received from insured banks, interest income from investments and cash recovery out of the assets of failed banks) over expenditure each year, net of taxes. This fund is used to settle the claims of depositors of banks taken into liquidation/ reconstruction/amalgamation, *etc.* During the year 2012-13, the DICGC settled aggregate claims amounting to ₹2.00 billion in respect of 63 co-operative banks as compared with claims aggregating ₹2.87 billion in the previous year. The size of DIF stood at ₹361.20 billion as on March 31, 2013, implying a reserve ratio (DIF/Insured Deposits) of 1.7 per cent.

VI.85 The Financial Stability Board (FSB) undertook a peer review of resolution regimes in order to evaluate the existing regimes in the FSB's jurisdictions and any planned changes to those regimes using Key Attributes (KAs) as a benchmark. The Peer Review Report was released by the FSB in April 2013. The Review report found that, while major legislative reforms have taken place in some jurisdictions, implementation of the KAs remains at an early stage. Further work is needed to implement robust resolution regimes that are capable of addressing failing institutions, including SIFIs.

VI.86 During the global financial crisis, the uncertainty triggered panic and the collapse of banks. Under these circumstances, deposit insurance emerged as an important part of financial safety net in arresting panic (Box VI.5).

NON-BANKING FINANCIAL COMPANIES

New Category of NBFCs

VI.87 During 2012-13, a new category of NBFCs, *viz.*, Non-Banking Financial Company - Factors was created. The guidelines for the new NBFC category are provided in Box VI.6.

Miscellaneous Instructions

VI.88 Revised guidelines on securitisation were introduced for NBFCs which specify *inter alia* that the portfolio can be securitised after a minimum holding period and the originators need to retain a portion of the securitised portfolio. The guidelines also deal with bilateral assignments under which no credit enhancement can be provided by the originators.

VI.89 All NBFCs lending against the collateral of gold were advised to maintain a Loan-to-Value (LTV) ratio not exceeding 60 per cent and disclose in their balance sheet the percentage of such loans to their total assets. Where gold loans comprise 50 per cent or more of the financial assets, the NBFCs shall maintain a minimum Tier I capital of 12 per cent by April 01, 2014. Further, NBFCs should not grant any advances against bullion/primary gold and gold coins or for purchase of gold in any form, including primary gold, gold bullion, gold jewellery,

[4] Accepted as a rule of thumb at the First Annual Conference of the International Association of Deposit Insurers (IADI) in Basel, Switzerland in May 2002.

Box VI.5
Deposit Insurance in the Financial System – Some Observations

The provision of deposit insurance serves several purposes. First, it secures public confidence in the banking system, thereby contributing to financial stability. Second, deposit insurance benefits depositors, particularly small ones, through protection of their deposits, thereby contributing to the social security objective. Third, confidence in the banking system coupled with broad access to safe and affordable small savings accounts promotes financial inclusion and helps households prepare for unexpected expenses and plan for a more secure financial future. Deposit insurance is a very effective tool to attain financial inclusion, given the existing high level of financial exclusion around the globe, especially in the underdeveloped world and emerging and developing economies.

The Financial Stability Board (FSB) undertook a peer review of deposit insurance systems among its member institutions. The report observed that the global financial crisis has illustrated the importance of effective depositor compensation arrangements. The crisis resulted in greater convergence in practices across jurisdictions and emerging consensus about appropriate design features that include higher coverage levels, elimination of co-insurance, improvements in the payout process, greater depositor awareness, adoption of *ex ante* funding by more jurisdictions and strengthening of information sharing and co-ordination with other safety net participants.

In order to play an effective role in the financial system, deposit insurers must comply with the BCBS-IADI 'Core Principles for Effective Deposit Insurance Systems'. In some areas, there are deviations from the 'Core Principles', which need to be addressed. In some countries, including India, non-bank deposit-taking institutions do not have deposit insurance coverage. Second, coverage limits need to be periodically examined so as to achieve a balance between financial stability and market discipline. The deposit insurer would also need to take into consideration the value (of deposits) at risk and the likelihood of failure for determining the sufficiency of funds. In addition, adequacy, timeliness and efficiency in payout are important for the deposit insurance agency, that is contingent on timely access to information. Deposit insurance systems should regularly test the readiness and effectiveness of their payout processes. In this regard, data systems such as the "single customer view" in the US and the UK need to be implemented in India.

The financial crisis led to the expansion of mandates in many systems. The challenge before economies is to ensure proper co-ordination between the deposit insurer and other safety net participants, which would ensure appropriate resolution and expeditious claims settlement. The cross-border information-sharing arrangements between deposit insurance agencies also need to be strengthened.

gold coins, units of gold Exchange Traded Funds (ETF) and units of gold Mutual Funds

VI.90 In light of the operational issues surrounding micro finance and lending against collateral of gold jewellery, the guidelines issued on Fair Practices Code for such NBFCs were revised/amended. As per the guidelines such NBFCs should put in place Board-approved grievance redressal mechanism with the name of the grievance redressal officer prominently displayed at all branches; the Fair Practices Code in vernacular language should be prominently displayed; there should be transparency in loan pricing, besides others. NBFCs lending against gold jewellery have been advised to follow KYC guidelines; have internal policies to establish ownership of gold; have adequate security and insurance on gold collateral and have Board-approved auction policy in place. NBFCs themselves cannot participate in their auctions.

VI.91 The margin cap for all NBFCs irrespective of their size have been revised to 12 per cent until March 31, 2014. However, with effect from April 1, 2014 margin caps may not exceed 10 per cent for large MFIs (loans portfolios exceeding ₹100 crore) and 12 per cent for the others.

VI.92 In view of the unique business model of Core Investment Companies (CICs), it was decided to issue a separate set of guidelines for their entry into insurance business. Eligibility criteria include, *inter alia,* owned funds of ₹ 500 crore, net NPA of not more than 1 per cent of net advances and earning profits for three consecutive years. The CIC will be permitted to invest upto 100 per cent of the equity of the insurance company.

Box VI.6
NBFC-Factors

The *Factoring Regulation Act* 2011, notified by the Central Government in January 2012, aims to regulate factors and assignment of receivables in favour of factors, as also delineate the rights and obligations of parties to assignment of receivables.

Under the Act, factoring companies other than banks, Government companies *etc.* (as provided in Section 5 of the Act) would be registered with the Reserve Bank as NBFCs and would be subject to prudential regulations by the Reserve Bank. Hence, it has been decided to introduce a new category of NBFCs *viz.*, Non-Banking Financial Company-Factors and separate Directions in this regard have been issued.

This Directions states, *inter alia*, that every company intending to undertake factoring business shall make an application for grant of certificate of registration (CoR) as NBFC-factor to the Reserve Bank as provided under Section 3 of the Act. Existing NBFCs that satisfy all the conditions enumerated in these Directions have been advised to approach the Regional Office of the Reserve Bank where it is registered, along with the original CoR issued by the Reserve Bank for change in their classification as NBFC-Factor within six months from the date of this notification. Their request must be supported by their Statutory Auditor's certificate indicating the asset and income pattern. An entity not registered with the Bank may conduct the business of factoring if it is an entity mentioned in Section 5 of the Act *i.e.*, a bank or any corporation established under an Act of Parliament or State Legislature, or a Government Company as defined under section 617 of the Companies Act 1956. A new company that is granted CoR by the Reserve Bank as NBFC-Factor shall commence business within six months from the date of grant of CoR by the Reserve Bank.

For every company seeking registration as NBFC-Factor, the minimum Net Owned Fund (NOF) has been fixed at ₹5 crore. Existing companies seeking registration as NBFC-Factor but do not fulfil the NOF criterion of ₹5 crore have been advised to approach the Reserve Bank for time to comply with the requirement.

Principal Business criteria for NBFC-Factor

(i) An NBFC-Factor shall ensure that its financial assets in the factoring business constitute at least 75 per cent of its total assets and its income derived from factoring business is not less than 75 per cent of its gross income;

(ii) An existing NBFC registered with the Reserve Bank and conducting factoring business that constitute less than 75 per cent of total assets / income shall have to submit to the Reserve Bank within six months from the date of this notification, a letter of its intention either to become a Factor or to unwind the business totally, and a roadmap to this effect. However, such NBFCs shall raise the asset/ income percentage as required at 6(i) above or unwind the factoring business within a period of 2 years from the date of this notification. They will be granted CoR as NBFC-Factors only after they reach the required asset/income percentage.

The provisions of Non-Banking Financial (Non-deposit Accepting or Holding) Companies Prudential Norms (Reserve Bank) Directions, 2007 or Non-Banking Financial (Deposit Accepting or Holding) Companies Prudential Norms (Reserve Bank) Directions, 2007, as the case may be and as applicable to a loan company shall apply to an NBFC-Factor. The submission of returns to the Reserve Bank will be as specified presently in the case of registered NBFCs.

Export / Import Factoring

The Foreign Exchange Department (FED) of the Reserve Bank gives authorisation to Factors under FEMA, 1999. Therefore, NBFC-Factors, intending to deal in forex through export/import factoring, should make an application to FED for necessary authorisation under FEMA, 1999 to deal in forex and adhere to the terms and conditions prescribed by FED and all the relevant provisions of the FEMA or Rules, Regulations, Notifications, Directions or Orders made thereunder from time to time.

VI.93 A separate set of Directions for CICs was issued with regard to their overseas investments. All CICs investing in joint ventures/subsidiaries/ representative offices overseas in financial sector will require prior approval from the Bank. Apart from a minimum eligibility criteria, CIC desiring to invest in the financial sector overseas will need a registration from the Reserve Bank. A ceiling of 400 per cent of owned funds with a minimum of 200 per cent in the financial sector has been prescribed.

VI.94 Based on the Second Quarter Review of Monetary Policy 2012-13, the definition of infrastructure lending for the purpose of financing of infrastructure by banks and financial institutions

was harmonised with that in the Master List of Infrastructure sub-sectors' notified by the Government of India on March 27, 2012. Accordingly, it was decided to harmonise the definition of infrastructure lending for NBFCs with that of banks and the extant definition of infrastructure loan in the NBFC Prudential Norms Directions, 2007 stands amended.

VI.95 In line with the increasing size and complexity of the financial sector, the Reserve Bank has taken steps to ensure that the laws governing the sector are in line with modern financial practices. Accordingly, several relevant laws were amended to keep pace with the changing developments (Box VI.7).

Recommendations of the Financial Sector Legislative Reforms Commission

VI.96 Pursuant to the announcement made in the Union Budget 2010-11, the Government of India set up the Financial Sector Legislative Reforms Commission (Chairman: Justice Shri B.N. Srikrishna), on March 24, 2011. The terms of reference were wide in their ambit and included the examination of the architecture of the legislative and regulatory system governing the financial sector, besides reviewing the existing laws that govern the financial sector in India.

VI.97 The comments, suggestions and inputs from the Reserve Bank were submitted to the Commission in April 2012. The submissions focused on the need for a clear and specific mandate to the Reserve Bank for the pursuit of financial stability, monopoly of the Reserve Bank in the regulation of public deposits, the consolidation of banking laws, the need for globally compatible secrecy laws and continuation of the debt management function with the Reserve Bank. The Commission released an Approach Paper in October 2012 and sought feedback from

Box VI.7
Legal developments in the banking sector

Banking Laws (Amendment) Act, 2012

The Banking Laws (Amendment) Act, 2012 came into force from January 18, 2013. This Act has amended the Banking Regulation Act, 1949, the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 and the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1980 to make the regulatory powers of Reserve Bank more effective and to increase the access of the nationalised banks to capital market to raise capital required for expansion of banking business. The major features of the Act are as follows:

Reserve Bank has been empowered to supersede the Board of Directors of banking company subject to a total period of twelve months and appoint administrator till alternate arrangements are made.

Banking companies have been enabled to issue preference shares subject to regulatory guidelines by Reserve Bank.

The prior approval of Reserve Bank is required for acquisition of 5 per cent or more of shares or voting rights in a banking company by any person and Reserve Bank is empowered to impose such conditions as it deems fit in this regard.

Provides for the creation of a Depositor Education and Awareness Fund by utilising the inoperative deposit accounts.

The Reserve Bank has been empowered to collect information and inspect associate enterprise of banking companies.

The nationalised banks have been enabled to raise capital through "bonus" and "rights" issue and also to increase or decrease the authorised capital with approval from the Central Government and the Reserve Bank without being limited by the ceiling of ₹3000 crore.

The penalties and fine for violations of the Banking Regulation Act have been substantially increased.

Provides for primary credit societies to stop banking business or to obtain license from Reserve Bank to continue doing banking business.

The Reserve Bank has been empowered to order for additional audit of cooperative banks.

It restricts the meaning of "approved securities" to Government securities and Reserve Bank approved securities.

(Contd....)

The Act enables the Reserve Bank to increase the ceiling on voting rights from ten to 26 per cent in a phased manner.

The enforcement of Security Interest and Recovery of Debt Laws (Amendment) Act, 2012

The provisions of this Act (except Sections 8 and 15(b)) have came into effect from January 15, 2013. The provision of sections 8 and 15(b) of the Act came into effect from May 15, 2013. This Act amends the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 and the Recovery of Debts Due to Banks and Financial Institutions Act, 1993. The major features of the Act are as follows:

The Act includes 'multi-state cooperative banks' in the existing definition of bank in the Recovery of Debts Due to Banks and Financial Institutions Act, 1993 so that the measures for recovery through the Debt Recovery Tribunals are now available to multi-state cooperative banks.

It provides for conversion of any part of debt into shares of a borrower company.

The Act allows secured creditor to accept the immovable property in full or partial satisfaction of the claim against the defaulting borrower in times when they cannot find a buyer for the securities.

It enables the secured creditors or any person to file a caveat so that before granting any stay, the secured creditor or person is heard by the Debt Recovery Tribunal.

It empowers Central Government to require by notification, registration of all transactions of securitisation, reconstruction or creation of security interest on or before the date of establishment of Central Registry, within prescribed time period and on payment of prescribed fee.

The Central Government is enabled to exempt a class or classes of banks or financial institutions from the provisions of this Act on grounds of public interest.

It permits multi state cooperative banks with respect to debts due before or after the commencement of the Act, to opt to initiate proceedings either under the Multi State Cooperative Societies Act, 2002 or under the Recovery of Debts due to Banks and Financial Institutions Act, 1993.

Prevention of Money Laundering (Amendment) Act, 2012

Consequent to the submission of an action plan to the Financial Action Task Force to bring anti money laundering legislation in India at par with international standards and to obviate some of the deficiencies in the Act experienced by the implementing agencies, the Prevention of Money Laundering Act has been amended. The amended Act came into effect from February 15, 2013. The salient features of this amendment Act are as follows:

It introduces the concept of 'corresponding law' to link the provisions of Indian law with the laws of foreign countries and provides for transfer of the proceeds of the foreign predicate offence in any manner in India.

It introduces the concept of 'reporting entity' to include therein a banking company, financial institution, intermediary or a person carrying on a designated business or profession.

The Act enlarges the definition of offence of money-laundering to include therein the activities like concealment, acquisition, possession and use of proceeds of crime as criminal activities.

It provides for attachment and confiscation of the proceeds of crime even if there is no conviction so long as it is proved that offence of money laundering has taken place and property in question is involved in money laundering.

The Act stipulates that in the proceedings relating to money laundering, the funds shall be presumed to be involved in the offence, unless proven otherwise.

It makes the reporting entity, its designated directors on the Board and employees responsible for omissions or commissions in relation to the reporting obligations.

stakeholders. In its Approach Paper, the Commission proposed far-reaching reforms in the financial sector and it was perceived as the blueprint of the legislative reforms contemplated by the Commission.

VI.98 In December 2012, the Reserve Bank submitted its feedback to the Commission on major issues arising out of the Approach Paper, such as the role of the Reserve Bank in pursuing financial stability, autonomy and accountability of the Reserve Bank, an independent Debt Management Office, capital controls, regulation of NBFCs, credit information companies and securitisation and asset reconstruction companies likely to be transferred to unified financial regulatory agency *etc.* The Commission submitted its final report in two volumes in March 2013. Volume I contains the analysis and recommendations of the Commission and Volume II contains the draft Indian Financial

Box VI.8
Major recommendations of the Financial Sector Legislative Reform Commission

The Commission has proposed a financial regulatory architecture comprising of the following agencies:

i) Reserve Bank of India – performing three functions: monetary policy, regulation and supervision of banking and payment systems.

ii) Unified Financial Agency – for implementing consumer protection law and microprudential law for all financial firms other than banking and payment systems.

iii) Financial Sector Appellate Tribunal – as an appellate body that will hear appeals against the Reserve Bank for its regulatory functions, the unified financial agency, decisions of the financial redressal agency and some elements of the work of the resolution corporation.

iv) Resolution Corporation – into which the present DICGC would be subsumed. It would work across the financial system.

v) Financial Redressal Agency – as a one-stop shop where consumers can file complaints against all financial firms.

vi) Public Debt Management Agency – as an independent agency to manage public debt.

vii) Financial Stability Development Council – which will be a statutory agency, and have modified functions in the fields of systemic risk and development.

As regards capital controls, the Commission has envisaged a set up where central government would control inbound capital flows, the Reserve Bank would control outbound capital flows and implementation of all capital controls would vest with the Reserve Bank.

The Commission requires the regulators to frame regulations to achieve their objectives. The detailed procedure for framing regulations have been laid down which includes inviting public comments on the draft regulations and considering the same, cost-benefit analysis of the regulations *etc.* An exception is carved out for regulations that are required to be framed in emergencies. Regulators may issue clarifications on the regulations by framing guidelines. The procedure for framing guidelines is also the same as the procedure for framing regulations. The Indian Financial Code contemplates that only regulations and guidelines will be issued by the regulators and no other form of delegated legislation such as circulars. Contravention of the provisions of the IFC and the regulations only will be actionable and not the contravention of the guidelines.

Code. The Report of the Commission is available on the website of the Ministry of Finance.

VI.99 The Commission identified the following as the nine components for constructing a sound financial legal framework: (i) consumer protection; (ii) microprudential regulation (iii) resolution; (iv) capital controls; (v) systemic risk; (vi) development and redistribution; (vii) monetary policy; (viii) public debt management; and, (ix) contracts, trading and market abuse. The major recommendations of the Commission are highlighted in Box VI.8.

VI.100 The FSLRC Report has opened up several issues that require careful examination in the context of the global practices and what might be suitable or not suitable for implementation in India, as also the best timing for changes that may be finally considered appropriate.

VII PUBLIC DEBT MANAGEMENT

The Reserve Bank conducted government's market borrowing programme smoothly during 2012-13 despite tight liquidity conditions. The weighted average yield of dated government securities declined and the weighted average maturity increased. To encourage savings by offering better menu choices to risk-averse investors, amidst high inflation in recent years, the Reserve Bank issued inflation indexed bonds.

DEBT MANAGEMENT OF CENTRAL GOVERNMENT

Market Borrowings

VII.1 The financial year 2012-13 was characterised by sustained inflationary pressure and tight liquidity conditions. The Reserve Bank, as the government's debt manager conducted the borrowing programme smoothly, guided by the twin objectives of minimisation of cost and pursuit of maturity profiles that are consistent with low rollover risk. Market borrowing to the tune of ₹5580 billion was successfully completed. Securities amounting ₹18 billion, however devolved on primary dealers as compared with ₹121 billion during the previous year. The gross and net amounts raised through dated securities in 2012-13 were higher by around 9 per cent and 7 per cent, respectively than those raised in the previous year (Table VII.1).

Table VII.1: Gross and Net Market Borrowings of the Central Government #

(₹ billion)

Item	2010-11	2011-12	2012-13
1	2	3	4
Net Borrowings	3,254 (3,450)	4,364 (3,430)	4,674 (4,790)
Gross Borrowings	4,370 (4,571)	5,100 (4,171)	5,580 (5,696)

#: Issuances through dated securities.
Note: Figures in brackets are budget estimates.

VII.2 The weighted average yield of dated securities declined to 8.36 per cent in 2012-13 compared to 8.52 per cent in 2011-12 due to easing of yield mainly for the long dated securities. The weighted average coupon on the outstanding stock of Government dated securities, however, increased to 7.97 per cent as on March 31, 2013 from 7.88 per cent as on March 31, 2012 (Table VII.2).

Table VII.2: Central Government's Market Loans - A Profile#

(Yield in per cent, Maturity in years)

Year	Range of YTMs at Primary Issues			Issues during the year			Outstanding Stock (As at end-March)	
	Under 5 years	5-10 years	Over 10 years	Weighted Average Yield	Tenor of securities	Weighted Average Maturity	Weighted Average Maturity	Weighted Average Coupon
1	2	3	4	5	6	7	8	9
2008-09	7.71-8.42	7.69-8.77	7.77-8.81	7.69	6-30	13.8	10.45	8.23
2009-10	6.09-7.25	6.07-7.77	6.85-8.43	7.23	5-15	11.16	9.82	7.89
2010-11	5.98-8.67	7.17-8.19	7.64-8.63	7.92	5-30	11.62	9.78	7.81
2011-12	8.21-8.49	7.80-10.01	8.25-9.28	8.52	7-30	12.66	9.60	7.88
2012-13	8.82-8.21	7.86-8.76	7.91-8.06	8.36	5-30	13.50	9.67	7.97

#: Excludes issuances under MSS; YTM: Yield to Maturity.

VII.3 A large volume of long dated securities was issued during the year which resulted in the average maturity of debt issuances during 2012-13 to increase to 13.50 years from 12.66 years during the previous year.

VII.4 The weighted average maturity of the outstanding stock (based on residual maturity) increased to 9.67 years as on March 31, 2013 from 9.60 years as on March 31, 2012 (Table VII.2). During 2012-13 about 31 per cent of the market borrowings were raised through issuance of dated securities with maturity of 10-15 years as compared to 24 per cent in 2011-12 (Table VII.3).

VII.5 As per the Union Budget 2013-14, the gross market borrowings of the GoI through dated securities is estimated at ₹5,790 billion (net ₹4,840 billion) excluding ₹500 billion of buybacks/switches. The issuance calendar for dated securities for the first half of 2013-14 was issued in consultation with the GoI on March 18, 2013. An amount of ₹3,490 billion is scheduled to be raised in the first half as against ₹3,700 billion raised during the corresponding period of the previous year. Market borrowing of ₹2,400 billion in gross terms (and ₹2,272 billion in net terms) was completed by August 5, 2013. The weighted average maturity of the dated securities increased to 14.4 years from 13.62 years during the corresponding period of the previous year. The weighted average yield during the primary auctions (excluding IIBs) eased to 7.80 percent from 8.50 per cent during the corresponding period of the previous year.

VII.6 The yields on auction of Treasury Bills showed a declining trend till the middle of the quarter ending June 2013, but started hardening subsequent to the Fed Chairman's response in May 2013. Yields on Treasury Bills went up further significantly (by 273 bps and 209 bps for 91-day and 364-day treasury bills, respectively) subsequent to the liquidity tightening measures.

VII.7 The Union Budget 2013-14 had proposed to introduce instruments that will protect savings from inflation, especially the savings of the poor and middle classes. In the backdrop of the budget announcement, Inflation Indexed Bonds (IIBs) were issued through auction method on June 4 and 25, 2013 which is expected to provide benchmarks for the real yield and subsequently, IIBs exclusively for retail investors would be issued in the second half of 2013-14 (Box VII.1).

Cash Management

VII.8 The Government started the year 2012-13 with a surplus cash balance of ₹742 billion, but soon took recourse to WMA on April 12, 2012 due to its expenditure commitments (Chart VII.1).

Table VII.3: Issuance of GoI Dated Securities – Maturity Pattern

(₹ billion)

Residual Maturity	2010-11		2011-12		2012-13	
	Amount raised	Percentage to total	Amount raised	Percentage to total	Amount raised	Percentage to total
1	2	3	4	5	6	7
Less than 5 years	110	2.52	180	3.53	470	8.42
5 -9.99 years	1,520	34.78	2,340	45.88	1,910	34.23
10-14.99 years	1,640	37.53	1,230	24.12	1,730	31.00
15 -19.99 years	540	12.36	650	12.75	270	4.84
20 years & above	560	12.81	700	13.73	1,200	21.51
Total	**4,370**	**100.00**	**5,100**	**100.00**	**5,580**	**100.00**

Box VII.1
Issuance of Inflation Indexed Bonds

The debt management strategy should have a bouquet of instruments at its disposal for managing public debt in a cost-effective and non-disruptive manner. IIBs have emerged as a critical instrument for government market borrowing across the developed and emerging market economies (Table 1).

Although the debt management strategy shall be using variety of instruments for successful completion of market borrowing programme, it has largely relied on fixed rate nominal bonds. One variant of IIBs, 5 year Capital Index Bond (CIB) was issued on December 29, 1997 wherein only the principal repayment at the time of redemption was indexed to inflation. The response to the issue was, however, subdued as interest payment was not protected against inflation.

It is known fact that SLR requirement for banks and requirement of some minimum investment in G-Sec for insurance companies and provident funds provides significant captive demand for G-Sec. In view of market borrowing at elevated level, debt management strategy should continuously strive to broaden the investors' base, especially to tackle with the eventuality of decline in captive demand for G-Sec. Towards this end, based on the past experience, feedback from market participants and learning from international experiences, a new version of IIB has been designed with an inherent protection from inflation to both interest payment and principal repayment. The main features are:

i) Principal would be indexed to inflation (index ratio);

ii) Coupon will be paid on the indexed principal;

iii) Higher of the adjusted principal or the face value will be paid at redemption; and

iv) Wholesale Price Index (WPI) will be used for indexation of principal.

The Reserve Bank launched this product by the name of Inflation Indexed Government Stock and the first auction for ₹10 billion was conducted on June 4, 2013. Besides helping the government market borrowing, this product may also have host of other benefits. The issuance of IIBs may improve credibility of the public policy towards price stability. Long-term funding is always fraught with inflation risk that could be obviated by borrowing through inflation linked instruments. It would provide a benchmark for the private sector and banks, facilitating them to raise long-term resources through inflation linked instruments. Therefore, this product may be a great catalyst for infrastructure funding. It would also enable improved gauging of inflationary expectations that is critical for monetary policy formulation. The investment of financial savings in gold by people for inflation hedging may come down and help balance of payments of the country.

Non-competitive portion has been earmarked up to 20 per cent of the notified amount to encourage retail participation. Some demand from institutional investors such as insurance companies, pension funds, provident funds, *etc.* is also expected to the extent their payouts are linked to inflation. Banks may also like to invest in this product depending upon the tenor as it could facilitate them to raise long-term deposits.

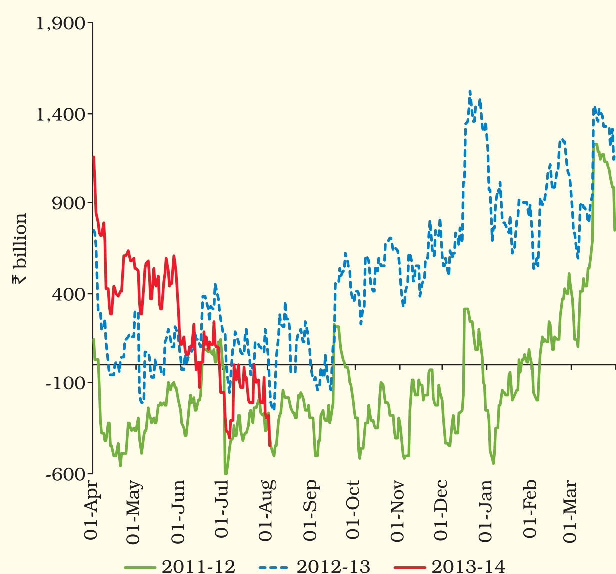
Table 1: Composition of Domestic Bonds issued by Central Government: Cross Country
(as % of outstanding) (As at end 2011)

Country	Floating Rate	Fixed Rate	Inflation Indexed	Exchange Rate linked	Others
1	2	3	4	5	6
Argentina	14.8	0.8	49.2	34.6	0.7
Brazil	31.9	37.5	30.0	0.6	0.0
Chile	0.0	19.2	80.8	0.0	0.0
India	2.4	97.6	0.0	0.0	0.0
Indonesia	22.2	77.8	0.0	0.0	0.0
Canada	0.0	92.5	7.5	0.0	0.0
South Africa	11.6	70.8	17.6	0.0	0.0
Mexico	41.4	36.6	22.1	0.0	0.0
Germany	10.9	85.8	2.9	0.4	0.0
UK	0.0	77.6	22.4	0.0	0.0
USA	0.0	91.2	8.8	0.0	0.0

Source: Bank for International Settlements (BIS).

Thereafter GoI has availed WMA for 12 occasions before recording positive balance from September 15, 2012 till March 31, 2013. During the year, the Government of India was in WMA for 40 days and did not avail OD as compared with WMA for 263 days and OD on 70 days in the previous year.

VII.9 The limits for WMA for the first half of the financial year 2012-13 were set at ₹500 billion for first quarter and ₹450 billion for the second quarter. The limit for WMA for the second half was fixed at ₹200 billion. The same for the first half of the financial year 2013-14 has been fixed at ₹300 billion. During the current financial year (2013-14),



GoI was in WMA for 27 days and availed OD for 4 days as on August 5, 2013.

DEBT MANAGEMENT OF STATE GOVERNMENTS

Market Borrowings

VII.10 The net allocation under the market borrowing programme for state governments for 2012-13 was placed at ₹1,881 billion. Taking into account the repayments of ₹306 billion, the gross allocation amounted to ₹2,187 billion, while gross sanctions under Article 293(3) amounted to ₹1,861 billion. The 28 state governments raised a gross amount of ₹1,773 billion (net ₹1,467 billion) in 2012-13 as against ₹1,586 billion (net ₹1,366 billion) raised by 26 states in the previous year (Table VII.4). Odisha Government did not participate in the market borrowing programme in 2012-13 as against Assam, Odisha and Chhattisgarh in 2011-12. Eleven States did not raise their full sanctions in 2012-13 as against 14 States in 2011-12.The outstanding stock of the SDLs and power bonds stood at ₹8874 billion at the end of March 2013 (Table VII.5).

Table VII.4: States' Market Borrowings

(₹ billion)

Item	2011-12	2012-13	2013-14 (till Aug 5, 2013)
1	2	3	4
Net Allocation	1,459	1,881	-
Additional Allocation	157	0	0
Maturities during the year	220	306	291.84
Gross Allocation	1,835	2,187	-
Gross Sanctions under Article 293 (3)	1,634	1,861	832.95
Gross Amount Raised during the Year	1,586	1,773	481.31
Net Amount Raised during the Year	1,366	1,467	189.47
Balance to be raised against GoI Sanctions	48	89	351.64
Amount Raised during the year as a % of Total Sanctions	97.09	95.22	-
SDLs outstanding (at the end period)	7,424	9,291	-

VII.11 The weighted average yield firmed up to 8.84 per cent (2012-13) from 8.79 per cent during the previous year (2011-12) as the weighted average spread for SDL issuances, over the corresponding GoI security, has increased to 71 bps compared to 44 bps over the previous year.

Table VII.5: Residual Maturity Profile of Outstanding State Development Loans and Power Bonds (as at end-March 2013)

(₹ billion)

Year of Maturity	State Development Loans	Power Bonds	Total
1	2	3	4
2013-14	321	29	350
2014-15	334	29	363
2015-16	352	29	381
2016-17	315	14	329
2017-18	678	0	678
2018-19	1,181	0	1,181
2019-20	1,306	0	1,306
2020-21	1,045	0	1,045
2021-22	1,586	0	1,586
2022-23	1,654	0	1,654
Total	**8,772**	**101**	**8,873**

Table VII.6: Utilisation of WMA/OD and Investment of State Governments@ (Average monthly outstanding)

(₹ billion)

Months	Special WMA			Normal WMA			Overdraft			Total		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11	12	13
April	10.0	5.0	0.8	7.0	4.0	3.0	9.0	3.0	2.0	26.0	12.0	5.8
May	6.0	1.0	0.6	1.0	0.3	1.3	0.4	0.0	0.2	7.4	1.4	2.1
June	2.0	0.6	5.8	3.0	2.0	5.3	0.1	0.2	2.1	5.1	2.8	13.2
July	1.0	2.0	1.9	1.0	2.0	2.9	0.0	0.8	0.6	2.0	4.8	5.4
August	2.0	0.6	4.0	3.0	1.0	0.4	0.0	0.3	0.0	5.0	1.9	4.5
Sept	1.0	4.0		2.0	4.0		0.1	2.0		3.1	10.0	
Oct	1.0	5.0		2.0	4.0		0.1	1.0		3.1	10.0	
Nov	5.0	5.0		2.0	4.0		0.0	1.0		7.0	10.0	
Dec	3.0	4.0		1.0	4.0		0.1	2.0		4.1	10.0	
Jan	3.0	0.6		1.0	1.0		0.0	0.1		4.0	1.7	
Feb	0.5	0.1		1.0	3.0		0.0	2.0		1.5	5.1	
Mar	0.2	0.9		1.0	1.6		0.3	4.9		1.5	0.0	

@ : Upto August 5, 2013.

Cash Management

VII.12 The aggregate Normal WMA limit for States, including the union territory of Puducherry, was placed at ₹102 billion for 2012-13, which was same as in the previous year. The rates of interest on Normal and Special WMA and OD continued to be linked to the repo rate. The monthly average utilisation of WMA and OD by all the States in 2012-13 was higher than 2011-12 for July, September-December and February (Table VII.6). During 2013-14 (thus far), 5 states have availed of overdrafts (Table VII.7).

VII.13 The surplus cash balances of state governments are automatically invested in 14-day Intermediate Treasury Bills (ITBs), the discount rate of which is presently fixed at 5 per cent. The average investment in 14-day ITBs increased from ₹722 billion during 2011-12 to ₹849 billion in 2012-13 (Table VII.8). The outstanding investments in ITBs stood at ₹1,181 billion as at end-March 2013 as

Table VII.7: No. of Days States Availed of Special/ Normal WMA and OD@

State	Special WMA			Normal WMA			Overdraft		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10
Haryana	23	13	2	22	12	1	6	5	0
Nagaland	41	193	76	20	139	56	0	34	35
Punjab	177	233	74	177	232	74	26	139	37
West Bengal	185	134	38	59	48	15	28	13	9
Maharashtra	0	7	0	0	0	0	0	0	0
Manipur	0	98	12	0	81	8	0	30	8
Mizoram	15	7	64	1	3	31	0	0	5
Uttarakhand	57	2	0	15	0	0	0	0	0
Jharkhand	5	14	8	4	14	8	0	0	0
Jammu & Kashmir	0	0	0	136	136	23	5	11	0
Meghalaya	-	-	5	-	-	1	-	-	0
Himachal Pradesh	-	-	0	-	-	12	-	-	0
Uttar Pradesh	-	-	1	-	-	-	-	-	0

@ : Upto August 5, 2013.

Table VII.8: Investments in ITBs and ATBs by State Governments/UTs@

(₹billion)

Month	Investment in ATBs			Investment in ITBs			Total		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10
April	108.6	231.6	317.40	864.1	863.1	1002.31	972.7	1094.7	1319.71
May	145.3	327.6	378.40	728.1	768.2	913.99	873.4	1095.8	1292.39
June	249.8	415.9	549.03	677.9	681.6	729.45	927.7	1097.5	1278.48
July	326.4	440.6	672.28	613.9	654.9	609.91	940.3	1095.5	1282.19
August	329.6	450.3	721.82	645.2	756.3	646.58	974.8	1206.6	1368.40
September	327.6	505.5		615.4	707.9		943.0	1213.4	
October	297.2	521.9		613.7	748.8		910.9	1270.7	
November	267.9	496.1		667.1	844.0		935.0	1340.1	
December	240.2	523.8		762.0	875.7		1002.2	1399.5	
January	326.3	546.6		717.1	912.2		1043.4	1458.8	
February	381.7	498.9		774.5	1088.8		1156.2	1587.7	
March	329.5	337.2		986.5	1295.5		1316.0	1632.7	
Average	276.5	441.0		722.1	848.9		998.6	1289.9	

@ : Upto August 5, 2013.

against ₹966 billion as at end-March 2012. The weekly average investment of the state governments in Auction Treasury Bills (ATBs) increased to ₹441 billion from ₹277 billion in the previous year. The outstanding investment in ATBs as at end-March 2013 stood at ₹286 billion was higher than ₹220 billion at end-March 2012.

VII.14 The Reserve Bank, on behalf of the state governments, maintains the consolidated sinking fund (CSF) that provides a cushion for amortisation of market borrowing/liabilities and the guarantee redemption fund (GRF), which provides for the servicing of contingent liability arising from invocation of guarantees issued in respect of borrowings by state level undertakings or other bodies (As on March 31, 2013, as many as 21 State Governments had subscribed to CSF and 11 States had subscribed to GRF). The outstanding investments under CSF and GRF amounted to ₹485 billion and ₹44 billion, respectively, as at end-March 2013.

VII.15 The report of the Committee to assess the feasibility of introducing more long-term fixed interest rate loan products by banks (Chairman: Shri K.K. Vohra) was placed on the Reserve Bank's website on January 22, 2013. Major recommendations included issuance of long-term bonds (minimum maturity of 5 years) to the extent of their exposure to the infrastructure sector by banks, popularising the fixed deposit schemes with tenors of above 5 years as the same are eligible for tax exemption and offering longer-tenor fixed rate loans by banks (say up to 30 years) which would help reduce the EMIs of the borrowers.

