

REPORT ON
CURRENCY AND FINANCE
2004-05



RESERVE BANK OF INDIA

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FOREWORD

The Reserve Bank of India completed seventy eventful years of its existence in 2005. It is one of the oldest central banks in the developing world. Over this fairly long period, the Bank has grown in size and complexity and has undergone continuous transformation in terms of organisational set up and management. With this backdrop, it was considered appropriate to devote the theme of the Report on Currency and Finance, 2004-05 to the 'The Evolution of Central Banking in India'. This volume of the Report on Currency and Finance incidentally coincides with the release of the Volume III of the history of the Reserve Bank of India for 1967-1981.

Since the introduction of theme based Reports in 1998-99, the Department of Economic Analysis and Policy has released six Reports encompassing several important contemporary issues concerning India. However, the current Report is a unique departure as it attempts to analyse and present the Reserve Bank's evolution over the last seventy years in the backdrop of development of central banking worldwide. Although it is not easy to analyse the conceptual evolution of a central bank over seventy years in an annual publication like this, sincere efforts have been made to cover the vast canvas of operations of the Reserve Bank in its multifaceted role.

The functions of central banks have undergone significant transformation alongwith the evolution of their respective financial systems and stages of economic development. Central banks have served as a reservoir of expertise that is generally drawn upon by governments and institutions, both domestic and international. Understandably, central banks have always occupied centre stage in the financial system in all countries. The Reserve Bank has also undergone continuous transformation in the backdrop of the changing environment while formulating and implementing monetary and financial policies since its inception in 1935. The functions of the Reserve Bank have emerged out of a diversity of roles entrusted to it. In this context, the key functions that have been examined in this Report are regulation and supervision, development of financial markets, the monetary and fiscal interface and dynamics of its balance sheet. The evolution of monetary policy was the theme of the Report on Currency and Finance last year and has, therefore, not been addressed in detail here.

The operations of the Reserve Bank of India have been marked with great flexibility in responding to domestic necessities and compulsions, with an endeavour to align regulation and supervision with international best practices with suitable adaptations. The Reserve Bank has been constantly refining its operating procedures and instruments in the direction of developing sound financial markets and financial infrastructure. The Reserve Bank has acquired technical expertise over the years in developing the government securities market and in managing government borrowings. This has enabled it to efficiently discharge the twin responsibilities of debt and monetary management, while meeting Government borrowing requirements and market expectations. The balance sheet of the Reserve Bank has undergone a fundamental change over the past seven decades alongwith transformation of the Indian economy. In recent years, the relative significance of foreign assets has increased and that of domestic assets has declined.

The Report has also attempted to trace the organisational evolution and management development of the Reserve Bank since its inception and has brought out the changing role and functions of the Bank over seventy years of its existence.

The Report has been drafted by a core team in the Department of Economic Analysis and Policy under the overall guidance of Narendra Jadhav, Principal Adviser and Chief Economist. The core team comprised K.Udaya Bhaskar Rao, Balbir Kaur, S.M.Pillai, Asha Kannan, Gunjeet Kaur, Nishita Rajee and D.Bose. The drafting of the Report was extensively assisted by A.Karunakaran, J.K.Mallik, Siddhartha Sanyal, Ramesh Golait, L.Lakshmanan, Deepa Raj, Indranil Bhattacharyya, S. Suraj, S. M. Lokre, Snehal Herwadkar, Sangeeta Misra, Satyananda Sahoo, Amar Nath Yadav, Jai Chander, Rajeev Jain, Raj Rajesh, A.K.Shukla, Pankaj Kumar, P.K.Bhoite and S.K.Takle.

Valuable contributions were made by M.R.Nair, Janak Raj, Charan Singh, Partha Ray and Sunando Roy from within the Department; Sandip Ghose and Bazil Sheikh from Human Resources Development Department; and G.Gopalakrishna, K.V.Subba Rao, Amarendra Mohan and P.Ravi Mohan from Department of Banking Supervision provided relative inputs at various stages of preparation of the Report.

The significant contributions by operational departments, *viz.*, Human Resources Development Department, Department of Banking Supervision, Department of Banking Operations & Development, Department of Information Technology, Legal Department and Department of Government and Bank Accounts are highly appreciated. Almost every officer of the Department of Economic Analysis and Policy was associated in the preparation of Chapter II of this Report which deals with the 'Recent Economic Developments'.

The core team also benefited from the discussions with Shri S.S. Tarapore, Dr. A. Vasudevan and Prof. Dilip Nachane.

The task of tracing the evolution of central banking in India has been difficult. Our effort has been to outline the conceptual evolution of the Reserve Bank as it has changed through the country's independence and many different phases of economic and financial development in India. In reviewing its functions through the seventy years of its existence, one feature stands out: the continuous transformation that has been experienced by the Reserve Bank of India in response to changing circumstances. Other central banks have also changed very substantially over the years. Thus, we can look forward to continuing change in the future along with the very significant transformation taking place in the financial sector internationally, particularly with the information technology revolution continuing to progress, accompanied by ever increasing openness of economies.

I take this opportunity to place on record my deep appreciation of the professional skills and utmost dedication of the officials of the Reserve Bank, without which it would have been not possible to bring out this Report.

March 18, 2006

Rakesh Mohan
Deputy Governor

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ABBREVIATIONS

AACS	–	As Applicable to Cooperative Societies	ATMs	–	Automated Teller Machines
ACD	–	Agricultural Credit Department	BBA	–	British Bankers' Association
ACLF	–	Additional Collateralised Lending Facility	BCBS	–	Basel Committee for Banking Supervision
ACTI	–	Advisory Council on Trade and Industry	BCI	–	Business Confidence Index
ACU	–	Asian Clearing Union	BCSBI	–	Banking Codes and Standards Board of India
ADB	–	Asian Development Bank	BD	–	Budget Deficit
ADR	–	Assets Development Reserve	BE	–	Budget Estimates
ADRs	–	American Depository Receipts	BFRS	–	Board for Financial Regulation and Supervision
ADs	–	Authorised Dealers	BFS	–	Board for Financial Supervision
AIDBs	–	All India Development Banks	BIFR	–	Board for Industrial and Financial Reconstruction
AIFIs	–	All India Financial Institutions	BIS	–	Bank for International Settlements
AIFRS	–	Adoption of International Financial Reporting Standard	BNBs	–	Bank of Negara Bills
AL	–	Agricultural Laborers	BNM	–	Bank of Nagara Malaysia
ALM	–	Asset Liability Management	BoE	–	Bank of England
AMFI	–	Association of Mutual Funds of India	BoP	–	Balance of Payment
AML	–	Anti-Money Laundering	BoT	–	Bank of Thailand
AMPIs	–	Aggregated Micro-prudential Indicators	BOT	–	Build-Operate-Transfer
AMS	–	Aggregate Measure of Support	BPLR	–	Benchmark Prime Lending Rates
APEC	–	Asia Pacific Economic Cooperation	BPO	–	Business Process Outsourcing
APMC	–	Agriculture Produce Market Committee	BPSS	–	Board for Payment and Settlement Systems
APRA	–	Australian Prudential Regulatory Authority	BR Act	–	Banking Regulation Act, 1949
ARC	–	Agricultural Refinance Corporation	BRBNMPL	–	Bharatiya Reserve Bank Note Mudran Private Limited
ARDC	–	Agricultural Refinance and Development Corporation	BRSPSS	–	Board for Regulation and Supervision of Payment and Settlement Systems
ASEAN	–	Association of South East Asian Nations	BS	–	Banking Section
			BSE	–	The Bombay Stock Exchange Ltd., Mumbai

BSR	–	Basic Statistical Returns	CENVAT	–	Central Value Added Tax
BTC	–	Bankers' Training College	CFMS	–	Centralised Funds Management System
CAAP	–	Capital Adequacy Assessment Process	CFSS	–	Consolidated Financial Statements
CAB	–	College of Agricultural Banking	CFT	–	Combating Financing of Terrorism
CAC	–	Capital Account Convertibility	CG	–	Capital Goods
CACS	–	Capital Adequacy, Assets Quality, Compliance Systems and Controls	CGRA	–	Currency and Gold Revaluation Account
CALCS	–	Capital Adequacy, Asset Quality, Liquidity Compliance and System	CIB	–	Credit Information Bureau
CALL	–	Call Money Rate	CIBIL	–	Credit Information Bureau of India Limited
CAMELS	–	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Systems Control	CII	–	Confederation of Indian Industries
CAR	–	Capital to Assets Ratio	CLDBs	–	Central Land Development Banks
CAS	–	Central Accounts Section	CLF	–	Collateralised Lending Facility
CAS	–	Credit Authorisation Scheme	CMD	–	Capital Market Division
CBLO	–	Collateralised Borrowing and Lending Obligations	CMIE	–	Centre for Monitoring Indian Economy
CBM	–	Central Bank Money	COC	–	Controller of Currency
CBs	–	Commercial Banks	CPC	–	Credit Planning Cell
CCFF	–	Compensatory and Contingency Financing Facility	CPI	–	Consumer Price Index
CCI	–	Cotton Corporation of India	CPI-AL	–	Consumer Price Index for Agricultural Labourers
CCIL	–	Clearing Corporation of India Ltd.	CPI-IW	–	Consumer Price Index for Industrial Workers
CCL	–	Contingent Credit Lines	CPI-UNME	–	Consumer Price Index for Urban Non-Manual Employees
CD	–	Cash Department	CPLG	–	Core Principles Liaison Group
CDBMS	–	Centralised Data Base Management System	CPPAPS	–	Committee on Procedure and Performance Audit on Public Services
CDOs	–	Collateralised Debt Obligations	CPR	–	Consolidated Prudential Reporting
CDR	–	Corporate Debt Restructuring	CP	–	Commercial Paper
CDR	–	Credit-Deposit Ratio	CPSS	–	Committee on Payment and Settlement Systems
CDs	–	Certificates of Deposit			

CPSUs	–	Central Public Sector Undertakings	DCM	–	Department of Currency Management
CR	–	Contingency Reserve	DEAP	–	Department of Economic Analysis and Policy
CRAFICARD	–	Committee to Review Arrangements for Institutional Credit for Agriculture and Rural Development	DEBC	–	Department of Expenditure and Budgetary Control
CRAR	–	Capital to Risk-Weighted Assets Ratio	DEFTY	–	Dollar Denominated Nifty
CRDC	–	Central Record and Documentation Centre	DEIO	–	Department of External Investment and Operations
CRISIL	–	Credit Rating Information Services of India Limited	DESACS	–	Department of Statistical Analysis and Computer Services
CRR	–	Cash Reserve Ratio	DFC	–	Department of Financial Companies
CSC	–	Central Security Cell	DFHI	–	Discount and Finance House of India
CSF	–	Consolidated Sinking Funds	DFID	–	Department For International Development
CSO	–	Central Statistical Organisation	DFIs	–	Development Finance Institutions
CST	–	Central Sales Tax	DFSR	–	Department of Financial Sector Regulation
CVPS	–	Currency Verification and Processing Systems	DGBA	–	Department of Government and Banks Account
DA	–	Department of Administration	DGCI&S	–	Directorate General of Commercial Intelligence and Statistics
DAD	–	Deposit Account Departments	DGFT	–	Directorate General of Foreign Trade
DAE	–	Department of Accounts and Expenditures	DHRM	–	Department of Human Resources Management
DAP	–	Department of Administration and Personnel	DIC	–	Deposit Insurance Corporation
DAPM	–	Department of Administration and Personnel Management	DICGC	–	Deposit Insurance and Credit Guarantee Corporation
DBD	–	Department of Banking Development	DIO	–	Department of International Operations
DBO	–	Department of Banking Operations	DIT	–	Department of Information Technology
DBOD	–	Department of Banking Operations and Development	DITS	–	Department of Information Technology Services
DBS	–	Department of Banking Supervision	DM	–	Deutsche Mark
DCA	–	Department of Company Affairs			
DCCBs	–	District Central Cooperative Banks			

DMCs	–	Developing Member Countries	EDMU	–	External Debt Management Unit
DMO	–	Debt Management Office	EEA	–	Exchange Equalisation Account
DNBC	–	Department of Non-Banking Companies	EEFC	–	Exchange Earners' Foreign Currency
DNBS	–	Department of Non-Banking Supervision	EFF	–	Extended Fund Facility
DoF	–	Department of Finance	EFR	–	Exchange Fluctuation Reserve
DOPR	–	Department of Policy Research	EFT	–	Electronic Funds Transfer
DoS	–	Department of Supervision	ELRIC	–	External Audit Mechanism, Legal Structure and Independence, financial reporting, internal audit mechanism and a system of internal control
DPs	–	Depository Participants			
DPSS	–	Department of Payment and Settlement Systems			
DRI	–	Differential Rate of Interest	EMEAP	–	Emerging Market Economies and Australia and Philippines
DRS	–	Department of Research and Statistics	EMEs	–	Emerging Market Economies
DRT	–	Debt Recovery Tribunals	E-Money	–	Electronic Money
DSB	–	Dispute Settlement Body	EMU	–	European Monetary Union
DSFR	–	Department of Financial System Regulation	ERM	–	Exchange Rate Mechanism
DSIR	–	Department of Scientific and Industrial Research	ESAF	–	Enhanced Structural Adjustment Facility
DSLFL	–	Division of State and Local Finances	ESCB	–	European System of Central Banks
DSR	–	Debt Service Ratio	EXIM Bank	–	Export Import Bank of India
DSS	–	Debt Swap Scheme	FAO	–	Food and Agricultural Organisation
DTL	–	Demand and Time Liabilities	FATF	–	Financial Action Task Force
DvP	–	Delivery <i>versus</i> Payment	FBT	–	Fringe Benefit Tax
EASIEST	–	Electronic Accounting System In Excise and Service Tax	FCs	–	Financial Conglomerates
ECB	–	European Central Bank	FCA	–	Foreign Currency Assets
ECBs	–	External Commercial Borrowings	FCCBs	–	Foreign Currency Convertible Bonds
ECD	–	Exchange Control Department	FCI	–	Food Corporation of India
E-Commerce	–	Electronic Commerce	FCNR(A)	–	Foreign Currency Non Resident (Accounts)
ECR	–	Export Credit Refinance	FCNR(B)	–	Foreign Currency Non-Resident Accounts (Banks)
ECS	–	Electronic Clearing Service	FDI	–	Foreign Direct Investment

FED	–	Foreign Exchange Department	FSF	–	Financial Stability Forum
FEDAI	–	Foreign Exchange Dealers' Association of India	FSIs	–	Financial Soundness Indicators
FEER	–	Fundamental Equilibrium Exchange Rate	FSQ	–	Free Sale Quota
FEMA	–	Foreign Exchange Management Act	FTPL	–	Fiscal Theory of the Price Level
FERA	–	Foreign Exchange Regulation Act	GAAP	–	Generally Accepted Accounting Principles
FERs	–	Foreign Exchange Reserves	GCF	–	Gross Capital Formation
FIC	–	Financial Institutions Cell	GD	–	General Department
FICCI	–	Federation of Indian Chambers of Commerce and Industry	GDCF	–	Gross Domestic Capital Formation
FID	–	Financial Institutions Division	GDP	–	Gross Domestic Product
FIIIs	–	Foreign Institutional Investors	GDRs	–	Global Depository Receipts
FIMMDA	–	Fixed Income Money Market and Derivatives Association	GDS	–	Gross Domestic Saving
FIPB	–	Foreign Investment Promotion Board	GFD	–	Gross Fiscal Deficit
FIs	–	Financial Institutions	GFDCG	–	Gross Fiscal Deficit of the Central Government
FMC	–	Financial Markets Committee	GIC	–	General Insurance Corporation
FMCG	–	Fast Moving Consumer Goods	GII	–	Government Investment Issue
FMD	–	Financial Markets Department	GLB	–	Graham-Leach Bliley
FMMU	–	Financial Markets and Monitoring Unit	GLC	–	General Line of Credit
FOMC	–	Federal Open Market Committee	GNP	–	Gross National Product
FP1	–	One-month Forward Premia	Gol	–	Government of India
FRAs	–	Forward Rate Agreements	GPD	–	Gross Primary Deficit
FRBM	–	Fiscal Responsibility and Budget Management	GRA	–	General Resources Account
FRL	–	Fiscal Responsibility Legislation	GRF	–	General Refinance Facility
FRS	–	Financial Reporting Standard	GSBR	–	Government Sector Borrowing Requirements
FSA	–	Financial Supervisory Authority	G-Sec	–	Government of India Securities
FSAP	–	Financial Sector Assessment Programme	GTB	–	Global Trust Bank
			HDFC	–	Housing Development Finance Corporation Ltd.
			HFCs	–	Housing Finance Companies
			HHEC	–	Handicraft and Handloom Export Corporation
			HICP	–	Harmonised Index for Consumer prices

HIPC	–	Heavily Indebted Poor Countries	IEBR	–	Internal and Extra Budgetary Resources
HKMA	–	Hong Kong Monetary Authority	IECD	–	Industrial and Export Credit Department
HRDD	–	Human Resources Development Department	IES	–	Integrated Establishment System
HRIS	–	Human Resource Information System	IFC	–	International Finance Corporation
IAS	–	International Accounting Standards	IFCI	–	Industrial Finance Corporation of India Ltd.
IBA	–	Indian Banks' Association	IFD	–	Industrial Finance Department
IBPCs	–	Inter Bank Participation Certificates	IGIDR	–	Indira Gandhi Institute of Development Research
IBRD	–	International Bank for Reconstruction and Development	IIBI	–	Industrial Investment Bank of India
ICAAP	–	Internal Capital Adequacy Assessment Process	IIP	–	Index of Industrial Production
ICAI	–	Institute of Chartered Accountants of India	IISCO	–	Indian Iron and Steel Company
ICCOMS	–	Integrated Computerised Currency and Management System	IMD	–	India Meteorological Department
ICDs	–	Inter-Corporate Deposits	IMDs	–	India Millennium Deposits
ICICI	–	Industrial Credit and Investment Corporation of India Ltd.	IMF	–	International Monetary Fund
ID	–	Inspection Department	INFINET	–	Indian Financial Network
IDBI	–	Industrial Development Bank of India	INR	–	Indian Rupee
IDBs	–	India Development Bonds	IOC	–	India Office Committee
IDFC	–	Infrastructure Development Finance Company Ltd.	IOSCO	–	International Organisation of Securities Commission
IDMC	–	Internal Debt Management Cell	IPAs	–	Investment Promotion Agencies
IDMD	–	Internal Debt Management Department	IPAs	–	Issuing and Paying Agents
IDRBT	–	Institute for Development and Research in Banking Technology	IRB	–	Internal Ratings Based
			IRBI	–	Industrial Reconstruction Bank of India
			IRDA	–	Insurance Regulatory and Development Authority
			IRDP	–	Integrated Rural Development Programme
			IRS	–	Interest Rate Swaps
			ISDA	–	International Swap and Derivatives Association

ISO	–	International Organisation for Standardisation	MEIs	–	Macro Economic Indicators
ISQ	–	Internal Sale Quota	MFs	–	Mutual Funds
IT	–	Information Technology	MGS	–	Malaysia Government Securities
ITES	–	Information Technology Enabled Services	MIBOR	–	Mumbai Inter-bank Offered Rate
ITEs	–	Intra-group Transaction and Exposures	MICR	–	Magnetic Ink Character Recognition
ITF	–	Interim Trust Fund	MIFOR	–	Mumbai Inter-bank Forward Offered Rate
IW	–	Industrial Workers	MMCB	–	Madhavpura Mercantile Bank Ltd.
IWGEDS	–	International Working Group on External Debt Statistics	MMMFs	–	Money Market Mutual Funds
JCI	–	Jute Corporation of India	MNCs	–	Multi-National Companies
JSC	–	Joint Select Committee	MOU	–	Memorandum of Understanding
JVs	–	Joint Ventures	MPC	–	Monetary Policy Committee
KVIC	–	Khadi and Village Industries Commission	MPD	–	Monetary Policy Department
KYC	–	Know Your Customer	MPIs	–	Macro Prudential Indicators
LAF	–	Liquidity Adjustment Facility	MSD	–	Management Services Department
LAN	–	Local Area Network	MSP	–	Market Support Price
LC	–	Loan Company	MSP	–	Minimum Support Price
LD	–	Legal Department	MSS	–	Market Stabilisation Scheme
LERMS	–	Liberalised Exchange Rate Management System	NABARD	–	National Bank for Agriculture and Rural Development
LIBOR	–	London Inter-Bank Offered Rate	NAC	–	National Agricultural Credit
LIC	–	Life Insurance Corporation of India	NASSCOM	–	National Association of Software and Services Companies
LPA	–	Long Period Average	NBFCs	–	Non-Banking Financial Companies
LTFP	–	Long-Term Fiscal Policy	NBFIs	–	Non Banking Financial Institutions
LTO	–	Long-Term Operations	NCAER	–	National Council of Applied Economic Research
MAS	–	Monetary Authority of Singapore	NCBs	–	National Central Banks
MAT	–	Minimum Alternate Tax	NCC	–	National Credit Council
MBP	–	Market Borrowing Program	NCCF	–	National Calamity Contingency Fund
MCA	–	Ministry of Company Affairs			
MCIR	–	Monetary and Credit Information Review			

NDA	–	National Domestic Assets	OCC	–	Office of the Controller of Currency
NDDTL	–	Net Domestic Demand and Time Liabilities	ODA	–	Official Development Assistance
NDS	–	Negotiated Dealing System	ODs	–	Overdrafts
NDTL	–	Net Demand and Time Liabilities	ODTL	–	Other Demand and Time Liability
NEER	–	Nominal Effective Exchange Rate	OECD	–	Organisation for Economic Cooperation and Development
NFA	–	Net Foreign Assets	OERS	–	Optional Early Retirement Scheme
NFARB	–	Net Accretion to Foreign Exchange Assets of the Reserve Bank	OGL	–	Open General License
NFEA	–	Net Foreign Exchange Assets	OLTAS	–	Online Tax Account System
NFO	–	Net Owned Funds	OMO	–	Open-Market Operations
NHB	–	National Housing Bank	OMS	–	Open-Market Sales
NHC (LTO)	–	National Housing Credit (Long-Term Operations)	ONGC	–	Oil and Natural Gas Corporation
NIBM	–	National Institute of Bank Management	OPEC	–	Organisation of Petroleum Exporting Countries
NIC	–	National Industrial Classification	ORFS	–	On-Line Return Filing System
NIC (LTO)	–	National Industrial Classification (Long-Term Operations)	ORI	–	Overall Regulation Index
NIF	–	National Investment Fund	OSFI	–	Office of the Superintendent of the Financial Institutions
NLR	–	Net Liquidity Ratio	OSI	–	Overall Supervision Index
NNML	–	Net Non- Monetary Liability	OSS	–	Off-Site Surveillance System
NOF	–	Net Owned Fund	OSMOS	–	Off-Site Monitoring and Surveillance System
NPAs	–	Non Performing Assets	OTC	–	Over the Counter
NRBCG	–	Net Reserve Bank Credit to Central Government	OWS	–	Other Welfare Schemes
NRIs	–	Non Resident Indians	PACS	–	Primary Agricultural Credit Societies
NSE	–	National Stock Exchange	PAD	–	Public Accounts Department
NSSF	–	National Small Savings Fund	PCA	–	Prompt Corrective Action
NSSO	–	National Sample Survey Organisation	PCARDBs	–	Primary Cooperative Agricultural and Rural Development Banks
OCBs	–	Overseas Corporate Bodies	PD	–	Primary Deficit
			PD	–	Premises Department

PDO	–	Public Debt Office	ROC	–	Registrar of Cooperatives
PDs	–	Primary Dealers	RPCC	–	Rural Planning and Credit Cell
PDS	–	Public Distribution System	RPCD	–	Rural Planning and Credit Department
PLR	–	Prime Lending Rate	RRBs	–	Regional Rural Banks
POL	–	Petroleum Oil and Lubricants	RTGS	–	Real Time Gross Settlement Systems
PPD	–	Personnel Policy Department	RTP	–	Reserve Tranche Position
PPP	–	Purchasing Power Parity	S&P CNX Nifty	–	National Stock Exchange Index
PRD	–	Press Relations Division	SAARC	–	South Asian Association for Regional Cooperation
PSBs	–	Public Sector Banks	SAI	–	Secretariat of Industrial Assistance
PSRS	–	Prudential Supervisory Reporting System	SAP	–	Strategic Action Plan
PSU	–	Public Sector Undertaking	SARFAESI	–	Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest
QIS	–	Quantitative Impact Studies	SBI	–	State Bank of India
RATE	–	Risk Assessment, Tools of Supervision and Evaluation	SBS	–	Shredding and Briquetting System
RBA	–	Reserve Bank of Australia	SCALE	–	Schedule 3 Compliance Assessment, Liaison, Evaluation
RBI Act	–	Reserve Bank of India Act	SCARDBs	–	State Cooperative Agriculture and Rural Development Banks
RBIA	–	Risk-Based Internal Audit	SCBs	–	Scheduled Commercial Banks
RBS	–	Risk-Based Supervision	SCBs	–	State Cooperative Banks
RBSC	–	Reserve Bank Staff College	SCICI	–	Shipping Credit and Investment Company of India Limited
RD	–	Revenue Deficit	SCRA	–	Securities Contract Regulations Act, 1956
RDBMS	–	Relational Data Base Management System	SD	–	Secretary's Department
RE	–	Revised Estimates	SDDS	–	Special Data Dissemination Standards
REER	–	Real Effective Exchange Rate	SDRs	–	Special Drawing Rights
REFT	–	Revenue Earning Freight Traffic			
REPO	–	Repurchase Agreement			
RIDF	–	Rural Infrastructure Development Fund			
RIW	–	Research and Intelligence Wing			
RL	–	Rural Labourers			
RM	–	Reserve Money			
RMP	–	Risk Mitigation Programmes			
RNBCs	–	Residuary Non-banking Companies			

SEBI	–	Securities and Exchange Board of India	TFCI	–	Tourism Finance Corporation of India
SFC	–	State Finance Corporation	TISCO	–	Tata Iron and Steel Company
SFMS	–	Structured Financial Messaging Solutions	TNQ Bank	–	Travancore National and Quilon Bank Ltd.
SGL	–	Subsidiary General Ledger	TPDS	–	Targeted Public Distribution System
SIDBI	–	Small Industries Development Bank of India	UAE	–	United Arab Emirates
SIFIs	–	Systemically Important - Financial Intermediaries	UBD	–	Urban Banks Department
SLAF	–	Second Liquidity Adjustment Facility	UCBs	–	Urban Cooperative Banks
SLR	–	Statutory Liquidity Ratio	UIA	–	United India Assurance Company Ltd.
SRS	–	Statistical and Research Section	UNME	–	Urban Non-Manual Employees
SS	–	Secretary's Section	URR	–	Uniform Regulations and Rules
SSIs	–	Small Scale Industries	US-GAAP	–	US Generally Accepted Accounting Principles
STCI	–	Securities and Trading Corporation of India	US FED	–	United States Federal Reserve
STD	–	Share Transfer Department	UTI	–	Unit Trust of India
STRIPS	–	Separate Trading for Registered Interest and Principal Securities	VaR	–	Value at Risk
STT	–	Securities Transactions Tax	VAR	–	Vector Auto Regression
SWIFT	–	Society for World Wide Inter-bank Financial Telecommunication	VAT	–	Value Added Tax
TAC	–	Technical Advisory Committee	VSAT	–	Very Small Aperture Terminus
TACMP	–	Technical Advisory Committee on Monetary Policy	WADR	–	Weighted Average Discount Rate
TBs	–	Treasury Bills	WAMU	–	West African Monetary Union
T/CD	–	Treasury/Cash Department	WAN	–	Wide Area Network
TDS	–	Tax Deduction at Source	WEO	–	World Economic Outlook
TFC	–	Twelfth Finance Commission	WGC	–	Working Group on Capital
			WI	–	When Issued
			WMA	–	Ways and Means Advances
			WPI	–	Wholesale Price Index
			YTM	–	Yield to Maturity

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1.1 Central Banks have evolved worldwide on a continuous basis in response to changing political and economic forces around them. Beginning in the late seventeenth century in Sweden (1668) and England (1694), central banks spread rather slowly in different parts of the world over the eighteenth century (Broz, 1998). In the nineteenth century, however, several countries in Europe such as France (1800), Finland (1811), the Netherlands (1814), Austria (1816), Norway (1816), Denmark (1818), Portugal (1846), Belgium (1850), Spain (1874), Germany (1876), Italy (1893), and Japan in Asia (1882) established the central banks. From then on, the mandate of central banks underwent a complete metamorphosis. Expansion of the financial system led to refinements in regulatory and supervisory framework and growth of clearing systems. Monetary policy assumed critical importance in the conduct of central banking with the emergence of concerns about inflation. Similarly, the developing countries that emerged out of shackles of colonialism entrusted their central banks with the objective of economic growth alongwith price stability. In the late twentieth century, development of global financial markets and proliferation of financial instruments coupled with episodes of financial crises brought to the fore central banks' concern for price stability, financial stability and risk management. The journey of central banking, seen through history, has indeed been quite remarkable.

1.2 The primary impulses for establishing and strengthening of central banking activity in many parts of the world in the twentieth century emanated from exigency of war financing. Economic historians assign war finance as prime consideration for constitution of many of the early central banks (Clapham, 1944 and Hamilton, 1945). Further, war financing led to nationalisation of many central banks, which till then were functioning as private entities. Once the spectre of war receded, the role of central banking was increasingly focused in mobilising resources for planned development and at the same time in tackling high inflation. With the emergence of a number of nation states with the weakening of colonial regimes, central bank mandates in the developing countries, including that in India, went well beyond typical central banking functions so as to encompass a wide range of developmental pursuits. Consequently, central

banks in the developing countries envisaged broadening of their mandate beyond the traditional functions of issuing currency and managing the government debt towards facilitating economic recovery and growth. The seeds of the twin and oft-divergent objectives of central banking in emerging markets were thus planted. While this transition entrusted the central banks with greater responsibility in national development, they also became exposed to the threat of fiscal dominance, where developmental objectives restrained the growth of financial markets and consequently, the efficient conduct of monetary policy.

1.3 The core of modern central banking also consisted of development of financial markets, financial regulation and supervision, management of government debt, administration of payment and settlement systems and maintenance of the external value of currency. Several variants of instruments and targets emerged in different central banks. Though many of the central banks have adopted inflation targeting as the core objective and recorded a fair degree of success, the consensus on inflation targeting as an exclusive central banking mandate remains elusive. Further, with a view to strengthening the operating procedures of central banking in order to achieve the desired objectives, the issues of autonomy, transparency, accounting standards and risk management have assumed importance. With a vision to deal with increasing complexities in operational procedures, research activities have been given considerable importance in analysing the economic environment and devising suitable strategies. The challenges of globalisation leading to free flow of capital, trade and information across the borders have necessitated redefining the statutes of central banking, both in developed and developing countries.

1.4 The Reserve Bank of India, currently at its seventieth anniversary, has also traversed a challenging voyage. To delineate the progression of central banking in India, the present report attempts a journey through time and tries to capture the transformation of central banking in India. The initial endeavors to constitute a central banking institution in India can be traced to 1773 when Warren Hastings introduced the plan for a 'General Bank in Bengal and

Bihar' in the backdrop of the need for a treasury in the then prevalent socio-economic circumstances. It was, however, much later that the sequence of initiatives crystallised into a concrete proposal. It was about the beginning of the twentieth century when the debate on the issue of constitution of a central bank veered in favour of the proposal. The Imperial Bank of India which emerged as a consequence of the amalgamation of three Presidency Banks of Bengal, Bombay and Madras in 1921 assumed certain central banking functions except currency management. The control of currency management continued to be with the Government of India in order to ensure that the central banking entity did not appropriate powers greater than those mandated by the political authority. Notwithstanding the general support for a 'mixed' type of institution, through the years of controversy on the constitutional set up of the central bank, the Reserve Bank of India Act was placed on the statute book on March 6, 1934. The Reserve Bank commenced operations on April 1, 1935 and was nationalised on January 1, 1949. This report with the theme 'The Evolution of Central Banking in India' attempts to analyse the evolution of the Reserve Bank of India over the last seventy years in the context of development of central banking worldwide.

1.5 As a prelude to the substantive theme based chapters, chapter II titled, "Recent Economic Developments", provides an analytical review of the macroeconomic environment in the Indian economy during 2004-05 and 2005-06, until February 28, 2006.

1.6 The theme based discussions begin with chapter III titled "Functional Evolution of Central Banking". The chapter presents a theoretic exposition of the genesis of central banking alongwith an account of the evolving contemporary functions and procedures. It presents an overarching view of the central banks since their incorporation based on global developments. There is an attempt to trace the historic evolution of central banking functions while dealing with the core traditional functions in detail, mainly as creators of innovative methods of the exchange medium, maintain the internal and external value of currency, act as bankers to the government, lenders-of-the-last-resort, and regulators and supervisors of the banking system. The function of maintenance of financial stability is also analysed, besides covering the developmental functions performed by central banks in developing countries such as market making and financial sector reforms, institution building, coordination and cooperation, and data dissemination and communication in the face of

evolving needs. It further captures the role of central banks in development of the financial markets, in bridging information asymmetry and significance of policy-oriented research function as the in-house research activities form the backbone of central banking operations. The chapter concludes by underscoring some of the contemporary issues that are being actively debated in the literature on central banking such as independence, accountability, transparency and credibility.

1.7 In chapter IV of the Report titled, "Central Banking in India", the conceptual evolution of central banking functions in India is traced by providing a historical perspective. The functional transition of the Reserve Bank from performance of core functions to taking over a multitude of new functions in the context of emerging macroeconomic and socio-political conditions is discussed in detail. The analysis is sequenced into three phases, viz., foundation phase (1935-1950); development phase (1951-1990); and reform phase (1991 onwards) for the purpose of exposition. The chapter also delineates the flexibility in the Reserve Bank of India Act which enabled the Bank to adapt to rapidly changing external and domestic economic environment. The earnest efforts of the Reserve Bank in institution building to complement the planning process for augmenting flow of rural and industrial credit, besides improving efficacy of monetary policy transmission impulses are also detailed. Further, the measures initiated by the Reserve Bank to build a financial system in line with the international best practices are highlighted. The evolution in monetary policy framework and exchange management and control have also been discussed, in some details.

1.8 In the reform phase, the chapter dwells on financial sector reforms, banking sector reforms and the complementary reforms in the debt market, external sector and monetary policy framework. Against this backdrop, the performance of the Reserve Bank's policies in withstanding shocks is highlighted. The irreversibility of Reserve Bank's approach towards liberalisation and reforms process is underscored. The chapter reflects extensively on liquidity management by the Reserve Bank in its approach to the conduct of monetary policy in the context of more transparent, market oriented procedures, shifts in basic functions towards technology oriented currency management, introduction of Real Time Gross Settlement (RTGS) system, advances in information technology and the pursuit of financial stability objective in alignment with best international practices in regulation and supervision.

1.9 Chapter V titled, “Financial Regulation and Supervision”, traces the genesis and evolution of regulatory and supervisory functions of the Reserve Bank of India. The chapter attempts to map out different stages of transition of the Reserve Bank in the area of regulation and supervision since inception and delineates evolution of regulatory and supervisory policies and strategies. The evolution of commercial banking regulatory framework is discussed during the periods of 1950-1968; 1969-1991; and 1991 onwards. It highlights the efforts of the Reserve Bank to align the Indian banking and financial systems to the best international regulatory and supervisory benchmarks with necessary modifications that suit the Indian system. Besides covering the banking sector, the multifarious dimensions of the Reserve Bank’s regulatory role over cooperative banks, non-banking finance companies (NBFCs) and the development financial institutions (DFIs) is also outlined. The chapter also discusses whether there is a conflict of interest for the Reserve Bank as regulator and supervisor and as the monetary authority. The chapter discusses the emerging issues relating to Reserve Bank’s approach to financial stability, Basel II norms and their implications for the Indian banking system, regulatory preparedness of the Bank in managing financial conglomerates, and regulation and supervision of electronic banking in India. The chapter finally sketches the possible future role of regulation and supervision in the light of various developments affecting the financial systems.

1.10 Chapter VI of the report titled, “Financial Market Evolution and Globalisation”, brings out the crucial role played by the financial markets in promoting economic growth. It presents a comprehensive analysis of the issues relating to the evolution of financial markets, while underscoring the rationale for central bank’s involvement in development of financial markets. Against this backdrop, it depicts the Reserve Bank’s role in development of the money, Government securities and foreign exchange markets in India. The growth, evolution and characteristics of the financial markets in India are framed into two phases, viz., the pre-reforms (before 1990) and post-reforms (since early 1990s) periods. The chapter further delineates the progression of institutional, legal, technological and regulatory frameworks and innovation of instruments through these phases. It analyses the issues relating to market integration and volatility, and outlines dilemmas and challenges. The chapter brings out the changing role of the Reserve Bank in development of financial markets in the context of liberalisation and

globalisation, the evolution of monetary policy transmission mechanism, the constraints posed by the legal and institutional infrastructure, and finally outlines the challenges for future.

1.11 Chapter VII titled, “Issues in Monetary and Fiscal Interface”, analyses the major developments in monetary fiscal interface in India since inception of the Reserve Bank and discusses the future challenges in the context of introduction of the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. The chapter traces the evolution, theory and analytical framework on the subject in the global context. While recognising that monetary fiscal interface modalities are country specific, the issues of consistency and complementarity of monetary and fiscal policies, which are the prerequisites for market confidence and monetary stability are underlined. The evolutionary process of monetary fiscal interface in India is sequenced into three phases, viz., the formative phase (1935-1950); the fiscal dominance and monetary accommodation phase (1950-1991); and the phase of macroeconomic crisis, reforms and their impact (1991-2003). As public debt management by the Reserve Bank is a critical link between the monetary and fiscal policies in India, this chapter details the developments in this area, tracing the shift from passive to active debt management strategy in a rule-based fiscal consolidation framework (2003-2005). In the context of the FRBM Act, an analytical exposition of fiscal and monetary coordination for the period 2005-2009 is presented. Finally, while making an assessment of monetary fiscal interface in India, the chapter highlights certain issues by way of concluding observations.

1.12 The balance sheet of a monetary authority is unique since the central bank is a source of money creation on the one hand, and that it mirrors the central bank relationship with the government, banking and financial system on the other. Chapter VIII titled, “Balance Sheet of the Reserve Bank”, traces facets of central bank’s balance sheet and its linkages with the development dynamics of the Indian economy, reflecting the complex role of the central bank as monetary authority, debt manager, and regulator of the banking sector and financial markets. There is presentation of an analytical account of the Reserve Bank’s balance sheet against the backdrop of select country experiences. Beginning with an overview of the analytics of the balance sheet of a central bank, the chapter gives an account of the primary monetisation inherent in the balance sheet of the central bank in terms of creation of reserve money.

Further, besides focusing on the country experiences in formulation and presentation of the central bank balance sheets, it outlines a host of issues including the differences among central banks in terms of composition of assets and liabilities, capital and reserve positions, while also reflecting on the differences in the responsibilities entrusted to central banks. Issues relating to capital and reserve position and country experiences in respect of the mechanism of profit distribution between the government and the central bank are also dealt with.

1.13 A detailed analysis of Reserve Bank's balance sheet is presented against the backdrop of the regime shift in terms of monetary policy evolution and the changing macroeconomic environment. The analysis is undertaken in four phases, formative phase (1935-1949); foundation phase (1950-1967); phase of social control (1968-1990); and phase of financial liberalisation (1991 onwards). The chapter dwells extensively on the changing role of the Reserve Bank as reflected in the size of the balance sheet, its composition (domestic *vis-à-vis* international assets), support to the government, volume and terms of financing to the financial system, build-up of foreign exchange reserves and assesses its impact on the income profile of the Bank. In line with the global developments, the balance sheet of the Reserve Bank reflects an apparent shift towards the adoption of international best practices in accounting and disclosure norms. The evolution of accounting practices is also covered. Further, the chapter analyses the profit and loss account of the Reserve

Bank and its constituents. Besides, the trends in income and expenditure and issues relating to transfer of profits to the Central Government are also detailed. The emerging issues relating to transparency in central bank accounts; risk management in central banks; and contingency reserves are also addressed. Finally, an assessment of the emerging issues and their likely impact on the policy actions of the Reserve Bank is attempted.

1.14 Chapter IX titled, "Organisational Evolution and Strategic Planning", traces the organisational evolution and management development in the Reserve Bank since inception and brings out the changing role and functions taken over by it through the years. The chapter outlines the significant steps taken by the Reserve Bank in terms of organisational restructuring as well as manpower management to be able to appropriately respond to emerging situations in the economic and financial system. Strategic planning has, of late, come to the forefront of any debate on central banking. Against this backdrop, the chapter dwells on strategic planning initiatives of the Reserve Bank in terms of setting concrete objectives and crafting strategies for their achievement in the medium-term. The chapter outlines some of the BIS initiatives in this area and highlights the Reserve Bank's efforts in successfully calibrating the organisational transformation in the face of changing internal and external environment.

1.15 Finally, the chapter X titled "Concluding Observations" sets out some final reflections on various issues concerning the central banking in India.

II

RECENT ECONOMIC DEVELOPMENTS

Introduction

2.1 The striking features of the sustained growth momentum of the Indian economy are a continued upturn in the manufacturing sub-sector of industry and further acceleration in the services sector, fostered by sub-sectors construction; 'financing, insurance, real estate and business services'; 'trade, hotels, transport and communication'; and 'community, social and personal services'. Notwithstanding some moderation in the real Gross Domestic Product (GDP) growth in 2004-05, India was among the fastest growing economies in emerging Asia. Industrial growth fanned out, abetted by a congenial investment climate, favourable corporate results, growing manufacturing exports, upswing in domestic demand and a liberalised Foreign Direct Investment (FDI) regime. This was complemented by a firm pick up in non-food credit underscoring acceleration in investments, swelling production and imports of capital goods buttressed by buoyant capital markets. Business confidence indices were sanguine. Despite the late onset of South-West monsoon in fiscal 2005-06, buoyancy in non-food credit, expected momentum in investment activity and robustness in the services sector affirm that the macroeconomic outlook for the forthcoming financial year is upbeat. The Reserve Bank revised the growth projections of real GDP for 2005-06 from around 7.0 per cent in April 2005 to 7.0-7.5 per cent in the mid-term review of Annual Policy Statement (October 2005) and further to 7.5-8.0 per cent in January 2006 in the third quarter review of the Annual Policy Statement based on the assessment of a pick up in agricultural output besides the continued buoyancy in the industrial and services sectors. The advance estimates released by the Central Statistical Organisation (CSO) have placed the real GDP growth for 2005-06 at 8.1 per cent (1999-2000 prices), which is close to the Reserve Bank projections. The growth is backed by acceleration in agriculture sector, strong growth recorded by the industry and impressive performance of the services sector.

2.2 Inflationary pressures due to a sharp increase in international crude oil prices necessitated formulation of a forward looking policy response by the Reserve Bank while maintaining the desired growth momentum. Although inflation has remained

well contained, a vigil is warranted due to the continued uncertainty in the international oil prices especially since the pass-through of the increase in international oil prices to the domestic economy has so far been incomplete.

2.3 Financial markets have remained stable and orderly through the fiscal year. The merchandise and invisibles exports have remained strong, while imports expansion (oil and capital goods imports) is boosting productivity levels and export growth. The current account during 2004-05 recorded a deficit after remaining in surplus for the preceding three years since 2001-02. Buoyancy in net invisibles earnings underlined the surplus position in the current account during the said period. The balance of payments position, nevertheless calls for cautious monitoring. A positive feature of the capital inflows has been a spurt in non-debt inflows; debt flows have remained moderate.

2.4 Against this overview, this chapter presents an account of macroeconomic developments in 2005-06 so far. Section I reflects on developments in the Real Sector. Section II presents glimpses of Central and State Government finances. Section III focuses on monetary and credit developments alongwith the inflation trends. Section IV discusses developments in the financial markets. Section V covers external sector and Section VI underlines the concluding observations.

I. REAL SECTOR

National Income

2.5 The Indian economy exhibited a strong growth performance during 2004-05. Real GDP growth was 7.5 per cent during 2004-05 (1999-00 prices) as compared with 8.5 per cent in 2003-04. Growth of real GDP originating from 'agriculture and allied activities' decelerated sharply to 0.7 per cent during 2004-05 from 10.0 per cent in the preceding year. This was on account of an uneven and deficient South-West monsoon besides the base effect of the high growth of 2003-04 (Table 2.1 and Chart II.1). The deceleration in the growth of 'agriculture and allied activities' was somewhat cushioned by firming-up of activities in the industry and services sectors. Accordingly, real GDP growth originating from industry rose to 7.4 per cent as the industrial recovery spread

**Table 2.1: Real Gross Domestic Product
(Base year : 1999-2000)**

(Per cent)

Sector	2001-02	2002-03	2003-04 PE	2004-05 QE	2005-06 AE
1	2	3	4	5	6
Growth Rate					
1. Agriculture and Allied Activities	6.2	-6.9	10.0	0.7	2.3
1.1 Agriculture	6.5	-7.8	10.7	0.7	..
2. Industry	2.4	6.8	6.6	7.4	8.0
2.1 Manufacturing	2.5	6.8	7.1	8.1	9.4
2.2 Mining and Quarrying	1.8	8.7	5.3	5.8	1.0
2.3 Electricity, Gas and Water Supply	1.7	4.8	4.8	4.3	5.4
3. Services	6.8	7.3	8.5	10.2	10.1
3.1 Trade, Hotels and Restaurants	9.6	6.7	10.2	8.1	11.1\$
3.2 Transport, Storage and Communication	8.3	13.7	15.2	14.8	..
3.3 Financing, Insurance, Real Estate and Business Services	7.3	8.0	4.5	9.2	9.5
3.4 Construction	4.0	7.7	10.9	12.5	12.1
3.5 Community, Social and Personal Services	3.9	3.8	5.4	9.2	7.9
4. GDP at factor cost	5.8	3.8	8.5	7.5	8.1
				(6.9)	
Sectoral Composition					
1. Agriculture and Allied Activities	24.4	21.9	22.2	20.8	19.7
2. Industry	19.3	19.9	19.5	19.5	19.5
3. Services	56.3	58.3	58.3	59.7	60.9
4. Total	100.0	100.0	100.0	100.0	100.0
Memo:					
Real GDP at factor cost (Rupees crore)	19,78,055	20,52,586	22,26,041	23,93,671	25,86,587
.. Not available. PE : Provisional Estimates. QE : Quick Estimates. AE : Advance Estimates.					
\$ Includes 'Trade, Hotels and Restaurants' and ' Transport, Storage and Communication'. Growth rate was 10.6 per cent in 2004-05 at 1999-00 prices.					
Note : Figures in the parentheses are percentage growth according to the revised estimates (at 1993-94 prices) released by the CSO in June 2005.					
Source : Central Statistical Organisation.					

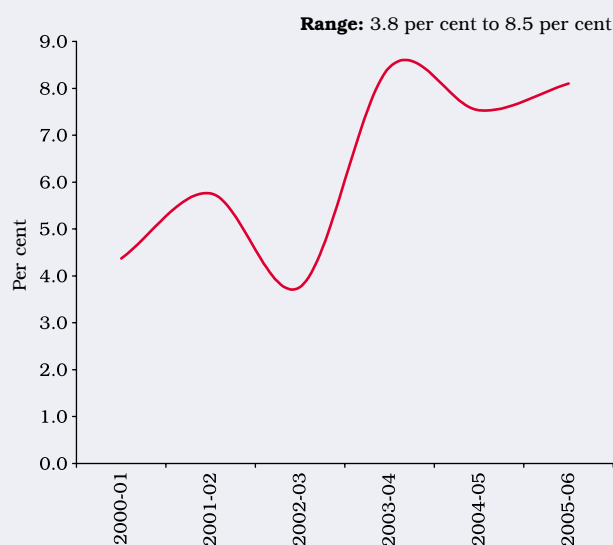
and strengthened during 2004-05, led by the manufacturing sector. The buoyancy in manufacturing sub-sector is propelled by a congenial domestic investment climate, improvement in world output, a liberalised foreign direct investment (FDI) regime and surging manufacturing exports. The services sector continued to anchor the growth process and recorded impressive growth backed by strong growth performance of all its sub-sectors.

2.6 The fiscal year 2005-06 commenced on a buoyant tone. The South-West monsoon rainfall was forecast as normal (98 per cent of Long Period Average (LPA) with a model error of +/- 4 per cent) for the year 2005 by the India Meteorological Department (IMD). Against the backdrop of buoyancy

in industrial growth performance and the capacity of services sector to anchor the GDP growth along with an assessment of a pick up in the agricultural output, the Indian economy is poised for a robust growth performance in 2005-06. In view of this, the Reserve Bank revised its GDP growth forecast from 7.0-7.5 per cent in October 2005 in the mid-term review of Annual Policy Statement for the year 2005-06 to 7.5-8.0 per cent in the third quarter review of its Annual Policy Statement in January 2006 as against its initial projection of around 7.0 per cent in April 2005. Other national and international organisations have also forecast the real GDP growth rates proximate to this range (Table 2.2). As per the advance estimates of the CSO released on February 7, 2006, real GDP growth rate for 2005-06 is estimated at 8.1 per cent

RECENT ECONOMIC DEVELOPMENTS

**Chart II.1: Annual Growth Rate of GDP at Factor Cost
(At 1999-2000 prices)**



(base year: 1999-2000), which is close to the growth projections of the Reserve Bank. At the sectoral level, growth in agricultural and industrial sectors accelerated, the latter reflecting improvements in the growth of two of its sub-sectors, viz., manufacturing and 'electricity, gas and water supply'. However, the growth in services in 2005-06 is marginally lower than that in 2004-05. This is due to deceleration in the growth of 'community, social and personal services', 'trade, hotels, transport and communication' and construction sub-sectors, notwithstanding improvement in the growth rate of the sub-sector 'financing, insurance, real estate and business services' (Table 2.1). The latest available data on the

Table 2.2: Growth in Real Gross Domestic Product, 2005-06: Forecasts for India\$

Agency	Initial	Revised/ Latest	Month of Projection
Asian Development Bank	6.9	6.9	September 2005
Centre for Monitoring Indian Economy	6.6	7.8	Mid-February 2006
Confederation of Indian Industry	7.2	Over 8.0	End-February 2006
Credit Rating Information Services of India Limited	7.0	7.0	End-September 2005
National Council of Applied Economic Research	7.2	7.8	Early February 2006
International Monetary Fund	6.7	7.1	September 2005
Reserve Bank of India	Around 7.0	7.5-8.0	January 2006*
Memo:			
Range	6.6-7.2	6.9-8.0	

\$ GDP forecasts are based on base year 1993-94, except CMIE's and CII's latest forecasts which are based on base year 1999-2000.

* Third Quarter Review of Annual Policy for the year 2005-06.

quarterly growth rates of real GDP (at 1999-2000 prices) indicate that the growth rates of real GDP are higher in the first three quarters of 2005-06 as compared with the corresponding quarters of the previous year. The increase in the growth rate of real GDP in the third quarter of 2005-06 vis-à-vis that in the corresponding quarter of 2004-05 was driven by a sharp recovery in agricultural sector growth. Industry and services sectors, on the other hand, registered deceleration in their growth rates during the third quarter of 2005-06 (Table 2.3).

2.7 India, growing at this rate, would continue to be one of the fastest growing economies among emerging market economies of Asia (Table 2.4).

**Table 2.3: Quarterly Growth Rates of Gross Domestic Product
(At 1999-2000 prices)**

Industry	2004-05			2005-06		
	Q1	Q2	Q3	Q1	Q2	Q3
1	2	3	4	5	6	7
1. Agriculture and Allied Activities	3.5	-0.2	-1.2	1.4	2.4	3.4
2. Industry	6.6	8.0	8.1	9.9	6.7	7.1
2.1 Manufacturing	6.6	8.3	9.2	11.3	8.6	8.4
2.2 Mining and Quarrying	8.2	6.0	5.7	3.7	-1.9	0.6
2.3 Electricity, Gas and Water Supply	4.9	7.9	3.1	6.9	2.2	4.4
3. Services	10.1	8.4	10.7	10.0	10.0	9.7
3.1 Trade, Hotels, Transport and Communication	10.6	11.2	9.7	11.7	11.2	10.3
3.2 Financing, Insurance, Real Estate and Business Services	8.8	7.5	9.7	8.7	9.8	9.1
3.3 Construction	9.9	7.9	22.0	12.4	12.3	11.5
3.4 Community, Social and Personal Services	10.7	4.8	8.5	7.0	7.3	8.1
4. Gross Domestic Product at Factor Cost	7.9	6.7	7.0	8.1	8.0	7.6

Source: Central Statistical Organisation.