VIII CURRENCY MANAGEMENT

There has been a steady increase in the demand for banknotes and coins over the years, despite the increased use of technology-driven non-cash modes of payments during the recent period. The Reserve Bank continued its efforts to ensure supply of good quality banknotes in pursuance of its Clean Note Policy. Further, to increase the longevity of banknotes, the Reserve Bank is planning to introduce ₹10 plastic banknotes in five cities of India on a trial basis. To address the challenge of counterfeit notes, the Reserve Bank tried to enhance public awareness through sensitization programmes across the country. The Bank and Government of India together, have initiated various measures to strengthen the security features and design of banknotes.

VIII.1 Managing currency is one of the core functions of the Reserve Bank, being the central bank of India. Although coins of all denominations are issued by the government, they are put into circulation through the Reserve Bank. The Reserve Bank is the sole authority for issuing banknotes in India under Section 22 of the Reserve Bank of India Act, 1934. The Reserve Bank has the responsibility for providing banknotes throughout the country and also for maintaining the quality of the banknotes. Although there is a rising trend of using technology-driven non-cash modes of payment, the demand for banknotes and coins has been rising. The Reserve Bank, in accordance with the pace of demand for banknotes, tries to ensure a steady supply of clean banknotes as per its Clean Note Policy. It also continues its efforts to strengthen the security features of banknotes and enhance public awareness of banknotes, for which it has initiated various sensitisation programmes.

VIII.2 To ensure adequate quantity of banknotes and coins in the system and to ascertain better quality and the genuineness of banknotes, the Reserve Bank took several steps during 2012-13. Keeping in view the increase in demand for banknotes, the Reserve Bank placed an enhanced indent during 2012-13. Soiled and unfit banknotes were removed from circulation and disposed of in an eco-friendly manner by shredding and briquetting them. In order to prioritise the detection of counterfeit notes in the system, banks were directed to enhance their use of technology. The government has initiated the process of selecting new features for the next series and the Reserve Bank is actively associated with this activity. Simultaneously, the Reserve Bank initiated the process of reviewing the banknote designs in consultation with the Government. To promote a reporting system for counterfeit notes, the administrative and legal procedures are being simplified. Further, as part of its Clean Note Policy, the Reserve Bank has been exploring alternatives for enhancing the life of banknotes, such as plastic notes, which will be introduced on a trial basis in select Indian cities (Box VIII.1).

BANKNOTES IN CIRCULATION

VIII.3 At 11.6 per cent, the growth in value of banknotes outpaced the growth in volume terms (6.0 per cent) in 2012-13. Notes of denominations of ₹500 and ₹1,000 together accounted for around 83 per cent of the total value of banknotes in circulation during the year (Table VIII.1).

COINS IN CIRCULATION

VIII.4 There was an increase in the volume and value of coins in circulation in 2012-13 compared with 2011-12 (Table VIII.2). While the total value of coins in circulation increased by 15.0 per cent, in volume terms the increase was 8.6 per cent.

Box VIII.1
Plastic Banknotes

To increase the circulation life of banknotes, particularly in small denominations, the Reserve Bank, in consultation with Government of India, considered various options, including printing banknotes on plastic substrate. Accordingly, it has decided to introduce one billion pieces of ₹ 10 banknotes on plastic substrate for field trials in five cities, *viz.*, Jaipur, Bhubaneswar, Kochi, Shimla and Mysore, which have been identified because of their geographic and climatic diversity.

Australia was the first country to introduce polymer notes in 1988. Since then, over 30 countries have introduced polymer banknotes, of which several have completely switched from paper to polymer. The latest entrant is Canada, where notes for denominations of CAD 20, 50 and 100 are already in circulation and notes for denominations of 5 and 10 will be put into circulation in November 2013.

Advantages of Plastic

Some of the advantages of plastic over paper are its properties of less soilage due to the smoother surface and hence they are more hygienic; they are cost-effective because they last longer; they create minimal dust and no fibres during printing and handling; and they can contain certain security features that are difficult and expensive to counterfeit.

Carbon Footprint

The Reserve Bank engaged the services of The Energy and Resources Institute (TERI) to conduct a study on the carbon footprint of cotton-based banknote paper substrate *vis-à-vis* plastic-based substrate and to estimate their overall environmental impact, taking into account their complete life-cycles. The Life Cycle Impact Assessment results for the two types of notes indicate that replacing cotton-based notes with plastic-based notes would have significant environmental benefits. Polymer/plastic banknotes (and the waste from production) can be granulated and recycled into useful plastic products such as compost bins, plumbing fittings and other household and industrial products. The base material of polymer is a non-renewable resource, but due to its recyclability, it has more than one life.

CURRENCY OPERATIONS

Infrastructure for Currency Management

VIII.5 The functions relating to issuance of currency (both banknotes and coins) and their management is performed by the Reserve Bank through its 18 issue offices, one sub-office at Lucknow, a Currency Chest at Kochi and a network of 4,211 Currency Chests and 3,990 Small Coin

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

Denomination	Volume (Million pieces)			Value (₹ billion)		
	2011	2012	2013	2011	2012	2013
1	2	3	4	5	6	7
₹2 and ₹5	11,116 (17.2)	11,540 (16.6)	11,624 (15.8)	43 (0.5)	45 (0.4)	46 (0.4)
₹10	21,288 (33.0)	23,002 (33.2)	25,168 (34.2)	213 (2.3)	230 (2.2)	252 (2.2)
₹20	3,020 (4.7)	3,510 (5.1)	3,825 (5.2)	60 (0.7)	70 (0.7)	77 (0.6)
₹50	3196 (5.0)	3,488 (5.0)	3,461 (4.7)	160 (1.7)	174 (1.6)	173 (1.5)
₹100	14024 (21.7)	14,119 (20.3)	14,421 (19.6)	1,402 (15.0)	1,412 (13.4)	1,442 (12.4)
₹500	8,906 (13.8)	10,256 (14.8)	10,719 (14.6)	4,453 (47.6)	5,128 (48.7)	5,359 (46.0)
₹1,000	3027 (4.7)	3,469 (5.0)	4,299 (5.9)	3,027 (32.4)	3,469 (33.0)	4,299 (36.9)
Total	**64,577**	**69,384**	**73,517**	**9,358**	**10,528**	**11,648**

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

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

Denomination	Volume (Million pieces)			Value (₹ billion)		
	2011	2012	2013	2011	2012	2013
1	2	3	4	5	6	7
Small coin*	54,797 (48.8)	14785 (18.9)	14788 (17.5)	15 (11.8)	7 (5.3)	7 (4.6)
₹ 1	32,675 (29.1)	34414 (44.1)	35884 (42.4)	33 (26.0)	34 (25.6)	36 (23.5)
₹ 2	15,342 (13.7)	18201 (23.3)	22113 (26.1)	31 (24.4)	36 (27.1)	44 (28.8)
₹ 5	9,070 (8.1)	9981 (12.8)	10675 (12.6)	45 (35.4)	50 (37.2)	53 (34.6)
₹ 10	300 (0.3)	648 (0.8)	1267 (1.5)	3 (2.4)	6 (4.8)	13 (8.5)
Total	**1,12,184**	**78,029**	**84,727**	**127**	**133**	**153**

*: Coins of denomination of 25 paise and below ceased to be legal tender from June 30, 2011.

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

Table VIII.3: Currency Chests and Small Coin Depots as at end-December 2012

Category	No. of Currency Chests	No. of Small Coin Depots
1	2	3
Treasuries	11	0
State Bank of India	2,165	2,093
SBI Associate Banks	773	770
Nationalised Banks	1,136	1,004
Private Sector Banks	117	114
Co-operative Banks	1	1
Regional Rural Banks	3	3
Foreign Banks	5	5
Total	**4,211**	**3,990**

Depots spread across the country. Almost all the Currency Chests are being managed by Scheduled Commercial Banks, under the Agency Agreements. Currency Chests with sub-treasury offices are being gradually phased out and their number was 11 as on December 31, 2012. As at end-December 2012, the State Bank of India and its associates accounted for the highest share of around 70 per cent of Currency Chests, followed by the nationalised banks with 27 per cent (Table VIII.3).

VIII.6 The Monetary Policy Statement for 2012-13 announced in April 2012 stated that banknotes and coins would be distributed only through currency chests/ bank branches in order to bring related services closer to customers. Banks are expected to strengthen their distribution systems and procedures to meet the growing needs of people.

CLEAN NOTE POLICY

Indent and Supply of Banknotes and Coins by the Presses and Mints to RBI

VIII.7 The total supply of notes received from the Presses in volume terms increased by 8.6 per cent in 2012-13 (Table VIII.4). The supply of coins also increased during the period by 12.9 per cent over the previous year (Table VIII.5).

Table VIII.4: Indent and Supply of Banknotes by the Presses to RBI
(April-March)

Denomi-nation	Volume (million pieces)						
	2010-11		2011-12		2012-13		2013-14
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
₹5	0	674	0	2	0	0	0
₹10	5,000	5,143	5,700	6,252	12,094	5,506	12,164
₹20	1,500	1,104	600	1,045	1,060	1,154	1,203
₹50	2,000	1,602	1,200	949	1,182	1,626	994
₹100	4,300	3,420	6,100	5,079	5,704	6,675	5,187
₹500	4,000	4,130	2,000	2,330	3,985	3,002	4,839
₹1000	1,000	467	2,000	1,927	746	1,141	975
Total	**17,800**	**16,540**	**17,600**	**17,584**	**24,770**	**19,103**	**25,362**

VIII.8 Incidentally, there has been a spate of complaints about non-availability or short supply of coins in the recent times. Accordingly, to look into the issue, a High Level Committee, Chaired by Deputy Governor (Dr K.C. Chakrabarty) was constituted in terms of the Government of India orders dated December 19, 2011. The Committee has since submitted its Report to Government of India on August 14, 2012. Government of India conveyed its response on July 31, 2013 advising the Reserve Bank to take appropriate action with regard to distribution of coins and advising that recommendations involving the Mints were being examined separately in consultation with Security

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

Denomi-nation	Volume (million pieces)						
	2010-11		2011-12		2012-13		2013-14
	Indent	Supply	Indent	Supply	Indent	Supply	Indent
1	2	3	4	5	6	7	8
50 Paise	70	59	70	107	50	6	50
₹1	2,600	2,746	1,600	1,480	4,177	1,572	5,418
₹2	1,700	1,811	2,900	3,343	2,741	3,742	3,546
₹5	1,300	1,292	800	761	1,586	615	1,819
₹10	1,000	232	1,000	403	1,000	943	1,200
Total	**6,670**	**6,140**	**6,370**	**6,094**	**9,554**	**6,878**	**12,033**

Table VIII.6: Disposal of Soiled and Supply of Banknotes by the Reserve Bank to the Currency Chests

Denomination	Volume (million pieces)					
	2010-11		2011-12		2012-13	
	Disposal	Supply	Disposal	Supply	Disposal	Supply
1	2	3	4	5	6	7
₹ 1000	179	706	375	371	450	1536
₹ 500	1,864	4,347	1,994	5,560	2263	2725
₹ 100	5,227	4,085	5,577	1,091	5627	6348
₹ 50	2,095	1,114	1,578	1,522	1357	1257
₹ 20	664	1,296	562	4,237	609	904
₹ 10	3,657	5,580	3,584	3,379	3752	5991
Up to ₹ 5	166	549	101	1,440	72	105
Total	**13,852**	**17,677**	**13,772**	**17,600**	**14130**	**18866**

Printing and Minting Corporation of India Limited (SPMCIL).

Disposal of Soiled Banknotes

VIII.9 Around 14.1 billion pieces of soiled banknotes (20.4 per cent of banknotes in circulation)[1] were processed and removed from circulation during 2012-13 (Table VIII.6). The number of banknotes withdrawn from circulation and eventually disposed of at the Reserve Bank offices increased over the previous year by 358 million pieces. During 2012-13, around 8.97 billion pieces were processed through 59 Currency Verification and Processing Systems (CVPS) and the remainder were disposed of under other modes.

Measures to Improve the Quality of Banknotes in Circulation

VIII.10 In compliance with a recommendation by the High-Level Group on Systems & Procedures for Currency Distribution, banks have been directed that notes in the denomination of ₹100 and above are to be processed through Note Sorting Machines conforming to the Note Authentication and Fitness Sorting Parameters prescribed by the Reserve Bank before issuing them over the counters or through ATMs. Banks have been further directed to cover every branch to ensure compliance with this recommendation. As on December 31, 2012, banks have installed 12,827 NSMs.

VIII.11 The facility to adjudicate cut/mutilated banknotes and exchange soiled banknotes for clean and good quality banknotes as also coins has been extended to cover all bank branches, including those of co-operative banks and RRBs.

COUNTERFEIT BANKNOTES

VIII.12 Due to the increased use of NSMs, bank branches detected more than 94 per cent of the total detected counterfeit banknotes during 2012-13 (Table VIII.7). Of the counterfeit notes detected by

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

(No. of Pieces)

Year	Detection at		Total
	Reserve Bank	Other banks	
1	2	3	4
2010-11	45,235 (10.4)	3,90,372 (89.6)	4.35,607
2011-12	37,690 (7.2)	4,83,465 (92.8)	5,21,155
2012-13	29,200 (5.9)	4,69,052 (94.1)	4,98,252

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

[1] As on March 2013.

the Reserve Bank in 2012-13, around 79 per cent (23,093 pieces) were detected in the soiled note remittances by banks and about 21 per cent (6,107 pieces) were tendered over Reserve Bank counters.

VIII.13 During 2012-13, the detection of counterfeit notes in the denomination of ₹1000 increased by 18.2 per cent, whereas detection of counterfeit ₹500 and ₹100 notes decreased by 6.8 per cent and 12.3 per cent, respectively, in comparison with the previous year (Table VIII.8).

VIII.14 Banks have been advised to ensure that the notes they receive over the counters are re-circulated only after they have been properly authenticated through machines. They have also been advised to streamline their systems in a manner which will make them bear the risk of counterfeit notes rather than the common man who unknowingly comes in possession of such notes. Banks have been told that if counterfeit notes are detected but not impounded and reported, it would be construed as willful involvement by the concerned bank in circulating counterfeit notes and may attract penal measures.

VIII.15 The Reserve Bank has initiated several other steps such as strengthening security features, rationalising reporting, introducing a scheme for compensation to banks for detection and reporting of counterfeit notes at their back offices/Currency Chests, imparting training to banks and other organisations and making improvements in the merchandised processing of notes. These measures will help reduce the menace of counterfeit notes.

EXPENDITURE ON SECURITY PRINTING AND DISTRIBUTION

VIII.16 The total expenditure incurred on security printing (note forms) during 2012-13 (July-June) was ₹28.72 billion as compared to ₹ 27.36 billion in 2011-2012 (July- June). The increase in security printing charges by ₹1.36 billion (5.0 per cent) over the previous year was mainly on account of increase in the supply of banknotes during 2012-13. Expenditure on remittance of treasure has increased from ₹528 million in 2011-12 (July-June) to ₹641 million in 2012-13.

THE WAY FORWARD

(i) Exiting from the retail function

VIII.17 Historically, central banks have been administering retail cash services for surveillance reasons. The general trend has been to transfer this work to commercial banks, because with their wider network and presence they are able to discharge the services more effectively and at locations closer to customers. This implies that while the Reserve Bank will withdraw from the retail function, it will continue to manage the distribution of banknotes and coins through currency chests and bank branches. Thus, the core function as envisaged in the Preamble of the RBI Act, 1934 shall continue to be discharged by the Reserve Bank. The Reserve Bank is committed to the objective of ensuring the supply of clean notes and coins to the people to meet their genuine needs.

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

(No. of pieces)

Year	₹2	₹5	₹10	₹20	₹50	₹100	₹500	₹1000	Total
1	2	3	4	5	6	7	8	9	10
2010-11	-	-	139	126	10,962	1,24,219	2,46,049	54,112	4,35,607
2011-12	-	-	126	216	12,457	1,23,398	3,01,678	83,280	5,21,155
2012-13	1	1	321	221	9,759	1,08,225	2,81,265	98,459	4,98,252

(ii) Capacity Augmentation of CVPS & SBS

VIII.18 A roadmap for enhancing the processing capacity of soiled notes through the Currency Verification and Processing System (CVPS) for the period 2012-13 to 2014-15 has been worked out to attain the objectives of the Clean Note Policy and maintain the average life cycle of banknotes. Of the 59 CVPS in the Reserve Bank offices, which have an annual processing capacity of 7.5 billion pieces, 39 have a processing speed of 30 notes per second. The remaining 20 machines are being upgraded from 20 to 30 notes per second.

VIII.19 There are also 28 Shredding and Briquetting Systems (SBS) in the Reserve Bank. Of these, the capacity of 5 machines has been enhanced, and another 13 machines will be upgraded/overhauled during the next 12 to 15 months.

(iii) Encourage opening of currency chests in the rural and semi-urban areas

VIII.20 The outreach and the financial inclusion programmes of the Reserve Bank have created awareness among rural people about the Clean Note Policy and there is a need to ensure adequate supply of notes and coins in rural and semi-urban areas. It is proposed to further encourage the opening of Currency Chests in these areas as also in the North Eastern region.

(iv) Distribution of Banknotes and Coins - Alternative Avenues

VIII.21 There is a need to identify alternative avenues for the distribution of banknotes and coins. The Monetary Policy Statement 2013-14 in May 2013 announced that banks should consider offering these services through Business Correspondents (BCs) and engage Cash in Transit (CIT) companies. This would address the problem of last-mile connectivity.

(v) Improving Currency Distribution in Districts – Identification of Lead Banks

VIII.22 To ensure that banks have a more pronounced stake in the distribution of banknotes and coins and to facilitate their uninterrupted supply in places other than metropolitan and urban centres, the Reserve Bank formulated a scheme, on pilot basis, on the lines of the Lead Bank Scheme, to allot specific areas (districts/states) to individual banks for currency management purpose. RBI would identify the nodal bank for currency management (BCM), which would be responsible for ensuring that the genuine needs of people for clean notes and coins are appropriately met through proper coordination with the Currency Chests and Small Coin Depots situated in that area.

VIII.23 Currency management is one of the functions of the Reserve Bank that brings it in direct interface with the common man. It has been the endeavour of the Reserve Bank to perform this function effectively so that the genuine demand for various denominations of currency is met across the nation, the notes are reasonably clean and security features are periodically enhanced to prevent counterfeiting of banknotes. The Reserve Bank will continue to take steps in this direction.

IX PAYMENT AND SETTLEMENT SYSTEMS AND INFORMATION TECHNOLOGY

The Reserve Bank continued its efforts in making the payment systems more secure and efficient. Efforts were also made to make the payment systems more affordable for users and to widen their reach beyond the existing levels to achieve the goal of financial inclusion. The focus has also been on reducing the use of cash in society. During the year, the Reserve Bank continued its endeavours to improve the IT infrastructure with a view to facilitating the Indian banking sector's alignment with the latest technological innovations.

IX.1 During 2012-13, the Reserve Bank continued to encourage innovations in payment systems as well as enhance accessibility and affordability to hitherto unbanked segments of population through suitable adoption of technological developments. These efforts are reflected in the growing volumes under electronic modes during the year (Table IX.1). Simultaneously, the volumes under paper-based clearing show a decline, as envisaged in the Vision Document 2012-15. The

Table IX.1: Payment System Indicators - Annual Turnover

Item	Volume (million)			Value (₹ billion)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
Systemically Important Payment Systems (SIPS) through RTGS	**49.3**	**55.0**	**68.5**	**484872.3**	**539307.5**	**676841.0**
Total Financial Markets Clearing (1+2+3)	**1.7**	**1.9**	**2.26**	**383901.3**	**406071.2**	**501598.5**
1. CBLO	0.15	0.14	0.16	122597.4	111554.3	120480.4
2. Government Securities Clearing	0.36	0.44	0.70	69702.4	72520.8	119948.0
3. Forex Clearing.	1.20	1.30	1.40	191601.5	221996.1	261170.1
Others (4+5+6)	**1387.4**	**1341.9**	**1313.7**	**101341.3**	**99012.1**	**100181.8**
4. CTS	160.4	180.0	275.1	14391.2	15103.7	21779.5
5. MICR Clearing	994.6	934.9	823.3	68621.0	65093.2	57504.0
6. Non-MICR Clearing	232.3	227.0	215.3	18329.1	18815.1	20898.3
Total Retail Electronic Clearing (7+8+9)	**406.3**	**512.3**	**692.8**	**11944.9**	**20574.9**	**31876.8**
7. ECS DR	156.7	164.7	176.5	736.5	833.6	1083.1
8. ECS CR	117.3	121.5	122.2	1816.9	1837.8	1771.3
9. EFT/NEFT	132.3	226.1	394.1	9391.5	17903.5	29022.4
Total Cards (10+11)	**502.2**	**647.5**	**865.7**	**1142.1**	**1500.4**	**1972.9**
10.Credit Cards	265.1	320.0	396.6	755.2	966.1	1229.5
11.Debit Cards	237.1	327.5	469.1	386.9	534.3	743.4
Total Others (4 to 11)	**2295.9**	**2501.7**	**2872.2**	**114428.2**	**121087.4**	**134031.4**
Grand Total (1 to 11)	**2346.9**	**2558.6**	**2942.9**	**983201.8**	**1066466.1**	**1312470.9**

Note: 1. Settlement of government securities clearing and forex transactions is through Clearing Corporation of India Ltd.
2. Figures in the columns might not add up to the total due to rounding off of numbers.
3. At the end of April 2013, MICR clearing was available at 64 centres (66 centres during the previous year). At two centres, namely New Delhi and Chennai, Cheque Truncation System (CTS) has been implemented. Grid-based CTS has commenced operations since April 2012 in Chennai, in which banks from 82 locations are participating, encompassing the states of Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, West Bengal (Kolkata) and the Union Territories of Puducherry and Chandigarh.
4. The figures for cards are for transactions at POS terminals only.
5. Transactions for a value of ₹79 billion (representing 0.01 per cent of total non-cash transactions during the year 2012-13) were done using pre-paid instruments issued.
6. Transactions for a value of ₹4.3 billion (representing 0.0003 per cent of total non-cash transactions during the year 2012-13) were done using Instant Money Payment Services (IMPS).

Cheque Truncation System, introduced in the year 2008, has also shown substantial growth during the year, thus consolidating the paper-based clearing structure in the country. Overall, the payment and settlement systems registered healthy growth, with volumes and value growing at 15.0 per cent and 29.7 per cent, respectively, on y-o-y basis compared with the growth of 9.0 per cent and 23.2 per cent, respectively during the previous year.

TRENDS IN PAYMENT SYSTEMS

Paper Clearing

IX.2 The application package 'Express Cheque Clearing Systems' (ECCS) that was introduced in 2011 for non-MICR clearing houses is now available at 1,269 centres and offers a speed clearing facility. The grid-based Cheque Truncation System introduced in March 2012 in Chennai, has been extended to cover image-based clearing operations across the states of Tamil Nadu, Kerala, Karnataka and Andhra Pradesh, as well as cities such as Kolkata, Ludhiana, Puducherry and Chandigarh. Banks from 88 locations (24 MICR centres and 64 non-MICR centres) are participating in the Chennai Grid. As part of the national roll-out, CTS clearing operations in Mumbai commenced in April 27, 2013.

Electronic Payments

IX.3 The Real Time Gross Settlement System (RTGS) processed transactions to a settlement value of around ₹8 trillion on March 28, 2013, which is the highest value settled through RTGS on a business day. To ensure interruption-free operations under all circumstances, disaster recovery drills for RTGS systems are conducted on a quarterly basis.

IX.4 The National Electronic Funds Transfer (NEFT) handled a record volume of 47 million transactions valued at around ₹3,602 billion in the month of March 2013. With the addition of 13,980 branches during the year, the number of bank branches participating in NEFT has grown to 100,429. There are around 650 sub-member banks participating in NEFT.

IX.5 With the addition of 18,257 branches during the year, the coverage of the National Electronic Clearing Service (NECS) has been increased to 75,659 locations as at the end of July 2013. The Regional Electronic Clearing Service (RECS) system introduced in various Reserve Bank centres has seen expansion in branch coverage during the year.

IX.6 As at end March 2013, 55 banks with a customer base of around 23 million were providing mobile banking service in India compared to 49 banks and a 13 million customer base at the end of March 2012. During 2012-13, 53 million transactions valued at around ₹60 billion were transacted, thus registering a growth of 108 per cent and 229 per cent, respectively, over the previous year. The removal of transaction limits on mobile banking and the raising of limits for transactions that can be sent without end-to-end encryption have contributed to this increase.

Authorisation under Payment Systems

IX.7 Any entity that wants to set up and operate a payment system in India needs authorisation from the Reserve Bank under the Payment and Settlement Systems Act, 2007 (PSS Act). As at end-May 2013, 44 entities are operating various payment systems in the country, which included a financial market infrastructure organisation – the Clearing Corporation of India Ltd. (CCIL), the National Payments Corporation of India (NPCI), card payment networks (VISA, MasterCard, RuPay, *etc.*), automated teller machine (ATM) networks, cross-border in-bound money transfer services and pre-paid payment instrument (PPI) issuers.

White Label ATMs

IX.8 To accelerate the growth and penetration of ATMs in the country, the Reserve Bank, in June 2012, issued guidelines on the entry of non-bank entities into the space of ATM operations, which have been christened White Label ATMs (WLAs). So far, 19 entities have approached the Reserve Bank seeking authorisation to set up and operate

WLAs. Of these, 12 entities have been granted in-principle approval and one entity has been issued a Certificate of Authorisation. The first WLA was operationalised at Chandrapada (tier-V town), Maharashtra on June 27, 2013.

POLICY INITIATIVES

Vision Document 2012-15

IX.9 The Reserve Bank published the Vision Document for payment systems, laying down the roadmap for payment systems in the country for the next three years, *i.e.*, 2012-15 (Box IX.1)

Transparency and efficiency in paper clearing

IX.10 To bring transparency to the charges levied by banks and to increase the efficiency of cheque clearing, the Reserve Bank took the following measures: i) Banks have been advised to reframe their Cheque Collection Policies (CCP) to include compensation payable for delay in the collection of local cheques. If no rate is specified in the CCP for delay, compensation at the savings bank interest rate should be paid for the period of delay; ii) All CBS-enabled banks were advised to issue only "payable at par"/ "multi-city" CTS 2010 Standard cheques to all eligible customers without extra charges with appropriate board-approved risk management procedures; and iii) Banks were advised not to charge their savings bank account customers for the issuance of CTS-2010 standard cheques for the first time. As a large number of non-CTS cheques continue to be in circulation, the banks have been advised that the existing arrangement for clearing of non-CTS 2010 cheques will continue up to December 31, 2013. Thereafter, such instruments will be cleared at less frequent intervals through separate clearing sessions in the CTS locations.

Box IX.1
Vision Document 2012-15

The Vision Document indicates the Reserve Bank's renewed commitment to providing safe, efficient, accessible, inclusive, interoperable and authorised payment and settlement systems for the country, with affordable alternatives to customers, especially those who are still deprived of such payment modes. The main challenges in achieving these goals are: (i) the continued use of cash as the predominant mode of payment; (ii) low per-capita non-cash transactions; (iii) concentration of modern electronic payment systems in Tier I and II centres; (iv) low penetration of acceptance infrastructure for electronic payments; and (v) government receipts done predominantly through cash/ cheque, *etc.*

The Vision Document focuses on promoting electronic modes of payment and reducing the use of cash by:

i) Proactively promoting electronic payments through a 7-A's framework of enhancing accessibility, availability, awareness, acceptability, affordability, assurance and appropriateness of payment systems and products.

ii) Developing policy guidelines that are equitable, uniform and risk-based and also products/channels to facilitate innovation and competition, simplification of documentation requirements, increasing the role of non-banks in payment systems, *etc.*

iii) Increasing the efficiency of payments system through standardisation of message formats, uniform routing codes, uniform account numbers, interoperability in payment systems, capacity building in terms of systems and human resources, implementation of GIRO payments *etc.*

iv) Setting up a standards setting body;

v) Addressing the risks in payment systems, especially in electronic transactions and strengthening the risk management systems.

vi) Promoting access and inclusion through payment system literacy initiatives under Electronic Banking Awareness and Training (e-BAAT).

vii) Facilitating migration of government payments and receipts to the electronic mode from the existing cheque / cash modes.

viii) Promoting the use of pre-paid payment instruments as a substitute for cash in general and specifically for financial inclusion through , Electronic Benefit Transfer (EBT), DTS transfers and e-commerce.

ix) Promoting innovation to facilitate financial inclusion through further adoption of mobile banking and Near-Field Communication (NFC) in payment systems, mobile Point of Sale (PoS), *etc.*

x) Ensuring compliance with the new international standards by central counterparties, CSDs, trade repository and other systemically important payment systems.

Disincentivising issuance and usage of cheques

IX.11 In order to further enhance the speed of decline in usage of cheques, a discussion paper on "Disincentivising Issuance and Usage of Cheques" was prepared and placed on the website for comments from the public.

Efficiency enhancement in NEFT

IX.12 Two efficiency enhancement features were introduced in the National Electronic Funds Transfer (NEFT) system. An additional batch at 8:00 AM was introduced, taking the total number of batches to 12 on weekdays and 6 on Saturdays. Further, the continuous release of credit messages was introduced which increases the time available to destination banks to process inward NEFT transactions and facilitate more efficient handling of the growing transaction volumes. To facilitate the migration of small-value transactions from cash or cheque to NEFT, customer charges for transactions up to ₹10,000 were reduced to ₹2.50.

Adoption of uniform routing code and uniform account number structure

IX.13 With the adoption of CBS by all major banks, there was a demand from banks to do away with the branch identifier in the IFSC for routing RTGS and NEFT transactions. Further, there were demands for a uniform account number across banks, which would help avoid wrong credits under the payment systems. A Technical Committee was constituted by the Reserve Bank to study the issues (Box IX.2)

Box IX.2
Technical Committee to Examine Uniform Routing Code and Account Number Structure

Various payment systems in the country use different codes to identify the bank/ branch for settlement and routing purposes. While the RTGS and NEFT systems use the Indian Financial System Code (IFSC), the ECS, cheque clearing systems use the Magnetic Ink Character Recognition (MICR) code and cross-border transactions use the SWIFT Branch Identifier Codes (BIC). The adoption of core banking solutions in almost all major banks and the consequent business process re-engineering led to a demand for reviewing the routing codes by doing away with the branch identifier in IFSC for RTGS and NEFT and to route all transactions only through the bank code in the IFSC. Another suggestion was to consolidate the multiple routing codes (MICR, IFSC, SWIFT, BIC) to enable interoperability among payment systems.

Similarly, the structure of customer account numbers varied across banks in terms of length, pattern, composition and presence of cheque digits. This hampered even basic validations on account numbers during origination of payment transactions.

To study these issues and provide recommendations, the Reserve Bank constituted a Technical Committee (Chairman: Shri Vijay Chugh) in August 2012 to examine:

a) the feasibility of doing away with the branch identifier in the IFSC;

b) the desirability of implementing IBAN to replace multiple identifiers for all financial transactions;

c) the harmonisation of all existing bank/branch codes

The Committee comprised of representatives from banks, the IBA, IDRBT and regulatory departments of the Reserve Bank.

While analysing the issues, the Committee aimed to achieve the objective of standardisation while ensuring that the changes required in banks' systems and processes would be minimised and cause the least inconvenience to customers. The Committee submitted its report in December 2012.

The main recommendations of the Committee are:

i) In view of validation checks built around branch identifier in IFSC by a large number of banks to prevent credits going to wrong accounts, the Committee recommended its continuation.

ii) The IFSC is best suited for routing purposes in payment systems in the current scenario and as such it may continue to be used. Further, in order to limit the number to existing level, the Committee recommended that any new payment system should use only the IFSC for routing purposes.

iii) The Committee recommended the implementation of IBAN in banks as it would bring in uniformity and also enhance the efficiency in systems that use account numbers as a critical input for successful processing of payment transactions. The Committee recommended 26-characters long IBAN with alpha bank-id as it will require minimum changes across banks. However, the Committee noted that IBAN will not bring in portability of accounts across banks.

The recommendations of the Committee are under consideration of the Reserve Bank of India.

Security in Card Payments

IX.14 The Reserve Bank has been seeking to enhance the safety and security of card payment transactions – both Card Present (CP) and Card Not Present (CNP) transactions. Besides mandating introduction of SMS alerts, use of additional factors of authentication in case of CNP transactions have also been mandated. In addition, the Reserve Bank has also issued necessary instructions for securing CP transactions based on the recommendations of a Working Group which submitted its report in May 2011. The Working Group *inter-alia* suggested evaluation of the usefulness of Aadhaar as additional factor of authentication (AFA) for card present transactions. Accordingly, based on the results of the Pilot conducted at New Delhi in December 2012-January 2013, a Working Group has been formed to study the feasibility of Aadhaar as an AFA for CP transactions and other related issues.

IX.15 Further, the growing popularity of alternate channels of payments brings added responsibility on banks to ensure that transactions effected through such channels are safe, secure and not easily amenable to fraudulent usage. The Reserve Bank has advised banks and other stakeholders to put in place certain security measures in a time bound manner to strengthen the security aspects of the eco-system. Some of these measures relate to introduction of AFA for online payments and implementation of digital signatures for customer-based large value payments in RTGS, securing PoS terminals to prevent data compromise as well as putting in place techniques for fraud prevention; placing restrictions on addition of beneficiaries in internet banking accounts and number of online transfers; issuance of international card only on demand by customers and limiting the usage threshold on magstripe cards for international transactions; issuance of EMV card to people who use cards internationally *etc.*

Rationalisation of MDR in Debit Cards

IX.16 In order to encourage all categories and types of merchants to deploy the card acceptance infrastructure and facilitate acceptance of even small value transactions using debit cards, the Merchant Discount Rate (MDR) structure for debit card transactions was rationalised. The maximum rate that can be charged by banks was specified as not exceeding 0.75 per cent of the transaction amount for value up to ₹2000 and not exceeding 1 per cent for transactions above ₹2000.

Rationalisation in Issuance of Prepaid Instruments

IX.17 As on end-May 2013, 41banks and 22 non-banks have been authorised to issue prepaid instrument (PPI). In view of the potential of prepaid instruments to enhance the objectives of financial inclusion and also facilitate reduction in cash-based transactions, the Reserve Bank has rationalised the guidelines for issuance of semi-closed PPIs in terms of categories and KYC requirements.

i) PPIs up to ₹10,000 by accepting minimum details of the customer, amount outstanding at any point of time and total value of reloads in month not to exceed ₹10,000, can be issued only in electronic form;

ii) PPIs from ₹10,001 to ₹50,000 by accepting any 'officially valid document' defined under rule 2(d) of the Prevention of Money Laundering Act, non-reloadable in nature, can be issued only in an electronic form;

iii) PPIs up to ₹50,000/- with full KYC, can be reloadable.

IX.18 Further, in order to enhance the utility of PPIs, the facility of funds transfer from a PPI to another PPI issued by same entity and/or to any bank account, was enabled for all categories of PPIs.

GIRO-based Payments

IX.19 In earlier days, a payment was made by sending a cheque to the payee and payee deposited the cheque in his/her bank for credit to his/her account. Later on, there came a facility by which the payer himself could deposit the cheque in his/her bank for credit to payee's account. These were termed as "payer" initiated payment and were known as GIRO.

IX.20 In India, although a wide range of payment instruments and payment channels are currently available in the country, there is no dedicated system for facilitating bill payment where cheque and cash still occupy a major place. To overcome this problem and provide a common infrastructure for all bill payment needs of the public, a Committee for Implementation of GIRO based Payment System was constituted with the following broad terms of reference (a) finalise the contours of the GIRO product (electronic and cheque) for the country; (b) design the operational and procedural guidelines of the GIRO payment system; (c) draw up a roadmap for implementation of GIRO in India and (d) lay down the transitional path for switch over from cheque to electronic GIRO over a period of time. The Committee has since submitted its report which is under consideration (Box IX.3).

Automated Teller Machines (ATM)

IX.21 To improve the delivery of customer services, banks were advised to place a quarterly review of ATM transactions to their Board of Directors, indicating, *inter alia*, the denial of services to the customers at ATM sites, reasons thereof and the action taken to avoid recurrence of such instances. Banks were also advised to report the developments in this regard to the Reserve Bank.

National Payments Corporation of India (NPCI)

IX.22 During the year, NPCI was permitted to admit WLA operators as direct members of National Financial Switch, if approached. As regards mobile payments, NPCI was permitted to enhance the array of services provided through mobile banking and also to widen the channels available for customers to initiate IMPS transactions (*viz.*, ATMs, internet, mobile *etc.*). NPCI is also working on bringing more mobile network operators on-board to provide mobile banking services through a common dedicated platform.

IX.23 The National Automated Clearing House (NACH) system was made operational during the year, which will provide one more alternative to users of bulk payment systems for effecting their payments. After launch of Rupay cards, India's first domestic card scheme, NPCI was also permitted to launch Rupay affiliated prepaid cards. To enhance the acceptance and usage of Rupay cards, its use on PoS and for e-commerce transactions was also permitted.

Oversight of Payment Systems

IX.24 An oversight framework commensurate with the international standards prescribed by the Committee on Payment and Settlement Systems (CPSS), the global standards setting body on payment and settlement systems, has been put in place to monitor the activities of the 44 (both bank and non-bank) authorised entities, operating payment systems in the country.

IX.25 The onsite inspection of National Payments Corporation of India (NPCI) and Clearing Corporation of India Limited (CCIL) showed that the entities have sound governance structure and the risk management systems are in place. The CCIL being a critical financial infrastructure in the country is being monitored closely to avoid any systemic impact. The concentration risk in payment systems is being evaluated to initiate appropriate action in accordance with the international practice.

IX.26 The off-site monitoring of authorised entities is done on the basis of the data received from banks, through online and offline mode, using the Online Return Filing System (ORFS). Periodical analysis of the data is carried out to discern patterns and trends for further policy actions.

Box IX. 3
Committee to Recommend Implementation of GIRO-based Payment Systems in India

In line with the objective set out in the Payment Systems Vision (2012-15), a Committee (Chairman Shri G. Padmanabhan) was set up to finalise the modalities of implementing the GIRO payment system – both electronic and cheque based, in India. The Committee released the report in April 2013.

Bill payments, including utility bills and other payments related to school fees, examination fees, government payments, pre-paid payment instruments top-ups, mobile phone recharge/ top-up, insurance premia, taxes *etc.* form a major component of retail payment transactions space. Despite the availability of a wide range of payments instruments and channels, there are significant operational and cost inefficiencies in the bill collection processes. It is estimated that over 30,800 million bills are generated each year in just the top 20 cities in the country and almost 90 per cent of these are estimated to be collected through cash/cheque with a very small share of electronic payments through ECS *etc.*

The Committee also noted the following gaps in the present bill payments eco-system – (i) lack of interoperability, (ii) high cost of cash collection, (iii) poor accessibility in semi-urban and rural areas, and (iv) lack of coordinated initiative by the billers to put in place a interoperable country-wide standard system.

While recommending an interoperable, integrated bill payment system in the country, the Committee noted that it would entail several benefits like:

- Widen the availability of bill payment points for consumers by bringing in any bank branch, post offices, business correspondents, retail agents of aggregators, ATMs, *etc.* within its ambit;
- allow consumers to make payment by cash, cheque, credit/debit cards, prepaid payment instruments;
- facilitate payment of bills through internet banking, mobile banking and Interactive Voice Response System;
- provide instant confirmation by SMS or otherwise of payments made;
- provide cost efficient collection and reconciliation services to billers

The major recommendations of the Committee are:

i) A GIRO based payment system christened “India Bill Payment System” (IBPS) may be designed and implemented in the country.

ii) The participants in the IBPS would include billers, intermediaries/aggregators, banks, collection agencies operating the IBPS touch-points in addition to the IBPS’ own touch-points. For easy identification, and acceptance of the IBPS, a service mark/logo should be designed and displayed on the bills as well as the IBPS touch points.

iii) Initially, only intermediaries/aggregators may be permitted direct connectivity to the IBPS which may be considered for billers at a later date, based on appropriate access criteria.

iv) The payment made by a consumer would be irrefutable and payer should be provided with a receipt by the IBPS acknowledging the receipt of the payment carrying a unique reference number generated by the IBPS with the IBPS service mark/logo.

Other suggestions given in the Report are:

a) *Bill Presentment*: IDRBT could develop an appropriate algorithm for capturing bill data to bring in standardisation of bills. IBPS should support the prevalent paper mode of bill presentment but should encourage electronic presentment.

b) *Bill Information flow*: Under IBPS, payment information should flow online to minimise reconciliation issues and customer grievances.

c) *Payment instruments/channels*: The IBPS should facilitate acceptance of payments through IVRS, net banking, mobile banking and enable acceptance of all payment modes including cash at the IBPS points.

d) *Customer Support*: IBPS will provide for online registration of complaints from customers and the first point of contact (bank branches/customer service point receiving the payment) would provide customer support. Grievances related to bill payment will have to be attended to by the biller while IBPS/aggregator would provide the necessary support to the billers in this regard.

The Committee recommended that a separate organisation needs to be set up to operate and manage the IBPS in a professional manner and run on commercial lines which may be authorised by the Reserve Bank under the Payment and Settlement Systems Act, 2007.

Clearing Corporation of India Limited (CCIL)

IX.27 The Reserve Bank is committed to the adoption and implementation of the international standards and best practices in payment systems including, the new CPSS-IOSCO standards 'Principles for Financial Market Infrastructures (FMIs)'. The oversight framework for CCIL would now be drawn up based upon the PFMIs. Towards this end, CCIL was subjected to an onsite inspection during which it was assessed using the assessment methodology of the PFMIs to ascertain the compliance to each of the 24 standards.

IX.28 During the year, CCIL has implemented several measures to strengthen its risk management framework which includes complete revamp of the margining system in securities segment, implementation of changes to forex forwards regulations pertaining to exit option for members, resignation by members, limited liability for members and computation of default fund *etc.* CCIL during the year conducted two rounds of trade compression in IRS/FRA which resulted in early termination of trades.

Committee on Payment and Settlement Systems (CPSS)

IX.29 The CPSS and the International Organisation of Securities Commissions (IOSCO) published the new set of standards for financial market infrastructures "Principles for Financial Market Infrastructures" (PFMIs) which unified and harmonised three previous international standards for FMIs[1]. Additionally, CPSS-IOSCO has published the disclosure framework for promoting consistent and comprehensive public disclosure by FMIs and an assessment methodology that would provide guidance for monitoring and assessing observance with the PFMIs.

PFMI implementation monitoring

IX.30 CPSS-IOSCO have since started the process of monitoring implementation of the PFMIs in jurisdictions that are members of the FSB and/or the CPSS-IOSCO Steering Group that carried out the review of PFMIs.

IX.31 CPSS has also published a report on "Innovations in retail payments" which provides an overview of innovative retail payment activities in the CPSS and several other countries and identifies a number of exogenous and endogenous factors that could serve as drivers for retail payment innovations or as barriers to them. The report also identifies a number of issues for central banks including the increasing role played by non-banks in retail payments for which a separate CPSS Working Group (Chairman Shri G. Padmanabhan) has been setup.

Technical Support to SAARC Countries

IX.32 The Reserve Bank, as part of the SAARC initiatives has been providing technical support to the member countries. Based on their request, during the year, the Bank arranged custom-made training programmes to the officials of Royal Monetary Authority (RMA) of Bhutan and the Maldives Monetary Authority in the areas of electronic payments and image-based cheque clearing systems, respectively.

INFORMATION TECHNOLOGY INITIATIVES FOR THE BANKING SYSTEM

Automated Data Flow

IX.33 Under the directions of the Reserve Bank, banks have undertaken to bring returns to be submitted to the Reserve Bank under Automated Data Flow (ADF). By implementing this, banks would be able to automate the flow of data from their CBS or other IT systems to the Reserve Bank

[1] Core principles for systematically important payment systems (CPSS, 2001); the Recommendations for securities settlement systems (CPSS-IOSCO, 2001); and the Recommendations for central counterparties (CPSS-IOSCO, 2004).

in a straight through manner without any manual intervention. Banks have adopted different strategies for putting in place systems and processes to achieve the above. By March 2013, most of the banks have implemented suitable solutions to generate all the returns to be submitted to the Reserve Bank. The ADF project has been considerably successful in sensitising the banks on the need for ensuring data quality and consistency in regulatory reporting. The Reserve Bank is closely monitoring the progress in this regard.

IX.34 The pace of change in technology is enabling banks to innovate rapidly to overcome the challenges of increasing volumes and growing competition from new entrants, but also poses challenges relating to sophisticated financial crime. In this context, it is imperative that the regulator has sufficient information in the form of dashboards, score-cards and reports on almost real time basis to make timely policy decisions and act proactively. The initiative of ADF is a first step in this direction. The next focus would be on analytics.

Cloud Computing

IX.35 With increased use of information technology (IT) infrastructure by banks, there is a need to examine the issue of shared IT resources in order to optimise costs while maintaining the desired levels of efficiency and security. The feasibility of such shared resources by the banking sector needs to be explored wherever possible, taking into account security issues, data integrity and confidentiality. One such avenue is cloud computing. Cloud computing is a large-scale parallel and distributed computing system. It consists of a collection of interconnected and virtualised computing resources that are managed to be one or more unified computing resources. The cloud opens up the world of computing to a broader range of uses and increases the ease of use by giving access through any internet connection. (Box IX.4).

Box IX.4
Cloud Computing - Trends, Issues and Concerns

The National Institute of Standards and Technology (NIST) characterises cloud computing as '...a pay-per-use model for enabling available, convenient, on-demand network access to a shared pool of configurable computing resources (*e.g.* networks, servers, storage, applications, services) that can be rapidly provisioned and released with minimal management effort or service provider interaction'.

A cloud broadly has three segments in its structure: application, storage and connectivity. This cloud model is composed of three service models, five essential characteristics, and four deployment models. With certain variation among these three, the cloud computing providers offer their services according to three fundamental models:

Service Models

Software as a Service (SaaS): In this model, users access the software from cloud clients and cloud provider has to install and operate application software in the cloud. The cloud users are not responsible for managing the cloud infrastructure and platform on which the application is running. This eradicates the need to install and run the application on the cloud user's own computers. Hence the maintenance and support becomes much simpler.

Platform as a Service (PaaS): In the PaaS model, cloud providers deliver a computing platform that includes operating system, programming language execution environment, database, and web server. Application developers can develop and run their software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

Infrastructure as a Service (IaaS): This is the most basic cloud service model. Here, the cloud providers offer computers, either as physical or as virtual machines, and provide storage, firewalls, networks and load balancers. IaaS providers supply these resources on demand from their large pools installed in data centres. This can be done in local area networks or in wide area networks, where the internet can be used for connectivity.

Essential Characteristics of the Cloud:

On-demand self-service. A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider.

(Contd....)

Broad network access. Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (*e.g.,* mobile phones, tablets, laptops, and workstations).

Resource pooling. The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. Examples of resources include storage, processing, memory, and network bandwidth.

Rapid elasticity. Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand.

Measured service. Cloud systems automatically control and optimise resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (*e.g.*, storage, processing, bandwidth, and active user accounts).

Deployment Models:

Private cloud: The cloud infrastructure is provisioned for exclusive use by a single organisation comprising multiple consumers (*e.g.,* business units).

Community cloud: The cloud infrastructure is provisioned for exclusive use by a specific community of consumers from organisations that have shared concerns (*e.g.*, mission, security requirements, policy, and compliance considerations).

Public cloud: The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organisation, or some combination of them. It exists on the premises of the cloud provider.

Hybrid cloud: The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardised or proprietary technology that enables data and application portability (*e.g.*, cloud bursting for load balancing between clouds).

Some of the advantages of cloud computing are

i) Maximising cost efficiency – cloud computing enables optimal utilisation of resources and overall cost efficiency

ii) Accessibility – with cloud computing, access of all required information can take place from anywhere, anytime and from any device.

iii) Agility – cloud computing enables organisations to create new products and provide services faster.

iv) Scalability – with cloud computing, it is no longer necessary to wait long for the required equipment and the integration process in cloud will be easy.

v) High availability– cloud computing provides for high availability of servers.

The major concerns raised for the cloud computing model are:

i) Cloud computing poses privacy concerns primarily because the service provider at any point in time, may access the data that is on the cloud. They could accidentally or deliberately alter or even delete some information.

ii) In order to obtain compliance with regulations the users may have to adopt private cloud deployment modes that are typically more expensive.

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RTGS and NG-RTGS System

IX.36 RTGS volume crossed 0.43 million transactions during March 2013. In view of the increasing volumes, as also other business requirements, the Reserve Bank is replacing the existing RTGS with NG-RTGS, which provides for improved functions and features. Some of the new features to be implemented in the NG-RTGS system are advanced liquidity management facility; extensible mark up language (XML) based messaging system conforming to ISO 20022; and real time information and transaction monitoring and control systems. Necessary hardware for the operationalisation of the application has already been procured. The necessary training to all RTGS members and internal departments is underway. The NG-RTGS system is expected to be operational by August 2013.

INFORMATION TECHNOLOGY WITHIN RESERVE BANK

IT Sub-Committee to the Central Board

IX.37 As part of good corporate governance and as recommended in the IT Vision Document 2011-17, an Information Technology Sub-Committee (ITSC) to the Central Board was constituted during the year. The mandate of the ITSC is to advise the Reserve Bank on overall IT strategy, infrastructure, applications, review of the security of the IT Systems, recommend measures for implementation of appropriate IT systems and monitor the progress of implementation of various IT initiatives undertaken. This Committee is headed by a Central Board member and has reputed representations from the Central Board, academia and industry.

IX.38 As part of its mandate, the ITSC has met two times during the year. The deliberations, *inter alia,* focussed on issues relating to the review of the IS Policy, DR drills conducted by the Reserve Bank, strengthening the IT infrastructure (Network), crystallising the responsibilities of the Chief Information Security Officer (CISO) for the Bank and also new IT initiatives undertaken by the Bank.

Information Security Policy for the Reserve Bank

IX.39 As the IS Policy is to be reviewed periodically, the existing Information Security (IS) Policy for the Reserve Bank and related sub-policies and operational guidelines were taken up for review during the year. For this, inputs were obtained from ISACA certified officers and officers handling system administration and other support functions of the Bank. The revised Policy and sub-policies have been approved by the ITSC. The operational guidelines relevant to administer the policy are being finalised.

Foreign Exchange Transaction Electronic Reporting System (FETERS)

IX.40 Banks report details of sale / purchase of foreign exchange by AD branches under the Foreign Exchange Transaction Electronic Reporting System (FETERS) which are used as input in the compilation and dissemination of the country's balance of payments (BoP) statistics. While the format of presentation of India's BoP was revised during 2011-12, to comply with the IMF's Balance of Payments and International Investment Position Manual – Sixth Edition (BPM6) as per the recommendations of the RBI Working Group (Chairman: Shri Deepak Mohanty), the FETERS system was modified by revising the purposes codes and other parameters suitably for capturing data on all the new items. The modified reporting system was implemented with effect from April 1, 2012. The resultant transition was smooth and India is among the pioneer countries implementing BPM6 standards.

Upgrading the Enterprise Knowledge Portal

IX.41 The Reserve Bank has taken up the up-gradation of EKP under the guidance of external experts. The revamped portal with enriched features and utilities is being developed. The EKP is expected to be upgraded on a robust platform with enhanced features such as a powerful search engine, rich content management, effective personalisation & collaboration tools, easy navigation and overall improved performance. The upgraded EKP is likely to be hosted by September 2013.

Upgrading of the Video Conferencing (VC) System

IX.42 During the year, work for VC up-gradation has commenced which would, *inter alia,* provide for executive VC rooms at select locations, classroom VC facility in training colleges, High Definition technology for better quality, video streaming facility, Video-on-demand facility. The project is expected to be completed by September 2013.

Perimeter Security Solution

IX.43 Perimeter Security Solution (PSS) provides a mechanism to protect information systems in the Reserve Bank from attacks through inflow of

harmful content, executables and leakage of confidential information through networks. PSS aims to build adequate security in the perimeter of the network to avoid attacks from network packet sniffers, IP spoofing, denial of service, password attack, application layer attack, BOT attack *etc.* PSS safeguards all IT infrastructure and high value assets including data in the Reserve Bank. It ultimately aims to protect the organisation from all external threats and attacks from outside cyber world.

IX.44 Revamping of the existing PSS has been taken up. The Project is being implemented in two phases. The first phase covered the procurement of networking component such as switches and routers and second phase would include operationalisation of firewalls, Intrusion Prevention System (IPS) *etc.* The project is expected to be operational by December 2013.

Information Security Operations Centre (iSOC)

IX.45 To handle enterprise-wide IT security, it has been decided to set up an Information Security Operations Centre (iSOC) in the Reserve Bank to proactively detect security related incidents impacting the Reserve Bank, other banks and the financial sector. The major objectives of iSOC shall be, *inter alia*, to classify all systems in the Reserve Bank based on criticality, carry out incident management and root cause analysis, monitor security systems of the Reserve Bank and plug deficiencies, coordinate the activity of monitoring the internet with external agencies such as CERT-IN and ensure compliance with Reserve Bank's IS policy.

XBRL Phase II – Initiative to modernise the data acquisition from Banks

IX.46 The Report of the High Level Committee for IT Vision Document (Chairman: Dr. K. C. Chakrabarty) has noted that there are consistent efforts to set standards for data reporting in the form of eXtensible Business Reporting Language (XBRL). Accordingly, the Reserve Bank has undertaken a project to develop XBRL taxonomies for the various returns in the area of banking supervision and foreign exchange transaction reporting. In this process, an unduplicated list of data elements, which are covered in these returns, is being prepared along with the business rules. These taxonomies will help the banks to generate the necessary data at their end and validate the same using the business rules.

Information Management Initiatives

IX.47 Data Warehouse of the Reserve Bank is emerging as a centralised information management platform for data processing and information dissemination. In line with the information management vision of the Reserve Bank, the information collected through various returns and processed in disparate systems at different departments will be progressively routed through the eXtensible Business Reporting Language (XBRL) platform.

IX.48 Consequent to the restructuring of the Reserve Bank's Monthly Bulletin, a project was taken up by the Reserve Bank, with the objective of automating information flow, generation of reports and dissemination of all tables pertaining to Weekly Statistical Supplement (WSS) and current statistics of Monthly Bulletin, directly from the data warehouse. From January 2013 onwards, all data tables pertaining to these two publications have been brought out from the data warehouse.

IX.49 The payment system initiatives taken by the Reserve Bank have enabled to the financial system to transform itself in terms of efficiency, safety and speed of delivery. It has led to deeper acceptance and penetration of non-cash payment modes. The Reserve Bank is actively engaged towards ensuring that the payment and settlement systems in the country are safe, efficient, interoperable, authorised, accessible, inclusive and compliant with international standards. It will continue to proactively encourage electronic payment systems for increasing the cash-less transactions in the financial system.

X GOVERNANCE, HUMAN RESOURCES DEVELOPMENT AND ORGANISATIONAL MANAGEMENT

For a multi-faceted institution such as the Reserve Bank, the organisational systems and controls need to be robust so as to ensure that the system functions along sound lines. In this regard, the Reserve Bank has taken several initiatives to strengthen its communications policy, besides improving the governance standards and pursuing its efforts to nurture a dedicated work force. Several conferences, seminars and outreach programmes were organised during the year which facilitated the process of knowledge sharing as also discussion and debate about issues of topical interest among employees and outside experts. The Reserve Bank's efforts in this respect are supported by various departments that play a key role in furthering organisational functioning while respecting the need for ensuring corporate social responsibility.

INITIATIVES FOR IMPROVED GOVERNANCE

Governance Structure

X.1 One of the distinguishing features of a central bank is that it works in the public interest, performs services which are in the nature of public goods and does not have profit as a central objective. Accordingly, governance in the central bank is about legal foundations, practices, transparency, independence of views and accountability. It is also about fair and acceptable behaviour towards the more vulnerable sections of the society.

X.2 In the governance structure of the Reserve Bank, the Central Board of Directors constitutes the apex body, overseeing and guiding the activities of the Reserve Bank. In addition, there are four Local Boards for the Northern, Southern, Eastern and Western areas of the country. The Government of India appoints/nominates the Directors on the Central Board and the Members on the four Local Boards. The Central Board has three Committees (Committee of the Central Board, Board for Financial Supervision and Board for Regulation and Supervision of Payment and Settlement Systems) and four sub-committees (Audit and Risk Monitoring Sub-Committee, Human Resource Management Sub-Committee, Building Sub-Committee and Information Technology Sub-Committee). The Governor presides over the meetings of the Central Board which generally meets seven times in a year. The Governor is assisted by four Deputy Governors and nine Executive Directors in managing the affairs of the Reserve Bank.

Meetings of the Central Board and its Committee

X.3 The Central Board held seven meetings during the year 2012-13. Of these, four were held at metro centres (New Delhi, Chennai, Mumbai and Kolkata) and three at non-traditional centres by rotation (Puducherry, Guwahati and Srinagar). The discussions at the meetings, *inter alia*, covered matters pertaining to general superintendence and direction of the affairs of the Reserve Bank, financial inclusion and issues relating to its role in supporting socio-economic goals. Traditionally, the post-budget meeting of the Central Board is addressed by the Finance Minister. Shri P. Chidambaram, Hon'ble Finance Minister addressed the post-budget meeting of the Central Board on March 8, 2013 in New Delhi.

X.4 During the year, 45 weekly meetings of the Committee of the Central Board were held in Mumbai. The Committee attended to the current business of the Reserve Bank, including approval of the Reserve Bank's weekly accounts pertaining to the Issue and the Banking Departments.

X.5 On the sidelines of the Central Board meetings, the Governor had interactions with the Chief Ministers and senior officials of State Governments, commercial banks and financial institutions of the respective states. The discussions generally covered issues such as extension of banking services in unbanked / under banked areas, use of IT-enabled banking services / Electronic Benefit Transfer (EBT), measures to promote financial inclusion, enhancing credit flow, development of Self Help Groups (SHGs), improving credit-deposit ratio and measures to enhance the quality, accessibility and integrity of banknotes.

Directors/Members of the Central Board / Local Boards – Changes

Nominations

X.6 Dr. Arvind Mayaram, Secretary, Department of Economic Affairs, was nominated a Director on the Central Board (Government nominee) with effect from August 7, 2012 *vice* Shri R. Gopalan under Section 8(1)(d) of the Reserve Bank Act, 1934.

X.7 Shri Y. C. Deveshwar was nominated as a Director on the Central Board with effect from September 3, 2012 *vice* Dr. Ashok S. Ganguly under Section 8(1)(c) of the Reserve Bank Act, 1934.

X.8 Prof. Damodar Acharya was nominated as a Director on the Central Board with effect from October 12, 2012 *vice* Late Smt. Shashi Rajagopalan under Section 8(1)(c) of the Reserve Bank Act, 1934.

X.9 Shri Rajiv Takru, Secretary, Department of Financial Services, was nominated as a Director on the Central Board with effect from February 4, 2013 *vice* Shri D.K. Mittal under Section 8(1)(d) of the Reserve Bank Act, 1934.

X.10 Dr. Nachiket Madhusudan Mor was nominated as a Member of the Local Board (Eastern Area) under Section 9(1) of the Reserve Bank Act, 1934 and also as a Director on the Central Board under Section 8(1)(b) of the Reserve Bank Act, 1934 with effect from May 16, 2013 *vice* Late Prof. Suresh Tendulkar.

Appointments

X.11 Dr. Urjit R. Patel was appointed as Deputy Governor of the Bank with effect from January 11, 2013 and assumed office on January 14, 2013.

X.12 Shri Anand Sinha continued as Deputy Governor of the Bank from March 1, 2013 and his present tenure will be up to January 18, 2014 when he completes the tenure of three years from the date on which he assumed office, *i.e.,* January 19, 2011.

X.13 Dr. Raghuram Rajan, Chief Economic Advisor, Ministry of Finance has been appointed by Government of India vide its notification dated August 7, 2013 as the next Governor of the Reserve Bank of India for a term of three years vice Dr. D. Subbarao upon completion of his tenure. He has also been appointed as Officer on Special Duty in the Reserve Bank of India for a period of three weeks prior to his taking over as Governor on September 5, 2013 to provide an overlap with the present Governor.

Retirements/Resignations

X.14 Dr. Subir Gokarn laid down office as Deputy Governor of the Bank on December 31, 2012 on expiry of his term.

X.15 Shri Najeeb Jung resigned as a Director of the Central Board with effect from July 9, 2013 consequent upon his appointment as Lieutenant Governor of Delhi.

X.16 Shri Kumar Mangalam Birla resigned as Director of the Central Board with effect from July 11, 2013.

X.17 Dr. M. Govinda Rao resigned as a Member of the Local Board (Southern Area) with effect from February 7, 2013 consequent upon his appointment as Member of the Fourteenth Finance Commission.

Appointment / Retirement of Executives

X.18 Shri V.S. Das, Executive Director, retired from service as at the close of business on July 31, 2012.

X.19 Shri Jasbir Singh was appointed as Executive Director with effect from August 1, 2012. He is in charge of Deposit Insurance and Credit Guarantee Corporation of India (DICGC).

X.20 Shri V.K. Sharma, Executive Director, retired from service as at the close of business on December 31, 2012.

X.21 Dr. (Smt.) Deepali Pant Joshi was appointed as Executive Director with effect from January 1, 2013.

X.22 Smt. Grace Koshie, Chief General Manager and Secretary retired from the service of the Reserve Bank at the close of business of December 31, 2012.

Awards / Felicitations / Honours

X.23 Ms. Ela Bhatt, Director, was presented the Indira Gandhi Prize for Peace, Disarmament and Development for 2011 by Shri Pranab Mukherjee, President of India, in February 2013 for her lifetime achievements in empowering women through grassroots entrepreneurship.

Visits by Foreign Dignitaries

X.24 Several foreign delegations visited the Reserve Bank during the year and interacted with the Top Management on a wide spectrum of issues, including the global economic situation, the framework for strong, sustainable and balanced global growth and financial/ regulatory reforms. The Reserve Bank's monetary and regulatory policies were also discussed, apart from aspects pertaining to mutual trade, investment and bilateral relations. The list of dignitaries who visited the Reserve Bank during 2012-13 is given in Annex II.

INITIATIVES IN COMMUNICATION

X.25 A major element of the Reserve Bank's strategy towards improved communication over the past several years has been demystifying the central bank and the Governor's office. In this respect, several initiatives have been undertaken.

X.26 Leveraging on emerging technology, a new initiative with respect to the communication of monetary policy was live mobile streaming of the Governor's monetary policy statement alongside live webcasting. This was initiated from the Third Quarter Review of Monetary Policy 2012-13 in January 2013. This has increased the reach of the Reserve Bank's communication immensely. In fact, access to policy communication through mobiles increased from 2,975 downloads in January 2013 to 3,756 downloads in May 2013 and further to 8,096 downloads in July 2013.

Town Hall Events/Outreach Programmes

X.27 Started in 2010, Town Hall is an initiative to demystify the Reserve Bank and bring it closer to the public by showcasing how the central bank touches everyday life of the common man. In the process, the Reserve Bank also gets a great deal of inputs for policy making. Town Hall is once a year event held in a tier-II city. The Governor and Deputy Governors make themselves available for responding to questions from the student community, which signify the aspirations of young India. Department of Communication arranged a Town Hall event at Puducherry on October 3, 2012. Students from Indira Gandhi College, Puducherry University, Saradha Gangadharan College and St. Joseph's College attended the event. ABP News helped extend this event to a wider audience.

X.28 Apropos the Saradha episode in West Bengal, the Reserve Bank took upon itself, as a public policy institution, the responsibility to create awareness about the role of various regulators in

regulating NBFCs and the available grievance redressal mechanisms. Towards this end, it organised a Town Hall in Chandigarh on June 29, 2013. Shri Anand Sinha, Deputy Governor and Senior Government Officials replied to public queries on NBFCs. Partnership with CNBC TV18 helped reach this Town Hall to a wider audience.

X.29 With a view to spreading financial literacy and helping financial inclusion of the poor, the Reserve Bank organised several outreach programmes. A programme named 'Forex for You' was also organised during the year to disseminate information on foreign exchange facilities for general public, including students. In order to increase payment system literacy and visibility 'electronic banking awareness and training' (eBAAT) programmes were also organised. These programmes helped in bringing awareness of the various payment products and the ease with which they can be used to encourage the use of non-cash payment products and provide impetus to move towards a less-cash society.

RBI Pavilion in Indian Business History Museum at IIM, Kozhikode

X.30 At the request of the Indian Institute of Management, Kozhikode (IIMK), Department of Communication set up a permanent Pavilion in their Indian Business History Museum. The Reserve Bank Pavilion consists of a crisp, visual history of the Reserve Bank and the financial system, together with a short story on the evolution of banknotes. The Pavilion also includes Governors' Gallery, an ultra-violet machine used to verify banknotes and a shelf of publications by the Reserve Bank. The Pavilion was inaugurated by the Governor, Dr. D. Subbarao in July 2012.

X.31 According to IIMK, the Museum is frequented by a large number of visitors which includes heads of governments, envoys, thought leaders, CEOs, scholars, teachers, students of varying age groups and the general public.

Educational Visits

X.32 The Reserve Bank has been arranging educational visits since 2006 as part of Project Financial Literacy. Over the years, the visits have been gaining popularity by word of mouth. From July 2012 till June 2013, the Reserve Bank, Central Office arranged 89 visits. On an average, the Reserve Bank handles about 4 to 5 visits per month. Participation is mainly from schools, colleges, Indian Administrative Services, State Civil Services, NGOs, groups of senior citizens and students from foreign universities. The sessions have three modules – a visit to monetary museum, an interactive session with Reserve Bank officials and a visit to the clearing house. On request, officers from the Reserve Bank also deliver lectures on the functions and role of the Reserve Bank and on specific topics at schools, colleges and NGOs.

Seminars

X.33 To promote Reserve Bank publications among research students and analysts, outreach seminars are held jointly by various departments of the Reserve Bank at several centres. After the Annual Report 2011-12 was released, one outreach seminar was held in Mumbai for research analysts and three were held at the following centres, including a tier-II city: Centre for Development Studies, Thiruvanathapuram, Agartala University, Agartala and Jaipur Office. Students from colleges and universities and senior commercial bank officers participated.

X.34 Outreach seminars were held to disseminate the analytical research contents of the Reserve Bank's statutory publications - *Annual Report* and *Report on Trend and Progress of Banking in India* as also the *Report on Currency and Finance* on the theme of fiscal-monetary coordination. All the seminars were well-received and provided valuable feedback.

Research and Endowment schemes

X.35 As part of restructuring and making research publications available for wider audience, the Bank has reformed publications like Reserve Bank *Monthly Bulletin* and *Weekly Statistical Supplement*. In addition, the Bank is encouraging its staff to publish research papers. In this context, the research publications of the Bank's staff *viz.*, the Reserve Bank *Occasional Papers* and the web-based Reserve Bank of India *Working Paper Series* (RBIWPS) continued as major platform for disseminating in-house technical and analytical research on a wide array of macroeconomic and policy issues. Under the RBIWPS, initiated in March 2011, 45 papers covering wide range of issues have been uploaded till April 2013.

X.36 In addition to in-house research, the Reserve Bank of India Act, 1934 [Section 17(15B)] encourages and promotes external research activities in academia and research institutions. For this purpose, the Reserve Bank provides funds through endowment scheme and DRG Studies. The external research support provided under endowment scheme includes establishment of RBI Chairs in universities/ research institutions, funding medium-term research projects, supporting conference/workshop/seminar, publication of journals, scholarship scheme for faculty members, *etc.* So far, 39 DRG Studies have been published. During 2012-13, as part of research project funding, the Reserve Bank has placed two project research studies on 'India-China Bilateral Trade Relationship' and 'How the Poor Manage their Finances: A Study of the Portfolio Choices of Poor Households in Ernakulam District, Kerala' on its website.

X.37 The Reserve Bank of India has instituted Prof. K N Raj Memorial National Fellowship Scheme in 2012-13 as a tribute to the contribution of Prof. K N Raj to economic research and policy. The Fellowship is awarded to a distinguished scholar of social sciences from India or abroad to pursue research for a short period in an academic/ research institution in India. Prof. Ravi Kanbur of Cornell University, U.S., is the first recipient of this Fellowship. Under this Fellowship, Prof. Kanbur will be pursuing his research on "Informality: Causes, Consequences and Policy Responses" at Centre for Development Studies (CDS), Thiruvananthapuram.

X.38 Since last year, the Bank is organising Conference to facilitate researchers of the Bank to present their papers. The Bank has organised jointly 2nd DEPR Research Conference on May 30, 2013 and 2nd Reserve Bank Chair Professors' Research Conference on May 31, 2013. The joint conference proved to be an effective platform for obtaining two-way feedback on the research issues conducted by Reserve Bank researchers and the Chair Professors.

India-OECD-World Bank Regional Conference on Financial Education

X.39 Given the priority attached to financial inclusion and financial literacy, the Reserve Bank, in collaboration with the Organisation for Economic Cooperation and Development (OECD) and the World Bank, organised the Regional Conference on Financial Education during March 4-6, 2013 in New Delhi.

X.40 The various sessions deliberated upon manifold issues, such as, national strategies for financial education, measurement of financial literacy and methods for programme evaluation, financial education for young people and women, as well as innovative delivery methods. Select banks/NGOs were invited to set up stalls showcasing their efforts in financial literacy at the venue and received good response. The Conference was a valuable learning experience and provided a platform for experience sharing and brainstorming on new ideas.

X.41 To popularise the electronic payment products among the stakeholders like merchants and consumers, Electronic Banking Awareness and Training (e-BAAT) programmes are being planned by the Reserve Bank along with the banks.

Knowledge Dissemination –International Seminar

X.42 An international seminar on "Principles for Financial Market Infrastructures and Innovations in Retail Payments" was organised by the Reserve Bank during February 14-16, 2013 in New Delhi. The seminar focused on the twin topics of principles for financial market infrastructure and its implications, as well as recent developments in the retail payments space across the world. Eminent speakers from Bank of International Settlements, World Bank, European Central Bank, Bundesbank and Hong Kong Monetary Authority addressed the participants from 23 countries.

Enterprise Wide Risk Management

X.43 The Risk Monitoring Department (RMD) was set up as part of the Enterprise-wide Risk Management (ERM) initiative of the Reserve Bank on May 31, 2012. The ERM framework comprises the 'risk governance structure' as well as a three-tier 'risk management structure' which will enable the Reserve Bank to take a holistic view of risks faced by it at the organisational level and to manage these risks in conformity with its risk policies and risk tolerance limits.

X.44 The 'risk governance structure' has the Central Board at the apex level, which is responsible for overall governance of the Reserve Bank. The Board is supported by the Audit and Risk Management Sub-Committee (ARMS) which is chaired by an independent Director. The ARMS is responsible for the broad strategy and risk policies of the Reserve Bank. The Risk Monitoring Committee (RMC), an executive level committee, is responsible for maintaining oversight of the Reserve Bank's risk management function and to ensure that risks are managed in compliance with the Reserve Bank's policies. It will report to the ARMS.

X.45 The three-tier risk management structure has at the first level, the business areas, which will be primarily responsible for the management of risks. The second level - the centralised Risk Monitoring Department - will assist the ARMS/ RMC and will be responsible for formulating and periodically reviewing the ERM policies and methodologies, interacting with the business areas to ensure that all significant risks are identified, aggregated and reported to the ARMS/RMC, creating institutional memory of 'loss' and 'near loss' events and fostering a 'risk awareness' culture in the organisation. The third level comprises of the Inspection Department which through its internal audit/ inspection process performs the role of risk assurance.

HUMAN RESOURCE DEVELOPMENT INITIATIVES

Training/ Deputation/ Higher Studies/ Distance Learning

X.46 To enhance the quality of human capital in the organisation, the Reserve Bank continued to provide avenues for skill upgrading to its staff. The six training establishments of the Bank, *viz.,* Reserve Bank Staff College (RBSC), Chennai, College of Agricultural Banking (CAB), Pune and four Zonal Training Centres at Mumbai, New Delhi, Kolkata and Chennai cater to its training requirements. CAB also provides training to officers from the banking industry in the areas of rural/co-operative banking (Table X.1).

X.47 To explore the potential for integrating financial education and literacy into the Reserve Bank's overall endeavour for financial inclusion by encouraging young students across the country to

Table X.1: Reserve Bank Training Establishments – Programmes Conducted

Training Establishment	2010-11 (July-June)		2011-12 (July-June)		2012-13 (July-June)	
	No. of Programmes	No. of Participants	No. of Programmes	No. of Participants	No. of Programmes	No. of Participants
1	2	3	4	5	6	7
RBSC, Chennai	147	2904	125	2492	126	2676*
CAB, Pune	162	4951	190	5647	164	5105@
ZTCs (Class I)	57	1140	116	2098	116	2526
ZTCs (Class III)	87	1310	35	639	64	1492
ZTCs (Class IV)	70	1422	65	1237	58	1184

* : Includes 14 foreign participants.
@: Includes 52 foreign participants.

learn more about the Reserve Bank, the *RBIQ* - an all-India Reserve Bank Inter-School Quiz - was launched in 2012 (Box X.1).

Training at External Institutions

X.48 During 2012-13, 874 officers were deputed by the Reserve Bank to participate in training programmes, seminars and conferences organised by external management/banking institutions in India. Several Class III and Class IV employees were also deputed for training in external institutions in India. The Reserve Bank also deputed 510 officers to attend various training courses, seminars, conferences and workshops conducted by banking and financial institutions and multilateral institutions in more than 54 countries (Table X.2).

X.49 During the year, six officers of the Reserve Bank availed of study leave under different schemes to pursue higher studies. Further, 350 employees pursued select part-time/distance education courses during 2012-13 under the Reserve Bank's incentive scheme.