Table 2.4: Output Growth: Cross-Country Comparison

(Per cent)

Country	Average 1997-2005	1997	1998	1999	2000	2001	2002	2003	2004	2005 P
1	2	3	4	5	6	7	8	9	10	11
World	3.8	4.2	2.8	3.7	4.7	2.4	3.0	4.0	5.1	4.3
Advanced Economies	2.7	3.5	2.6	3.5	3.9	1.2	1.5	1.9	3.3	2.5
Other Emerging Market and Developing Countries	5.2	5.2	3.0	4.0	5.8	4.1	4.8	6.5	7.3	6.4
Argentina	2.0	8.1	3.8	-3.4	-0.8	-4.4	-10.9	8.8	9.0	7.5
Bangladesh	5.4	5.3	5.0	5.4	5.6	4.8	4.8	5.8	5.8	5.7
Brazil	2.3	3.3	0.1	0.8	4.4	1.3	1.9	0.5	4.9	3.3
Chile	3.9	6.6	3.2	-0.8	4.5	3.4	2.2	3.7	6.1	5.9
China	8.4	8.8	7.8	7.1	8.0	7.5	8.3	9.5	9.5	9.0
India	5.9	5.0	5.8	6.7	5.4	3.9	4.7	7.4	7.3	7.1@
Indonesia	2.3	4.5	-13.1	0.8	4.9	3.8	4.4	4.9	5.1	5.8
Malaysia	4.2	7.3	-7.4	6.1	8.9	0.3	4.4	5.4	7.1	5.5
Mexico	3.5	6.7	4.9	3.9	6.6	-0.2	0.8	1.4	4.4	3.0
Pakistan	4.3	1.8	3.1	4.0	3.0	2.5	4.1	5.7	7.1	7.4
Philippines	3.8	5.2	-0.6	3.4	4.4	1.8	4.4	4.5	6.0	4.7
Sri Lanka	4.5	6.4	4.7	4.3	6.0	-1.5	4.0	6.0	5.4	5.3
Thailand	2.4	-1.4	-10.5	4.4	4.8	2.2	5.3	6.9	6.1	3.5

P : IMF Projections.

@ RBI's projection for the financial year 2005-06, as indicated in the Third Quarter Review of Annual Policy Statement for the year 2005-06, is 7.5- 8.0 per cent.

Source: World Economic Outlook, September 2005.

Saving and Investment

2.8 The rate of Gross Domestic Saving (GDS), as a proportion to GDP at current market prices increased substantially from 26.5 per cent in 2002-03

to 28.9 per cent in 2003-04 and further to 29.1 per cent in 2004-05, on account of higher positive saving rate posted by the public sector and improvement in the saving rate of private corporate sector (Table 2.5 and Chart II.2). The rate of GDS at 29.1 per cent was

**Table 2.5: Gross Domestic Saving and Investment
(Base year: 1999-2000)**

(Per cent of GDP at current market prices)

Variable	1999-00	2000-01	2001-02	2002-03	2003-04 PE	2004-05 QE
1	2	3	4	5	6	7
1. Gross Domestic Saving (GDS) (1.1+1.2+1.3)	24.9	23.5	23.6	26.5	28.9	29.1
1.1 Household Saving	21.3	21.2	22.0	23.1	23.5	22.0
a) Financial Assets	10.5	10.2	10.8	10.3	11.5	10.3
b) Physical Assets	10.7	11.0	11.2	12.7	12.0	11.7
1.2 Private Corporate Sector	4.5	4.1	3.6	4.1	4.4	4.8
1.3 Public Sector	-0.9	-1.8	-2.0	-0.7	4.1	2.2
2. Gross Domestic Capital Formation (GDGF)#	26.0	24.2	23.0	25.3	27.2	30.1
3. Saving-Investment Balance (1-2)	-1.1	-0.6	0.6	1.2	1.6	-1.0
4. Gross Capital Formation (4.1+4.2+4.3+4.4)	26.1	24.3	24.3	25.3	26.3	28.5
4.1 Household Sector	10.7	11.0	11.2	12.7	12.0	11.7
4.2 Private Corporate Sector	7.2	5.7	5.6	5.8	6.8	8.2
4.3 Public Sector	7.5	6.9	6.9	6.2	6.5	7.2
4.4 Valuables@	0.8	0.7	0.6	0.6	0.9	1.3

PE : Provisional Estimates.

QE : Quick Estimates.

Adjusted for errors and omissions.

@ Valuables cover the expenditure made on acquisition of valuables, excluding works of arts and antiques.

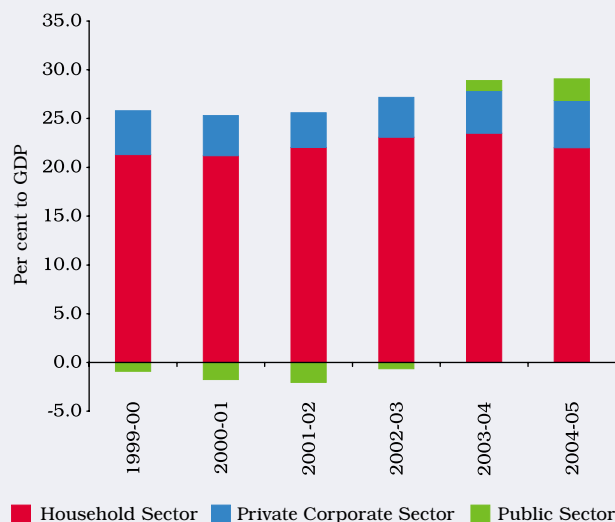
Notes : 1) Figures in parentheses pertain to that of quick estimates (base year: 1993-94) released by the CSO in January 2005.

2) Figures may not add up to the totals due to rounding off.

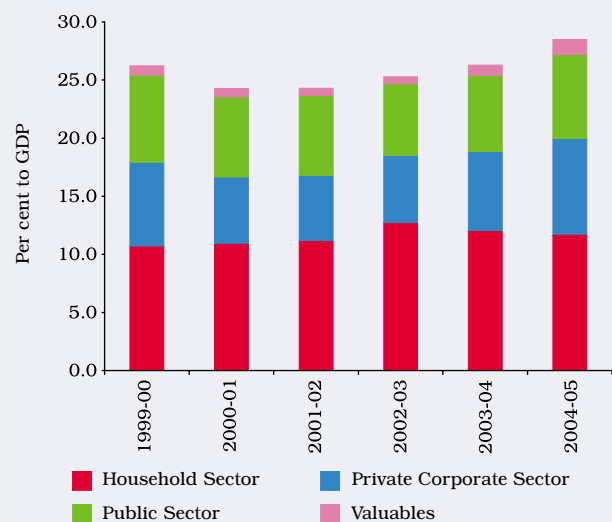
Source : Central Statistical Organisation.

RECENT ECONOMIC DEVELOPMENTS

**Chart II.2: Saving by Institutional Sources
(Base year: 1999-2000)**



**Chart II.3: Gross Capital Formation by Institutional Sources
(Base year: 1999-2000)**



the highest ever achieved. The household sector continued to be the major contributor to GDS with its saving rate placed at 22.0 per cent in 2004-05. Since 1999-00, the rate of household sector saving in the form of physical assets has been higher than that in financial assets. Private corporate saving has been increasing steadily since 2002-03 reflecting significant growth in profits. The public sector also posted positive saving rate of 2.2 per cent in 2004-05, up from 1.0 per cent in 2003-04 on account of better performance of public sector undertakings.

2.9 The rate of Gross Capital Formation (GCF) posted significant improvement in 2004-05 over that

in 2003-04 due to improvements in both public and private corporate investments. The increase in the investment rate was even higher than the increase in the saving rate. This resulted in a deficit of -1.0 per cent in the overall saving-investment balance in 2004-05 as compared with a surplus of 1.6 per cent in 2003-04 (Table 2.6 and Chart II.3).

2.10 The important features of the recent high growth rate are excellent performance shown by the industry and services sectors. The services sector has in fact emerged as the growth driver of the Indian economy in the recent past in comparison with China and other emerging Asian countries where high

**Table 2.6: Saving-Investment Balance
(Base year: 1999-2000)**

(Per cent of GDP at current market prices)

Item	1999-00	2000-01	2001-02	2002-03	2003-04 PE	2004-05 QE
1	2	3	4	5	6	7
Saving-Investment Balance (GDS-GDCF)	-1.1	-0.6	0.6	1.2	1.6	-1.0
Private Sector*	7.8	8.6	8.8	8.6	9.0	6.9
Public Sector*	-8.3	-8.7	-8.9	-6.8	-5.5	-5.0
Current Account Balance	-1.0	-0.6	0.7	1.3	2.3	-0.8
Memo:						
Valuables@	0.8	0.7	0.6	0.6	0.9	1.3

* Private and Public Investments refer to gross capital formation (GCF), unadjusted for errors and omissions.

@ Valuables cover the expenditure made on acquisition of valuables that has been included in the Gross Capital Formation.

GDS : Gross Domestic Saving. GDCF : Gross Domestic Capital Formation.

PE : Provisional Estimates. QE : Quick Estimates.

Note : Derived from CSO and Reserve Bank of India data. Components do not add up to totals because of errors and omissions.

growth is led by the manufacturing sector. Manufacturing within the industry, in India has also recorded impressive performance in the past three years. Further, the rate of GDS at 29.1 per cent achieved during 2004-05, which is the highest rate since the 1950s is highly encouraging. The investment rate at 28.5 per cent during 2004-05 is also remarkable. Maintaining the saving and investment rates at such high levels to sustain high growth momentum, however, remains an area of concern.

Agriculture

2.11 Indian agriculture, after having received a setback in 2004-05, is poised for a turnaround during 2005-06. The rainfall activity, though subdued during the initial period of the season, revived subsequently and the consequent improvement in the moisture content augured well for the *kharif* production. As per the Second Advance Estimates, the total production of foodgrains during 2005-06 is estimated at 209.3 million tonnes indicating a growth of 2.3 per cent as compared with 204.6 million tonnes in the previous year. The Ministry of Agriculture formulated a crop-specific strategy for augmenting the production of crops covering measures such as ensuring timely and adequate availability of certified/quality seeds of location specific high yielding varieties, encouraging inter-cropping, promotion of water saving methods, balanced use of fertilisers, and disease management system.

2.12 In the backdrop of the forecast of a normal South-West monsoon for 2005 by the IMD, the monsoon on-set was late. Although initially the rainfall activity was subdued, it revived subsequently. The temporal progress of the monsoon was erratic but its spatial spread turned out to be satisfactory. The monsoon revival resulted in replenishment of the moisture content of the soil as well as that of the reservoirs.

2.13 The spatial distribution of rainfall during the South-West monsoon 2005 has been satisfactory with 32 out of 36 meteorological sub-divisions recording excess/normal rainfall and only 4 receiving deficient/scanty rainfall (Table 2.7 and Chart II.4). The temporal progress of monsoon was marked with large rainfall deficiency during the first three weeks of June, whole of August and the first week of September 2005. However, there was conspicuous improvement in the monsoon conditions with excess rainfall activity over the country, occurring from the last week of June, most of July and in the second and third week of September 2005. The cumulative area-weighted rainfall during the

Table 2.7: Cumulative Rainfall

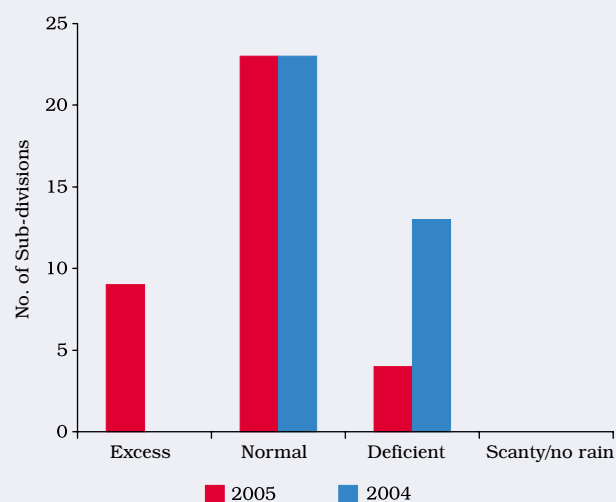
Category	Number of Sub-Divisions					
	South-West Monsoon			North-East Monsoon		
	2005	2004	2003	2005	2004	2003
	(June 1 to Sept. 30)			(Oct. 1 to Dec. 31)		
1	2	3	4	5	6	7
Excess	9	0	7	11	8	9
Normal	23	23	26	6	10	9
Deficient	4	13	3	5	17	6
Scanty/no rain	0	0	0	14	1	12

Source: India Meteorological Department.

South-West monsoon season (June 1 to September 30, 2005) turned out to be 1 per cent below the Long Period Average (LPA), in tandem with the prediction of the IMD.

2.14 Precipitation was 12 per cent below LPA during the month of June. However, during July, which is critical for sowing operations, the rainfall turned out to be excess, *i.e.*, 14 per cent above the LPA, thus providing a conducive backdrop for sowing operations. The monsoon was again subdued in August with a large deficiency of 28 per cent below the LPA. The rainfall was 17 per cent above the LPA in September that provided respite from moisture stress for late sown crops. Among the four regions, South-West monsoon rainfall over Central India, North-West India and South Peninsula was 110 per

Chart II.4: South-West Monsoon -Cumulative Rainfall (June to September)



Source: India Meteorological Department.

Table 2.8: Crop-wise Targets/Achievements

(Million Tonnes)

Crop	2003-04		2004-05		2005-06	
	T	A	T	A.E.\$	T	A.E.@
	1	2	3	4	5	6
Rice	93	88.3	93.5	85.3	87.8	87.9
Wheat	76	72.1	79.5	72	75.5	73.1
Coarse cereals	34	38.1	36.8	33.9	36.5	34.0
Pulses	16	14.9	15.3	13.4	15.2	14.4
Total Foodgrains	220	213.5	225.1	204.6	215.0	209.3
Oilseeds	24.7	25.3	24.7	26.1	26.6	26.4
Sugarcane	320	237.3	270	232.3	237.5	266.9
Cotton*	15	13.9	15	17	16.5	16.5
Jute & Mesta**	12	11.2	11.8	10.5	11.3	10.7

T : Target. A : Achievement.
A.E.\$: Fourth Advance Estimates.
A.E.@ : Second Advance Estimates.
* In million bales of 170 kilograms each.
** In million bales of 180 kilograms each.

Source: Ministry of Agriculture, Government of India.

cent, 90 per cent and 112 per cent of the LPA, respectively, while it was deficient by 20 per cent over North-East India. At the sub-division level, only one sub-division - Jharkhand recorded moderate drought conditions¹. The progress of North-East monsoon (October 1 to December 31, 2005) was satisfactory with the cumulative rainfall at 10 per cent

above LPA as against 11 per cent below LPA during the corresponding period of the previous year. Out of 36 meteorological sub-divisions, the cumulative rainfall was excess/normal in 17 sub-divisions (18 last year) and deficient/scanty/no rain in 19 sub-divisions (18 last year). The overall foodgrains production for 2005-06 has been targeted at 215 million tonnes (Table 2.8).

Kharif 2005

2.15 During the year 2004, *kharif* foodgrains production recorded a shortfall of over 12 per cent over the previous year due to unfavourable monsoon conditions. According to the Second Advance Estimates of the Ministry of Agriculture released on February 22, 2006, the production of foodgrains for *kharif* 2005 is estimated at over 108.2 million tonnes, marking an increase of 4.7 per cent over the preceding year. The higher production is likely to be contributed by increase in the production of rice, cereals and pulses. Among commercial crops, while the production of sugarcane, oilseeds, jute and mesta is expected to be higher, the production of cotton is likely to witness some slippage from the level attained in the previous year (Table 2.9).

Rabi 2005-06

2.16 As per the Second Advance Estimates, total *rabi* foodgrains production is estimated at 101.2

Table 2.9: Season-wise Agricultural Production

(Million Tonnes)

Crops	<i>Kharif</i>			<i>Rabi</i>		
	2003-04	2004-05	2005-06	2003-04	2004-05	2005-06
	A	A.E.\$	A.E.@	A	A.E.\$	A.E.@
1	2	3	4	5	6	7
Rice	78.34	71.67	75.98	9.94	13.64	11.88
Wheat				72.11	72.00	73.06
Coarse cereals	32.37	26.7	26.70	5.75	7.22	7.30
Pulses	6.16	4.95	5.47	8.78	8.43	8.93
Total Foodgrains	116.88	103.32	108.15	96.58	101.29	101.17
Oilseeds	16.77	14.94	15.99	8.52	11.17	10.39
Sugarcane	237.31	232.32	266.88	..	..	..
Cotton*	13.87	17.00	16.45	..	..	..
Jute & Mesta**	11.23	10.49	10.65	..	..	..

.. Not Available. * In million bales of 170 kilograms each. ** In million bales of 180 kilograms each.
A : Achievement. A.E.\$: Fourth Advance Estimates. A.E.@ : Second Advance Estimates.

Source: Ministry of Agriculture, Government of India.

¹ According to the IMD, the departure of aridity index from the normal value is expressed in percentage and accordingly drought is categorised as severe (more than 50 per cent), moderate (26-50 per cent) and mild (upto 25 per cent).

million tonnes, which is almost closer to the level attained in the previous year. While production of wheat, pulses and coarse cereals is expected to be higher, that of rice may be lower during the year as compared to the previous year. A crop-specific strategy was formulated by the Ministry of Agriculture for augmenting the production of *rabi* crops during 2005-06. The strategy covered a series of steps such as ensuring timely and adequate availability of certified/quality seeds of location specific high yielding varieties (particularly in the case of durum wheat), emphasis on timely sowing, encouraging inter-cropping and promotion of water saving devices, balanced use of fertilisers, propagation of soil ameliorants, promotion of zero till seed drills, seed-cum-fertilisers drills, strip drills and raised bed planter, promotion of integrated weed, pest, and disease management system, ensuring quality planting material and increasing the area under early maturing varieties in the case of sugarcane.

2.17 The Department of Agriculture and Cooperation has also put in place a new scheme for "Enhancing Sustainability of Dry-land Rain-fed Farming System" to address the problems of dry-land farming. The major thrust areas under this scheme are rainwater harvesting, water conservation and its efficient utilisation, emphasis on soil moisture conservation, use of organic manures, alternative use and adoption of improved dry-land farming technologies. Diversification from cereal-centric cropping system to more remunerative high value and less water consuming crops like oilseeds, pulses, floriculture, medicinal and aromatic plants is also being emphasised. The Union Budget for 2006-07 has proposed to allocate Rs.150 crore under the National Horticultural Mission to set up model terminal markets in different parts of the country by employing public-private partnership (PPP) model. The Department of Agriculture and Cooperation launched a centrally sponsored "Support to State Extension Programmes for Extension Reforms" scheme in May 2005 for implementation during the Tenth Plan to facilitate reforms in technology dissemination which are farmer-driven and farmer-centric.

Procurement, Off-take and Stocks of Foodgrains

2.18 The procurement of foodgrains (rice and wheat) during 2005-06 (upto February 28, 2006) at about 40 million tonnes, was marginally lower than that procured during the corresponding period of the previous year. The off-take of rice and wheat during 2005-06 (April 1 to December 31, 2005) was of the

same order as that during the comparable period of the previous year. However, the off-take of rice and wheat was higher under Targeted Public Distribution System (TPDS) and Other Welfare Schemes (OWS). On the Contrary, there was a sharp fall in the off-take under Open-Market Sales (OMS).

2.19 The total stocks of foodgrains with Food Corporation of India (FCI) and other Government agencies as on January 1, 2006 declined by 11.2 per cent to around 19.3 million tonnes as compared with 21.7 million tonnes in the corresponding period of last year (Table 2.10).

2.20 The satisfactory South-West and North-East monsoon seasons coupled with better reservoir position augured well for agricultural production and total foodgrains production is slated to be higher than that a year ago. The foodstocks as on January 1, 2006 stood at a lower level than that a year ago.

Industry

2.21 The robust performance of the industrial sector since 2003-04 has further strengthened during the current year on the back of surging demand. The growth momentum of the industrial sector has been supported by the manufacturing sub-sector. While the basic, capital and consumer goods sectors witnessed accelerated growth during the year, the performance of the intermediate goods sector has not been encouraging. The increasing imports may impinge on the performance of the domestic industries as many of the industries are yet to achieve economies of scale and gain competitiveness to face the emerging competition in the globalised market.

2.22 The industrial resurgence that started in April 2002, strengthened in the subsequent years (Chart II.5). The upturn in industrial growth has continued during 2005-06 so far (April-December), abetted primarily by manufacturing sub-sector on account of expansion in external and domestic demand, capacity additions, ease in availability of finance and increased imports of capital goods. On the other hand, mining sector recorded decelerated growth during the year mainly due to the negative performance since July 2005 (Table 2.11). The Index of Industrial Production (IIP) during 2005-06 (April-December) registered a growth of 7.8 per cent.

2.23 The manufacturing sub-sector continues to be the main growth driver in the industrial production. During April-December 2005, at the two-digit level

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Table 2.10: Management of Foodstocks

(Million Tonnes)

Year/Month	Opening Stock of Foodgrains	Foodgrains Procurement	Foodgrains Off-take				Closing Stock	Buffer Stock Norms \$
			PDS	OWS	OMS - Domestic	Exports		
1	2	3	4	5	6	7	8	9
2004								
April	20.6	15.7	2.0	0.5	0.0	0.3	32.4	15.8
May	32.4	3.0	2.3	0.6	0.0	0.1	32.3	
June	32.3	1.4	2.3	1.0	0.0	0.1	30.6	
July	30.6	0.5	2.4	1.0	0.0	0.1	27.2	24.3
August	27.2	0.5	2.4	1.0	0.0	0.1	23.0	
September	23.0	0.2	2.5	1.0	0.0	0.1	20.3	
October	20.3	7.4	2.4	0.8	0.0	0.0	23.7	18.1
November	23.7	1.9	2.4	0.6	0.0	0.0	21.8	
December	21.8	3.2	2.6	0.7	0.0	0.0	21.7	
2005								
January	21.7	3.9	2.7	0.8	0.0	0.0	21.5	16.8
February	21.5	2.3	2.7	0.9	0.0	0.0	20.0	
March	20.0	1.7	2.7	1.7	0.0	0.0	18.0	
April	18.0	14.0	2.4	1.0	0.0	0.0	28.5	16.2
May	28.5	3.1	2.5	0.8	0.0	0.0	27.9	
June	27.9	0.9	2.5	1.7	0.0	0.0	25.1	
July	25.1	0.4	2.8	0.8	0.1	0.0	21.4	26.9
August	21.4	0.9	2.6	0.8	0.1	0.0	18.4	
September	18.4	0.4	2.7	0.7	0.1	0.0	15.5	
October	15.5	7.6	2.2	0.5	0.0	0.0	19.8	16.2
November	19.8	2.7	1.8	0.5	0.1	0.0	19.0	
December	19.0	3.4	2.3	0.7	0.2	0.0	19.3	
2006								
January	19.3	3.8	0.0	0.0	0.0	0.0	..	20.0
February	..	2.5	0.0	0.0	0.0	0.0	..	
<i>Memo:</i>								
2004-05 April-December		32.9	21.3	7.1	0.1	1.0		
2005-06 April-December		33.3	21.8	7.5	0.6	0.0		

.. Not available.

\$ Minimum Buffer Stock norms to be maintained, as on April, July, October and January, revised under New Buffer Stocking Policy with effect from March 29, 2005.

PDS : Public Distribution System.

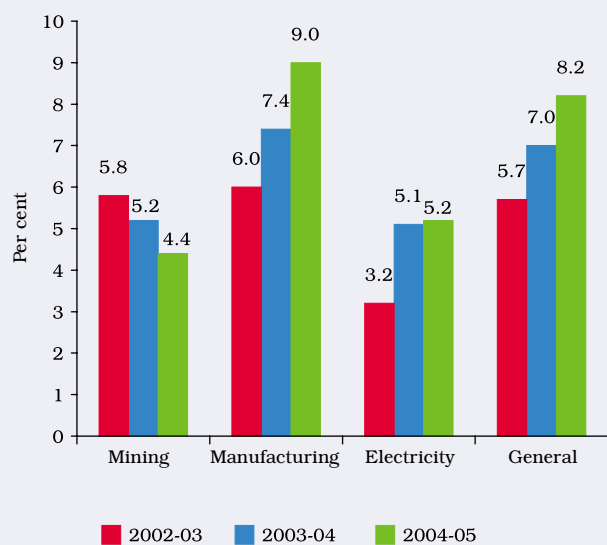
OWS : Other Welfare Schemes.

OMS : Open Market Sales.

Note : Closing stock figures may differ from those arrived at by adding the opening stocks and procurement and deducting offtake, as stocks include coarse grains also.

Source : Ministry of Consumer Affairs, Food and Public Distribution, Government of India.

Chart II.5: Sectoral Growth of IIP



manufacturing groups, 12 out of 17 industry groups recorded positive growth. Other manufacturing industries recorded the highest growth at 23.8 per cent among various manufacturing sector groups, while textile products recorded a marked acceleration in growth at 18.6 per cent during April-December 2005-06 as compared to 14.8 per cent during the corresponding period of the previous year (Table 2.12). Beverages, tobacco and related products; basic metal and alloys; transport equipment and parts; cotton textiles; and machinery and equipments also recorded double-digit growth during the period.

2.24 In terms of use-based classification, all the sectors except intermediate goods sector recorded better growth performance during April-December 2005-06 in comparison with the corresponding period of the previous year (Table 2.13). Basic goods recorded moderate growth due to negative growth of phenol, benzene, superior kerosene, railway

Table 2.11: Index of Industrial Production - Monthly Growth

(Per cent)

Month/Weight	General		Electricity		Mining & Quarrying		Manufacturing	
	(100.00)		(10.17)		(10.47)		(79.36)	
	2004-05	2005-06	2004-05	2005-06	2004-05	2005-06	2004-05	2005-06
1	2	3	4	5	6	7	8	9
April	8.9	8.1	10.3	3.1	9.1	2.8	8.8	9.2
May	6.8	10.8	3.1	10.5	5.3	5.2	7.5	11.3
June	7.3	12.2	4.5	9.6	2.7	4.8	8.1	13.2
July	8.5	4.7	13.7	-0.9	4.2	-1.9	8.4	6.0
August	8.6	7.6	7.4	7.9	4.4	-2.5	9.1	8.5
September	9.8	7.2	7.7	-0.8	5.1	-1.9	10.5	8.9
October	10.6	9.1	3.5	7.7	6.2	-0.5	11.9	10.1
November	7.7	6.1	3.4	3.4	3.6	-0.6	8.6	7.0
December	8.9	5.0	4.5	2.9	4.8	-1.8	9.8	5.9
January	7.5	..	2.4	..	2.6	..	8.6	..
February	5.9	..	-0.8	..	-1.6	..	7.4	..
March	9.8	..	3.2	..	6.6	..	10.9	..
April-December	8.6	7.8	6.4	4.8	5.1	0.4	9.2	8.9

.. Not Available.
Source: Central Statistical Organisation.

materials, ferro manganese, *etc.* The consumer goods exhibited convincing growth aided by robust performance of both durable and non-durable segments. Growth in consumer non-durables was largely propelled by 'beverages, tobacco and tobacco products', textile products, milk powder, chocolate and sugar confectionary, sugar, sulphadiazine, hair oil, *etc.* The intermediate goods sector witnessed subdued performance largely on account of negative growth of certain yarn items, finished leather, viscose staple fibre, gelatine, spun pipes and petroleum products, *etc.*

2.25 A notable feature of recent industrial rebound is the strong double-digit growth of the capital goods sector that has regained its position as the most buoyant segment. This sector posted a growth of 15.7 per cent during April-December 2005-06 over and above 13.8 per cent registered during the same period of 2004-05. Higher production of textile machinery, ship building and repair, laboratory and scientific instruments, locomotives, machine tools, material handling equipment, dumpers, boilers, and power distribution transformers, *etc.*, propped up the capital goods sector. The acceleration in growth of the capital

Table 2.12: Growth of Manufacturing Industries (2-digit level Classification) – April-December 2005

Above 20 per cent	10-20 per cent	0-10 per cent	Negative
1	2	3	4
1. Other manufacturing industries (23.8)	1. Textiles products (including apparels) (18.6)	1. Chemicals and chemical products (9.7)	1. Wool, silk and man-made fibre textiles (-0.1)
	2. Beverages, tobacco and related products (16.4)	2. Non-metallic mineral products (9.4)	2. Leather and leather & fur products (-1.5)
	3. Basic metal and alloy (15.0)	3. Rubber, plastic, petroleum and coal products (3.8)	3. Food products (-2.2)
	4. Transport equipment and parts (12.5)	4. Jute and other vegetable fibre textiles (2.7)	4. Metal products and parts (-2.5)
	5. Machinery and equipment other than transport equipment (10.5)	5. Paper and paper products (0.5)	5. Wood and wood products, furniture and fixtures (-3.7)
	6. Cotton textiles (10.2)		

Note : Figures in brackets are growth rates.
Source : Central Statistical Organisation.

Table 2.13: Sectoral Contribution to IIP Growth - Use-based Classification (April-December)

(Per cent)

Industry Group	Weight in IIP	Growth			Relative Contribution		
		2003-04	2004-05	2005-06P	2003-04	2004-05	2005-06P
1	2	3	4	5	6	7	8
Basic Goods	35.57	4.6	6.0	6.0	22.7	22.1	23.8
Capital Goods	9.26	10.1	13.8	15.7	14.2	15.2	20.1
Intermediate Goods	26.51	6.5	6.9	2.2	27.9	22.8	7.9
Consumer Goods (a+b)	28.66	7.8	11.4	12.2	35.2	39.9	48.1
a) Consumer Durables	5.36	9.2	15.3	13.6	10.2	13.5	13.9
b) Consumer Non-durables	23.30	7.3	10.0	11.7	24.9	26.4	34.2
IIP	100.00	6.6	8.6	7.8	100.0	100.0	100.0

P : Provisional.

Source: Central Statistical Organisation.

goods sector is indicative of the capacity additions taking place across the industries. Concomitantly, there has been a substantial increase in capital goods imports. Non-electrical machinery and transport equipments contributed substantially to the growth of capital goods imports. The import of other capital goods such as professional instruments, optical goods, electrical machinery, machine tools and project goods have also increased significantly.

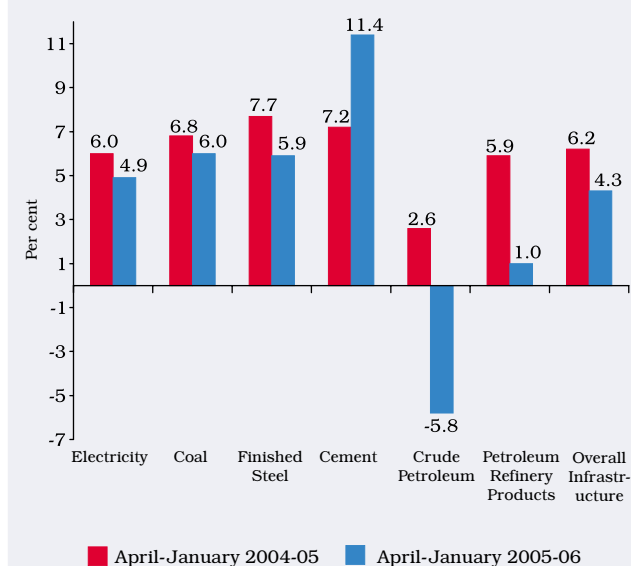
Infrastructure

2.26 During April-January 2005-06, the overall growth of core infrastructure industries was lower at 4.3 per cent as compared to 6.2 per cent during the corresponding period of the previous year (Chart II.6). The slowdown was mainly on account of the negative

growth recorded by crude petroleum, lower growth in petroleum refinery products and deceleration in growth of other infrastructure industries except cement. Amongst the core sector groups, cement sector recorded accelerated growth of 11.4 per cent during the period.

2.27 Despite strong domestic demand, slowdown in steel exports from the country coupled with a lower base contributed to moderate growth in steel output. Rising domestic and external demand facilitated the strong growth of the cement sector. Lower than targeted production in Coal India Ltd., TISCO and IISCO mines owing to heavy rainfall during the monsoon season resulted in the lower growth in coal sector. The electricity sector recorded a lower growth on account of negative growth in electricity generation in July and September and inadequate availability of coal and gas with thermal power plants. Crude petroleum recorded a decline in output because of disruption in oil exploration activities in Mumbai High oilfield of the ONGC on account of outbreak of fire on July 27, 2005. Negative growth in production in one of the private sector oil refineries as well as two PSU refineries resulted in lower growth in petroleum refinery products.

Chart II.6: Growth of Infrastructure Industries



Services Sector

2.28 The services sector maintained the growth momentum achieved during 2003-04 and recorded a robust growth of 10.2 per cent during 2004-05. The acceleration in services growth during 2004-05 was driven by construction followed by 'trade, hotels, transport and communication'. In fact, all the sub-sectors in services sector recorded impressive growth. As per the advance estimates, during 2005-06, the growth in services sector remained impressive,

though marginally lower at 10.1 per cent as compared to that during 2004-05. Deceleration in the growth recorded by construction and 'community social and personal services' sub-sectors resulted in the slack performance of services sector despite improvement in growth rates of 'trade, hotels, transport and communication'; and 'financing, insurance, real estate and business services'. Further, the services sector has in the recent past anchored the growth process despite the uncertainty on agriculture front.

2.29 Construction activity in the country buoyed up on account of rise in demand for residential houses and capacity additions across various industries. The trade sector recorded strong double-digit growth as both exports and imports grew impressively by 18.1 per cent and 27.3 per cent, respectively during April-December 2005-06. Exports were driven largely by petroleum products, gems and jewellery and transport equipment, while imports were driven up by POL, gold, iron and steel and other commodities because of upsurge in industrial activities. Rise in domestic and international tourism, both business as well as leisure aided the growth of hotel industry. Burgeoning revenue earning freight traffic of railways, civil aviation and port traffic propped up the transport sector. Robust growth in the cellular subscriber base and steady growth in broadband connections supported the strong growth in communication sector. Healthy growth in bank deposits and non-food credit as well as increase in business process outsourcing-information technology enabled services exports buoyed up the 'financing, insurance, real estate and business services'. 'Community, social and personal services' showed growth acceleration due to increase in revenue expenditure on 'other economic services', 'defence revenue expenditure', plan revenue expenditure of the Central Government on 'social services', and pension payments.

Information Technology Enabled Services-Business Process Outsourcing

2.30 A significant dimension of sustained growth in the services sector has been the contribution of Information Technology Enabled Services (ITES) and Business Process Outsourcing (BPO) segments. According to the National Association of Software and Services Companies (NASSCOM), ITES-BPO revenue increased significantly in 2004-05 to US \$ 28.2 billion, which constituted 4.1 per cent of the GDP. This could be attributed to rapid growth in demand from overseas and domestic consumers backed by technological advancement in addition to proactive policy reforms such as deregulation, opening up of

FDI and generous tax incentives for this sector. The ITES-BPO market witnessed signs of maturity and consolidation with increased mergers and acquisitions within the sector, suiting the companies search for service providers that could provide the entire spectrum of services in an integrated manner. In addition to the revenue earnings, employment in the ITES-BPO sector also surged in 2004-05.

Industrial Outlook

2.31 The cyclical upturn in the performance of industry that started in April 2002 has been maintained. This facilitated consolidation, marked by upsurge in investment activity across industries. Demand conditions have also remained favourable. The contributory factors include a congenial investment climate, adequate availability of credit, sound corporate results, improved domestic and external demand, capacity additions across industries and persistent improvement in competitiveness. The capital goods sector recorded impressive double-digit growth and imports of capital goods surged on the back of capacity expansions. The scale up in the consumer goods segment during the year reflected acceleration in consumption demand aided by easy availability of retail credit. The outlook for the industrial sector is promising in the backdrop of robust expansion of non-food credit, which increased by 27.6 per cent during 2004-05 (Table 2.14). Further, during 2005-06 (up to December), non-food credit has increased by 22.3 per cent as compared with 18.2 per cent during the corresponding period of the previous year. The advance estimates for 2005-06 (at 1999-00 prices) have placed growth rate in industry at 8.0 per cent, with manufacturing sub-sector recording strong growth of 9.4 per cent followed by 'electricity, gas and water supply' at 5.4 per cent. The encouraging investment climate fuelled by buoyant industrial sentiment and rising corporate profits led to a record rally in the stock market and resulted in high market capitalisation. The commitment on part of the Government in augmenting infrastructure projects is expected to address the constraints and unleash the growth potential. Further, considerable progress is expected in roadways and aviation projects during the current fiscal. On the whole, industry is expected to maintain its ongoing momentum arising from strong demand linkages strengthened by increase in investment, consumption and exports. Nevertheless, high crude oil prices, surge in prices of some non-ferrous metals, hardening of interest rates, and sluggish performance of the core sector could pose downside risks.

Table 2.14: Performance of the Industrial Sector - Selective Indicators

(Growth in Per cent)

Year	IIP	Manufacturing IIP	Capital Goods	Consumer Goods	Non-Food Credit	Import of Capital Goods	Export of Manufactured Goods
1	2	3	4	5	6	7	8
1994-95	9.1	9.1	9.2	12.1	29.8	22.5	22.5
1995-96	13.0	14.1	5.3	12.8	22.5	44.1	16.4
1996-97	6.1	7.3	11.5	6.2	10.9	1.9	3.6
1997-98	6.7	6.7	5.8	5.5	15.1	3.4	7.9
1998-99	4.1	4.4	12.6	2.2	13.0	16.3	-2.8
1999-00	6.7	7.1	6.9	5.7	16.5	-8.2	15.2
2000-01	5.0	5.3	1.8	8.0	14.9	5.1	15.6
2001-02	2.7	2.9	-3.4	6.0	13.6	15.4	-2.8
2002-03	5.7	6.0	10.5	7.1	18.6	38.6	20.6
2003-04	7.0	7.4	13.6	7.1	18.4	28.6	14.4
2004-05	8.2	9.0	13.3	11.5	27.6	20.7	17.3
2004-05 #	8.6	9.2	13.8	11.4	18.2	31.4@	23.0@
2005-06 #	7.8	8.9	15.7	12.2	22.3	28.2@	14.3@

Pertains to April-December period.

@ Pertains to April-November period.

Source: Reserve Bank of India, Central Statistical Organisation and DGCI&S, Government of India.

2.32 Various business expectation surveys suggest that the industrial activity is likely to remain buoyant. The 'Industrial Outlook Survey' of the Reserve Bank suggested the expectation of overall business situation for the quarter October-December 2005 at a higher level of confidence at 51.3 per cent as compared with the previous quarter at 45.5 per cent. Dun and Bradstreet's composite business optimism index for the quarter October-December 2005 improved by 7.1 per cent, reflecting healthy economic scenario. FICCI's business confidence index improved and scaled up from 73.5 during the first quarter to 75.2 during the second quarter of 2005-06. FICCI's survey revealed that the corporate houses are upbeat about the medium to long-term business outlook. The NCAER business confidence index (BCI) inched up from 146.0 for July-September 2005 to 151.4 for October-December 2005. This is the highest level that the NCAER business confidence index has attained since November 1994.

2.33 The performance of the industrial sector during 2005-06 (April-December) has been well diversified. A noteworthy feature of the manufacturing sector growth is that while the high performance industries during 2004-05 such as machinery and equipment (weight 9.565) and chemical and chemical products (weight 14.002) have decelerated during the current year so far, the industries like textile products, beverages, tobacco, basic metal and alloy industries, transport equipment and parts, cotton textiles, non-metallic mineral products, etc., which recorded lower or negative growth during 2004-05, achieved strong

growth during the current year and contributed more than 50 per cent to the manufacturing sector growth. The share of manufacturing exports in the total exports which constituted about 75 per cent has also aided the manufacturing sector performance. Resultantly, on account of improving profitability of the corporate sector, increase in the investment activity and capacity additions are currently underway in the industrial sector. The surge in capital goods imports has also facilitated the on-going expansion of the industrial sector.

II. FISCAL SITUATION

Central Government Finances

2.34 The Union Budget 2006-07 was presented against the backdrop of an impressive growth performance, moderate inflation, strong and resilient external sector coupled with strong non-food bank credit off-take. The Budget considers its 'unrelenting emphasis' on fiscal prudence through enhanced revenues and expenditure control, monetary stability and management of external debt to be the key factors behind strong macroeconomic performance. The Budget commits to resume fiscal consolidation set out in the Fiscal Responsibility and Budget Management (FRBM) Rules, 2004 with the proposed reductions in the revenue deficit and fiscal deficit.

2.35 The major thrust of the Budget is to spur economic growth and provide justice to the disadvantaged sections of society. There has been a significant increase in the allocation for the eight

flagship programmes of the Government covering the areas of education, health and rural employment. The Budget continues to reiterate its focus on agriculture, promoting employment, enhancing investment and augmenting infrastructure.

2.36 The Union Budget 2006-07 emphasises the need to increase the tax/GDP ratio without impeding the growth momentum. The strategy in respect of direct taxation is to minimise distortions in tax structure by expanding the tax base and moderating tax rates on the one hand and improve the efficiency of tax administration and increase the deterrence level on the other so as to encourage voluntary compliance. The strategy in respect of indirect taxes is to continue the tariff reform process towards mean ASEAN levels of customs tariff, convergence towards CENVAT rate for excise duty, widening of service tax base and phased move towards a fully integrated goods and services tax by April 1, 2010. While the Budget does not alter the rates in respect of personal income tax and corporate income tax, it has, *inter alia* raised the rates of Minimum Alternate Tax (MAT), Securities Transaction Tax (STT) and service tax.

Revised Estimates 2005-06²

2.37 The key deficit indicators, viz., revenue deficit and gross fiscal deficit, relative to GDP, were placed lower in the revised estimates for 2005-06 than their budgeted levels. In this context it may be recalled that while presenting the budget for 2005-06, in view of the additional resource requirements for implementing the recommendations of Twelfth Finance Commission (TFC), the Government had pressed a 'pause button' in fiscal correction in terms of targets prescribed under FRBM Rules, 2004. The reduction in deficit indicators in the revised estimates over the budgeted levels was mainly on account of reduction in non-Plan

expenditure in respect of interest payments, subsidies, grants to States and defence expenditure. In addition to the reduction in non-Plan expenditure, availability of disinvestment proceeds as a budgetary receipt (although the Union budget for 2005-06 had sought to discontinue the practice of treating disinvestment proceeds as budgetary receipts) and lower non-defence capital outlay also enabled a reduction in fiscal deficit.

2.38 The revenue deficit in the revised estimates was lower by 3.7 per cent and constituted 2.6 per cent of GDP as against the budgeted level of 2.7 per cent (Table 2.15). Decline in revenue deficit was on account of a reduction in revenue expenditure to the extent of Rs.6,217 crore (1.4 per cent) which offset the shortfall of the order of Rs.2,726 crore (0.8 per cent) in revenue receipts. The reduction in revenue deficit coupled with availability of disinvestment proceeds and a decline in capital outlay resulted in a lower gross fiscal deficit (4.1 per cent of GDP) than the budgeted level (4.3 per cent of GDP). Primary deficit at 0.5 per cent of GDP was lower by 6.1 per cent in the revised estimates for 2005-06 than the budget estimates. In terms of GDP, however, primary deficit remained at the budgeted level of 0.5 per cent (Table 2.15).

2.39 Revenue receipts in the revised estimates for 2005-06 declined marginally by 0.8 per cent over the budgeted level. The decline in revenue receipts was due to lower non-tax revenue than the budgeted level. The shortfall in non-tax revenue was mainly on account of lower interest receipts than the budget estimates. The gross tax revenue in the revised estimates for 2005-06 remained almost at same level as in the budget estimates. Collections from corporation tax, personal income tax and excise duties in the revised estimates were lower than the budgeted level whereas collections from customs duties and

Table 2.15: Deficit Indicators of the Centre

(Rupees crore)

Item	2004-05	2005-06 (BE)	2005-06 (RE)	2006-07 (BE)	Variation (per cent)	
					Col. 4 over 3	Col. 5 over 4
1	2	3	4	5	6	7
1. Gross Fiscal Deficit	1,25,202 (4.0)	1,51,144 (4.3)	1,46,175 (4.1)	1,48,686 (3.8)	-3.3	1.7
2. Revenue Deficit	78,338 (2.5)	95,312 (2.7)	91,821 (2.6)	84,727 (2.1)	-3.7	-7.7
3. Gross Primary Deficit	-1,732 (-0.1)	17,199 (0.5)	16,143 (0.5)	8,863 (0.2)	-6.1	-45.1

BE: Budget Estimate. RE: Revised Estimate.

Note: Figures in parentheses are percentage of GDP.

² All comparisons of 2005-06 in this Section are with budget estimates unless stated otherwise.

service tax significantly exceeded the budgeted level. Among the new taxes, securities transactions tax is estimated to yield Rs.2,389 crore and banking cash transaction tax, Rs.350 crore in 2005-06. The net tax revenue [gross tax revenue less States share in Central taxes and amount transferred to National Calamity Contingency Fund (NCCF)] showed an increase of 0.2 per cent over the budgeted level (Table 2.16).

2.40 Despite a decline in recovery of loans, non-debt capital receipts were higher than the budget estimates due to inclusion of an amount of Rs.2,356 crore under the disinvestment proceeds, although the Union Budget for 2005-06 had sought to discontinue the practice of treating disinvestment proceeds as budgetary receipts (Table 2.16).

2.41 Revenue expenditure in the revised estimates for 2005-06 was lower by 1.4 per cent than the budget estimates whereas capital expenditure was marginally higher (Table 2.17). Revenue expenditure was lower on account of interest payments, grants to states and subsidies. In the capital expenditure, while capital outlay was lower, loans and advances were higher than the budgeted level.

Budget Estimates 2006-07³

2.42 The Union Budget for 2006-07 proposes to resume the process of fiscal correction stipulated in FRBM Rules, 2004 after a 'pause' in the preceding year. Accordingly, key deficit indicators, *viz.*, gross fiscal deficit (GFD), revenue deficit (RD) and primary deficit (PD), as per cent of GDP, are budgeted lower than the previous year's levels at 3.8 per cent, 2.1 per cent and 0.2 per cent in 2006-07 as compared with 4.1 per cent, 2.6 per cent and 0.5 per cent, respectively, in 2005-06 (Table 2.15).

2.43 The revenue receipts in 2006-07 are budgeted to increase by 15.8 per cent against the growth of 13.9 per cent in 2005-06, primarily on the basis of continued high growth in tax revenue. Gross tax revenue is budgeted to increase by 19.5 per cent in 2006-07 resulting in an improvement in the budgeted tax-GDP ratio to 11.2 per cent from 10.5 per cent in 2005-06. High growth in gross tax revenue is budgeted mainly on the basis of buoyant collections under corporation tax, customs duties and service tax. Excise duty collections are, however, budgeted to show a lower growth of 6.3 per cent than 13.0 per

Table 2.16: Receipts of the Centre

Item	2004-05	2005-06 (BE)	2005-06 (RE)	2006-07 (BE)	Variation (per cent)	
					Col. 4 over 3	Col. 5 over 4
					6	7
1	2	3	4	5	6	7
Total Receipts (1+2)	4,97,682	5,14,344	5,08,705	5,63,991	-1.1	10.9
1. Revenue Receipts	3,06,013	3,51,200	3,48,474	4,03,465	-0.8	15.8
i. Tax Revenue (Net)	2,24,798	2,73,466	2,74,139	3,27,205	0.2	19.4
ii. Non -Tax Revenue	81,215	77,734	74,335	76,260	-4.4	2.6
2. Capital Receipts	1,91,669	1,63,144	1,60,231	1,60,526	-1.8	0.2
of which :						
Market Borrowings	50,940	1,03,792	1,01,082	1,13,778	-2.6	12.6
Recoveries of Loans	62,043	12,000	11,700	8,000	-2.5	-31.6
Disinvestment of Equity in Public Sector Undertakings	4,424	0	2,356	3,840	-	63.0
Memo Items:						
Gross Tax Revenue	3,04,958	3,70,025	3,70,141	4,42,153	0.0	19.5
Of which :	(9.8)	(10.5)	(10.5)	(11.2)		
i. Corporation Tax	82,680	1,10,573	1,03,573	1,33,010	-6.3	28.4
ii. Taxes on Income other than Corporation Tax	49,259	66,239	63,500	73,409	-4.1	15.6
iii. Customs Duty	57,611	53,182	64,215	77,066	20.7	20.0
iv. Union Excise Duty	99,125	1,21,533	1,12,000	1,19,000	-7.8	6.3
v. Service Tax	14,200	17,500	23,000	34,500	31.4	50.0
vi. Securities Transaction Tax	590	-	2,389	3,500	-	46.5
vii. Banking Cash Transaction Tax	-	-	350	500	-	42.9
viii. Taxes of UTs (Net of Assignments to Local Bodies)	819	733	849	903	15.8	6.4
ix. Other Taxes and Duties	1,264	265	3,004	4,265	1,033.6	42.0
BE: Budget Estimate. RE : Revised Estimate. - Nil/negligible.						
Note : Figures in parentheses are percentage of GDP.						

³ All comparisons of 2006-07 in this Section are with revised estimates for 2005-06 unless stated otherwise.

Table 2.17: Expenditure Pattern of the Centre

(Rupees crore)

Item	2004-05	2005-06 BE	2005-06 RE	2006-07 BE	Per cent	
					col. 4 over 3	col. 5 over 4
1	2	3	4	5	6	7
Aggregate Expenditure (1+2)	4,97,682	5,14,344	5,08,705	5,63,991	-1.1	10.9
1. Revenue Expenditure	3,84,351	4,46,512	4,40,295	4,88,192	-1.4	10.9
Interest Payments	1,26,934	1,33,945	1,30,032	1,39,823	-2.9	7.5
Subsidies	43,653	47,432	46,874	46,213	-1.2	-1.4
Grants to States	52,686	77,275	70,971	83,098	-8.2	17.1
Defence Revenue	43,862	48,625	48,625	51,542	0.0	6.0
2. Capital Expenditure	1,13,331*	67,832	68,410	75,799	0.9	10.8
Loans and Advances	28,910	5,652	11,417	8,861	102.0	-22.4
Defence Capital	31,994	34,375	33,075	37,458	-3.8	13.3
Non Defence Capital Outlay	19,752	27,805	23,918	29,480	-14.0	23.3

BE: Budget Estimate.

RE : Revised Estimate.

* Includes repayments of Rs.32,675 crore to National Small Savings Fund.

cent in the preceding year. The Budget proposes to arrest the decline in non-tax revenue with a marginal increase in 2006-07, mainly on the basis of improved collections under dividends and profits. The recoveries of loans and advances from the State Governments are estimated to decline marginally in 2006-07. The Budget records estimated receipts of Rs.3,840 crore on account of partial disinvestment of Government equity in Central Public Sector Undertakings (CPSUs) but earmarks these receipts for the National Investment Fund (NIF) under capital outlays in 2006-07, thereby making the transaction deficit neutral (Table 2.16).

2.44 One of the salient features of Budget estimates has been the control in revenue expenditure, particularly in the non-Plan components. Expenditure on subsidies is budgeted to decline in the 2006-07 whereas interest payments and defence revenue expenditure are budgeted to increase at relatively lower growth rates. In subsidies, except food and petroleum, all the major components are budgeted to decline during 2006-07. Capital expenditure is budgeted to increase by 10.8 per cent in 2006-07 as against a reduction of 39.6 per cent in 2005-06 mainly on account of an increase in both defence and non-defence capital outlay (Table 2.17).

2.45 The financing pattern of the gross fiscal deficit indicates that the net market borrowings (excluding enabling allocations budgeted under MSS) would finance 76.5 per cent of the GFD in 2006-07 as compared with 69.2 per cent in the previous year. Deposits and advances would finance a higher portion of GFD while the share of reserve funds in financing GFD is budgeted to decline in 2006-07. The budget estimates have not made any provision for draw down

of cash balances as compared with 10.3 per cent of GFD in the preceding year. Securities against small savings, which financed only 0.9 per cent of the GFD in 2005-06, are expected to finance 2.0 per cent in 2006-07 (Table 2.18).

Table 2.18: Financing Pattern of Gross Fiscal Deficit

(Rupees crore)

Item	2005-06(RE)		2006-07 (BE)	
	1	2	3	4
Gross Fiscal Deficit	1,46,175		1,48,686	
<i>Financed by</i>				
Market Borrowings	1,01,082	(69.2)	1,13,778	(76.5)
Securities against Small Savings	1,350	(0.9)	3,010	(2.0)
External Assistance	7,515	(5.1)	8,324	(5.6)
State Provident Fund	5,500	(3.8)	6,000	(4.0)
NSSF	-7,332	(-5.0)	648	(0.4)
Reserve Funds	3,526	(2.4)	1,725	(1.2)
Deposit and Advances	4,654	(3.2)	11,013	(7.4)
Postal Insurance and Life Annuity Funds	1,215	(0.8)	1,265	(0.9)
Draw down of Cash Balances	15,037	(10.3)	0	(0.0)
Others #	13,627	(9.3)	2,923	(2.0)

BE: Budget Estimate.

RE : Revised Estimate.

Includes savings (taxable) bonds 2003 and Deposits Scheme for Retiring Employees.

Note: Figures in parentheses are percentages to GFD.