X.50 In recent years, the Reserve Bank has taken initiatives to provide greater access to

Box X.1
RBIQ

An all-India Reserve Bank inter-school quiz - RBIQ – was launched in 2012. This initiative is in line with the emerging consensus that any attempt at expanding the outreach of financial education needs to start at the school level.

Improving basic financial education through an interesting, effective and popular format such as a quiz contest at the school level has the potential to build a solid foundation for financial literacy. It is felt that the *RBIQ* will become a major awareness and sensitisation exercise on the role of the Reserve Bank and the banking system across the country, particularly for a vast segment of our youth.

The main objectives of organising *RBIQ* are as under:

- To create awareness and interest in the history and role of Reserve Bank, banking and finance, other banking institutions, economics, current affairs, personalities and events that have contributed to the growth and progress of India over the years;
- To build a connect between Reserve Bank and the student community across the country and achieve extensive dissemination of financial literacy;
- To recognise and encourage bright young students on a national platform.

Designed as an informative, educational and enjoyable quiz event, *RBIQ* was held at 32 locations across the country. *RBIQ* 2012 helped to build a connect with the young student community enrolled in schools across the country and achieve deepening of the financial literacy efforts. In 2013, it is planned to hold *RBIQ* at 12 more locations, *i.e.* a total of 44 locations spread across the country. Students in standards 9-12 across all Boards would be eligible to participate in *RBIQ*.

RBIQ consists of questions on the Reserve Bank and Indian banking history, banking, accounting, finance, trade and commerce, India's economy, economics, common business terms, India's achievements over the years, General Knowledge and current affairs.

The entire event is being conducted in an innovative and exciting way so that it generates and engages the interest of young participants and members of the audience, and makes them keen to know more about the related topics.

Table X.2: Number of Officers Trained in External Training Institutions in India and Abroad

Year	No. of officers trained in India (external institutions)	No. of officers trained abroad
1	2	3
2010-11	1,090	578
2011-12	1,072	511
2012-13	874	510

financial services to the hitherto unreached segment of our population, as well as to bridge the knowledge gap in financial education and literacy in our country. Towards this end, a need was felt to innovate on the inclusion initiatives by exploring the potential of sensitising and involving young Direct Recruit Officers of the Reserve Bank. This would better integrate the human resources as also bring in fresh, implementable ideas into the Reserve Bank's overall endeavour for financial inclusion.

X.51 Pursuant to this, Reserve Bank decided to institute an Award in honour of late Shashi Rajagopalan who had served as a Member of the Central Board of Directors between June 27, 2006 and August 05, 2011 and had worked for several years on rural development and financial inclusion. The first Shashi Rajagopalan Memorial Awards were given away on January 26, 2013 in Mumbai (Box X.2).

SEACEN Membership

X.52 The Reserve Bank has been admitted as the 19th Member of South East Asian Central Banks (SEACEN) Research and Training Centre from January 1, 2013. SEACEN is Asia's regional learning hub for capacity building in central banking, and it fosters networking and collaboration among its member central banks / monetary authorities. In view of its high quality training and facilities, the Reserve Bank had been sponsoring its officers for various training programmes, workshops and seminars conducted by SEACEN for capacity building even before it became a member of this training and research centre.

Joint Seminar

X.53 As part of the arrangements that the Reserve Bank has with Banque de France in the form of joint seminars on areas of mutual interest, the fourth seminar in this series was organised on

Box X.2
Shashi Rajagopalan Memorial Awards

All Direct Recruit Officers who have joined or will be joining the Reserve Bank with effect from January 2012 are eligible for these Awards. This Village Lived-in Experience has been made as part of probation-period training for Direct Recruit Officers joining the Reserve Bank effective the above date.

As part of this, Direct Recruit Officers joining the Reserve Bank are required to undergo Village Immersion Programmes for 7 days each in unbanked and underbanked areas across India. To make the exercise more meaningful and collaborative, the Awards have been designed as a team effort and each team will comprise two eligible Direct Recruit Officers.

At the end of the programme, each team is required to submit Project Reports on their experience as also the policies/ measures considered necessary for initialising inclusion/ improving financial conditions of residents of the area visited. The finest documentation of such first-hand, lived-in experiences are given the Shashi Rajagopalan Awards. Three Prizes including Two Consolation Prizes are given to the three best efforts.

Put together, these Reports are expected to shed light on both supply-side and demand-side barriers responsible for low level of access to financial services for a huge segment of our population as also the role of public policy and initiatives in addressing the disadvantages of circumstances and in ensuring a level playing field for all that lies at the core of inclusiveness.

The basis for providing any financial service lies in first understanding the circumstances of the financially excluded, so that, at the very least, their needs can be incorporated in the policies and measures that are planned for them. It is hoped that this initiative by the Reserve Bank that affords young central bankers an opportunity to experience and understand life at the grassroots will be a significant step in that direction.

March 22-23, 2013 at the College of Agricultural Banking (CAB), Pune. The theme of the seminar was 'Consumer Protection'.

Joint India-IMF Training Programme (ITP)-Pune

X.54 The Reserve Bank and the International Monetary Fund had jointly established the Joint India–IMF Training Programme (ITP) at NIBM, Pune. During the year 2012-13, nine programmes were conducted with 55 participants from the Reserve Bank. The programme ceased to be in operation from May 2013.

Grants and Endowments

X.55 During the year 2012-13, the Reserve Bank extended financial support of ₹330 million, to the Indira Gandhi Institute of Development Research (IGIDR), Mumbai; ₹70 million to the Centre for Advanced Financial Research and Learning (CAFRAL), Mumbai, ₹14.9 million to the National Institute of Bank Management (NIBM), Pune; and ₹1.47 million to the Indian Institute of Bank Management (IIBM), Guwahati for their activities in research, training and consultancy for the banking and financial sector.

INITIATIVES IN ORGANISATION MANAGEMENT

X.56 The Reserve Bank continued its initiatives for talent acquisition, alongside its capacity-building initiatives and knowledge dissemination.

Industrial Relations

X.57 The Reserve Bank continues to hold periodic meetings with recognised associations/ federations of officers and employees/workers on matters related to service conditions and welfare measures. Its interactions with the industry remained encouraging during the year.

Right to Information Act (RTI), 2005

X.58 In the eighth year of the implementation of the RTI Act in the Reserve Bank, the Reserve Bank received 6276 requests for information, of which 95 per cent have been addressed. The number of first appeals received during the year was 917. The Appellate Authority of the Reserve Bank disposed off 936 appeals during the year, including appeals received last year. During the year, the Central Information Commission (CIC) heard 21 cases of second appeals filed by the appellants.

X.59 Two programmes on Right to Information Act were conducted at RBSC, Chennai and three programmes were conducted at Zonal Training Centre, Chennai for the staff of the Reserve Bank to familiarise them with the provisions of the RTI Act and its implementation in the Reserve Bank.

Staff Strength

X.60 The total staff strength as on June 30, 2013 was 17,449 compared with 18,132 a year ago. Of the total staff, 46.7 per cent belong to Class I, 20.56 per cent to Class III and the remaining belong to Class IV (Table X.3).

Table X.3: Category-wise Actual Staff Strength
(As on June 30, 2013)

Class	Actual Strength
1	2
A. Class I	**8,148**
1. Senior Officers in Grade F	92
2. Senior Officers in Grade E	296
3. Senior Officers in Grade D	355
4. Officers in Grade C	1,038
5. Officers in Grade B	1,527
6. Officers in Grade A	4,790
7. Treasurer	7
8. Deputy Treasurer	4
9. Assistant Treasurer	39
B. Class III	**3,588**
1. Senior Assistant	1,036
2. Assistant	1,539
3. Secretarial Assistant	56
4. Word Processor Assistant	270
5. Special Assistant (Teller)	307
6. Class III (Others)	380
C. Class IV	**5,713**
1. Maintenance Staff	1,333
2. Service Staff	3,549
3. Technical Staff	162
4. Other Staff	669
Total Strength in the Reserve Bank (A+B+C)	**17,449**

X.61 The Mumbai centre (including the central office departments) continued to have the maximum staff (5,227 or 29.96 per cent), followed by Kolkata (1,528 or 8.79 per cent), Chennai (1,269 or 7.27 per cent) and New Delhi (1,189 or 6.81 per cent) (Table X.4).

Table X.4: Reserve Bank's Office-wise Staff Strength
(As on June 30, 2013)

Office (including sub-offices)	Class I	Class III	Class IV	Total
1	2	3	4	5
Agartala	7	2	0	**9**
Ahmedabad	328	159	238	**725**
Bangalore	477	143	224	**844**
Belapur	138	60	182	**380**
Bhopal	163	74	74	**311**
Bhubaneswar	170	80	186	**436**
Chandigarh	180	58	91	**329**
Chennai	519	333	417	**1,269**
Dehradun	20	6	2	**28**
Gangtok	5	0	0	**5**
Guwahati	236	125	196	**557**
Hyderabad	321	126	259	**706**
Jaipur	283	126	191	**600**
Jammu@	98	29	64	**191**
Kanpur	258	183	305	**746**
Kochi	41	43	34	**118**
Kolkata	589	410	529	**1,528**
Lucknow	189	63	125	**377**
Mumbai	770	415	1040	**2,225**
Nagpur	267	216	239	**722**
New Delhi	608	246	335	**1,189**
Panaji, Goa	20	3	2	**25**
Patna	187	97	211	**495**
Pune-CAB-CRDC-ITP	67	20	79	**166**
Raipur	13	3	0	**16**
Ranchi	14	4	0	**18**
Shillong	7	2	0	**9**
Shimla	9	0	0	**9**
Thiruvananthapuram	208	89	117	**414**
Total	**6,192**	**3,115**	**5,140**	**14,447**
CODs #	**1,956**	**473**	**573**	**3,002**
Grand Total	**8,148**	**3,588**	**5,713**	**17,449**

CAB: College of Agricultural Banking.
CRDC: Central Records and Documentation Centre.
ITP: IMF Training Program, Pune.
@: Includes Srinagar sub-office.
#: Central office departments including DICGC.

X.62 During the year 2012 (January-December), meetings between the Management and the representatives of the All-India Reserve Bank Scheduled Castes/Scheduled Tribes and the Buddhist Federation were held on four occasions to discuss issues relating to the implementation of the reservation policy in the Reserve Bank.

X.63 In accordance with the Central Government's policy, the Reserve Bank provided reservation to Other Backward Classes (OBCs) effective September 8, 1993. The representation of OBCs (recruited after September 1993) in the Reserve Bank as on December 31, 2012 stood at 1,233. Of these, 382 were in Class I, 349 in Class III and 502 in Class IV.

X.64 The total strength of ex-servicemen in the Reserve Bank as on December 31, 2012 stood at 930 consisting of 193 in Class I, 141 in Class III and 596 in Class IV. The total number of physically handicapped employees in Class I, Class III and Class IV cadres in the Reserve Bank stood at 219, 80 and 104 respectively, as on December 31, 2012.

Recruitment of Assistants

X.65 Taking into account the anticipated high rate of retirements in the Reserve Bank during the next five years, the process of recruiting assistants in Class III cadre across all offices has been initiated. As part of this process, 1000 assistants were recruited during 2012-13.

Code of Ethics and Governance

X.66 The Reserve Bank has long been known as an institution that practices fairness, transparency and accountability. The systems and processes have been, over the years, regarded by many observers as having set estimable standards of accountability and transparency.

X.67 Taking this process further, the Reserve Bank is committed to working hard to preserve and fortify its long-held reputation in this regard and creating a climate of integrity and responsibility which is imperative for the central bank (Box X.3).

Box X.3
Code of Ethics and Governance

The Reserve Bank's Senior Management Retreat is an annual event that provides an interface mechanism for the Heads of Regional Offices and Central Office Departments with the Top Management. The Retreat, held in November 2012 revolved around the theme of 'Ethics and Governance'. The proceedings at this Retreat involved, *inter alia* interactive sessions on dilemmas of ethics in a case study format as well as sharing of best practices other central banks.

The Retreat was followed up by a series of interactive workshops for senior officials. In these workshops, the participants are taken through a broad canvas of ethical issues and dilemmas in professional life. The deliberations also dwell on the theoretical explanations and integrating when making moral choices in organisational contexts as well as guiding narratives on how to distinguish good from bad, the link between ethics and governance and the need for and ways of breaking stereotypes.

To improve understanding of corporate ethics, law and governance and to identify ways in which everyone in the Reserve Bank can operate ethically and along principled lines, these workshops also focus on how to create more effective public policies, how to promote a more ethical, self-governing corporate culture and how to increase public trust.

The effort is thus to make ethics and governance a core component of the knowledge and skill base in the Reserve Bank since the Reserve Bank's employees play several roles: as public policy makers, regulators and supervisors and also provider of a host of other services. This is expected to help employees to better understand and put in place governance mechanisms to ensure lawful and effective corporate behaviour and operations.

Taking forward these deliberations, the Reserve Bank is working on a Code of Ethics that is expected to guide its employees to greater awareness of ethics and governance and enable them to identify and resolve ethical issues and conflicts effectively throughout their career.

Rajbhasha

X.68 In compliance with the statutory requirements of the *Rajbhasha* policy, the Reserve Bank strove to promote the use of Hindi in its working during 2012-13. Besides statutory publications, other publications were brought out in bilingual form. The revised edition of the Banking English-Hindi Glossary was published during the year.

X.69 A number of inter-bank and internal Hindi competitions as well as several Hindi functions were organised during the year. The Rajbhasha Officers' Conference as well as review meetings with Rajbhasha Officers were held to monitor the progress in implementing the Rajbhasha policy and to draw up future plans.

X.70 The major highlights of the year include intensive Hindi typing training programmes for the members of staff other than typists (including officers) with a record number of 116 trainees successfully passing the Hindi typing examination conducted by the Government of India. Padma Bhushan Justice Chandrashekhar Dharmadhikaari gave a lecture on "Role of languages in inclusive growth" under the banner of *Addhyayan Manch* on February 13, 2013 at Central Office, Mumbai. In addition, a quarterly Hindi magazine on banking "Banking Chintan-Anuchintan", containing original Hindi articles, with a special issue on 'Capital Adequacy Norms and Basel III', was published aside from the quarterly news magazine 'Rajbhasha Samachar' which discusses the activities regarding the implementation of the Rajbhasha policy. A Hindi book titled "*Sukshma, Laghu Evam Madhyam Udyam : Vividh Aayaam*" was also brought out by the Reserve Bank.

Management of the Reserve Bank Premises

X.71 The Premises Department is responsible for the creation, maintenance and up-gradation of infrastructure in the Reserve Bank. In this connection, some new construction projects have been undertaken, apart from monitoring the implementation of on-going projects. The important

activities in this area are described below.

Design and Build (DB) Projects

X.72 Projects to provide residential accommodation and hostel facilities were awarded to a reputed builder in 2011. There are six projects spread over three cities: Mumbai, Delhi and Chennai. Three out of the six projects are in progress. The residential construction project at Hyderabad, which was awarded during the year to another firm, is progressing satisfactorily.

Projects under planning

X.73 A design competition for the proposed Centre for Advanced Financial Research and Learning (CAFRAL) was held and an architectural firm has been appointed. The firm has commenced work relating to submission of plans to statutory authorities for approval.

Land acquisition

X.74 The process for land acquisition for office and residential premises in Dehradun was completed during the year. The Lease Deed Agreement has been executed in respect of land acquired for office premises at Raipur. The Reserve Bank has also initiated the process for acquisition of land for office and residential premises at Shillong and Agartala.

Improvements in physical security infrastructure

X.75 The pilot project of Internet Protocol (IP) based CCTV system has been completed in La-Gajjar Chambers, Ahmedabad and will be replicated in the Bank's offices. The action plan for integrated security system for Central Office Building, Mumbai, has been formulated for implementation through the process of Expression of Interest (EOI) / Request for Proposal (RFP)

Green Initiatives

X.76 The Carbon Footprint Mapping (CFM) exercise, aimed at reducing Green House Gas (GHG) emissions, has been completed for the Reserve Bank's Central Office Building at Mumbai and offices at Bengaluru and Jaipur. A similar exercise for other offices is being taken up in a phased manner.

X.77 A pilot project for harnessing solar energy to produce electricity has been awarded for the Bandra-Kurla Complex (BKC) office of Mumbai.

X.78 Work for installation of energy-efficient central air-conditioning plants at the Reserve Bank offices at Patna and Nagpur has been awarded.

X.79 The Reserve Bank has provided energy-efficient centralised UPS systems in a few offices. The procurement process for similar systems in remaining offices has been initiated.

X.80 An Organic Waste Converter has been installed in Osborne Road Staff Colony, Bangalore, to dispose of the wet waste generated in the colony in an environmental friendly way. The Organic Waste Converter uses food, animal and garden waste and converts it into homogenised odour-free raw compost in 15 minutes. The compost can be used for various purposes including kitchen, gardening and landscaping. Each cycle can process around 25 kgs of waste.

Internal Audit/ Inspection in the Reserve Bank

X.81 As part of its ongoing process of ensuring that the internal systems and controls are in order, the Reserve Bank examines its systems, processes and controls to provide objective feedback to the Top Management and the Audit and Risk Management Sub-Committee (ARMS) of the Central Board about the preparedness of various offices and departments. In this connection, inspection/ audit was carried out at 21 Regional Offices (including sub-offices), 16 Central Office departments, one subsidiary and one training establishment under Risk Based Internal Audit (RBIA), while one Central Office department was

covered under Management Audit and Systems Inspection (MA&SI).[1]

X.82 Information System Audits (IS Audits) were carried out along with RBIA and MA&SI. Compliance Audit of Technology Audits were also conducted of (i) Integrated Computerised Currency Operations & Management System, (ii) Integrated Establishment System, (iii) Mail Messaging System including Vulnerability Assessment-Penetration Testing (VA-PT) of MMS, Enterprise Knowledge Portal and Data Base on Indian Economy. Continuous Assurance on IS controls at Delhi, Mumbai, Belapur, Kolkata and Chennai Regional Offices and VA-PT of (i) Human Resource Management System and (ii) College of Agricultural Banking's public website were also carried out during the year.

X.83 The Audit and Risk Management Sub-Committee (ARMS) assists the Central Board in its oversight function by reviewing and monitoring the inspection and audit process, compliance, internal control systems, the financial reporting process, the risk management framework, BCPs and disaster management functions. Since its formation, four meetings of ARMS have been held during the year.

[1] Inspections under MA&SI have been discontinued with effect from October 2012 and all Regional Offices/ Central Office Departments/ Training Establishments are now audited/ inspected under the RBIA.

XI THE RESERVE BANK'S ACCOUNTS FOR 2012-13

The accounting year 2012-13 concluded with a surplus of ₹618.04 billion, reflecting an increase of 43.6 per cent over the corresponding figure of ₹430.40 billion for the previous year. While the income earned from investments in foreign assets increased modestly reflecting the decline in interest rates in international markets, the earnings from domestic assets increased significantly, mainly due to the increased portfolio of Government of India securities. The total income, before transfer to Contingency Reserve and Asset Development Reserve and excluding unrealised gains and losses directly adjusted in relevant accounts at ₹743.58 billion, registered an increase of 39.8 per cent over the year 2011-12. The total expenditure, at ₹125.49 billion, represented an increase of 23.8 per cent over the previous year's expenditure of ₹101.37 billion. After appropriation to Reserve Funds, the surplus payable to the Central Government amounted to ₹330.10 billion, the largest ever surplus transfer in absolute terms.

XI.1 The size of the Reserve Bank's balance sheet increased by ₹1,818 billion, *i.e.*, by 8.2 per cent, to ₹23,907 billion during the Reserve Bank's accounting year 2012-13 (July-June). On the assets side, this was explained by an increase in the Reserve Bank's holding of domestic securities, loans and advances as well as foreign assets. The increase in domestic assets by 14 per cent was mainly on account of purchases of Government securities worth ₹919.3 billion during the year through open market operations. The increase in foreign currency assets by 5.2 per cent was mainly due to valuation effect on the portfolio arising out of steep depreciation of the Indian rupee against the US dollar which is the numeraire currency for foreign exchange reserves. The value of gold reserves, however, fell by 11.3 per cent on account of decline in international gold prices. On the liabilities side, the expansion of the balance sheet is explained by the rise in notes in circulation by 8.9 per cent, besides accretion to the Currency and Gold Revaluation Account (CGRA) by 9.9 per cent. As on June 30, 2013, domestic assets constituted 36.2 per cent of total assets and foreign assets constituted the remaining 63.8 per cent as against 34.4 per cent and 65.7 per cent, respectively as on June 30, 2012.

XI.2 The financial statements of the Reserve Bank are prepared in accordance with the Reserve Bank of India (RBI) Act, 1934 and the notifications issued there under and in the form prescribed by the Reserve Bank of India General Regulations, 1949. The Reserve Bank prepares two balance sheets, one for the Issue Department relating to the sole function of currency management and the other for the Banking Department reflecting the impact of all other functions of the Reserve Bank. The balance sheet of the Reserve Bank is largely the offshoot of its activities undertaken in pursuance of its currency issue function as well as monetary and reserve management policy objectives. In recognition of the need for greater comparability and transparency, the Reserve Bank has been progressively moving towards greater disclosures in its financial statements (Box XI.1). Accordingly, the key financial results of the Reserve Bank's operations during the year 2012-13 along with the management commentary on the annual accounts and the supporting statement of significant accounting policies and notes to the accounts are set out in the following paragraphs. The Balance Sheet and Profit & Loss account with the report of the auditors and the statement of significant accounting policies and notes to the accounts are attached as Annexes I & II, respectively.

Box XI.1
Technical Committee to review the form of presentation of the Balance Sheet and Profit & Loss Account

The Reserve Bank had constituted a Technical Committee to review the form of presentation of the Bank's Balance Sheet and Profit & Loss Account (Chairman : Shri Y. H. Malegam) with a view to enhancing their readability and information content. The Committee submitted its report in April, 2013 and the same has been placed on the Bank's website (URL: http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=702).

The Technical Committee examined various aspects of the form and presentation of the financial statements of the Reserve Bank, with particular reference to their readability, information content, conformity to the International Financial Reporting Standards (IFRS), in addition to conducting a comparative analysis of the financial statements of other major central banks. Some of the major recommendations are:

a) Form of the Balance Sheet

- The Issue and Banking Department balance sheets may be merged to prepare a single balance sheet displaying at one place the total liabilities and assets of Reserve Bank.
- Only the main items of assets and liabilities may be reported in the Balance Sheet and all details thereof be shown in accompanying schedules.
- In determining the items which are to be shown separately in the schedules, items of similar nature can be grouped and shown as a single item and other items which are not material in value can be grouped and shown as a single item titled 'Others'.

b) Nomenclature and form of the Profit & Loss Account

- The 'Profit & Loss Account' may henceforth be called 'Income Statement'.
- A single Profit & Loss account (or as per nomenclature recommended, 'Income Statement') may continue to be prepared for the Bank as a whole.
- All the unrealised valuation adjustments (gains/ losses) on various assets arising on translation of foreign currency assets or on marking of assets to market should be routed through the Income Statement, and the corresponding net transfers to the Contingency Reserve, Asset Development Reserve, Currency & Gold Revaluation Account, Investment Revaluation Account and Exchange Equalisation Account be shown as a single item in the Profit & Loss Account (Income Statement) under the heading 'Provisions'.
- Since interest income is the major source of income for the Bank, all items of a non interest earning nature be grouped under a single head and be shown as 'Other Income'.

c) Accounting Policy

- While RBI should prepare its financial statements generally in accordance with International Accounting Standard (IAS) / International Financial Reporting Standard (IFRS), it may make such departures as it considers appropriate.
- Gold, being an operating asset, be revalued at the end of each month at the prevalent international price and unrealised gain / loss arising from such revaluation may continue to be transferred to the CGRA.
- Rupee securities should be carried at fair value and any unrealised gain or loss on revaluation should be transferred to the Investment Revaluation Account(IRA). If the balance in IRA turns into debit at any time, the debit balance should be charged off to the Profit & Loss Account (Income Statement).
- While Oil Bonds will be treated as 'Held to Maturity' and carried in the Balance Sheet at cost, all other domestic securities, other than treasury bills, will be treated as 'Available for Sale' and accounted for accordingly. All foreign securities would also be treated as 'Available for Sale'.
- Repo and Reverse Repo transactions should be accounted for as lending and borrowing of funds and not as sale and purchase of securities.
- The transactions involving sale of securities to the Government as part of Government's surplus cash management are in the nature of reverse repo transactions and therefore the profit or loss arising from this operation should be kept in a separate transit account and reversed as and when the transaction is reversed.
- The overall value of forward exchange contracts is not discounted at present. The overall value of such contracts should henceforth be discounted on the Balance Sheet date using the prevalent Reverse Repo rate.

(Contd....)

d) Disclosures

Currently disclosures are made both in the Reserve Bank's Annual Report chapter on 'The Reserve Bank's Accounts' and also in the 'Significant Accounting Policies and Notes to the Accounts' attached to the financial statements. All the relevant disclosures should be made only in the 'Significant Accounting Policies and Notes to the Accounts'.

Implementation of the recommendations of the Committee involving changes in the format of the balance sheet and income statement would require the approval of the Central Government/amendments to RBI Act, 1934 and General Regulations framed thereunder. It is proposed to implement most of the recommendations during the ensuing accounting year 2013-14 so that the annual accounts of the next year will substantially reflect the changes envisaged by the Committee. Meanwhile, an attempt has been made in this chapter to provide greater disclosures, particularly regarding components of income and expenditure and a more detailed and analytical description of the individual items appearing in the balance sheet and profit and loss account by giving break up of figures, additional supporting tables and more analytical inputs. The description of the items in the text is provided in the order of their appearance in the Balance Sheet and Profit & Loss account.

BALANCE SHEET

Liabilities and Assets of the Issue Department

Issue Department – Liabilities

XI.3 The liabilities of the Issue Department reflect the quantum of notes in circulation. Section 34 (I) of the RBI Act requires that all bank notes issued by the Reserve Bank since April 1, 1935 and the currency notes issued by the Government of India before the commencement of operations of the Reserve Bank, be part of the liabilities of the Issue Department. The liabilities of the Issue Department at ₹12,016.24 billion consisted of notes in circulation (₹12,016.16 billion) and a small quantum of notes held in the Banking Department (₹0.08 billion). The corresponding figure of notes in circulation as on June 30, 2012 was ₹11,034.65 billion. The notes in circulation increased by 8.9 per cent during 2012-13 as compared with an increase of 13.8 per cent during 2011-12 and 15.1 per cent in 2010-11 (details of currency operations are given in chapter VIII). Thus, while there was an overall increase in the notes in circulation, the annual rate of increase witnessed a downward trend in recent years.

Issue Department – Assets

XI.4 The eligible assets of the Issue Department for backing its currency liabilities consist of gold (coin and bullion), foreign securities, rupee coin, Government of India securities, internal bills of exchange and other commercial papers. The Reserve Bank holds 557.75 metric tonnes of gold of which 292.26 metric tonnes is held as an asset of the Issue Department and the balance 265.49 metric tonnes is treated as part of the Banking Department's other assets. The value of these gold holdings held in the Issue Department decreased by 11.3 per cent from ₹760.09 billion as on June 30, 2012 to ₹674.31 billion as on June 30, 2013 reflecting declining international bullion prices (Table XI.1). Consequent upon an increase in the overall liabilities of the Issue Department, there was an increase in the assets held in the form of foreign securities, with the year-ending figure at ₹11,329.10 billion as against ₹10,261.97 billion as on June 30, 2012. The value of Rupee coins in the Issue

Table XI.1: Holding of Gold

	As on June 30, 2012		As on June 30, 2013	
	Value in ₹ billion	Volume in metric tonnes	Value in ₹ billion	Volume in metric tonnes
1	2	3	4	5
Gold held in Issue Department	760.09	292.26	674.31	292.26
Gold held in Banking Department (under 'Other Assets')	690.46	265.49	612.54	265.49
Total	**1,450.55**	**557.75**	**1,286.85**	**557.75**

Department increased from ₹2.21 billion as at June 30, 2012 to ₹2.36 billion as at June 30, 2013, registering a marginal increase of 6.8 per cent. There was no change in the holding of the Government of India Rupee securities which continued at ₹10.46 billion.

Liabilities and Assets of the Banking Department

Banking Department-Liabilities

XI.5 The liabilities of the Banking Department increased by 7.6 per cent over the previous year, details of which are outlined in the following paragraphs:

i) **Capital Paid-up**: The Reserve Bank was constituted as a private shareholders' bank in 1935 with an initial paid-up capital of ₹0.05 billion. The bank was nationalised with effect from January 1, 1949 and its entire ownership remains vested in the Government of India. The paid-up capital continues to be ₹0.05 billion as per section 4 of the RBI Act.

ii) **Reserve Fund**: The original Reserve Fund of ₹0.05 billion was created in terms of section 46 of the RBI Act as contribution from the Central Government for the currency liability of the then sovereign government taken over by the Reserve Bank. Thereafter, ₹64.95 billion was credited to this Fund out of gains on periodic revaluation of gold up to October 1990, taking it to ₹65 billion. The accumulation in the Fund has been static since then and appreciation/depreciation on account of valuation of gold and foreign currency is booked in the Currency and Gold Revaluation Account (CGRA) which is a part of the head 'Other Liabilities' in the balance sheet.

iii) **National Industrial Credit (Long Term Operations) Fund**: Created in July 1964, under section 46C of the RBI Act with an initial corpus of ₹100 million, the Fund witnessed annual contribution from the Reserve Bank for financial assistance to eligible financial institutions. Since 1992-93, a token amount of ₹10 million is contributed each year. The same practice has been followed for the year 2012-13 and the balance in the Fund stood at ₹220 million as on June 30, 2013.

iv) **National Housing Credit (Long Term Operations) Fund**: Set up in January 1989 under section 46D of the RBI Act for extending financial accommodation to the National Housing Bank, the initial corpus of ₹500 million was enhanced by the annual contributions from the Reserve Bank thereafter. From the year 1992-93, only a token amount of ₹10 million is contributed each year. The balance in the fund stood at ₹1,960 million as on June 30, 2013.

v) **Contribution to other Funds**: It may be noted that there are two other Funds constituted under section 46A of the RBI Act, *viz.*, National Rural Credit (Long Term Operations) Fund and National Rural Credit (Stabilisation) Fund for which now a token contribution of ₹10 million each is made every year. Since these funds are now placed with National Bank for Agriculture and Rural Development (NABARD), an amount of ₹20 millions is transferred to NABARD every year.

vi) **Deposits**: These represent the cash balances maintained with the Reserve Bank by the Central and State Governments, banks, all India financial institutions, such as, Export Import Bank (EXIM Bank) and NABARD, foreign central banks, international financial institutions, and the balance in different accounts relating to the Employees' Provident Fund, Gratuity and Superannuation Funds. Total deposits stood at ₹3,738.92 billion as on June 30, 2013 as compared with ₹3,723.68 billion as on June 30, 2012, registering a marginal increase of 0.4 per cent.

- *Deposits – Government*

  The Reserve Bank acts as banker to the Central Government in terms of sections 20 and 21 and as banker to the State Governments by mutual agreement in terms of section 21(A) of the RBI Act. Accordingly, the Central and the State Governments maintain deposits with the Reserve Bank. The current year-end balances of deposits maintained by the Central and State Governments at ₹1.00 billion and ₹0.43 billion, respectively, totalling ₹1.43 billion were almost the same as at the end of the previous year.

- *Deposits – Banks*

  Banks maintain balances in their current accounts with the Reserve Bank to meet the Cash Reserve Ratio (CRR) requirements and as working funds to meet payment and settlement obligations. The total bank deposits as on June 30, 2013 stood at ₹3,571.51 billion as compared with ₹3,600.21 billion as on June 30, 2012, registering a marginal decline of 0.8 per cent reflecting reduction in CRR requirement during the year.

- *Deposits - Others*

  These include deposits of foreign central banks, domestic and international financial institutions, deposits placed by mutual funds, accumulated retirement benefits and miscellaneous deposits *viz.*, balances of Clearing Corporation of India Ltd, primary dealers, employee credit societies, *etc.* and sundry deposits.

  As may be seen from the detailed break-up provided in table XI.2, there was an overall increase of 36 per cent during the year 2012-13, mainly contributed by higher accumulated retirement benefits.

vii) **Bills Payable:** The Reserve Bank extends remittance facilities to its constituents and also for its own payment requirements. To this end, Demand Drafts (DDs) and Payment Orders (POs) are issued by the offices of the Reserve Bank. The balance in this item represents the unencashed DDs/POs and the balances under the erstwhile Remittance Facility Scheme, 1975 held under Remittance Clearance Account. The total amount outstanding under this head increased from ₹0.27 billion as on June 30, 2012 to ₹1.87 billion as on June 30, 2013. The increase on the balance sheet date was on account of issue of a demand draft favouring the Government of India for ₹1.64 billion which was subsequently paid on July 5, 2013.

viii) **Other Liabilities:** Internal reserves and provisions of the Reserve Bank are major

Table XI.2: Deposits: Others

(₹ billion)

Particulars	As on June 30	
	2012	2013
1	2	3
I. Rupee Deposits from the Foreign Central Banks and the Foreign Financial Institutions	11.18	15.33
II. Deposits from the Indian Financial Institutions	1.27	0.70
III. Deposits placed by Mutual Funds	0.01	0.01
IV. Accumulated Retirement Benefits (i+ii)	105.39	141.02
(i) Provident Fund	33.55	36.10
(ii) Gratuity and Superannuation Fund	71.84	104.92
V. Miscellaneous	4.20	8.89
Total	**122.05**	**165.95**

components of other liabilities. While Contingency Reserve (CR) and Asset Development Reserve (ADR) form the Bank's internal reserves, having been provided as normally provided by banks, the remaining components of 'Other Liabilities', such as, CGRA, Investment Revaluation Account (IRA) and Exchange Equalisation Account (EEA), *etc.* are in the nature of provisions as they represent unrealised gains/losses. Other liabilities increased from ₹7,263.55 billion as on June 30, 2012 to ₹8,082.86 billion as on June 30, 2013, reflecting a rise of 11.3 per cent mainly on account of accretion to the CGRA. It may be noted that the CR and the ADR reflected in 'Other Liabilities' are in addition to the 'Reserve Fund' of ₹65 billion held by the Reserve Bank as a distinct balance sheet head (Table XI.3).

a) **Contingency Reserve (CR):** It represents the amount set aside on a year-to-year basis for meeting unexpected and unforeseen contingencies, including depreciation in the value of securities, and risks arising out of monetary/exchange rate policy operations. The CR increased by ₹262.47 billion (13.4 per cent) from ₹1,954.05 billion as on June 30, 2012 to ₹2,216.52 billion as on June 30, 2013.

Table XI.3: Details of Other Liabilities

(₹ billion)

Particulars	As on June 30	
	2012	2013
1	2	3
a. Contingency Reserve		
Balance at the beginning of the year	**1,707.28**	**1,954.05**
Add: Accretion during the year	246.77	262.47
Balance at the end of the year	**1,954.05**	**2,216.52**
b. Asset Development Reserve		
Balance at the beginning of the year	**158.66**	**182.14**
Add: Accretion during the year	23.48	25.47
Balance at the end of the year	**182.14**	**207.61**
c. Currency and Gold Revaluation Account		
Balance at the beginning of the year	**1,822.86**	**4,731.72**
Add: Net Accretion (+)/Net Depletion (-) during the year	(+)2,908.86	(+) 469.41
Balance at the end of the year	**4,731.72**	**5,201.13**
d. Investment Revaluation Account		
Balance at the beginning of the year	**42.69**	**122.22**
Add: Net Accretion (+)/Net Utilisation (-)during the year	(+) 79.53	(-) 97.37
Balance at the end of the year	**122.22**	**24.85**
e. Exchange Equalisation Account		
Balance at the beginning of the year	**0.01**	**24.05**
Transfer from Exchange Account	24.05	16.99
Add: Net Accretion (+)/Net Utilisation (-) during the year	(-)0.01	(-) 24.05
Balance at the end of the year	**24.05**	**16.99**
f. Provision for Outstanding Expenses	**16.16**	**18.43**
g. Surplus Transferable to the Government of India	**160.10**	**330.10**
h. Miscellaneous	**73.11**	**67.23**
i. Total (a to h)	**7,263.55**	**8,082.86**

b) **Asset Development Reserve (ADR)**: In order to meet the needs of internal capital expenditure and make investments in subsidiaries and associate institutions, a further sum is provided and credited to the ADR, which is a reserve created in 1997-98 with the aim of reaching one per cent of the Reserve Bank's total assets. In 2012-13, ₹25.47 billion was transferred from income to ADR raising its level to ₹207.61 billion as on June 30, 2013. As against the target of 12 per cent of total assets set for CR and ADR together based on the recommendations of an internal study group (Chairman: Shri V. Subrahmanyam), CR and ADR together constituted 10.1 per cent of the total assets of the Reserve Bank as on June 30, 2013; the position as at the end of the last five years is given in Table XI.4.

c) **Currency and Gold Revaluation Account (CGRA):** Unrealised gains/losses on valuation of Foreign Currency Assets (FCA) and gold due to movements in the exchange rates and/or price of gold are not taken to the Profit & Loss Account but instead booked under a balance sheet head named as the Currency and Gold Revaluation Account (CGRA). Unlike the CR, which is created by apportioning realised gains, the CGRA is not a reserve account as it represents the accumulated net balance of unrealised gains and losses arising out of valuation of FCA and gold. As CGRA balances mirror the changes in prices of gold and in exchange rate, its balance varies with the size of asset base and volatility in the exchange rate and price of gold. During 2012-13, the balances in CGRA increased by ₹469.41 billion from ₹4,731.72 billion as on June 30, 2012 to ₹5,201.13 billion as on June 30, 2013, reflecting an overall increase of 9.9 per cent. In the recent past, even though FCA and gold have declined as a percentage of total assets, the CGRA has risen due to sharp depreciation of Indian Rupee against US Dollar. It, thus, acts as a cushion against fluctuations in exchange rates/price of gold which have in the recent times exhibited sharp volatility.