State Government Finances

2.46 The evolving policy environment for the State Governments has been shaped by three significant developments, viz., (i) on-going fiscal and institutional reforms at the State-level facilitated and supplemented by initiatives of the Central Government and the Reserve Bank, (ii) general acceptance of the recommendations of the Twelfth Finance Commission (TFC) by the Union Government, which would form the basis of fiscal federal relations over the five-year period beginning 2005-06 and (iii) implementation of the Value Added Tax (VAT) by twenty two States with effect from April 1, 2005, which is an important milestone in the area of tax reforms. The consolidated fiscal position of the State Governments budgeted for 2005-06 could be examined in the backdrop of the TFC recommendations. Large corrections have been envisaged during 2005-06 against the fiscal scenario of 2004-05 (RE).

2.47 The Reserve Bank on its part finalised the Report of the Working Group on Model Fiscal Responsibility Legislation (FRL) at the State level in January 2005 and released it in March 2005. The Report provides a framework for FRL and leaves it to discretion of the States to work out the specifics in respect of various parameters. Sixteen States, viz., Karnataka, Kerala, Punjab, Tamil Nadu, Uttar Pradesh, Orissa, Maharashtra, Gujarat, Assam, Chhattisgarh, Himachal Pradesh, Haryana, Rajasthan, Madhya Pradesh, Tripura and Andhra Pradesh have so far enacted the FRLs. Manipur has introduced the FRL Bill in 2005-06. Meghalaya and Uttaranchal have also proposed to introduce FRL in their budgets for 2005-06.

2.48 The TFC report, a blueprint of fiscal federalism over the medium-term, recommended a higher amount of transfers so as to reverse the decline in the volume of transfers relative to GDP and to ensure minimum vertical transfers (between Centre and States) while correcting the horizontal imbalance (among States). Total resource transfers from the Centre to the States (comprising shareable tax revenue and grants) have been placed at Rs.7,55,752 crore for the period 2005-06 to 2009-10, which is nearly 74 per cent higher than that of Rs.4,34,905 crore for the period 2000-01 to 2004-05 recommended by the Eleventh Finance Commission.

2.49 The TFC has emphasised the need for fiscal consolidation for the Centre and the States through institutional fiscal frameworks and setting up targets

for various fiscal parameters. The major recommendations of the TFC include enhanced devolution of grants to the States, State-specific grants, discontinuation of Central plan assistance to the States, increased share in taxes and duties, debt relief through restructuring and write-offs and emphasis on devolution to local bodies. The TFC has also incentivised the enactment of fiscal legislations by the States by making it a pre-condition for availing debt relief. The VAT has been implemented by 22 States during 2005-06 so far. Avoidance of the cascading effects of taxation and promotion of tax compliance through a system of self-assessment, which are intrinsic to the VAT, would not only lead to enhanced economic efficiency but also, over a period of time, facilitate acceleration in the rate of growth of the States' own tax revenues. The Union Budget for 2005-06 includes a provision of Rs.5,000 crore as compensation to the States on account of shortfall in the revenue that may arise due to implementation of State-level VAT. A major issue which the Empowered Committee would revisit during 2005-06 is phasing out of the inter-State or Central Sales Tax (CST). The States mobilise around Rs.15,000 crore revenue annually from this source.

2.50 The State Budgets for 2005-06 have continued to place emphasis on fiscal consolidation through curtailment of unwarranted expenditure. Some States have proposed to review the policy of providing free power to certain sections of society and also to implement 'Contributory Pension Funds' in order to address their large pension obligations. Initiatives to clear the arrears of defaulting Public Sector Undertakings as well as according high priority to power sector reforms are also evident in the State budgets. Some of the States have also initiated rehabilitation and welfare measures for those affected by the Tsunami disaster of December 2004.

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2.51 The State budgets for 2005-06 envisage a sharp correction of fiscal imbalances. All the major deficit indicators are budgeted to be much lower than their levels in the previous year (Table 2.19). The revenue deficit would be reduced further to nearly half of its level in the previous year.

2.52 Improvement in the revenue account during 2005-06 would be brought about mainly by containment of growth in non-interest revenue

⁴ The analysis of State Finances for 2005-06 budget estimates is based on the Budget documents of 29 State Governments, of which one is a *Vote-on-Account*. All data are provisional.

Table 2.19: Major Deficit Indicators of State Governments

(Rupees crore)

Items	1990-95 (Avg.)	1995-00 (Avg.)	2000-03 (Avg.)	2003-04 (Accounts)	2004-05 BE	2004-05 RE	2005-06 BE	Percentage variation	
								Col.7/6	Col.8/7
1	2	3	4	5	6	7	8	9	10
Gross Fiscal Deficit	(2.8)	(3.4)	(4.2)	1,23,070 (4.5)	1,14,647 (3.7)	1,23,635 (4.0)	1,10,070 (3.1)	7.8	-11.0
Revenue Deficit	(0.7)	(1.6)	(2.5)	61,145 (2.2)	45,425 (1.5)	44,302 (1.4)	24,770 (0.7)	-2.5	-44.1
Primary Deficit	(1.1)	(1.4)	(1.5)	41,306 (1.5)	23,789 (0.8)	35,737 (1.1)	16,772 (0.5)	50.2	-53.1

Avg.: Average. BE: Budget Estimates. RE: Revised Estimates.

Notes : (1) The figures in parentheses are percentages to GDP.

(2) GDP from 1990-91 to 1998-99 are on old base (1993-94) while the same is on new base (1999-2000) from 1999-2000 onwards.

Sources : (1) Data on fiscal variables have been compiled from budget documents of State Governments.

(2) Data for GDP have been obtained from the website of Central Statistical Organisation (CSO).

expenditure. The growth rate of almost all major developmental heads under revenue expenditure are likely to record deceleration. Within the non-developmental revenue expenditure, the growth rate of administrative services is expected to accelerate while growth rate of interest payments is likely to

decelerate. Capital outlay would be enhanced during 2005-06, though, as a ratio to GDP, it would remain at the previous year's level. In the aggregate, the ratio of developmental expenditure to GDP would record a larger decline than that of non-developmental expenditure to GDP during 2005-06 (Table 2.20).

Table 2.20: Expenditure Pattern of State Governments

(Rupees crore)

Items	1990-95 (Avg.)	1995-00 (Avg.)	2000-03 (Avg.)	2003-04 (Accounts)	2004-05 BE	2004-05 RE	2005-06 BE	Percentage variations	
								Col.7/6	Col.8/7
1	2	3	4	5	6	7	8	9	10
Aggregate Expenditure (1+2=3+4+5)	(16.0)	(15.3)	(16.7)	13,31,748 (48.2)	11,23,935 (36.2)	12,30,076 (39.4)	11,53,938 (32.7)	9.4	-6.2
1. Revenue Expenditure of which	(12.8)	(12.6)	(13.8)	3,77,681 (13.7)	4,20,006 (13.5)	4,28,741 (13.7)	4,55,040 (12.9)	2.1	6.1
Interest payments	(1.7)	(2.0)	(2.7)	81,763 (3.0)	90,858 (2.9)	87,899 (2.8)	93,298 (2.6)	-3.3	6.1
2. Capital Expenditure of which	(3.2)	(2.7)	(2.9)	9,54,068 (34.6)	7,03,929 (22.7)	8,01,335 (25.7)	6,98,898 (19.8)	13.8	-12.8
Capital outlay	(1.6)	(1.4)	(1.5)	52,426 (1.9)	60,828 (2.0)	68,231 (2.2)	76,764 (2.2)	12.2	12.5
3. Developmental Expenditure	(10.8)	(9.6)	(9.6)	2,80,099 (10.1)	2,89,223 (9.3)	3,16,172 (10.1)	3,25,672 (9.2)	9.3	3.0
4. Non-Developmental Expenditure	(4.3)	(4.9)	(6.0)	1,69,021 (6.1)	1,99,770 (6.4)	1,93,602 (6.2)	2,11,368 (6.0)	-3.1	9.2
5. Others*	(0.9)	(0.7)	(1.2)	8,82,627 (32.0)	6,34,942 (20.4)	7,20,303 (23.1)	6,16,898 (17.5)	13.4	-14.4

Avg.: Average. BE: Budget Estimates. RE: Revised Estimates.

* Comprises Compensation and Assignments to local bodies, Grants-in-Aid and Contributions, Reserve with Finance Department, Discharge of Internal Debt, Repayment of loans to the Centre till 2002-03. Since 2003-04, it also includes Inter-State Settlement, Contingency Fund, Small Savings, Provident Fund, etc., Reserve Funds, Deposit & Advances, Suspense & Miscellaneous, Appropriation to Contingency Fund and Remittances.

Notes : (1) Figures in parentheses are percentages to GDP.

(2) Capital expenditure starting with 2003-04 includes corresponding heads of public account, which were hitherto included on a net basis under capital receipts. The figures, therefore, are not comparable with that of earlier years. The comparable figures on a net basis for Aggregate Expenditure for the years 2003-04 (Accounts), 2004-05 (BE), 2004-05 (RE) and 2005-06 (BE) are 19.1 per cent, 17.9 per cent, 19.0 per cent and 16.4 per cent, respectively. The comparable figures on a net basis for Capital Expenditure for the years 2003-04 (Accounts), 2004-05 (BE), 2004-05 (RE) and 2005-06 (BE) are 5.4 per cent, 4.3 per cent, 5.3 per cent and 3.5 per cent, respectively.

(3) GDP from 1990-91 to 1998-99 are on old base (1993-94) while the same is on new base (1999-2000) from 1999-2000 onwards.

Sources : (1) Data on fiscal variables have been compiled from budget documents of State Governments.

(2) Data for GDP have been obtained from the website of Central Statistical Organisation (CSO).

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2.53 On the receipts side, the ratio of States' own tax revenue to GDP would show a further marginal increase (Table 2.21). The implementation of VAT by twenty two State Governments would have an important bearing on the growth rate of States' own tax revenues during the year. The States' own non-tax revenues, as a ratio to GDP would, however, decline in 2005-06 mainly as a result of a sharp decline in interest receipts. Current transfers from the Centre, as a ratio to GDP, are budgeted marginally higher at 4.8 per cent as against that of 2004-05 (RE). According to the Union Budget 2005-06, the total impact of recommendations of the TFC on the Centre (and as a mirror image, on the States) for the year 2005-06 would be of the order of Rs.26,000 crore. States are likely to gain from higher tax devolution, enhanced grants as well as the debt relief schemes. In terms of the Union Budget 2005-06,

the increase in gross devolution and transfers (through tax sharing, grants and loans) to the States in 2005-06 over the revised estimates of the previous year is around Rs.17,000 crore.

2.54 The financing of the GFD shows that share of small savings of the State Governments is budgeted to increase during 2005-06 *vis-à-vis* 2004-05 as against a decline in the share of market borrowings (Table 2.22).

2.55 Loans from the Centre, which showed net repayment during the previous three years (2002-03 to 2004-05), were budgeted to finance a considerable proportion of the States' borrowing requirements, since the states had not taken account of the TFC recommendations recommending cessation of Central Government lending to State Governments. The provisional net allocation under market borrowing programme for State Governments is placed at

Table 2.21: Aggregate Receipts of State Governments

(Rupees crore)

Items	1990-95 (Avg.)	1995-00 (Avg.)	2000-03 (Avg.)	2003-04 (Accounts)	2004-05 BE	2004-05 RE	2005-06 BE	Percentage variations	
								Col.7/6	Col.8/7
1	2	3	4	5	6	7	8	9	10
Aggregate Receipts (1+2)				13,30,584 (48.2)	11,18,716 (36.0)	12,23,312 (39.2)	11,55,807 (32.7)	9.3	-5.5
1. Total revenue receipts (a+b)	(16.1)	(15.2)	(16.8)	3,16,536 (11.5)	3,74,581 (12.1)	3,84,438 (12.3)	4,30,270 (12.2)	2.6	11.9
(a) States own Revenue	(7.3)	(6.9)	(7.2)	1,98,109 (7.2)	2,35,217 (7.6)	2,36,596 (7.6)	2,61,795 (7.4)	0.6	10.7
States own tax	(5.4)	(5.3)	(5.7)	1,59,921 (5.8)	1,85,605 (6.0)	1,87,415 (6.0)	2,15,243 (6.1)	1.0	14.8
States own non tax	(1.8)	(1.6)	(1.5)	38,189 (1.4)	49,612 (1.6)	49,181 (1.6)	46,552 (1.3)	-0.9	-5.3
(b). Central Transfers	(4.9)	(4.0)	(4.2)	1,18,426 (4.3)	1,39,364 (4.5)	1,47,843 (4.7)	1,68,475 (4.8)	6.1	14.0
Shareable taxes	(2.6)	(2.4)	(2.3)	67,079 (2.4)	77,952 (2.5)	80,755 (2.6)	90,003 (2.6)	3.6	11.5
Central Grants	(2.3)	(1.6)	(1.9)	51,348 (1.9)	61,413 (2.0)	67,088 (2.1)	78,472 (2.2)	9.2	17.0
2. Capital Receipts (a+b)	(4.0)	(4.2)	(5.5)	10,14,047 (36.7)	7,44,135 (24.0)	8,38,873 (26.9)	7,25,537 (20.6)	12.7	-13.5
(a) Loans from Centre@	(1.2)	(1.0)	(1.0)	26,127 (0.9)	34,040 (1.1)	32,940 (1.1)	31,216 (0.9)	-3.2	-5.2
(b) Other Capital Receipts	(2.9)	(3.2)	(4.4)	9,87,920 (35.8)	7,10,095 (22.9)	8,05,933 (25.8)	6,94,321 (19.7)	13.5	-13.8

Avg.: Average

BE: Budget Estimates.

RE: Revised Estimates.

@ With the change in the system of accounting with effect from 1999-2000, States' share in small savings which was included earlier under loans from Centre is included under internal debt and shown as special securities issued to National Small Savings Fund (NSSF) of the Central Government. The data for the years prior to 1999-2000 as reported in this Table, however, exclude loans against small savings, for the purpose of comparability.

Notes : (1) Figures in parentheses are percentages to GDP.

(2) Since 2003-04, the data on capital receipts are on a gross basis and therefore, not comparable with that of earlier years. The comparable figures on a net basis for Aggregate Receipts for the years 2003-04 (Accounts), 2004-05 (BE), 2004-05 (RE) and 2005-06 (BE) are 19.1 per cent, 17.8 per cent, 18.9 per cent and 16.5 per cent, respectively. The comparable figures on a net basis for Capital Receipts for the years 2003-04 (Accounts), 2004-05 (BE), 2004-05 (RE) and 2005-06 (BE) are 7.6 per cent, 5.7 per cent, 6.5 per cent and 4.3 per cent, respectively.

(3) GDP from 1990-91 to 1998-99 are on old base (1993-94) while the same is on new base (1999-2000) from 1999-2000 onwards.

Sources : (1) Data on fiscal variables have been compiled from budget documents of State Governments.

(2) Data for GDP have been obtained from the website of Central Statistical Organisation (CSO).

Table 2.22: Decomposition and Financing Pattern of GFD of States

(Per cent)

Items	1990-95 (Avg.)	1995-00 (Avg.)	2000-03 (Avg.)	2003-04 (Accounts)	2004-05 BE	2004-05 RE	2005-06 BE
1	2	3	4	5	6	7	8
Decomposition (1+2+3)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1. Revenue Deficit	24.7	44.7	58.5	49.7	39.6	35.8	22.5
2. Capital Outlay	55.3	43.2	34.7	42.6	53.1	55.2	69.7
3. Net Lending	20.0	12.1	6.8	7.7	7.3	9.0	7.8
Financing (1 to 11)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1. Market Borrowings	16.0	16.1	19.9	38.4	24.0	26.4	14.6
2. Loans from Centre	49.0	40.6	6.6	11.5	13.8	4.7	15.8
3. Loans against Securities Issued to NSSF	—	28.9*	41.6	16.9	34.1	43.4	47.8
4. Loans from LIC, NABARD, NCDC, SBI and Other Banks	1.8	2.8	5.5	3.4	4.6	2.3	7.3
5. State Provident Fund	14.3	13.4	9.2	5.8	9.1	7.8	7.2
6. Reserve Funds	6.8	5.5	4.3	5.2	5.2	5.0	3.8
7. Deposits & Advances	9.8	9.8	4.6	-0.3	0.1	-1.0	-2.5
8. Suspense & Miscellaneous	4.3	2.7	0.4	-4.4	-1.6	0.5	-1.3
9. Remittances	-1.4	-3.6	0.3	1.5	1.0	-0.8	1.5
10. Overall Surplus(+)/Deficit(-)	4.4	-2.6	1.2	-0.9	-4.6	-5.5	1.0
11. Others	-5.0	9.5	6.4	23.0	14.2	17.1	4.7

Avg.: Average. BE: Budget Estimates. RE: Revised Estimates. — Not applicable.

* Pertains to 1999-2000 as it was introduced from that year only. The sum of items will not be equal to 100 for 1995-2000 (Avg.).

Notes : (1) Overall surplus/deficit would be matched by increase/decrease in cash balance since 2003-04. This is due to Cash Balance Investment Account now included under 'Suspense and Miscellaneous' while WMA/OD from RBI is included under 'Internal Debt'.

(2) 'Others' (item no.11) includes miscellaneous capital receipts, Contingency Fund, Inter-State Settlement, WMA/OD from RBI, etc.

Source : Budget Documents of State Governments.

Rs.16,112 crore during 2005-06. Taking into account the repayments of Rs.6,274 crore and additional borrowing allocation of Rs.3,202 crore, the gross allocation amounts to Rs.25,589 crore. The States during 2005-06 so far (up to February 28, 2006), have raised the amount of Rs.19,909 crore (Table 2.23). The weighted average interest rate of market loans during 2005-06 so far (up to February 28, 2006) firmed up to 7.62 per cent as compared with 6.44 per cent during the corresponding period of the previous year (Chart II.7).

2.56 States have generally not taken into account the recommendations of the TFC. Reckoning the net Central loans for State plans as reported in the Union Budget, 2005-06 and assuming that the State plans are maintained at the budgeted level, the market borrowings during 2005-06 would not be substantially higher than the provisional net allocation amount on account of higher devolution of taxes and grants as envisaged in the Union Budget in accordance with the TFC recommendations and larger receipts from the National Small Savings Fund (NSSF).

2.57 The weekly average utilisation of the Ways and Means Advances (WMA) and overdraft by the States during 2005-06 so far (up to end-February 2006) amounted to Rs.481 crore which was significantly lower than Rs.2,914 crore in the corresponding period of the previous year (Chart II.8).

2.58 The improvement in the overall cash position of the States was reflected in a spurt in the investments in 14-day Intermediate Treasury Bills. The weekly average investment by the States in the 14-day Treasury Bills during 2005-06 so far (up to end-February 2006) amounted to Rs.34,045 crore, which was considerably higher than that of Rs.9,945 crore in the corresponding period of the previous year (Chart II.9). Nine States resorted to overdraft during 2005-06 so far (up to February 28, 2006) as compared with 13 States during the entire year in 2004-05.

Outlook

2.59 The year 2005-06 is significant not only because it is the first year of the award of the TFC but also because it witnessed the long-pending implementation of the State-level VAT, an important milestone in the area of tax reforms. The TFC has recommended a substantial increase in devolution and transfers to the States, which should help ease the pressure on their budgets. At the same time, the TFC has incentivised the enactment of FRL by the States by making it a pre-condition for availing debt relief. Furthermore, the TFC recommendation that States may need to access the market (instead of the Centre) to finance their annual plans is likely to induce fiscal discipline and lead to the formulation of more realistic State plan outlays. It is expected

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**Table 2.23: Market Borrowings of the State Governments during 2005-06
(as on February 28, 2006)**

(Rupees crore)

Items	Date	Cut-off Rate (%)	Tenor (years)	Amount Raised
1	2	3	4	5
(A) Tap Issues				
First Tranche	May 17-18, 2005	7.77	10	7,554
Second Tranche	September 13, 2005	7.53	10	2,931
Third Tranche	January 16, 2006	7.61	10	700
Total (A)				11,185
(B) Auctions				
i. First	April 20, 2005	7.45	10	300
ii. Second	June 14, 2005	7.39	10	2,181
iii. Second	June 14, 2005	7.35	10	210
iv. Third	August 4, 2005	7.32	10	250
v. Fourth	September 27, 2005	7.45	10	367
vi. Fourth	September 27, 2005	7.42	10	146
vii. Fourth	September 27, 2005	7.50	10	327
viii. Fifth	November 17, 2005	7.34	10	375
ix. Sixth	December 15, 2005	7.33	10	361
x. Seventh	January 19, 2006	7.32	10	317
xi. Seventh	January 19, 2006	7.33	10	166
xii. Eighth	February 27, 2006	7.65	10	950
xiii. Eighth	February 27, 2006	7.67	10	619
xiv. Eighth	February 27, 2006	7.68	10	600
xv. Eighth	February 27, 2006	7.70	10	628
xvi. Eighth	February 27, 2006	7.75	10	328
xvii. Eighth	February 27, 2006	7.85	10	599
Total - B (i to xvii)				8,724
Grand Total (A+B)				19,909

that these measures would expedite the implementation of fiscal reforms by the States and thus help them to travel the requisite distance as

envisaged in the restructuring plan of the TFC. The States would accordingly need to formulate concrete and transparent strategies to attain these goals.

Chart II.7: Weighted Average Interest Rate on State Governments' Market Borrowings

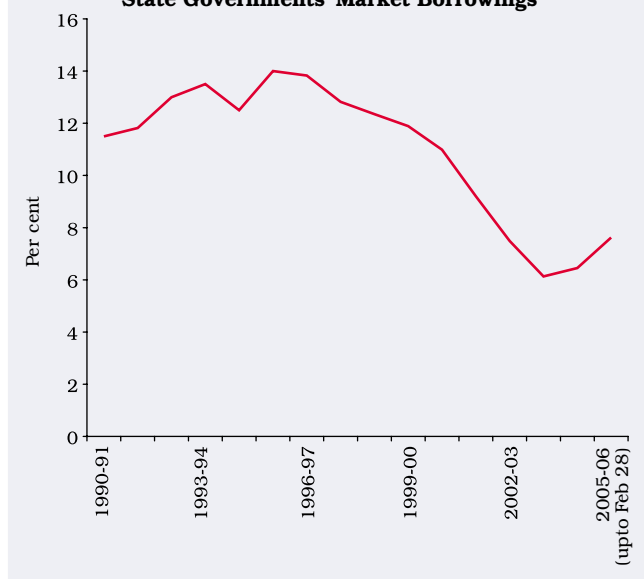


Chart II.8: Utilisation of WMA and Overdraft by States (Weekly Average)

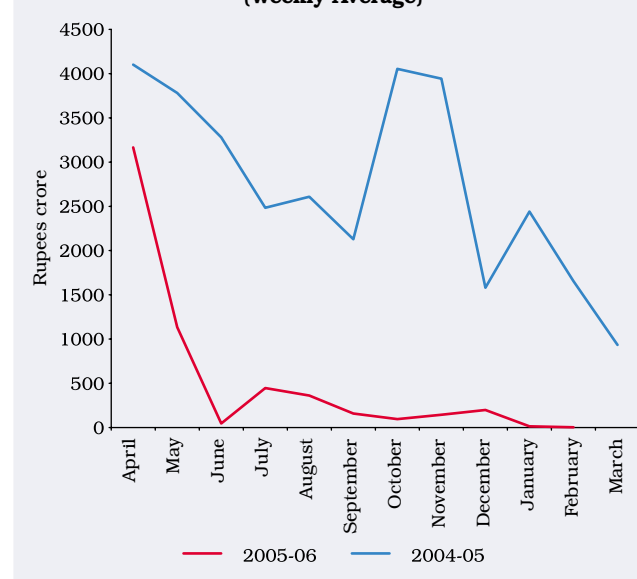
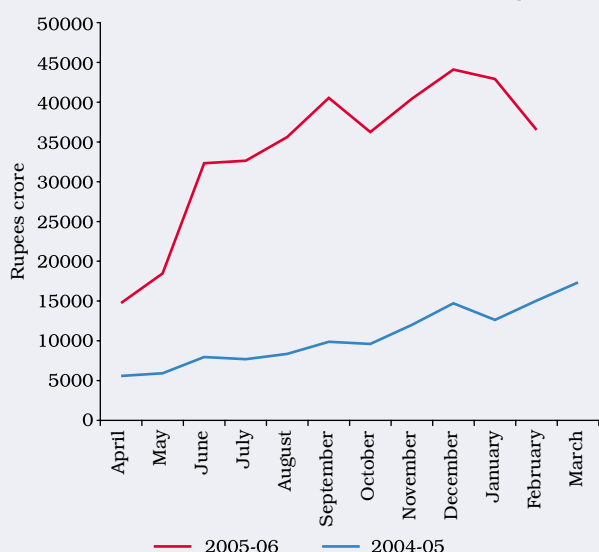


Chart II.9: Investment in 14-day Intermediate Treasury Bills by State Governments (Weekly Average)



2.60 Against this backdrop, the State Budgets for 2005-06 show substantial fiscal correction from the levels in the previous years. The evaluation of the emerging fiscal scenario may, however, need to take cognisance of the differences in data on devolution and transfers between those recommended by the TFC and shown in the Union Budget, and those reported in the State Budgets.

2.61 The year 2005-06 has been marked by twenty two States adopting VAT in the place of Sales Tax. Reflecting the initial difficulties in the implementation of the VAT, the loss in revenue of few States has been compensated by the Government of India. Further, several States have enacted FRLs that have been incentivised by the TFC. In a move to carry forward

the process of fiscal reforms, the State Governments have contemplated policy initiatives in their Budgets which include introduction of new taxes and modification of the existing ones, expenditure rationalisation, institutional reforms and introduction of new pension scheme based on defined contributions. Further, the current fiscal has witnessed substantial decline in recourse to the WMA by the State Governments concomitant with the sharp rise in their surplus cash balance holdings with the Reserve Bank, as reflected in their investment in 14-day Intermediate Treasury Bills.

Public Debt

2.62 The combined outstanding liabilities of the Central and State Governments, as a proportion to GDP, are budgeted to decline to 80.7 per cent at end-March 2006 from 82.1 per cent at end-March 2005. The budgeted decline in debt-GDP ratio is mainly on account of envisaged fiscal consolidation at the State level (Table 2.24).

III. MONETARY AND CREDIT SITUATION

Monetary Conditions

2.63 The Section assesses the conduct of monetary policy during 2005-06 and covers developments in monetary and credit aggregates followed by a discussion on liquidity management operations by the Reserve Bank in an environment of high credit growth and redemption of the India Millennium Deposits (IMDs) while ensuring price stability. Inflation management in the context of large increases in crude oil prices is also examined.

Table 2.24: Combined Liabilities and Debt-GDP Ratio

Year (end-March)	Outstanding Liabilities (Rupees crore)			Debt - GDP Ratio (Per cent)		
	Centre	States	Combined	Centre	States	Combined
1	2	3	4	5	6	7
1990-91	3,14,558	1,28,095	3,68,764	55.3	22.5	64.8
1995-96	6,06,232	2,50,813	7,28,132	51.0	21.1	61.3
2002-03	15,59,201	7,97,684	19,82,061	63.6	32.6	80.9
2003-04	17,36,678	9,22,263	22,50,837	62.9	33.4	81.5
2004-05 RE	19,81,514	10,40,834	25,62,822	63.5	33.3	82.1
2005-06 BE	22,31,886	11,52,530	28,47,587	63.2	32.7	80.7

RE : Revised Estimates.

BE : Budget Estimates.

Note : Ratios to GDP for the years 2002-03 onwards are based on the new series of National Accounts Statistics with base year 1999-2000.

Source : Budget documents of the Central Government and 'A Study of State Budgets of 2005-06', Reserve Bank of India, December 2005.

RECENT ECONOMIC DEVELOPMENTS

2.64 In line with the stance of the Annual Policy Statement announced in April 2005, the mid-term review of the Annual Policy Statement (October 2005) of the Reserve Bank indicated that it will continue to ensure that appropriate liquidity is maintained in the system so that all genuine requirements of credit are met, consistent with the objective of price stability, ensuring an interest rate environment that is conducive to macroeconomic and price stability, and maintaining the growth momentum and further to consider measures in a calibrated and prompt manner, in response to evolving circumstances with a view to stabilising inflationary expectations.

2.65 The third quarter review of Annual Policy Statement for 2005-06 (January 24, 2006) of the Reserve Bank noted that based on an informed assessment of macroeconomic developments including the outlook on growth and inflation in a forward looking manner, and barring the emergence of any adverse and unexpected developments in various sectors of the economy, the overall stance of monetary policy at the current juncture will be:

- To maintain the emphasis on price stability with a view to anchoring inflationary expectations.

- To continue to support export and investment demand in the economy for maintaining the growth momentum by ensuring a conducive interest rate environment for macroeconomic, price and financial stability.
- To provide appropriate liquidity to meet genuine credit needs of the economy with due emphasis on quality.
- To consider responses as appropriate to evolving circumstances.

Reserve Money Survey

2.66 Reserve money expansion, year-on-year (y-o-y), at 18.3 per cent as on February 24, 2006 was higher than 15.3 per cent a year ago. The higher growth in reserve money for most part of the current fiscal was driven largely by net injection of liquidity through LAF operations and unwinding of Market Stabilisation Scheme (MSS) (Table 2.25).

2.67 During 2005-06 (up to February 24, 2006), the Reserve Bank's market operations injected liquidity into the system in view of the marked increase in merchandise trade deficit and the pick-

Table 2.25: Variation in Major Components and Sources of Reserve Money

(Rupees crore)

Item	2004-05	2005-06 (upto Feb. 24)	2004-05				2005-06		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3
1	2	3	4	5	6	7	8	9	10
Reserve Money	52,623	63,100	-6,812	-6,285	31,546	34,174	7,177	1,072	25,428
Components									
1. Currency in circulation	41,633	54,808	14,317	-4,166	16,467	15,015	19,877	-9,479	29,130
2. Bankers' Deposits with RBI	9,631	9,615	-19,665	-2,874	14,769	17,401	-10,680	9,780	-2,967
3. Other Deposits with the RBI	1,359	-1,323	-1,463	755	310	1,757	-2,021	771	-736
Sources									
1. RBI's net credit to Government <i>of which: to Central Government</i>	-62,882	51,593	-34,143	-6,179	184	-22,744	9,275	-25,251	19,879
2. RBI's credit to banks and commercial sector	-833	248	-2,985	-740	3,726	-835	1,155	-1,869	101
3. NFEA of RBI	1,28,377	12,985	57,525	-5,260	31,462	44,651	-14,595	24,823	23,741
4. Government's Currency Liabilities to the Public	152	1,170	37	9	89	17	384	910	-124
5. Net Non-Monetary Liabilities of RBI	12,191	2,895	27,245	-5,885	3,916	-13,085	-10,957	-2,460	18,169
<i>Memo items:</i>									
1. Net Domestic Assets	-75,754	50,116	-64,336	-1,025	84	-10,477	21,771	-23,751	1,687
2. FCA, adjusted for revaluation	1,15,044	25,598	33,160	-3,413	29,858	55,440	5,034	23,665	11,998
3. Net Purchases from Authorised Dealers	91,105	-4,812	30,032	-9,789	22,771	48,091	-	17,027	-
4. NFEA/Reserve Money (per cent) (end-period)	125.3	113.3	126.1	126.7	124.9	125.3	120.5	125.3	123.7
5. NFEA/Currency (per cent)	166.2	147.8	158.8	159.2	160.7	166.2	154.0	164.4	158.4
NFEA : Net Foreign Exchange Assets. FCA: Foreign Currency Assets.									
Note : Quarterly variations are based on March 31 for Q4 and last reporting Fridays for other quarters.									

Table 2.26: Phases of Reserve Bank's Liquidity Management Operations

(Rupees crore)

Item	April 1 - July 22, 2005	July 23 - August 12, 2005	August 13, - October 28, 2005	October 29, 2005- February 24, 2006
1	2	3	4	5
A. Drivers of Liquidity (1+2+3)	-6,737	27,792	-15,127	-60,036
1. RBI's Foreign Currency Assets (adjusted for revaluation)	6,412	19,348	5,193	-5,355
2. Currency with the Public	-15,274	-1,529	-7,940	-29,490
3. Others (residual)	2,125	9,973	-12,380	-25,191
3.1 Surplus cash balances of the Centre with the Reserve Bank	6,053	5,972	-7,421	-15,515
B. Management of Liquidity (4+5+6+7)	1,329	-24,567	16,187	71,349
4. Liquidity impact of LAF Repos	8,845	-26,565	16,210	33,555
5. Liquidity impact of OMO (net)*	0	0	0	0
6. Liquidity impact of MSS	-7,516	1,998	-23	37,794
7. First round liquidity impact due to CRR change	0	0	0	0
C. Bank Reserves # (A+B)	-5,408	3,225	1,060	11,313

+ Indicates injection of liquidity into the banking system.
- Indicates absorption of liquidity from the banking system.
Includes vault cash with banks and adjusted for first round liquidity impact due to CRR change.
* Adjusted for Consolidated Sinking Funds (CSF) and Other Investments.

up in domestic credit demand (Table 2.26). During December 2005, the banking system faced some liquidity pressures in the context of the redemption of IMDs. Accordingly, the Reserve Bank injected liquidity through repo operations and unwinding of the MSS.

2.68 The net Reserve Bank credit to Centre, reflecting its market operations to modulate liquidity conditions, increased by Rs.56,904 crore during 2005-06 so far (February 24, 2006) as against a decline of Rs.43,800 crore during the corresponding period of the previous year (Table 2.27).

Table 2.27: Net Reserve Bank Credit to the Centre - Variations

(Rupees crore)

Variable	2004-05	2005-06 (up to Feb. 24, 2006)	2004-05				2005-06		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3
1	2	3	4	5	6	7	8	9	10
Net Reserve Bank Credit to the Centre (1+2+3+4-5)	-60,177	56,904	-30,029	-4,499	203	-25,852	14,600	-25,251	19,812
1. Loans and Advances	0	0	3,222	-3,222	0	0	0	0	0
2. Treasury Bills held by the Reserve Bank	0	0	0	0	0	0	0	0	0
3. Reserve Bank's Holdings of Dated Securities	12,323	25,975	-2,900	22,176	14,095	-21,048	8,221	-17,243	19,378
4. Reserve Bank's Holdings of Rupee Coins	57	53	175	-10	-94	-14	-40	-33	157
5. Central Government Deposits	72,558	-30,874	30,525	23,443	13,799	4,791	-6,419	7,974	-277
Memo Items*									
1. Market Borrowings of Dated Securities by the Centre +	80,350	1,21,000	28,000	26,000	14,000	12,350	42,000	39,000	24,000
2. Reserve Bank's Primary Subscription to Dated Securities	1,197	0	0	847	0	350	0	0	0
3. Repos (+) / Reverse Repos (-) (LAF), net position	15,315	32,045	-26,720	34,205	27,600	-19,770	9,660	-14,835	18,635
4. Net Open Market Sales #	2,899	3,718	429	427	871	1,171	1,543	941	261
5. Mobilisation under MSS	64,211	-32,253	37,812	14,444	353	11,602	7,469	-4,353	-19,713
6. Primary Operations \$	-6,625	-12,237	37,353	-30,484	-36,984	23,490	18,205	-24,689	-38,715

* At face value. # Excludes Treasury Bills but including Consolidated Sinking Funds (CSF) and Other Investments.
+ Excluding Treasury Bills. \$ Adjusted for MSS and Centre's surplus investment.
Note: Quarterly variations are based on March 31 for Q4 and last reporting Fridays for other quarters.

Monetary Survey

2.69 The year-on-year (y-o-y) growth in broad money (M_3) was 16.3 per cent on February 17, 2006 as compared with 13.0 per cent a year ago (Table 2.28). The higher M_3 growth reflected higher credit to the commercial sector as well as the base effects. Growth in demand deposits remained high in tandem with the sustained pick-up in non-food credit and a buoyant primary capital market, with funds getting temporarily parked in demand deposits. Growth in time deposits was higher during most part of 2005-06, partially reflecting the base effects. Time deposits growth, however, decelerated in January 2006 reflecting IMD redemption. Bank credit to the commercial sector increased (y-o-y) by 28.5 per cent as on February 17, 2006 on top of an increase of 22.0 per cent a year ago. The increasing demand for commercial credit was met by the banks largely by curtailing their incremental investment in Government papers.

Bank Credit

2.70 Demand for bank credit which had exhibited a sharp acceleration in the second half of 2004-05 continued its momentum in 2005-06. As on February 17, 2006, the y-o-y non-food credit extended by scheduled commercial banks grew by 33.6 per cent on top of 26.6 per cent (net of conversion) growth in the corresponding period of the previous year (Table 2.29 and Chart II.10). In the face of the sustained pick up in credit demand, banks restricted their incremental investments in Government securities.

2.71 Demand for bank credit has been broad-based led by agriculture, industry and housing sectors. Credit to the agricultural sector continued to record strong growth, reflecting various policy initiatives to improve flow of credit to the sector (Table 2.30). The increase in industrial credit in consonance with the pick-up in industrial activity was

Table 2.28: Monetary Indicators

(Rupees crore)

Variable	Outstanding as on February 17, 2006	Variation (year-on-year)			
		2004-05		2005-06	
		Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6
I. Reserve Money*	5,52,235	62,004	15.3	85,577	18.3
II. Broad Money (M_3)	25,80,002	2,55,294	13.0	3,61,783	16.3
a) Currency with the Public	4,11,448	36,748	11.7	61,810	17.7
b) Aggregate Deposits	21,63,650	2,17,652	13.2	2,99,434	16.1
i) Demand Deposits	3,53,867	42,255	18.2	79,737	29.1
ii) Time Deposits	18,09,783	1,75,397	12.4	2,19,696	13.8
of which: Non-Resident Foreign Currency Deposits	56,063	-255	-0.3	-19,499	-25.8
III. NM_3	25,96,791	2,62,210	13.7	3,86,563	17.5
of which: Call Term Funding from Financial Institutions	77,155	7,298	31.4	11,448	17.4
IV. a) L_1	26,98,623	2,78,885	14.1	4,02,527	17.5
of which: Postal Deposits	1,01,832	16,675	24.1	15,964	18.6
b) L_2	27,00,274	2,73,674	13.8	4,02,527	17.5
of which: FI Deposits	1,651	-5,211	-75.9	0	0.0
c) L_3	26,52,955	2,68,237	13.8	4,06,749	18.1
of which: NBFC Deposits	21,694	-403	-2.0	1,796	9.0
V. Major Sources of Broad Money					
a) Net Bank Credit to the Government (i+ii)	7,77,319	12,342	1.7	18,337	2.4
i) Net Reserve Bank Credit to Government	24,754	-39,506		26,792	
of which: to the Centre	24,796	-35,030		29,313	
ii) Other Banks' Credit to Government	7,52,565	51,848	7.4	-8,455	-1.1
b) Bank Credit to Commercial Sector	15,85,853	2,16,567	22.0	3,52,128	28.5
c) Net Foreign Exchange Assets of Banking Sector	6,61,279	97,481	18.8	45,472	7.4

* Data pertain to February 24, 2006. FIs: Financial Institutions. NBFCs: Non-banking Finance Companies.

Notes: 1. Data are provisional.
2. Variations of select aggregates are adjusted for the effect of conversion of a non-banking entity into a banking entity effective October 11, 2004.
3. L_3 pertains to December 2005.

Table 2.29: Scheduled Commercial Banks: Variations in Select Banking Indicators

(Rupees crore)

Item	2003-04		2004-05		Year-on-year Variation			
					2004-05 (up to Feb. 18, 2005)		2005-06* (up to Feb. 17, 2006)	
	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6	7	8	9
Aggregate Deposits	2,23,563	17.5	1,92,269	12.8	2,10,255	14.3	2,86,458	17.0
Demand Deposits	54,733	32.1	23,005	10.2	39,462	19.5	75,804	31.4
Time Deposits	1,68,830	15.2	1,69,264	13.2	1,70,793	13.5	2,10,655	14.6
Bank Credit	1,11,570	15.3	2,26,761	27.0	2,12,987	26.2	3,40,709	32.2
Food Credit	-13,518	-27.3	5,159	14.4	6,214	17.6	-954	-2.3
Non-food Credit	1,25,088	18.4	2,21,602	27.5	2,06,772	26.6	3,41,663	33.6
Investments	1,30,042	23.8	49,373	7.3	36,999	5.5	-8,679	-1.2
Government Securities	1,31,341	25.1	52,031	8.0	39,754	6.1	-11,421	-1.6
Other Approved Securities	-1,299	-5.4	-2,658	-11.6	-2,755	-11.9	2,743	13.4

* Provisional.

Note: Data exclude the impact of conversion of a non-banking entity into a banking entity from October 11, 2004. Data also reflect the impact of IMD redemption on December 29, 2005.

mainly on account of automobiles, infrastructure, construction, petroleum, gems and jewellery, other metal and metal products, textiles and rubber and plastic products. Credit to the housing sector continued to be strong, benefiting from low interest rate and tax incentives.

2.72 In addition to bank credit, the corporate sector has also been increasingly relying on non-bank sources of funds in recent years. Equity issuances increased during April-December 2005, benefiting

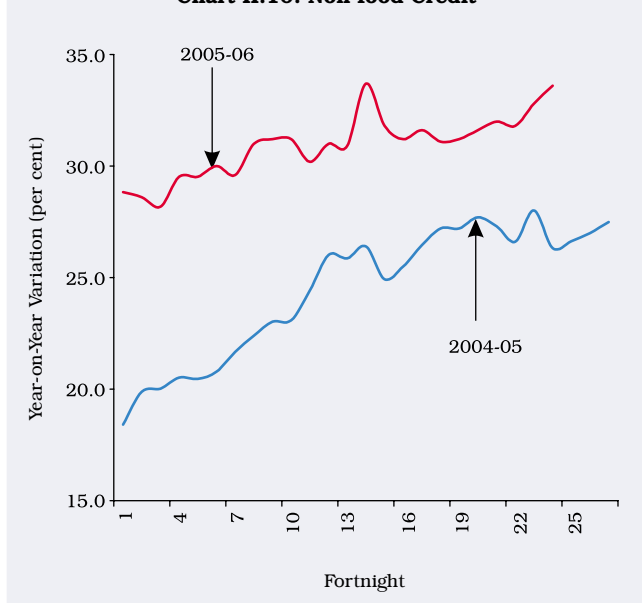
from buoyancy in capital markets. Mobilisation through issuances of commercial paper also remained strong, *albeit*, somewhat lower than a year ago. Net draws under external commercial borrowings (ECBs) during April-September 2005 were almost the same as a year ago, reflecting buoyant economic activity (Table 2.31).

Price Situation

2.73 Inflation firmed up in a number of economies during the third quarter of 2005, reflecting the impact of sharp increases in international crude oil prices. Strong growth in global demand especially from the US and China, low levels of global spare production capacity and economic resilience to higher energy costs have supported oil prices at elevated levels despite periodic increases in supply by the Organisation of the Petroleum Exporting Countries (OPEC). International crude oil prices in the US market reached a historic high crossing US \$ 70 a barrel on August 30, 2005 in the immediate aftermath of Hurricane Katrina, amidst concern over supply disruptions due to tropical storms in the US, instability of supplies from the Middle East due to geo-political uncertainties and speculative purchases (Chart II.11). During the fourth quarter, although inflation eased marginally due to some moderation in energy prices, it continues to remain at elevated levels.

2.74 The impact of record high crude oil prices on global economic activity and inflation expectations

Chart II.10: Non-food Credit



RECENT ECONOMIC DEVELOPMENTS

Table 2.30: Deployment of Non-food Bank Credit

(Rupees crore)

Sector / Industry	Outstanding as on October 28, 2005	Financial Year Variations			
		April-October 2004		April-October 2005	
		Absolute	Per cent	Absolute	Per cent
1	2	3	4	5	6
Non-food Gross Bank Credit	11,57,769	92,054	12.6	1,57,981	15.8
<i>of which</i>					
Agriculture and Allied Activities	1,41,612	11,267	12.4	16,362	13.1
Industry (Small, Medium and Large)	4,75,915	26,738	8.5	49,023	11.5
Small Scale Industries	78,780	1,322	2.0	4,192	5.6
Trade	69,315	7,580	30.5	11,367	19.6
Housing	1,53,267	N.A.	N.A.	24,539	19.1
Advances against Fixed Deposits	30,283	-651	-2.5	433	1.5
Real Estate Loans	20,148	2,663	47.7	6,846	51.5
Non-Banking Financial Companies	25,672	604	3.6	3,188	14.2
Memo:					
Priority Sector	4,33,422	26,181	9.9	51,946	13.6
Industry (Small, Medium and Large)	4,75,915	26,738	8.5	49,023	11.5
Food Processing	26,259	-361	-1.7	1,826	7.5
Textiles	48,229	-44	-0.1	4,252	9.7
Paper and Paper Products	7,910	181	3.0	1,028	14.9
Petroleum, Coal Products and Nuclear Fuels	20,549	3,533	28.8	4,980	32.0
Chemical and Chemical Products	40,723	-847	-2.8	1,231	3.1
Rubber, Plastic and their Products	5,596	249	9.6	1,930	52.6
Iron and Steel	42,138	10	0	6,137	17.0
Other Metal and Metal Products	13,968	1,006	12.3	2,332	20.0
Engineering	32,694	-1,033	-3.9	3,298	11.2
Vehicles, Vehicle Parts and Transport Equipments	15,825	262	4.9	3,963	33.4
Gems and Jewellery	17,880	2,323	25.3	3,574	25.0
Construction	10,726	1,716	28.7	2,604	32.1
Infrastructure	96,639	14,169	27.6	17,630	22.3

N.A.: Not available.

Note: 1. Data are provisional and relate to select scheduled commercial banks which account for about 90 per cent of bank credit of all scheduled commercial banks.
2. Due to change in classification of sectors/industries and coverage of banks, data for 2005-06 are not comparable with earlier data.

seems to have been largely muted so far compared to the earlier oil shocks (Chart II.12 and Table 2.32). This could be attributed to declining oil intensity in

advanced economies, increased competition fostered by globalisation, declining role of commodity prices in final output, limited pass-through of international

Table 2.31: Select Sources of Funds to Industry

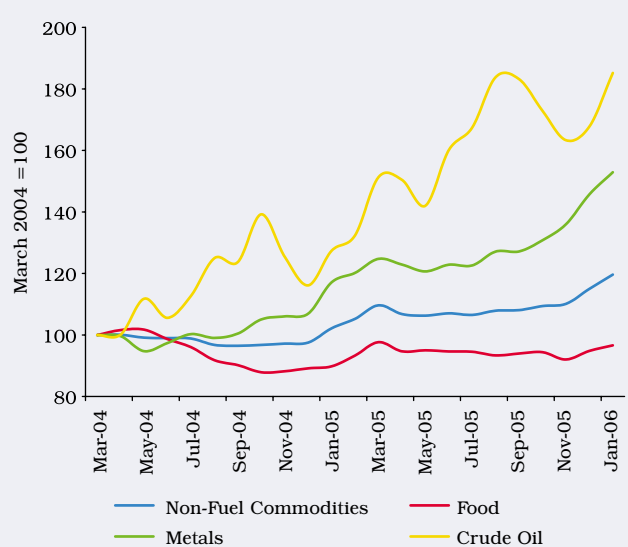
(Rupees crore)

Item	April-September 2004	April-September 2005
1	2	3
I. Bank Credit to Industry (Small, Medium and Large) (up to October)	26,738	49,023
II. Flow from Non-banks to Corporates		
1. Capital Issues* (i+ii) (up to December)	7,971	11,628
i) Non-Government Public Ltd. Companies (a+b)	5,287	11,628
a) Bonds/Debentures	0	118
b) Shares	5,287	11,510
ii) PSUs and Government Companies	2,684	0
2. ADR/GDR Issues + (up to December)	1,642	5,165
3. External Commercial Borrowings (ECBs) \$	15,872	16,264
4. Issue of CPs (up to December)	4,141	2,946
III. Profit After Tax £	23,400	34,895
IV. Depreciation Provision £	11,340	14,754

* Gross issuances excluding issues by banks and financial institutions. Figures are not adjusted for banks' investments in capital issues, which are not expected to be significant. + Excluding issuances by banks and financial institutions. \$ Including short-term credit.
£ Data are based on audited/unaudited abridged results of select sample of non-financial non-Government companies.

Note : Data are provisional.

Chart II.11: International Commodity Prices



Source: International Monetary Fund.

oil prices to domestic prices of oil due to sharing of the burden by the Governments, especially in a number of emerging economies, and pre-emptive monetary tightening by major central banks to contain the second-round effects.

2.75 Reflecting the upward pressures on inflation, a number of central banks have tightened their monetary policies, especially in emerging Asia. In the US, consumer price inflation, which had accelerated to 4.7 per cent in September 2005 reflecting sharp increase in energy costs eased to 4.0 per cent in January 2006. On the back of strong economic activity and the incipient inflationary pressures, the US Federal Open Market Committee (FOMC) persevered with its measured pace of monetary tightening raising its target Federal Funds rate by 175 basis points (25 basis points hike at each of its seven meetings) since

Table 2.32: Annual Consumer Price Inflation

(Per cent)

Country/Area	2000	2001	2002	2003	2004	2005P
1	2	3	4	5	6	7
Advanced Economies	2.2	2.1	1.5	1.8	2.0	2.2
US	3.4	2.8	1.6	2.3	2.7	3.1
Japan	-0.9	-0.7	-1.0	-0.2	0.0	-0.4
Euro Area	2.1	2.3	2.3	2.1	2.1	2.1
Other Emerging Market and Developing Countries	7.3	6.7	5.9	6.0	5.8	5.9
Developing Asia	1.9	2.7	2.1	2.6	4.2	4.2
China	0.4	0.7	-0.8	1.2	3.9	3.0
India	4.0	3.8	4.3	3.8	3.8	3.9

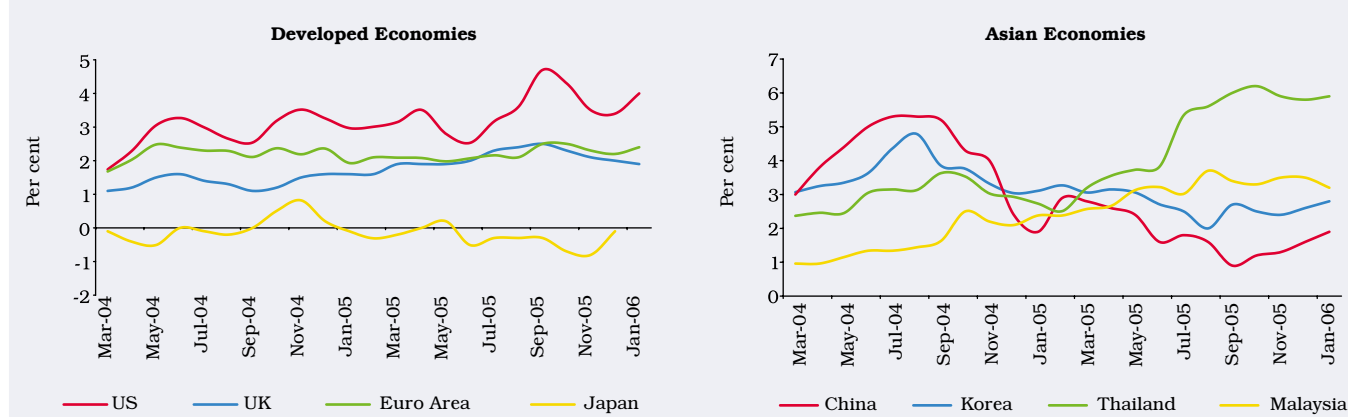
P : IMF Projections.

Source : World Economic Outlook, September 2005, IMF.

end-March 2005 - to 4.50 per cent on January 31, 2006. In the UK, CPI inflation which had increased to 2.5 per cent in September 2005 (1.1 per cent a year ago) due to higher oil prices eased to 1.9 per cent in January 2006. The Bank of England, which had cut the policy repo rate by 25 basis points on August 4, 2005 in response to the weakening of economic activity, has since maintained the policy stance. In the Euro area, inflation, measured by the Harmonised Index of Consumer Prices (HICP), rose above the target to 2.5 per cent in September 2005 and was 2.4 per cent in January 2006. Taking into account the potential second-round effects of ongoing oil price rises, and further increase in administered prices and indirect taxes seen as upside risks, the ECB raised the key policy rate by 25 basis points on December 1, 2005 to anchor inflation expectations in the Euro area.

2.76 In emerging Asia, inflation in Indonesia, Thailand, the Philippines and Malaysia has remained high under the impact of higher oil prices, although

Chart II.12: Consumer Price Inflation



there has been some easing in the recent months. The central banks of these countries, therefore, raised their policy rates during 2005 (Table 2.33). In China, on the other hand, consumer price inflation was 1.9 per cent in January 2006 - same as last year - reflecting incomplete pass-through of higher oil prices to domestic oil prices.

2.77 In India, the headline inflation, measured by y-o-y changes in the wholesale price index (WPI), eased to 4.0 per cent on February 11, 2006 from 5.1 per cent at end-March 2005 (and 5.1 per cent a year ago). The average WPI inflation rate eased to 4.6 per cent from 6.4 per cent a year ago (Chart II.13). Despite hikes in petrol and diesel prices (7-8 per cent each in June and September 2005) and increase in electricity prices in June 2005, the moderation in headline inflation reflected calibrated monetary and fiscal measures and base effects. However, it needs to be recognised that the pass-through of high international crude oil prices to domestic prices remains incomplete as it has been restricted to only petrol and diesel.

2.78 Inflation during 2005-06 so far has been dominated by mineral oil prices which have alone contributed over one-third to the headline inflation. The y-o-y WPI inflation, excluding the fuel group, was lower at 3.0 per cent as on February 11, 2006.

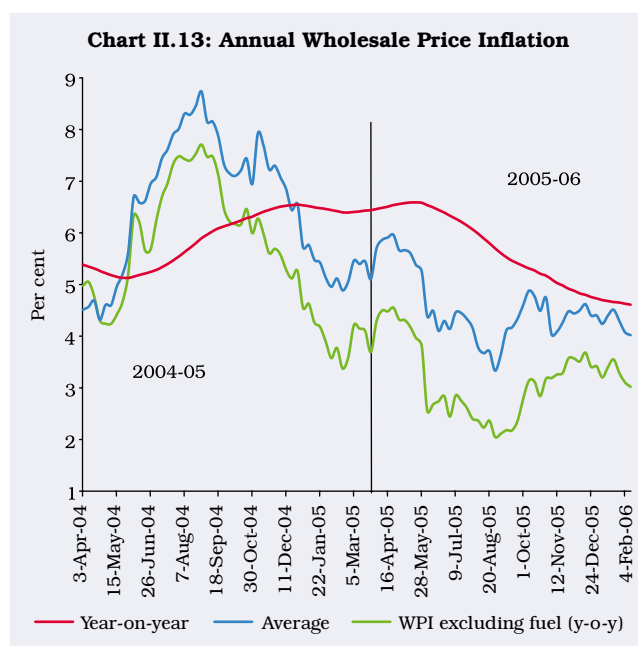
Table 2.33: Central Bank Policy Rates

(Per cent)

Country	January 1, 2003	January 1, 2004	January 1, 2005	February 28, 2006
1	2	3	4	5
Australia	4.75	5.25	5.25	5.50
Brazil	25.00	16.50	17.75	17.25
Canada	2.75	2.75	2.50	3.50
Euro Area	2.75	2.00	2.00	2.25
India*	5.50	4.50	4.75	5.50
Indonesia	12.93	8.31	7.43	12.75
Israel	8.90	4.80	3.70	4.75
Japan	0.10	0.10	0.10	0.10
Korea	4.25	3.75	3.25	4.00
New Zealand	5.75	5.00	6.50	7.25
Poland	6.50	5.25	6.50	4.25
Sweden	3.75	2.75	2.00	2.00
Switzerland	0.25-1.25	0-0.75	0.25-1.25	0.50-1.50
Thailand	1.75	1.25	2.00	4.25
United Kingdom	4.00	3.75	4.75	4.50
United States	1.25	1.00	2.25	4.50

* : Reverse repo rate.

Source : Central Bank Websites.



2.79 Apart from the fuel group, vegetables, eggs, meat and fish and sugar prices posed some upward pressures on domestic inflation. With foodgrains production expected to be higher than last year, primary agricultural commodity prices are expected to moderate. Higher sugarcane output is expected to contain sugar prices, which have so far remained high and volatile in line with international trends. Overall, the fuel group (41.2 per cent) contributed the maximum to the y-o-y WPI inflation as on February 11, 2006, followed by manufactured products (31.9 per cent) and primary articles (27.5 per cent) (Table 2.34).

2.80 Consumer price inflation during December 2005 increased from its level in March 2005 reflecting higher food and fuel prices (Table 2.35).

2.81 Thus, the inflation outcome during 2005-06 has so far been dominated by record high international crude oil prices. While some pass-through of higher international oil prices to domestic oil prices has taken place, its second round impact is yet not apparent. Although the Government has moderated the impact on domestic prices through modifications in the tax structure, such fiscal manoeuvrability is getting limited. The liquidity overhang has been managed well through liquidity management operations (LAF and MSS) as well as monetary actions such as increases in cash reserve ratio (50 basis points during September-October 2004) and reverse repo rate (25 basis points each in October 2004, April 2005, October 2005 and January 2006) which sought to

**Table 2.34: Annual Point-to-Point WPI Inflation by Component
(Base 1993-94=100)**

(Per cent)

Group/ Item	Weight	Annual Variation			Variation		Weighted Contribution	
		2002-03	2003-04	2004-05	2004-05 (Feb. 12)	2005-06 (Feb. 11)	2004-05 (Feb. 12)	2005-06 (Feb. 11)
1	2	3	4	5	6	7	8	9
All Commodities	100.0	6.5	4.6	5.1	5.1	4.0	100.0	100.0
I. Primary Articles	22.0	6.1	1.6	1.3	1.3	5.1	5.7	27.5
i) Cereals	4.4	4.0	-0.3	2.9	1.7	5.6	1.4	5.9
ii) Pulses	0.6	0.3	-2.6	-2.6	-3.1	20.7	-0.4	2.8
iii) Fruits and Vegetables	2.9	-1.2	-4.9	11.6	4.0	9.5	2.3	7.0
iv) Raw Cotton	1.4	34.3	12.3	-23.8	-26.9	3.1	-7.6	0.8
v) Oilseeds	2.7	30.0	-1.2	-6.5	-5.8	-12.1	-3.1	-7.4
vi) Sugarcane	1.3	11.5	6.5	-0.7	-0.7	0.7	-0.2	0.3
II. Fuel, Power, Light and Lubricants	14.2	10.8	2.5	10.5	10.2	7.6	41.6	41.2
i) Mineral Oils	7.0	18.4	0.0	16.0	14.9	11.9	32.7	36.1
ii) Electricity	5.5	3.4	4.9	0.8	1.6	2.7	2.4	5.1
iii) Coal Mining	1.8	0.0	9.2	17.1	17.1	0.0	6.4	0.0
III. Manufactured Products	63.7	5.1	6.7	4.6	4.7	2.3	52.7	31.9
i) Sugar	3.6	-15.0	16.9	19.7	20.7	6.6	10.9	5.1
ii) Edible Oils	2.8	27.4	6.6	-8.4	-8.2	-3.4	-4.0	-1.8
iii) Oil Cakes	1.4	40.3	5.0	-17.4	-8.4	-3.8	-2.7	-1.3
iv) Cotton Textiles	4.2	8.3	15.6	-12.7	-14.1	-0.2	-11.7	-0.2
v) Man Made Fibre	4.4	17.4	-0.4	0.6	1.5	-4.1	0.7	-2.3
vi) Fertilisers	3.7	2.1	-0.1	3.3	3.3	0.2	2.2	0.1
vii) Iron and Steel	3.6	9.2	34.6	21.3	19.8	-2.8	15.7	-3.2
viii) Cement	1.7	1.1	1.3	10.2	5.5	7.0	1.6	2.6
ix) Non-electrical Machinery	3.4	2.5	4.7	10.0	11.2	3.6	6.7	2.9
x) Electrical Machinery	5.0	-1.3	1.7	4.1	4.2	1.6	2.6	1.2
xi) Transport Equipment and Parts	4.3	-0.9	1.4	6.2	6.2	1.8	4.3	1.6

moderate inflationary expectations by demonstrable commitment to price stability. Finally, the comfort provided by food stocks and forex reserves has contributed to maintaining and stabilising inflation expectations in the economy. On balance, the underlying inflationary pressures appear to have been contained and inflationary expectations maintained.

2.82 To conclude, monetary and liquidity conditions have remained comfortable during 2005-06 so far despite sustained and broad-based credit demand from the commercial sector. Banks were able to finance the increased demand for credit largely by restricting their incremental investments in Government securities. Against the backdrop of a

Table 2.35: Consumer Price Inflation (CPI) in India (year-on-year)

(Per cent)

Inflation Measure	March 2003	March 2004	December 2004	March 2005	June 2005	September 2005	October 2005	December 2005
1	2	3	4	5	6	7	8	9
CPI-IW	4.1	3.5	3.8	4.2	3.3	3.6	4.2	5.6
CPI-UNME	3.8	3.4	3.6	4.0	3.9	4.8	4.5	5.7
CPI-AL	4.9	2.5	3.0	2.4	2.7	3.2	3.2	4.7
CPI-RL	4.8	2.5	3.0	2.4	2.7	3.2	3.2	4.9
Memo:								
WPI Inflation (end of period)	6.5	4.6	5.7	5.1	4.3	4.3	4.8	4.4
IW : Industrial Workers.	UNME : Urban Non-Manual Employees.	AL : Agricultural Labourers.	RL : Rural Labourers.					

lower order of accretion to the Reserve Bank's net foreign assets, continued credit demand and some pressures in December 2005 emanating from the redemption of the IMDs, the Reserve Bank injected liquidity through repo operations as well as by cancelling auctions of TBs under the MSS. All these operations were by and large able to stabilise domestic financial markets.

2.83 Domestic inflation as well as inflation expectations remained well-contained reflecting timely and calibrated monetary and fiscal measures since the second half of 2004. Inflation conditions, both in India and elsewhere, during 2005-06 have been driven by international crude oil prices reaching a historic high. Under the influence of oil prices, headline inflation edged up sharply in a number of economies in the second half of 2005. Nonetheless, the impact of higher oil prices on economic activity as well as inflation expectations remained muted relative to the earlier oil shocks. Although second-round impact of high oil prices on headline inflation has been contained so far, the possibility of a higher degree of second-round effects in the context of high and volatile oil prices and its implications for inflation expectations continue to be a matter of concern for central banks.

IV. FINANCIAL MARKETS

Money Market

2.84 Money markets continued to perform smoothly in equilibrating demand and supply of short-term funds and by and large markets cleared without excessive volatility. Money market interest rates during 2005-06 moved largely in alignment with the stance of the monetary policy. As monetary policy reacted with calibrated measures to stabilise inflation expectations, interest rates in various segments of the money markets responded to monetary policy actions. Market operations through LAF and MSS mopped up surplus liquidity to a considerable extent and in view of the changing scenario, the Reserve Bank in its forward looking assessment, began to unwind sterilised liquidity in a calibrated manner since September 2005. This helped in liquidity management during the redemption of IMD liability of US\$ 7.1 billion in December 2005, when from sustained surpluses, the system moved to a near neutral position in terms of marginal liquidity.

2.85 Money markets, for the larger part of 2005-06, have been marked by comfortable liquidity conditions, with average daily call money borrowing rates generally anchored to the reverse repo rate (Table 2.36). Call

rates edged up by about 25 basis points in tandem with the fixed reverse repo rate which was increased by 25 basis points to 5.00 per cent on April 29, 2005. Towards the end of June 2005, call rates rose above the reverse repo rate reflecting the pressures emanating primarily from liquidity mismatches on account of banks preferring to maintain higher than required reserves early in the reporting fortnight, advance tax payments to banking system and auction of Central Government securities. Liquidity conditions improved by the second half of July 2005 due to cancellation of some scheduled Treasury Bills auctions on account of incessant rainfall in Mumbai disrupting normal financial activities and return of advance tax payments to the banking system. Large foreign currency purchases from the authorised dealers during July-August 2005 also improved the liquidity conditions. As a result, on an average, balances under LAF reverse repos jumped from Rs.10,754 crore in July to Rs.34,832 crore in August 2005. The call money market, thus, remained broadly stable during August 2005 and first half of September 2005. During the second half of September 2005, the call money market witnessed mild pressure, reflecting advance tax outflows and scheduled auctions. In October 2005, in view of the current macroeconomic and overall monetary conditions, the Reserve Bank decided to increase the reverse repo rate by an additional 25 basis points, while retaining the spread between reverse repo rate and repo rate at 100 basis points. Accordingly, effective October 26, 2005 reverse repo and repo rate were fixed at 5.25 and 6.25 per cent, respectively. With surplus liquidity declining in October and November 2005, reflected in the decline of average LAF reverse repo levels from Rs.31,570 crore in September to Rs.3,268 crore in November, the call rates firmed up. Making a forward looking assessment, the Reserve Bank had begun to unwind MSS from September 2005. Further, the call rates firmed up distinctly in the later half of December 2005 due to advance tax outflows and IMD redemption pressures. Injection of liquidity by the Reserve Bank under the repo window and the unwinding of MSS helped to manage liquidity appropriately. The additional window in the form of SLAF also expanded the options for banks amidst relative tightness in liquidity in December and January 2006. In January 2006, in view of the current macroeconomic and overall monetary conditions, the reverse repo and repo rates were increased by 25 basis points while retaining the spread between the two at 100 basis points. Accordingly, effective January 24, 2006, the reverse repo and repo rates were fixed at 5.50 and 6.50 per cent, respectively.

REPORT ON CURRENCY AND FINANCE

Table 2.36: Domestic Financial Markets - Select Indicators

Year/ Month	Call Money		Govt. Securities		Foreign Exchange			Liquidity Management			Equity			
	Average Daily Turnover (Rs crore)	Average Call Rates* (Per cent)	Average 10-year Yield@ (per cent)	Average Daily Turnover (Rs. crore) +	Average Daily Inter-bank Turnover (US \$ million)	Average Exchange Rate (Rs. per US \$)	RBI's net Foreign Sales (-)/ Purchases (+) (US \$ million)	Average Forward 3-month Premia (Per cent)	Average Outstanding# (Rs. crore)	Average Daily Reverse Repo (LAF) Outstanding (Rs. crore)	Average Daily BSE Turnover (Rs. crore)	Average Daily NSE Turnover (Rs. crore)	Average BSE Sensex**	Average S & P CNX Nifty**
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2004-05														
April	12,916	4.29	5.10	10,029	10,302	43.93	7,427	-0.36	14,296	75,006	2,243	5,048	5,809	1,848
May	10,987	4.30	5.19	6,202	8,882	45.25	-220	-1.33	27,518	74,502	2,188	4,710	5,205	1,640
June	10,973	4.35	5.50	5,860	7,847	45.51	-413	0.93	35,283	61,981	1,681	3,859	4,824	1,506
July	8,632	4.31	5.91	4,206	7,756	46.04	-1,180	2.25	43,739	59,594	1,793	4,265	4,973	1,568
August	11,562	4.41	6.38	4,173	5,974	46.34	-876	2.85	48,541	42,692	1,736	3,948	5,144	1,615
September	17,088	4.45	6.08	5,854	7,348	46.10	19	2.20	52,421	31,589	1,800	4,023	5,423	1,692
October	16,667	4.63	6.73	3,636	7,262	45.78	-99	2.87	53,660	10,805	1,730	3,785	5,702	1,795
November	13,820	5.62	7.14	2,607	9,929	45.13	3,792	2.16	54,157	-5,066	1,787	4,102	5,961	1,874
December	19,527	5.28	6.73	4,305	9,447	43.98	1,393	2.03	52,085	7,570	2,184	5,026	6,394	2,022
January	16,534	4.72	6.68	3,566	9,114	43.75	0	2.50	53,790	18,721	2,310	5,249	6,307	1,978
February	16,041	4.76	6.58	4,640	11,583	43.68	4,974	1.99	58,141	19,895	2,484	4,999	6,595	2,067
March	15,293	4.72	6.65	2,835	11,286	43.69	6,030	1.82	63,737	29,809	2,706	5,139	6,679	2,096
2005-06														
April	17,213	4.77	7.02	3,001	9,880	43.74	0	1.96	65,638	30,675	1,890	4,136	6,379	1,987
May	15,269	4.99	7.13	3,805	10,083	43.49	0	1.57	68,539	22,754	1,971	3,946	6,483	2,002
June	20,134	5.10	6.88	6,807	10,871	43.58	-104	1.40	70,651	13,916	2,543	4,843	6,926	2,134
July	20,046	5.02	7.12	3,698	11,003	43.54	2,473	1.56	70,758	10,754	3,095	6,150	7,337	2,237
August	16,158	5.02	7.04	4,239	11,749	43.62	1,552	0.69	71,346	34,832	3,451	6,624	7,726	2,358
September	16,292	5.05	7.04	5,207	11,040	43.92	0	0.62	67,617	31,570	3,871	6,923	8,272	2,512
October	17,169	5.12	7.14	2,815	13,087 P	44.82	0	0.69	68,602	18,608	2,955	6,040	8,220	2,487
November	22,620	5.79	7.10	3,314	11,228 P	45.73	0	0.67	67,041	3,268	2,635	5,479	8,552	2,575
December	21,149	6.00	7.13	2,948	13,632 P	45.64	6,541	1.51	52,040	1,452	3,516	6,814	9,162	2,773
January	17,911	6.79	7.16	3,094	16,365 P	44.40	..	2.60	40,219	-15,386	3,966	7,472	9,540	2,893
February	13,497	6.87	7.32	2,584	..	44.33	..	2.85	33,405	-13,532	3,688	7,125	10,090	3,019

.. Not Available. * Average of daily weighted call money borrowing rates.
Average of weekly outstanding MSS. ** Average of daily closing indices.

+ Outright turnover in Central Government dated securities.
@ Average of daily closing rates. P : Provisional.

2.86 Liquidity management in face of IMD redemptions was carried out to contain disequilibrium while retaining monetary policy stance with a medium-term objective. Outflows on account of the redemptions were met by smooth arrangements worked out in this regard. Temporary tightness in liquidity was met by release of liquidity through repo window (including the second LAF) averaging about Rs.23,000 crore per day in the last week of December coinciding with the IMD redemptions, outflows due to advance tax payments and the continued surge in credit off-take. Short-term money market rates eased remarkably in the first week of January 2006 reflecting smooth redemptions of IMDs, indicating growing maturity of the financial markets and the strength of the liquidity management system that has been put in place. The call money rates, however, firmed up again from second week of January 2006, reflecting demand pressures emanating from scheduled auctions of Government securities and robust credit demand.

2.87 The Reserve Bank in the third quarter review of Annual Policy Statement (January 24, 2006), continued with its policy of active demand management of liquidity through OMO including MSS, LAF and CRR, and use of all the policy instruments at its disposal flexibly, as and when the situation warrants. Based on an informed assessment of macroeconomic developments including the outlook on growth and inflation in a forward looking manner, and barring the emergence of any adverse and unexpected developments in various sectors of the economy, in order to maintain the emphasis on price stability with a view to anchoring inflationary expectations by ensuring a conducive interest rate environment for macroeconomic, price and financial stability, the Bank Rate has been kept unchanged at 6.0 per cent. While the Reserve Bank continues to pursue its medium-term objective of reducing the CRR to the statutory minimum level of 3.0 per cent, on a review of the current liquidity situation, it was decided that the present level of CRR at 5.0 per cent will remain unchanged.

Table 2.37: Interest Rates in Money Markets

(Per cent)

	March-2002	March-2003	March-2004	March-2005	September-2005	December-2005	January-2006
1	2	3	4	5	6	7	8
Call Money	6.97	5.86	4.37	4.72	5.05	6.00	6.79
CP (61-90 days)	7.78	6.53	5.11	5.84	5.87	6.70	7.29
CD	5.00-10.03	5.00-7.10	3.87-5.16	4.21-6.34	4.66-7.00	5.50-7.25	5.40-7.75

Interest Rate Scenario

2.88 Simultaneous increase in demand and supply of funds has resulted in interest rates remaining generally stable during 2004-05 and the current year so far. During this period, the interest rate environment remained benign due to adequate supply of liquidity although demand for credit from industries as well as from other sectors rose sharply. The range of interest rates offered on deposits broadened during this period. Share of sub-BPLR lending increased during the year. However, some softening in lending rates was recorded during the current year upto December notwithstanding hardening of sub-BPLR lending rates subsequently.

2.89 During 2004-05, financial markets remained generally stable, though interest rates showed some intra-year upward movement. Similar trends in interest rates have continued in the current financial year so far. At the shorter end of the market, the weighted average call money rate increased by 35 basis points from 4.37 per cent in March 2004 to 4.72 per cent by March 2005 and further to 6.87 per cent in February 2006. The weighted average discount rate on commercial paper (CP) of 61 to 90-day

maturity increased by 73 basis points from 5.11 per cent to 5.84 per cent by March 2005, ruled around the same level in September 2005 increased to 6.70 per cent in December 2005 and further to 7.29 per cent in January 2006 (Table 2.37).

Bank Deposit and Lending Rates

2.90 The term-deposit rates offered by the public sector banks for maturities upto one year moved from a range of 3.75-5.25 per cent in March 2004 to 2.75-6.0 per cent in March 2005 and further to 2.25-6.00 per cent in February 2006. Interest rates on term-deposits over one year moved from a range of 5.00-6.00 per cent in March 2004 to 4.75-7.00 per cent in March 2005 and further to 5.50-7.00 per cent in February 2006. The benchmark prime lending rates (BPLRs) of public sector banks moved from a range of 10.25-11.50 per cent in March 2004 to 10.25-11.25 per cent in March 2005 and remained thereon in February 2006. BPLRs of foreign and private sector banks moved from a range of 11.00-14.85 per cent and 10.50-13.00 per cent in March 2004 to 10.00-14.50 per cent and 11.00-13.50 per cent, respectively, in March 2005 (Table 2.38). The BPLR ranges for

Table 2.38: Movements in Deposit and Lending Interest Rates

(Per cent)

Interest Rates	March 2002	March 2003	March 2004	March 2005	December 2005	February 2006 *
1	2	3	4	5	6	7
Term Deposit Rates						
Public Sector Banks						
a) Up to 1 year	4.25 - 7.50	4.00 - 6.00	3.75 - 5.25	2.75 - 6.00	2.00 - 6.00	2.25 - 6.00
b) 1 year up to 3 years	7.25 - 8.50	5.25 - 6.75	5.00 - 6.00	4.75 - 6.50	5.50 - 6.50	5.50 - 6.50
c) Over 3 years	8.00 - 8.75	5.50 - 7.00	5.75 - 6.00	5.25 - 7.00	5.80 - 7.00	5.80 - 7.00
Private Sector Banks						
a) Up to 1 year	5.00 - 9.00	3.50 - 7.50	3.50 - 7.50	3.00 - 6.25	3.00 - 6.25	3.00 - 6.25
b) year up to 3 years	8.00 - 9.50	6.00 - 8.00	5.75 - 7.75	5.25 - 7.25	5.50 - 7.00	5.50 - 7.00
c) Over 3 years	8.25 - 10.0	6.00 - 8.00	6.00 - 8.00	5.75 - 7.00	6.00 - 7.25	6.00 - 7.25
Foreign Banks						
a) Up to 1 year	4.25 - 9.75	3.00 - 7.75	3.00 - 7.75	3.00 - 6.25	3.00 - 5.75	3.00 - 5.75
b) 1 year up to 3 years	6.25 - 10.0	4.15 - 8.00	3.50 - 8.00	3.50 - 6.50	4.25 - 6.00	4.25 - 6.00
c) Over 3 years	6.25 - 10.0	5.00 - 9.00	4.75 - 8.00	3.50 - 7.00	5.00 - 7.00	5.00 - 7.00
BPLR						
Public Sector Banks	10.00 - 12.50	9.00 - 12.25	10.25 - 11.50	10.25 - 11.25	10.25 - 11.25	10.25 - 11.25
Private Sector Banks	10.00 - 15.50	7.00 - 15.50	10.50 - 13.00	11.00 - 13.50	11.00 - 13.50	11.00 - 13.50
Foreign Banks	9.00 - 17.50	6.75 - 17.50	11.00 - 14.85	10.00 - 14.50	10.00 - 14.50	10.00 - 14.50

* As on February 3, 2006.

private and foreign banks remained unchanged in February 2006. During 2004-05, a substantial part of banks' lending was at sub-BPLR rates given the competitive conditions in the credit market. The share of sub-BPLR lending in total lending of commercial banks with credit limit over Rs.2 lakh, excluding export credit, increased from about 50 per cent in March 2004 to over 60 per cent by March 2005, which was largely sustained also in December 2005. As at end-December 2005, public sector banks' median (representative) lending rate for both demand and term loans (at which maximum business is contracted), in the range of 8.00-11.63 per cent, exhibited moderation as compared with their corresponding levels of 9.00-12.50 and 8.38-12.00 per cent each in March 2005. Thus, the movement in lending rates was in the desired direction keeping in view the concern expressed in the mid-term review of November 2003 regarding the observed rigidities in the downward movement of lending rates.

Interest Rates on Export Credit

2.91 In April 2002, the Monetary and Credit Policy Statement, indicated that linking domestic interest rates on export credit to PLR has become redundant in the present circumstances as effective interest rates on export credit in rupee terms were substantially lower than the PLR. In the mid-term review announced on October 29, 2002, the Reserve Bank indicated that the PLR-linked ceiling rate has lost its significance in view of the freedom given to banks for lending at sub-PLR rates to creditworthy borrowers. Exporters being prime borrowers could normally avail of export credit at sub-PLR rates. Therefore, with a view to encourage competition among banks and also to increase the flow of credit to the export sector, the Reserve Bank liberalised the interest rates on export credit in rupee terms. The ceiling rate of PLR plus 0.5 percentage points on pre-shipment credit beyond 180 days and upto 270 days and post-shipment credit beyond 90 days and upto 180 days was deregulated with effect from May 1, 2003. Further liberalisation would be considered at a later date and it will be examined whether the ceiling rates on pre-shipment credit up to 180 days and post-shipment credit up to 90 days should also be discontinued to encourage greater competition among banks for export credit. The present ceiling on interest rate on pre-shipment (up to 180 days) and post-shipment (up to 90 days) on rupee export credit is valid upto April 30, 2006. The ceiling rate on PCFCs remained unchanged at LIBOR+75 basis points for the corresponding currencies.

Call Money Market: Key Trends

2.92 An interesting development in the money market during 2004-05 was the increase in the relative size of the collateralised segment *vis-à-vis* the uncollateralised segment. The combined average daily transactions of market repo and collateralised borrowing and lending obligation (CBLO) was proportionately higher than those in the uncollateralised call/notice money market. It may be noted that after phasing out of non-bank participants, except primary dealers from the call/notice money market, the supply of institutional funds from insurance companies and mutual funds has shifted to the collateralised market, which also offers funds at the rates, generally lower than in call money market. The call/notice money turnover increased broadly during August 2004-December 2005, but declined subsequently.

Relative Market Shares

2.93 The relative shares of different constituents in this market have undergone significant changes (Table 2.39). Banks' share of borrowing from the call market declined gradually over the years till 2003-04 because of the overall reduction in the need to borrow in the wake of excess liquidity in the economy, substantial scaling down of CRR, and generally higher Reserve Bank reverse repo rate *vis-à-vis* those in the money market segments, *viz.*, call market, repo and CBLO. An obvious consequence of this situation had been higher placement of funds in the Reserve Bank's reverse repo window. In the scenario of shrinking turnover in call money market, PDs, whose demand was guided by the volume of market borrowing programme, emerged as the largest borrower group in 2003-04.

Table 2.39: Relative Shares in Call/ Notice Money Market

(Per cent)

Year	Borrowing		Lending		
	Banks	PDs	Banks	PDs	Non-banks
1	2	3	4	5	6
2000-01	67	33	47	12	41
2001-02	62	38	65	10	25
2002-03	53	47	69	2	29
2003-04	36	64	57	2	41
2004-05	65	35	70	1	29
2005-06*	76	24	95	1	4

* Upto February 2006.

2.94 However, the situation changed during 2004-05 with banks once again emerging as the largest borrower group following pick-up in credit, increase in CRR maintenance by 50 bps in two stages September and October 2004 and reduction in market borrowing programme of the Government following which borrowings by PDs were less.

2.95 On the lending side, the shares of non-bank entities had gone down during 2001-02 and 2002-03 following the commencement of the process of their phasing out from call/notice market. Thereafter, their shares increased during 2003-04 in relative terms against the background of marked shrinkage in the aggregate turnover of call market. From September 2004 the share of the banking sector has been rising, and following the phasing out of non-banks since August 2005, only banks and PDs remain in the call market.

Policy Developments

2.96 In view of the encouraging developments in the functioning of NDS/CCIL, the process of moving towards a pure inter-bank call/notice money market to facilitate further deepening of repo/term money market was accelerated. Accordingly, with effect from the fortnight beginning June 26, 2004, non-bank participants were allowed to lend, on an average in a reporting fortnight, upto 45 per cent from the previous 60 per cent of their average daily lending in call/notice money market during 2000-01. Further, with effect from fortnight beginning January 8, 2005, this limit was reduced to 30 per cent of their daily average lending in call/notice money market in 2000-01. Thereafter, with effect from the fortnight beginning June 11, 2005, non-bank participants were allowed to lend, on an average in a reporting fortnight, upto 10 per cent of their average daily lending in call/notice money market during 2000-01 and subsequently with effect from August 6, 2005, non-bank participants, except primary dealers, have been phased out from the call/notice money market completely.

2.97 Further, the benchmark for fixing prudential limits on exposures to call/notice money market in the case of scheduled commercial banks has now been linked to their capital funds (sum of Tier I and Tier II capital) from the fortnight beginning April 30, 2005. With a view to improving transparency, in the Annual Policy Statement 2005-06, a screen - based negotiated quote-driven system for dealings in call/notice and term money transaction was proposed.

2.98 To further fine-tune the management of liquidity, market participants have been provided with

an additional window in the form of Second Liquidity Adjustment facility (SLAF) which is operationalised since November 28, 2005 in response to suggestions from the market participants. SLAF is conducted on all working days except Saturdays and bids for SLAF are received between 3.00 p.m and 3.45 p.m. The salient features of SLAF are the same as those of LAF. However, the settlement of the LAF and SLAF is conducted separately and on gross basis. The SLAF will be subject to review and modification as needed, based on experience.

Certificates of Deposit (CDs)

2.99 The outstanding amount of CDs issued by scheduled commercial banks increased markedly from Rs.4,461 crore in March 2004 to Rs.12,078 crore in March 2005. The typical discount rate (for 3-month maturity) on CDs increased from 4.96 per cent in March 2004 to 5.90 per cent in March 2005. Total CDs outstanding constituted 3.9 per cent of the aggregate bank deposits of banks issuing CDs as on March 18, 2005. During 2005-06 so far, the outstanding amount of CDs issued by scheduled commercial banks increased further from Rs.14,975 crore in April 2005 to Rs.34,521 crore in January 2006 and the typical discount rate (for 3-month maturity) on CDs moved upto 7.21 per cent from 5.87 per cent. At the system level, total CDs outstanding form 3.1 per cent of the aggregate bank deposits of the banks issuing CDs as on January 20, 2006.

2.100 The narrower set of issuers in an environment of easy liquidity when banks generally do not issue CDs, reflects that it is the bank-specific factors which have been driving the growth of CDs in recent period. In this context, it has been found that select foreign and private sector banks have been raising resources through issuance of CDs on account of not only lesser number of branches but also their cost effectiveness. Even then, the steady issuance of CDs has been on account of a number of macro factors which include revised guidelines by the Reserve Bank on investments by banks in non-SLR debt securities, reduction in stamp duty on CDs effective March 1, 2004, no tax deduction at source, no prepayment or premature closure as in the case of fixed deposits and greater opportunity for secondary market trading. On the demand side, the Securities and Exchange Board of India (SEBI) placing a bar on Mutual Funds (MFs) from parking funds in bank deposits coupled with improved funds position with MFs provided an impetus for the CD market. An encouraging development that ensued was that some of the top - rated banks had been getting their CDs rated for better

access to the market even when such rating is not mandatory under the extant guidelines.

Policy Developments

2.101 Keeping in view of the reduction of minimum period for term deposits and commercial paper, the minimum maturity period of CDs was reduced from 15 days to 7 days with effect from April 28, 2005. This has provided an additional option to banks to raise short-term resources through CDs.

Commercial Paper (CP)

2.102 The market for CPs continued to remain buoyant during 2004-05. The outstanding amount of CP increased from Rs.9,131 crore in March 2004 to Rs.14,235 crore in March 2005. The discount range on CP moved from a range of 4.70-6.50 per cent to 5.20-7.25 per cent during this period and the weighted average discount rate (WADR) moved up from 5.11 per cent to 5.84 per cent. The preferred maturity of CP had been periods ranging from "61 to 90 days" and "181 days and above".

2.103 With regard to the classes of issuers, it was found that there was a secular decline in the amount of CP being issued by manufacturing companies over time. Reflecting this trend, the share of manufacturing and other companies in the aggregate amount of CP raised stood at 31 per cent during 2004-05 (44 per cent during 2003-04). Finance/leasing companies on the other hand accounted for 56 per cent (38 per cent during 2003-04) and FIs accounted for 13 per cent (18 per cent during 2003-04).

2.104 The market for CP continued to remain buoyant during 2005-06. The outstanding amount of CP increased from Rs.15,598 crore in April 2005 to Rs.16,173 crore as on February 15, 2006. The discount range on CP moved from 5.50-6.65 per cent to 7.03-8.50 per cent during this period. The weighted average discount rate (WADR) increased from 5.84 per cent to 7.87 per cent over this period. The preferred maturity of CP had been periods ranging from "61 to 90 days"; "91 days to 180 days"; and "181 days and above".

2.105 With regard to the classes of issuers, the share of manufacturing and other companies in the aggregate amount of CP raised stood at 19.1 per cent whereas finance/leasing companies accounted for 80.9 per cent during 2005-06 upto February 15, 2006.

2.106 Issuance of CP increased during this period following large investment interests seen from mutual funds on account of the Reserve Bank's guidelines

on investment in non-SLR debt securities by banks. Further, reduction in stamp duty on CP effective March 1, 2004 also boosted its issuance. Though CP market was overwhelmingly dominated by first - class prime - rated issuers (*i.e.*, P1+ and above of CRISIL or its equivalent), it has been found that their shares in issuances of CP have declined from 91.9 per cent during 2002-03 to 88.2 per cent in 2004-05. Correspondingly, those of medium-rated issuers have increased from 8.1 per cent to 11.8 per cent over this period.

2.107 Although corporates having net worth of Rs.4 crore or more have been allowed to raise short-term resources through CP, it has been observed that during 2005-06 (April-February 15, 2006), around 92 per cent of CP were issued by the corporates having net worth of more than Rs.50 crore.

Policy Developments

2.108 In order to further develop the CP market, a software was developed and implemented for reporting of CP issuance on NDS platform by Issuing and Paying Agents (IPAs), with effect from April 16, 2005. Further, information on CP issuance, such as issue date, maturity date, issue amount discount/interest rate, unconditional and irrevocable guarantee and credit rating of the guarantor, as reported by the IPAs on the NDS platform, had been made available on the Reserve Bank website with effect from July 1, 2005.

Forward Rate Agreements (FRAs)/Interest Rate Swaps (IRS)

2.109 There has been a sharp increase in volume in the FRAs/IRS market during the financial year 2004-05. Both in terms of number of contracts and outstanding notional principal amount, FRAs/IRS transactions, rose from 13,960 contracts amounting to Rs.3,72,896 crore in April 2004 to 37,864 contracts for Rs.10,62,242 crore in March 2005. During 2005-06 so far, the number of contracts and outstanding notional principal amount rose from 38,386 contracts amounting to Rs.10,76,513 crore in April 2005 to 59,285 contracts for Rs.13,42,335 crore in the first fortnight of October 2005.

2.110 In this context, there is a need for appropriate legal framework for removing legal ambiguity of derivative contracts. The Reserve Bank has made suggestions to the Central Government for appropriate legislative changes. The Union Budget 2005-06 had also proposed steps for removal of legal ambiguity of OTC derivatives contracts.

Collateralised Borrowing and Lending Obligation (CBLO)

2.111 By March 2005, 110 members had been admitted in CCIL's CBLO segment out of which 56 were active members. The market witnessed substantial growth in the last two years. The daily average turnover in CBLO increased from Rs.2,496 crore in April 2004 to Rs.9,625 crore by March 2005. By February 2006, 150 members had been admitted in CCIL's CBLO segment out of which 78 were active members. The daily average turnover in CBLO segment increased from Rs.10,369 crore in April 2005 to Rs.34,162 crore in February 2006. Mutual funds and insurance companies are the largest suppliers of funds in the CBLO segment whereas on the demand side, public sector banks, private sector banks, co-operative banks and PDs are the major borrowers of funds.

Standing Liquidity Facility

2.112 Export Credit Refinance (ECR) facility is now provided on the basis of banks' eligible outstanding rupee export credit both at the pre-shipment and post-shipment stages. Effective April 1, 2002, ECR facility is being provided to scheduled banks to the extent of 15 per cent of the outstanding export credit eligible for refinance as at the end of second preceding fortnight. The normal facility (at a rate linked to Bank Rate) and back-stop facility (at a rate linked to LAF operations or NSE-MIBOR) had been merged with effect from March 29, 2004 and accordingly, ECR is being provided at a single rate at the repo rate of the Reserve Bank. Since repo rate under LAF has been revised from earlier 6.00 per cent to 6.25 per cent effective October 26, 2005, ECR was provided at 6.25 per cent from that date. Consequent upon increase in repo rate from 6.25 per cent to 6.50 per cent *w.e.f.* January 24, 2006, ECR is being provided at the current repo rate.

Trends in Utilisation of the Export Credit Refinance Facility

2.113 The aggregate export credit increased from Rs.69,059 crore as on March 18, 2005 to Rs.83,601 crore as on February 3, 2006. The export credit refinance limit which stood at Rs.4,928 crore as on March 18, 2005, increased to Rs.5,526 crore as on February 3, 2006. During this period, the export credit refinance facility was utilised occasionally upto December 2005. Due to the firmness in call money

rates since December 2005 and tight liquidity conditions in the market, the daily average utilisation of ECR increased from Rs.1,412 crore as on January 6, 2006 to Rs.2,469 crore as on February 3, 2006.

Mobilisation of Resources by Select Financial Institutions (FIs) under the Umbrella Limit

2.114 Till the year 1990, the FIs were not subjected to market discipline but were predominantly the instruments for providing capital as per Plan priorities and industrial licensing prescriptions of the Government of India. They were funded through concessional resources by way of Government guaranteed bonds and advances from Long-Term Operations (LTO) Funds of the Reserve Bank. Currently, an FI can raise resources, short-term as well as long-term, such that the total outstanding of such funds at any time do not exceed 10 times its Net Owned Funds (NOF) as per its latest audited balance sheet. Within this overall ceiling, nine institutions, *viz.*, IDBI, IFCI, EXIM Bank, SIDBI, IIBI, TFCI, NABARD, IDFC and NHB had umbrella limits to raise resources equivalent to 100 per cent of their NOF as per their latest audited balance sheet. The number of select FIs has, however, come down to eight consequent upon IDBI converting itself into a scheduled bank, IDBI Ltd., with effect from October 1, 2004. Incidentally, IDBI Ltd. had a merger with IDBI Bank Ltd. with effect from April 2, 2005. The aggregate limits of these select financial institutions for raising resources through instruments such as term money, term deposit, inter-corporate deposits (ICDs), certificates of deposit and commercial paper increased from Rs.16,160 crore as on April 1, 2005 to Rs.17,046 crore as on December 23, 2005.

Trends in Mobilisation of Resources

2.115 The aggregate amount of outstanding resources raised by the financial institutions by way of these instruments declined marginally from Rs.2,862 crore (17.7 per cent of limits) as on April 1, 2005 to Rs.2,002 crore (11.74 per cent of limits) as on February 3, 2006. On an average basis, commercial paper was the most preferred instrument (Rs.1,900 crore), followed by term money borrowings (Rs.50 crore), certificates of deposit (Rs.26.66 crore), term deposits (Rs.25 crore) and ICDs (Rs.0.25 crore). Significantly, only four institutions, *viz.*, IDFC, EXIM Bank, NHB and SIDBI were active in mobilising resources through these instruments during the current year 2005-06 so far (April-February 3, 2006).

2.116 Money markets are growing in depth with increasing volumes of a number of instruments. Many significant developments have taken place in recent times to enhance the efficiency and stability of these markets in order to meet the varied objectives, including that of transmitting monetary policy impulses (Box II.1). Major such developments include emergence of call money market as pure inter-bank market with only banks and PDs as eligible entities and shifting of non-bank entities to new collateralised instruments of CBLO and market repo. Opening of an additional LAF window in the form of Second LAF has also strengthened the liquidity management. Large and volatile foreign exchange flows, however, continue to pose the biggest challenge for liquidity management. As Government cash flows also have low predictability, liquidity management has to be carried out with some uncertainty. In this backdrop, containing volatility in short-term interest rates in recent times has been a matter of considerable success for monetary policy operations in India.

Government Securities Market

2.117 The Reserve Bank continued to pursue the twin objectives of minimisation of cost over time and lengthening of the maturity profile of debt for both the Centre and the States in a scenario of upward shifting yield curves during the current year so far. The market borrowings of the Central Government during 2005-06 were significantly higher than in the corresponding period of the previous year, while those of State Governments were lower, mainly reflecting the termination of the debt swap scheme (DSS) in 2004-05. The weighted average yield of the Central Government securities issued during the year firmed up somewhat whereas the weighted average maturity increased slightly on account of larger issuances of long-term bonds. Comfortable liquidity position in the

system coupled with more salubrious market perceptions regarding the prospective financial health of certain State Governments - induced in some measures by their enactment of Fiscal Responsibility Legislation-seemed to have contributed to the success of the auctions with lower spread (over the corresponding GOI securities) *vis-à-vis* the tap issuances. To fine-tune the management of liquidity and in response to suggestions from the market participants, a Second Liquidity Adjustment Facility was operationalised with effect from November 28, 2005. The Reserve Bank in the third quarter review of Annual Policy Statement for the year 2005-06 (January 24, 2006) announced that it would continue to ensure that appropriate liquidity is maintained in the system so that the genuine requirements of credit are met, consistent with the objectives of price and financial stability. Accordingly, keeping in view the current macroeconomic and overall monetary conditions, fixed reverse repo rate under the liquidity adjustment facility of the Reserve Bank has been increased by 25 basis points from 5.25 per cent to 5.50 per cent, while the spread between the reverse repo rate and the repo rate is retained at 100 basis points, as at present. The fixed repo rate under LAF would, therefore be 6.50 per cent, with immediate effect, *i.e.*, from the operationalisation of SLAF on January 24, 2006.

2.118 During 2005-06 so far (up to February 28, 2006), the market borrowing programme of the Central and State Governments has been successfully managed mainly on account of comfortable liquidity conditions. During the current year so far, a substantially larger number of States opted for the auction route for raising resources under the market borrowing programme. The weighted average cost of market borrowings of the Centre as well as the States continued to increase during the current year so far, reflecting the upturn in

Box II.1

Reserve Bank's Technical Advisory Committee on Monetary Policy

With a view to further strengthening the consultative process in monetary policy, the Reserve Bank has set up a Technical Advisory Committee (TAC) on Monetary Policy in July 2005, with four external experts in the areas of monetary economics, central banking, financial markets and public finance. The Governor, Reserve Bank of India is the Chairman of the TAC with the Deputy Governor-in-charge of Monetary Policy Department as the internal member. Other Deputy Governor(s) and any expert, depending on the requirement, would be special invitees to the meetings of the TAC with Heads of

Department of Economic Analysis and Policy and Monetary Policy Department in attendance. Monetary Policy Department has been designated as the secretariat to the Committee.

The terms of reference of the Committee are to review macroeconomic and monetary developments and to advise on the stance of the monetary policy. The Committee is required to meet at least once in a quarter and its views would be discussed in the following meeting of the Committee of the Central Board of the RBI. The tenure of the present Committee is up to January 31, 2007.

global interest rates, buoyant domestic growth and tightening of liquidity conditions during November-February 2006. The weighted average maturity of the primary issuances of Centre and States under the market borrowing programme during the year has also been higher. During the current year so far, the Central Government has availed the WMA only on two occasions (May 3, 2005 and June 4, 2005), reflecting its comfortable liquidity position. The utilisation of WMA by the State Governments also declined significantly as compared with the previous year. Correspondingly, a majority of the States and the Centre accumulated large surplus cash balances.

Market Borrowings of Central Government 2005-06

2.119 The Union Budget estimate of the net market borrowings of the Central Government for 2005-06 has been placed at Rs.1,10,291 crore (inclusive of net issuance of 182-day Treasury Bills). Including repayments of Rs.68,282 crore, gross market borrowing is estimated at Rs.1,78,573 crore. An indicative issuance calendar in respect of dated securities for the first half of the year 2005-06 was issued in consultation with the Government for an aggregate amount of Rs.83,000 crore. The actual issuances, however, amounted to Rs.81,000 crore on account of reduction in the notified amount from Rs.4,000 crore to Rs.2,000 crore for maturity of 29.27 years in the auction held on May 3, 2005. On September 19, 2005, the issuance calendar for dated securities under the market borrowing programme of the Central Government for the second half of the current financial year (October-March) was released. The calendar proposed to raise Rs.58,000 crore through dated securities by end-February 2006. The actual issuance during the period amounted to Rs.40,000 crore as all the bids were rejected in the auction of 11.83 per cent Government Stock 2014 for Rs.6,000 crore held on October 6, 2005 due to conservative bidding, while the other scheduled auction for Rs.4,000 crore was cancelled on account of surplus liquidity with the Central Government. Further, on February 7, 2006, an amount of Rs.3,000 crore was raised through the issuance of dated security with a tenor of 11.56 years instead of Rs.6,000 crore as announced in the calendar. On February 20, 2006, the scheduled auction for Rs.5,000 crore of dated security with a tenor ranging between 10-14 years was cancelled.

2.120 During 2005-06 so far (upto February 28, 2006), gross market borrowings raised by the Central Government (excluding issuances under the MSS)

were at Rs.1,58,339 crore (net Rs.95,589 crore) as against Rs.1,04,491 crore (net Rs.46,044 crore) raised during the corresponding period of the previous year (Table 2.40). All issuances were reissues except a 30-year dated security issued on September 8, 2005 and were by way of fixed coupon securities. During 2005-06 so far, the share of reissue of the total securities issued worked out to 97 per cent as against a share of 60 per cent during the corresponding period of the previous year. There has been no devolvement/private placement during the year so far, as compared with Rs.847 crore and Rs.985 crore of devolvement on the Reserve Bank and Primary Dealers, respectively and Rs.350 crore issued by way of private placement during the previous year.

Dated Securities

2.121 Continuing with the trend in 2004-05, the weighted average yield of the dated securities issued during 2005-06 so far moved upwards. The weighted average yield of the dated securities issued during 2005-06 so far (upto February 28, 2006) was higher at 7.30 per cent as compared with 6.11 per cent during the corresponding period of the previous year as also for the full previous year. The weighted average maturity of the dated securities issued during 2005-06 so far also increased, reflecting larger issuances of long-term securities. The weighted average maturity of the dated securities issued during the year so far worked out to 15.86 years as compared with 14.13 years during the corresponding period of previous year as well as for the full previous year.

Treasury Bills

2.122 During the year 2005-06, the notified amounts (excluding under MSS) of 91-day and 364-day Treasury Bills for each auction were kept unchanged at Rs.500 crore and Rs.1,000 crore, respectively. The auction of 182-day Treasury Bills was re-introduced with a notified amount of Rs.500 crore. Besides, through the auction of 91-day Treasury Bills, Rs.1,500 crore were to be raised under the MSS, while Rs.1,000 crore each were to be absorbed through the auctions of 182-day and 364-day Treasury Bills during 2005-06. The notified amount under 91-day Treasury Bills was increased to Rs.4,000 crore (Rs.500 crore for regular auction and Rs.3,500 crore under the MSS) for five auctions between August 31, 2005 and September 28, 2005. Since the auctions of Treasury Bills held on November 16, 2005, the issuance of MSS component was discontinued taking into account the overall liquidity position of the system.

Table 2.40: Central Government's Market Borrowing

(Rupees crore)

Item	2004-05		2004-05 (April-February)		2005-06 (April-February)	
	Gross	Net	Gross	Net	Gross	Net
1	2	3	4	5	6	7
1. Budget Estimates*	1,50,817	90,365			1,78,573	1,10,291
<i>Of which:</i>						
(i) Dated Securities	1,24,817	90,501			1,39,573	1,03,942
(ii) 182-day T Bills	0	0			13,000	6,500
(iii) 364-day T Bills	26,000	-136			26,000	-151
2. Completed so far @	1,06,501	46,050	1,04,491	46,044	1,58,339	95,589
<i>Of which:</i>						
(i) Dated Securities	80,350	46,034	80,350	46,034	1,21,000	88,370
(ii) 182-day T Bills	0	0	0	0	12,088	6,109
(iii) 364-day T Bills	26,151	16	24,141	10	25,251	1,110
3. Private Placements	350		350		0	
4. Devolvments	1,832		1,832		0	
(i) RBI	847		847		0	
(ii) PDs	985		985		0	
5. Weighted Average Yield on dated securities (per cent)	6.11		6.11		7.30	
6. Weighted Average Maturity of dated securities (Years)	14.13		14.13		15.86	

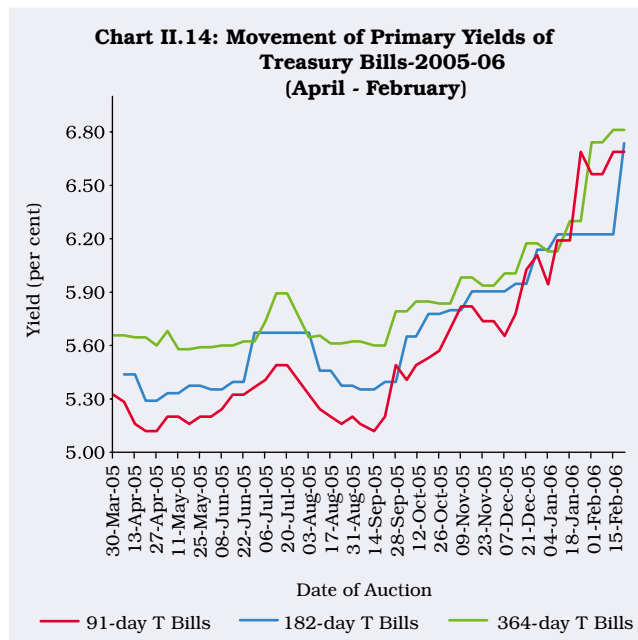
* For the full financial year.

@ Actuals for 2004-05.

2.123 The primary market cut-off yields of 91-day and 364-day Treasury Bills increased by 137 basis points and 115 basis points, respectively to 6.69 per cent and 6.81 per cent, in the auctions held on February 22, 2006 and February 15, 2006, respectively as compared with end-March 2005 (Chart II.14). The primary market cut-off yield of 182-day Treasury Bills also increased by 130 basis points since its re-introduction on April 6, 2005 to 6.74 per cent in the auction held on February 22, 2006.

Market Borrowings of State Governments

2.124 During the current fiscal year so far (upto February 28, 2006), the gross borrowings of the State Governments amounted to Rs.19,909 crore [Rs.11,186 crore (56.2 per cent) through tap issuances and Rs.8,723 crore (43.8 per cent) through auctions], as compared with Rs.38,668 crore [Rs.37,783 crore (97.7 per cent) through tap issuance and Rs.885 crore (2.3 per cent) through auctions] in the corresponding period of the previous year. It may be noted that the gross allocation during 2004-05 amounting to Rs.42,058 crore included Rs.18,805 crore and Rs.2,351 crore under the DSS and Rural Infrastructure Development Fund (RIDF), respectively, while the gross allocation for 2005-06 was placed at Rs.25,589 crore.



2.125 The weighted average yield of State Government securities issued during 2005-06 so far (up to February 28, 2006), worked out to 7.62 per cent as compared with 6.44 per cent during the corresponding period of the previous year and 6.45 per cent during 2004-05 as a whole. All the issues

during the current financial year were of 10-year maturity while the weighted average maturity of the State Government securities issued during the corresponding period of the previous year worked out to 9.99 years. During the current year so far (up to February 28, 2006), Twenty States opted for auction route for raising the resources under the market borrowing programme as compared with only three States in the last year. During 2005-06 so far (February 28, 2006), while the cut-off yield in the auctions of State Development loans ranged between 7.32-7.85 per cent, the coupon of the tap issues ranged between 7.53-7.77 per cent.

Open Market Operations

2.126 Since January 2004, the Reserve Bank has not conducted any outright OMO sales. The OMO sales (entirely on account of the amount of securities sold to the State Governments for investment of surplus/ reinvestment of maturity proceeds of GOI securities and investment on account of the Consolidated Sinking Fund and Guarantee Redemption Fund) during 2005-06 so far (up to February 24, 2006), aggregated Rs.3,718 crore as against OMO sales of Rs.2,493 crore during the corresponding period of the previous year.

Market Stabilisation Scheme

2.127 The total outstanding amount absorbed under the Market Stabilisation Scheme (MSS) as on February 28, 2006 declined to Rs.31,958 crore as compared with Rs.64,211 crore as on March 31, 2005 (Table 2.41). On August 25, 2005, Rs.6,000 crore (face value) was absorbed under the MSS through re-issuance of a dated security with a residual maturity of 1.76 years. It may be noted that Rs.20,000 crore absorbed (face value) under MSS through dated securities in 2004-05 matured on September 3, 2005.