Table XI.4 : Balances in Contingency Reserve and Asset Development Reserve

(₹ billion)

As on June 30	Balance in CR	Balance in ADR	Total	CR and ADR as percentage to total assets
1	2	3	4=(2+3)	5
2009	1,533.92	140.82	1,674.74	11.9
2010	1,585.61	146.32	1,731.92	11.3
2011	1,707.28	158.66	1,865.94	10.3
2012	1,954.05	182.14	2,136.19	9.7
2013	2,216.52	207.61	2,424.13	10.1

d) **Investment Revaluation Account (IRA):** The Reserve Bank values foreign dated securities at market prices prevailing on the last business day of each month and the appreciation/depreciation arising therefrom is transferred to the IRA. The unrealised gains/losses arising from such periodic revaluation are adjusted against the balance in IRA. The balance in IRA as on June 30, 2013 was ₹24.85 billion, as compared with ₹122.22 billion as on June 30, 2012. The substantial draw down in this account was mainly due to unrealised Marked to Market (MTM) losses arising from a rise in yields, particularly of US government securities.

e) **Exchange Equalisation Account (EEA):** The balance in the Exchange Equalisation Account (EEA) represents provision made for MTM losses on forward commitments mainly arising out of intervention operations. The balance in EEA as on June 30, 2013 was ₹16.99 billion, as against a balance of ₹24.05 billion as on June 30, 2012. The position of balances in CGRA, EEA & IRA for the last five years is given in Table XI.5.

f) **Provision for Outstanding Expenses:** Section 47 of the RBI Act, 1934 stipulates that

after making provisions for contingencies and corpus funds as defined therein, and those which are usually provided by bankers, the balance of profits of the Reserve Bank is to be transferred to the Central Government. Accordingly, provision for an amount of ₹18.43 billion has been made for the year 2012-13; the corresponding figure for the year 2011-12 was ₹16.16 billion.

g) **Surplus transferable to the Government of India:** The surplus transferable to the government for the year 2012-13 amounted to ₹330.10 billion. This includes ₹0.10 billion towards notional service tax payable on account of the MICR cheque processing charges on a self-assessment basis as was done in the earlier years and ₹13.22 billion (same as in the previous year) payable to the government towards the interest differential representing the difference in interest expenditure borne by the government consequent on conversion of special securities into marketable securities. This sum is not separately provided for and is included in the surplus transferable to the Government. The amount transferred to the Government this year was the highest ever and the transferred amount as percentage of gross income less expenditure at 53.4 per cent was higher than 52.8 per cent and 37.2 per cent in 2010-11 and 2011-12, respectively (Table XI.15).

Table XI.5: Balances in Currency and Gold Revaluation Account (CGRA), Exchange Equalisation Account (EEA) and Investment Revaluation Account (IRA)

(₹ billion)

As on June 30	CGRA	EEA	IRA
1	2	3	4
2009	1,988.42	0.27	-
2010	1,191.34	0.19	93.71
2011	1,822.86	0.01	42.69
2012	4,731.72	24.05	122.22
2013	5,201.13	16.99	24.85

h) **Miscellaneous:** This is a residual head including sub-accounts such as balances payable on account of leave encashment, reserve for interest earned on securities earmarked for the employee funds, the value of collateral held as margin for repo transactions, medical provisions for employees, *etc.* Miscellaneous liabilities stood at ₹67.23 billion as on June 30, 2013 as against ₹73.11 billion as on June 30, 2012.

Banking Department – Assets

XI.6 The assets of the Banking Department comprise Notes, Rupee Coin, Small Coin, Bills Purchased and Discounted, Balances Held Abroad, Investments, Loans and Advances and Other Assets. They are presented in the balance sheet in descending order of liquidity.

i) **Notes, Rupee Coin and Small Coin**

This is the stock of bank notes, one rupee notes, rupee coins of ₹1, 2, 5 and 10 and small coins kept in the vaults of the Banking Department to meet the day to day requirements of the banking functions conducted by the Reserve Bank. The value of this stock came down by 11.1 per cent from ₹0.09 billion as on June 30, 2012 to ₹0.08 billion as on June 30, 2013.

ii) **Bills purchased and discounted**

Though the Reserve Bank can undertake purchase and discounting of commercial bills under the RBI Act, no such activity has been undertaken; consequently, there was no such asset in the books of the Reserve Bank as on June 30, 2013.

iii) **Balances Held Abroad**

The Foreign Currency Assets (FCA) of the Bank consists of (a) Balances held abroad in foreign currency shown as a distinct item under assets of the Banking Department, (b) foreign securities held as assets of Issue Department and (c) foreign securities held as part of Investments in the Banking Department.

Table XI.6: Details of Foreign Currency Assets

(₹ billion)

Particulars	As on June 30	
	2012	2013
1	2	3
I. Held in Issue Department	10,261.97	11,329.10
II. Held in Banking Department		
(a) Included in Investments*	590.57	523.57
(b) Balances Held Abroad	3,640.27	3,395.01
Total	**14,492.81**	**15,247.68**

*including Foreign Securities and Shares in BIS and SWIFT (items ii plus iii of Table XI.7)

Notes :
1. Uncalled amount on partly paid shares of the Bank for International Settlements (BIS) as on June 30, 2013 was ₹1.08 billion (SDR 12,041,250). The amount was ₹1.03 billion (SDR 12,041,250) in the previous year.
2. RBI has agreed to make resources available under the IMF's New Arrangements to Borrow (NAB) (which subsumes the earlier commitment of US$ 10 billion (₹597.00 billion) under the Note Purchase Agreement) up to a maximum amount of SDR 8,740.82 million (₹784.80 billion/US$ 13.15 billion). As on June 30, 2013, investments amounting to SDR 1,118.8 million (₹100.45 billion/US$ 1.68 billion) have been made under the NAB.
3. RBI has agreed to invest up to an amount, the aggregate of which shall not exceed US$ 5 billion (₹298.50 billion), in the bonds issued by India Infrastructure Finance Company (UK) Limited. As on June 30, 2013, the Reserve Bank has invested US$ 950 million (₹56.71 billion) in such bonds.
4. Under a Currency Swap arrangement, the Reserve Bank has agreed to provide short-term funding support to SAARC countries in US Dollar or Indian Rupee ranging from US$ 100 million to US$ 400 million within an overall cap of USD 2 billion. As on June 30, 2013, the Royal Monetary Authority of Bhutan (RMA) has drawn Indian Rupee equivalent to USD 100 million (*i.e.*, ₹5.4 billion) under this arrangement.

Balances held abroad include (a) deposits with other central banks, (b) deposits with the Bank for International Settlements (BIS), (c) balances with foreign commercial banks and (d) investments in foreign treasury bills and securities.

The position of FCA of the Bank for the last two years is given in Table XI.6. The details of Foreign Exchange Reserves (FER) which predominantly comprise FCA, besides gold, SDRs and Reserve Tranche Position (RTP) for this period are given in paragraph 9 of the enclosed Notes to the Accounts (Annex II).

The increase in the level of FCA in rupee terms in 2012-13 was mainly on account of depreciation of the rupee against the US dollar after adjusting for appreciation of the US dollar against other currencies in which the Reserve Bank's FCA are held. The valuation gains more than offset the decline in FCA on account of forex sales to authorised dealers.

iv) **Investments:** Investments of Banking Department (Table XI.7) comprise the following:

a) The Bank's holdings of Government of India Rupee Securities stood at ₹6,739.33 billion as compared with ₹5,702.12 billion last year. This includes the Bank's own holdings of Government securities worth ₹5,946.87 billion together with ₹912.63 billion representing collateral received under Repurchase agreement (Repo) less the securities given as collateral for Reverse Repo sales amounting to ₹120.17 billion. Securities purchased (Repo) and sold (Reverse repo) under the Liquidity Adjustment Facility (LAF) are added to and reduced from 'Investments' respectively. The Marginal Standing Facility (MSF) balance outstanding at the year-end was nil as against ₹6 billion as on June 30, 2012.

Table XI.7: Investments of the Banking Department

(₹ billion)

Investments	2011-12	2012-13
1	2	3
i) Government of India Rupee securities	5,702.12	6,739.33
ii) Foreign securities	588.03	520.90
iii) Shares in BIS/SWIFT	2.54	2.67
iv) Holdings in Subsidiaries / Associate Institutions	13.20	13.20
Total	**6,305.89**	**7,276.10**

b) Foreign securities represent debt of Sovereigns and Supra–national institutions and other instrument or institution as approved by the Central Board of the Bank in accordance with the provisions of the RBI Act. A part of foreign securities (₹520.90 billion) are held in the Banking Department as asset earmarked to cover day to day expansion in Issue Department liabilities.

c) Shares held in the BIS and the Society for Worldwide Interbank Financial Telecommunication (SWIFT) amounting to ₹2.67 billion as compared with ₹2.54 billion last year.

d) The details of holdings in subsidiaries / associate institutions as on June 30, 2013 are given in Table XI.8.

v) Loans and Advances

a) Central and State Governments – These loans take the form of Ways and Means Advances (WMA) extended in terms of section 17(5) of the RBI Act and Overdraft (OD) facilities, limits for which are fixed from time to time in consultation with the governments. The loans and advances to the Central Government as on June 30, 2013 stood at ₹146.61 billion. As on June 30, 2012, the corresponding figure was 'Nil'. Loans and advances to the State Governments as on June 30, 2013 stood at ₹21.45 billion as compared with ₹7.31 billion as on June 30, 2012.

b) Loans and advances to Commercial and Co-operative banks – These loans represent refinance facility made available to banks. They have increased from ₹169.64 billion to ₹188.82 billion, mainly on account of increase in export credit refinance limit from 15 per cent to 50 per cent of the outstanding export credit eligible for refinance, to enhance credit flows to the export sector, with effect from the fortnight beginning June 30, 2012.

c) Loans and advances to NABARD – The Reserve Bank can extend loans to NABARD under section 17 (4E) of the RBI Act. Such loans are presently Nil.

d) Loans and advances to Others – This mainly includes the loans given under special refinance schemes to EXIM Bank and collateralised loans to primary dealers. The quantum of such loans has come down substantially from ₹28.90 billion as on June 30, 2012 to ₹8.24 billion as on June 30, 2013 due to repayment of loans by National Housing Bank (NHB) with no fresh availment and discontinuation of the special refinance scheme to EXIM Bank in April, 2013.

Table XI.8: Holdings in subsidiaries/associates

(₹ million)

	Cost	% holding
1	2	3
(a) Deposit Insurance and Credit Guarantee Corporation (DICGC)	500.00	100
(b) National Bank for Agriculture and Rural Development(NABARD)*	200.00	1
(c) National Housing Bank (NHB)	4,500.00	100
(d) Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL)	8,000.00	100
	13,200.00	

* The Reserve Bank divested its stake in NABARD as per the decision of the Government of India. Thus, out of 72.5 per cent of NABARD's total share capital of ₹20 billion earlier held by the Reserve Bank, 71.5 per cent was transferred to the Government of India at par on October 13, 2010. The Reserve Bank now has a one per cent shareholding in NABARD as required under the NABARD Act, 1981.

vi) Other Assets

'Other Assets' of Banking Department (Table XI.9) comprise fixed assets (net of depreciation), gold held abroad (265.49 metric tonnes), accrued income (mainly comprising interest income accrued on balance sheet date on the Bank's domestic and foreign investments), and miscellaneous assets. Miscellaneous assets comprise mainly loans and advances to staff, amount spent on projects pending completion, the margin offered for reverse repo transactions, security deposit paid, and items in transit representing inter-office transactions (RBI General Account), *etc.* The value of 'Other Assets' decreased from ₹902.60 billion to ₹854.56 billion as on June 30, 2013, mainly on account of a 11.3 per cent decline in the value of gold holdings .

Table XI.9: Details of Other Assets

(₹ billion)

Particulars	As on June 30	
	2012	2013
1	2	3
I. Fixed Assets (net of accumulated depreciation)	4.37	4.50
II. Gold	690.46	612.54
III. Accrued income (a + b)	195.11	223.88
a. on loans to employees	2.83	2.98
b. on other items	192.28	220.90
IV. Miscellaneous	12.66	13.64
Total	**902.60**	**854.56**

ANALYSIS OF INCOME AND EXPENDITURE

INCOME

XI.7 The Reserve Bank's income is drawn from (i) Interest receipts, (ii) Discount, (iii) Exchange, (iv) Commission and (v) Others including Rent Realised, Profit or loss on sale of Bank's property and Provisions no longer required. Of these, Interest earnings form the major portion supplemented by relatively small amounts of income from discount, exchange, commission and others. Details of the gross income and the earnings from domestic and foreign sources for the last five years are presented in Table XI.10.

Earnings from Foreign Sources

XI.8 The income from foreign sources is mainly derived from deployment of the foreign currency assets. It increased by ₹9.36 billion (4.7 per cent) from ₹198.10 billion in 2011-12 to ₹207.46 billion in 2012-13. The rate of earnings on foreign currency assets was low at 1.5 per cent in 2012-13 due to the low interest rates prevalent in international markets (Table XI.11).

Table XI.10: Gross Income

(₹ billion)

Item	2008-09	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6
A. Foreign Sources					
Interest, Discount, Exchange	507.96	251.02	211.50	198.10	207.46
B. Domestic Sources					
(i) Interest	90.56	66.47	150.32	323.39	523.06
(ii) Other Earnings	8.80	11.35	8.88	10.27	13.05
Total: (i) + (ii)	99.36	77.82	159.20	333.66	536.11
C. Gross Income (A+B)	607.32	328.84	370.70	531.76	743.58
D. Transfer to Contingency Reserve	261.91	51.68	121.67	246.77	262.47
E. Transfer to Asset Development Reserve	13.10	5.50	12.35	23.48	25.47
F. Total Income(C-D-E)	332.31	271.66	236.68	261.51	455.64

Table XI.11: Earnings from Foreign Sources

(₹ billion)

Item	Year ended		Variation	
	June 30, 2012	June 30, 2013	Absolute	Per cent
1	2	3	4	5
Foreign Currency Assets (FCA)	14,492.81	15,247.69	754.88	5.2
Average FCA	13,477.55	14,281.58	804.03	6.0
Earnings from FCA (interest, discount, exchange gain/loss, capital gain/loss on securities)	198.10*	207.46	9.36	4.7
Earnings from FCA as percentage of average FCA	1.5	1.5	-	-

* Figure includes an income of ₹9.3 million on gold deposits held abroad, nil in present year.

Earnings from Domestic Sources

XI.9 The earnings from domestic sources increased from ₹333.66 billion in 2011-12 to ₹536.11 billion in 2012-13 recording an increase of 60.7 per cent. A detailed break-up of the various components of domestic income has been provided in Table XI.12. The net income from domestic securities increased from ₹304.24 billion in 2011-12 to ₹503.67 billion in 2012-13, an increase of 65.6 per cent. The net increase was a combination of the following factors:

- Increase in coupon income on an increased portfolio of rupee securities (from ₹276.73 billion in 2011-12 to ₹408.68 billion in 2012-13).
- Reduction in the average daily liquidity injection under the Liquidity Adjustment Facility (LAF) window from ₹928.18 billion in 2011-12 to

Table XI.12: Earnings from Domestic Sources

(₹ billion)

Item	Year ended		Variation	
	June 30, 2012	June 30, 2013	Absolute	Per cent
1	2	3	4	5
Domestic Assets	**7,596.54**	**8,662.02**	**1,065.48**	**14.0**
Weekly Average of Domestic	**6,140.50**	**7,724.84**	**1,584.34**	**25.8**
Assets Earnings (I + II+III)	**333.66**	**536.11**	**202.45**	**60.7**
I. Interest and other Securities related Income				
i) Profit on Sale of Securities	93.40	85.47	-7.93	-8.5
ii) Net Interest on LAF operations	77.66	64.79	-12.87	-16.6
iii) Interest on MSF operations	0.40	0.11	-0.29	-72.5
iv) Interest on holding of Domestic Securities	276.73	408.68	131.95	47.7
v) Depreciation	143.95	55.38	-88.57	-61.5
Total (i+ii+iii+iv-v)	**304.24**	**503.67**	**199.43**	**65.6**
II. Interest on Loans and Advances				
i) To Government (Central & States)	13.00	1.26	-11.74	-90.3
ii) To Banks & Financial Institutions	5.68	17.65	11.97	210.7
iii) To Employees	0.47	0.48	0.01	2.1
Total (i+ii+iii)	**19.15**	**19.39**	**0.24**	**1.3**
III. Other Earnings				
i) Discount	-	0.28	0.28	-
ii) Exchange	-	-	-	-
iii) Commission	9.52	11.13	1.61	16.8
iv) Rent realised, Profit or Loss on sale of Bank's property and Provisions no longer required.	0.75	1.64	0.89	118.7
Total (i+ii+iii+iv)	**10.27**	**13.04**	**2.77**	**27.00**

₹831.50 billion in 2012-13 and also a reduction in the repo rate resulting in reduced interest income from LAF and Marginal Standing Facility (from ₹77.66 billion in 2011-12 to ₹64.79 billion in 2012-13). Softening of yields in 2012-13 as compared to the previous financial year resulted in reduction in depreciation booked on rupee securities from ₹143.95 billion in 2011-12 to ₹55.38 billion in 2012-13. (The 10 year generic yield as on June 28, 2013 was 7.5 per cent as compared with 8.2 per cent as on June 29, 2012).

- The rate of earnings on average domestic assets increased from 5.4 per cent in the previous year to 7.2 per cent in 2012-13.
- Due to the relatively stable cash position of the Central Government resulting in Central Government availing Ways and Means Advances (WMA) only for 27 days and no overdraft (OD), compared to availment of WMA for 263 days and OD for 74 days in the previous year. The daily average utilisation of WMA/OD by the Central Government was ₹8.44 billion in 2012-13 as against ₹142.39 billion in 2011-12. This resulted in decrease in interest income received on account of WMA/OD from the Central Government for 2012-13 from ₹12.66 billion in 2011-12 to ₹0.67 billion in 2012-13.
- As regards, the states, the interest towards WMA/OD recovered for 2012-13 was higher at ₹0.59 billion as compared to ₹0.35 billion for 2011-12. This is attributable to, *inter alia*, higher daily average utilisation of WMA/OD by states at ₹7.14 billion in 2012-13 as against ₹4.07 billion in 2011-12.

EXPENDITURE

XI.10 The Reserve Bank incurs expenditure in the course of performing its statutory functions by way of agency charges/commission, security printing charges, expenses on remittance of treasure besides staff related and other expenses. The total expenditure of the Reserve Bank increased by 23.8 per cent from ₹101.37 billion in 2011-12 to ₹125.49 billion in 2012-13. The expenditure can be categorised into following sub groups:

I) Interest Payment

II) Establishment Expenditure

III) Non-establishment Expenditure

The detailed break-up of the major heads of expenditure is provided in Table XI.13.

Table XI.13: Expenditure

(₹ billion)

Item	2008-09	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6
I. Interest Payment	0.01	0.01	0.55	0.59	0.03
of which:					
Scheduled Banks*	0.00	0.00	0.00	0.00	0.00
II. Establishment	24.48	19.87	23.01	29.93	58.59
III. Non-establishment	57.68	64.15	62.99	70.85	66.87
of which:					
(a) Agency charges/commission	29.99	28.55	30.12	33.51	28.07
(b) Security printing charges	20.63	27.54	23.76	27.04	28.72
Total (I+II+III)	82.17	84.03	86.55	101.37	125.49

* Pursuant to amendment to the Reserve Bank of India Act, 1934, interest payable on eligible cash reserve ratio (CRR) balances was withdrawn with effect from the fortnight beginning March 31, 2007.

I. Interest Payment

This has come down from ₹0.59 billion in 2011-12 to ₹0.03 billion in 2012-13. This item mainly represents the Bank's contribution by way of interest credited to some of the employee welfare funds.

II. Establishment Expenditure

The establishment expenses increased by 95.8 per cent from ₹29.93 billion in 2011-12 to ₹58.59 billion in 2012-13. The increase in the establishment expenditure is mainly due to the increase in the accrued liabilities of the gratuity and superannuation fund as assessed on the basis of actuarial calculations. The contribution for the year 2012-13 was ₹35.32 billion as against ₹8.22 billion in the previous year. The Bank's investments equivalent to the balances in Provident Fund, Gratuity & Superannuation Fund and Leave Encashment Fund have been earmarked for these Funds. Provident Fund and Gratuity & Superannuation Fund are held as 'Deposits' with the Bank. Leave Encashment Fund for retiring employees is included under 'Other Liabilities'.

III. Non-Establishment Expenditure

a) **Agency Charges**: Under agency charges, four types of expenses are booked (Table XI.14).

i) Commission paid to agency banks for conduct of government business (receipts and payments): The Reserve Bank discharges the function of banker to the government through a large network of agency bank branches that serve as retail outlets for government transactions. The Reserve Bank pays commission to the agency banks at prescribed rates which were revised with effect from July 01, 2012. The agency commission paid to the banks on account of Government business for the year 2012-13 was ₹27.26 billion as compared with ₹32.13 billion for the year 2011-12. The reduction of 15.2 per cent in agency commission paid during the year can largely be attributed to the revision in agency commission rates.

ii) Fees paid to Primary Dealers (PDs) as underwriting commission for the borrowing programme of the Central Government: The underwriting commission payable to the PDs is based on the amount of Government of India (GoI) borrowing through dated securities and underwriting fee quoted by the PDs. Both these factors depend upon other relating factors like fiscal deficit and the consequent borrowing programme of the GoI, liquidity position in the market, interest rate movement and consequent yield movements of the security, *etc.* The expenditure on underwriting commission decreased from ₹722.69 million in 2011-12 to ₹218.65 million in 2012-13.

iii) Fees amounting to ₹0.58 billion was paid to the external asset managers who are entrusted with the management of a small portion of the Reserve Bank's foreign exchange reserves as against ₹0.66 billion in 2011-12, registering a decline of 12.1 per cent.

Table XI.14: Agency Charges

(₹ million)

	2011-12	2012-13
1	2	3
Agency Commission on Government Transactions	32,128.78	27,264.39
Underwriting Commission paid to Primary Dealers	722.69	218.65
Handling charges paid to banks for Relief/Savings Bonds subscriptions	1.25	1.11
Payment to External Asset Managers	656.07	582.38
Total	**33,508.79**	**28,066.53**

b) **Security printing**: The expenditure incurred on security printing charges (primarily for

printing of currency notes) increased by 6.3 per cent from ₹27.04 billion in 2011-12 to ₹28.72 billion in 2012-13. This rise was mainly on account of increase of 5.7 per cent in the total supply of banknote forms and a marginal increase in rates quoted by Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL) for notes supplied by them.

c) **Others**: Other non-establishment expenses are incurred on heads such as Remittance of Treasure, Printing and Stationery, audit fees and expenses, miscellaneous expenses, *etc.* The audit fees and expenses of ₹30.14 million include fees and expenses for Statutory Audit, Concurrent Audit and Special Audit for various purposes conducted in the Bank. Miscellaneous expenses mainly include contributions to various academic and training institutes, *etc.*

XI.11 The trends over the last five years in Income, Expenditure and Net Disposable Income have been indicated in Table XI.15.

Table XI.15: Trends in Gross Income, Expenditure and Net Disposable Income

(₹ billion)

Item	2008-09	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6
a) Gross Income	607.32	328.84	370.70	531.76	743.58
b) Transfers to Internal Reserves (i+ii)	275.01	57.18	134.02	270.25	287.94
(i) Contingency Reserve	261.91	51.68	121.67	246.77	262.47
(ii) Asset Development Reserve	13.10	5.50	12.35	23.48	25.47
c) Net Income (a-b)	332.31	271.66	236.68	261.51	455.63
d) Total Expenditure	82.18	84.03	86.55	101.37	125.49
e) Net Disposable Income (c-d)	250.13	187.63	150.13	160.14	330.14
f) Transfer to funds*	0.04	0.04	0.04	0.04	0.04
g) Surplus transferred to the Government (e-f)	250.09	187.59	150.09	160.10	330.10
Transfer of Surplus to Government as a per cent of Gross Income less Total Expenditure	47.6	76.6	52.8	37.2	53.4

*: An amount of ₹10 million each has been transferred to the National Industrial Credit (Long-term Operations) Fund, the National Rural Credit (Long-term Operations) Fund, the National Rural Credit (Stabilisation) Fund and the National Housing Credit (Long-term Operations) Fund during each of the five years.

The previous year's figures have been regrouped / reclassified, wherever necessary, to conform to current year's presentation.

Auditors

The accounts of the Reserve Bank for the year 2012-13 were audited by M/s. V. Sankar Aiyar & Co., Mumbai and M/s. Haribhakti & Co., Mumbai as the Statutory Central Auditors. Branches and other offices were audited by the Statutory Branch Auditors, namely, M/s. S.K. Mehta & Co., New Delhi, M/s P G Joshi & Co., Nagpur, M/s. P.K.F. Sridhar & Santhanam & Co., Chennai and M/s Lodha & Co., Kolkata. The auditors were appointed by the Central Government in terms of section 50 of the RBI Act, 1934.

Chapter Annex I

RESERVE BANK OF INDIA
BALANCE SHEET AS AT 30th JUNE 2013
ISSUE DEPARTMENT

(₹ thousands)

2011-12	LIABILITIES	2012-13	2011-12	ASSETS	2012-13
	Notes held in the			**Gold Coin and Bullion:**	
89,169	**Banking Department**	**80,169**	760,096,797	(a) Held in India	**674,316,432**
11,034,645,327	**Notes in Circulation**	**12,016,157,427**	–	(b) Held outside India	–
			10,261,966,851	**Foreign Securities**	**11,329,100,584**
11,034,734,496	**Total Notes Issued**	**12,016,237,596**	11,022,063,648	**Total**	**12,003,417,016**
			2,206,548	**Rupee Coin**	**2,356,280**
			10,464,300	**Government of India Rupee Securities**	**10,464,300**
			–	**Internal Bills of Exchange and other Commercial Paper**	–
11,034,734,496	**Total Liabilities**	**12,016,237,596**	11,034,734,496	**Total Assets**	**12,016,237,596**

BANKING DEPARTMENT

(₹ thousands)

2011-12	LIABILITIES	2012-13	2011-12	ASSETS	2012-13
50,000	**Capital paid-up**	**50,000**	89,169	**Notes**	**80,169**
65,000,000	**Reserve Fund**	**65,000,000**	418	**Rupee Coin**	**296**
210,000	**National Industrial Credit (Long Term Operations) Fund**	**220,000**	125	**Small Coin**	**63**
1,950,000	**National Housing Credit (Long Term Operations) Fund**	**1,960,000**		**Bills Purchased and Discounted :**	
			–	(a) Internal	–
			–	(b) External	–
			–	(c) Government Treasury Bills	–
	Deposits				
	(a) Government		3,640,273,093	**Balances Held Abroad**	**3,395,014,738**
1,004,903	(i) Central Government	**1,002,895**			
424,570	(ii) State Governments	**424,847**			
	(b) Banks		6,305,897,052	**Investments**	**7,276,101,007**
3,419,535,741	(i) Scheduled Commercial Banks	**3,391,427,816**			
33,242,701	(ii) Scheduled State Co-operative Banks	**32,038,844**		**Loans and Advances to :**	
53,643,644	(iii) Other Scheduled Co-operative Banks	**55,210,206**	–	(i) Central Government	**146,610,000**
916,213	(iv) Non-Scheduled State Co-operative Banks	**2,241,459**	7,307,400	(ii) State Governments	**21,449,487**
92,870,015	(v) Other Banks	**90,595,353**		**Loans and Advances to:**	
122,045,831	**(c) Others**	**165,973,592**	167,962,800	(i) Scheduled Commercial Banks	**187,170,300**
			390,000	(ii) Scheduled State Co-operative Banks	–
			1,290,000	(iii) Other Scheduled Co-operative Banks	**1,650,000**
270,361	**Bills Payable**	**1,873,179**	–	(iv) Non-Scheduled State Co-operative Banks	–
			–	(v) NABARD	–
			28,902,498	(vi) Others	**8,236,648**
				Loans, Advances and Investments from National Industrial Credit (Long Term Operations) Fund:	
				(a) Loans and Advances to:	
			–	(i) Industrial Development Bank of India	–
			–	(ii) Export Import Bank of India	–
7,263,548,128	**Other Liabilities**	**8,082,855,793**	–	(iii) Industrial Investment Bank of India Ltd.	–
			–	(iv) Others	–
				(b) Investments in bonds/ debentures issued by:	
			–	(i) Industrial Development Bank of India	–
			–	(ii) Export Import Bank of India	–
			–	(iii) Industrial Investment Bank of India Ltd.	–
			–	(iv) Others	–
				Loans, Advances and Investments from National Housing Credit (Long Term Operations) Fund:	
			–	(a) Loans and Advances to National Housing Bank	–
			–	(b) Investments in bonds/debentures issued by National Housing Bank	–
			902,599,552	**Other Assets**	**854,561,276**
11,054,712,107	**Total Liabilities**	**11,890,873,984**	11,054,712,107	**Total Assets**	**11,890,873,984**

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 30th JUNE 2013

(₹ thousands)

2011-12	INCOME		2012-13
261,508,821	**Interest, Discount, Exchange, Commission,** *etc.*[1]		**455,635,749**
261,508,821	**Total**		**455,635,749**
	EXPENDITURE		
587,780	**Interest**		**25,725**
29,934,972	**Establishment**		**58,595,877**
29,802	**Directors' and Local Board Members' Fees and Expenses**		**30,613**
528,245	**Remittance of Treasure**		**640,702**
33,508,790	**Agency Charges**		**28,066,536**
27,037,058	**Security Printing (Cheques, Note forms,** *etc.***)**		**28,724,406**
257,177	**Printing and Stationery**		**228,203**
804,859	**Postage and Telecommunication Charges**		**818,627**
1,022,927	**Rent, Taxes, Insurance, Lighting,** *etc.*		**1,503,660**
26,794	**Auditors' Fees and Expenses**		**30,139**
27,879	**Law Charges**		**36,316**
2,424,716	**Depreciation and Repairs to Bank's Property**		**2,390,152**
5,177,822	**Miscellaneous Expenses**		**4,404,794**
101,368,821	**Total**		**125,495,750**
160,140,000	**Available Balance**		**330,140,000**
	Less: Contribution to:		
	National Industrial Credit (Long Term Operations) Fund	10,000	
	National Rural Credit (Long Term Operations) Fund[2]	10,000	
	National Rural Credit (Stabilisation) Fund[2]	10,000	
	National Housing Credit (Long Term Operations) Fund	10,000	
40,000			**40,000**
160,100,000	**Surplus payable to the Central Government**		**330,100,000**

1. After making the usual or necessary provisions in terms of section 47 of the Reserve Bank of India Act, 1934 amounting to ₹287,940,115 thousands (2011-12 - ₹270,254,407 thousands).
2. These funds are maintained by the National Bank for Agriculture and Rural Development (NABARD).

S. Ganesh Kumar	**Urjit R. Patel**	**Harun R. Khan**	**Anand Sinha**	**K.C. Chakrabarty**	**D. Subbarao**
Chief General Manager	Deputy Governor	Deputy Governor	Deputy Governor	Deputy Governor	Governor

INDEPENDENT AUDITORS' REPORT

TO THE PRESIDENT OF INDIA

Report on the Financial Statements

We, the undersigned Auditors of the Reserve Bank of India (hereinafter referred to as the "Bank"), do hereby report to the Central Government upon the Balance Sheet of the Bank as at June 30, 2013 and the Profit & Loss Account for the year ended on that date (hereinafter referred to as "financial statements"), which have been audited by us.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and correct view of the state of affairs and results of operations of the Bank in accordance with the requirements of the provisions of the Reserve Bank of India Act, 1934 and Regulations framed thereunder and the accounting policies and practices consistently followed by the Bank. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and correct view and are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the Bank's preparation and correct presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to explanations given to us and as shown by the books of account of the Bank, the Balance Sheet read with Significant Accounting Policies and Notes to the Accounts is a full and fair Balance Sheet containing all necessary particulars and is properly drawn up in accordance with the requirements of the provisions of the Reserve Bank of India Act, 1934 and Regulations framed thereunder so as to exhibit true and correct view of the state of affairs of the Bank.

Other Matters

We report that we have called for information and explanation from the Bank which was necessary for the purpose of our audit and such information and explanation have been given to our satisfaction.

We also report that the financial statements include the accounts of twenty two Accounting Units of the Bank which have been audited by Statutory Branch Auditors and we have relied on their report in this regard.

For Haribhakti & Co	For V Sankar Aiyar & Co
Chartered Accountants	Chartered Accountants
(Registration No. 103523W)	(Registration No. 109208W)
Shailesh Haribhakti	G. Sankar
Partner	Partner
Membership No. 30823	Membership No. 46050

Dated: August 08, 2013
Place: Mumbai

Chapter Annex II

STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS FORMING PART OF THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2013

1. General

1.1 The Reserve Bank of India was established under the Reserve Bank of India Act, 1934 (the Act) "to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage".

1.2 The main functions of the Bank are :-

a) Issue of Bank notes.

b) Management of the monetary system.

c) Regulation and supervision of banks and Non –Banking Finance Companies (NBFCs).

d) Acting as a lender of the last resort.

e) Regulation and supervision of the Payment and Settlement Systems.

f) Maintaining and managing the country's foreign exchange reserves.

g) Acting as a banker to the banks and the Governments.

h) Acting as the manager of the debt of the Governments.

i) Regulation and development of foreign exchange market.

j) Developmental functions including in the areas of rural credit and financial inclusion.

1.3 The Act requires that:-

a) the issue of Bank notes should be conducted by the Bank in an Issue Department which shall be separate and kept wholly distinct from the Banking Department and the assets of the Issue Department shall not be subject to any liability other than the liabilities of the Issue Department.

b) the assets of the Issue Department shall consist of gold coin, gold bullion, foreign securities, rupee coin and rupee securities to such aggregate amount as is not less than the total of the liabilities of the Issue Department.

c) the liabilities of the Issue Department shall be an amount equal to the total of the amount of the currency notes of the Government of India and Bank notes for the time being in circulation.

2. Significant Accounting Policies

I. Convention

The financial statements are prepared in accordance with the Reserve Bank of India Act, 1934 and the notifications issued thereunder and in the form prescribed by the Reserve Bank of India General Regulations, 1949 and are based on historical cost except where it is modified to reflect revaluation.

The accounting practices and policies followed in the financial statements are consistent with those followed in the previous year unless otherwise stated.

II. Revenue Recognition

Income and expenditure are recognised on accrual basis except dividend, which is accounted for on receipt basis and penal interest which is accounted for only when there is certainty of realisation. Only realised gains are recognised.

Balances unclaimed and outstanding for more than three clear consecutive years in certain transit accounts including Drafts Payable Account, Payment Orders Account, Sundry Deposits Account, Remittance Clearance Account and Earnest Money Deposit Account are reviewed and written back to income. Claims in this respect are considered and charged against income in the year of payment.

Income and expenditure in foreign currency are recorded at the exchange rates prevailing on the last business day of the week/month/year as applicable.

III. Gold & Foreign Currency Assets and Liabilities

Transactions in gold and foreign currency assets and liabilities are accounted for on settlement date basis.

a) Gold

Gold is revalued at the end of the month at 90 per cent of the daily average price quoted by London Bullion Market Association for the month. The rupee equivalent is determined on the basis of the exchange rate prevailing on the last business day of the month. Unrealised gains/losses are credited/debited to the Currency and Gold Revaluation Account (CGRA).

b) Foreign Currency Assets and Liabilities

All foreign currency assets and liabilities are translated at the exchange rates prevailing on the last business day of the week as well as on the last business day of the month. At the year-end, foreign currency assets and liabilities are translated at the exchange rates prevailing on the last business day, except in cases where rates are contractually fixed. Exchange gains and losses arising from such translation of foreign currency assets and liabilities are accounted for in CGRA and remain adjusted therein. Forward exchange contracts are valued half-yearly, and net loss, if any, is provided for in the Exchange Equalisation Account (EEA).

Foreign securities other than Treasury Bills are valued at market price prevailing on the last business day of each month except certain "held to maturity" securities, which are valued at cost. Appreciation or depreciation, if any, is transferred to the Investment Revaluation Account (IRA). Credit balance in IRA is carried forward to the subsequent year. Debit balance, if any, at the end of the year in IRA is charged to the Profit and Loss Account and the same is reversed to the credit of the Profit & Loss Account on the first working day of the succeeding financial year.

Foreign Treasury Bills and Commercial Papers are carried at cost as adjusted by amortisation of discount. Premium or discount on foreign securities is amortised daily. Profit/loss on sale of foreign currency assets is recognised with respect to the book value. In the case of foreign securities, it is recognised with reference to the amortised cost. Further, on sale/redemption of foreign dated securities, gain/loss in relation to the securities sold lying in IRA, is transferred to the Profit & Loss Account.

IV. Rupee Securities

Rupee securities, other than Treasury Bills, held in the Issue and Banking Departments, are valued at lower of book value or market price (LOBOM). Where the market price for such securities is not available, the rates are derived based on the yield curve prevailing on the last business day of the month as notified by the Fixed Income Money Market and Derivatives Association of India (FIMMDA). Depreciation in value, if any, is adjusted against current interest income.

Treasury Bills are valued at cost.

Securities received as collateral under Repurchase Agreement (Repo) and Marginal Standing Facility (MSF) are held in the Reserve Bank's books at face value.

V. Shares

Investments in shares are valued at cost.

VI. Fixed Assets

Fixed Assets are stated at cost less depreciation.

Depreciation on computers, microprocessors, software (costing ₹100,000/- and above), motor vehicles, furniture, *etc.* is provided on straight-line basis at the following rates:

Asset Category	Rate of depreciation
Motor vehicles, furniture, *etc.*	20 per cent
Computers, Microprocessors, Software, *etc.*	33.33 per cent

Amortisation of premium on leasehold land and depreciation on building is provided on written-down value basis at the following rates:

Asset Category	Rate of depreciation/ amortisation
Leasehold Land and Building(s) constructed thereon	Proportionate to lease period but not less than 5 per cent
Building(s) constructed on Freehold Land	10 per cent

Fixed Assets, costing less than ₹100,000 (except easily portable electronic assets) are charged to the Profit & Loss Account in the year of acquisition.

Valuable but easily portable electronic assets such as laptops, *etc.* costing more than ₹10,000 are capitalised.

Individual items of computer software costing ₹100,000/- and above are capitalised and depreciation is calculated at the applicable rates.

Depreciation is provided on year-end balances of the Fixed Assets.

VII. Employee Benefits

The liability on account of long term employee benefits is provided based on an actuarial valuation under the 'Projected Unit Credit' method.

NOTES TO THE ACCOUNTS

1. Capital

The Capital of the Bank, of ₹0.05 billion, is held by the Government of India.

2. Reserve Fund

The Reserve Fund consists of ₹65 billion comprising an initial contribution of ₹0.05 billion by the Government of India and subsequent transfers aggregating to ₹64.95 billion from the Profit & Loss Account up to October 1990 representing unrealised gains on revaluation of gold. Such unrealised gains arising in subsequent periods have been transferred to CGRA.

3. National Industrial Credit (Long Term Operations) Fund

This fund was created in July 1964 under Section 46C of the Act with an initial corpus of ₹100 million to provide financial assistance to eligible financial institutions. Annual transfers are made from the Profit & Loss Account to the Fund.

4. National Housing Credit (Long Term Operations) Fund

This fund was created in January 1989 under Section 46D of the Act with an initial corpus of ₹500 million for extending financial accommodation to the National Housing Bank. Annual transfers are made from the Profit & Loss Account to the Fund.

5. Deposits – Government

The Bank acts as the banker to the Central Government in terms of Sections 20 and 21 of the Act and as banker to the state governments by mutual agreement in terms of Section 21A of the Act.

6. Deposits – Banks

These are balances maintained by banks in their current account with the Bank for maintaining Cash Reserve Ratio (CRR) and as working funds for meeting payment and settlement obligations. Deposits do not carry any interest.

7. Deposits – Others

These include mainly

a) deposits from financial institutions

b) sundry deposits and

c) balances in the (i) Employee Provident Fund and (ii) Gratuity & Superannuation Fund. Interest at a rate determined each year is credited to these Funds. Investments of an equivalent value have been earmarked in respect of all these Funds.

8. Internal reserves and provisions

8.1 Contingency Reserve represents the amounts provided on year to year basis for meeting unexpected and unforeseen contingencies including depreciation in the value of securities, risks arising out of monetary / exchange rate policy operations, systemic risks and any risk arising on account of the special responsibilities enjoined upon the Bank.

8.2 The Asset Development Reserve represents the amounts provided out of profits each year to meet internal capital expenditure and make investments in subsidiaries and associated institutions.

8.3 The Currency and Gold Revaluation Account reflects the unrealised gains/losses on revaluation of foreign currency assets and gold which are transferred to this account.

8.4 The Investment Revaluation Account represents the unrealised gains/losses arising on marking foreign securities to market which are transferred to this account.

8.5 The Exchange Equalisation Account represents the provision made for the unrealised exchange losses arising from forward commitments transferred to this account.

8.6 The movement in the Contingency Reserve and Asset Development Reserve during the year is as under:-

Table XI.16: Contingency and Asset Development Reserves

(Amount in ₹ billion)

	Contingency Reserve	Asset Development Reserve
As at June 30, 2012	1,954.05	182.14
Transfer during the year	262.47	25.47
Total (as on June 30, 2013)	**2,216.52**	**207.61**

9. Foreign Exchange Reserves

The Foreign Exchange Reserves as at June 30, 2012 and June 30, 2013 in Indian Rupees & the US dollar which is the numeraire for our foreign exchange reserves were as under:

Table XI.17(a): Foreign Exchange Reserves (in Rupees)

(₹ billion)

	As on		Variation	
	June 30, 2012	June 30, 2013	Absolute	Per cent
1	2	3	4	5
Foreign Currency Assets (FCA)	14,492.81	15,247.69#	754.88	5.2
Gold	1,450.56	1,286.86@	(-)163.70	(-)11.3
Special Drawing Rights (SDR)	246.59	259.20	12.61	5.1
Reserve Position in the IMF*	162.99	130.67	(-)32.32	(-)19.8
Total Foreign Exchange Reserves (FER)	**16,352.95**	**16,924.42**	**571.47**	**3.5**

: Detailed composition of foreign currency assets is given in TableXI.6

@ : Of this, gold valued at ₹674.31 billion is held as an asset of Issue Department and gold valued at ₹612.54 billion is held under 'Other Assets' in the Banking Department.

* : Reserve Position in the International Monetary Fund (IMF), which was shown as a memo item from May 23, 2003 to March 26, 2004 has been included in the reserves from the week ended April 2, 2004.

Table XI.17(b): Foreign Exchange Reserves (in USD)

(USD billion)

	As on		Variation	
	June 30, 2012	June 30, 2013	Absolute	Per cent
1	2	3	4	5
Foreign Currency Assets (FCA)	256.70*	254.37**	(-)2.33	(-)0.9
Gold	25.76	21.55	(-)4.21	(-)16.3
Special Drawing Rights (SDR)	4.38	4.34	(-)0.04	(-)0.9
Reserve Position in the IMF*	2.89	2.19	(-)0.7	(-)24.2
Total Foreign Exchange Reserves (FER)	**289.73**	**282.45**	**(-)7.28**	**(-)2.5**

* : excluding USD 673 million invested in bonds of IIFC (UK) which is not eligible for consideration as part of forex reserves.

** : excluding USD 950 million invested in bonds of IIFC (UK) and Bhutan currency (BTN) equivalent of USD 100 million received from Bhutan under a Currency Swap arrangement for SAARC countries, not eligible for consideration as part of forex reserves.

Table XI.18 Assumptions made for arriving at actuarial valuation of superannuation liabilities

Assumptions	Gratuity Fund		Pension Fund		LE Fund	
	30/06/2012	30/06/2013	30/06/2012	30/06/2013	30/06/2012	30/06/2013
1	2	3	4	5	6	7
Discount factor	8.25%	7.65%	8.60%	7.85%	8.25%	7.65%
Salary increase	5%	5%	5%	5%	5%	5%
Life expectancy tables used	LIC(1994-96) Ultimate	IALM(2006-08) Ultimate	LIC(1994-96) Ultimate	IALM(2006-08) Ultimate	LIC(1994-96) Ultimate	IALM(2006-08) Ultimate

Special Drawing Rights and Reserve Position in the IMF are not part of the Bank's balance sheet but are held by the Government of India and therefore not reflected in the Reserve Bank's balance sheet.

10. Employee Costs

The Bank's Investments equivalent to thebalances in Provident Fund, Gratuity & Superannuation Fund and Leave Encashment (LE) Fund have been ear-marked for these Funds. Provident Fund and Gratuity & Superannuation Fund are held as 'Deposits' with the Bank. Leave Encashment liability is included under 'Other Liabilities' (Table XI.18).

11. Taxation

Under Section 48 of the Reserve Bank Act, 1934 the Bank is not liable to pay income tax or super tax or any other tax on any of its income, profits or gains and is also exempt from payment of wealth tax.

12. Surplus transferred to Government of India (GOI)

Under Section 47 of the Act, after making provisions for bad and doubtful debts, depreciation in assets, contribution to staff and superannuation fund and for all matters for which provision is to be made by or under the Act or which are usually provided by bankers, the balance of the profits of the Bank are required to be paid to the Central Government.

ANNEX I

LIST OF SPEECHES BY GOVERNOR AND DEPUTY GOVERNORS: APRIL 2012 TO JULY 2013

Sr. No.	Title of Speech	Speech by	Date
1	2	3	4
1.	Systemic Risk Assessment – The Cornerstone for the Pursuit of Financial Stability	Dr. K. C. Chakrabarty, Deputy Governor	April 03, 2012
2.	Musings on FEDAI, Forex Market and Indian Rupee	Shri Harun R. Khan, Deputy Governor	April 05, 2012
3.	Empowering the Growth of Emerging Enterprises	Dr. K. C. Chakrabarty, Deputy Governor	April 12, 2012
4.	Financial Literacy and Consumer Protection	Dr. K. C. Chakrabarty, Deputy Governor	April 22, 2012
5.	Strengthening Governance in Microfinance Institutions (MFIs) – Some Random Thoughts	Shri Anand Sinha, Deputy Governor	April 23, 2012
6.	Human Resource Management in Banks – Need for a New Perspective	Dr. K. C. Chakrabarty, Deputy Governor	June 01, 2012
7.	Exploring the Challenge of Financial Education across Emerging Economies	Dr. K. C. Chakrabarty, Deputy Governor	June 05, 2012
8.	Financial Inclusion – An Update – A Presentation	Dr. K. C. Chakrabarty, Deputy Governor	June 08, 2012
9.	IT and Governance in Banks – Some Thoughts	Shri Anand Sinha, Deputy Governor	June 15, 2012
10.	India – Macroeconomic Situation Assessment and Prospects – A Presentation	Dr. Duvvuri Subbarao, Governor	June 19, 2012
11.	ICT-based Financial Inclusion – Carving a New path through Innovation	Dr. K. C. Chakrabarty, Deputy Governor	June 28, 2012
12.	Issues and Challenges in Financial Inclusion: Policies, Partnerships, Processes and Products	Shri Harun R. Khan, Deputy Governor	June 30, 2012
13.	Touching Hearts and Spreading Smiles	Dr. Duvvuri Subbarao, Governor	July 04, 2012
14.	Launch of the OTC Derivatives Trade Repository	Dr. Subir Gokarn, Deputy Governor	July 09, 2012
15.	Agricultural Credit – Accomplishments and Challenges	Dr. Duvvuri Subbarao, Governor	July 12, 2012
16.	Small is still Beautiful and Competitive – Reflections on the Growth of Micro, Small and Medium Enterprises (MSMEs) in India	Shri Anand Sinha, Deputy Governor	July 12, 2012
17.	Remarks at the Release Function of Dr. I.G. Patel's Book	Dr. Duvvuri Subbarao, Governor	July 16, 2012
18.	Statistics and Statistical Analysis in RBI's Work	Dr. Duvvuri Subbarao, Governor	July 17, 2012
19.	Indian Payment and Settlement Systems Responsible Innovation and Regulation	Dr. Duvvuri Subbarao, Governor	August 03, 2012
20.	The First Mile Walk into Financial Inclusion – Thinking Differently	Dr. K. C. Chakrabarty, Deputy Governor	August 07, 2012
21.	Corporate Debt Restructuring – Issues and Way Forward	Dr. K. C. Chakrabarty, Deputy Governor	August 11, 2012
22.	Turmoil in Global Economy: The Indian Perspective	Shri Harun R. Khan, Deputy Governor	August 18, 2012
23.	Perspectives on Risk and Governance	Shri Anand Sinha, Deputy Governor	August 23, 2012
24.	India in a Globalising World: Some Policy Dilemmas-presentation	Dr. Duvvuri Subbarao, Governor	August 28, 2012
25.	Basel III in International and Indian Contexts Ten Questions We Should Know the Answers For	Dr. Duvvuri Subbarao, Governor	September 04, 2012
26.	Revised Guidelines on Priority Sector Lending: Rationale and Logic	Dr. K. C. Chakrabarty, Deputy Governor	September 04, 2012
27.	Customising Mobile Banking in India: Issues & Challenges	Shri Harun R. Khan, Deputy Governor	September 05, 2012
28.	Financial Stability: 2007 to 2012 - Five years on	Shri Anand Sinha, Deputy Governor	September 06, 2012
29.	Indian Economy: Imperatives for Second Generation Reforms	Dr. K. C. Chakrabarty, Deputy Governor	September 14, 2012
30.	Role of State in Developing Debt Markets	Shri Harun R. Khan, Deputy Governor	September 18, 2012

Sr. No.	Title of Speech	Speech by	Date
1	2	3	4
31.	Food Inflation and Agricultural Supply Chain Management	Shri Harun R. Khan, Deputy Governor	September 22, 2012
32.	Achieving Inclusive Growth: The Challenge of a New Era	Dr. Duvvuri Subbarao, Governor	September 27, 2012
33.	Silver Linings in the Indian Economy	Shri Harun R. Khan, Deputy Governor	October 06, 2012
34.	Strengthening SMEs Capabilities for Global Competitiveness	Dr. K. C. Chakrabarty, Deputy Governor	October 08, 2012
35.	Remarks while welcoming Chairman Mr. Ben Bernanke of the US Federal Reserve at RBI in Mumbai	Dr. Duvvuri Subbarao, Governor	October 10, 2012
36.	Corporate Debt Market: Developments, Issues & Challenges	Shri Harun R. Khan, Deputy Governor	October 12, 2012
37.	Social Banking and Finance – Opportunities in Inclusion	Dr. K. C. Chakrabarty, Deputy Governor	October 15, 2012
38.	Gauging the Potential of Emerging Markets – Can growth be achieved with Durable Financial Stability	Shri Anand Sinha, Deputy Governor	October 15, 2012
39.	Managing Currency and Interest Rate Risks – New Challenges for Banks & Corporates	Shri Harun R. Khan, Deputy Governor	October 16, 2012
40.	Financial Regulatory Reforms: Not far enough or Overkill?	Shri Anand Sinha, Deputy Governor	October 25, 2012
41.	Financial Inclusion – Issues in Measurement and Analysis	Dr. K. C. Chakrabarty, Deputy Governor	November 05, 2012
42.	Leveraging Cooperative Advantage	Dr. Duvvuri Subbarao, Governor	November 16, 2012
43.	Perspectives on Co-operation	Shri Anand Sinha, Deputy Governor	November 17, 2012
44.	G-20 and India	Dr. Duvvuri Subbarao, Governor	November 20, 2012
45.	Supporting Explosive Growth: Effective Linkages between the Banking Sector and Real Sector	Dr. K. C. Chakrabarty, Deputy Governor	November 21, 2012
46.	Financial Inclusion and Payment Systems: Recent Trends, Current Challenges and Emerging Issues	Shri Harun R. Khan, Deputy Governor	November 25, 2012
47.	Transit Path For Indian Economy: Six Steps For Transforming The Elephant Into A Tiger	Dr. K. C. Chakrabarty, Deputy Governor	December 07, 2012
48.	Contemporary issues in Banking: Reflections on Viewpoints of a Bank Economist	Dr. K. C. Chakrabarty, Deputy Governor	December 30, 2012
49.	Welcome Remarks at the Fifteenth C. D. Deshmukh Memorial Lecture	Dr. Duvvuri Subbarao, Governor	January 03, 2013
50.	Regulation of Shadow Banking – Issues and Challenges	Shri Anand Sinha, Deputy Governor	January 07, 2013
51.	Promoting Retail Investor Participation in Government Bonds	Shri Harun R. Khan, Deputy Governor	January 09, 2013
52.	The Magical World of Mathematics – The Charm, Challenges and Career Prospect	Dr. K. C. Chakrabarty, Deputy Governor	January 18, 2013
53.	Welcome Remarks at the First Prof. Tendulkar Memorial Oration	Dr. Duvvuri Subbarao, Governor	January 19, 2013
54.	Vote of Thanks at the First Prof. Tendulkar Memorial Oration	Dr. K. C. Chakrabarty, Deputy Governor	January 19, 2013
55.	Financial Inclusion of Urban Poor in India	Dr. K. C. Chakrabarty, Deputy Governor	January 28, 2013
56.	Opening Remarks at the OECD- World Bank Regional Dissemination Conference on Building Financial Capability	Dr. K. C. Chakrabarty, Deputy Governor	January 30, 2013
57.	Regulation of G-Sec & Interest Rate Derivatives Market: Recent Developments & Emerging Issues	Shri Harun R. Khan, Deputy Governor	February 02, 2013
58.	What, Why, Who and How of Financial Literacy	Dr. K. C. Chakrabarty, Deputy Governor	February 04, 2013
59.	Banking as a Fundamental Right of People!	Dr. K. C. Chakrabarty, Deputy Governor	February 09, 2013

LIST OF SPEECHES BY GOVERNOR AND DEPUTY GOVERNORS: APRIL 2012 TO JULY 2013

Sr. No.	Title of Speech	Speech by	Date
1	2	3	4
60.	Principles of Financial Market Infrastructure & Innovations in Retail Payment Systems: Some Perspectives	Shri Harun R. Khan, Deputy Governor	February 14, 2013
61.	Indian Banking Sector: Pushing the Boundaries	Dr. K. C. Chakrabarty, Deputy Governor	February 14, 2013
62.	India-OECD-World Bank Regional Conference on Financial Education	Dr. Duvvuri Subbarao, Governor	March 04, 2013
63.	India-OECD-World Bank Regional Conference on Financial Education	Dr. K. C. Chakrabarty, Deputy Governor	March 04, 2013
64.	Approach to regulation and supervision in the post crisis world	Shri Anand Sinha, Deputy Governor	March 06, 2013
65.	Financial Literacy and Financial Inclusion - Indian Way	Dr. K. C. Chakrabarty, Deputy Governor	March 06, 2013
66.	Is There a New Normal for Inflation?	Dr. Duvvuri Subbarao, Governor	March 08, 2013
67.	India's Macroeconomic Challenges Some Reserve Bank Perspectives	Dr. Duvvuri Subbarao, Governor	March 13, 2013
68.	Governance in Banks and Financial Institutions	Shri Anand Sinha, Deputy Governor	March 19, 2013
69.	Financial Consumer Protection	Dr. K. C. Chakrabarty, Deputy Governor	March 22, 2013
70.	Transitioning from Student to Professional Lives: Some Reflections	Dr. K. C. Chakrabarty, Deputy Governor	March 24, 2013
71.	Strengthening IMF Surveillance: Talking Points	Dr. Duvvuri Subbarao, Governor	April 16, 2013
72.	Rethinking Macro Policy II: Capital Account Management	Dr. Duvvuri Subbarao, Governor	April 17, 2013
73.	Environmental and Social Sustainability: Key Issues and Concerns	Dr. K. C. Chakrabarty, Deputy Governor	April 23, 2013
74.	Regulation for Financial Consumer Protection: Present Status and Future Directions	Dr. K. C. Chakrabarty, Deputy Governor	April 29, 2013
75.	Indian Financial Markets: Fuelling the Growth of the Indian Economy	Shri Harun R. Khan, Deputy Governor	May 04, 2013
76.	Strengthening the Banking Supervision through Risk Based Approach: Laying the Stepping Stones	Dr. K. C. Chakrabarty, Deputy Governor	May 13, 2013
77.	The Global Financial Crisis and the Indian Financial Sector What Have We Learnt and How Have We Responded?	Dr. Duvvuri Subbarao, Governor	June 5, 2013
78.	Revving up the Growth Engine through Financial Inclusion	Dr. K. C. Chakrabarty, Deputy Governor	June 6, 2013
79.	Challenges & Concerns of the Central Bank: Opportunities & Role for the Commercial Banks	Shri Harun R. Khan, Deputy Governor	June 10, 2013
82.	Credit Information Companies: Seeking New Frontiers-Inaugural	Dr. K. C. Chakrabarty, Deputy Governor	July 5, 2013
83.	Golden Jubilee of Reserve Bank Staff College, Chennai - Speaking Notes	Dr. Duvvuri Subbarao, Governor	July 8. 2013
84.	Compliance Function in Banks: Back to the basics - Inaugural	Dr. K. C. Chakrabarty, Deputy Governor	July 12, 2013
85.	Central Banking in Emerging Economies Emerging Challenges	Dr. Duvvuri Subbarao, Governor	July 17, 2013
86.	Financing Strategies for Urban Infrastructure: Trends and Challenges – Inaugural	Shri Harun R. Khan, Deputy Governor	July 18, 2013
87.	Frauds in Banking Sector: Causes, Concerns and Cures	Dr. K. C. Chakrabarty, Deputy Governor	July 26, 2013

ANNEX II

VISITS OF FOREIGN DELEGATIONS TO THE RESERVE BANK OF INDIA DURING JULY 2012 TO JUNE 2013

Sr. No.	Date of Meeting	Foreign Delegates/ Delegation	RBI Executives who met the delegates
1.	August 29, 2012	Mr Abdulla Jihad, Minister of Finance & Treasury, Government of Maldives	Shri Anand Sinha, Deputy Governor & Shri H R Khan, Deputy Governor
2.	September 4, 2012	Mr Luke Bronin, Deputy Assistant Secretary for Terrorist Financing and Financial Crimes, U.S Department of Treasury	Dr K C Chakrabarty, Deputy Governor & Shri Anand Sinha, Deputy Governor, Shri Deepak Mohanty, Executive Director
3.	September 27, 2012	Mr Tharman Shanmukharatnam Deputy Prime Minister, Singapore	Dr D Subbarao, Governor
4.	October 10, 2012	Mr Ben S Bernanke Chairman of the Board of Governor of Federal Reserve System and Mr Timothy F Geithner, Secretary of the Treasury US, Dept. of Treasury	Dr D Subbarao, Governor All Deputy Governors & Executive Directors
5.	October 10, 2012	Mr Alderman David Wooton, Lord Mayor of London	Mr Anand Sinha (Deputy Governor)
6.	October 16, 2012	Ms Anne Le Lorier, First Deputy Governor of Banque de France	Dr K C Chakrabarty, Deputy Governor, Dr Subir Gokarn, Deputy Governor, Shri H R Khan, Deputy Governor
7.	October 18, 2012	Delegates from China	Dr S V Gokarn, Deputy Governor
8.	October 22, 2012	Mr Wayne Wouters, Clerk of the Privy Council and Secretary to the Cabinet of the Government of Canada	Dr D Subbarao, Governor
9.	November 27, 2012	Mr Jerome Powell, Governor, Federal Reserve System	Dr Subir Gokarn, Deputy Governor, Shri Deepak Mohanty, Executive Director, Shri R Gandhi, Executive Director, Shri G Padmanabhan, Executive Director, Shri G Gopalakrishna, Executive Director
10.	November 30, 2012	Ms Maryanne Mrakovcic, the Australian Treasury's Chief Adviser on International issues , Reserve Bank of Australia	Shri Deepak Mohanty, Executive Director
11.	January 3, 2012	Prof Joseph Stiglitz, Columbia University	Dr D Subbarao, Governor
12.	January 16, 2013	Mrs Anne Epaulard, Joint Secretary Directorate General French Treasury	Shri Deepak Mohanty, Executive Director
13.	January 24, 2013	Ms. Claire Tynte- Irvine , First Secretary , Economic and Trade Policy at the British High Commission, Delhi	Shri Deepak Mohanty, Executive Director
14.	February 11, 2013	H.E. Governor Bheenick, Bank of Mauritius	Dr D Subbarao, Governor
15.	February 13, 2013	Mr Takeshi Yagi, Ambassador, Embassy of Japan, New Delhi *	Dr D Subbarao, Governor & Shri Deepak Mohanty, Executive Director
16.	February 15, 2013	Ms Teresita Schaffer, Ambassador, US	Shri H R Khan, Deputy Governor
17.	February 21, 2013	Mr Onno Rhul, Country Director, The World Bank	Dr D Subbarao, Governor
18.	February 21, 2013	Professor Marek Belka , Chairman of the National Bank of Poland	Dr D Subbarao, Governor & Dr Urjit R Patel, Deputy Governor
19.	March 18, 2013	Mr Michael Steiner, Ambassador of the Federal Republic of Germany to India, New Delhi *	Dr D Subbarao, Governor & Shri Deepak Mohanty, Executive Director
20.	April 3, 2013	Mr Simon Kennedy, Deputy Minister of International Trade in Canada	Dr Urjit R Patel, Deputy Governor & Shri Deepak Mohanty, Executive Director
21.	April 3, 2013	Mr Joao Cravinho, European Union Ambassador to India, New Delhi *	Dr D Subbarao, Governor, Shri Deepak Mohanty, Executive Director,
22.	April 12, 2013	Mr Eivind S Homme, Ambassador of Norway to India, New Delhi*	Dr K.C. Chakrabarty, Deputy Governor
23.	May 17, 2013	Mr Miloslav Stasek, Ambassador of the Czechoslovakia Republic to India, New Delhi *	Dr D Subbarao, Governor, Shri G Gopalakrishna, Executive Director & Shri Deepak Mohanty, Executive Director
24.	May 29, 2013	Mr Rostam Ghasemi, Minister of Petroleum of Islamic Republic of Iran	Dr D Subbarao, Governor, Shri H R Khan, Deputy Governor, Shri B Mahapatra, Executive Director
25.	June 13, 2013	Mr Patrick Suckling, Australian High Commissioner	Dr D Subbarao, Governor & Shri Deepak Mohanty, Executive Director

*Ambassadors and Consul based in India.

APPENDIX TABLE 1: MACROECONOMIC AND FINANCIAL INDICATORS

Item	Average 2000-01 to 2009-10 (10 years)	Average 2003-04 to 2007-08 (5 years)	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
I. Real Economy						
I.1 Overall Real GDP (% change)	**7.3**	**8.7**	**8.6**	**9.3**	**6.2**	**5.0(PE)**
a) Agriculture (% change)	2.5	4.9	0.8	7.9	3.6	1.9
b) Industry (% change)	7.3	8.8	10.2	8.7	2.7	1.2
of which : Manufacturing (% change)	8.0	9.7	11.3	9.7	2.7	1.0
c) Services (% change)	8.8	9.8	10.0	9.8	7.9	6.8
Demand Side Aggregates						
d) Final Consumption Expenditure (% change)	6.3	7.2	8.4	8.1	8.1	3.9
of which : PFCE (% change)	6.4	7.5	7.4	8.6	8.0	4.0
GFCE (% change)	5.7	5.8	13.9	5.9	8.6	3.9
e) Gross Fixed Capital Formation (% change)	10.5	16.2	7.7	14.0	4.4	1.7
I.2 Share in GDP						
a) Agriculture (%)	18.7	18.4	14.6	14.5	14.1	13.7
b) Industry (%)	20.4	20.3	20.4	20.3	19.6	18.9
c) Services (%)	60.9	61.3	64.9	65.2	66.3	67.4
I.3 Foodgrains Production (Million tonnes)	**210.5**	**213.6**	**218.1**	**244.5**	**259.3**	**255.4**
of which : Rice	89.2	90.7	89.1	96.0	105.3	104.4
Wheat	73.4	72.9	80.8	86.9	94.9	92.5
Pulses	13.5	14.1	14.7	18.2	17.1	18.5
I.4 Commercial Crops (Million tonnes) $	**343.4**	**347.9**	**353.0**	**418.5**	**437.4**	**415.3**
of which : Oilseeds	23.8	26.3	24.9	32.5	29.8	31.0
Sugarcane	291.4	291.2	292.3	342.4	361.0	339.0
I.5 Food Stocks (Million tonnes)						
a) Procurement	42.0	38.4	58.0	56.8	66.4	71.7
b) Off-take	39.5	41.5	48.9	52.9	56.3	62.8
c) Stocks at end-March	30.1	18.6	43.4	44.4	53.4	59.8
I.6 Index of Industrial Production (% change)	**7.4**	**12.3**	**5.3**	**8.2**	**2.9**	**1.1**
Sectoral						
a) Mining	4.3	4.0	7.9	5.2	-2.0	-2.3
b) Manufacturing	8.0	14.6	4.8	8.9	3.0	1.3
c) Electricity	4.8	6.3	6.1	5.5	8.2	4.0
Use-Based						
d) Basic Goods	5.6	8.0	4.7	6.0	5.5	2.5
e) Capital Goods	13.3	30.0	1.0	14.8	-4.0	-6.0
f) Intermediate Goods	6.2	8.5	6.0	7.4	-0.6	1.6
g) Consumer Goods	8.2	14.8	7.7	8.5	4.4	2.4
I.7 Core Infrastructure Industries (% change)	**5.5**	**5.8**	**6.6**	**6.6**	**5.1**	**3.6**
I.8 Gross Domestic Saving Rate (% of GDP)	**30.7**	**33.3**	**33.7**	**34.0**	**30.8**	**-**
of which : Household	23.2	23.2	25.2	23.5	22.3	-
Private Corporate	6.3	7.2	8.4	7.9	7.2	-
Public	1.2	2.9	0.2	2.6	1.3	-
I.9 Gross Domestic Investment Rate (% of GDP)	**31.2**	**33.6**	**36.5**	**36.8**	**35.0**	**-**
II. Prices						
II.1 Wholesale Price Index Annual Average (% change)						
All Commodities	5.4	5.5	3.8	9.6	8.9	7.4
All Commodities-Point to Point (end-year)	–	–	10.4	9.7	7.7	5.7
Primary Articles	6.4	6.0	12.7	17.7	9.8	9.8
of which :						
Food Articles	5.8	5.2	15.3	15.6	7.3	9.9
Non-food Articles	6.1	5.5	5.5	22.3	9.6	10.5
Fuel and Power	8.9	7.3	-2.1	12.3	14.0	10.3
Manufactured Products	4.1	5.0	2.2	5.7	7.3	5.4
of which :						
Food Products	4.7	4.8	13.5	3.7	7.1	8.1
Non-Food Products	4.0	5.0	0.2	6.1	7.3	4.9

APPENDIX TABLE 1: MACROECONOMIC AND FINANCIAL INDICATORS *(Contd.)*

Item	Average 2000-01 to 2009-10 (10 years)	Average 2003-04 to 2007-08 (5 years)	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
II.2 Consumer Price Index (CPI) (Average % Change)						
a) CPI- Industrial Workers	5.9	5.0	12.4	10.4	8.4	10.4
of which : CPI- Industrial Workers Food	6.2	5.5	15.2	9.9	6.3	11.9
b) CPI- Agricultural Labourers	5.4	5.1	13.9	10.0	8.2	10.0
II.3 New Consumer Price Index (CPI) (Average % Change)						
Rural						10.1
Urban						10.4
Combined						10.2
III. Money and Credit						
III.1 Reserve Money (M0) (% change)	**15.4**	**20.4**	**17.0**	**19.1**	**3.6**	**6.2**
Adjusted Reserve Money (% change)	–	–	13.0	18.2	9.5	9.5
a) Currency in Circulation (% change)	15.1	15.9	15.7	18.8	12.4	11.6
b) Bankers' Deposits with RBI (% change)	17.9	33.1	21.0	20.2	-15.9	-10.0
III.2 Narrow Money (M_1) (% change)	**16.0**	**19.6**	**18.2**	**10.0**	**6.0**	**9.1**
III.3 Broad Money (M_3) (% change)	**17.5**	**18.6**	**16.9**	**16.1**	**13.2**	**13.8**
a) Currency with Public (% change)	15.1	15.9	15.3	18.8	12.2	11.9
b) Bank Credit to Commercial Sector (% of GDP)	42.9	44.4	53.9	54.3	55.2	56.5
c) Bank Credit to Government (% of GDP)	23.1	21.5	25.8	25.4	26.4	27.0
d) Currency-Deposit Ratio (%)	17.8	17.8	15.9	16.3	16.1	15.8
e) Money Multiplier	4.6	4.6	4.8	4.7	5.2	5.5
III.4 Scheduled Commercial Banks						
a) Aggregate Deposits (% change)	18.1	19.0	17.2	15.9	13.5	14.2
b) Time Deposits (% change)	18.5	18.5	16.2	18.7	15.7	15.2
c) Demand Deposits (% change)	16.4	21.9	23.4	-0.6	-2.6	5.9
d) Bank Credit (% change)	21.8	25.5	16.9	21.5	17.0	14.1
e) Non-food Credit (% change)	22.4	26.7	17.1	21.3	16.8	14.0
f) Investment in Government Securities (% change)	17.7	13.3	19.3	8.6	15.9	15.5
g) Credit-Deposit Ratio (%)	64.8	68.0	72.2	75.7	78.0	77.9
h) Credit-GDP Ratio (%)	37.7	39.5	50.1	50.6	51.4	52.5
IV. Financial Markets						
IV.1 Interest rates (%)						
a) Call / Notice Money rate	6.1	5.6	3.2	5.8	8.2	8.1
b) 10 year G-Sec yield	7.5	7.0	7.2	7.9	8.4	8.2
c) 91-Days T-bill yield	6.1	5.8	3.6	6.2	8.4	8.2
d) Weighted Average interest rate on Central Government Borrowings	7.8	7.2	7.2	7.9	8.5	8.4
e) Commercial Paper	8.2	7.7	5.1	8.6	9.8	9.2
IV.2 Liquidity (₹ billion)						
a) LAF Outstanding ^	–	–	9.9	-1060.1	-1691.6	-1236.4
b) MSS Outstanding ~	–	–	27.4	0.0	0.0	0.0
c) Average Daily Call Money Market Turnover	–	184.9	159.2	177.3	267.0	323.6
d) Average Daily G-Sec Market Turnover ^^	–	77.1	139.4	142.4	171.3	325.1
V. Government Finances						
V.1 Central Government Finances (% of GDP) #						
a) Total Revenue Receipts	9.4	9.8	8.8	10.1	8.4	8.7
i) Tax Revenue	7.1	7.6	7.0	7.3	7.0	7.4
ii) Non Tax Revenue	2.3	2.3	1.8	2.8	1.4	1.3
b) Total Expenditure	15.2	14.7	15.8	15.4	14.5	14.3
i) Revenue Expenditure	12.8	12.1	14.1	13.4	12.8	12.6
of which : Interest Payment	3.9	3.8	3.3	3.0	3.0	3.2
ii) Capital Expenditure	2.4	2.6	1.7	2.0	1.8	1.7
c) Revenue Deficit	3.3	2.3	5.2	3.2	4.4	3.9
d) Fiscal Deficit	4.8	3.6	6.5	4.8	5.7	5.2
e) Primary Deficit	0.8	-0.2	3.2	1.8	2.7	2.0
f) Domestic Debt	56.1	57.8	52.4	48.5	48.3	48.6
V.2 State Finances #						
a) Revenue Deficit (% of GDP)*	1.0	0.4	0.5	0.0	-0.3	-0.2
b) Gross Fiscal Deficit (% of GDP)*	3.1	2.7	2.9	2.1	1.9	2.3
c) Primary Deficit (% of GDP)*	0.7	0.3	1.2	0.5	0.3	0.8
d) Outstanding Liabilities (% of GDP)*	28.9	29.9	25.5	23.5	22.3	22.0

APPENDIX TABLE 1: MACROECONOMIC AND FINANCIAL INDICATORS *(Concld.)*

Item	Average 2000-01 to 2009-10 (10 years)	Average 2003-04 to 2007-08 (5 years)	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
VI. External Sector						
VI.1 Balance of Payments						
a) Merchandise Exports (% change)	17.7	25.3	-3.5	40.4	20.9	-1.0
Oil Exports (% change) ∆	505.4	62.6	2.3	47.1	35.1	7.6
Non Oil Exports (% change) ∆	15.6	21.9	-4.6	39.3	19.2	-3.9
b) Merchandise Imports (% change)	19.5	32.3	-2.6	27.6	30.3	0.5
Oil Imports (% change) ∆	22.9	35.7	-7.0	21.6	46.2	9.3
Non Oil Imports (% change) ∆	19.4	31.6	-4.2	31.1	26.7	-3.6
c) Trade Balance/GDP (%)	-5.2	-5.4	-8.7	-7.4	-10.1	-10.6
d) Invisible Balance/GDP (%)	4.7	5.1	5.9	4.6	6.0	5.8
e) Current Account Balance/GDP (%)	-0.5	-0.3	-2.8	-2.8	-4.2	-4.8
f) Net Capital Flows /GDP(%)	3.3	4.6	3.8	3.7	3.6	4.8
g) Current Account Balance (US$ billion)	-8.3	-4.7	-38.4	-48.1	-78.2	-88.2
Net Invisibles	44.2	45.8	80.0	79.3	111.6	107.5
of which : Services	21.6	23.4	36.2	44.1	64.1	64.9
Private Transfers	27.9	27.6	51.8	53.1	63.5	64.3
Investment Income	-5.0	-4.9	-7.2	-17.1	-16.5	-22.4
h) Net Capital Flows (US$ billion)	31.0	44.4	51.6	63.7	67.8	89.3
of which : FDI to India	16.7	15.3	33.1	29.0	33.0	27.0
FIIs	7.1	10.6	29.0	29.4	16.8	27.6
NRI Deposits	2.5	2.0	2.9	3.2	11.9	14.8
i) Reserve Changes (BoP basis) (US $ billion) [(Increase (-)/Decrease (+)]	-22.9	-40.3	-13.4	-13.1	12.8	-3.8
VI.2 External Debt Indicators						
a) External Debt Stock (US$ billion)**	157.3	156.5	260.9	305.9	345.5	390.0
b) Debt-GDP Ratio (%)	19.1	17.7	18.2	17.5	19.7	21.2
c) Import cover of Reserves (in Months) **	12.5	14.0	11.1	9.5	7.1	7.0
d) Short-term Debt to Total Debt (%)	11.8	13.6	20.1	21.2	22.6	24.8
e) Debt Service Ratio (%)	9.8	8.3	5.8	4.4	6.0	5.9
f) Reserves to Debt (%) **	95.7	113.7	106.9	99.7	85.2	74.9
VI.3 Openness Indicators (%)						
a) Export plus Imports of Goods/GDP	29.2	34.2	35.4	37.4	43.2	43.9
b) Export plus Imports of Goods & Services/GDP	38.8	45.3	46.8	49.4	55.0	56.2
c) Current Receipts plus Current Payments/GDP	44.7	46.4	53.5	55.0	60.7	62.4
d) Gross Capital Inflows plus Outflows/GDP	33.4	36.7	46.9	55.2	47.5	46.4
e) Current Receipts & Payments plus Capital Receipts & Payments /GDP	78.1	83.1	100.3	110.2	108.2	108.8
VI.4 Exchange Rate Indicators						
a) Exchange Rate (Rupee/US Dollar)						
End of Period	45.4	43.1	45.1	44.6	51.2	54.4
Average	45.6	44.1	47.4	45.6	47.9	54.4
b) 36 - Currency REER (Percentage Change)	0.4	1.0	-2.5	8.6	-2.5	-6.7
c) 36 - Currency NEER (Percentage Change)	-0.3	0.5	-2.6	2.9	-6.6	-10.4
d) 6 - Currency REER (Percentage Change)	1.5	2.5	-0.3	12.7	-3.0	-5.8
e) 6 - Currency NEER (Percentage Change)	-1.4	0.4	-3.7	5.5	-8.1	-10.4

PE : Provisional Estimates. RE : Revised Estimates.