2.128 On August 27, 2005, the indicative schedule for auctions of Treasury Bills and dated securities under MSS for the second quarter (July-September) was revised to increase the notified amount for the

auctions of 91-day Treasury Bills by Rs.2,000 crore to Rs.3,500 crore for the five auctions between August 31, 2005 and September 28, 2005 to impound an additional surplus liquidity of Rs.10,000 crore. The notified amounts of 182-day and 364-day Treasury Bills under MSS remained unchanged. The absorption under MSS through the auctions of Treasury Bills was discontinued since the auctions of TBs held on November 16, 2005 taking into account the overall liquidity position in the system.

Liquidity Adjustment Facility

2.129 Liquidity conditions remained generally comfortable during the financial year so far upto October 2005 but tightened thereafter mainly on account of sharp increase in currency in circulation due to the festival season as also increase in the surplus cash balances of Government of India, partly reflecting advance tax outflows in mid-December and IMD redemptions which took place on December 29, 2005. The net average daily liquidity absorption during April 2005 was at Rs.30,765 crore, which declined gradually to Rs.10,754 crore during July 2005. The net average liquidity absorption increased to Rs.34,832 crore during August 2005 but declined sharply to Rs.3,268 crore during November 2005 and further to Rs.1,452 crore during December 2005 and turned negative at Rs.(-)15,386 crore during January 2006 and Rs.(-)13,532 crore during February 2006. As a result, repo bids were received and accepted for seven consecutive working days during November 9-18, 2005 ranging between Rs.200 crore and Rs.5,175 crore, 11 consecutive working days during December 16-30, 2005 ranging between Rs.1,085 crore-Rs.30,110 crore, 18 working days during January 2006 ranging between Rs.50 crore-Rs.33,290 crore and 19 working days during February 2006 ranging between Rs.4,515 crore-Rs.24,145 crore.

Secondary Market Transactions in Government Securities

2.130 The volume of secondary market transactions increased from Rs.1,75,527 crore (47.98 per cent of

Table 2.41: Outstanding under MSS

(Rupees crore)

Instruments	March 31, 2005	June 30, 2005	September 30, 2005	February 28, 2006
1	2	3	4	5
Dated Securities	25,000	25,000	11,000	11,000
91-day Treasury Bills	19,248	19,251	23,557	0
182-day Treasury Bills	–	5,844	9,815	3,919
364-day Treasury Bills	19,963	21,585	21,777	17,039
Total	64,211	71,680	66,149	31,958

these transactions were outright and the rest on account of repos) in April 2005 to Rs.1,81,854 crore (23.8 per cent of these transactions were outright and the rest on account of repos) during February 2006. While the volume of outright transactions declined from Rs.84,225 crore during April 2005 to Rs.43,306 crore in February 2006, the volume of repo transactions increased significantly from Rs.91,302 crore during April 2005 to Rs.1,38,548 crore during the same period. The turnover during February 2006 (calculated as twice the outright transactions and four times the repos) increased to Rs.6,40,805 crore from Rs.5,33,658 crore during April 2005.

2.131 During February 2006, the five most traded securities in NDS accounted for 68.3 per cent of the total transactions as compared with 78.5 per cent during April 2005, implying somewhat increased dispersal of liquidity across securities.

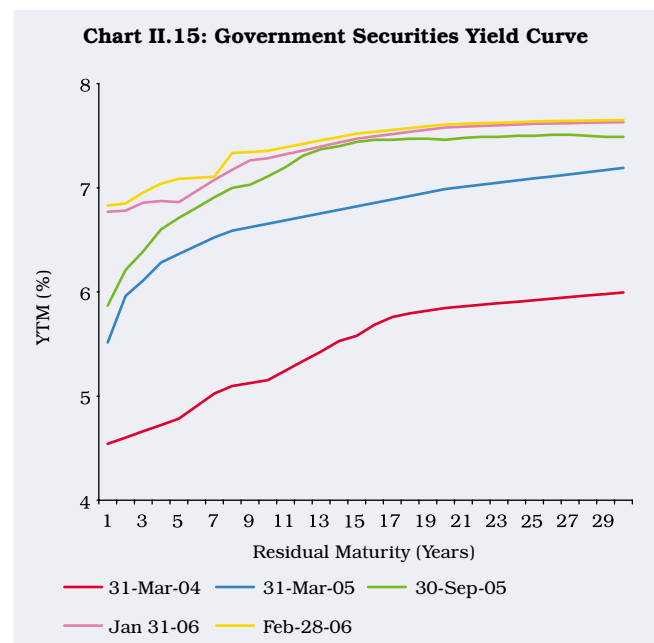
Yield Movement and Yield Curve

2.132 During April 2005, the yields firmed up sharply in the backdrop of rising global crude oil prices and the concerns over the domestic fuel price hike. The reverse repo rate hike by 25 basis points in the Annual Policy Statement announced on April 28, 2005 triggered sell-off and the 10-year yield firmed up by 11 basis points during the day. The 10-year yield closed at 7.31 per cent on April 30, 2005, higher by 66 basis points over the end-March 2005.

2.133 The yields, however, retraced during May 2005 amidst a comfortable liquidity position and benign crude prices. The US treasury yields also bolstered the sentiment. The prices of securities were range-bound during June and July. The markets rallied briefly in July when the reverse repo rate hike expected by the market participants did not materialise in the first quarter review of the Annual Policy Statement on July 26, 2005. The hardening of global crude prices was the main concern for the participants in July and August 2005 and the trading was lacklustre. The screen-based order matching system (NDS-OM) operationalised effective from August 1, 2005 enhanced trading activity in the secondary markets. The 10-year yield closed at 7.09 per cent on August 31, 2005 (Chart II.15). Prices rallied in the first half of September 2005 due to fall in global crude oil prices with the 10-year yield closing at 6.99 per cent on September 15, 2005. Thereafter, yields firmed up to 7.11 per cent on September 30, 2005 on account of rising crude oil prices and concern over a possible higher inflation rate, while the announcement of the

issuance calendar of dated securities for Rs.58,000 crore under the market borrowing programme of the Central Government for the second half of the current year was in line with the market expectations.

2.134 During October 2005, prices rallied in the beginning of the month but remained range bound thereafter with no sharp movements as the mid-term review of the Annual Policy Statement was in line with the expectations of the market. The 10-year yield declined marginally to 7.10 per cent on October 31, 2005 from 7.11 per cent on September 30, 2005. In the beginning of November 2005, prices fell slightly due to tight liquidity conditions and auctions of two Government of India (GOI) securities on November 8, 2005. The cut-off yield arrived in the auction of 7.49 per cent Government Stock 2017 was as per the market expectations, while the cut-off for 7.40 per cent 2035 was higher than the market expectations. The 10-year yield increased to 7.12 per cent on November 11, 2005 from 7.10 per cent on November 4, 2005. Security prices remained range bound as the market sentiment remained positive with the cancellation of the MSS auctions and the expectations of cancellation of scheduled auction. The 10-year yield declined marginally to 7.11 per cent on November 18, 2005. Thereafter, there was some softening of G-sec yields due to easing of the tight liquidity conditions in the domestic market, expectations of pausing of the Fed-Reserves tightening cycle and steady oil prices. The 10-year yield eased to 7.08 per cent on November 30, 2005. During December 2005, the G-sec yields firmed up in the short-term due to tight liquidity



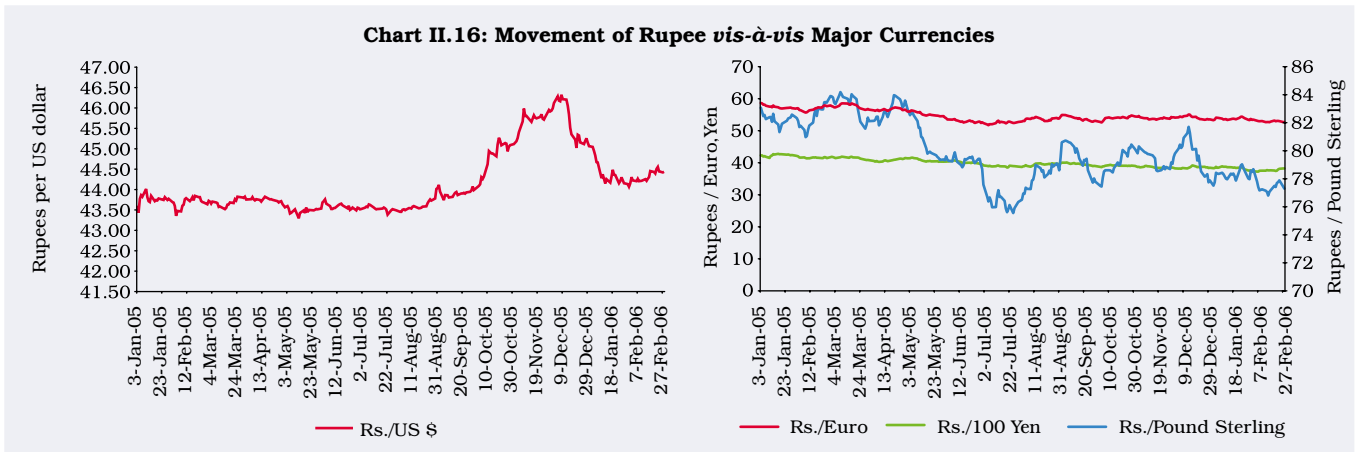
conditions while the yields in the long end showed a softening trend following proposal to reduce EPF rates and good response to G-sec auction of longer maturity. During the period between January 1 to 23, 2006, Government securities yields were generally range bound. Yield curve flattened marginally due to softening of yields at longer end. However, the 10-year yield increased sharply to 7.41 per cent on January 24, 2006 on account of hike in both the reverse repo and repo rates to 5.50 per cent and 6.50 per cent, respectively. Thereafter, there has been softening of yields mainly due to easing of tightness in liquidity and value buying. The 10-year closed at 7.28 per cent on January 31, 2006. In the beginning of February 2006, security prices rallied on account of easing of global crude oil prices and lower inflation. Subsequently, the reduction in the notified amount from Rs.6,000 crore to Rs.3,000 crore in the scheduled auction of dated security on February 8, 2006 further eased the liquidity concerns of the market. The 10-year yield closed at 7.30 per cent on February 3, 2006. Thereafter, security prices remained range-bound due to continuation of tight liquidity situation. However, the cancellation of auction of dated security for Rs.5,000 crore scheduled between during February 14-22, 2006 led a small *albeit* short-lived rally in security prices. Yield hardened on account of announcement of auction of State Government security for Rs.3,700 crore. The 10-year yield closed at 7.37 per cent on February 28, 2006.

2.135 The market borrowing programmes of the Central and the State Governments have been conducted successfully during the year so far. With effect from fiscal year 2006-07, the Reserve Bank will withdraw from the primary market for Central Government securities. While this would impart greater flexibility and manoeuvrability in the conduct of monetary policy, the Government securities market needs to be further developed in order to obviate undue volatility. The issue of liquidity in State Government securities also needs to be addressed. With the implementation of the Twelfth Finance Commission recommendations, no provision was made for Central loans for State plans during 2005-06 and States were encouraged to access the market to raise commensurate resources. The continued success of the market borrowing programme of the States in the future would depend on the sustained fiscal reform process. The States, therefore, need to adopt a prudent fiscal policy with enabling legislations for fiscal consolidation.

Foreign Exchange Market

2.136 The foreign exchange market has generally exhibited orderly conditions during 2005-06 so far (up to February 28, 2006). The exchange rate of the Indian rupee *vis-à-vis* the US \$ has moved within a range of Rs.43.30 - 46.33 per US \$ during the year 2005-06 (upto February 28, 2006). During April-May 2005, despite outflows by FIIs and a higher merchandise trade deficit, the rupee firmed up against the US \$ from Rs.43.76 at end-March 2005 to Rs.43.30 per US \$ on May 12, 2005. In the subsequent weeks, the Indian rupee depreciated to Rs.43.76 per US \$ on June 2, 2005 due to strengthening of the US \$ in the international markets. With the revaluation of the Chinese Yuan on July 21, 2005, the rupee under appreciation pressures stood at Rs.43.46 per US \$ on August 1, 2005. It, however, depreciated throughout the month thereafter. The Reserve Bank made net market purchases of US \$ 4.0 billion during July-August 2005. The rupee again came under pressure in the last week of August 2005 and reached Rs.44.12 per US dollar (September 1, 2005), under the impact of oil prices touching a peak of US \$ 70.8 per barrel in the international market of Hurricane Katrina. Subsequently, the rupee recovered marginally and stood at Rs.43.99 per US dollar (September 29, 2005). The rupee came under pressure from the first week of October 2005 in the face of a sharp increase in the current account deficit and a strong US dollar. The rupee continued its depreciating trend throughout the months of October and November reflecting the spill over effect of the depreciation of major international currencies against the US dollar and FII outflows. The exchange rate depreciated till the second week of December and stood at Rs.46.33 per US \$ on December 8, 2005. Subsequently, the rupee strengthened against the US dollar in tandem with a global rally of some of the major currencies, especially a huge jump in the value of Japanese Yen and FII inflows. It appreciated and reached Rs.44.44 per US \$ on February 28, 2006. The Indian rupee depreciated by 1.5 per cent against US dollar during the current financial year (up to February 28, 2006). However, the rupee appreciated against the Pound Sterling, the Euro and the Japanese Yen by 6.2 per cent, 7.4 per cent and 6.7 per cent, respectively during the same period (Chart II.16). During the financial year so far (up to February 28, 2006), 6-currency (trade-based weight) monthly average REER appreciated by 0.5 per cent and the NEER has appreciated by 0.6 per cent.

Chart II.16: Movement of Rupee vis-à-vis Major Currencies



2.137 The forward markets reflected the developments in the spot segment of the foreign exchange market. Spot market conditions kept forward premia low during the first quarter of 2005-06. Forward premia declined in May 2005 in view of the announcement to phase out the Mumbai Inter-bank Forward Offered Rate (MIFOR) as a benchmark for pricing interest rate derivative deals for non-banks. The forward premia continued to decline with the narrowing of interest rate differential following the hikes in the US interest rates. The 1- month forward rate, however, has shown a rise since September 2005 (Chart II.17).

Capital Market

2.138 Resources mobilised through public issues, private placements and Euro issues continue to remain higher during the current financial year so far than the corresponding period of the last year. To ensure orderly functioning of domestic stock markets and to bring them at par with international stock markets, several reforms are currently being implemented, including demutualisation and corporatisation of stock exchanges, strengthening of surveillance systems, setting up of National Institute of Securities Market and development of the corporate debt market. The stock markets in India are currently at their historical peak levels.

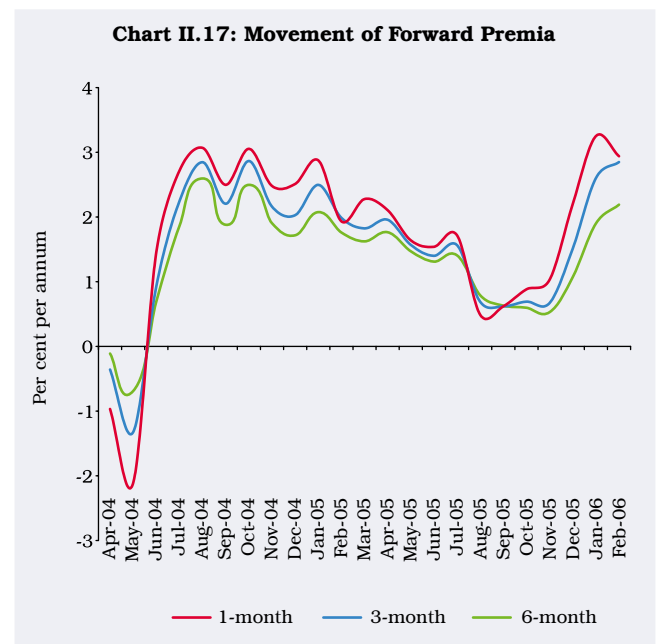
Primary Market

2.139 During the current financial year so far (April-January 2005-06), the primary market depicted an encouraging trend with increase in both the number of issues and the resources raised. The resource mobilisation through 101 public issues increased substantially by 53.2 per cent to Rs.22,670 crore during April-January 2005-06 from Rs.14,799 crore

through 42 public issues in the corresponding period of the previous year. Of these, 5 public issues were in the public sector, accounting for 23.3 per cent of the total resources raised and the remaining 96 public issues were in the private sector during April-January 2005-06 (Table 2.42). Further, out of 101 public issues floated during April-January 2005-06, 100 public issues were equity issues, constituting 99.5 per cent of the total resource mobilisation.

2.140 Resource mobilisation through private placement as well as Euro issues registered substantial increases. Mobilisation of resources through private placement increased by 37.6 per cent to Rs.67,288 crore during the April-December 2005 as compared with Rs.48,887 crore during April-December 2004. Public sector entities dominated the private placement market. During April-December

Chart II.17: Movement of Forward Premia



RECENT ECONOMIC DEVELOPMENTS

Table 2.42: Mobilisation of Resources from the Primary Market*

(Rupees crore)

Item	April-January #							
	2003-04		2004-05		2004-05		2005-06	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
1	2	3	4	5	6	7	8	9
A. Prospectus and Rights Issues @	47	7,851	59	21,892	42	14,799	101	22,670
I. Public Sector	9	4,176	5	8,410	3	5,018	5	5,291
II. Private Sector	38	3,675	54	13,482	39	9,781	96	17,379
B. Private Placement	874	63,901	914	84,052	654	48,887	780	67,288
I. Public Sector	234	45,141	198	48,308	121	23,345	108	37,741
II. Private Sector	640	18,760	716	35,744	533	25,543	672	29,547
C. Euro Issues	18	3,098	15	3,353	11	2,606	40	9,526

* Including both debt and equity. # For private placement, data pertain to April-December. @ Excluding offer for sale.
Note: Estimates based on information gathered from arrangers, FIs and newspaper reports.

2005, they raised Rs.37,741 crore (56.1 per cent of total mobilisation by private placement) as compared with Rs.23,345 crore (47.8 per cent of total) in April-December 2004 (Table 2.42).

2.141 Resource mobilisation through Euro issues, which includes American Depository Receipts (ADRs), Global Depository Receipts (GDRs) and Foreign Currency Convertible Bonds (FCCBs), increased sharply during April-January 2005-06. There were forty Euro issues during April-January 2005-06, amounting to Rs.9,526 crore as compared with eleven issues, aggregating Rs.2,606 crore during April-January 2004-05 (Table 2.42). Most of the issues were by way of GDRs.

2.142 Resource mobilisation by mutual funds (net of redemptions) increased substantially by 419.3 per cent during April-January 2005-06 to Rs.35,555 crore due mainly to increase in resource mobilisation both under income/debt oriented schemes and growth/equity oriented schemes. UTI Mutual Fund and public sector mutual funds witnessed net inflows of Rs.545 crore and Rs.6,646 crore during April-January 2005-06 as against net outflows of Rs.3,071 crore and Rs.529 crore, respectively, during the corresponding period of the previous year. The private sector mutual funds recorded a net inflow of Rs.28,364 crore during April-January 2005-06 as compared with a net inflow of Rs.10,447 crore during April-January 2004-05 (Table 2.43).

Secondary Market

2.143 The stock market, which receded during April-May 2005, made a speedy recovery during June-September 2005 with the BSE Sensex and S&P CNX

Nifty touching all time highs in line with the other emerging markets. Strong macroeconomic fundamentals of the economy, encouraging investment climate, continued FII inflows and robust performance by the Indian corporates contributed to the upward trend in the domestic stock markets. Settlement of disputes in the Reliance industries, satisfactory progress of monsoon, decline in domestic inflation rate, surge in Indian ADR prices and support from domestic institutional investors also enthused the market sentiment.

2.144 During the month of October 2005, the market sentiment turned weak mainly due to rising international crude oil prices, cautious approach adopted by investors ahead of the second quarter financial results of the companies and slowdown in investments by foreign institutional investors (FIIs). However, buoyancy in the markets was resumed in

Table 2.43: Net Resource Mobilisation by Mutual Funds

(Rupees crore)

Category	April-January			
	2003-04	2004-05	2004-05	2005-06
1	2	3	4	5
I. Unit Trust of India*	1,667	-2,722	-3,071	545
II. Private Sector	42,544	7,600	10,447	28,364
III. Public Sector	2,597	-2,677	-529	6,646
Total (I+II+III)	46,808	2,201	6,847	35,555

* Erstwhile UTI has been divided into UTI Mutual Fund (registered with SEBI) and the Specified Undertaking of UTI (not registered with SEBI). Above data contains information only in respect of UTI Mutual Fund.

Source : Securities and Exchange Board of India.

the month of November 2005, which has continued so far. The declaration of strong financial results by corporates during second and third quarters, higher growth estimates of GDP (8.1 per cent) for 2005-06 by the CSO, announcement of fresh reform measures in banking sector such as allowing foreign private sector banks to acquire weak private sector banks in India, continued FII investments in the Indian equity markets and firm trends in major international and Asian equity markets boosted the market sentiment. The measures announced in the Union Budget 2006-07 further kept the market sentiment upbeat. The policy announcements included increase in FII investments limit in Government securities and corporate debt to \$2 billion (from \$1.75 billion) and to \$1.5 billion (from \$0.50 billion), respectively, ceiling on aggregate investment by mutual funds in overseas instruments to be raised from \$ 1 billion to \$ 2 billion with the removal of requirement of 10 per cent reciprocal share holding, allowing a limited number of qualified Indian mutual funds to invest cumulatively up to \$ 1 billion in overseas exchange traded funds, setting up of investor protection fund under the aegis of SEBI, taking steps to create a single unified exchange traded market for corporate bonds, inclusion of fixed deposits of scheduled banks for a term of not less than 5 years in Section 80 C of the Income Tax Act, reduction in peak customs duties, rationalisation of excise duties in select sectors and relaxation in Fringe Benefit Tax (FBT). As a result, both the BSE Sensex and the S&P CNX Nifty closed at all-time high levels of 10370.24 and 3074.70, respectively on February 28, 2006. At this level, the BSE Sensex recorded an increase of 59.7 per cent over end-March 2005. On a y-o-y basis, the BSE Sensex increased by 54.5 per cent as on February 28, 2006. On an average basis, the BSE Sensex increased by 42.1 per cent in the financial year so far (up to February 28, 2006) over the corresponding period of the previous year.

2.145 With the rise in stock prices, market capitalisation of the BSE surged to 76.7 per cent of GDP on February 28, 2006 from 54.6 per cent of GDP at end-March 2005 and daily turnover (BSE and NSE combined) in cash segment crossed over Rs.11,000 crore on several days. The spurt in stock prices has been broad-based, encompassing all indices (BSE 500, BSE Small-cap, BSE Mid-cap and BSE Sensex) and across all sectors (auto, banks, capital goods, consumer durables, IT, oil & gas, pharma, etc.). Turnover, market capitalisation, price/earning ratio and also the volatility on the BSE and the NSE have remained higher in the current year so far, than those in the corresponding period of the previous year (Table 2.44).

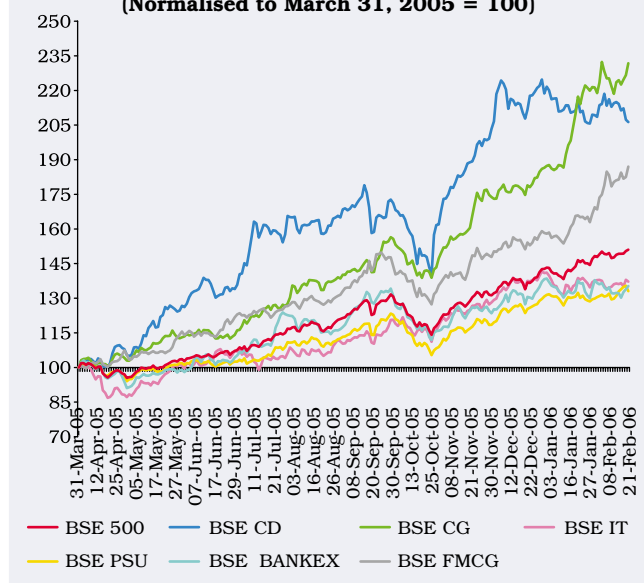
2.146 Most of the sectoral indices, including capital goods, consumer durables, fast moving consumer goods (FMCG), information technology (IT), banking, and PSU registered gains. The capital goods stocks have risen due to a pick-up in investment activity and strong industrial performance. The consumer durables stocks were buoyant due to stock-specific activities such as mergers, strong growth in sales and good financial results of some of the companies. The FMCG stocks recorded higher growth due to satisfactory progress of monsoon, which in turn boosted demand for consumer goods. Banking sector scrips registered gains mainly due to allowing the foreign banks to acquire upto 75 per cent stake in the weaker private sector banks in India, pick up in non-food credit of the banks, RBI's permission to Banks to issue perpetual bonds and other hybrid instruments and raising funds through fresh equity issues by both private and public sector banks during the current financial year so far. The PSU stocks also gained on account of allowing oil companies to issue special bonds to strengthen their balance sheets (Chart II.18).

Table 2.44: Trends in Stock Markets

Item	BSE		NSE	
	April-February 2005-06	April-February 2004-05	April-February 2005-06	April-February 2004-05
1	2	3	4	5
Average BSE Sensex/ S&P CNX Nifty	8,033	5,652	2,444	1,778
Volatility (Coefficient of Variation)	14.66	10.54	13.70	10.72
Turnover (Rs.crore)	6,97,307	4,59,188	13,60,160	10,27,016
Market Capitalisation (end-period) (Rs.crore)	26,95,542	17,30,940	25,12,083	16,14,597
P/E ratio (end-period)	19.06	16.09	18.27	15.02

Source : The Stock Exchange, Mumbai (BSE) and The National Stock Exchange (NSE).

**Chart II.18: Trends in Sectoral Stock Indices
(Normalised to March 31, 2005 = 100)**



2.147 As per the SEBI data, during the current financial year so far (April-February 2006), FIIs investment in the Indian equities continued to remain strong. However, investment by FIIs in debt instruments turned negative during the same period. Mutual funds made substantial investments in equities during April-February 2006 in line with the trends in resource mobilisation under equity-oriented schemes. Investment by mutual funds in debt instruments also remained buoyant during the same period (Table 2.45).

2.148 The total turnover in the derivatives segment on NSE continued to remain substantially higher during April-February 2006 as compared with turnover in the cash segment during the same period (Table 2.46). In view of the significant increase in retail participation in the derivatives market, SEBI decided to permit the mutual funds to participate in the derivatives market at par with the FIIs.

Table 2.45: Institutional Investments

(Rupees crore)

Year	FIIs		Mutual Funds	
	Equity	Debt	Equity	Debt
1	2	3	4	5
2001-02	8,067	685	-3,796	10,959
2002-03	2,528	60	-2,067	12,604
2003-04	39,959	5,805	1,308	22,701
2004-05	44,123	1,759	448	16,987
2005-06 (April-February)	42,112	-7,075	9,825	33,836

Source : Securities and Exchange Board of India.

**Table 2.46: Turnover in Derivatives Market
vis-à-vis Cash Market in NSE**

(Rupees crore)

Year	Derivatives	Cash
1	2	3
2001-02	1,01,925	5,13,167
2002-03	4,39,863	6,17,989
2003-04	21,30,612	10,99,535
2004-05	25,46,986	11,40,071
2005-06 (April-February)	40,89,333	13,60,160

Source : The National Stock Exchange Ltd.

2.149 The bullish trend in stock prices has been sustained for more than a year now on the back of strong macroeconomic fundamentals, robust corporate earnings, congenial investment climate and sound business outlook. The current rally has been driven mainly by strong FII investment in equities and supported by domestic institutional investors. The upsurge in Indian stock markets is in line with the firm trend in other emerging market economies.

Financial Sector

2.150 The banking sector in recent years has witnessed adherence to sound prudential regulation in order to reduce risks, strengthening of the disclosure and governance standards and alignment towards the international best practices. The year 2004-05 continued the process with renewed emphasis on improvement in credit delivery, customer service and financial inclusion. Banks have taken steps for migration towards Basel II norms and containment of impaired loans. Various measures have been introduced to improve the health of the non-banking and the cooperative banking sectors to bring them in alignment with the banking sector. Improvements in ownership and governance standards, competition, consolidation and enhancement of efficiency through improvement in the technological infrastructure have been the other focus areas. The banking sector, nevertheless, needs to adopt new technologies, implement sound processes of credit and risk appraisal, diversify product range, enforce robust internal controls and corporate governance and improve human resource management.

2.151 Robust macroeconomic performance continued to underpin the business and financial performance of scheduled commercial banks (SCBs) during 2004-05. Bank credit exhibited robust growth during the year reversing the decelerating trend of

the previous year. The credit off-take was also broad-based with agriculture, industry, housing and retail segments being the drivers in the demand for credit. Profitability of public sector and new private sector banks improved despite hardening of sovereign yields. Reflecting the strong growth in credit volumes, net-interest income increased sharply, mitigating to a large extent the impact of a sharp decline in non-interest income. Thus, the banks, in general, were successful in weathering the impact of upturn in interest rate cycle.

2.152 The rising credit penetration in the economy during recent times is also a testimony of confidence gained by the borrowers and lenders. The overall bank credit to GDP ratio increased sharply since 2001 reflecting the broad-based growth of credit towards retail and other non-traditional service sector. The y-o-y non-food credit growth presently is at all time high in India.

2.153 Asset quality of Scheduled Commercial Banks (SCBs) improved further during 2004-05 resulting in the decline in gross non-performing assets in absolute terms for the third year in succession despite the switch over to the 90-day delinquency norm with effect from March 2004. Banks' capital base kept pace with the sharp increase in risk-weighted assets. Improved business and financial performance was reflected in sharp rise in prices of most of the bank stocks.

2.154 Aggregate deposits of SCBs increased at a lower rate of 15.4 per cent during 2004-05, as compared with 16.4 per cent during the previous year, on account of a slowdown in demand deposits and savings deposits. Deceleration in demand deposits was mainly due to the base effect as demand deposits had witnessed an unusually high growth last year. Interest income, which is the major source of income, rose sharply by 6.1 per cent as against 2.6 per cent during the previous year. Banks were able to maintain capital to risk-weighted assets ratio (CRAR) more or less at the previous year's level despite sharp increase in risk-weighted assets. While CRAR increased for new private sector banks, it declined marginally in respect of all other bank groups (Table 2.47).

2.155 The gross and net NPAs of SCBs declined in absolute terms over and above the decline during the previous few years. The decline in net NPAs was witnessed across all bank groups. Various factors such as improved risk management practices, greater recovery efforts, SARFAESI Act, 2002 and Corporate Debt Restructuring mechanism, *inter alia*, contributed to the decline in the NPAs.

2.156 Reversing the trend of the previous year, assets of scheduled urban cooperative banks (UCBs) expanded during 2004-05. This largely reflected the impact of increased resource mobilisation by way of deposits, borrowings and internal generation, which grew sharply during 2004-05. On the assets side, loans and advances increased at a healthy rate in contrast to the decline during the last year. Investments also increased sharply. Despite improvement in net interest income, the profitability of the scheduled UCBs declined mainly due to sharp decline in non-interest income. Asset quality of UCBs did not witness any significant change during the year (Table 2.48). The rural cooperative banks exhibited divergent trends during 2003-04. Despite expansion of operations at a higher rate, the profitability of the state cooperative banks declined. The trend was opposite for the central cooperative banks. The grass-root layer of the rural cooperative banking structure, *i.e.*, the primary agricultural cooperative societies (PACS) expanded their membership, even as their borrowing members declined sharply. Overall operations of PACS, however, continued to expand despite decline in deposits. Although there was some improvement in their asset quality, overdues continued to remain very high. The operation of the longer-term rural cooperatives structure, *i.e.*, the State Cooperative Agriculture and Rural Development Banks (SCARDBs) and Primary Cooperative Agricultural and Rural Development Banks (PCARDBs) witnessed a moderate growth although their financial performance remained unsatisfactory. The asset quality of all the layers of the rural cooperative banks, other than PACS, deteriorated.

2.157 Financial assistance sanctioned and disbursed by all-India financial institutions (AIFIs) declined during 2004-05. Resources mobilised by AIFIs (excluding erstwhile IDBI) increased, with NABARD mobilising the largest amount, followed by EXIM Bank, NHB and the IDFC. Borrowings by way of bonds/debentures continued to be the main source of funds for AIFIs. Loans and advances which represent the main avenue for deployment of funds by AIFIs registered a healthy growth. The spread (net interest income) and the operating profits increased both in absolute terms and as a ratio to total assets. The capital to risk-weighted assets ratio (CRAR) remained much above the norm of 9 per cent as at end of March 2005 for all AIFIs with the exception of IFCI and IIBI. The asset quality showed significant improvement during 2004-05 on account of substantial recovery of dues and increased provisioning (Table 2.49).

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Table 2.47: Important Parameters of Select Bank-Groups

(Per cent)

Item/Bank Group	1996-97	2001-02	2002-03	2003-04	2004-05
1	2	3	4	5	6
Operating Expenses/Total Assets					
Scheduled Commercial Banks*	2.9	2.2	2.2	2.2	2.2
Public Sector Banks*	2.9	2.3	2.3	2.2	2.1
Old Private Sector Banks	2.5	2.1	2.1	2.0	2.0
New Private Sector Banks	1.9	1.1	2.0	2.0	2.1
Foreign Banks	3.0	3.0	2.8	2.8	2.9
Spread/Total Assets					
Scheduled Commercial Banks*	3.2	2.6	2.8	2.9	2.9
Public Sector Banks*	3.2	2.7	2.9	3.0	3.0
Old Private Sector Banks	2.9	2.4	2.5	2.6	2.7
New Private Sector Banks	2.9	1.2	1.7	2.0	2.2
Foreign Banks	4.1	3.2	3.4	3.6	3.3
Net Profit/Total Assets					
Scheduled Commercial Banks*	0.7	0.8	1.0	1.1	0.9
Public Sector Banks*	0.6	0.7	1.0	1.1	0.9
Old Private Sector Banks	0.9	1.1	1.2	1.2	0.3
New Private Sector Banks	1.7	0.4	0.9	0.8	1.1
Foreign Banks	1.2	1.3	1.6	1.7	1.3
Gross NPAs to Gross Advances					
Scheduled Commercial Banks*	15.7	10.4	8.8	7.2	5.2
Public Sector Banks*	17.8	11.1	9.4	7.8	5.5
Old Private Sector Banks	10.7	11.0	8.9	7.6	6.0
New Private Sector Banks	2.6	8.9	7.6	5.0	3.6
Foreign Banks	4.3	5.4	5.3	4.6	2.8
Net NPAs to Net Advances					
Scheduled Commercial Banks*	8.1	5.5	4.4	2.9	2.0
Public Sector Banks*	9.2	5.8	4.5	3.0	2.1
Old Private Sector Banks	6.6	7.1	5.5	3.8	2.7
New Private Sector Banks	2.0	4.9	4.6	2.4	1.9
Foreign Banks	1.9	1.9	1.8	1.5	0.9
CRAR					
Scheduled Commercial Banks	10.4	12.0	12.7	12.9	12.8
Public Sector Banks	10.0	11.8	12.6	13.2	12.9
Old Private Sector Banks	11.7	12.5	12.8	13.7	12.5
New Private Sector Banks	15.3	12.3	11.3	10.2	12.1
Foreign Banks	..	12.9	15.2	15.0	14.0

.. Not Available. * Excluding the impact of conversion of a non-banking entity into a banking entity for the year 2004-05.

Source : Balance Sheets of banks and returns submitted by banks.

Table 2.48: Urban Cooperative Banks-Select Financial Indicators

Indicator	2001-02	2002-03	2003-04	2004-05
1	2	3	4	5
Growth in Major Aggregates (Per cent)				
Deposits	15.1	9.1	1.7	0.7
Credit	14.1	4.5	3.4	-1.5
Financial Indicators @ (as percentage of total assets)				
Operating Profits	1.5	1.5	1.4	0.9
Net Profits	-0.9	-1.1	0.4	0.3
Spread	2.2	2.0	1.6	1.9
Gross Non-Performing Assets (as percentage of advances)				
	21.9	19.0	22.7	23.0

@ Relates to Scheduled Urban Co-operative Banks.

2.158 The number of NBFCs continued to decline largely on account of conversion of large sized deposit taking companies into non-deposit taking companies. Assets of NBFCs (excluding RNBCs), which contracted sharply during 2003-04, increased marginally during 2004-05 (Table 2.50). Financial performance of NBFCs improved in 2003-04 and 2004-05 mainly on account of containment of expenditure. While gross NPAs declined in 2003-04 and 2004-05, net NPAs increased somewhat during 2004-05. The CRAR of NBFCs continued to be comfortable with most of the NBFCs continuing to hold CRAR significantly above the regulatory minimum prescribed.

2.159 Financial performance of RNBCs was lacklustre during 2003-04 and 2004-05. Assets of

Table 2.49: Financial Institutions – Select Performance Indicators

Indicator	2002-03	2003-04	2004-05
1	2	3	4
Balance Sheet Indicators (as percentage of assets)			
Operating Profits	1.4	1.7	2.5
Net Profits	0.9	1.2	2.0
Spread	0.7	1.1	1.7
Resource Flows (Rupees crore)			
Sanctions	16,374	17,770	15,605
Disbursements	10,611	9,647	10,025
Note: Data on balance sheet indicators cover eight FIs, viz., IFCI, IIBI, IDFC, EXIM Bank, TFCI, SIDBI, NABARD and NHB while that on resource flows cover IFCI, IDFC, IIBI and SIDBI.			

RNBCs declined steadily during the period 2002-03 to 2004-05. Their operating and net profits showed a

Table 2.50: Consolidated Balance Sheet of NBFCs

(Rupees crore)

Item	(As at end-March)		
	2003	2004	2005
1	2	3	4
Liabilities			
1. Paid up Capital	2,860	2,327	2,106
	(7.6)	(7.1)	(6.2)
2. Reserves and Surplus	4,745	4,414	3,855
	(12.6)	(13.5)	(11.4)
3. Public Deposits	5,035	4,317	3,646
	(13.4)	(13.2)	(10.8)
4. Borrowings	24,480	20,852	21,842
	(64.9)	(63.7)	(64.5)
5. Other Liabilities	589	844	2,394
	(1.6)	(2.6)	(7.1)
Total Liabilities/Assets	37,709	32,754	33,843
Assets			
1. Investments			
i) SLR Investments	1,453	1,707	1,772
	(3.9)	(5.2)	(5.2)
ii) Non-SLR Investments	2,885	2,110	1,736
	(7.7)	(6.4)	(5.1)
2. Loans and Advances	13,398	12,363	11,301
	(35.5)	(37.7)	(33.4)
3. Hire Purchase Assets	13,031	11,649	14,200
	(34.6)	(35.6)	(42.0)
4. Equipment Leasing Assets	5,816	3,036	1,971
	(15.4)	(9.3)	(5.8)
5. Bill Business	450	436	464
	(1.2)	(1.3)	(1.4)
6. Other Assets	676	1,453	2,398
	(1.8)	(4.4)	(7.1)
Note : 1) Number of reporting companies declined to 777 companies in 2004 from 875 during 2003. 2) Figures in parentheses are percentages to total liabilities/assets.			

persistent decline during the aforementioned period mainly due to increase in expenditure (Table 2.51).

2.160 Strong global and domestic growth and stable financial markets provided the backdrop for the banks to expand their operations and improve their bottomlines. On the back of strong industrial recovery, credit to industry (medium and large) registered a healthy growth during 2004-05. The credit off-take was also broad-based with agriculture and industry joining the housing and retail segments in driving up the demand for credit. Reversing the decline in the previous two years, food credit increased during the year due to higher procurement operations. Credit growth in respect of wholesale trade and priority sector was also robust. The hardening of sovereign yields, however, partly prompted the banks to reduce their incremental exposure in Government and other approved securities resulting in a sharply reduced

Table 2.51: Profile of Residuary Non-Banking Companies (RNBCs)

(Rupees crore)

Item	(As at end-March)		
	2003	2004	2005
1	2	3	4
A. Assets (i to v)			
(i) Unencumbered Approved Securities	6,129	5,824	2,037
(ii) Fixed Deposits with Banks	1,470	2,033	4,859
(iii) Bonds or Debentures or Commercial Papers of Govt. Companies/Public Sector Banks/Public Financial Institutions/Corporations	6,553	6,048	9,225
(iv) Other Investments	912	2,059	1,639
(v) Other Assets	6,040	4,398	1,297
B. Net Owned Funds	809	1,002	1,065
C. Total Income (i+ii)			
(i) Fund Income	1,801	2,055	1,530
(ii) Fee Income	–	–	2
D. Total Expenses (i+ii+iii)	1,435	1,813	1,396
(i) Financial Cost	1,212	1,368	1,196
(ii) Operating Cost	105	129	146
(iii) Other Cost	118	316	74
E. Taxation	134	32	48
F. Operating Profit (PBT)	366	242	136
G. Net Profit (PAT)	232	210	88
– Nil/negligible.			
Note : 1. PBT - Profit before tax. 2. PAT - Profit after tax.			

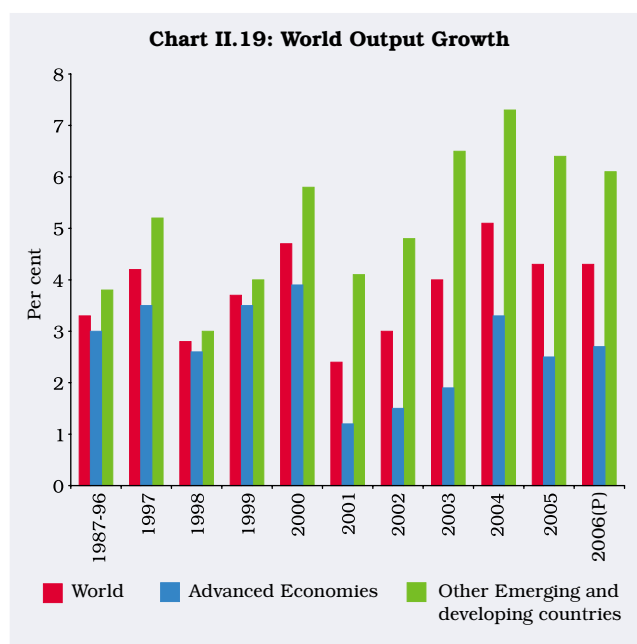
incremental investment-deposit ratio. The banks, in general, were successful in weathering the impact of an upturn in the interest rate cycle and the profitability of public sector and new private sector banks improved. Banks were also successful in maintaining the momentum of improvement in their asset quality. Increase in their capital base also kept pace with the increase in risk weighted assets. The other segments of the financial sector witnessed a mixed performance. While the urban cooperative banking sector and many segments of the rural cooperative banks increased their operations, their profitability and asset quality remained less satisfactory. While the sanctions and disbursements by the financial institutions declined, their profitability and asset quality improved. The NBFCs expanded their operations, improved their profitability and also maintained the asset quality and capital adequacy. The RNBCs on the other hand, witnessed a decline in their assets and their financial performance remained lacklustre.

V. EXTERNAL SECTOR

Global Economic Outlook

2.161 Global growth at 5.1 per cent during 2004 was the highest in about three decades which was supported by an impressive 10.3 percent increase in trade volumes. The expansion remains broadly on track, with global growth forecast for 2005 at 4.3 per cent by the IMF, although risks are still slanted to the downside (Chart II.19). Following a temporary slowdown in mid-2004, the global GDP growth picked up through the first quarter of 2005, with robust services sector output more than offsetting slowing global growth in manufacturing and, more recently trade as well.

2.162 During 2005, the global economy continued to expand at a fairly robust pace. Though there are indications of a gradual moderation of growth in some countries in the first and second quarters of 2005, including the United States, the growth in China continued to maintain the momentum witnessed in 2004 and was placed at 9.9 per cent in the fourth quarter of 2005. The persistence of robust growth in China reflects thriving exports and domestic overheating as well. Despite witnessing a downtrend in public investment, the Japanese economy continued to recover in the fourth quarter and recorded a growth of 4.2 per cent as compared to 2.9 per cent in the third quarter. This has been facilitated by continued rise in exports, industrial production and steady private consumption. Similarly, growth rate in the Euro area which had slipped to 1.1 per cent in



the second quarter increased to 1.5 per cent and 1.7 per cent in the third and fourth quarters, respectively (Table 2.52). Persistent rise in global imbalances coupled with high and volatile oil prices continue to be the medium-term risks for global growth outlook.

2.163 World trade volume, which grew by 10.3 per cent during 2004, almost double than that during 2003, is projected to moderate at around 7.0 per cent during 2005 as per the IMF. Growth in world trade prices of manufactures is also expected to decelerate to 6.0 per cent in 2005 as against 9.7 per cent in 2004 (Chart II.20). Private net capital flows to emerging and developing countries are projected to fall to US\$ 132.9 billion during 2005 from US\$ 232.0 billion during 2004.

2.164 Financial market conditions during 2005 so far remained largely benign. Low level of long-term interest rates across the globe remains a conundrum for the financial markets reflecting low and well anchored inflationary expectations and difference in desired and actual global saving and investment. Global equity market remained resilient on account of strong corporate profits and solid balance sheets. Despite widening of the US current account deficit, the US dollar appreciated modestly in trade weighted terms during 2005 as a whole.

2.165 International crude oil prices continued to be high and volatile mainly due to short-term supply fears. Although oil prices spiked briefly to touch US\$ 70 a barrel in end-August, they eased thereafter. Between April 1, 2005 and March 3, 2006, international crude oil prices of WTI, Brent and Dubai Fateh varieties increased by US\$ 6.4 (from US\$ 57.27 to US\$ 63.67

Table 2.52: Quarterly Growth Rates of GDP in Select Countries

(Per cent)

Country	2004	2004-Q1	2004-Q2	2004-Q3	2004-Q4	2005-Q1	2005-Q2	2005-Q3	2005-Q4
1	2	3	4	5	6	7	8	9	10
US	4.4	4.7	4.6	3.8	3.8	3.6	3.6	3.6	3.2
Euro Area	2.1	1.4	2.2	1.8	1.5	1.4	1.1	1.5	1.7
Japan	1.7	3.7	2.8	2.4	0.4	1.4	2.6	2.9	4.2
China	9.5	9.8	9.6	9.1	9.5	9.4	9.5	9.4	9.9
Malaysia	7.1	7.6	8.0	6.8	5.6	5.7	4.1	5.3	5.2
Indonesia	5.1	4.4	4.3	5.0	6.7	6.4	5.5	5.3	4.9
South Korea	4.6	5.3	5.5	4.7	3.3	2.7	3.3	4.4	5.2
Thailand	6.9	6.7	6.4	6.1	5.1	3.3	4.4	5.3	..
Brazil	5.2	4.0	4.7	5.3	4.2	2.6	3.9	1.0	1.4
Argentina	9.0	11.3	7.1	8.7	9.1	8.0	10.1	9.2	..
India	6.9@	8.4	7.9	6.7	7.0	7.0	8.1	8.0	7.6

@ FY 2004-05.

.. Not Available.

Source : The Economist, Bank of Japan and Central Statistical Organisation.

per barrel), US\$ 7.5 (from US\$ 55.15 to US\$ 62.69) and US\$ 11.1 (from US\$ 48.38 to US\$ 59.51), respectively. The International Energy Agency, in the Oil Market Report released on January 17, 2006, has revised the global demand to 85.1 million barrel a day (mbd) in 2006 as compared to 83.3 mbd in 2005. According to the IMF, a permanent 10 per cent increase in crude oil prices is estimated to reduce global GDP by 0.1-0.15 percentage points over a year assuming that it is demand driven and there is only a limited impact on inflationary expectations. There has been slight pick up in global headline inflation in response to higher oil prices but core inflation appears generally contained in major industrial economies, while there has been some rise in inflationary pressures in emerging markets.

India's Merchandise Trade

2.166 Foreign trade sector has displayed remarkable buoyancy in recent years. Merchandise exports, according to the DGCI&S, clocked a growth of 26.2 per cent in US dollar terms during 2004-05 and the average annual growth rate for the three-year period 2002-05 worked out to 22.5 per cent. The growth in merchandise imports (39.7 per cent in 2004-05 and 28.8 per cent during 2002-05) turned out to be higher. The trade deficit widened to US \$ 28.6 billion in 2004-05, double the level of the preceding year. The trade deficit increased by 48.4 per cent during 2005-06 (April-January), amidst moderation in the growth rates of both exports and imports.

2.167 India's merchandise trade showed a sharp acceleration during 2004-05, attributable to increasing international competitiveness of the manufacturing sector in an environment of expanding trade integration, a supportive domestic policy framework, sustained recovery in global demand and an increase in international commodity prices. In 2004, India was one of the fastest growing exporters next only to China and Korea (Table 2.53). With significant expansion in the Indo-Chinese trade, China has emerged as a major trading partner of India in recent years. China's share in India's total exports moved up to 6.6 per cent in 2004-05 from 3.7 per cent in 2002-03. Similarly, China's share in India's total imports rose to 6.2 per cent in 2004-05 from 4.5 cent in 2002-03.

2.168 Merchandise exports growth at 26.2 per cent during 2004-05 was the highest in the last three decades and substantially higher than the annual target of 16 per cent set by the Ministry of Commerce and Industry. During 2005-06 (April-November),

Chart II.20: Growth in World Trade Volume and Prices

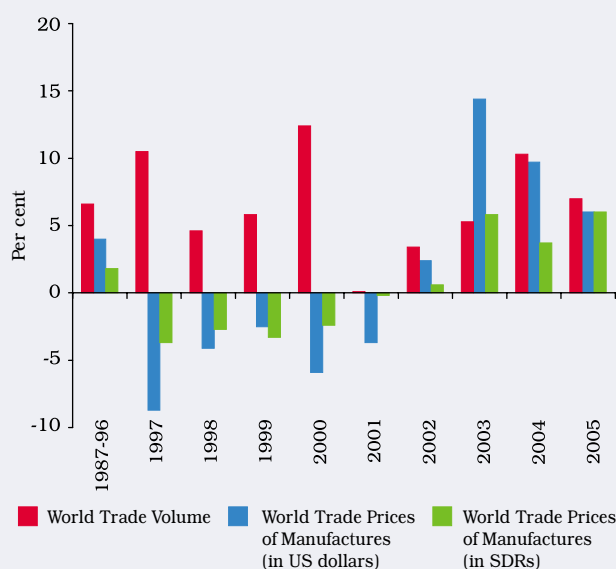


Table 2.53: Global Merchandise Export Growth

(Per cent)

Country/Region	January-December	January-October	
	2004	2004	2005
1	2	3	4
World	21.2	20.8	13.0
Industrial Countries	17.9	17.4	9.1
United States	13.0	13.4	10.1
Germany	21.3	21.1	9.3
Japan	19.9	20.9	5.8
Developing Countries	26.3	26.1	18.7
China	35.4	34.5	31.1
India	29.8	32.6	19.1
Korea	31.0	33.2	12.3
Singapore	24.6	24.9	14.6
Indonesia	12.6	10.3	20.8
Malaysia	20.5	21.8	11.1
Thailand	19.8	19.7	15.3

Source: IMF, IFS.

India's merchandise exports witnessed some loss of growth momentum in an environment of deceleration in world trade. Export growth at 18.9 per cent during April-January 2006 was, however, in line with the annual export growth target set by the Government of India (Table 2.54).

2.169 Imports registered a sharp increase of 39.7 per cent in 2004-05 - a record since 1980-81 - on top of 27.3 per cent in 2003-04, led by both oil and non-oil imports. Oil imports accelerated by 45.1 per cent in 2004-05, mainly on account of the surge in international crude oil prices. In volume terms, the growth rate of oil imports slowed down to 5.5 per cent in 2004-05 from 10.6 per cent in 2003-04. Non-oil imports maintained the growth momentum in 2004-05 in tandem with the pick-up in domestic manufacturing activity. During 2005-06 (April-January), import growth remained strong (26.8 per cent). The rise in petroleum, oil and lubricants (POL) imports (46.8 per cent) in April-January 2005-06 was due to a sharp increase in international crude oil prices. Non-oil imports maintained the surge, posting a growth of 18.9 per cent during April-January 2005-06 (35.5 per cent a year ago).

2.170 The merchandise trade deficit at US \$ 28.6 billion during 2004-05 touched a historic peak with the increase in non-oil imports (US \$ 21.7 billion) being the major contributing factor. The non-oil trade balance, which remained in surplus during 2000-01 to 2003-04, turned into a deficit of US \$ 5.6 billion during 2004-05 (Table 2.54). During 2005-06 (April-January), trade deficit stood at US \$ 33.8 billion, higher by 48.4 per cent than a year ago (US \$ 22.8 billion), led by the expansion in oil imports (US \$ 11.3 billion) and in non-oil imports (US \$ 11.7 billion) during April-January 2005-06.

Table 2.54: India's Foreign Trade

(US \$ million)

Item	April-March			April-January	
	2002-03	2003-04	2004-05	2004-05	2005-06
1	2	3	4	5	6
Exports	52,719	63,843	80,540	63,042	74,981
	(20.3)	(21.1)	(26.2)	(26.7)	(18.9)
Oil	2,577	3,568	6,798	5,587	..
	(21.6)	(38.5)	(90.5)	(94.4)	
Non-Oil	50,143	60,274	73,743	57,455	..
	(20.2)	(20.2)	(22.3)	(22.6)	
Imports	61,412	78,149	1,09,173	85,816	1,08,784
	(19.4)	(27.3)	(39.7)	(37.7)	(26.8)
Oil	17,640	20,569	29,844	24,038	35,300
	(26.0)	(16.6)	(45.1)	(43.8)	(46.8)
Non-Oil	43,773	57,580	79,329	61,778	73,484
	(17.0)	(31.5)	(37.8)	(35.5)	(18.9)
Trade Balance	-8,693	-14,307	-28,633	-22,775	-33,803
Oil	-15,063	-17,001	-23,047	-18,452	..
Non-Oil	6,370	2,694	-5,586	-4,323	..