$: Includes oilseeds, sugarcane, cotton (lint) and raw jute and mesta.

– : Not Available/Not applicable.

^ : LAF outstanding as on March 31 (negative means injection).

^^ : Average daily outright trading turnover in central government dated securities (based on calendar days).

: Data for 2012-13 relate to Revised estimates.

* : Data for 2011-12 and 2012-13 pertain to 27 states.

∆ : Based on DGCI&S data.

** : At end-March.

~ : Outstanding as on last Friday of the financial year.

Notes :
1. PFCE: Private Final Consumption Expenditure; GFCE: Government Final Consumption Expenditure; REER: Real Effective Exchange Rate.
2. Agricultural production figures for 2012-13 are based on Third Advance Estimates.
3. Average growth rate in the 3rd column for item I.6 and I.7 are calculated with the new base year (2004-05). Average growth rate of 3 years, i.e., 2005- 06, 2006-07 and 2007-08 are given in column.

APPENDIX TABLE 2 : GROWTH RATES AND SECTORAL COMPOSITION OF REAL GROSS DOMESTIC PRODUCT

(At 2004-05 Prices)

(Per cent)

Sector	Growth Rate						Share in real GDP				
	Average 2008-09 to 2012-13	2008-09	2009-10	2010-11	2011-12*	2012-13#	2008-09	2009-10	2010-11	2011-12 *	2012-13#
1	2	3	4	5	6	7	8	9	10	11	12
1. Agriculture and Allied Activities	**2.9**	**0.1**	**0.8**	**7.9**	**3.6**	**1.9**	**15.8**	**14.6**	**14.5**	**14.1**	**13.7**
of which :											
Agriculture	2.9	-0.3	0.4	8.8	3.9	1.7	13.4	12.4	12.3	12.0	11.6
2. Industry	**5.4**	**4.1**	**10.2**	**8.7**	**2.7**	**1.2**	**20.1**	**20.4**	**20.3**	**19.6**	**18.9**
of which :											
a) Mining and quarrying	2.3	2.1	5.9	4.9	-0.6	-0.6	2.4	2.3	2.2	2.1	2.0
b) Manufacturing	5.8	4.3	11.3	9.7	2.7	1.0	15.8	16.2	16.2	15.7	15.1
c) Electricity, gas and water supply	5.3	4.6	6.2	5.2	6.5	4.2	2.0	2.0	1.9	1.9	1.9
3. Services	**8.8**	**9.4**	**10.0**	**9.8**	**7.9**	**6.8**	**64.1**	**64.9**	**65.2**	**66.3**	**67.4**
of which :											
a) Construction	6.4	5.3	6.7	10.2	5.6	4.3	8.0	7.8	7.9	7.9	7.8
b) Trade, hotels and restaurants	8.1	5.7	7.9	11.5	6.2	9.1	16.6	16.5	16.9	16.9	17.5
c) Transport, storage and communications	9.9	10.8	14.8	13.8	8.4	1.9	9.4	10.0	10.4	10.6	10.3
d) Financing, insurance, real estate and business services	10.4	12.0	9.7	10.1	11.7	8.6	16.9	17.1	17.2	18.1	18.7
e) Community, social and personal services	8.2	12.5	11.7	4.3	6.0	6.6	13.1	13.5	12.8	12.8	13.0
4. Gross Domestic Product at factor cost	**7.2**	**6.7**	**8.6**	**9.3**	**6.2**	**5.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Memo : (₹ billion)

Sector	(at current prices)				
	2008-09	**2009-10**	**2010-11**	**2011-12**	**2012-13**
1. Agriculture and Allied Activities	9,432.0	10,835.1	13,069.4	14,657.5	16,448.3
2. Industry	10,492.2	11,953.4	14,078.5	15,479.8	16,691.1
3. Services	33,111.4	38,300.5	45,521.8	53,397.6	61,470.6
4. Gross Domestic Product at factor cost	53,035.7	61,089.0	72,669.7	83,534.9	94,610.1
Sector	**(at constant prices)**				
	2008-09	**2009-10**	**2010-11**	**2011-12**	**2012-13**
1. Agriculture and Allied Activities	6,556.9	6,609.9	7,134.8	7,394.9	7,536.1
2. Industry	8,374.1	9,224.8	10,031.9	10,300.9	10,421.9
3. Services	26,655.8	29,326.0	32,203.4	34,740.0	37,096.4
4. Gross Domestic Product at factor cost	41,586.8	45,160.7	49,370.1	52,435.8	55,054.4

*: First Revised Estimates. #: Provisional Estimates.
Source: Central Statistics Office.

APPENDIX TABLE 3: GROSS DOMESTIC SAVING AND INVESTMENT

Item	Per cent of GDP at current market prices				Amount in ₹ billion		
	Average 2003-04 to 2007-08	2009-10	2010-11	2011-12	2009-10	2010-11 SRE	2011-12*
1	2	3	4	5	6	7	8
1. Household Saving (Net) (a+b)	**23.2**	**25.2**	**23.5**	**22.3**	**16,308**	**18,329**	**20,037**
a) Financial Assets	11.2	12.0	10.4	8.0	7,748	8,083	7,195
b) Physical Assets	12.0	13.2	13.1	14.3	8,560	10,246	12,842
2. Private corporate sector	**7.2**	**8.4**	**7.9**	**7.2**	**5,409**	**6,194**	**6,445**
3. Public sector	**2.9**	**0.2**	**2.6**	**1.3**	**106**	**1997**	**1,171**
4. Gross Domestic Saving	**33.3**	**33.7**	**34.0**	**30.8**	**21,823**	**26,519**	**27,653**
5. Net capital inflow	**2.1**	**2.8**	**2.8**	**4.2**	**1,808**	**2,197**	**3,762**
6. Gross Domestic Capital Formation (7+8)	**33.6**	**36.5**	**36.8**	**35.0**	**23,631**	**28,716**	**31,415**
7. Errors and Omissions	**0.3**	**0.2**	**-0.1**	**-0.4**	**119**	**-108**	**-400**
8. Gross Capital Formation	**33.4**	**36.3**	**37.0**	**35.4**	**23,513**	**28,824**	**31,814**
of which :							
a) Public sector	7.8	9.2	8.4	7.9	5,928	6,540	7,052
b) Private corporate sector	12.5	12.1	13.4	10.6	7,861	10,410	9,491
c) Household sector	12.0	13.2	13.1	14.3	8,560	10,246	12,842
d) Valuables #	1.1	1.8	2.1	2.7	1,163	1,628	2,430
Memo:							
Total Consumption Expenditure (a+b)	69.8	69.1	67.2	68.0	44,788	52,409	60,989
a) Private Final Consumption Expenditure	59.0	57.2	55.8	56.3	37,076	43,499	50,562
b) Government Final Consumption Expenditure	10.8	11.9	11.4	11.6	7,712	8,910	10,427
Saving-Investment Balance (4-6)	-0.3	-2.8	-2.8	-4.2	-1,808	-2,197	-3,762
Public Sector Balance #	-4.9	-9.0	-5.8	-6.6	-5,822	-4,543	-5,881
Private Sector Balance #	5.9	8.3	4.9	4.6	5,296	3,867	4,149
a) Private Corporate Sector	-5.3	-3.7	-5.5	-3.4	-2,452	-4,216	-3,046
b) Household Sector	11.2	12.0	10.4	8.0	7,748	8,083	7,195
GDP at Market Prices (at current prices)	100	100	100	100	64,778	77,953	89,749

SRE : Second Revised Estimates. *: First Revised Estimates.
: Valuables cover the expenditures made on acquisition of valuables, excluding works of art and antiques.
Source: Central Statistics Office.

APPENDIX TABLE 4: FINANCIAL SAVING OF THE HOUSEHOLD SECTOR (GROSS)

Item	Per cent to Gross Financial Saving			₹ billion		
	2010-11 R	2011-12 R	2012-13 P	2010-11 R	2011-12 R	2012-13 P
1	2	3	4	5	6	7
A. Change in Financial Assets (Gross Financial Saving)	**100.0**	**100.0**	**100.0**	**10,799**	**9,565**	**10,969**
a) Currency	**12.7**	**11.4**	**10.2**	**1,371**	**1,089**	**1,121**
b) Deposits	**51.2**	**57.4**	**56.2**	**5,534**	**5,490**	**6,170**
i) With Commercial Banks	47.9	52.1	51.3	5,172	4,985	5,632
ii) With Non-banking Companies	0.5	2.2	1.9	51	209	204
iii) With Cooperative Banks and Societies	2.9	3.1	3.0	311	297	333
iv) Trade Debt (Net)	0.6	0.5	0.3	68	45	32
c) Share and Debentures	**0.2**	**-0.5**	**3.1**	**17**	**-45**	**344**
of which :						
i) Private Corporate Business	0.6	0.4	0.4	68	41	39
ii) Banking	0.1	0	0	8	1	0
iii) Bonds of public Sector undertakings	0.1	0.1	0.1	8	11	15
iv) Mutual Funds (including UTI)	-1.1	-1.1	2.5	-116	-106	274
d) Claims on Government	**2.7**	**-2.8**	**-0.8**	**295**	**-272**	**-90**
i) Investment in Government securities	0	-0.2	0	3	-18	5
ii) Investment in Small Savings, etc.	3.3	-2.3	-0.9	361	-218	-94
e) Life Insurance Funds	**19.5**	**19.8**	**16.4**	**2,101**	**1,893**	**1,795**
of which :						
i) Life Funds of LIC and private insurance companies	19.4	19.9	16.4	2,095	1,905	1,799
f) Provident and Pension Funds	**13.1**	**14.3**	**14.6**	**1,411**	**1,364**	**1,596**
B. Change in Financial Liabilities				**2,780**	**2,818**	**3,228**
C. Net Financial Saving of Household Sector				**8,019**	**6,746**	**7,741**

R : Revised Estimates.
P : Preliminary Estimates.
Note : Components may not add up to the totals due to rounding off.

APPENDIX TABLE 5: AGRICULTURAL PRODUCTION

(Million tonnes)

Crop	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13#
1	2	3	4	5	6	7	8	9	10	11
I. All Crops: Annual Growth Rate (per cent) $	**7.3**	**-1.6**	**12.1**	**14.3**	**3.0**	**0.0**	**-4.0**	**17.9**	**3.5**	**-2.0**
A) Foodgrains	22.5	-7.0	5.8	4.1	6.2	1.0	-5.5	13.6	4.5	-0.8
B) Non-foodgrains	-8.9	1.5	16.1	19.4	1.6	-0.9	-2.4	22.0	2.5	-3.1
A Foodgrains (1+2+3+4, a+b)	**213.2**	**198.4**	**208.6**	**217.3**	**230.8**	**234.5**	**218.1**	**244.5**	**259.3**	**255.4**
1. Rice	88.5	83.1	91.8	93.4	96.7	99.2	89.1	96.0	105.3	104.4
2. Wheat	72.2	68.6	69.4	75.8	78.6	80.7	80.8	86.9	94.9	92.5
3. Coarse Cereals	37.6	33.5	34.1	33.9	40.8	40.0	33.6	43.4	42.0	40.1
of which :										
i) Jowar	6.7	7.2	7.6	7.2	7.9	7.2	6.7	7.0	6.0	5.3
ii) Bajra	12.1	7.9	7.7	8.4	10.0	8.9	6.5	10.4	10.3	8.7
iii) Maize	15.0	14.2	14.7	15.1	19.0	19.7	16.7	21.7	21.8	22.2
4. Pulses	14.9	13.1	13.4	14.2	14.8	14.6	14.7	18.2	17.1	18.5
of which :										
i) Tur	2.4	2.4	2.7	2.3	3.1	2.3	2.5	2.9	2.7	3.1
ii) Gram	5.7	5.5	5.6	6.3	5.8	7.1	7.5	8.2	7.7	8.9
a) *Kharif*	**117.0**	**103.3**	**109.9**	**110.6**	**121.0**	**118.1**	**104.0**	**120.9**	**131.3**	**128.2**
1. Rice	78.6	72.2	78.3	80.2	82.7	84.9	75.9	80.7	92.8	92.8
2. Coarse Cereals	32.2	26.4	26.7	25.6	31.9	28.5	23.8	33.1	32.4	29.5
of which :										
i) Jowar	4.8	4.0	4.1	3.7	4.1	3.1	2.8	3.4	3.3	2.8
ii) Bajra	12.1	7.9	7.7	8.4	10.0	8.9	6.5	10.4	10.3	8.7
iii) Maize	12.7	11.5	12.2	11.6	15.1	14.1	12.3	16.6	16.5	16.0
3. Pulses	6.2	4.7	4.9	4.8	6.4	4.7	4.2	7.1	6.1	5.9
of which :										
i) Tur	2.4	2.4	2.7	2.3	3.1	2.3	2.5	2.9	2.7	3.1
b) *Rabi*	**96.2**	**95.1**	**98.7**	**106.7**	**109.8**	**116.3**	**114.2**	**123.6**	**128.0**	**127.2**
1. Rice	9.9	10.9	13.5	13.2	14.0	14.3	13.2	15.3	12.5	11.6
2. Wheat	72.2	68.6	69.4	75.8	78.6	80.7	80.8	86.9	94.9	92.5
3. Coarse Cereals	5.4	7.1	7.3	8.3	8.9	11.5	9.7	10.3	9.6	10.5
of which :										
i) Jowar	1.8	3.2	3.6	3.4	3.8	4.2	3.9	3.6	2.7	2.6
ii) Maize	2.3	2.7	2.6	3.5	3.9	5.6	4.4	5.1	5.3	6.2
4. Pulses	8.7	8.4	8.5	9.4	8.4	9.9	10.5	11.1	11.0	12.5
of which :										
i) Gram	5.7	5.5	5.6	6.3	5.8	7.1	7.5	8.2	7.7	8.9
B Non-foodgrains										
1. Oilseeds++	25.2	24.4	28.0	24.3	29.8	27.7	24.9	32.5	29.8	31.0
of which :										
i) Groundnut	8.1	6.8	8.0	4.9	9.2	7.2	5.4	8.3	7.0	4.7
ii) Rapeseed & Mustard	6.3	7.6	8.1	7.4	5.8	7.2	6.6	8.2	6.6	7.8
iii) Sunflower	0.9	1.2	1.4	1.2	1.5	1.2	0.9	0.7	0.5	0.6
iv) Soyabean	7.8	6.9	8.3	8.9	11.0	9.9	10.0	12.7	12.2	14.7
2. Sugarcane	233.9	237.1	281.2	355.5	348.2	285.0	292.3	342.4	361.0	339.0
3. Cotton @	13.7	16.4	18.5	22.6	25.9	22.3	24.0	33.0	35.2	34.0
4. Jute and Mesta +	11.2	10.3	10.8	11.3	11.2	10.4	11.8	10.6	11.4	11.3
5. Tea*	878.7	906.8	948.9	973.1	987.0	972.8	991.2	966.7	1095.5	1135.1
6. Coffee*	270.5	275.5	274.0	288.0	262.0	262.3	289.6	302.0	314.0	318.2

: Fourth Advance Estimates as on July, 2013
$: Growth rates from 2003-04 to 2007-08 and 2008-09 to 2012-13 based on Index of Agricultural Production with base triennium ending 1993-94=100 and 2007-08=100 respectively.
@ : Million bales of 170 kg. each.
+ : Million bales of 180 kg. each.
++ : For nine oilseeds out of eleven in all.
* : Million kilograms; Production for 2012-13 is provisional.

Source: Ministry of Agriculture, Government of India, Tea Board of India, Coffee Board of India.

APPENDIX TABLE 6: PROCUREMENT, OFF-TAKE AND STOCKS OF FOODGRAINS

(Million tonnes)

Year	Procurement			Off-take			Stocks*		
	Rice	Wheat	Total	Rice	Wheat	Total	Rice	Wheat	Total #
1	2	3	4	5	6	7	8	9	10
1995-96	9.93	12.33	22.16	11.63	12.72	24.35	13.06	7.76	20.82
1996-97	11.88	8.16	20.04	12.31	13.32	25.63	13.17	3.24	16.41
1997-98	14.54	9.30	23.84	11.20	7.76	18.96	13.05	5.08	18.12
1998-99	11.55	12.65	24.20	11.83	8.90	20.73	12.16	9.66	21.82
1999-00	16.62	14.14	30.76	12.42	10.63	23.05	15.72	13.19	28.91
2000-01	18.93	16.36	35.29	10.42	7.79	18.21	23.19	21.50	44.98
2001-02	21.12	20.63	41.75	15.32	15.99	31.30	24.91	26.04	51.02
2002-03	19.00	19.03	38.03	24.85	24.99	49.84	17.16	15.65	32.81
2003-04	20.78	15.80	36.58	25.04	24.29	49.33	13.07	6.93	20.65
2004-05	24.04	16.80	40.83	23.20	18.27	41.47	13.34	4.07	17.97
2005-06	26.69	14.79	41.48	25.08	17.17	42.25	13.68	2.01	16.62
2006-07	26.31	9.23	35.53	25.06	11.71	36.77	13.17	4.70	17.93
2007-08	26.29	11.13	37.42	25.22	12.20	37.43	13.84	5.80	19.75
2008-09	32.84	22.69	55.53	24.62	14.88	39.50	21.60	13.43	35.58
2009-10	32.59	25.38	57.98	26.89	21.97	48.86	26.71	16.13	43.36
2010-11	31.13	25.92	56.79	29.80	23.07	52.87	28.82	15.36	44.35
2011-12	37.91	28.33	66.35	32.12	24.16	56.28	33.35	19.95	53.44
2012-13	33.53	38.15	71.67	32.63	30.14	62.78	35.47	24.21	59.79
2013-14	7.85	25.08	32.93	2.24	1.42	3.66	29.24	40.38	69.65

* : Stocks as at end-March.
\# : Includes coarse grains and sugar.
Note: Procurement for 2013-14 is as on July 15, 2013; Off-take for 2013-14 is for April 2013; Stock for 2013-14 as on July 31, 2013.
Source: Ministry of Food, Consumer Affairs and Public Distribution, Government of India.

APPENDIX TABLE 7: TRENDS IN INDEX OF INDUSTRIAL PRODUCTION

(Base : 2004-05=100)

Sector	Mining & Quarrying		Manufacturing		Electricity		General	
Weight	14.2		75.5		10.3		100.0	
Period	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)	Index	Growth Rate (per cent)
1	2	3	4	5	6	7	8	9
2008-09	115.4	2.6	153.8	2.5	123.3	2.7	145.2	2.5
		(11.5)		(78.9)		(9.6)		(100.0)
2009-10	124.5	7.9	161.3	4.8	130.8	6.1	152.9	5.3
		(16.8)		(73.1)		(10.1)		(100.0)
2010-11	131.0	5.2	175.7	8.9	138.0	5.5	165.5	8.2
		(7.3)		(86.7)		(5.9)		(100.0)
2011-12	128.5	-2.0	181.0	3.0	149.3	8.2	170.3	2.9
		(-7.6)		(83.2)		(24.3)		(100.0)
2012-13 P	125.5	-2.3	183.3	1.3	155.2	4.0	172.2	1.1
		(-21.9)		(91.2)		(31.7)		(100.0)
2011-12								
April-June	127.6	0.7	178.2	7.7	147.9	8.3	167.9	7.0
July-September	116.0	-4.1	175.5	3.4	148.5	10.5	164.3	3.2
October-December	129.4	-4.2	178.8	1.1	149.2	9.6	168.7	1.2
January-March	140.9	-0.4	191.4	0.3	151.6	4.5	180.1	0.6
April-September	121.8	-1.6	176.9	5.5	148.2	9.4	166.1	5.1
October-March	135.1	-2.3	185.1	0.7	150.4	7.0	174.4	0.9
2012-13 P								
April-June	125.6	-1.6	176.7	-0.8	157.3	6.4	167.5	-0.2
July-September	115.2	-0.7	175.9	0.2	152.7	2.8	165.0	0.4
October-December	125.5	-3.0	183.3	2.5	155.7	4.4	172.2	2.1
January-March	135.5	-3.8	197.2	3.1	155.1	2.3	184.1	2.2
April-September	120.4	-1.1	176.3	-0.3	155.0	4.6	166.2	0.1
October-March	130.5	-3.4	190.3	2.8	155.4	3.4	178.2	2.2

P: Provisional.

Note: Figures in parentheses are relative contributions, computed as the ratio (in percentage terms) of the change in the index of the respective industry group to the change in the overall index adjusted for the weight of the relevant industry group.

Source: Central Statistics Office.

APPENDIX TABLE 8: VARIATIONS IN INDEX NUMBERS OF WHOLESALE PRICES

(Base: 2004-05 = 100)

(Per cent)

Major Group/Sub-group/Commodity	Weight	Variations					
		Year-on-Year		Average		Year-on-Year	
		March 2012	March 2013	2011-12	2012-13	July 2012	July 2013 P
1	2	3	4	5	6	7	8
All Commodities	**100.0**	**7.7**	**5.7**	**8.9**	**7.4**	**7.5**	**5.8**
I. Primary Articles	**20.1**	**10.4**	**7.4**	**9.8**	**9.8**	**10.5**	**9.0**
1. Food Articles	14.3	10.1	8.6	7.3	9.9	10.2	11.9
a) Cereals	3.4	4.6	17.9	3.9	13.4	8.1	17.7
i) Rice	1.8	5.0	17.6	3.1	12.7	9.9	21.1
ii) Wheat	1.1	-0.6	19.3	-1.8	15.5	6.4	13.4
b) Pulses	0.7	10.1	10.8	2.5	19.6	28.6	-7.4
c) Fruits and Vegetables	3.8	10.0	2.2	6.5	8.3	10.5	20.5
d) Milk	3.2	15.3	4.4	10.3	7.2	8.0	2.3
e) Eggs, Meat and Fish	2.4	17.4	11.4	12.7	14.1	16.6	10.9
f) Condiments and Spices	0.6	-13.2	3.7	-2.6	-11.8	-13.7	13.5
g) Tea and Coffee	0.2	12.6	20.2	19.0	11.9	8.1	-0.5
2. Non-Food Articles	4.3	-0.8	9.3	9.6	10.5	13.3	5.5
a) Fibres	0.9	-31.3	12.6	10.1	-4.6	5.9	11.4
i) Raw Cotton	0.7	-35.2	9.3	13.0	-8.5	4.7	10.7
b) Oilseeds	1.8	13.4	19.7	12.3	24.7	25.5	2.1
c) Sugarcane	0.6	0.0	4.9	6.4	3.7	1.2	3.6
3. Minerals	1.5	34.5	-2.0	26.6	8.2	8.7	-2.4
a) Iron Ore	0.2	2.2	-1.0	10.4	3.5	15.2	-20.3
b) Crude Petroleum	0.9	59.9	-5.4	45.2	8.1	7.0	6.0
II. Fuel and Power	**14.9**	**12.8**	**7.8**	**14.0**	**10.3**	**8.4**	**11.3**
1. Coal	2.1	13.9	-9.8	15.5	9.2	13.9	-8.9
2. Mineral Oils	9.4	14.7	10.9	16.9	10.0	4.9	16.0
3. Electricity	3.5	4.0	13.2	1.6	12.9	17.7	13.0
III. Manufactured Products	**65.0**	**5.2**	**4.3**	**7.3**	**5.4**	**5.9**	**2.8**
1. Food Products	10.0	6.2	7.5	7.1	8.1	7.0	5.0
a) Dairy Products	0.6	13.9	-1.1	12.8	2.6	6.5	0.7
b) Grain Mill Products	1.3	-1.6	13.3	0.3	6.7	1.2	12.6
c) Sugar, Khandsari and Gur	2.1	3.2	8.9	4.5	10.7	9.1	2.3
d) Edible Oils	3.0	9.9	3.6	12.6	9.1	10.8	-2.2
e) Oil Cakes	0.5	6.3	20.5	4.0	20.2	24.4	8.3
2. Beverages, Tobacco and Tobacco Products	1.8	8.9	7.9	11.7	7.4	6.2	5.8
3. Textiles	7.3	-3.4	4.3	7.5	2.2	0.9	4.9
a) Cotton Textiles	2.6	-8.7	6.2	11.3	1.7	0.6	5.9
b) Man Made Textiles	2.2	-1.6	6.2	5.6	3.4	1.5	6.0
4. Wood and Wood Products	0.6	8.6	5.6	8.1	6.2	5.6	2.9
5. Paper and Paper Products	2.0	2.5	5.7	5.4	3.5	2.6	4.3
6. Leather and Leather Products	0.8	4.9	2.3	2.3	3.2	3.9	5.5
7. Rubber and Plastic Products	3.0	1.2	3.6	6.0	2.9	2.6	5.6
8. Chemicals and Chemical Products	12.0	7.7	4.8	8.6	6.6	7.5	3.5
a) Basic Inorganic Chemicals	1.2	8.3	5.6	9.5	6.9	5.4	2.3
b) Basic Organic Chemicals	2.0	5.8	2.6	8.6	3.9	2.7	3.0
c) Fertilizers	2.7	16.9	7.9	13.5	12.4	16.8	2.8
d) Pesticides	0.5	2.0	5.4	1.1	5.5	5.2	2.6
e) Drugs and Medicines	0.5	3.9	3.3	3.7	3.8	4.8	1.9
9. Non-Metallic Mineral Products	2.6	6.7	5.4	5.7	6.8	8.4	2.2
a) Cement and Lime	1.4	6.1	5.6	4.1	7.4	10.8	0.2
10. Basic Metals, Alloys and Metal Products	10.7	10.1	0.9	11.1	6.3	9.7	-2.6
a) Ferrous Metals	8.1	9.9	-0.1	10.4	5.9	9.1	-2.6
b) Non-Ferrous Metals	1.0	1.9	2.1	2.4	2.4	2.0	1.1
c) Metal Products	1.7	15.0	3.9	18.5	9.5	15.7	-4.3
11. Machinery and Machine Tools	8.9	2.5	2.4	3.1	2.6	3.2	2.6
a) Non-Electrical Machinery	1.0	2.2	0.2	2.7	1.0	1.7	0.3
b) Electrical Machinery, Equipment and Batteries	2.3	3.6	2.4	4.7	2.5	3.3	4.4
12. Transport, Equipment and Parts	5.2	3.3	4.6	3.5	4.2	3.7	3.4

P : Provisional.

Source : Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

APPENDIX TABLE 9: VARIATIONS IN RESERVE MONEY

(Amount in ₹ billion)

Item	Outstanding as on March 31, 2013	Variations							
		Financial year				Year-on-year			
		2011-12		2012-13		Up to August 10, 2012		Up to August 9, 2013	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
Reserve Money (C.1+C.2+C.3 = S.1+S.2+S.3+S.4+S.5-S.6)	**15,148.9**	**495.2**	**3.6**	**885.4**	**6.2**	**913.9**	**6.7**	**1,040.7**	**7.1**
Components									
C.1. Currency in Circulation	11,909.8	1,175.7	12.4	1,237.5	11.6	1,252.0	12.7	1,020.1	9.2
C.2. Bankers' Deposits with the RBI	3,206.7	-672.2	-15.9	-356.2	-10.0	-352.8	-9.3	-17.9	-0.5
of which:									
Scheduled Commercial Banks	3,018.9	-653.0	-16.2	-354.7	-10.5	-334.7	-9.4	-21.1	-0.7
C.3. 'Other' Deposits with the RBI	32.4	-8.3	-22.7	4.2	14.8	14.7	135.6	38.4	150.0
Sources									
S.1. Net RBI Credit to Government (a+b)	**5,905.8**	**1,391.8**	**-**	**548.4**	**-**	**1,799.2**	**-**	**1,049.0**	**-**
a) Net RBI credit to Central Government (i-ii)	5,905.0	1,403.8	-	560.9	-	1,799.5	-	1,040.0	-
i) Claims on Central Government	6,580.2	1,587.0	-	1,051.8	-	1,799.5	-	1,039.1	-
ii) Deposits of Central Government	675.2	183.2	-	491.0	-	0.0	-	-0.9	-
b) Net RBI credit to State Governments (i-ii)	0.8	-12.0	-	-12.5	-	-0.3	-	9.0	-
i) Claims on State governments	1.2	-15.5	-	-12.5	-	-0.3	-	9.0	-
ii) Deposits of State governments	0.4	-3.6	-	0.0	-	0.0	-	0.0	-
S.2. RBI's Claims on Commercial and Co-operative banks	403.5	-3.1	-	355.1	-	66.9	-	303.8	-
of which:									
Loans and Advances to Scheduled Commercial Banks	403.4	-2.7	-	355.0	-	65.6	-	303.5	-
S.3. RBI's Credit to Commercial Sector	30.6	18.0	-	-9.0	-	33.1	-	-14.1	-
S.4. Net Foreign Exchange Assets of the RBI	**15,580.6**	**1,436.3**	**10.8**	**858.6**	**5.8**	**1,695.9**	**12.1**	**995.7**	**6.3**
S.5. Government's Currency Liabilities to the Public	153.4	7.2	5.7	19.0	14.1	16.9	13.7	16.7	11.9
S.6. Net Non-monetary Liabilities of the RBI	6,925.0	2,354.9	63.9	886.6	14.7	2,698.0	64.7	1,310.4	19.1
S.7. Net Domestic Assets of the RBI (S.1+S.2+S.3+S.5-S.6)	**-431.7**	**-941.0**	**-**	**26.8**	**-**	**-782.0**	**-**	**44.9**	**-**

Data are provisional.

APPENDIX TABLE 10: VARIATIONS IN MONEY STOCK

(Amount in ₹ billion)

Items	Outstanding as on March 31, 2013	Variations							
		Financial Year				Year-on-year			
		2011-12		2012-13		Up to July 27, 2012		Up to July 26, 2013	
		Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9	10
Narrow Money (M_1)[C.1+C.2(a)+C.3]	**18,949.4**	**981.0**	**6.0**	**1,584.9**	**9.1**	**1,581.4**	**10.0**	**1,738.0**	**10.0**
Broad Money (M_3)	**83,820.2**	**8,607.2**	**13.2**	**10,171.9**	**13.8**	**9,516.3**	**14.0**	**9,723.5**	**12.5**
(C.1+C.2+C.3 = S.1+S.2+S.3+S.4-S.5)									
Components									
C.1. Currency with the Public	11,447.4	1,108.1	12.2	1,220.9	11.9	1,234.6	13.2	998.1	9.4
C.2. Aggregate Deposits with Banks (a+b)	72,340.4	7,507.4	13.4	8,946.8	14.1	8,269.7	14.1	8,689.2	13.0
a) Demand Deposits	7,469.6	-118.8	-1.6	359.8	5.1	334.8	5.2	703.7	10.4
b) Time Deposits	64,870.9	7,626.2	15.7	8,587.0	15.3	7,934.9	15.2	7,985.5	13.2
C.3. 'Other' Deposits with the RBI	32.4	-8.3	-22.7	4.2	14.8	12.0	86.9	36.2	140.6
Sources									
S.1. Net Bank Credit to Government (A+B)	**27,072.1**	**3,878.0**	**19.5**	**3,355.1**	**14.1**	**4,245.1**	**19.8**	**3,960.3**	**15.4**
A. Net RBI credit to Government (a+b)	5,905.8	1,391.8	-	548.4	-	1,750.1	-	1,229.5	-
a. Net RBI credit to Central Government	5,905.0	1,403.8	-	560.9	-	1,742.4	-	1,233.6	-
b. Net RBI credit to State Governments	0.8	-12.0	-	-12.5	-	7.8	-	-4.1	-
B. Other banks' credit to Government	21,166.3	2,486.1	15.7	2,806.7	15.3	2,495.0	14.1	2,730.8	13.5
S.2. Bank Credit to Commercial Sector (a+b)	**56,646.6**	**7,217.7**	**17.0**	**7,062.2**	**14.2**	**7,576.6**	**17.5**	**7,269.5**	**14.3**
A. RBI's credit to commercial sector	30.6	18.0	83.0	-9.0	-22.8	29.7	164.9	-12.6	-26.4
B. Other banks' credit to commercial sector	56,616.1	7,199.7	17.0	7,071.2	14.3	7,546.9	17.5	7,282.1	14.3
S.3. Net Foreign Exchange Assets of Banking Sector (A+B)	**16,366.6**	**1,504.4**	**10.8**	**928.8**	**6.0**	**2,028.6**	**14.3**	**773.0**	**4.8**
A. RBI's net foreign exchange assets	15,580.6	1,436.3	10.8	858.6	5.8	1,933.6	14.0	496.3	3.2
B. Other banks' net foreign exchange assets	786.0	68.1	10.5	70.1	9.8	95.0	22.9	276.8	54.4
S.4. Government's Currency Liabilities to the Public	**153.4**	**7.2**	**5.7**	**19.0**	**14.1**	**16.9**	**13.7**	**16.7**	**11.9**
S.5. Banking Sector's Net Non-Monetary Liabilities (A+B)	**16,418.5**	**4,000.0**	**35.6**	**1,193.2**	**7.8**	**4,351.0**	**40.0**	**2,296.1**	**15.1**
A. Net non-monetary liabilities of RBI	6,925.0	2,354.9	63.9	886.6	14.7	2,917.0	71.3	980.8	14.0
B. Net non-monetary liabilities of other banks (residual)	9,493.4	1,645.1	21.8	306.6	3.3	1,433.9	21.1	1,315.3	16.0

Note : Data are provisional.

APPENDIX TABLE 11: SECTORAL DEPLOYMENT OF GROSS BANK CREDIT

(Amount in ₹ billion)

Sector	Outstanding as on			Variation during			
	Mar 25, 2011	Mar 23, 2012	Mar 22, 2013	2011-12		2012-13	
				Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8
I Gross Bank Credit (II + III)	37,494.7	43,793.0	49,641.8	6,298.3	16.8	5,848.7	13.4
II Food Credit	623.8	819.4	946.1	195.6	31.4	126.7	15.5
III Non-food Credit (1 to 4)	36,870.9	42,973.6	48,695.6	6,102.7	16.6	5,722.0	13.3
1 Agriculture & Allied Activities	4,834.7	5,477.3	5,899.1	642.7	13.3	421.8	7.7
2 Industry (Micro & Small, Medium and Large)	16,131.8	19,407.9	22,301.8	3,276.1	20.3	2,893.9	14.9
3 Services	8,907.8	10,188.5	11,485.8	1,280.7	14.4	1,297.4	12.7
of which:							
3.1 Transport Operators	700.3	763.9	796.3	63.7	9.1	32.4	4.2
3.2 Professional Services	452.3	479.8	564.2	27.5	6.1	84.5	17.6
3.3 Trade	1,861.1	2,254.3	2,759.5	393.3	21.1	505.2	22.4
3.4 Commercial Real Estate	974.6	1,127.0	1,260.7	152.4	15.6	133.7	11.9
3.5 Non-Banking Financial Companies (NBFCs)	1,841.6	2,281.2	2,569.5	439.5	23.9	288.4	12.6
4 Personal Loans	6,996.6	7,899.9	9,008.9	903.3	12.9	1,109.0	14.0
of which:							
4.1 Consumer Durables	62.9	71.3	83.8	8.4	13.4	12.5	17.5
4.2 Housing (Including Priority Sector Housing)	3,590.7	4,033.8	4,599.7	443.1	12.3	565.9	14.0
4.3 Advances against Fixed Deposits (Including FCNR (B), NRNR Deposits etc.)	495.1	570.4	610.9	75.4	15.2	40.4	7.1
4.4 Credit Card Outstanding	181.0	204.4	249.1	23.4	12.9	44.8	21.9
4.5 Education	430.1	500.6	549.7	70.5	16.4	49.1	9.8
Memo							
5 Priority Sector	12,693.5	14,227.4	15,398.0	1,533.9	12.1	1,170.5	8.2
of which:							
5.1 Housing	2,408.2	2,665.2	2,672.0	257.0	10.7	6.8	0.3

Note : 1. Data are provisional and relate to select banks which cover 95 per cent of total non-food credit extended by all scheduled commercial banks.

2. Gross bank credit data include bills rediscounted with Reserve Bank, Exim Bank, other financial institutions and inter-bank participations.

APPENDIX TABLE 12: CAPITAL MARKET - PRIMARY AND SECONDARY

(Amount in ₹ billion)

Items	2011-12		2012-13	
	No of Issues	Amount	No of Issues	Amount
1	2	3	4	5
I. PRIMARY MARKET				
A. Prospectus and Rights Issues*	**71**	**484.7**	**68**	**308.7**
1. Private Sector (a+b)	**63**	**156.8**	**54**	**161.0**
a) Financial	24	113.2	12	44.5
b) Non- Financial	39	43.6	42	116.5
2. Public Sector (a+b+c)	**8**	**327.9**	**14**	**147.6**
a) Public Sector Undertakings	1	1.3	3	1.9
b) Government Companies	1	100	0	0.0
c) Banks/Financial Institutions	6	226.6	11	145.7
3. Total (1+2, i+ii, a+b)	**71**	**484.7**	**68**	**308.7**
Instrument Type				
(i) Equity	51	128.6	48	138.8
(ii) Debt	20	356.1	20	169.8
Issuer Type				
(a) IPOs	34	59.0	32	49.4
(b) Listed	37	425.6	36	259.3
B. Euro Issues (ADRs and GDRs)	**22**	**27.1**	**5**	**10.4**
C. Private Placement&				
1. Private Sector (a+b)	**592**	**629.4**	**732&**	**1380.0&**
a) Financial	530	389.4	603	843.1
b) Non- Financial	62	240.0	129	536.9
2. Public Sector (a+b)	**266**	**1,553.1**	**302**	**1,873.6**
a) Financial	231	1,235.1	246	1372.0
b) Non- Financial	35	318.0	56	501.6
3. Total (1+2, i+ii)	**858**	**2,182.5**	**1034**	**3253.6**
(i) Equity	6	51.6	23	66.8
(ii) Debt	852	2,130.9	1011	3186.9
D. Mutual Funds Mobilisation (Net) #		**-220.2**		**765.4**
1. Private Sector		-154.5		637.9
2. Public Sector		-65.8		127.5
II. SECONDARY MARKET				
BSE				
BSE Sensex: End-Period		17,404.2		18,835.8
Period Average		17,422.9		18,202.1
Price Earning Ratio@		17.8		16.9
Market Capitalisation to GDP ratio (%)		69.2		63.7
Turnover				
Cash Segment		6,670.2		5,486.3
Derivatives Segment		8,084.8		71,635.8
NSE				
S&P CNX Nifty: End-Period		5,295.6		5,682.6
Period Average		5,242.7		5,520.3
Price Earning Ratio@		18.7		17.6
Market Capitalisation to GDP ratio (%)		67.9		62.3
Turnover				
Cash Segment		28,108.9		27,082.8
Derivatives Segment		3,13,497.3		3,15,330

* : Excluding Offer for sale. - : Nil/Negligible. @ : As at end Period. # : Net of redemptions.
&: Data for 2012-13 are provisional.
Source: SEBI, NSE, BSE and Various Merchant Bankers.

APPENDIX TABLE 13:TURNOVER IN INDIAN DERIVATIVES MARKET

(₹ billion)

Year/Month	Equity Derivatives				Currency Derivatives			Interest Rate Derivatives
	Index Futures	Index Options	Stock Futures	Stock Options	Forward	Swap	Exchange Traded Currency Options and Futures	Interest Rate Swap
1	2	3	4	5	6	7	8	9
2010-11	**43,569**	**172,694**	**54,958**	**10,303**	**28,902**	**41,125**	**84,153**	**47,464**
2011-12	**37,564**	**233,384**	**40,849**	**9,786**	**24,134**	**46,876**	**98,964**	**51,238**
2012-13	**26,496**	**298,091**	**42,273**	**20,107**	**53,185**	**50,616**	**87,105**	**41,953**
2011-12								
Apr	2,823	16,460	3,532	700	2,060	3,671	7,223	3,754
May	3,057	18,929	3,367	701	2,172	4,749	10,005	4,789
Jun	2,652	17,846	3,227	658	2,400	4,956	10,390	5,368
Jul	2,657	18,677	3,499	817	2,470	3,936	12,433	4,375
Aug	3,472	22,095	3,338	733	2,588	4,062	13,655	6,488
Sep	3,473	20,859	3,265	764	2,309	3,741	9,779	4,534
Oct	2,687	16,217	2,813	666	1,542	3,119	5,778	3,545
Nov	3,314	20,294	3,066	722	1,762	3,575	6,362	2,833
Dec	3,447	21,157	2,821	730	1,584	3,458	6,084	2,993
Jan	2,974	15,631	3,528	1,074	1,476	3,940	6,113	4,999
Feb	3,252	21,758	4,536	1,216	1,333	3,720	5,179	3,531
Mar	3,756	23,461	3,856	1,005	2,438	3,948	5,963	4,027
2012-13								
Apr	2,606	19,120	3,039	1,006	4,386	3,599	4,590	3,129
May	2,869	26,414	3,030	1,129	5,033	4,249	7,928	3,612
Jun	2,851	26,752	3,048	1,081	4,544	4,169	6,663	5,437
Jul	2,421	27,177	3,358	1,356	4,467	4,598	7,667	4,989
Aug	2,084	26,385	3,157	1,439	4,204	3,722	5,401	3,402
Sep	2,115	21,712	3,499	1,647	4,675	4,275	6,521	3,219
Oct	2,196	23,146	3,881	2,027	4,423	4,331	8,021	2,644
Nov	1,720	23,252	3,494	1,797	3,931	3,705	7,333	1,177
Dec	1,789	27,911	3,924	1,779	4,145	3,986	7,093	1,955
Jan	1,938	28,851	4,960	2,995	4,695	4,996	9,461	5,458
Feb	1,832	20,629	3,619	1,967	3,906	4,170	8,117	2,861
Mar	2,075	26,743	3,263	1,884	4,776	4,817	8,310	4,071
2013-14								
Apr	2,159	24,926	3,715	2,442	3,243	3,678	7,428	4,131
May	2,528	32,336	4,166	2,270	1,515	3,492	9,850	4,726
Jun	2,529	31,002	3,473	1,637	1,533	3,281	12,808	5,686
Jul	2,637	36,733	4,354	2,475	-	-	-	-

Source: RBI, BSE,NSE, CCIL, USE and SEBI.
- Not available

APPENDIX TABLE 14: INDICES OF REAL EFFECTIVE EXCHANGE RATE (REER) AND NOMINAL EFFECTIVE EXCHANGE RATE (NEER) OF THE INDIAN RUPEE

Year/Month	36 -Currency Trade-based weights		6 - Currency Trade-based weights	
	(Base 2004-05=100)		(Base 2004-05=100)	
	REER	NEER	REER	NEER
1	2	3	4	5
2004-05	100.0	100.0	100.0	100.0
2005-06	103.1	102.2	105.2	103.0
2006-07	101.2	97.6	104.3	98.1
2007-08	108.5	104.8	112.8	104.6
2008-09	98.1	93.3	102.3	90.4
2009-10	95.7	90.9	102.0	87.1
2010-11	103.9	93.5	114.9	91.8
2011-12 (P)	101.4	87.4	111.5	84.4
2012-13 (P)	94.6	78.3	105.0	75.6
2011-12 (P)				
April	106.6	92.8	117.3	90.1
May	105.2	91.8	116.3	89.0
June	105.4	91.8	115.9	89.0
July	106.6	92.4	117.4	90.0
August	104.8	90.5	115.3	87.7
September	101.9	87.6	112.1	84.6
October	99.2	85.2	108.5	81.9
November	96.7	82.8	105.9	79.6
December	93.9	80.6	103.3	77.6
January	97.0	83.0	106.4	79.9
February	100.9	86.1	110.6	82.8
March	98.5	84.0	109.3	81.2
2012-13 (P)				
April	97.0	81.3	107.1	78.7
May	93.4	78.2	103.6	75.5
June	92.0	76.8	101.6	74.0
July	93.5	77.6	103.7	75.2
August	93.5	77.2	104.1	74.8
September	94.8	77.9	105.2	75.0
October	96.9	80.0	107.2	76.9
November	94.3	77.7	104.6	74.7
December	93.8	77.5	104.3	74.6
January	95.0	78.0	105.2	75.0
February	96.0	79.0	106.5	76.0
March	95.1	78.7	106.5	76.0
2013-14 (P)				
April	95.2	78.6	106.7	76.0
May	94.5	78.1	105.6	75.2
June	89.3	73.8	98.8	70.5

P : Provisional.

Note : For detailed methodology of compilation of indices, see “Revision of Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER) Indices”, Reserve Bank of India Bulletin, December 2005.

APPENDIX TABLE 15: KEY FISCAL INDICATORS

(As per cent to GDP)

Year	Primary Deficit	Revenue Deficit	Gross Fiscal deficit	Outstanding Liabilities@	Outstanding Liabilities$
1	2	3	4	5	6
			Centre		
1990-91	3.9	3.2	7.6	53.7	59.6
1995-96	0.8	2.4	4.9	49.4	57.3
2000-01	0.9	3.9	5.5	53.9	59.6
2007-08	-0.9	1.1	2.5	56.9	58.9
2008-09	2.6	4.5	6.0	56.1	58.6
2009-10	3.2	5.2	6.5	54.5	56.3
2010-11	1.8	3.2	4.8	50.5	52.1
2011-12	2.7	4.4	5.7	50.2	51.9
2012-13 RE	2.0 (1.8)	3.9 (3.6)	5.2 (4.9)	50.3	51.9
2013-14 BE	1.5	3.3	4.8	49.7	51.1
			States*		
1990-91	1.7	0.9	3.2	21.9	21.9
1995-96	0.7	0.7	2.5	20.3	20.3
2000-01	1.7	2.6	4.1	27.4	27.4
2007-08	-0.5	-0.9	1.5	26.6	26.6
2008-09	0.6	-0.2	2.4	26.1	26.1
2009-10	1.2	0.5	2.9	25.5	25.5
2010-11	0.5	0.0	2.1	23.5	23.5
2011-12	0.3	-0.3	1.9	22.3	22.3
2012-13 RE	0.8	-0.2	2.3	22.0	22.0
2013-14 BE	0.6	-0.4	2.2	21.7	21.7
			Combined*		
1990-91	4.9	4.1	9.1	62.9	68.9
1995-96	1.5	3.1	6.3	59.4	67.3
2000-01	3.5	6.4	9.2	68.2	74.0
2007-08	-1.2	0.2	4.0	69.5	71.4
2008-09	3.3	4.3	8.3	69.7	72.2
2009-10	4.5	5.7	9.3	68.8	70.6
2010-11	2.4	3.2	6.9	64.0	65.5
2011-12	3.2	4.1	7.6	63.8	65.5
2012-13 RE	2.9	3.7	7.5	64.3	65.8
2013-14 BE	2.2	2.9	6.9	64.8	66.2

– : Not available. RE : Revised Estimates. BE : Budget Estimates.
* : Data from 2011-12 onwards are provisional and pertains to budgets of 27 state governments.
@ : includes external liabilities of the centre calculated at historical exchange rate.
$: Includes external liabilities of the centre calculated at current exchange rate.

Note: 1. Data on combined deficit/liabilities indicators are net of inter-governmental transactions between the centre and the state governments *viz.*, (a) NSSF investment in state governments special securities (b) Loans advance by the centre to states and (c) State governments' investment in centre's treasury bills.Combined liabilities of 2013-14 are adjusted for states investment in Centre's treasury bills as on July 31, 2013.
2. Combined and Centre's liabilities are inclusive of securities/treasury bills under market stabilisation scheme (MSS).
3. Negative sign (-) indicates surplus in deficit indicators.
4. Figure in brackets are provisional accounts.

Source: Budget documents of the Central and State governments.

APPENDIX TABLE 16: BUDGETARY OPERATIONS OF THE STATE GOVERNMENTS

A : Measures of Deficit of State Governments (₹ billion)

Year	Fiscal Deficit		Primary Deficit		Net Reserve Bank Credit #	Revenue Deficit
	Gross	Net	Gross	Net		
1	2	3	4	5	6	7
1990-91	187.9	145.3	101.3	82.8	4.2	53.1
1995-96	308.7	268.5	90.3	107.9	0.2	86.2
2000-01	879.2	855.8	369.4	455.5	-10.9	553.2
2007-08	754.6	689.6	-243.8	-182.3	11.4	-429.4
2008-09	1,345.9	1,296.9	316.3	430.9	-16.1	-126.7
2009-10	1,888.2	1,794.2	760.1	819.1	1.9	310.2
2010-11	1,614.6	1,476.4	366.4	384.4	25.2	-30.5
2011-12	1,677.8	1,460.8	313.7	282.4	-12.0	-232.5
2012-13 (RE)	2,322.0	2,106.2	783.5	761.4	-3.5	-189.2
2013-14 (BE)	2,446.2	2,224.1	717.8	692.4	-	-465.8
As Percentage to GDP at Current Market Prices						
1990-91	3.2	2.5	1.7	1.4	0.1	0.9
1995-96	2.5	2.2	0.7	0.9	0.0	0.7
2000-01	4.1	3.9	1.7	2.1	-0.1	2.6
2007-08	1.5	1.4	-0.5	-0.4	0.0	-0.9
2008-09	2.4	2.3	0.6	0.8	0.0	-0.2
2009-10	2.9	2.8	1.2	1.3	0.0	0.5
2010-11	2.1	1.9	0.5	0.5	0.0	0.0
2011-12	1.9	1.6	0.3	0.3	0.0	-0.3
2012-13 (RE)	2.3	2.1	0.8	0.8	0.0	-0.2
2013-14 (BE)	2.2	2.0	0.6	0.6	-	-0.4

B : Select Budgetary Variables of State Governments (Per cent)

Item	1990-2000 (Average)	2011-12	2012-13 (RE)	2013-14 (BE)
1	2	3	4	5
1. Revenue Deficit/GFD	36.2	-13.9	-8.1	-19.0
2. Capital Outlay/GFD	49.2	101.3	98.9	110.1
3. Non-Developmental Revenue Expenditure/Revenue Receipts	39.8	35.7	33.6	33.7
4. Interest Payments/Revenue Receipts	16.6	12.5	11.5	11.4
5. States' Own Revenue/GDP	6.7	7.3	7.8	7.8
a) States' Own Tax Revenue/GDP	5.0	6.2	6.6	6.7
b) States' Own Non Tax Revenue/GDP	1.7	1.1	1.2	1.1
6. Current Transfers/GDP	4.3	4.9	5.5	5.5
a) States share in Central taxes/GDP	2.4	2.8	2.9	3.0
b) Grants from Centre/GDP	1.9	2.0	2.6	2.5
7. Developmental Expenditure/GDP	9.7	9.5	10.7	10.4
of which :				
Social Sector Expenditure/GDP	5.5	5.8	6.7	6.6
8. Non-Developmental Expenditure/GDP	4.4	4.4	4.7	4.2
9. Committed Expenditure/GDP	3.6	3.9	4.0	4.0
10. Capital Outlay/GDP	1.4	1.9	2.3	2.4

RE : Revised Estimates. BE : Budget Estimates. GFD : Gross Fiscal Deficit. .. : Not Available.

: Data pertain to state governments having accounts with the Reserve Bank.

Note: 1. Negative sign (-) indicates surplus in deficit indicators.

2. Committed expenditure comprises expenditure on interest payments, pensions and administrative services.
3. Current transfers includes states share in Central taxes and grants from the Centre.
4. The net Reserve Bank credit to state governments refers to variations in loans and advances given to them by the Reserve Bank net of their incremental deposits with the Reserve Bank.

Source: Budget documents of the 27 state governments and the Reserve Bank records.

APPENDIX TABLE 17: INDIA'S EXPORTS AND IMPORTS

(US $ million)

Exports of principal commodities					
Commodity/Group	April - March				
	2008-09	2009-10R	2010-11R	2011-12P	2012-13
1	2	3	4	5	6
I. Primary Products	**25,335.4**	**26,396.5**	**32,844.2**	**45,923.6**	**46,200.0**
A. Agricultural & Allied Products	17,534.9	17,734.1	24,207.6	37,473.3	40,641.5
B. Ores & Minerals	7,800.5	8,662.5	8,636.6	8,450.3	5,558.5
II. Manufactured Goods	**123,148.9**	**115,180.7**	**157,994.3**	**185,422.6**	**183,718.8**
A. Leather & Manufactures	3,556.0	3,361.1	3,910.6	4,793.6	4,870.2
B. Chemicals & Related Products	22,708.1	22,908.8	28,871.0	37,104.6	39,929.7
C. Engineering Goods	47,285.6	38,271.3	58,137.9	67,832.2	65,288.6
D. Textiles & Textile Products	20,016.4	19,853.0	24,225.0	28,026.6	27,343.0
E. Gems & Jewellery	27,955.2	28,996.3	40,476.1	44,840.5	43,457.4
F. Handicrafts	301.0	224.8	256.9	277.9	200.2
III. Petroleum Products	**27,547.0**	**28,192.0**	**41,480.0**	**56,038.5**	**60,290.7**
IV. Others	**9,263.7**	**8,982.2**	**18,817.7**	**18,579.2**	**10,361.1**
Total Exports (I+II+III+IV)	**185,295.0**	**178,751.4**	**251,136.2**	**305,963.9**	**300,570.6**
Imports of principal commodities					
I. Bulk Imports	**136,430.0**	**125,314.3**	**151,167.1**	**214,933.0**	**229,572.6**
A. Petroleum, Petroleum Products & Related Material	91,310.6	87,135.1	105,964.4	154,967.5	169,319.3
B. Bulk Consumption Goods	4,975.3	9,012.7	8,854.8	11,654.7	14,219.7
C. Other Bulk Items	40,144.0	29,166.5	36,347.9	48,310.7	46,033.5
II. Non-Bulk Imports	**167,266.3**	**163,058.6**	**218,602.0**	**274,386.5**	**261,914.6**
A. Capital Goods	71,833.1	65,865.0	78,546.1	99,223.3	91,449.7
B. Mainly Export Related Items	31,930.8	31,270.0	53,608.3	51,904.1	46,863.7
C. Others	63,502.4	65,923.6	86,447.6	123,259.1	123,601.3
Total Imports (I+II)	**303,696.3**	**288,372.9**	**369,769.1**	**489,319.5**	**491,487.2**

P : Provisional. R : Revised.
Source : DGCI & S.

APPENDIX TABLE 18: INDIA'S OVERALL BALANCE OF PAYMENTS

Item	₹ billion			US $ million		
	2010-11 PR	2011-12 PR	2012-13 P	2010-11 PR	2011-12 PR	2012-13 P
1	2	3	4	5	6	7
A. CURRENT ACCOUNT						
1 Exports, f.o.b.	11,657	14,825	16,677	256,159	309,774	306,581
2 Imports, c.i.f.	17,461	23,946	27,321	383,481	499,533	502,237
3 Trade Balance	-5,805	-9,121	-10,645	-127,322	-189,759	-195,656
4 Invisibles, Net	3,608	5,362	5,848	79,269	111,604	107,493
a) 'Non-Factor' Services	2,006	3,078	3,532	44,081	64,098	64,915
of which :						
Software Services	2,417	2,992	3,583	53,100	62,212	65,867
b) Income	-818	-768	-1,168	-17,952	-15,988	-21,455
c) Private Transfers	2,420	3,050	3,501	53,125	63,469	64,342
d) Official Transfers	1	2	-17	16	25	-309
5 Current Account Balance	-2,197	-3,760	-4,796	-48,053	-78,155	-88,163
B. CAPITAL ACCOUNT						
1 Foreign Investment, Net (a+b)	1,935	1,887	2,547	42,127	39,231	46,711
a) Direct Investment	541	1,032	1,082	11,834	22,061	19,819
of which :						
i) In India	1,324	1,550	1,470	29,029	32,952	26,953
Equity	718	1,068	875	15,737	22,833	16,032
Re-invested Earnings	597	393	537	13,102	8,205	9,880
Other Capital	9	89	57	191	1,914	1,041
ii) Abroad	-783	-518	-388	-17,195	-10,892	-7,134
Equity	-367	-183	-87	-8,048	-3,874	-1,614
Re-invested Earnings	-71	-58	-65	-1,569	-1,208	-1,189
Other Capital	-345	-277	-236	-7,578	-5,809	-4,331
b) Portfolio Investment	1394	856	1,465	30,293	17,170	26,891
In India	1447	867	1,513	31,471	17,409	27,770
Abroad	-53	-12	-48	-1,179	-239	-878
2 External Assistance, Net	225	113	53	4,941	2,296	982
Disbursements	359	274	257	7,882	5,646	4,735
Amortisation	134	161	204	2,941	3,350	3,752
3 Commercial Borrowings, Net	554	479	461	12,160	10,344	8,485
Disbursements	1098	1,562	1,502	24,123	32,590	27,617
Amortisation	544	1,083	1,041	11,963	22,247	19,132
4 Short Term Credit, Net	549	306	1,177	12,034	6,668	21,657
5 Banking Capital	220	710	903	4,962	16,226	16,570
of which :						
NRI Deposits, Net	148	582	807	3,238	11,918	14,842
6 Rupee Debt Service	-3	-4	-3	-68	-79	-58
7 Other Capital, Net @	-567	-301	-279	-12,416	-6,929	-5,047
8 Total Capital Account	2,912	3,190	4,857	63,740	67,755	89,300
C. Errors & Omissions	**-121**	**-116**	**146**	**-2,636**	**-2,432**	**2,689**
D. Overall Balance [A(5)+B(8)+C]	**595**	**-685**	**207**	**13,050**	**-12,831**	**3,826**
E. Monetary Movements (F+G)	**-595**	**685**	**-207**	**-13,050**	**12,831**	**-3,826**
F. IMF, Net	**-**	**-**	**-**	**-**	**-**	**-**
G. Reserves and Monetary Gold (Increase -, Decrease +)	**-595**	**685**	**-207**	**-13,050**	**12,831**	**-3,826**
of which : SDR allocation	-	-	-	-	-	-

P : Provisional. PR : Partially Revised. -: Nil/Negligible

@ : Includes delayed export receipts, advance payments against imports, net funds held abroad and advances received pending issue of shares under FDI.

Note : 1. Gold and silver brought by returning Indians have been included under imports, with a contra entry in private transfer receipts.

2. Data on exports and imports differ from those given by DGCI&S on account of differences in coverage, valuation and timing.

APPENDIX TABLE 19: FOREIGN DIRECT INVESTMENT FLOWS TO INDIA: COUNTRY-WISE AND INDUSTRY-WISE

(US $ million)

Source/Industry	2008-09	2009-10	2010-11	2011-12 P	2012-13 P
1	2	3	4	5	6
Total FDI	22,697	22,461	14,939	23,473	18,286
Country-wise Inflows					
Mauritius	10,165	9,801	5,616	8,142	8,059
Singapore	3,360	2,218	1,540	3,306	1,605
U.S.A	1,236	2,212	1,071	994	478
Cyprus	1,211	1,623	571	1568	415
Japan	266	971	1,256	2,089	1,340
Netherlands	682	804	1,417	1,289	1,700
United Kingdom	690	643	538	2760	1,022
Germany	611	602	163	368	467
UAE	234	373	188	346	173
France	437	283	486	589	547
Switzerland	135	96	133	211	268
Hong Kong SAR	155	137	209	262	66
Spain	363	125	183	251	348
South Korea	95	159	136	226	224
Luxembourg	23	40	248	89	34
Others	3,034	2,374	1,184	983	1,540
Sector-wise Inflows					
Manufacture	4,777	5,143	4,793	9,337	6528
Construction	2,237	3,516	1,599	2,634	1319
Financial Services	4,430	2,206	1,353	2,603	2760
Real Estate Activities	1,886	2,191	444	340	197
Electricity and other Energy Generation, Distribution & Transmission	669	1,877	1,338	1,395	1653
Communication Services	2,067	1,852	1,228	1,458	92
Business Services	643	1,554	569	1590	643
Miscellaneous Services	1,458	888	509	801	552
Computer Services	1,647	866	843	736	247
Restaurants & Hotels	343	671	218	870	3129
Retail & Wholesale Trade	294	536	391	567	551
Mining	105	268	592	204	69
Transport	401	220	344	410	213
Trading	400	198	156	6	140
Education, Research & Development	243	91	56	103	150
Others	1,097	384	506	419	43

P : Provisional.

Note : Includes FDI through SIA/FIPB and RBI routes only.

APPENDIX TABLE 20: INDIA'S FOREIGN EXCHANGE RESERVES

End of Month	Foreign Exchange Reserves (₹ billion)					Foreign Exchange Reserves (US $ million)					Total Foreign Exchange Reserves (in SDR million)	Movement in Foreign Exchange Reserves (in SDR million)*
	SDRs	Gold #	Foreign Currency Assets	Reserve Tranche Position in IMF	Total (2+3+4+5)	SDRs	Gold #	Foreign Currency Assets	Reserve Tranche Position in IMF	Total (7+8+ 9+10)		
1	2	3	4	5	6	7	8	9	10	11	12	13
Mar-94	3.39	128	473	9	614	108	4,078	15,068	299	19,553	13,841	6,595
Mar-95	0.23	138	660	11	808	7	4,370	20,809	331	25,517	16,352	2,511
Mar-96	2.80	157	584	11	754	82	4,561	17,044	310	21,997	15,054	-1,298
Mar-97	0.07	146	804	10	960	2	4,054	22,367	291	26,714	19,272	4,218
Mar-98	0.04	134	1025	11	1170	1	3,391	25,975	283	29,650	22,200	2,929
Mar-99	0.34	126	1254	28	1408	8	2,960	29,522	663	33,153	24,413	2,213
Mar-00	0.16	130	1529	29	1688	4	2,974	35,058	658	38,694	28,728	4,315
Mar-01	0.11	127	1845	29	2001	2	2,725	39,554	616	42,897	34,034	5,306
Mar-02	0.50	149	2491	30	2670	10	3,047	51,049	610	54,716	43,876	9,842
Mar-03	0.19	168	3415	32	3615	4	3,534	71,890	672	76,100	55,394	11,518
Mar-04	0.10	182	4662	57	4901	2	4,198	107,448	1,311	112,959	76,298	20,904
Mar-05	0.20	197	5931	63	6191	5	4,500	135,571	1,438	141,514	93,666	17,368
Mar-06	0.12	257	6473	34	6764	3	5,755	145,108	756	151,622	105,231	11,565
Mar-07	0.08	296	8366	20	8682	2	6,784	191,924	469	199,179	131,890	26,659
Jun-07	0.06	277	8399	19	8694	1	6,787	206,114	460	213,362	140,780	8,890
Sep-07	0.08	293	9536	17	9846	2	7,367	239,955	438	247,762	159,164	27,274
Dec-07	0.13	328	10505	17	10850	3	8,328	266,553	432	275,316	174,223	42,333
Mar-08	0.74	401	11960	17	12380	18	10,039	299,230	436	309,723	188,339	56,449
Jun-08	0.48	395	12986	23	13404	11	9,208	302,340	528	312,087	191,040	2,701
Sep-08	0.17	402	13016	22	13441	4	8,565	277,300	467	286,336	183,876	-4,463
Dec-08	0.13	411	11948	42	12402	3	8,485	246,603	877	255,968	166,184	-22,155
Mar-09	0.06	488	12301	50	12839	1	9,577	241,426	981	251,985	168,544	-19,795
Jun-09	0.02	469	12163	60	12692	1	9,800	254,093	1,248	265,142	170,814	2,270
Sep-09	251	496	12700	66	13513	5,224	10,316	264,373	1,365	281,278	177,533	8,989
Dec-09	241	854	12071	67	13232	5,169	18,292	258,583	1,426	283,470	180,820	12,276
Mar-10	226	812	11497	62	12597	5,006	17,986	254,685	1,380	279,057	183,803	15,259
Jun-10	227	927	11633	61	12848	4,875	19,894	249,628	1,313	275,710	186,429	2,626
Sep-10	230	922	11914	90	13156	5,130	20,516	265,231	1,993	292,870	188,197	4,394
Dec-10	228	1007	12001	88	13324	5,078	22,470	267,814	1,972	297,334	193,070	9,267
Mar-11	204	1026	12249	132	13610	4,569	22,972	274,330	2,947	304,818	192,254	8,451
Jun-11	206	1103	12676	133	14119	4,614	24,668	283,458	2,975	315,715	197,266	5,012
Sep-11	220	1403	13490	128	15241	4,504	28,667	275,699	2,612	311,482	199,461	7,207
Dec-11	236	1418	14006	144	15805	4,429	26,620	262,933	2,706	296,688	193,248	994
Mar-12	229	1383	13305	145	15061	4,469	27,023	260,069	2,836	294,397	190,045	-2,209
Jun-12	247	1451	14455	163	16315	4,379	25,760	256,703	2,895	289,736	190,924	879
Sep-12	235	1483	13699	120	15536	4,451	28,133	259,958	2,270	294,812	191,165	1,120
Dec-12	243	1491	14333	127	16194	4,436	27,220	261,656	2,326	295,638	192,357	2,312
Mar-13	235	1397	14126	125	15884	4,328	25,692	259,726	2,301	292,046	194,801	4,756

#　:　Gold has been valued close to international market price.

*　:　Variations over the previous March.

Note :

1. Gold holdings include acquisition of gold worth US$ 191 million from the Government during 1991-92, US$ 29.4 million during 1992-93, US$ 139.3 million during 1993-94, US$ 315.0 million during 1994-95 and US$ 17.9 million during 1995-96. On the other hand, 1.27 tonnes of gold amounting to ₹435.5 million (US$11.97 million), 38.9 tonnes of gold amounting to ₹14.85 billion (US$ 376.0 million) and 0.06 tonnes of gold amounting to ₹21.3 million (US$ 0.5 million) were repurchased by the Central Government on November 13, 1997, April 1, 1998 and October 5, 1998 respectively for meeting its redemption obligation under the Gold Bond Scheme.
2. Conversion of foreign currency assets into US dollar was done at exchange rates supplied by the IMF up to March 1999. Effective April 1, 1999, the conversion is at New York closing exchange rate.
3. Foreign currency assets excludes US$ 250.00 million (as also its equivalent in Indian Rupee) invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009, excludes US$ 380.00 million since September 16, 2011, US$ 550.00 million since February 27, 2012, US$ 673.00 million since 30th March 2012, US $ 790 million since July 5th, 2012 and US $ 950 million since March 8, 2013.

APPENDIX TABLE 21: INDIA'S EXTERNAL DEBT

(As at end-March)

Item	₹ billion			US $ million		
	2011 R	2012 PR	2013 P	2011 R	2012 PR	2013 P
1	2	3	4	5	6	7
I. Multilateral	**2,166.7**	**2,570.9**	**2,796.0**	**48,475**	**50,453**	**51,642**
A. Government borrowing	1,903.3	2,225.8	2,357.0	42,579	43,686	43,539
i) Concessional	1,206.5	1,386.9	1,431.2	26,992	27,221	26,442
ii) Non-concessional	696.7	838.9	925.3	15,587	16,465	17,096
B. Non-Government borrowing	263.5	345.1	439.0	5,896	6,767	8,103
i) Concessional	-	-	0.0	-	-	0
ii) Non-concessional	263.5	345.1	439.0	5,896	6,767	8,103
II. Bilateral	**1,149.1**	**1,371.1**	**1,358.0**	**25,712**	**26,888**	**25,065**
A. Government borrowing	804.1	916.4	880.0	17,988	17,986	16,259
i) Concessional	804.1	916.4	880.0	17,988	17,986	16,259
ii) Non-concessional	-	-	0.0	-	-	0
B. Non-Government borrowing	345.0	454.7	478.0	7,724	8,902	8,807
i) Concessional	41.0	76.5	81.0	918	1,501	1,497
ii) Non-concessional	304.0	378.2	397.0	6,806	7,401	7,310
III. International Monetary Fund	**281.6**	**315.3**	**324.4**	**6,308**	**6,163**	**5,964**
IV. Trade Credit	**831.1**	**975.2**	**963.0**	**18,614**	**19,067**	**17,705**
i) Buyers' credit	732.7	863.1	845.0	16,412	16,870	15,531
ii) Suppliers' credit	28.5	32.4	41.3	638	633	760
iii) Export credit component of bilateral credit	69.9	79.7	76.5	1,564	1,564	1,414
iv) Export credit for defence purposes	-	-	0.0	-	-	0
V. Commercial Borrowings	**3,950.1**	**5,360.9**	**6,575.0**	**88,479**	**104,786**	**120,893**
i) Commercial bank loans	2,616.8	3,747.4	4,493.0	58,613	73,248	82,613
ii) Securitised borrowings (including FCCBs) $	1,300.7	1,587.7	2,065.0	29,134	31,033	37,960
iii) Loans/securitised borrowings, etc.	32.7	25.9	17.5	732	505	321
iv) Self Liquidating Loans	-	-	0.0	-	-	0
VI. NRI & FC(B&O) Deposits	**2,308.1**	**2,998.4**	**3,852.0**	**51,682**	**58,608**	**70,823**
i) FCNR(B)	696.6	765.8	826.0	15,597	14,968	15,188
ii) NR(E)RA	1,178.0	1,606.8	2,498.0	26,378	31,408	45,924
iii) NRO	433.5	625.8	528.0	9,707	12,232	9,710
VII. Rupee Debt *	**71.5**	**69.2**	**68.4**	**1,601**	**1,354**	**1,258**
i) Defence	64.2	62.2	61.6	1,437	1,216	1,133
ii) Civilian +	7.3	7.0	6.8	164	138	125
VIII. Total Long-term Debt (I to VII)	**10,758.2**	**13,661**	**15,937.0**	**240,871**	**267,319**	**293351**
IX. Short-term Debt	**2,901.5**	**3,999.6**	**5,259.0**	**64,990**	**78,179**	**96,697**
i) Trade Related Credits	2,610.1	3,332.0	4,720.0	58,463	65,130	86,787
ii) FII Investment in Govt. T-Bills & other instruments	242.1	480.7	297.0	5,424	9,395	5,455
iii) Investment in Treasury Bills by foreign central banks and international institutions etc.	2.3	3.3	4.5	50	64	82
iv) External Debt Liabilities of Central Bank and Commercial Banks	47.0	183.7	238.0	1,053	3,590	4,373
X. GROSS TOTAL	**13,659.7**	**17,660.6**	**21,196.0**	**305,861**	**345,498**	**390048**
Concessional Debt	2,123.0	2,449.0	2,461.0	47,499	48,062	45,456
As percentage of Total Debt	15.5	13.9	11.6	15.5	13.9	11.7
Short Term Debt	2,901.0	3,999.6	5,259.0	64,990	78,179	96,697
As percentage of Total Debt	21.2	22.6	24.8	21.2	22.6	24.8
Memo Items:						
Debt Indicators :						
1. Debt Stock - GDP Ratio (in per cent)	17.5	19.7	21.2	17.5	19.7	21.2
2. Debt Service Ratio (per cent) (for fiscal year) (including debt-servicing on non-civilian credits)	4.4	6.0	5.9	4.4	6.0	5.9

R : Revised. PR : Partially Revised. P : Provisional.
$: Includes net investment by 100 per cent FII debt funds.
* : Debt owed to Russia denominated in Rupees and converted at current exchange rates, payable in exports.
+ : Includes Rupee suppliers' credit from end-March 1990 onwards.
Note : Multilateral loans do not include revaluation of IBRD pooled loans and exchange rate adjustment under IDA loans for Pre-1971 credits.