.. Not available.

Note: Figures in Parentheses are annual growth rates.

Source : DGCI&S.

2.171 Commodity-wise trends during 2004-05 indicate that exports growth was broad-based across major product groups (Table 2.55). Primary products exports were triggered by a substantial increase in the exports of ores and minerals, mainly on account of iron ore exports to China. Manufactured exports maintained growth momentum due to a sharp pick-up in demand for engineering goods in East Asia, China and non-traditional markets like Latin America and Africa. Technology intensive items like metal, machinery and instruments, transport equipment, and iron and steel were the key drivers of export growth. Gems and jewellery exports registered a sharp increase, reflecting the benefits of various promotional measures as well as recovery in major markets like the US. Exports of petroleum products surged by 90.5 per cent, reflecting the expansion in domestic refining capacity and higher international prices of refined products. India emerged as the sixth largest petroleum refining country in the world in 2004.

2.172 In 2005-06 (April-November), the primary products exports maintained a robust growth (19.2 per cent), led by exports of raw cotton, rice and coffee. Marine products showed a turnaround during April-November 2005 from the negative growth a year ago due to pick-up in demand from the major markets like Japan. Manufactured goods exports grew at 14.3 per cent during April-November 2005 recording a significant loss of momentum as compared with the previous year (23.0 per cent). Notwithstanding the moderation, engineering goods and chemicals were the major driver of export growth. Among other items,

gems and jewellery continued to maintain strong export growth (20.2 per cent) in April-November 2005. In the textiles segment, readymade garments remained the mainstay and the growth in exports was driven by strong demand in major markets, *i.e.*, the US and Europe. Exports of petroleum products posted 51.4 per cent growth during April- November 2005 on top of 94.0 per cent a year ago.

2.173 Destination-wise, exports were well diversified across Asia, Europe, North America and Latin American regions during 2004-05. Exports to East Asian countries including South Korea, Singapore and Malaysia also recorded a pick-up in growth. Exports to the OECD countries and the US increased due to improvement in demand conditions (Table 2.56). In 2005-06 (April-November), Latin America emerged as the fastest growing region for India's exports followed by East Asia, Africa, European Union and South Asia. Singapore, China, Korea, Hong Kong, the Netherlands, France and the UK were the major markets for India's exports.

2.174 As regards imports, growth in the non-oil imports was due to 'mainly industrial inputs' (non-oil imports net of gold and silver, bulk consumption, manufactured fertilisers and professional instruments), which posted a higher growth of 37.0 per cent during 2004-05 as compared to 29.1 per cent a year ago. Imports of capital goods (mainly comprising metals, machine tools, machinery and electronic goods), in particular, posted a significant growth of 33.8 per cent during 2004-05 on the top of 35.4 per cent growth

Table 2.55: India's Principal Exports

Item	April-March				April-November			
	US \$ million		Growth Rate (Per cent)		US \$ million		Growth Rate (Per cent)	
	2003-04	2004-05 P	2003-04	2004-05P	2004-05	2005-06P	2004-05	2005-06P
1	2	3	4	5	6	7	8	9
Primary Products	9,902	12,994	13.7	31.2	7,393	8,814	34.3	19.2
Agricultural & Allied Products	7,533	8,158	12.3	8.3	5,002	5,669	16.9	13.3
Ores & Minerals	2,369	4,836	18.7	104.2	2,391	3,146	94.6	31.5
Manufactured Goods	48,492	58,596	20.5	20.8	36,305	41,514	23.0	14.3
Leather & Manufactures	2,163	2,324	17.0	7.4	1,511	1,546	14.6	2.3
Chemicals & Related Products	9,446	11,897	26.7	25.9	7,281	8,080	29.9	11.0
Engineering Goods	12,405	16,685	37.3	34.5	10,026	12,028	37.4	20.0
Textiles & Products	12,792	12,788	10.1	-	8,296	8,851	8.8	6.7
Gems & Jewellery	10,573	13,735	17.1	29.9	8,422	10,121	21.2	20.2
Handicrafts	500	368	-36.4	-26.4	257	272	-22.4	5.8
Carpets	586	596	10.0	1.7	391	451	10.3	15.5
Petroleum Products	3,568	6,798	38.5	90.5	4,387	6,643	94.0	51.4
Total Exports	63,843	80,540	21.1	26.2	49,369	58,651	29.0	18.8

Source : DGC&S.

RECENT ECONOMIC DEVELOPMENTS

Table 2.56: Major Destinations of India's Exports

Country	April-March				April-November			
	US \$ million		Growth (Per cent)		US \$ million		Growth (Per cent)	
	2003-04	2004-05P	2003-04	2004-05P	2004-05	2005-06P	2004-05	2005-06P
USA	11,490	13,272	5.5	15.5	8,748	10,065	21.1	15.1
UAE	5,126	7,139	54.0	39.3	4,168	4,668	48.5	12.0
UK	3,023	3,514	21.1	16.2	2,213	2,953	20.3	33.5
Hong kong	3,262	3,660	24.8	12.2	2,245	2,815	6.8	25.4
Germany	2,545	2,675	20.8	5.1	1,661	1,926	8.8	15.9
China	2,955	5,345	49.6	80.9	2,477	3,457	74.3	39.6
Japan	1,709	2,019	-8.3	18.1	1,227	1,369	11.7	11.6
Belgium	1,806	2,453	8.7	35.8	1,531	1,672	33.0	9.3
Singapore	2,125	3,825	49.5	80.0	2,229	3,545	107.3	59.0
Italy	1,729	2,181	27.4	26.1	1,282	1,318	25.2	2.8
Bangladesh	1,741	1,607	48.0	-7.7	962	919	-11.3	-4.4
Sri Lanka	1,319	1,355	43.2	2.7	891	1,258	10.9	41.3
France	1,281	1,609	19.3	25.6	999	1,171	33.6	17.2

Source : DGCI&S.

during 2003-04 (Table 2.57). In 2005-06, capital goods were the key drivers of import growth. The expansion of capital goods imports, accompanied by a strong growth of domestic production of capital goods in April-November 2005, reflects substantial build-up in capacity of the industrial sector.

2.175 Source-wise, import growth during 2004-05, was well-distributed across major regions. In 2005-06 (April-November), China emerged as the largest source of India's imports followed by the US,

Switzerland, Germany, Belgium, the UAE and Australia (Table 2.58).

2.176 While the growth rate of exports decelerated during 2005-06 (April-January) mainly due to the decline registered in the month of November 2005, the growth performance remained broad-based across product-groups and markets. The sustained pick-up in imports of capital goods in tandem with the robust growth in domestic capital goods production bears out the optimism in investment climate.

Table 2.57: India's Principal Imports

Commodity	April-March				April-November			
	US \$ million		Growth Rate (Per cent)		US \$ million		Growth Rate (Per cent)	
	2003-04	2004-05	2003-04	2004-05	2004-05	2005-06	2004-05	2005-06
1	2	3	4	5	6	7	8	9
Petroleum, Petroleum Products & Related Material	20,569	29,844	16.6	45.1	19,362	27,752	51.4	43.3
Edible Oil	2,543	2,427	40.1	-4.6	1,625	1,323	-10.4	-18.6
Non-Ferrous Metals	949	1,262	42.3	33.0	810	1,028	53.1	26.9
Metalliferous Ores & Metal Scrap	1,296	2,395	24.9	84.8	1,447	2,159	72.4	49.2
Iron & Steel	1,506	2,595	59.6	72.3	1,529	2,833	65.8	85.2
Capital Goods	18,279	24,458	35.4	33.8	13,482	17,282	31.4	28.2
Pearls, Precious & Semi-Precious Stones	7,129	9,422	17.6	32.2	5,144	6,711	21.9	30.5
Textile Yarn, Fabric, etc.	1,258	1,508	29.6	19.9	945	1,218	16.4	28.9
Chemicals, Organic & Inorganic	4,032	5,410	33.3	34.2	3,402	4,034	35.2	18.6
Gold & Silver	6,856	10,940	59.9	59.6	6,242	7,352	37.4	17.8
Total Imports	78,149	1,09,173	27.3	39.7	66,166	86,403	37.6	30.6

Source : DGCI&S.

Table 2.58: Sources of India's Imports

Country	April-March				April-November			
	US \$ million		Growth Rate (Per cent)		US \$ million		Growth Rate (Per cent)	
	2003-04	2004-05	2003-04	2004-05	2004-05	2005-06P	2004-05	2005-06P
1	2	3	4	5	6	7	8	9
USA	5,035	6,833	13.3	35.7	3,926	4,614	25.8	17.5
Belgium	3,976	4,567	7.1	14.9	2,676	3,271	13.4	22.2
China	4,053	6,769	45.2	67.0	4,167	5,977	73.3	43.4
UK	3,256	3,498	17.3	7.4	1,949	2,493	0.8	27.9
Germany	2,919	3,892	21.4	33.3	2,339	3,353	32.2	43.3
Switzerland	3,313	5,818	42.2	75.6	3,304	4,294	37.0	30.0
South Africa	1,899	2,163	-9.3	13.9	1,194	1,519	-17.9	27.2
Japan	2,668	3,142	45.3	17.8	1,906	2,036	17.8	6.8
South Korea	2,829	3,429	85.9	21.2	1,983	2,509	26.8	26.5
Malaysia	2,047	2,246	39.7	9.8	1,429	1,397	13.2	-2.2
Australia	2,649	3,583	98.2	35.2	2,249	2,832	59.0	25.9
Indonesia	2,122	2,537	53.7	19.5	1,602	1,673	17.6	4.4
UAE	2,060	4,567	115.2	121.7	2,418	2,935	150.5	21.4

Source : DGCI&S.

Invisibles and the Current Account

2.177 The developments in the external sector during the first half of 2005-06 (*i.e.*, April-September 2005) were mainly driven by a sharp widening of the trade deficit. The high level of international crude oil prices and their persistent downward rigidity, alongwith robust import demand for capital goods and export related items and acceleration in imports of gold and silver, were the key factors which contributed to more than doubling of the trade deficit in the first half of the fiscal as compared to last year. To a significant extent, the high trade deficits were neutralised by the continuing pace of surpluses recorded in the invisibles account. These were reinforced by steady remittances from overseas Indian workers, software and travel earnings. Further, capital inflows accelerated during the first half of 2005-06 despite turning of interest rate cycle in the industrial countries. Steady inflows through equity investments to India, sharp pick up in FII inflows into the stock market, acceleration in overseas borrowings by the Indian corporates - all reflected the sustained pace of domestic economic activity. The buoyant capital inflows, despite financing a large current account deficit (US \$ 13 billion), led to some accretion to the reserves.

2.178 Early indications for 2005-06 suggest that the invisibles surplus is expected to be buoyant as in the recent past (Table 2.59 and Chart II.21). Net invisibles surplus during the first half of 2005-06 was underpinned by remittances from expatriate Indians,

software exports and travel earnings. Net investment income continued to remain negative. During April-September 2005, services payments increased sharply in relation to 2004-05 reflecting the impact of growth in outbound tourist traffic, transportation and insurance payments associated with merchandise trade and expanding demand for imports of business services such as business and management consultancy, engineering, and technical and distribution services. Software exports have continued to remain strong belying the fears of protectionist pressures. During April-September 2005, software exports posted a rise of 32.0 per cent.

2.179 Buoyant software exports reflect the initiatives towards market diversification, moving up the value chain, focus on high-end processes and setting up of Research and Development Centres for off-shore partners. In the recent past, there are clear signs of the BPO industry heading towards consolidation. Acquisitions of leading Indian BPO firms by global giants, setting up of captive BPO operations by multinationals in India, overseas acquisitions by the Indian companies and rise in venture capital investments indicate growing maturity of the BPO segment of the software industry. Finance and accounting have drawn the maximum venture capital attention. These moves towards consolidation bring with them benefits like access to a large base of established clientele/acquired knowledge and business practices, leverage against competitors while also enabling the merged entities to improve their higher level consulting skills.

RECENT ECONOMIC DEVELOPMENTS

Table 2.59: India's Current Account

(US \$ million)

Item	2002-03	2003-04	2004-05	April-September	
				2004-05	2005-06
1	2	3	4	5	6
I. Merchandise Balance	-10,690	-13,718	-36,629	-14,768	-31,635
II. Invisibles Balance (a+b+c)	17,035	27,801	31,229	14,283	18,679
a) Services	3,643	10,144	14,199	5,980	9,512
i) Travel	-29	1,435	985	-38	-1,073
ii) Transportation	-736	879	259	251	-1,440
iii) Insurance	19	56	187	18	327
iv) G.n.i.e.	65	28	67	66	-120
v) Miscellaneous	4,324	7,746	12,701	5,683	11,818
Of which:					
Software Services	8,863	12,324	16,526	7,569	9,842
b) Transfers	16,838	22,162	20,844	10,220	12,245
i) Official	451	554	591	252	202
ii) Private	16,387	21,608	20,253	9,968	12,043
c) Income	-3,446	-4,505	-3,814	-1,917	-3,078
i) Investment Income	-3,544	-3,757	-2,669	-1,430	-2,417
ii) Compensation of Employees	98	-748	-1,145	-487	-661
Total Current Account (I+II)	6,345	14,083	-5,400	-485	-12,956

G.n.i.e. : Government not included elsewhere.

2.180 Inward remittances from Indians working abroad have continued to surge, maintaining India's position as the leading recipient of remittances in the world. During April-September 2005, workers' remittances remained the mainstay of the current account, accounting for about 26 per cent of gross invisibles receipts. The increase in net invisibles surplus partly off-set the sharp increase in the trade

deficit. The current account deficit more than doubled during July-September 2005 over the corresponding quarter of the previous year (Chart II.22).

2.181 For the year as a whole, while invisibles surplus may finance a large part of the enlarged trade deficit, the current account deficit is expected to remain within acceptable limits that can be financed

Chart II.21: Invisibles Surplus

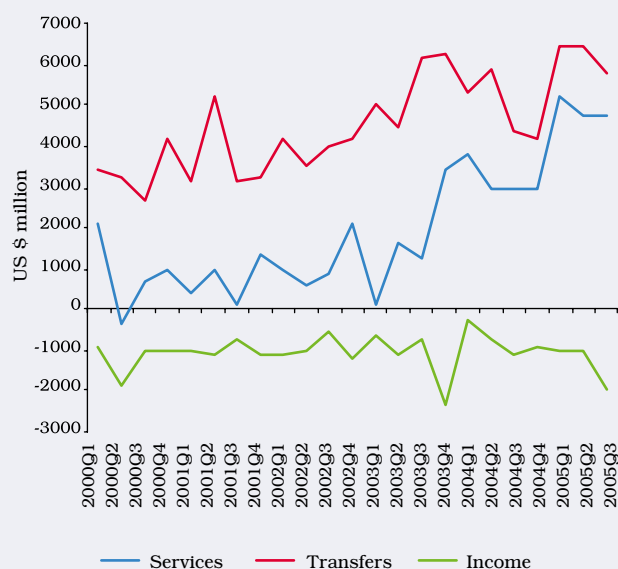
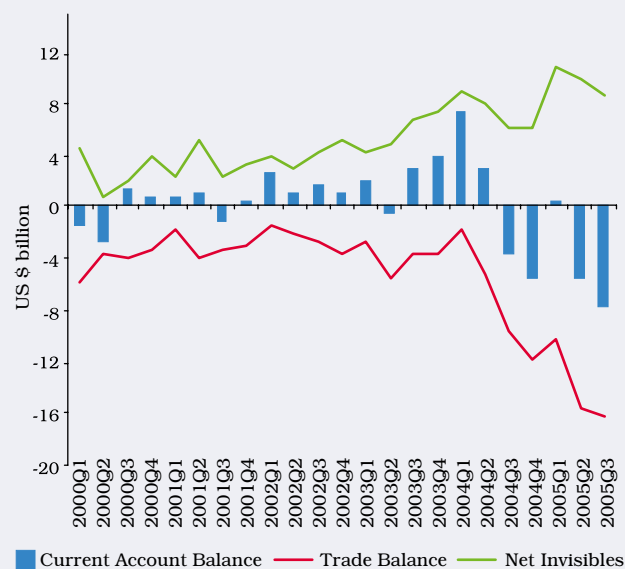


Chart II.22: Current Account Balance



by normal capital flows. Notwithstanding a marginal increase in invisibles surplus, the sharp expansion in trade deficit turned the current account into a deficit of US \$ 13.0 billion in April- September 2005 (deficit of US \$ 0.5 billion in corresponding period of 2004).

Capital Account

2.182 Net capital inflows have remained buoyant during 2005-06 so far. During the first half of 2005-06 (April-September), net capital flows at US \$ 18.7 billion were mainly driven by foreign direct investment, external commercial borrowings (ECBs), banking capital and FIIs (Table 2.60). FDI inflows increased substantially, mainly into industries such as cement, sugar, plastic, synthetic and rubber industries, and hotels with Mauritius and the US remaining dominant investor countries. FII inflows recorded a turnaround in June with a net inflow of US \$ 1.3 billion during the month. Inflows through ADRs/GDRs also remained buoyant. Banks in India drew down foreign currency assets held abroad while NRI deposits recorded net positive inflows of small magnitude. The turnaround in short-term trade credit to net outflows occurred as oil companies increased their recourse to domestic financing, and repayments accelerated. Foreign investment inflows in the current financial year so far are mainly attributable to investors' confidence in the Indian economy. International liquidity conditions and portfolio diversification by investors also contributed to foreign investment inflows during the year (Table 2.61)

2.183 The inflows under FDI have continued to be robust in 2005-06 so far (April-September 2005) backed by policy support and optimism about the investment opportunities being offered by several

Table 2.60: Capital Flows (net)

(US \$ billion)

Component	April - March		April-September	
	2003-04	2004-05	2004-05	2005-06
1	2	3	4	5
Foreign Direct Investment	2.4	3.2	2.0	2.3
Portfolio Investment	11.4	8.9	0.5	5.1
External Assistance	-2.9	1.9	0.3	0.4
External Commercial Borrowings	-2.9	5.0	1.5	2.8
NRI Deposits	3.6	-1.0	-1.3	0.2
Other Banking Capital	2.4	4.9	2.0	2.8
Short-term Credit	1.4	3.8	2.0	0.9
Other Capital	1.3	4.3	0.4	4.2
Total	16.7	31.0	7.4	18.7

sectors. The improvement in FDI flows reflected the impact of recent initiatives aimed at creating an enabling environment for FDI and for encouraging infusion of new technologies and management practices. The Budget Statement for 2005-06 states that the automobile, software, telecommunication and electronics sector have benefited from the FDI and have assimilated themselves into the global production chain. There are opportunities in other sectors as well, such as mining, trade and pensions.

2.184 Portfolio investment flows through issuances of American Depository Receipts (ADRs)/Global Depository Receipts (GDRs) remained buoyant during April-November 2005 as compared with the position a year ago (Table 2.61). After remaining subdued during April-May 2005, Foreign Institutional Investors (FIIs) made large purchases in the Indian stock markets in the subsequent months (Chart II.23). The net cumulative FII inflows during April- December 2005 amounted to US \$ 5.1 billion (US \$ 4.7 billion during corresponding period of the previous year). FIIs registrations with SEBI have continued to surge with the number increasing to 861 as on end-February 2006 (685 as on March 31, 2005). With a series of

Table 2.61: Foreign Investment Flows by Category

(US \$ million)

Item	April-November			
	2004-05P	2003-04R	2005P	2004
1	2	3	4	5
A. Direct Investment (I+II+III)	5,653	4,322	4,377	3,454
I. Equity (a+b+c+d+e)	3,778	2,229	3,489	2,534
a. Government (SIA/FIPB)	1,062	928	890	774
b. RBI	1,259	534	1,206	847
c. NRI	-	-	-	-
d. Acquisition of shares*	930	735	1,253	649
e. Equity capital of unincorporated bodies	527	32	140	264
II. Re-invested earnings \$	1,508	1,460	738	754
III. Other capital \$\$	367	633	150	166
B. Portfolio Investment (a+b+c)	9,313	11,377	5,771	4,519
a. GDRs/ADRs #	613	459	1,715	394
b. FIIs **	8,684	10,918	4,042	4,122
c. Offshore funds and others	16	-	14	3
C. Total (A+B)	14,966	15,699	10,148	7,973

* Relates to acquisition of shares of Indian companies by non-residents under Section 6 of FEMA, 1999. Data on such acquisitions have been included as part of FDI since January 1996.
 \$ Data for 2004-05 and 2005-06 are estimated as average of previous two years.
 \$\$ Data pertain to inter-company debt transactions of FDI entities.
 # Represents the amount raised by Indian corporates through GDRs and ADRs.
 ** Represents fresh inflow of funds by FIIs.
 R : Revised. P : Provisional.

RECENT ECONOMIC DEVELOPMENTS

Chart II.23 :Net Inflows/Outflows by Foreign Institutional Investors



India-centric funds being floated overseas, FII inflows are likely to remain robust in the near term.

2.185 NRI deposits have registered modest inflows during 2005-06 so far (upto November 2005) as against outflows during April-November 2005 (Table 2.62 & Chart II.24).

2.186 During the first quarter of current financial year, ECBs have remained steady. Approvals data for the subsequent months also indicate an increasing appetite for ECBs (Table 2.63). Under the automatic route, the companies have resorted to ECBs mainly for the import of capital goods, project financing, capital investment/ modernisation of plants and expansion of activity which can be considered as a sign of capacity and investment expansion. Under the approval route, the ECB approvals have been granted primarily to financial institutions (for the purpose of

Table 2.62: Inflows under NRI Deposit Schemes

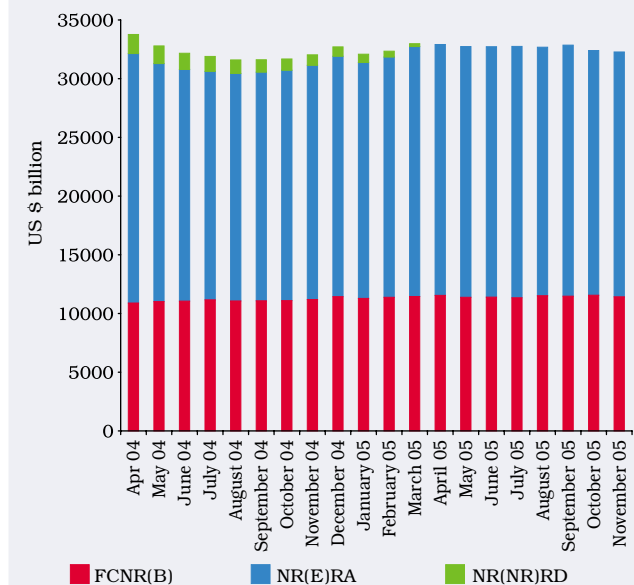
(US \$ million)

Scheme	April -March		April -November	
	2004-05	2003-04	2004-05	2005-06P
1	2	3	4	5
1. FCNR (B)	492	762	235	-23
2. NR (E) RA	84	4,695	-693	271
3. NR (NR) RD @	-1,538	-1,816	-850	-
Total	-962	3,641	-1,308	248

@ Discontinued with effect from April 1, 2002.

P : Provisional.

Chart II.24: NRI Deposits Outstanding



on-lending to exporters), Power Finance Corporation (for power projects) and banks (that have participated in steel/ textile restructuring packages).

2.187 FDI by the Indian corporates abroad is assuming increasing significance as they have started to explore new expansion opportunities outside the national boundaries in areas of their competitive advantage. Access to markets, natural resources, distribution networks and foreign technology are some of the factors that have driven the process of formation of strategic alliances by Indian corporates with the international business partners. Mergers and acquisitions, and joint venture route have been the commonly adopted modes for FDI by Indian corporates. The sectors that are being preferred for outward FDI include IT, steel, telecom, oil exploration, power and pharmaceuticals.

Table 2.63: External Commercial Borrowing Approvals

(US \$ million)

Month	Automatic Route	Approval Route	Total
April 2005	504	40	544
May 2005	722	-	722
June 2005	1,066	51	1,117
July 2005	609	-	609
August 2005	1,102	2	1,104
September 2005	2,035	512	2,547
October 2005	600	11	611
November 2005	951	16	967
Total	7,590	631	8,221

Foreign Exchange Reserves

2.188 India's foreign exchange reserves comprising foreign currency assets, gold, Special Drawing Rights (SDRs) and Reserve Tranche Position in the Fund (RTP) reached US \$ 141.59 billion on February 24, 2006. (Chart II.25). During the third quarter of 2005-06, the surplus in the invisibles account and net capital flows were able to finance the trade deficit. India's foreign exchange reserves decreased by US \$ 4.3 billion during the quarter. Overall, the foreign exchange reserves in the current financial year upto February 24, 2006 have declined by US \$ 0.7 billion as compared with a rise of US \$ 22.7 billion in the corresponding period of 2004-05. The reserves declined mainly due to India Millennium Deposits (IMD) redemption on December 29, 2005.

2.189 India's total external debt at US \$ 124.3 billion at end-September 2005 increased by US \$ 2.2 billion over the previous quarter (Table 2.64). The increase primarily reflected higher recourse to commercial borrowing and export credit. Short-term debt also increased on account of increase in trade credits to finance higher imports. The US dollar continued to dominate the currency composition of India's external debt at end-September 2005 (Chart II.26). There has been a perceptible improvement in external debt indicators over the years reflecting the growing sustainability of external debt of India. Although there has been a rise in the ratio of short-term to total debt and short-term debt to reserves during the second quarter of 2005-06, they remain quite modest (Table 2.65). India's foreign exchange reserves exceeded the external debt by US \$ 18.7 billion providing a cover of 115.1 per cent to the

Chart II.25: Accretion to Foreign Exchange Reserves



external debt stock at the end of September 2005. The share of concessional debt in total external debt continued its declining trend reflecting a gradual surge in non-concessional private debt in India's external debt stock. Nonetheless, the concessional debt continues to be a significant proportion of the total external debt, especially by international standards.

2.190 Notwithstanding the sharp rise in oil imports, the BoP position remained comfortable. The growth in merchandise exports was supplemented by exports of services and buoyant remittances. Foreign direct investment inflows have recorded a significant increase responding to improved growth prospects

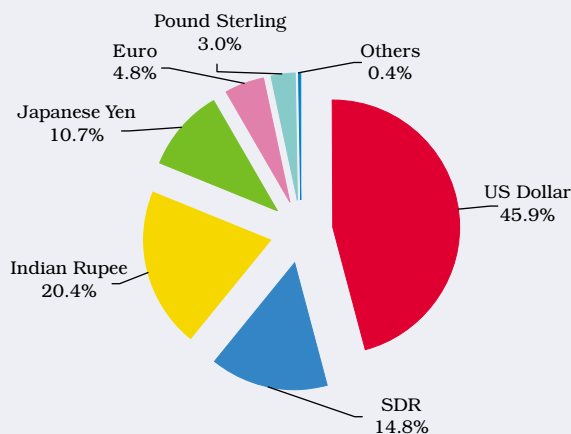
Table 2.64: India's External Debt

Item	end-June 2005		end-September 2005		Variation during the Quarter	
	Amount (US \$ million)	Percentage to total	Amount (US \$ million)	Percentage to total	(US \$ million)	(Per cent)
1	2	3	4	5	6	7
1. Multilateral	31,289	25.6	31,401	25.3	112	0.4
2. Bilateral	16,293	13.3	15,883	12.8	-410	-2.5
3. IMF	0	0.0	0	0.0	0	0
4. Export Credit	5,212	4.3	5,290	4.2	78	1.5
5. Commercial Borrowings #	27,173	22.2	28,527	22.9	1,354	5.0
6. NRI Deposits (long-term)	32,730	26.8	32,802	26.4	72	0.2
7. Rupee Debt	2,146	1.8	2,120	1.7	-26	-1.2
8. Long-term Debt (1 to 7)	1,14,843	94.0	1,16,023	93.3	1,180	1.0
9. Short-term Debt	7,275	6.0	8,303	6.7	1,028	14.1
10. Total Debt (8+9)	1,22,118	100.0	1,24,326	100.0	2,208	1.8

Includes net investment by 100 per cent FII debt funds.

Source : Reserve Bank of India and Ministry of Finance, Govt.

Chart II.26: Currency Composition of External Debt as at end-September 2005



as well as the ongoing liberalisation measures to attract higher FDI in critical areas such as infrastructure. Portfolio inflows have revived in the recent months. Overall, capital flows are expected to remain buoyant, in view of positive sentiments on India. The overall approach to the management of India's foreign exchange reserves in recent years has reflected the changing composition of the BoP, and has endeavoured to reflect the 'liquidity risks' associated with different types of flows and other requirements. The policy for reserves management is thus judiciously built upon a host of identifiable factors and other contingencies. Taking these factors into account, India's foreign exchange reserves are at present comfortable and consistent with the rate of growth, the share of the external sector in the economy and the size of risk-adjusted capital flows.

2.191 Though in the recent months there has been some slowdown in the pace of both exports and imports, the resilience of the external sector during the current fiscal year reflected in that a record level

Table 2.65: Debt Indicators

(Per cent)

Indicator	March 2005	September 2005
1	2	3
Concessional debt/ Total debt	33.3	31.6
Short-term debt / Total debt	6.1	6.7
Short-term debt/ Reserves	5.3	5.8
Reserves / Total debt	114.8	115.1

Source :Reserve Bank of India and Ministry of Finance, Gol.

of current account deficit was financed through normal capital flows without any recourse to reserves. The high level of current account deficit, in fact, mirrored the strong pace of domestic economic activity. Another important aspect of the current account has been a sharp acceleration in non-software services exports partly emanating from underlying dynamism in export of business and professional services. However, a significant part of acceleration is attributed to the miscellaneous category, for which specific service heads are not known. The balance of payments developments during the first half of 2005-06 indicate that the external financing did not pose any problems despite record level of trade deficits. With the momentum maintained in capital inflows in the second half of the current financial year, particularly reflected in sharp resumption in FII inflows and the continuing pace of FDI inflows, ADR/GDRs and FCCBs, the financing of large trade deficit is not likely to pose problems.

VI. CONCLUSIONS

2.192 Notwithstanding the downside risks emanating from erratic South-West monsoon conditions in the initial season-period and persistent uncertainty on international oil prices front, the Indian economy maintained impressive growth performance during 2005-06 so far. After recording a historic peak of US\$ 70.8 per barrel on August 30, 2005, the international oil prices eased somewhat thereafter but remain high and volatile. The consensus presently appears to be that the oil prices would remain at elevated levels. The global risks to recovery of growth thus emanate from three quarters namely, unwinding of macroeconomic imbalances, the consequential currency adjustments and the future course of international oil prices. A heartening feature of the growth process in India, however, has been that domestic factors dominate the global factors. Further, a significant improvement in the growth-inflation trade-off the world over, including in India has resulted from increases in productivity on account of greater domestic competition and increasing integration of the economies.

2.193 The Annual Policy Statement of the Reserve Bank of India, April 2005 projected the real GDP growth for 2005-06 at around 7.0 per cent, assuming normal monsoon and continued growth momentum in industry and services. Subsequently, however, the macroeconomic trends revealed a more optimistic scenario on the counts of better than expected crop output, high corporate profitability, buoyant business

confidence, congenial investment climate, firm non-food credit off-take, moderate inflation, upsurge in trade, increasing tourists inflows, increased cargo handled at ports, higher revenue earning freight traffic (of railways), increasing railway and air passenger traffic, growth in cellular subscriber base, broadband connections growth, housing demand upsurge facilitated by softer interest regime and rise in exports of BPO and IT related services, etc. These factors congregated and resulted in an upward revision of the real GDP growth projections for 2005-06 to 7.0-7.5 per cent in October 2005. However, based on the assessment of a pick up in agricultural output and the sustained momentum in industrial and services sectors, the real GDP growth in 2005-06 was revised and projected to be in the range of 7.5-8.0 per cent as per the third quarter review of the Annual Policy Statement for the year 2005-06. The advance estimates released by the Central Statistical Organisation (CSO) have placed the real GDP growth for 2005-06 at 8.1 per cent, which is marginally higher than the Reserve Bank's projections of 7.5-8.0 per cent.

2.194 The recovery in agriculture and resilience of the non-agriculture sectors during 2005-06 have firmly anchored the growth momentum. The skewed temporal progress of the South-West monsoon, during the course of the season, was more than offset by even spatial distribution of rainfall and resultantly, the *kharif* production during 2005-06 is likely to surpass last year's level of 103.32 million tonnes to reach 108.15 million tonnes. The industrial activity firmed up further during 2005-06 aided by persistent buoyancy in the manufacturing. Further, basic and capital goods sectors have posted consistent uptrend. The robust double digit export growth reflects India's competitiveness in the international markets and growing demand for Indian exports in the world economy. Strong growth in capital goods production, accompanied by increase in imports of capital goods reflected capacity build-up in the industrial sector. Consumer goods also recorded an impressive growth emanating from non-durable segment. Echoing similar perceptions, various Business Expectation Surveys, viz., Business Confidence Index of the National Council of Applied Economic Research, FICCI's Business Confidence Index and RBI's Industrial Outlook Survey foster optimism. The constraining influences on growth that deserve careful watch include the enlargement of trade deficit and infrastructural constraints.

2.195 Headline inflation and inflation expectations have remained well contained during 2005-06 so far despite large increases in international crude oil prices. Fiscal and monetary measures undertaken since mid-2004 to reduce the impact of imported price pressures on domestic inflation and to stabilise inflationary expectations have generally been successful in containing inflation towards the desired trajectory during the financial year so far.

2.196 Financing conditions in emerging markets remained favourable reflecting improved economic fundamentals, the increased presence of long-term investors and continued pursuit for yields. Financial markets, though operating in an environment of oil prices uncertainty, upturn in global interest rate cycle and political perplexity in the European Union, remained broadly stable. The Indian stock markets outperformed the stock indices of major economies. The interest rate environment remained benign due to adequate supply of liquidity although the credit off-take continued to remain strong and broad-based. The foreign exchange market remained orderly, with the Chinese revaluation exerting moderate upward pressure on the exchange rate. Yields in the Government securities market which had hardened in April 2005, reflecting higher crude oil prices and increase in the reverse repo rate have since been range-bound. The foreign exchange market has generally exhibited orderly conditions during 2005-06. The primary market segment of the equity market gathered momentum with increase in both the number of issues and the resources raised on the back of a buoyant secondary market and strong macroeconomic fundamentals. The secondary market staged a strong rally which pushed the BSE Sensex to new highs touching 10370.24 mark on February 28, 2006.

2.197 All the key deficit indicators in the revised estimates for 2005-06 were placed lower than the budgeted targets mainly on account of containment in expenditure particularly in non-Plan components. The budget estimates for 2006-07 project a decline in all the key deficit indicators, relative to GDP, on the basis of improved tax revenues as well as containment of expenditure, particularly in respect of subsidies. The Union Budget 2006-07 proposes to continue to follow a prudent tax policy based on a balanced tax structure with reasonable rates and minimal exemptions covering a wider class of taxpayers. It also commits to augment the tax collections and improve the tax/GDP ratio by aiming, *inter alia*, at liquidation of arrears of tax revenues and prevention of further accretions to the stock.

2.198 The resilience of the external sector during the current fiscal year reflected in that a record level of current account deficit was financed through normal capital flows without any recourse to reserves. Software exports have continued to remain strong belying the fears of protectionist pressures. India's position as the leading recipient of remittances in the world has been maintained on the continued surge of inward remittances. For the year as a whole, while invisibles surplus may finance a large part of the enlarged trade deficit, the current account deficit is expected to remain within acceptable limits that can continue to be financed by normal capital flows. Though international liquidity conditions and portfolio diversification by investors also contributed to foreign investment inflows during the year, it is investors' confidence in the Indian economy that drives the trend. A series of India-centric funds being floated overseas reflect that the FII inflows are likely to remain robust in the near term. There has been a perceptible improvement in external debt indicators

over the years, reflecting the growing sustainability of external debt of India. Further, capital inflows accelerated mainly driven by foreign direct investment, external commercial borrowings (ECBs), banking capital and FIIs during the first half despite turning of interest rate cycle in the industrial countries.

2.199 Against this backdrop, barring the emergence of any adverse and unexpected developments in various sectors of the economy and keeping in view the current assessment of the economy including the outlook for inflation, the overall stance of monetary policy for the remaining part 2005-06 will be to maintain the emphasis on price stability with a view to anchoring inflationary expectations, to support export and investment demand in the economy for maintaining the growth momentum by ensuring a conducive interest rate environment, to provide appropriate liquidity to meet genuine credit needs of the economy with due emphasis on quality, and to consider responses as appropriate to evolving circumstances.

III

FUNCTIONAL EVOLUTION OF CENTRAL BANKING

3.1 Central banks which began with the need for institutions that could serve as lender-of-the-last-resort to commercial banks and lender to the government, were later entrusted with the tasks of management of internal and external value of currency. Typically, central banks are now set up as entities that regulate financial institutions, maintain low inflation, a stable exchange rate and promote economic growth. They have helped economies to tide over business downturns, provided confidence to depositors and helped in avoiding banking crises; they have also bridged information gaps, undertaken policy-oriented research, built databases, disseminated data and information regarding monetary policy and the economy as a whole. Indeed, central banks have taken over a whole range of functions, becoming multi-tasking institutions that conduct monetary policy, regulate and supervise the banking system and perform a crucial role in the payment system (Jadhav, 2003).

3.2 This chapter is structured as follows: Section I sets out the evolution of theory and practice of central banking. Section II attempts to trace the evolution of the main functions of a central bank, *viz.*, monetary policy functions including, *inter alia*, price stability and exchange rate management, banker to the government, banker to the banks and promotion of financial stability. It also deals in detail the developmental functions undertaken by central banks in developing countries. Section III highlights the contemporary issues in central banking including independence, accountability, transparency and credibility of central banks. Section IV concludes the chapter.

I. EVOLUTION OF CENTRAL BANKING

3.3 The relevance and rationale for having a central bank is well accepted. Nonetheless, there has been a considerable debate over the decades whether central banks deserve to be established. An alternative regime was seen as a system of 'free banking' which refers to an arrangement where there is an absence of privilege for the central bank alone to print the notes and all banks are equally free to issue redeemable paper notes. The historical examples at this arrangement include Scotland (1716-

1844) and Canada (1817-1914), where free banking with commodity base money prevailed. In the US, before the Civil War, conditions almost similar to free banking existed. Australia, China, Colombia, Switzerland, France, Sweden, Spain and Ireland are some other countries where free banking prevailed, in parts, during the nineteenth century. Capie (1997) has argued that the need for a central bank is felt only when there is a banking system in place. He has argued that most central banks evolved in order to take care of actual or potential problems in the banking system.

3.4 Central banking was initially practiced with the help of a large number of informal norms, conventions and self-imposed codes of conduct. These were later formalised into theory and institutionalised into laws that apply to today's central banking institutions. These laws have been amended and modified periodically to suit the evolving financial structures in most countries. The practice of central banking revolves around the rules and discretions that underlie central bank operations. The theory of central banking thus is based on practical problems as they emerged over time. Theory has also in turn influenced the evolution of a set of best practices that have helped to resolve the dilemmas faced by central bankers so as to preserve their autonomy, shield themselves from political pressures and to ensure their accountability to the public. Such an exchange between theory and practice is the basis of their co-evolution.

3.5 The first central bank, the *Sveriges Riksbank*, was established in Sweden in 1668; and the second was the Bank of England (BoE), set up in 1694 under a Royal Charter. Most of the bigger European central banks were established in the nineteenth century, while the German *Bundesbank* and the U.S. Federal Reserve System in the twentieth century. Capie (1997) has pointed out that there were only eighteen central banks at the beginning of the twentieth century. According to de Kock (1974), the early central banks were established primarily to finance commerce, foster growth of the financial system and to bring uniformity in note issue. The Bank of England initially functioned as the banker and debt manager to the government. As a commercial bank, BoE also took deposits and issued notes. With the renewal of BoE's

charter in 1781, it was described as 'the public exchequer' and acted as the bankers' bank as well. In the nineteenth century, the BoE undertook the role of lender-of-the-last-resort, providing stability during several financial crises. The BoE was nationalised in 1946 and it remained the Treasury's adviser, agent and debt manager.

3.6 The *Banque de France* was set up in 1800 to restore confidence in the French banking system after the financial upheavals of the revolutionary period. The *Banco de Portugal*, which was established as a public limited company in 1846, was a note issuing commercial bank, whose main job was maintaining convertibility of its notes and making a profit for its shareholders (Reis, 1999).

3.7 In Germany, the *Bundesbank* was set up in 1957 by the *Bundesbank Law*. It had a predecessor known as the *Reichsbank* that was operational from 1876 to 1945. Unlike some of the other European countries where central banks were set up in the seventeenth and early eighteenth century, central banking *per se* came late to Germany, as a stable state came into existence only in 1871. One of the rationales for setting up a central bank in Germany was the desire to have a uniform system of coinage, weights and measures. The *Bundesbank* was a federal central bank that gradually helped to integrate its separate units. It was expected that the *Bundesbank* would reduce the multiple setting and integrate existing regulations across Germany. The *Bundesbank* accordingly created a fairly transparent monetary regime, provided an adequate base for dynamic economic growth and integrated the separate entities financially.

3.8 The Bank of Italy was founded in 1893 as part of the reorganisation of the Italian banking and monetary system that had reached the state of near collapse at the beginning of the 1890s. The fundamental task of the bank was to free itself from the problems inherited, primarily by cleaning the balance sheet and restoring a capital base. A far reaching objective of the reorganisation of the Italian monetary and credit system was to create a set of uniform rules and institutions that would place the Italian currency on a sound footing and prevent recurrence of crises (Gelsomino, 1999). The wave of bank failures and the need for a lender-of-the-last-resort also led to the establishment of the US Fed, prior to which public opinion in the US was greatly in favour of free banking.

3.9 While each country has had a unique experience in the evolution of its central bank, there

are some common features: whenever central banks were set up to tackle similar problems, their institutional structures were observed to be similar. Notwithstanding the diversity, there were certain developments affecting the functions, objectives and instruments of monetary policy of central banks all over the world. With the onset of the First World War, paper money issued by central banks replaced the full value metal coin money.

3.10 As notes became legal tender and ceased to be convertible into gold, the power of central banks over money supply increased and stabilisation policies became feasible. After the First World War, the role of central banks became even more important. Their role of supervising the business of private commercial banks was extended and lender-of-the-last-resort function to stabilise the banking system during financial panics was strengthened. The First World War also led to the central banks' increasing involvement in extending credit to their governments. In order to handle their new role as brokers for government debt, central banks were allowed to trade government paper in the open market and were entitled to develop open market policy instruments for fine-tuning of interest rates and for credit and money supply expansion. This gave rise to more discretionary powers to central banks to conduct their operations. Since 1933 in the US and shortly after the Second World War in Germany, central banks were empowered to change minimum reserve requirements, which constituted an important direct tool of monetary policy.

3.11 As financial systems developed, central banks had to reorient their policies and strengthen their roles in order to cope with the new challenges. During global crises such as the Great Depression of the 1930s, the mandate given to most central banks included monetary stability, promotion of full employment and maximisation of growth. The role of central banks was thus enhanced successively after every crisis.

3.12 The genesis of central banking is different between developed and developing countries. As a result, the role of central banks in developing countries of today is typically different from that of the developed country central banks when they were developing (Sayers, 1961; Chandavarkar, 1996). Whereas in industrial countries this purpose centred on the need to have a lender-of-the-last-resort, in developing countries such as India, central banks came into existence when banking was underdeveloped. In fact, the central banks were instrumental in influencing the spread of commercial bank networks. The very

purpose of existence of the central banks in several developing countries was developmental. Such central banks played a role of the 'facilitator'. The developmental functions of central banks are discussed in detail in Section II.

3.13 There is a marked difference between the central banks of older developing countries and those in transition economies. The older developing countries have been developing their systems and operating procedures gradually, whereas the transition economies have had the benefit of being late comers on the scene and have, therefore, been able to choose from a variety of frameworks and learn from the experiences of other countries. These countries have had the flexibility of adopting the latest frameworks (Mahadeva and Sterne, 2000). Central banks in these economies have been able to start on a clean slate and successfully graft systems from developed countries. On the other hand, the older developing countries needed frameworks compatible with their existing systems. Nachane (2005) has cautioned that merely grafting of the developed country models may not be suitable for such countries.

3.14 Central banks have evolved in accordance with the specific requirements of the economies in which they are situated and in response to the kind of demands made on them. Their roles expanded as the situation unfolded and theory of central banking began to emerge simultaneously. When the developed countries were developing, free market principles were the norm and their markets and institutions were evolving according to this norm. They had adequate flexibility to modify their systems over time, as financial markets grew more complex and banking systems expanded.

3.15 Developing countries on the other hand, had an arduous task of trying to telescope the process of growth while being constrained by the existence of underdeveloped markets. This 'constrained optimisation problem' has been more stringent for developing country central banks of today which try to relax these constraints proactively. The central banks in developing countries have had to struggle with shallow and segmented markets and they have often had to deal with situations of market failure and financial repression. For this, these central banks had to act at two separate levels. Their monetary policy was conducted with the help of direct or sectoral tools. Simultaneously they needed to make sustained efforts to develop their markets. Only when the markets were fairly developed they could move on to market based instruments. Developing country central banks

generally also had to deal with numerous constraints that stem from inadequate autonomy, e.g., the dominance of fiscal policy over monetary policy. Their role is often that of the facilitator who fosters development of the financial sector and this has shaped their present structure and functions. "Each central bank has a distinctive historical origin" and these "have influenced not only the tasks that these central banks perform today, but also the way in which they operate" (Jadhav, 2003). Thus, there is very little theory of central banking *per se*; most of it has evolved in the course of their operations. In other words, there has been a co-evolution of theory and practice of central banking.

II. FUNCTIONS OF A CENTRAL BANK

3.16 Central bank functions have evolved over time, especially after the economies encountered difficult periods or crises. These functions vary in nature and with the stage of economic development of the country where the central bank is situated, the nature of mandate for it and the degree of operational independence it enjoys. The functions of a central bank can be broadly categorised into monetary policy functions, banker to the banks, banker to the government and developmental functions. The functions of note issuance, maintenance of internal and external value of currency evolved as the key objectives of monetary policy. The task of promotion of growth was subsequently added to it. This set of functions became the core monetary policy functions. With the development of the financial sector, subsequently, lender-of-the-last-resort function grew to encompass the role of a regulator and supervisor. It has assumed wider objective of financial stability in recent years and includes allied activities pertaining to adoption of technology in banking. Many central banks were established predominantly to finance the activities of their governments. This function has been reviewed and many central banks have ceased to finance their governments in recent years. Central banks have assumed many new functions that focus on development of markets, institutions and communication policies.

Monetary Policy Functions

3.17 Monetary policy functions form the core of central banking operations and constitute the key functions of almost all central banks. Of these functions, currency management and maintenance of external value of currency were the predominant concerns of central banks in the early years of central

banking. The explicit concern for price stability is of relatively later origin, although the maintenance of external value and link to the gold standard effectively implied price stability.

Currency Issue and Management

3.18 Currency management is one of the most important traditional functions of central banks in most countries. Until the evolution of central banks private banks issued their own currency and there were often numerous currencies with varying degrees of acceptability. The task of currency issue was entrusted to the central bank so as to bring uniformity in note issue across the country and facilitate exchange. Central banks have continued to perform this function over the years. Currency issue was nationalised in many countries. This function grew in scope and the present task of currency management includes functions such as estimating the demand for currency, currency design, printing, storage, distribution and disposal of unfit notes.

3.19 Illustratively, the Bank of England has been issuing bank notes since 1694. These notes were originally hand-written. Although they were partially printed from 1725 onwards, cashiers still had to sign each note and make it payable to someone. Totally printed notes were put in circulation from 1855. The *Banque de France* was initially granted exclusive privilege to issue bank notes only in Paris in 1803 for a period of fifteen years. However, note issue privilege was extended to the whole of France in 1848. *Banco de Portugal* became a bank of the state in 1887 and was granted a monopoly over the note issue in Portugal in 1891. One of the reasons for establishment of a central bank in Germany was to have a uniform currency. Similarly, the Bank of Italy was also given the mandate of putting the Italian currency on sound footing. In the US, the currencies of Britain, Spain and Italy were used before and after the American Revolution. In 1789, the First Bank of United States was authorised to issue paper bank notes. The US Mint was established in 1792. As all chartered banks could issue money, there were 30,000 varieties of notes issued by 1600 banks in 1836. The Greenbacks were issued by the US treasury in 1862. The Federal Reserve was entrusted with the job of printing money in 1913 as part of the Federal Reserve Act. In fact, all over the world, only a few central banks do not perform this function. A prime example of this is the Monetary Authority of Singapore (MAS).

3.20 The monopoly power to issue currency is delegated to a central bank in full or sometimes in

part. The practice regarding the currency issue is governed more by convention than by any particular theory. It is well known that the basic concept of currency evolved in order to facilitate exchange. The primitive currency note was in reality a promissory note to pay back to its bearer the original precious metals. With greater acceptability of these promissory notes, these began to move across the country and the banks that issued the promissory notes soon learnt that they could issue more receipts than the gold reserves held by them. This led to the evolution of the fractional reserve system. It also led to repeated bank failures and brought forth the need to have an independent authority to act as lender-of-the-last-resort. Even after the emergence of central banks, the concerned governments continued to decide asset backing for issue of coins and notes. The asset backing took various forms including gold coins, bullion, foreign exchange reserves and foreign securities. With the emergence of a fractional reserve system, this reserve backing (gold, currency assets, etc.) came down to a fraction of total currency put in circulation.

3.21 The function of currency management takes different forms in the context of a developing economy. In most developed countries, a high degree of homogeneity in the society implies a homogenous pattern of currency demand which facilitates smoother currency management. On the other hand, in developing countries, significant diversity in socio-economic development across regions induces completely different currency preference of the public across regions and across income groups. This diversity entails dynamic and complex currency management tasks for central bankers. The challenges ahead of efficient currency management in developing countries have increased manifold by the existence of dirty notes in circulation, predominance of cash based transactions and low levels of automation. In recent times, however, innovations in technology have helped in improving the currency management (Udeshi, 2004).

Maintaining Internal Value of Currency

3.22 Instituting a medium of exchange is one of the oldest functions assigned to central banks. Arising from this core function is the monetary policy function of keeping inflation low in order to maintain the value of the medium of exchange over time. This function is still very relevant to modern central banks as can be seen from the widespread adoption of inflation targeting framework. There are distinct phases and

events in the history of achieving and maintaining price stability. Prior to the Great Depression, the *specie* flow kept the economy on the 'auto pilot' mode. The gradual replacement of the gold standard with pure fiat standards in the twentieth century recast the objective of central bank policy and required separate efforts to maintain price stability. Abandoning the gold standard led to losing the mechanism of automatic maintenance of the internal value (purchasing power) and external value (exchange rate) of currency. The maintenance of internal value of currency and its external value acquired a distinct two facet existence. This separation was useful as it provided flexibility to countries to pursue their own policies. However, abandoning the gold standard and the move over to the fractional reserve system increased the risks to price stability.

3.23 The most difficult phase in the history of central banks was the Great Depression. During this phase, the general value of currency in countries across the globe fell by one fourth. Output and employment fell sharply resulting in widespread hardships. Against this backdrop, in the General Theory, Keynes (1936) highlighted the role of fiscal policy. However, Friedman and Schwartz (1963) documented later that the money supply actually fell before the Great Depression. They put forth the hypothesis that the Great Depression of the 1930s was not the result of failure of monetary policy in principle but that it resulted from a fall in the supply of money- the result of a misconceived contractionary move by the central banks. Such a move was compounded by the waves of bank failures. So the Great Depression was seen not as a testimony to the limitation of monetary policy, but of limited foresight and action on the part of the monetary policy makers. Most central banks and governments inappropriately advised people to 'tighten their belts' during a period when spending was probably the only solution to counter deficient demand.

3.24 In the meantime, the Great Depression and the pivotal role played by the General Theory of Keynes had changed the scene irrevocably and the focus shifted from *laissez-faire* to intervention and discretion by governments. Keynes' work brought the focus on the fiscal aspects of economic policy. Keynes (1936) in General Theory, did not deal with price stability issues as in the Treatise (Keynes, 1930) wherein he had advocated price level targetting. The 'Keynesian' model in fact, had a gap in theory that was later closed by adding the Phillips Curve. The Phillips Curve notion that inflation could be traded-

off for additional growth was, however, short lived. Some counter evidence showed that at higher levels, inflation was detrimental to growth (Barro, 1995; Sarel, 1996). Nevertheless, in the short run the Phillips curve remained important (Fischer, 2005).

3.25 Domestic policy objectives have been centred on price stability goals for years and even today have remained the main pre-occupation of central banks. In the developing world, central banks have had an additional task as the governments expected central banks to use their seignorage to garner resources for faster development. There was often a conflict between functions of central banks, for instance, maintaining the value of currency conflicted with its function of being a banker to the government, especially in developing countries. These central banks had to manage very high levels of public debt and often used inflation tax that undermined their price stability objective. The need for a clear dialogue between the fiscal and monetary policy makers as regards the mutual consistency of their policies was recognised in developed countries. On the other hand, in developing countries there was less of such dialogue and the central bankers as debt managers often tried to keep interest rates artificially depressed in order to manage public debt. Inflation was then contained by other more stringent tools involving the use of direct instruments like reserve requirements or selective credit controls that led to financial repression.

3.26 Central banks in developing countries are typically required to facilitate large borrowing programmes of their governments. For this, they may impose high reserve requirements on the banking system to ensure that it remains a captive buyer of government securities, even if the interest rates on these borrowings are at sub-market levels. After some initial level of development, these central banks may take steps to ensure that this dependence of the government borrowing programme on the banking sector is reduced. In this direction, several steps need to be taken such as free market determination of interest rates on government securities and market-based procedures for monetary policy.

3.27 Maintaining the domestic and external value of currency is often addressed by deciding a nominal anchor. The choice of a nominal anchor or an intermediate monetary policy target has been a crucial issue. There was a general move in favour of monetary targetting during the late 1970s and the the 1980s. Thereafter, there has been an increasing trend towards adopting an inflation targetting framework.

Keynes advocated targetting the price level in the 1930s (Keynes, 1930). Sweden was the first to adopt it after the collapse of the gold standard. Yet the widespread acceptance of inflation targetting had to wait for over five decades before it became an important framework of monetary policy.

3.28 Central banks have often tried hard to anchor economic agents' expectations so as to keep inflation low. This involves understanding of the inflation process. The central bank needs to forecast inflation proactively with the use of leading indicators that may give them additional time to react. The extent of advance action required varies with the length of the transmission lag that differs from one country to another and even for the same country over time. Two main determinants of the price level are the price adjustment lag and the expectation lag. The former involves understanding the level of capacity utilisation in the industry, the level of inventories, supply of factors of production and flexibility in wages and prices. The expectation lag on the other hand, depends upon the product and factor price expectations, the nature of wage contracts in the economy and the credibility as well as inflation record of the central bank. If the central bank has a credible record it may be successful in stabilising inflationary expectations. The view about inherent stability of the system and the nature of the inflation process visualised, determines the role of the central bank. The monetarists believe that while the system is inherently stable, it has long, variable and unpredictable lags. This makes activist monetary policy amplify rather than dampen cyclical swings. Non-monetarists believe that because the adjustment process takes very long, the case for central bank intervention is strengthened (Humphrey, 1986).

3.29 Over the years, there is increasing realisation that printing more money or 'pump priming' the economy does not help in raising growth rates. In fact, a stable price level has become a pre-requisite of growth and trade. Accordingly, the maintenance of price stability through the conduct of monetary policy has become the prime objective of central banks. While inflation is not under the direct control of the central bank, it may use intermediate targets under its control to achieve price stability. In a market economy, the central bank may have the option of using market-based instruments for conduct of monetary policy. It may choose intermediate targets such as interest rates, exchange rates and monetary aggregates or take a more eclectic approach and consider a range of indicators (multiple indicators) that

can foretell the changes in output and prices. Through the 1990s, however, more and more countries have moved towards inflation targetting to announce their commitment to price stability. Monetary targetting depended for its success on the stability or at least the predictability of money demand. This intermediate target was abandoned by many central banks in the 1980s, as money demand functions became unstable, possibly due to the rapid pace of financial innovations. However, some central banks observed stable money demand and continued to use money targets for a number of years, for instance, Germany. In a survey covering 94 monetary frameworks in a diverse range of developing, transitional and industrialised economies, more than half of the respondents described the long-term goal of reducing or maintaining low inflation expectations as vital and this was more important to central banks than any particular target, formal or informal (Fry *et al*, 2000).

3.30 Under inflation targetting framework, the central bank makes an explicit commitment to conduct policy to meet a publicly pre-announced numerical inflation target within a particular time frame. Some countries have adopted point targets while others use a more flexible approach of targetting inflation within a band. New Zealand, Canada, the UK, Finland, Israel, Spain and Sweden were the early adopters of inflation targetting. The announcement of a specific inflation target provides a domestic anchor for policy and develops a measure of confidence in the conduct of monetary policy. Setting of explicit goals promotes accountability, making it more likely that the central bank will come close to the target. Inflation targetting may help in providing a clear path for the medium-term inflation outlook, reducing the size of inflationary shocks and their associated costs. Since long-term interest rates fluctuate *vis-a-vis* movements in inflation expectations, targetting a low rate of inflation would lead to more stable and low long-term rates of interest.

3.31 Central bank charters and official statements, typically, specify price stability as the goal of monetary policy. There is a subtle but important difference between specifying an inflation target and aiming at price stability. If the target is set for a limited period, for instance, two years in the case of the BoE, then an annual average inflation rate needs to be maintained. In this case, the central bank is required to compensate for failures to achieve its target in previous years. If the target is the price level or a path for the price level, the central bank does not have to compensate for missing the target in previous years (Fischer, 1996). Central banks, however, differ in

operationalising their anti-inflationary policies. Several central banks such as the Bank of Canada, the Bank of England and the Reserve Bank of New Zealand have adopted explicit inflation targetting recently. Others, whose credibility in fighting inflation is firmly established (for instance, the pre-ECB *Bundesbank* and the Swiss National Bank), did not set explicit inflation targets.

3.32 Countries need to fulfil some pre-requisites before adopting inflation targetting. The foremost of these are that the central bank should not be obliged to finance the government budget, must possess effective market determined monetary policy instruments, follow transparent practices and must be able to forecast inflation and be in a position to assess the impact of monetary policy on inflationary expectations. A country adopting inflation targetting has to select the relevant price index that is to be targetted. Some countries have adopted the Consumer Price Index (CPI) for this purpose. Alternately, they may target core inflation. Developing countries generally have relatively higher rates of inflation. In these countries predicting future inflation is often uncertain. Hence, missing an inflation target is more likely in developing economies than in the developed economies. Moreover, in many developing countries, central bank autonomy is restricted by the need to finance the fiscal deficit of its government.

3.33 Over the years central banks have increasingly sharpened their tools. Since monetary policy is always conducted in anticipation of various outcomes regarding output and prices, the forecasts of these are of great value to monetary policy makers. These forecasts are based on various types of models. Some central banks use specialised tools or models that forecast the performance of their intermediate targets like money growth or the exchange rate to guide their policy decisions.

3.34 Central banks have had to increasingly modify the definitions of money as a result of financial innovations and technological progress. Commercial banks create deposit money, plastic money as well as e-cash and e-money with multiplicity of products. E-money is monetary value units stored in electronic form on a device held by the consumers. Since e-money has all the features of traditional forms of money, it is an instrument like a cheque or a demand draft, which facilitates transactions actually denominated in the currency. With this, the task of managing currency and maintaining the price level has become increasingly difficult. This task is undertaken by the central banks, by proactively

estimating the demand for money, given the projected changes in income and interest rates. These relationships, however, are known to vary over time and sometimes become unstable for countries experiencing rapid transformation of their financial sector, thus posing greater challenges for central bankers.

Maintenance of the External Value of Currency

3.35 Central banks in many economies consider exchange rate management as a crucial function. Exchange rate management was the core concern for traditional central banks even in the seventeenth century. During the gold standard, the exchange rate was determined more or less automatically by the mechanism of *specie* flow. It ensured that the value of the currency rose with an increase in gold reserves and decreased with a decrease in the reserves. Such movements along with gold reserves were not necessarily conducive to output growth. Considerable efforts were required to maintain the parity. The appropriate level of exchange rate is a matter of detailed discussion. It could be a level, which is the so-called 'market determined' level, which may or may not confirm the Purchasing Power Parity (PPP). The PPP states that market forces will lead to equalisation of goods prices internationally, once the prices are measured in the same currency. This law of one price is subject of much empirical investigation. It does not have much empirical support as the real world exchange rate is influenced by numerous factors.

3.36 The role of central bank in managing the exchange rate cannot be underplayed. The rationale underlying the management of the exchange rate by the central bank has varied over time. Ranging from the old mercantilist doctrine, which stressed the importance of having an excess of exports over imports, there are various patterns to the management of the exchange rate. Some central banks keep exchange rates depressed (to boost the trade balance) while others target it at a particular point or within a range.

3.37 During colonial rule, international monetary arrangements focused on trade and investment and the exchange rate was always maintained at a level beneficial to the colonial power. The seventeenth and the eighteenth centuries saw the rise of the British Empire and hence of the Bank of England. As the pound sterling was the strongest currency, it became the most widely accepted international currency and remained the predominant anchor, in part because it was backed by gold. In the late nineteenth century,

many central banks maintained the gold standard, which was world's first fixed exchange rate. Under this system the exchange rate between two currencies was determined by the relative weight of gold that the currency could buy. This fixed exchange rate involved sacrificing autonomy of currency management and exchange rate management. It, however, provided a great deal of credibility to the country.

3.38 The First World War and massive defence expenditures saw a collapse of the gold standard. Reparation payments imposed on Germany by the Allies further distorted the international exchange rate order. The post-War boom posed the problem of intense inflation for most central banks of the world. The attempt in the post-War period to restore the gold standard at the pre-War parity was difficult to sustain. The debate whether the reintroduction of gold standard by the UK in 1925 triggered the Great Depression is still inconclusive. Several primary-producing countries devalued their currencies during 1929-30 in order to promote exports. Such competitive exchange rate depreciation for 'beggar-thy-neighbour' purposes was largely unsuccessful. The gold reserves of the UK were severely depleted and the Bank of England was not in a position to act as the world's banker. In fact, it had to abandon the gold standard in 1931. The US Fed followed in 1933. Monetary policy during this time became excessively rigid. Output and employment fell and several countries erected trade barriers.

3.39 By the end of Second World War, the US dollar emerged as the strongest currency. The Bretton Woods conference in 1944 and subsequent formation of the International Monetary Fund (IMF) saw the US dollar officially emerging as a pivot. One of the major objectives of the Bretton Woods system was maintenance of stable exchange rates. Members could keep their exchange rates within one per cent of the agreed par value. A member could propose a change in the par value of its currency only if it had a 'fundamental disequilibrium' in its balance of payments. Though the IMF peg was gold, in reality, countries pegged their currencies to the US dollar, which in itself was pegged to gold. The dollar became the medium of intervention in the foreign exchange market and countries started holding their reserves in terms of dollar alongwith gold.

3.40 This system worked satisfactorily till the devaluation of the pound sterling in 1967. Special Drawing Rights (SDRs) were introduced by the IMF in 1967 to revitalise the Fund and to manage global

liquidity wherein the deficit countries borrowed hard currency from the surplus countries. Eventually, the process of breakdown of the Bretton Woods system started with doubts being expressed regarding the US commitment to maintain the official gold price, which turned into reality when the US decided to sever the link between dollar and gold in 1971.

3.41 After the suspension of gold convertibility by the US, the Smithsonian Agreement, made by Group of Ten countries lasted only for 14 months till June 1972. This agreement also widened the permissible band of movements of the exchange rates to 2.25 per cent above and below the new central rates with a hope that this would reduce the pressure on deficit countries' reserves. Notwithstanding this new arrangement, the UK again faced balance of payment (BoP) problems and finally decided to allow sterling to float in June 1972. Switzerland and Japan followed and finally major countries tacitly agreed that the Bretton Woods system may be allowed to end. Accordingly, by March 1973, the world had moved to what is known as a 'non-system'.

3.42 In 1977 there were efforts to initiate a new flexible exchange rate system by the IMF members. This period also saw re-emergence of monetary policy initiatives. Trade barriers permitted the flexibility of determining both the exchange rate and domestic interest rate. However, this often led to higher inflation, as there was a loss of the nominal anchor that the exchange rate provided. Individual countries then tried to develop their nominal anchor in terms of the adoption of monetary and exchange rate targets. Currencies such as the French franc and Italian lira were pegged to the DM or pound sterling and gained from their anti-inflation credibility. This borrowed credibility was difficult to sustain in countries where the fundamentals had a different story to tell. This was again evident during the collapse of the Exchange Rate Mechanism (ERM) in the early 1990s. The experience of these countries suggested that a policy of tight control of the exchange rate by itself was not credible. If an economy was hit by a deflationary shock, central banks often abandoned the exchange rate peg and cut interest rates.

3.43 It is well known that fixed exchange rate imposes a constraint on domestic monetary policy. If its stance is significantly divergent from that of the anchor country, this may invite unwelcome capital inflows or induce capital outflows; some temporary solution is possible in terms of intervention by the central bank. The major episode of failure to maintain the value of currency in recent times was the East

Asian crisis in 1997. The crisis countries shared a common feature, *viz.*, the combination of a broadly fixed exchange rate regime and extensive capital mobility. Attention was also focussed on the plight of countries that had opened up their financial markets without reforming their financial sector. It turned out that the combination of a fixed exchange rate, full convertibility and independent monetary policy is not sustainable; this is called the 'impossible trinity' in literature.

3.44 In effect, exchange rates have generally been heavily managed and the fully flexible exchange rate remains elusive. It has been observed that most central banks intervene, although not always to defend any particular exchange rate. Calvo and Reinhart (2000) have illustrated the difference between the *de jure* and *de facto* exchange rate regimes, in that many countries that claim to be floaters have in fact been pegging their exchange rates. Even those countries that generally float the exchange rate are known to have intervened heavily in the exchange rate market to reduce volatility. The tendency of countries to fight shy of formally announcing the peg has been illustrated by Levy-Yeyati and Sturzenegger (2001). Such countries have the advantage of a stable currency without having to comply with the peg at all times.

3.45 Through the 1990s, the reform process has transformed many economies into vibrant and open ones. The free determination of the exchange rate is becoming increasingly complex for the emerging market economies. The matter is further complicated by the possibility of capital flows as a result of integration of global markets. The structural changes that have been undertaken in a number of these countries make it feasible to consider exchange rate flexibility or exchange rate targets or target zones. The decade of 1990s has, however, witnessed a number of currency crises in different parts of the world.

3.46 A currency crisis is a general loss of confidence in the currency. Theoretically, a currency crisis refers to a situation where market players' expectations that the prevailing level of a pegged exchange rate is unsustainable, gives rise to speculative activities that build up pressure, forcing official devaluation or revaluation of the currency. A currency crisis can also occur in countries where exchange rates are not fixed but allowed to float within certain broad bands. Therefore, many studies define currency crisis as a large nominal or real depreciation. This excludes devaluations, which are

undertaken with a view to aligning the exchange rate with the fundamentals. Currency crises are characterised by volatile exchange rates. Large devaluations are undesirable as they increase foreign currency risk, alongwith reduction in the information content of exchange rate signals and discourage investment. The potential of the central bank to avert a currency crisis depends upon the track record of the central bank that determines its credibility and its ability to contain crisis. The origins of the risk of currency crisis can also be found in contagion. The central banks always monitor the performance of their trading partners and economies similar to their own, in order to gain some early warning signals of impending distress.

3.47 The experience in East Asian countries that faced crises with the twin combination of a relatively fixed exchange rate regime and extensive capital mobility underscores the point that currency pegs become easy bait for the speculators. The prerequisites of a successful exchange rate peg are low capital mobility; high trade share with the country of anchor currency; similarity in the kind of shocks that these countries are prone to; and strong domestic fundamentals.

3.48 The 'First Generation Models of Currency Crisis' developed by Krugman (1979) and Flood and Garber (1984) depict a scenario where unsustainably high levels of budget deficit result in monetisation of deficit, leading to hyperinflation and collapse of the exchange rate regime, draining the official forex reserves. In contrast, the 'Second Generation Models of Currency Crisis' describe different scenarios for currency crises that are not driven by fundamentals. These include self-fulfilling crises resulting from investor pessimism, 'herding' by investors or 'contagion' where a currency crisis in one country triggers crises in similar countries with which they have some economic links. The 'Third Generation' models demonstrate that foreign exchange illiquidity alone can result in bank runs, which would then lead to the collapse of the currency regime (Chang and Velasco, 1999). Kaminsky and Reinhart (1999) show that banking crises are leading indicators of currency crisis. Notwithstanding the different causes and effects of currency crises, the role of the central bank is critical. It can coordinate with the fiscal authority and help to reduce monetisation of the fiscal deficit. The strengthening of regulation and supervision of commercial banks can help in averting bank related crises and Basel-II norms would be useful in this direction.

3.49 One solution for the problem of currency crisis is 'Currency Board', which is the modern day version of fixed exchange rate. Under the currency board system, the central bank makes a commitment to maintain a pre-determined fixed exchange rate. Ironically, such a system is put in place when there is loss of faith in the currency. The currency board, by removing the discretionary element from the currency issue, insures the currency against volatility and avoids domestic inflation. According to Hicks, the roots of currency board arrangements can be found in classical monetary theory developed by David Ricardo. "On strict Ricardian principles, there should have been no need of central banks and a currency board that works on a rule should do the job just as well" (Hicks, 1967). The first currency board was established in Mauritius in 1849 (Hanke, 2000). Since then, over 70 currency boards have operated in almost all parts of the world. Currency boards cannot substitute for sound fundamentals, since "a currency board is unlikely to be successful without the solid fundamentals of adequate reserves, fiscal discipline and a strong and well managed financial system, in addition to the rule of law" (Council of Economic Advisers, 1999). However, exchange rate targets and currency boards provide reasonable stability, transparency and low inflation when constituted in response to particular circumstances and for a period of time.

3.50 Whether the central bank can set both internal and external value of the currency is a pertinent question. With fully convertible capital and current accounts, the central bank cannot continue to have an independent domestic monetary policy. If the central bank targets the internal value of the currency (inflation rate) by setting the interest rate, it has to let the exchange rate float. However, the central bank can temporarily set both internal and external values of the currency by putting circuit breakers between domestic and international financial markets by imposing limits on foreign purchases of domestic assets and/ or sterilised intervention. But in the long run, the central bank may need to choose between targetting the domestic value of the currency and its external value (Hoggarth, 1996).

Promotion of Growth

3.51 Promotion of growth is at the centre of all economic policies. In the broad sense of the term promotion of growth could qualify as a developmental function universally performed by central banks. This function came to be entrusted to the central banks

alongwith the objective of promoting employment in the aftermath of the Great Depression. However, in most countries this function may be limited to facilitating a pro-growth atmosphere or ensuring that there are no bottlenecks to growth in terms of high cost of interest rates. In developing countries such as India the objective of promoting growth goes much beyond the mere maintenance of the reasonable cost of credit. In many cases, as the market mechanism is not fully developed, growth enhancing credit may not normally flow to backward sectors. The central bank needs to ensure that there is adequate credit supplied to all productive sectors and also to lesser developed regions. There is often a requirement to support growth in certain sectors that have priority over the others. In fact, there is much literature that supports the interventionist role of the central bank in its initial phases to take care of problems of different regions growing at uneven rates. In many countries the banking system, if not regulated to act differently, easily becomes an instrument for siphoning-off the savings from the poorer regions to the richer and more progressive ones where rates of return on capital are high and secure (Myrdal, 1965).

3.52 Besides taking care of sectoral growth through specific policies, overall credit needs to be enhanced without overheating the economy. Central banks promote growth and try to keep it on the projected trajectory. The concept of output gap is relevant in this context. Central banks try to use the interest rate or other monetary policy instruments to affect aggregate spending in order to minimise the output gap. The inflation-growth trade off, enshrined in the Phillips Curve relationship is relevant only in shorter run, researchers have pointed out that in the medium to long run, if inflation exceeds a threshold level then growth suffers (Barro, 1995 and Fischer, 1994). The central banks are therefore, required to maintain a delicate balance between growth and inflation.

Communication Policy

3.53 In the context of central banking communication, expressions like 'monetary mystique' (Goodfriend, 1985) and 'constructive ambiguity' (Corrigan, 1996) were assigned great virtue in the past. The present era of greater independence to the central banks, however, has also imposed great degree of responsibility on the central banks—a major one being the attainment of transparency in communication (Mohan, 2005). Furthermore, adoption of inflation targetting by many central banks has made communication an integral part of the policy making.

While earlier, in the absence of clear communication, market players were left to decipher the actions of the central banker to understand its objectives, in recent years, central bank communication has begun to play a crucial role in shaping the expectations of the markets. Central banks need to communicate to the public their perception of outlook, risk assessments and objectives. A host of issues emerge in this context. These include, how well the public and market participants understand delicate nuances of the announcements of central banks, as the effectiveness of monetary policy depends on their understanding and interpretation. Moreover, whether the mode and method of communication should be different for different agents is also a much-discussed issue. In recent times, innovations in information and communication technology have enabled more efficient communication from the central bank. However, it has also increased the possibility of spillovers across markets and contagion across countries. In this regard it is necessary to transmit the right signal to the markets so that it can instill confidence in the minds of the market players.

Banker to the Government

3.54 Most central banks such as Bank of England evolved from the need to have an institution that would look after the finances of their governments, lend to it or manage its public debt. Such central banks were entrusted with a variety of fiscal responsibilities and consequently evolved institutional structures to take care of all the associated requirements. In the initial years of central banking in developed countries and even now in developing countries, most central banks provided liquidity to their respective governments to smoothen the temporary mismatches between their revenues and expenditure, against government paper, on an *ad hoc* basis.

3.55 Traditionally, debt management of the government was handled by the central bank because of the complementary nature of monetary policy and public debt management. Government securities are useful in providing the central bank a tool for conduct of open market operations and a backing for its note issues. However, as monetisation of government debt adds to base money, restraining its supply is crucial for price stability. The central bank may try to neutralise the impact on government borrowing by offsetting the combined liquidity-creating impact of fiscal deficit by issuing new debt to the non-government sector. Even under these circumstances, empirical evidence suggests that a large fiscal deficit

exerts an upwards pressure on nominal and real interest rates and limits the degree of freedom for conduct of monetary policy.

3.56 Imprudent fiscal conditions may lead to expansionary monetary policy with inherent inflationary tendencies. Moreover, the policy instruments for fiscal and monetary policy implementation are also inter-dependent. Monetary operations are often conducted using government debt instruments and markets. Hence, the choice of monetary instruments and operating procedures can have an impact on the functioning of government debt markets. The efficient conduct of monetary policy requires an understanding of the government's short and long-term financial flows.

3.57 In recent years, the conflict between debt management and monetary functions is increasingly being discussed. As a solution, a number of countries have set up a separate debt office to implement the specialised debt management strategy. In choosing to do so, governments seek to emphasise the role assigned to debt management; to preserve the integrity and independence of their central banks to shield debt management from political interference; and to ensure transparency and accountability in public borrowing (Cassard and Folkerts-Landau, 1997).

3.58 Interestingly, the management of public debt has changed over the years. Starting from a situation where some governments were initially financed by private bankers, many central banks were established for performing the function of manager of public debt. Now, there is a move for central banks to desist from financing the government due to the widespread recognition of its inflationary implications. Besides this, managing government debt involves large co-ordination between fiscal and monetary policy and also requires sufficient independence on part of the central bank to deny the government the additional borrowings. The experience of many countries supports separation of the debt management function from the monetary policy function.

3.59 More specifically, if the central bank is entrusted with the debt management function, then it may face several conflicting objectives such as whether to tighten liquidity based on monetary considerations or ease out to ensure success of borrowing programme? Another area of grave concern could be when there is no separation of these functions, the central banks may be pressurised to artificially depress the interest rates in order to contain the interest payment of government debt.

Furthermore, as Alesina *et al* (1990) argue, a separate debt management authority is at an arm's length from the process of budget making and may not be tempted to sacrifice long-term debt management goals with short-term budget goals.

3.60 A growing trend the world over has been that of separation of debt management function from the monetary management function, though the actual structure differs across countries. While some OECD countries like Germany and the UK have opted for an autonomous debt management office to improve operational efficiency, some other countries like Australia, France and the US have sought to achieve a balance between public policy and financial management and have a separate office working under the aegis of Ministry of Finance (Singh, 2005). As regards the ideal model for developing countries, opinions vary. Some experts have argued that the separate office can be initially placed under the Ministry of Finance (Currie *et al*, 2003) while others have argued that in countries where fiscal deficits are high and financial markets are underdeveloped, a separate debt management office may be unsuitable for overall policy effectiveness of debt management (Kalderen, 1997).

Banker to the banks

3.61 Central banks were set up in many countries to perform the function of maintaining financial stability. The financial system in the early days was essentially a bank dominated system; hence financial stability was focussed on the stability of banks. Lender-of-the-last-resort function was the first financial stability function that central banks performed. This function was fairly limited in its scope, with central bank operations limited merely to the function of crisis management.

3.62 The role of central banks has expanded; it now covers oversight of other financial institutions as well as the entire payment system. The potential of any crisis to proliferate has increased several folds. For example a bank level problem can attain systemic proportions if depositors lose faith in banks in general after some bank failure, thereby precipitating large-scale withdrawals from sound institutions. Growing globalisation of banking means that such effects may spread across national boundaries. As time has progressed, the duties of central banks have not remained confined only to ensuring soundness of commercial banks but have extended to cover the financial system as a whole.

Lender-of-the-last-resort

3.63 There are different hypotheses about the origin and propagating channels of banking crises. A banking crisis is an event in which many or even all banks in the banking system face sudden demand from their creditors (Calomiris and Gorton, 1991). Given the multiple credit creation principle, it is not possible for any bank to handle such a run. At such times of crisis, apart from providing the routine liquidity to commercial banks through the discount window, the central bank may also bail out illiquid but not insolvent banks so as to avoid a generalised banking crisis. A banking crisis cannot be averted without an agency working as lender-of-the-last-resort.

3.64 In fact, many central banks were established specifically to take care of banking crises. This function of central banks is more than three hundred years old. As documented by Taylor (1997) when the Bank of England was established, the commercial banks guided by their profit motive always over issued currency. There were many circumstances when the banks could not even jointly honour demands for cash by the public and suspended convertibility. The Bank of England had to often come to the rescue of the commercial banks in order to convert their debt claims into cash. Similarly, the Federal Reserve in the US was established in 1913 primarily against the background of recurrent cycles of booms, busts and several banking crises. Though initially, there was no consensus on having a central bank, the bank panic of 1907 finally turned public opinion in the US in favour of having a central bank. However, viewed from today's perspective, the Fed then had a comparatively limited mandate of playing the role of lender-of-the-last-resort.

3.65 The origins of the concept of central bank as a lender-of-the-last-resort may be found in the works of Thornton (1802), though the term was coined by Baring (1797). This concept was further popularised by Bagehot (1873) and till date remains one of the cornerstones of the theory of central banking. Lender-of-the-last-resort function as asserted by Bagehot implies that in order to prevent bank panics, the central bank should provide liquidity to solvent but illiquid banks at a high rate of interest so as to avert a systemic crisis and ensure that no moral hazard problems occur. Thus through lender-of-the-last-resort function, the central bank may ensure stability of the banking sector, which is prone to disturbances, with a view to avoiding consequences to the real sector.

3.66 As far as the problem relating to moral hazard is concerned, the argument is that banks may take excessive risk if they know that they can borrow at a low rate during times of crisis. One view is that high interest rate is a penalty rate. It is argued that the rate should be raised early in the panic, so that the fine may be paid early. This guards against the possibility of borrowing out of precaution without paying for it and also ensures that the banking reserves are protected as far as possible. It was observed by Wheelock (2002) that the discount window loans in the US fell remarkably before the Great Depression as a result of direct (restrictive) action of discount window operations of the US Fed. Goodfriend and King (1988) remarked that Bagehot's doctrine was elaborated at a time when the financial markets were underdeveloped. They argue that although the central bank intervention in case of aggregate liquidity (monetary policy) is crucial with the development of sophisticated inter-bank markets, the scope for individual intervention (banking policy) has reduced. This argument insists that open market operations can provide sufficient liquidity, which is then allocated by the inter-bank market. The recent banking theories, however, have provided a counter argument to the above-mentioned criticism. Bryant and Wallace (1980) and Diamond and Dybvig (1983) show existence of the possibility of fragility of banks due to coordination failure among depositors. In light of this, lender-of-the-last-resort argument remains important with a view to maintaining financial stability in the economy.

3.67 The critical issue related to banking crisis is how the losses are ultimately distributed or borne in the economy. Since central banks are, in the final analysis, essentially a part of the government, the government may initially take responsibility for the losses, but they are eventually passed on to the society in the form of higher taxes or borrowings. How the bank losses are ultimately distributed to the system would depend on the combination of techniques adopted.

3.68 It is essential to address the root cause of bank losses, which is usually high non-performing assets. Often these can be found either in distortion in the industrial sector, fiscal imbalances or structural imbalances in the economy that require major policy changes. In addition to laying down a sound and competitive operating environment for banks, it is essential that a sound and stable macroeconomic environment is also built for the real sector to encourage competition and efficiency. Dealing with

bank crisis without tackling real sector distortions may invite a repeat crisis subsequently. As the banking system spread and took on additional functions, its risks increased several fold. There was hence a need to put in place sound regulatory norms.

Financial Sector Regulation and Supervision

3.69 The business of banking has a number of attributes that have the potential to generate instability. First, their intermediation activity results in leverage. The banks have inherent asset-liability mismatches with assets tending to have a longer maturity than liabilities. Since commercial bank's solvency depends on its ability to retain the confidence of both its depositors and the financial markets, lack of transparency of the bank defeats counterparties' efforts to rationally analyse a bank's strengths and weaknesses. Most importantly, banks' balance sheets and off-balance sheet positions can change more rapidly than those for the industrial and commercial companies (Ware, 1996).

3.70 Central banks have been taking an active interest in financial sector regulation and supervision with a view to maintaining financial sector stability. Regulation and supervision are important for effective management and market discipline as lax, poorly designed, outdated or inadequately implemented regulations may lead to financial instability. On the supervisory side, on the other hand, an overtly lenient policy may allow weak banks with distorted incentives to continue operating or may indirectly promote malpractices by insiders, eventually leading to a need for larger cleanup (Sheng, 1991).

3.71 The primary justification for banking supervision is that it limits the risk of loss to depositors and thus maintains public confidence in banks. While supervision naturally focusses on the individual bank, supervisors must also be alert to the possibility that problems in one institution may have wider, systemic repercussions on others or on the integrity of the payment systems (Ware, 1996). The focus of the supervisory function is mainly on investor protection activities, rules on the conduct of business and disclosure of information, micro-prudential supervision (on-site and off-site surveillance of institutions) and macro-prudential analysis.

3.72 In recent times, financial sectors in many countries have witnessed phenomenal growth with increasing liberalisation and globalisation. Some of the evolving characteristics of this sector include blurring distinctions between banks and other financial

institutions and a growing trend towards universal banking, accelerated flow of innovations in financial instruments such as derivatives and greater integration of financial markets across national boundaries. These changes have made the task of financial sector supervision more complex and dynamic. Accordingly, supervisors worldwide have shifted their emphasis to macro-prudential analysis, away from the micro-prudential supervision.

3.73 Bank supervisors seek to ensure that banks are financially sound, well managed and do not pose a threat to the interests of their depositors. In pursuing these objectives supervisors try to form three judgments: (i) how much risk is each bank undertaking? (ii) what resources, tangible (e.g. capital, liquidity) or intangible (e.g. quality of management and control systems) are available to manage that risk? (iii) whether the identified level of resources are sufficient to balance the risk? (Gray, 1996). The emphasis has been shifting in the recent period from the traditional Capital, Assets, Management, Earnings, Liquidity and Interest Rate Sensitivity (CAMELS) approach to a more risk-based approach. This approach has its basis in the recommendations of the Basel Capital Accord (1988). The Basel Committee provides a forum for regular cooperation on banking supervisory matters. In recent years, it has developed increasingly into a standard-setting body on all aspects of banking supervision. The framework developed by the Basel Committee involves identification of key risks, their level and the areas where these are likely to surface. After identifying these risks, a comprehensive supervisory framework with appropriate resources is assembled to mitigate the risks. The amount of resources required are dependent on the level and intensity of the perceived risks. More recently, a revised framework on 'International Convergence of Capital Measurement and Capital Standards' popularly known as 'Basel II' (November 2005) has provided supervisory regulations governing the capital adequacy of internationally active banks. Basel II uses a 'three pillars' concept - minimum capital requirements, supervisory review and market discipline. The first pillar provides improved risk sensitivity in the way that capital requirements are calculated in three components of risk that a bank faces, *viz.*, credit risk, operational risk and market risk. In turn, each of these components can be calculated in two or three ways with varying sophistication. The second pillar deals with the regulatory response to the first pillar, giving regulators more sophisticated 'tools' over those already available to them. It also provides a framework

for dealing with all the other risks that a bank faces, mainly reputation and strategic risk, liquidity risk and legal risk. The third pillar widens the disclosures that the bank must make. This is designed to allow the market to have a better picture of the overall risk position of the bank and to allow the counterparties of the bank to price and deal appropriately. Notwithstanding the continuing efforts at the international level to improve the systems for supervision, certain hurdles, such as lack of supervisory independence, political interference that prevents the exit of weak banks and financial institutions, lack of supervisory accountability besides fears of legal challenge, continue to pose problems in effective supervision.

3.74 Central banks have traditionally supervised commercial banks and other financial institutions. However, since central banks are also regulators and are consequently in a position to influence the behaviour of market participants, supervision conducted by central banks may pose a moral hazard problem. The idea of a separate supervisory authority has, therefore, gathered some momentum of late.

3.75 There are various arguments for having the supervisory tasks performed only by central banks. First, central banks collect enormous amount of data on the financial sector and real sector alike and are, therefore, in a good position to form relatively objective views on market expectations and the need to act when necessary. Second, most central banks provide payment and settlement services and are in a position to quickly monitor the liquidity position of the system. Third, being considered as a lender-of-the-last-resort, a central bank will get prior intimation about the borrowing requirements of the financial sector, which would provide clues about their liquidity requirements.

3.76 On the other hand, the main arguments for not locating the supervisory functions with the central bank are related to the moral hazard problem. The moral hazard problem arises when both depositors and creditors of institutions supervised by the central bank expect that in the event of failure of an institution, they would be salvaged and as such there is an incentive to take unwarranted risks. Apart from the 'moral hazard' issue, other problems such as 'Christmas tree effect', 'bureaucratic leviathan' and 'regulatory capture' also point out the desirability of separation of monetary policy and supervisory functions (Demaestri and Guenero, 2003).

3.77 In an effort to address the moral hazard problem, some countries have experimented with separation of supervisory function from the central

bank, the most notable being the United Kingdom where the Financial Supervisory Authority (FSA) was created in 1998. However, given the short time span that has elapsed after the formation of this body, it would be premature to judge the merits of such a separation (Vasudevan, 2003).

3.78 The supporters of a unified approach to bank supervision and monetary policy cite reasons such as 'economies of scale and scope', the 'prevalence of financial conglomerates', 'competitive neutrality' and 'transparency and accountability'. In the context of 'competitive neutrality', it is stated that the blurring of boundaries between financial products may imply that financial institutions offering similar products are supervised by different agencies. This may result in those institutions being subject to different regulations and requirements of information and consequently, facing uneven supervisory costs. This differential regulatory treatment and costs would lead to competitive advantages for certain institutions and incentives to engage in supervisory arbitrage. The definition of clear responsibilities ensures substantial improvement in the transparency and accountability with which the financial regulator operates, not only in terms of its performance relative to the statutory objectives, but also in terms of the regulatory regime, the costs of regulation and the application of its disciplinary policies.

3.79 Separation of supervisory functions and their location outside the central bank is possible as in the case of the United Kingdom. However, in this case the need for coordination in terms of policies, activities and information is immense. There has to be a clear understanding between the financial supervisory authority, the central bank and the treasury to establish a framework for cooperation between them in the field of financial stability. There is a need to set out the role of all institutions involved so as to ensure that each one is clearly accountable for its actions and has unambiguous and well-defined responsibilities. "There must be transparency in the operation of each institution and the Parliament; the markets and the public must know who is responsible for what" (Bank of England, 1997). There should also be regular information exchange to enable each institution to discharge its responsibilities efficiently. Any failure in coordination could possibly lead to systemic catastrophe.

3.80 Against the backdrop of blurring of distinctions between banks and financial institutions, the idea of 'super regulator' has gained momentum. The term 'super regulator' refers to a structure that combines

regulation in respect of supervisory responsibilities of banks, securities firms and insurance companies. The arguments in favour of a super regulator are economies of scale, increased accountability as well as avoidance of problems such as competitive inequality, inconsistency, duplication, overlaps and gaps. Critics, however, point out that the perception behind supervision of say, banks and mutual funds cannot be the same. While banks are regulated and supervised for prudential reasons, mutual funds may be supervised for ensuring adequate disclosures to investors. A single regulator may not be able to differentiate between the various risks and objectives of supervision (Goodhart *et al*, 1998). The key question in this regard is: given the crucial role played by the central bank in banking supervision, whether such a super regulator should be created within a central bank or outside it. Raj (2005) has pointed out that in certain emerging market economies, where the financial systems are not complex, the existing system of regulation by specialist regulators is working well. Hence there is no justification for evolving a super regulator within the central bank or outside it. Notwithstanding this extensive debate and continuing empirical work, the literature remains inconclusive so far.

Financial Stability

3.81 The concept of financial stability has been defined in a variety of ways. Mishkin (1991) defines financial stability as the prevalence of a financial system, which is able to ensure in a lasting way and without major disruptions, an efficient allocation of savings to investment opportunities. This broad definition is important because of its perception that an individual bank failure or every large swing in asset prices does not necessarily mean financial instability. However, from an operational viewpoint, other definitions seem more appropriate. Reddy (2004), for example, defines financial stability as ensuring uninterrupted financial transactions, maintenance of a level of confidence in the financial system amongst all the participants and stakeholders and absence of excessive volatility that unduly and adversely affects real economic activity.

3.82 Though the issue of financial stability is being discussed with renewed interest since the 1990s, it has a long history of debate. As noted by Tuma (2005), during the period of the gold standard, central banks merely performed the duty of establishing parity between bank notes and available gold and thus the money supply was exogenously determined. Under

the gold standard, since the central bank's ability to provide additional currency was constrained by its gold reserves, clearing houses were established to provide currency, in case of a run on any particular participating bank. After the Second World War, however, in the era of fiat money, the policy focus shifted towards the price stability issue, as discussed earlier. With the achievement of price stability during the second half of 1980s, interest in financial stability was revived. In recent years, with increasing globalisation, financial instability can spread easily from the national to international markets as happened during the 1997 East Asian crisis. The risk of financial instability increased several fold in the 1990s mainly due to fast paced technological innovations and the blurring of sectoral distinctions, which enabled various financial intermediaries to participate and compete in non-traditional spheres. This potential for significant international spillover of risks is a direct concern to the financial community. There have been various efforts at providing support to countries facing financial crisis. This support is expected to contain risks of contagion and help the countries to smooth out the economic costs of the crises over time.

3.83 Besides the innate risks of the banking system, there are other risks that may be encountered by the financial system. They arise due to weaknesses and failures in areas of corporate governance, lack of market discipline or lack of adequate coordination amongst multiple regulatory and supervisory bodies.

3.84 Since financial instability poses a severe threat to important macroeconomic objectives such as sustainable output growth and price stability, central banks have shown keen interest in the maintenance of financial stability. Most central banks keep a close watch on movements in national and international financial markets so as to provide emergency liquidity assistance, whenever needed. Moreover, monetary policy is implemented largely through operations in financial markets and the transmission of monetary policy to the real economy depends crucially on the smooth functioning of key financial markets and institutions. Yet another manifestation of the central bank's interest in financial stability stems from its role in the operation of oversight of payment and settlement systems.

3.85 Traditionally, it has been believed that monetary stability leads to financial stability. However, as noted by Udeshi (2005), the events of the 1990s show that it need not necessarily be the case. While there are complementarities between

these two objectives, especially in the long run, it need not hold in the short run. A stable macroeconomic environment - low and stable inflation, sustained growth and low interest rate - can generate excessive optimism about the future economic prospects and often the risks are downplayed. Accordingly, episodes of financial instability often have their origins in environment of macroeconomic stability or extended periods of high growth. The central bank, thus, must always remain vigilant.

3.86 In fact, the relevant question is not whether financial stability is an important issue for the central bank, but rather, how much weight the objective of financial stability should receive. Actual practices followed in different countries can be visualised as a broad spectrum – one end of which is the strict inflationary targetting regime, where financial stability concerns are only addressed during periods of crisis (Svensson, 2002) and the other end is the activist central banker with a pre-emptive approach of pursuing a financial stability objective (Borio and Lowe, 2002). The optimal approach, therefore, needs to strike a balance between these two extremes. Then, there is the problem of 'irrational exuberance'. As indicated by Greenspan (1996), "... how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade? And how do we factor that assessment into monetary policy?"

3.87 Notwithstanding the difficulties in understanding when an activist policy by the central bank is needed, there exist certain well-developed precautionary measures that help in maintaining financial stability of the economy. These include development of a set of standards and codes, prudential regulation, early warning signals, supervision of banks, compliance with international standards as regards capital adequacy norms, asset classification procedures and methods, income recognition principles, market valuation of assets and recovery mechanisms to reduce the non-performing assets of banks.

Payment System Functions

3.88 Payment and settlement systems are the backbone of the entire gamut of economic activities of any modern economy. While modes of payment and settlement date back to the early stages of civilisation including that of barter, the use of systems where banks have an active role is of relatively recent origin.

3.89 Perhaps the earliest settlement system can be traced to the evolution of what was the precursor to the modern day clearing house. The clearing house was actually a meeting ground for representatives of banks – for instance, the Coffee Houses in Britain some centuries ago – to exchange the cheques presented by their customers and which were drawn payable on other banks. What commenced as a facility for simple exchange of instruments quickly metamorphosed into a well-established regular place, which became the main nerve centre for facilitating settlements of funds. With the increasing need for quick settlements, the role of the central bank gained significance and they took upon themselves the function of conducting clearing and settlement operations.

3.90 The earliest forms of clearing and settlement through well-established processes were characteristic features of countries in Europe as also in America, where the central banks took over the function. The Bank of England, *Banque de France*, *Riksbank*, *Bundesbank* and even the Federal Reserve performed paper cheque clearing and accounting of the settlements of the member banks. Other countries too followed suit and the approach was similar – the central bank was designated as the manager of the clearing house and other banks could participate in these operations, provided they agreed to be bound by certain rules. In some countries, the role of the post office, which had a greater geographical reach, assumed significance and they were also allowed to participate in clearing operations. In fact, the earliest forms of credit funds transfers – the Giro system – evolved out of the postal system in Europe in the first half of the twentieth century, while bank fund transfers on Giro basis commenced operations from the mid-1960s.

3.91 Varied approaches have been adopted by central banks in respect of operations of payment systems. In the United States, for instance, the Federal Reserve Banks perform the role of providing services for processing of cheques, in addition to regulating the clearing function. Although the service is offered by the Federal Reserve System, this has facilitated competition, with many private operators offering similar services – both for paper-based cheques as well as for electronic transaction processing. In some of the other developed economies such as the United Kingdom and Canada, the central banks do not provide the services relating to clearing and processing of payment instruments; instead the function is delegated to private entities, although the governing body for such entities is the association or representatives of bankers. The same

approach has been followed in some of the Scandinavian countries such as Sweden for more than a century. In Asia, countries such as Singapore, Malaysia and Hong Kong are characterised by such systems not being operated by the central banks or the monetary authorities of these countries. The most significant factor is that this approach holds good for retail and generally small value transactions. Large value payment systems which are systemically important, such as the Real Time Gross Settlement Systems (RTGS) are typically operated and managed by the central bank on account of many factors including the central bank being the largest source of liquidity and the impact on monetary policy operations by these large value payment systems. However, generally the function of settlement for all clearing activities is invariably performed by the central banks to ensure that settlement finality is achieved and that settlement risk is mitigated to a very large extent.

3.92 Over time, central banks have migrated from organising clearing functions to management of macroeconomic requirements through the funds transfer processes; some of them have shed the clearing functions while retaining the settlement function. In these cases, the clearing functions are performed by entities other than the central banks with the central banks performing the role of regulating the clearing houses or processing centres in addition to performing the settlement function.

Developmental Functions

3.93 The tasks before the central banks in developing countries are enormous; first, they are constrained by the prevailing market conditions. Second, as leaders of the financial sector they need to adapt their policies to suit the changing structure of the economy and proactively modify the financial structure itself to promote development (Sayers, 1961; Chandavarkar, 1996). These developmental functions are undertaken by the central bank, 'while not ignoring their traditional tasks' (Brimmer, 1971). This makes the functions and goals before a developing country central banker much broader and challenging.

Sectoral Policies

3.94 When developing countries embarked on the growth path, they faced numerous constraints. Their markets were underdeveloped and their tools blunt; their governments resource-constrained but in a hurry to catch up in terms of growth. Central banks in these countries were also constrained in their operations as the transmission channels for conduct of monetary

policy were often non-existent or weak. This required them to operate separately in different segments of the financial markets. Central banks of developing countries have had to help their resource-constrained governments to raise the resources by way of public debt or through seignorage revenue and inflation tax. The public debt is often offloaded to a captive market of commercial banks through prescription of institutional holding of securities. In systems where markets are imperfect, differential interest rates are often set by the central banks for various purposes and according to the needs of borrowers and policies of governments. Aligning the central banks' policies to the governments' developmental goals is crucial in a developing country. For this purpose, central banks often take over developmental and promotional activities, which are of quasi-fiscal nature. Selective credit policies, for instance, micro allocation of credit, credit subsidies to preferred sectors are undertaken in order to support the governments' growth initiatives. However, all subsidy based quasi-fiscal regulations distort the markets and sow seeds of financial repression. Such discretionary support by the central bank is often implemented through the use of instruments such as refinance, but these enlarge the monetary base, credit multiplier and complicate monetary management. This dirigiste approach to economic management leads to crowding out of private enterprise as increasing share of credit flows are mopped up by the government and public enterprises (Meek, 1991). Moreover, these quasi-fiscal policies can affect commercial bank balance sheets by increasing the non-performing loans.

Development of Financial Market

3.95 Financial markets generally comprise the money market, bond market, foreign exchange market and capital market. In its main role of conducting monetary policy, the central bank uses an array of policy instruments that make an impact on the market. Monetary policy depends on markets for its transmission and therefore, their development is an enabling factor for a good monetary policy. In turn, monetary policy instruments (mainly interest rates) have a major impact on financial markets and institutions.

3.96 Given dependence of monetary policy on the financial structure of the economy, central banks in developing countries are concerned about macroeconomic management of the cost and supply of money and credit. In order to address the problems of the financial system, central banks in developing

countries have had to make specific efforts to replace informal credit by spreading the umbrella of organised credit. Expansion of commercial banks network is very useful in the mobilisation of savings and ensuring that adequate formal credit replaces any extant usurious relationships. The deposit insurance and credit guarantee schemes have had to be introduced to address the issue of market failure that is often encountered in a developing economy. Such schemes however, entail moral hazard problems as banks may take undue risks or lend without properly scrutinising proposals. Central banks in developing countries are required to strive hard for the efficient functioning of the financial sector. They are often involved in the designing of the financial infrastructure and making appropriate regulation for ensuring market discipline. They need to put in place 'the rules of the game' or an appropriate regulatory and supervisory framework, and upgrade it periodically with improvement in the financial sector.

3.97 In recent years, monetary authorities are increasingly using market based tools to implement monetary policy. This has promoted the development of financial markets. An important motive for reforming and developing the financial markets is to align them with international best standards. Well developed domestic financial markets are necessary to withstand disturbances and shocks to the domestic financial system during crises as was highlighted by the East Asian crisis.

3.98 Central banks are interested in fostering growth of financial markets in order to enhance efficiency of intermediation by reducing information, transaction and monitoring costs. Through the process of market-based incentives, efficient and well-developed financial markets contribute to lower macroeconomic volatility, more stable investment financing, higher economic growth and greater financial stability (Karacadag *et al*, 2003). Financial development increases availability of funds for new investments, which augments savings and reduces the need for discretionary credit assignments (Cho, 1986; McKinnon, 1993; Fry, 1995). The development of local financial markets also reduces the risks associated with excessive reliance on foreign capital, including currency and maturity mismatches (Prasad *et al*, 2003). In emerging market economies (EMEs), strong markets provide an alternative source of financing by attracting foreign investment in domestic currency denominated instruments and serve as an alternative source of external funding (BIS, 2001). This can help to relieve the domestic resource constraint.

3.99 Domestic financial market development helps to foster financial stability. The development of local markets can facilitate the issuance of longer maturity debt in local currency, a structure that mitigates external shocks. A deeper financial market also provides an incentive for development of hedging instruments, capable of reducing the effect of risk.

3.100 Institutional structures inherited from an era of control are often not suitable for a market driven environment. Furthermore, the structure may not be susceptible to quick reform (Turner and t'dack, 1996). Four common elements of institutional features hindering market development that have been identified are: high dependence on regulation, thin and oligopolistic financial markets, unhealthy banking system and excessive taxation. The relatively small size of financial markets observed in several countries also acts as a constraint for the monetary authorities as they are forced to choose between depth (volume of transactions) and width (variety of financial markets). Monetary authorities proactively play a market-making role, which may not be in harmony with the monetary policy objectives. Oligopolistic tendencies have hindered the development of inter-bank markets. Countries such as Jordan, Iceland, Finland, Jamaica and Malta had faced such problems while attempting to establish a money market (Turner and t'dack, 1996). A banking system characterised by high levels of bad loans, currency/interest rate mismatches between assets and liabilities and loss-making structures may also render the task of monetary policy making difficult as banks are major players in the financial markets and interest rate changes affect their balance sheets immensely.

3.101 Central banks in developing markets with commercial bank-centric financial systems need to reform the banking system in order to create a competitive banking structure alongwith simultaneous strengthening of the prudential and regulatory framework. The East Asian financial crisis, triggered essentially by the absence of sound banking structures and deep securities markets, has led to a growing realisation of the importance of financial market development, in particular, the securities market. There is now a better understanding of the policies and institutional frameworks best suited to create financial market stability in emerging market economies and changes in the international institutional environment have facilitated the adoption of such policies (Meyer, 2001).

3.102 As central banks are the apex financial institutions, they often foster financial market

development, steer the financial sector reform and ensure its adherence to international standards. The goals before the central banks in developing countries are broader and they often resort to interventionist or selective policies for fulfilling their responsibilities at least in the initial phases. Financial sector reforms in many developing countries typically, have been initiated by the central banks unlike the developed countries where they were generally a mainstream process. In most developing countries, reforms are a gradual process rather than being a one-time event; they spread over a decade involving several steps, the foremost of which is elimination of financial repression in the economy emanating from the regulation and regimentation of the financial system. The liberalisation and move towards the market oriented system is feasible with sustained efforts towards market making and efforts to foster a viable competitive financial system. Reform in financial sector in developing countries needs to be monitored after consolidating each step.

3.103 Central banks in developing countries have often taken lead in creating institutions specifically designed to provide development finance. The foremost task before these banks is to develop the banking system first and control it after that (Sayers, 1961). This developmental role also required the central bank to work towards promotion of institutions and instruments. There are some specific examples of institutions being built by developed country central banks. Illustratively, the Bank of England took the initiative in establishing specialised institution like Reconstruction Finance Corporation for supply of long-term capital for rehabilitation of depressed industries. The Reserve Bank of India also took many such initiatives in setting up development finance institutions such as the erstwhile Industrial Development Bank of India (IDBI) and National Bank for Agriculture and Rural Development (NABARD) (refer chapters IV and VI). Taking up of additional functions requires enabling legal provisions for the central banks. Not surprisingly, the statutes of newer central banks and monetary authorities established in the 1970s and the 1980s, with technical assistance from the IMF, such as Bhutan, Botswana, Fiji, Maldives and Swaziland have had several enabling provisions for promotional roles.

Policy Oriented Research

3.104 Every major central bank in the world has a strong research department. In fact, in the words of Cukierman (1992), "... a Governor who is backed by

an absolutely and relatively strong research department carries more weight *vis-à-vis* the treasury and other branches of government. The reason is probably that the Governor is perceived as a relatively impartial provider of reliable information about the economy. A possible indicator of the quality of the bank's research department is the quality of the annual report it produces."

3.105 In-house research activities are the backbone of central bank operations, as the time, direction and intensity of monetary and external sector operations are based on modelling exercises, past trends and future expectations, analysis and deductions carried out by the research department. As mentioned by Goodfriend *et al* (2004), "Models for policy evaluation are best produced internally by staff economists familiar with the policy process, the relevant institutional knowledge and the incentive to do the job reliably and thoroughly".

Dissemination of Information

3.106 Developing countries typically have a poor database. Accordingly, central banks have often taken over function of compilation of a comprehensive database comprising monetary, financial and balance of payments data to facilitate macroeconomic research. In addition to the surveillance of the banking and financial system including credit card companies, semi-formal and informal finance and guarding the interest of users of banking and financial services, central banks in developing countries attempt to help the domestic commercial banks to adopt better practices in data dissemination and sharing of information.

3.107 Going beyond these specific issues, central banks as institutions have a broader responsibility for their countries' financial systems and towards their economic agents and to the common man. When there are some economic agents more informed than the others, then there is an absence of level playing field between them. In order to avoid a situation of information asymmetry resulting from different levels of expertise at having access to and interpreting information, the central bank provides information through its publications and website. By making the information available, it provides a public good. In many countries there have been special efforts at protecting customers from deception by dissemination of detailed information of banking and non-banking institutions as well as an analysis of state of the economy. In this respect, the central bank's role in financial inclusion is pertinent. Leeladhar (2005) has

defined financial inclusion as "delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups. Unrestrained access to public goods and services is the *sine qua non* of an open and efficient society".

Coordination and Cooperation

3.108 In developing countries, the central bank is typically the external financial relations agent for the country. It is involved, alongwith the government, in interacting or negotiating on behalf of the country with agencies such as the International Monetary Fund (IMF), Bank for International Settlements (BIS), World Bank and Asian Development Bank (ADB). Moreover, central banks try to foster good corporate governance in commercial banks and ensure that the banking system in the country adheres to the international norms laid out by international institutions such as the BIS. The Basel Committee has also established the core principles in this area. The central bankers work closely with the government officials and are in a position to bring about proactive reform or advise their governments (Chandavarkar, 1996).

3.109 Globalisation and the consequent integration of financial markets in recent years have not only opened up more avenues of spreading contagion, they have also made it increasingly difficult to handle systemic risks from a narrow unilateral decision-making perspective. This calls for an effective regulatory system with increasing international cooperation among regulators. The first formal attempt to establish international coordination among central banks could be traced back to the BIS established on May 17, 1930. The BIS is an international organisation, which fosters international monetary and financial cooperation and serves as a banker to the central banks. The basic objectives of the BIS are to serve as a forum to promote discussion and policy analysis among central banks and within the international financial community, to act as a centre for economic and monetary research, be a prime counterparty for central banks in their financial transactions and also act as agent or trustee in connection with international financial operations. Promoting monetary and financial stability is one of the key objectives of the BIS. Towards this end, standing committees such as Basel Committee on Banking Supervision, Committee on Global Financial System, Committee on Payment and Settlement Systems and Market Committee, located at the BIS, support central banks by providing background analysis and policy recommendations.

3.110 Other notable attempts of central bank cooperation include the Bretton Woods Arrangement (1944). The IMF was created in 1945 primarily to maintain a stable international financial system and promote international monetary cooperation. Apart from these efforts at international levels, some attempts to establish regional cooperation among central banks have also been made. A major example of this is the establishment of European Central Bank (ECB) in 1998. The ECB is the central bank of the eurozone, in charge of monetary policy for the twelve countries that use the euro currency.

3.111 In South Asia, SAARCFINANCE was established in 1998 to serve as a forum for exchange of views and experiences, including training programmes. There are regular and frequent close interactions among central bank Governors in Asia, which should strengthen the process of cooperation (Reddy, 2005).

III. CONTEMPORARY ISSUES IN CENTRAL BANKING

Independence of a Central Bank

3.112 In the process of evolution, while the spectrum of activities of central banks has widened, the stance regarding the independence of central banks has also taken interesting turns. Before the First World War, the central banks in most cases were private institutions and were formally independent of their governments. The position changed around the Second World War - central banks in a number of countries (for instance, Germany, France, England, Japan, Italy and Sweden) were made subordinate to their governments. In recent years again, there has been a reversal of the trend. Governments have started granting more autonomy to their central banks, especially in the light of the empirical evidence that a country is more likely to have low inflation if the central bank is independent (Holtfrerich and Reis, 1999).

3.113 The last decade of the twentieth century saw a surge in the independence of central banks with central banks becoming fully responsible for formulating monetary policy. These changes came about gradually, with central banks increasing their role after each crisis and underscoring the need to retain their independence. The year 1998 was remarkable in this respect. The Bank of England, which had substantial independence for much of the eighteenth and the nineteenth century, was legally made an independent body in June 1998. The Bank of Japan gained operational independence in April

1998, though it was not granted legal independence. The ECB, which became operational in June 1998, is arguably the most independent central bank by its very characteristic of being a supranational bank.

3.114 The rationale behind central bank independence is extensively discussed in literature. First, an independent central bank operates on a longer time scale and thus may be more inclined to adopt a more prudent long-term perspective. Second, the priorities of the fiscal policies may conflict with the monetary policy objectives. For example, while the government would like to keep the cost of debt service low, the monetary authorities may like to vary the interest rates in order to maintain price stability. An independent central bank may be in a better position to address and resolve this conflict. Third, in countries where debt markets are not well developed, central banks that do not enjoy adequate independence may be forced to finance the budget deficit by printing money, thereby interfering with the objective of price stability (Meyer, 2000).

3.115 The arguments for central bank independence are said to be from the world of second best, where political systems tend to behave myopically, favouring inflationary policies with short-run benefits and discounting excessively their long-run costs. An independent central bank, given responsibility for price stability, can overcome this inflationary bias (Fischer, 1996). The view that central banks should be largely independent of political power is generally believed to have emerged only in the twentieth century. In the light of the severe deficit financing that had afflicted many countries during the First World War, the international financial community, in a series of Conferences organised by League of Nations, recognised central bank independence as contributing to price stability. The recent revival of interest in the independence of central banks reflects several factors, *viz.*, the reforms in centrally planned economies, the establishment of new European central banking arrangements and the importance of price stability in a world characterised by substantial cross border financial flows.

3.116 The degree of independence enjoyed by the central bank is contingent on three major factors: independence in personnel matters, independence in financial aspects and independence in the conduct of policy. Personnel independence refers to absence of government interference in matters such as appointments of senior officials, term of their office, and the dismissal procedures of top central bank officials and the governing board. Pre-specified and

transparent appointment and dismissal procedures add to central bank independence. Some countries have mechanisms that ensure that a wide range of political interests are taken care of in the appointment process. In more than two-thirds of central banks surveyed recently by the BIS, it was found that at least two or more political bodies were involved in proposing and appointing the candidates, making these appointments less discretionary and the central banks more independent. Illustratively, after the Chairman of the Federal Reserve System is proposed by the President of the United States, it requires the consent of the US Congress.

3.117 'Financial independence relates to the freedom of the central bank to decide the extent to which government expenditure is either directly or indirectly financed *via* central bank credits' (Reddy, 2001). Automatic monetisation of deficit subordinates monetary policy to the fiscal policy. In this context, it is observed that if the central bank has a budget of its own, it is more independent. In that case, the central bank has sufficient financial resources to carry out its work without having to wait for sanctions from the government.

3.118 Policy independence is related to the flexibility given to the central bank in formulation and execution of monetary policy. The operational independence is further examined as 'goal independence' or 'instrument independence'. Goal independence refers to a situation where the central bank itself can set its own objective from a set of conflicting objectives such as full employment and low inflation, at any point of time. Instrument independence refers to a situation where the central bank is free to choose instruments in order to achieve the pre-specified goals. Most central banks have legislative mandates and, therefore, do not have goal independence as the goals are set by the legislation. Countries also vary considerably in the specificity of the mandated goals and hence, in the degree of discretion enjoyed by central banks in the conduct of monetary policy.

3.119 The ownership of an institution generally matters as it determines its operations. The ownership of the central bank is observed not to affect its manner of operation or the decision-making provided it has operational independence. Across the board, central banks have been moving over time towards greater operational independence. Independence was ingrained in the very design of certain central banks, as in case of the *Bundesbank*. The *Bundesbank* had special provisions that ensured its independence but was also required to support the economic policies

of the government. Such central banks could be expected to perform their role better as they are insulated from political pressure.

3.120 A number of studies have been carried out to evaluate the economic implications of central bank independence. These studies typically estimate the economic effects by first deriving quantitative measures of the relative independence of central banks and then estimating how these measures are correlated with the average inflation, inflation variability and real economic performance. However, the design of the index, including the elements considered, their weights and normalisation procedures affect the results (Mangano, 1998). Notwithstanding this, several studies have shown that during the period following the breakdown of the Bretton Woods System of fixed par values in the early 1970s, the industrialised countries that accorded greater legal autonomy to their central banks also experienced lower average inflation (Grilli *et al*, 1991). Evidence from these countries further strengthened the case for central bank autonomy because the higher degree of autonomy did not appear to harm average real growth (Alesina and Summers, 1993). During the 1990s, however, against the backdrop of lower inflation and increasing political commitment to restrain inflation to lower levels, it became increasingly difficult to identify a correlation between greater central bank independence and lower inflation (Lybek, 2004).

3.121 Hayo and Hefeker (2002) have argued that central bank independence is neither necessary nor sufficient for monetary stability. First, independence is just one potentially useful monetary policy design among several. Second, independence should not be treated as an exogenous variable, but attention should be devoted instead to the question of why central banks are made independent. Central bank independence is chosen by countries under specific circumstances, which are related to their legal, political and economic systems. This study has also found independence being correlated with low inflation rates. However, the authors argue that if the independence of the central bank is taken into account endogenously, the correlation between independence and low inflation does not reveal anything about the direction of causality.

3.122 There is an influential view that inflation is determined by history and the preferences of a country, with causality running from inflation to institutional structure. According to this view, attempts to impose an independent central bank and with it a

stringent anti-inflationary policy in a country tolerant of inflation are doomed to failure. This has, however, not been borne out by experience of countries such as New Zealand. Before 1988, the Reserve Bank of New Zealand was one of the least independent central banks in the OECD. After it got a clear mandate in 1988 to fight inflation along with a high degree of independence, the inflation rate in New Zealand declined from double-digit levels to under two per cent. This suggests that the structure of monetary institutions along with the determination to combat inflation is necessary to contain inflation (Mboweni, 2000).

3.123 An independent central bank may adopt policies that are conflicting with other policies followed by the government. Such inconsistencies in policy objectives may lead to economy-wide problems. This suggests the desirability of a coordinated policy approach. On the other hand, it can be argued that such conflicts may be inevitable over the short-term, as long as central banks have the primary responsibility to control inflation. However, over the long-term, stable financial conditions ultimately lead to higher economic growth rates, more employment and increased welfare.

3.124 One of the major arguments against central bank independence is that it lacks democratic legitimacy, since decisions about interest rate, exchange rates, efficiency of the financial system and other monetary matters are left to the body of unelected officials. It may be noted, however, that even the most independent central bank is answerable to the legislature. Moreover, independence does not mean absence of communication and the central bank, for the success of its own policies, may prefer a regular process of communication and coordination with the government to absolute independence.

3.125 Independence of the central bank in itself is a tool to achieve broader macroeconomic goals. Pre-conditions for effective independence of a central bank include transparency about its aims; some form of accountability to the legislative body; and credibility with a view to avoiding the time inconsistency problem.

Accountability of a Central Bank

3.126 Accountability implies bearing responsibility for monetary policy actions. Central bank accountability, coupled with autonomy and transparency facilitates price and financial sector stability, which is conducive to sustainable economic

growth. There are a few measures of accountability of monetary policy. Briault, Haldane and King (1996) have constructed a central bank accountability index for fourteen industrialised countries based on parliamentary monitoring, the release of minutes of Monetary Policy Committee (MPC) meetings, the publication of monetary policy reports and the existence of an override mechanism. The central bank accountability index reported by Fry *et al* (2000) focuses on accountability with respect to a specific target and public accountability. All these accountability measures combine aspects of both transparency and responsibility.

3.127 One view is that accountability implies some compromise on central bank independence. Central bank accountability is a mechanism through which a system of checks and balances is created for the central bank in a democratic setup. Nolan and Schaling (1996) argue that there is a significant negative relationship between central bank accountability and central bank independence. De Haan (1997), however, has countered this argument specifying that this conclusion is subjective to the measure of accountability used and is not universally applicable. It has also been argued that the trade-off between independence and accountability does not exist for long (Eijffinger and de Haan, 1996). A central bank continuously conducting a policy which lacks broad political support will, sooner or later, be overridden. The US Fed is one of the most independent central banks but its independence is tempered by its accountability – the Chairman of the US Fed has to give a testimony before the Congress periodically.

3.128 It is sometimes argued that accountability of central banks is facilitated by setting up a single objective (typically price stability), which is explicitly stated numerically. It is noteworthy, however, that fixing a strict inflation target to the exclusion of all other important targets like output growth may not be desirable. Another consideration is that the economy is subject to a variety of shocks and flexibility can be a valuable asset in tackling the dynamic situations as they arise. Another source of accountability is the reappointment process for the central banker. If the terms are short, greater control can be exercised by the government through the appointment process.

3.129 Buiter (1998) argues that the Bank of England Act combines operational independence and accountability most effectively. If the inflation target is missed by more than one percentage point, in either direction, the Governor, on behalf of the MPC will be

required to write an open letter to the Chancellor. The letter would have to explain the causes behind the overshooting or undershooting, the relevant policy measures proposed and the time it would take for the policies to impact on inflation and bring it back to the targetted level. Apart from being collectively responsible, the members of MPC are also individually responsible and accountable to the Court of Directors of the Bank of England. The MPC regularly publishes a quarterly inflation report and inflation forecasts, which are the indicators of the MPC's thinking about the monetary policy transmission mechanism and its views on the evolving economic environment.

3.130 The mechanisms to ensure accountability of the central bank require a review of a central bank's decisions, budget and its expenditures. Transparency in the operating procedures and the monetary policy making process of the central bank ensures its accountability. The greater the independence of the central bank, the greater is the need for it to have its decisions and policies available for scrutiny by the appropriate authority. As mentioned before, there is a requirement that the Governor testifies before the congress or the parliament in a number of countries. In many cases, a publicly appointed supervisory board, not the government, approves the central bank's operational budget but in others, the government does not intervene in budgetary matters. The supervisory boards review the accounts and evaluate the performance of the central bank and its management.

3.131 The present day central bank remains both autonomous and accountable while achieving its core objectives of price stability and growth. Currently, central banks have become more open and they disclose the rationale behind their policies and decision making. The BIS and the IMF norms relating to data dissemination also contribute in increasing the accountability of the central banks. The publication of the central bank annual reports, inflation reports and publication of the proceedings or minutes of monetary policy committee meetings, are important methods to ensure accountability.

3.132 Knight (2005) refers to three types of best practices that enhance transparency: publication of official reports that analyse economic conditions; publication of forecasts of key variables (e.g. inflation, output) and their central forecast as well as risks; and explaining the reasons for central bank decisions and various contingencies under consideration. Such measures are necessary to anchor market players' expectations and help in transmitting the monetary

policy signals and aligning the markets to the monetary policy decisions.

Transparency in Central Bank Operations

3.133 Central bank transparency could be defined as the absence of asymmetric information between monetary policy makers and other economic agents with a view to reducing the uncertainty. The need for transparency has emanated from several developments in the recent period. The episodes of financial crises resulting from information asymmetries, growing integration of financial markets, the need for enhanced autonomy as well as accountability of central banks, and the emphasis on financial stability have called for increased transparency on the part of central banks and market participants. The growing global macroeconomic imbalances create further uncertainty for market agents and policy makers. In this context, central banks themselves cannot afford to be additional source of uncertainty. This requires greater transparency and better communication. Monetary policy needs to be based on a diversified approach to the analysis of information, which is robust to different views about the functioning of the economy and the international linkages.

3.134 In this context, it is apparent that transparency is the offshoot of accountability in many ways. Detailed discussion of the decisions and monetary policy operations is essential, as central banks act as agents in a 'principal-agent relationship' *vis-à-vis* society at large and in several cases they are granted independent status in order to better fulfil their mandate. Transparency is a secondary, although an important, objective of the central bank. This is because the accountability of the central bank is centred on the bank fulfilling its primary objective relating to monetary policy and rendering transparency subordinate to their ultimate tasks and objectives (Issing, 2005).

3.135 The stability of financial system could be achieved only when institutions and market players take informed decisions. Adequate disclosure acts as a deterrent to discretionary monetary policy, time inconsistency and excessive risk taking. It also enables the market participants to be aware of the costs and commitments in financial contracts. The importance of transparency emerges from several considerations. First, monetary and financial policies could be made more effective if the public knows and understands the goals and instruments of policy and if central banks and financial agencies make a credible

commitment towards achieving them. Second, good governance calls for central banks and financial agencies to be accountable and transparent, particularly where these agencies are granted a high degree of autonomy. For the present, there is almost a consensus among policymakers that improved communication and transparency is desirable not only as an obligation to the public but also because it is beneficial for the working of the policies it has chosen to follow.

3.136 Central bank transparency is crucial for achieving the objectives of monetary policy. Information about the objectives of central bank and the details of conduct of monetary policy like changes in interest rates are important as they help to anchor the public expectations. These expectations play a crucial role in achieving the goals of monetary policy in the context of the rational expectations (Kydland and Prescott, 1977). A credible commitment to price stability and a credible monetary policy anchors expectations (Pianalto, 2005). Recent literature also suggests that transparency reduces uncertainty for players in the financial markets (Blinder *et al*, 2001).

3.137 Several initiatives have been taken to strengthen the international financial architecture with a view to increasing transparency in operations by putting in place best practices and norms in this regard. These initiatives were first given prominence at the 1995 Halifax Summit of the G-7 countries. These efforts received greater thrust in the aftermath of East Asian crisis. In April 1998, finance ministers and central bank governors met in Washington and working groups were set up in three areas: enhancing transparency and accountability, strengthening domestic financial systems and managing international financial crises.

3.138 In order to put in place desirable transparency practices for central banks on stronger grounds, the International Monetary Fund in March 2000, has formulated a Code of Good Practices on Transparency in Monetary and Financial Policies known as the ELRIC framework. The acronym ELRIC, in the context of central bank governance stands for five areas *viz.*, external audit mechanism, legal structure and independence, financial reporting, internal audit mechanism and a system of internal control. The ELRIC framework employs International Financial Reporting Standards, International Standards on Auditing, guidelines promulgated by the Institute of Internal Auditors and the IMF's data dissemination standards as benchmarks. Safeguard exercise as per this framework is a diagnostic exercise, carried out

by the IMF, to assess these five key areas of control and governance of a central bank. The safeguard assessment under the ELRIC framework attempts to generate a report so as to identify vulnerabilities in case of a central bank's operations and offers recommendations to mitigate them. The recommendations include a timeframe for implementation.

3.139 The need for transparency and communication increases in line with the level of discretion used in the formulation of monetary policy. The question presently discussed in literature is not whether central banks should be transparent but what should be the degree of this transparency? Transparency entails data and information dissemination. Publication of objective data is generally perceived as a highly desirable objective, thereby enabling the members of the general public to analyse and form independent opinions. Though questions are sometimes raised about the ability of a layman to deduct and form opinion given the information, a more serious problem is associated with the flood of data, which may mar the vision of the public, thereby veiling the crucial data that is important for policy formulation (Issing, 2005).

Credibility of a Central Bank

3.140 Credibility of a central bank implies that it has a reputation for pursuing price stability and financial stability consistently and persistently. The credibility of the central bank is important in the context of the time inconsistency problem described by Calvo (1978) and Kydland and Prescott (1977). Various institutional arrangements could be devised to provide adequate incentives to the monetary authorities to adhere to promises or alternately punish central bankers for not being able to keep the promises. The second is to design policy instruments available to the central bankers such that they are constrained in engineering monetary surprises. For the working of both these arrangements, it is necessary to grant independence to the central bank. Incentive to maintain credibility may be powerful enough to make socially optimal outcomes attainable, even in the absence of any institutional constraints (Chang, 1998). If a central bank is viewed as both committed to and effective at maintaining low inflation, then inflation expectations are lower, eventually leading to movements in prices and wages that are consistent with low and stable inflation. Conversely, the lack of credibility leads to inflation expectations becoming self-fulfilling (Ferguson, 2005).

3.141 It is noteworthy, however, that since credibility of a central bank is difficult to quantify, establishing empirical evidence with regard to the relationship between central bank independence, credibility and lower inflation is difficult. However, a strong commitment to price stability can lead to more stable prices (Gagnon and Ihrig, 2004). Credibility of a central bank helps in anchoring inflation expectations, which is crucial for current level of inflation as illustrated by Laxton and N'Diaye (2002).

IV. CONCLUSIONS

3.142 Theory and practice of central banking has changed markedly over time. This chapter has traced this evolution and discussed major contributory factors. As central banking arrangements have gradually adjusted to the requirements of their economy, the theory and practice of central banking have had a symbiotic relationship. Reflecting the economic realities, the institutional arrangements differed across the globe. The central banks in developed countries came into existence to support and supervise the banking system that was already in place, whereas the central banks in developing countries had to first develop the banking system and financial markets and thereafter put in place the regulatory framework for the efficient oversight and supervision.

3.143 Central banking and monetary policy were globally in focus until the Great Depression and Keynes' General Theory; thereafter for two decades the ascendancy of fiscal policy relegated the monetary policy issues to the background. The 1960s saw an emergence of the interest in inflation and growth trade-off - the Phillips Curve depicted an inverse relationship between inflation and unemployment. Concerns regarding inflationary pressures brought monetary policy back to the centre-stage of economic policy. In the 1970s more and more countries chose monetary targeting to address the goal of price stability. Some small open economies chose to peg their currencies to stronger currencies to borrow their low-inflation credibility.

3.144 The domain of central banking activities has expanded after each period of crisis. The functions of the central bank have enlarged in their scope of operation and improved in content over the years. Monetary policy and central banking have key roles to play in the stabilisation of short-run economic fluctuations and in preventing significant departures from the desired trajectories for growth and inflation. The manner and details of central banks' operations

have varied over the years; the central banks have moved from direct to indirect instruments of monetary control. This transition had to be gradual and cautious to avoid retreats and consolidate the gains.

3.145 Many functions of the central bank have forged ahead in related areas. For example, the function of instituting the medium of exchange has branched off into functions such as currency management, maintenance of a stable internal and external value of currency. The role of lender-of-the-last-resort has evolved and enlarged into that of the regulator and supervisor of the banking system and also a custodian of the financial stability. The supervision of the financial system becomes crucial as the various markets are getting increasingly integrated across the globe and financial crises can be transmitted with great speed. Contagion has underscored the need for effective supervision and adherence to international standards and codes. This also highlights the need for greater transparency of monetary policy so as to enable the anchoring of expectations of the market players and attaining greater credibility. The central bank credibility is in itself a stabilising force that shapes the market expectations.

3.146 Many central banks have evolved from the need to have an institution that would manage the finances of their governments. The need to manage government debt was a function that required the central banks to undertake a variety of fiscal transactions and consequently led to evolution of an institutional structure to take care of all the associated functions. While some provision of liquidity to the respective governments is required to smoothen the temporary mismatches in revenues and expenditures, financing the persistent deficits is being increasingly avoided. Some countries have passed legislations prohibiting credit to their governments and enhancing their monetary policy independence. Thus, the governments are increasingly financed by the private sector.

3.147 Central banks in several developing countries have taken initiatives for financial sector reforms. This role is undertaken as it is increasingly evident that competitive financial markets are necessary for efficient allocation of resources and failures in the financial markets have serious costs in terms of output. In developing countries, central banks have contributed towards the development of the banking and financial sectors and made efforts to bring them at par with their counterparts in the developed world. For this, they have fostered the growth of their markets and institutions. The transitional economies and

developing countries have leapfrogged in terms of their systems and technologies, thus reducing their gap *vis-à-vis* their developed country counterparts. They have integrated their financial sectors and now their central banks do not have to separately operate in multiple segments of the financial markets. Most central banks currently use short-term interest rate as a principal tool. The development of financial markets has enabled central banks to achieve efficiency in the pursuit of monetary policy. A single rate change or an announcement is often adequate to align the markets. Since economic activity hinges critically on monetary policy action, it has to be initiated with great caution. As the financial system evolves and becomes increasingly complex, the markets are expected to respond quickly to actual and perceived actions by the central bank. Central banking is also becoming increasingly more challenging in view of the integration of global markets.

3.148 The fundamental function assigned to most central banks is that of keeping inflation low. The performance of this function requires the central banks to select the appropriate targets, instruments or frameworks within which to operate. The issues relating to this selection are addressed in a variety of ways across countries and differently even by the

same country over time. Empirical evidence suggests that central banks with adequate autonomy and accountability have performed well across frameworks of monetary policy. There are two operational aspects, which have been observed in successful central banks. These are the focus on long-term horizon and transparency of policy actions.

3.149 Central banks at present occupy the centre-stage in the financial sector. They have covered a significant ground, considering that even in the beginning of the twentieth century, there was a considerable support for free banking. The inflation and growth aspects of the central bank's monetary policy have remained in sharp focus. There is also considerable expansion in the focus and quality of functions that the central banks perform. While some of these have been effectively hived off, there are some other functions that have been taken over proactively such as promotion of financial stability and ensuring the development of the financial system. Central banks as multi-tasking agencies will continue to play a significant role in macroeconomic policy making. They may, probably move over from one prototype to the other depending upon the needs of their respective financial structure, but seem unlikely, for now, to surrender the centre-stage.

IV

CENTRAL BANKING IN INDIA

4.1 Recent growth literature focuses on the primacy of institutions as a determinant of economic development in that they influence the decisions regarding work, saving, investment, innovation, production and exchange. The new focus on institutions has led to an ambitious agenda of governance reforms aimed at reducing corruption, improving regulatory apparatus, making monetary and fiscal institutions independent, strengthening corporate governance, *etc.* – christened as the second generation of reforms. It is argued that the policy changes are ineffective, unless they are grounded strongly in institutional reforms. The empirical analysis, however, suffers from the difficulty that institutional quality is endogenous to income levels and that “there is much to be learned still about what improving institutional quality means on the ground” (Rodrik *et al.*, 2004). It is in this context that the study of the evolution of institutions in country-specific situations is crucial.

4.2 Central banks occupy a pivotal position in the institutional fabric of an economy. As discussed in chapter III, the functions of a modern central bank are vastly different from what was expected from the early central banks founded in Europe in the seventeenth century. The evolution of central banking in the Indian context has its own specificity. The Reserve Bank of India (RBI), while discharging its statutory responsibilities, has played a crucial role in the nation building process, particularly in the development of the financial sector. In fact, institution building constitutes a distinguishing feature of central banking in India.

4.3 This chapter describes the evolution of central banking in India over the period of seventy years since the inception of the Reserve Bank in 1935. For analytical convenience, the entire period 1935-2005 is sub-divided into three broad phases: foundation phase (1935-1950), development phase (1951-1990) and reform phase (1991 onwards). The turning points – onset of economic planning in 1951 and initiation of structural reforms in the Indian economy in 1991 – had profound implications for the working of the Reserve Bank. The Reserve Bank operated in distinctly different regimes in each of these eras. During most of the formation phase it was a private

bank, though formed under a statute and overseen by the then colonial government. The functions of the Bank during this phase were confined essentially to traditional central banking, *i.e.*, note issue authority and banker to the Government. During the war and post war years, its major preoccupation was facilitation of war finance, repatriation of sterling debt and planning and administration of exchange control. Upon the nationalisation of the Bank in 1949 in terms of the Reserve Bank of India (Transfer to Public Ownership) Act, 1948 and the enactment of the Banking Regulation Act, 1949, regulation and supervision of banks received the focus. On the initiative of the Reserve Bank, the Government appointed the Rural Banking Enquiry Committee in 1949 to consider important policy issues relating to the extension of banking facilities in the country. With the launching of five-year plans, the Bank's functions became more diversified in terms of Plan financing and establishment of specialised institutions to promote savings and investment in the Indian economy and meet the credit requirements of the priority sectors. Two important events during the 1960s – the devaluation of the rupee in June 1966 and nationalisation of 14 private commercial banks in July 1969 – greatly influenced the functions of the Reserve Bank in the subsequent years. Externally, the uncertainties in the global economy following the breakdown of the Bretton Woods system of stable exchange rates and the emergence of the floating regimes exacerbated by the oil shock of 1973-74 presented serious challenges for exchange rate management and gave rise to balance of payments difficulties in India as in many other developing countries. The Government re-focused on the Foreign Exchange Regulation Act (FERA), 1947 for conserving foreign exchange rather than regulating the entry of foreign capital. The FERA, 1973 was drafted incorporating the changes necessary for effective implementation of the Government policy and removing the difficulties in the working of the existing legislation. The major responsibilities devolving on the Reserve Bank during the 1970s related to regulation and management of the country's scarce foreign exchange reserves and expansion in the volume and scope of its refinance facilities for agriculture and rural development. During the 1980s,

monetary policy assumed a new focus. On the whole, the development phase was characterised by a plethora of controls and regulations in the Indian economy. In the period since 1991, which witnessed a regime shift in the Indian economy, there has been a distinct re-orientation in the functions of the Reserve Bank in the light of the domestic and global developments. The reform measures in the financial sector and the initiatives taken by the Reserve Bank for developing financial markets to ensure efficient transmission of monetary policy impulses, constituted the hallmark of this phase.

4.4 The rest of the chapter is organised as follows. Sections I, II and III provide a synoptic overview on the transformation of central banking functions in India over the three phases. Section IV addresses the contemporary issues relevant to central banking in India, particularly concerning the monetary framework, while Section V sets out the concluding observations.

I. FOUNDATION PHASE (1935-1950)

4.5 The Reserve Bank was formed as a shareholders' institution in April 1935. The genesis of a central banking institution in India, however, can be traced to the eighteenth century (Box IV.1). The

formation of the Reserve Bank was similar to the establishment of early central banks in Europe. The crucial difference, however, was that Reserve Bank operated under the colonial rule, whereas the central banks in the European countries were then mostly owned by national governments.

4.6 The objective of establishing the Reserve Bank, as stated in the preamble to the RBI Act 1934, was to "regulate the issue of bank notes and the keeping of the 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". The Bank's functions as laid down in the statutes were: (a) issue of currency (b) banker to Government; and (c) banker to other banks. Except in the sphere of agriculture, the Bank was not entrusted with any great promotional role and that too on a limited scale (RBI, 1970).

4.7 The foundation phase was marked by several war and post war developments including the separation of Burma (modern Myanmar) in 1937, partition of the country in 1947 and nationalisation of the Reserve Bank, which altered the area of operations of the Bank. After the separation of Burma, the Bank acted as currency authority of that country till 1942 and as banker to the Burmese government till March 1947.

Box IV.1

The Genesis of Central Banking in India

The efforts to establish a banking institution with central bank character dates back to 1773. The Governor of Bengal under British India recommended the establishment of a General Bank in Bengal and Bihar. The Bank was set up in 1773 but it was only short-lived. In 1914, the Chamberlain Commission had included in their report a comprehensive memorandum by John Maynard Keynes (one of their members), proposing the amalgamation of the three Presidency Banks into one central bank to be called the Imperial Bank of India. In the latter stages of the First World War, the necessity of a central banking institution became more apparent and the Imperial Bank Act was passed in 1920. The amalgamation was finally effected in 1921 leading to the formation of the Imperial Bank of India. Essentially a commercial bank, the Imperial Bank performed certain central banking functions such as banker to the Government and bankers' bank, while the core central banking function of the issue of currency notes and management of foreign exchange continued to be the responsibility of the Central Government.

Meanwhile, central banking theory developed on the lines that it was unsuitable for an institution with commercial banking functions to also be the central bank in a country.

In 1926, the Royal Commission on Indian Currency and Finance (Hilton Young Commission) recommended that the dichotomy of functions and division of responsibilities for control of currency and credit should be ended. The Commission suggested the establishment of a central bank to be called the Reserve Bank of India, whose separate existence was considered necessary for augmenting banking facilities throughout the country.

The Bill to establish the Reserve Bank of India was introduced in January 1927 in the Legislative Assembly, but it was dropped due to differences in views regarding ownership, constitution and composition of its Board of Directors. The White Paper on Indian Constitutional Reforms (1933) proposed the setting up of the Reserve Bank of India free from political influences. The Indian Central Banking Enquiry Committee (1931) had also strongly recommended the establishment of a Reserve Bank. These events led to the introduction of a fresh Bill in 1933. The Bill was passed in 1934 and the RBI Act came into force on January 1, 1935. The Reserve Bank was inaugurated on April 1, 1935.

Source: RBI (1970).



Upon the partition of the country in 1947, the Bank rendered central banking services to the Dominion of Pakistan until June 1948. In terms of the Pakistan Monetary System and Reserve Bank (Amendment) Order, 1948, the Bank ceased to function as the central bank for Pakistan from July 1, 1948. The Reserve Bank was nationalised on January 1, 1949 in terms of the Reserve Bank of India (Transfer to Public Ownership) Act 1948.

4.8 Each of these events had its bearing on the working of the Reserve Bank, even though it confined mainly to the traditional functions. The most active part of the Bank's operation during this period related to currency management and banker to the government. In the sphere of monetary policy, except for maintaining exchange rate stability, the management of money supply or inflation was not warranted due to the low levels of economic activities especially during the colonial era.

Currency Management

4.9 In India, paper money, in the modern sense, traces its origin to the late eighteenth century in the form of note issues of the private banks as well as semi-government banks (the Bank of Bengal, the Bank of Bombay and the Bank of Madras - the Presidency Banks). The Paper Currency Act of 1861 conferred upon the Government of India the monopoly of note issue, bringing to an end the note issues of private and Presidency banks. The statutory provisions governing the issue of coins are laid down in the Indian Coinage Act 1906. Up to March 31, 1935, the task of currency management was undertaken departmentally by the Central Government through the Controller of Currency. Upon its establishment, the Reserve Bank took over this function under Section 3 of the RBI Act, 1934. The transition of currency management from the colonial to independent India was a reasonably smooth affair. Until its own notes were ready, the Bank issued currency notes of the Government of India. The first issue of notes in the denomination of Rs.5 and Rs.10 was made by the Reserve Bank in January 1938, while notes in higher denominations (Rs.100, Rs.1,000 and Rs.10,000) were issued later during the year.

4.10 In terms of the RBI Act, the affairs of the Bank relating to note issue and general banking business are conducted through two separate Departments, viz., Issue and Banking. The Issue Department is responsible for the aggregate value of the currency notes of the Reserve Bank in circulation from time to

time and maintains the eligible assets for equivalent value. The mechanism of putting currency into circulation and its withdrawal from circulation (expansion and contraction of currency) is undertaken through the Banking Department.

4.11 The assets of the Issue Department, against which currency notes are issued under Section 33 of the RBI Act, consist of gold coin and bullion, foreign securities, rupee coin, Government of India rupee securities of any maturity and bills of exchange and promissory notes payable in India which are eligible for purchase by the Bank. The original Act prescribed a proportional reserve of gold and sterling (later foreign) securities against note issue, whereby, not less than 40 per cent of the total assets was to consist of gold coin and bullion and sterling (later foreign) securities, stipulating further that gold coin and gold bullion were not, at any time, to be less than Rs.40 crore. The proportional reserve system was substituted by a minimum reserve system in 1956 through the Reserve Bank of India (Amendment) Act, 1956. The minimum reserve system stipulated the foreign exchange reserves in absolute terms at Rs.400 crore and gold coins at Rs.115 crore, making the total minimum asset backing of Rs.515 crore.

4.12 The support for the currency in assets in 1935 was much higher in terms of gold coin and bullion and sterling securities. The rupee securities of the Government of India constituted 27 per cent of the total assets of the Issue Department. The small order of currency in circulation in 1935 not only indicates the smaller volume of money then required for trade but also reflects the relatively small base on which the economy rested. To some extent, it also reflected the lack of monetisation in the economy. After independence, the responsibilities of the Bank confined to a single national currency and Indian currency has no link abroad.

4.13 Issue of bank notes in British India was in fact the most important function of the Reserve Bank in the beginning. Accounting of currency chest money constituted a major part of the daily routine business of the Reserve Bank, employing about a third of the Bank's personnel. The issue of currency notes - consisting of one-rupee notes and small (subsidiary) coins issued by the Government and the notes issued by the Reserve Bank - was undertaken from the branches of the Issue Department. The Bank also maintained currency chests at the branches of the Imperial Bank of India engaged in Government treasury business and at Government treasuries and

sub-treasuries. The Bank provided a measure of elasticity to the currency system through its loan and open market operations, although there was not much scope for innovation or technical improvement in currency management.

Bankers' Bank

4.14 Prior to the formation of the Reserve Bank, the Imperial Bank (established in 1921) functioned to some extent as a bankers' bank. Most other banks maintained balances with it and could receive accommodation. It also operated clearing-houses and provided remittance facilities across its branches, other banks and the public. The predominant bank financing was for foreign trade, while the share of internal trade was not significant.

4.15 The Reserve Bank's responsibility as bankers' bank was essentially two-fold. First, it acted as a source of reserves to the banking system, especially for meeting the seasonal requirements apart from serving as the lender of the last resort in times of emergency. The second responsibility was to ensure that banks were established and run on sound lines, the emphasis in those years being mainly on the protection of depositors' interest rather than on credit regulations. Regulation and supervision of the banking sector was entrusted to the Banking Department in 1945. However, the Bank did not have much power until the enactment of the Banking Companies Act in 1949 (renamed as Banking Regulation Act from March 1966). Furthermore, the Bank could not immediately begin to exercise the powers entrusted to it by the 1949 legislation due to the post-war banking crisis. Indigenous bankers on a limited scale and moneylenders had a wide scope and choice for their operations (RBI, 1985).

Banker to the Government

4.16 Before the formation of the Reserve Bank, the Imperial Bank performed many of the functions as banker to the Government. With the establishment of the Reserve Bank, the Imperial Bank ceased to be the banker to the Government, but entered into an agreement with the Reserve Bank for providing its services as the sole agent of the Reserve Bank in places where it had a branch and there was no branch of the Banking Department of the Reserve Bank. As the banker to the Central Government and to the state Governments by virtue of agreements entered into with them, the Reserve Bank provides a range of banking services for these Governments such as acceptance of money on government account

payment/withdrawals of funds and collection and transfer of funds through different means. Sections 20, 21 and 21A of the RBI Act provide the statutory basis for these functions. The terms and conditions on which the Reserve Bank acts as banker to the Central and State Governments are set out in separate agreements, which the Bank entered into with these Governments. The first of such agreements was entered into in April 1935 with the Secretary of State for India, which required the Reserve Bank to transact the general banking business of the Central Government. The agreement was supplemented by exchanges of letters from time to time to cover matters such as minimum balances, provisions of temporary financial accommodation in the form of ways and means advances and modification of some of the original terms. The Reserve Bank provided temporary advances to the Government under Section 17(5) of the RBI Act to bridge mismatches in receipts and expenditures.

4.17 The Central Government obtained ways and means advances from the Imperial Bank till 1935 and from the Reserve Bank thereafter. Since 1943-44, for about a decade, the Central Government did not resort to ways and means advances in view of the large cash balances accumulated during the war years. The aftermath of economic depression and the absence of the need for higher advances also warranted a low order of credit support from the Reserve Bank to the Government. The most active part of the Bank's operation during those years as banker to Government, however, related to loan floatation of the central and provincial governments including the issue of their treasury bills. During the period 1935 to 1939, the Government of India floated one sterling loan in London and four new rupee loans, mainly to provide for the repayment of maturing obligations. The vast acquisition of the sterling by the country during the Second World War provided an opportunity for repatriation of its sterling debt and much of the initiative in this matter came from the Reserve Bank, which also implemented the repatriation. While repatriation of sterling debt began even before the war on a modest scale, it was undertaken on a large-scale during the war years – initially on a voluntary basis and since 1941, through schemes of compulsory repatriation. Other modes of repatriation included funding of Railway Annuities, requisitioning of Railways Debenture Stocks and Liquidation of Chatfield debt. Over the period 1937-38 through 1945-46, sterling debt to the tune of £323 million had been repatriated – the bulk of which (£289 million) was undertaken during 1940-43 (RBI, 1970).

Monetary Policy

4.18 Like other central banks, the core function of the Reserve Bank is to formulate and administer monetary policy to maintain the stability of the rupee. During the formative years there was, however, no formal monetary policy formulation other than that of administering the supply and demand for credit in the economy. The Bank Rate (the standard rate at which the Reserve Bank is prepared to buy or discount the bills of exchange or other commercial paper eligible for purchase under Section 49 of the RBI Act), reserve requirements and open market operations (buying and selling securities particularly to the scheduled commercial banks as part of the policy to maintain orderly coordination in the Securities Market) were the mechanisms for regulating the credit availability. The Bank Rate, as an instrument of control, was not used at all in this period, except once in November 1935 when the rate was reduced from 3.5 per cent to 3.0 per cent. The rate remained unchanged thereafter till November 1951. The Reserve Bank, however, employed the instruments of open market operations (OMOs) in a fairly substantial way. Although the Bank was vested with adequate powers to resort to the qualitative instruments, viz., selective credit control, no need was felt during the initial stages of the Bank's functioning due to the existence of price stability.

4.19 During the Second World War period, the Reserve Bank preferred a policy of stable interest rates as against the prevailing wisdom of "cheap money" policy. The Bank's stance in this regard was clearly spelt out by the Governor, Sir James Taylor, in a public speech in February 1940. Excerpts from the speech:

People are too prone to oversimplify problems. To many monetary control means cheap money, and it is often argued both in this country and elsewhere that the better the control the cheaper it should be make money. This of course is essentially fallacious. The business of the controlling authority ... is to do as far as possible what freely operating markets would have done for themselves if they were not being subjected to abnormal stresses beyond their control or their ability to foresee. In the absence of control these would be reflected in violent fluctuations upwards and downwards... It is obviously advantageous to have machinery to control and iron out these fluctuations, ... if one goes further and tries to use such machinery to carry out theoretical policies and do what the

market if left to itself in normal circumstances... Too great a reduction in the effective rate of interest must lead to drying up the investing habit in which case the only alternative is inflation ... the controlling authority has to take these factors into consideration. It has to keep money on an even keel ... After all, no high degree of technique is required if the whole of monetary theory simply boils down to turning on the printing press (RBI, 1970).

4.20 The policy of stable interest rates was also reflected in the fixation of the terms of Government borrowing. The strategy of Government bond sales was varied from time to time depending on the choice between issue of a new security and re-issue of an existing loan, maturity, issue price, timing and the decision whether the loan should be kept open for a fixed period or be on tap. Broadly, the war was financed with a coupon rate of 3 per cent – the issue price in the case of longer term loans being gradually raised, taking it closer to an effective yield basis of 3 per cent.

4.21 Interestingly, Governor Taylor (*op cit*), while considering the loan programme for 1942-43, suggested re-issue of the 3 per cent 1951-54 at par and a longer term loan of 3 per cent 1967-69 at around Rs.95, giving an effective yield of over $3\frac{1}{3}$ per cent at a time when the Government was desirous of lowering the yield basis to below 3 per cent – they were thinking in terms of a 12-year $2\frac{1}{2}$ per cent loan at Rs.98 and a 25-year 3 per cent loan at Rs.98, giving effective yields of roughly $2\frac{3}{4}$ per cent and $3\frac{1}{8}$ per cent, respectively. The Governor, "precariously concerned about the inflationary impact of such a reduction", preferred to go very slow in the matter (RBI, 1970).

4.22 In 1943, in view of the growing inflation, suggestions were made in various quarters to raise the interest rates to stimulate investment in Government bonds; but the Reserve Bank opposed this. The views of the Bank were communicated to the Government in a letter in April 1943: "The results of attempting any enhancement of interest rates at this stage are likely to be embarrassing for those who have so far subscribed to Government loans, ... Apart from the fact that high interest rates increase the burden on succeeding generations, there is always the possibility of any such increase failing in its immediate effect and defeating its own purpose". Reflecting the Bank's stance that did not favour cheap money either, the letter mentioned: "The cogency of

the argument for a rise in the rate of interest may, however, be recognised to this extent that in present conditions it does not seem possible to proceed further in the direction of cheapening money and that Government may content themselves with aiming at the maintenance of the present level of long term interest rates" (RBI, 1970).

II. DEVELOPMENT PHASE (1951-1990)

4.23 With the launching of five-year plans in the country, the Reserve Bank took over a number of crucial developmental and promotional roles. The First Five Year Plan emphasised the role of monetary and credit policy as an important instrument for maintaining price stability and for regulation of investment and business activity. Accordingly, the Reserve Bank was expected to play its role in promoting economic development by aligning the banking system to the needs of a planned economy. The fundamental task before the Bank was to put in place an appropriate institutional framework for mobilisation of potential savings through the promotion of financial intermediaries and creation of a broad spectrum of financial assets and effective investment of these resources through the adaptation of a credit structure that would subserve the developmental needs.

4.24 By this time, the Reserve Bank had acquired enough experience and expertise in discharging the traditional central banking functions. It had obtained fairly adequate control over the money market (RBI, 1985). Thus, organisationally, the Reserve Bank was well equipped to play its due role to promote the country's economic growth.

4.25 The planning era witnessed significant growth in the responsibilities of the Reserve Bank in the direction of new developmental and promotional activities that are normally outside the purview of a Central bank. The most critical tasks before the Bank were plan financing and institution building to promote savings and their deployment to various sections in accordance with the Plan priorities, besides maintaining a stable financial environment to develop a healthy financial infrastructure. The adoption of the Indian Constitution in 1950 and the enactment of the States Reorganisation Act in 1956, which facilitated the integration of currency and banking operations, tended to expand the ambit of the Reserve Bank's role as banker to the Government. The important events that changed the course of action of the Bank during the developmental phase included social control and the nationalisation of private commercial

banks. This period was also marked by the introduction of a formal monetary policy framework emerging out of the necessity for striking a balance between the developmental functions and financial stability.

Banker to Government

4.26 A crucial developmental goal for the Reserve Bank during the plan era was to fill the resource gap of the Government in the plan process - an enlargement of the role as banker to the Government. The RBI Act was amended in 1951 by inserting a new Section 21(a), which authorised the Bank to function, by an agreement, as banker to Governments in Part 'B' states (formally princely states) and manage their public debt and loan floatation. The final integration culminated in the discontinuation of classifications of states as Part 'A' (former British India provinces) and Part 'B' following the enactment of the States Reorganization Act on November 1, 1956 (RBI, 1985).

4.27 The Reserve Bank's role in Plan financing evolved in the form of deficit financing. In January 1955, through the exchange of letters with the Central Government, the Bank agreed to replenish the latter's balances whenever they fell short of Rs.50 crore at the end of any week. This agreement in effect gave a go-ahead to an enabling provision in the RBI Act - Section 17(5), which authorised the Bank to provide to the Central and State Governments advances repayable not later than three months. These advances were matched by the issue of ad hoc treasury bills issued by the Central Government to the Reserve Bank, which were held in the Issue Department. While it was customary for a central bank to extend temporary short-term advances to the Government to cover mismatches between the latter's receipts and expenditure, the practice made routine since 1955 gave the Central Government an unlimited right to borrow from the Reserve Bank (Balachandran, 1998). Over time, the practice of replenishing the Government's balances by creation of *ad hoc* Treasury Bills attained a permanent character and an alternative source of financing government expenditure. Similarly, the State Governments also began drawing unauthorised overdraft from the Bank. As such, the Reserve Bank became a source of cheap credit not only for the Central Government, but also indirectly for the State Governments. Plan financing also necessitated heavy draws in foreign exchange reserves held by the Reserve Bank, which in turn called for appropriate legal measures to arm the Bank to facilitate as well as counter the ill effects thereof.

The substitution of the proportional reserve system by a minimum of foreign exchange reserve system under the Reserve Bank of India (Amendment) Act, 1956 provided a more elastic method of note issue to meet the growing currency requirements. Simultaneously, the Reserve Bank acquired additional powers to vary the reserve requirements so as to regulate the impact of large public expectations on the ability of the banking system to sanction credit to trade and industry. The availability of refinance for these sections was further liberalised in January and March 1963. The period since 1960 also marked the beginning of the regulation of interest rates (lending as well as deposits) of commercial banks by the Reserve Bank.

4.28 The enactment of the Banking Companies Act, 1949 gave special authority to the Reserve Bank to supervise the operations of commercial banks so as to ensure their establishment and working on sound lines. By 1951, it had become a well-established practice for the commercial banks and cooperative banks to turn to the Reserve Bank for accommodation. As such, the Reserve Bank was in a position to pursue a credit policy that was both expansionary and regulatory, broadly in accordance with the investment priorities indicated in the Plans. In 1956, the Reserve Bank was vested with power to vary, within broad limits, the statutory reserve, which the commercial banks would maintain with it. The Bank also made efforts for credit planning, guiding the commercial banks with regard to the aggregate quantum of credit creation, season-wise and its sector-wise distribution and employing device of incentives and penalties in the rate structure. Furthermore, the Reserve Bank also instituted the mechanism for providing temporary accommodation to the banks for meeting their seasonal demand requirements of reserves through the seasonal fluctuations in credit expansion and narrowing. For this purpose, the Bank had instituted the Bill Market Scheme as early as in January 1952, enabling the banks to borrow from the Reserve Bank against the security of their advances converted into usance bills.

Institution Building

4.29 A major task thrust upon the Bank was to put in place the necessary institutional mechanism to complement the planning efforts. This was crucial especially in the context of the weak financial system with an underdeveloped and evolving commercial banking set-up. Organised credit institutions had a negligible presence in rural India. In this backdrop,

building up a sound and adequate institutional structure for rural banking and credit was paramount.

4.30 To supplement the institutional build-up, the Reserve Bank also assumed special responsibilities for augmenting the flow of rural credit. The formulation of agricultural credit policy beginning 1951 was a major landmark in the Bank's responsibilities for agricultural credit. The Bank organised a comprehensive All-India Rural Credit Survey under the direction of a Committee (Chairman: A. D. Gorwala) appointed in 1951. The recommendations of the Committee of Direction, which submitted its report in 1954, set the pace and directions for the subsequent years not only for the Bank's agricultural credit policy but also for the related policies of Central and State Governments. The Committee's recommendations led to the nationalisation of the Imperial Bank of India and the banks associated with the former princely states, restructuring of the short-term co-operative credit structure and reorganisation of the institutions specialising in longer-term lending for agricultural development (RBI, 1955 and Balachandran, 1998). The Agricultural Credit Department was established mainly with the objective of coordinating the Bank's operation with those of other institutions engaged in agricultural lending. The RBI Act was amended in 1955 to enable the Bank to create two funds - National Agricultural Credit (Long-Term-Operations) Fund and the National Agricultural Credit (Stabilisation) Fund. The Reserve Bank set up the Agricultural Refinance Corporation in 1963 for extending medium and long-term finance to agriculture. With the establishment of the National Bank for Agriculture and Rural Development (NABARD) on July 12, 1982, the focus of the Reserve Bank in regard to rural credit has been more on co-ordination. This role of the Reserve Bank in this regard expanded after 1982 with the formation of the Rural Planning and Credit Department.

4.31 In the absence of a well-developed capital market, the Reserve Bank played a proactive role in setting up a number of specialised financial institutions at the national and regional level to widen the facilities for term finance to industry and for institutionalisation of savings - a novel departure for a central bank. The examples are: the Industrial Development Bank of India (IDBI) in 1964 and the Unit Trust of India (UTI) in 1964. The UTI came into existence as an offshoot of the Bank to help mobilise small savings for industrial investment and democratise industrial share-ownership.

4.32 Apart from the initiatives to build-up an institutional base, the Reserve Bank made the

provision of annual allocation from profit a fund called the National Industrial Credit (Long-Term Operations) Fund for use for development banking. The Reserve Bank also administered, as the agent of the Central Government, various credit guarantee schemes for the small-scale industries (SSI) sector, which were designed to provide protection to banks and other institutions lending to such small scale units. The Export Import Bank of India (EXIM Bank) was established in January 1982, to which the export finance functions of the IDBI were transferred. The EXIM Bank was also made eligible to loans and advances from the National Industrial Credit (Long-Term Operations) Fund operated by the Reserve Bank.

4.33 The Deposit Insurance Corporation (DIC), a wholly owned subsidiary of the Reserve Bank, commenced operations in 1962. In that year, 287 banks were registered with it as insured banks. By the end of 1967, the number of insured banks had declined to 100, largely due to the Reserve Bank's policy of reconstruction and amalgamation of small and financially weak banks so as to make the banking sector more viable. Up to 1967, the liabilities of the Corporation were invoked in the case of eleven banks [Bank of China, Calcutta (1963); Bank of Alagapuri Ltd, Alagapuri (1963); Unity Bank Ltd, Madras (1963); Metropolitan Bank Ltd, Calcutta (1964); Unnao Commercial Bank Ltd, Unnao (1964); Cochin Nayar Bank Ltd, Trichur (1964); Latin Christian Bank Ltd, Ernakulam (1964); Southern Bank Ltd, Calcutta (1964); Shree Jadeya Shankarling Bank Ltd, Bijapur (1965); National Bank of Pakistan, Calcutta (1966); Habib Bank Ltd, Bombay (1966)]. The licenses of three of these banks (*viz.*, Habib Bank, National Bank of Pakistan and Bank of China) were cancelled for reasons other than financial viability. As at the end of 1966, the amounts paid or provided for in respect of these eleven banks amounted to Rs 56.83 lakh, of which Rs 39.85 lakh was recovered by the DIC and the overall risk experience of the Corporation was 'favourable'.

4.34 A number of important developments concerning deposit insurance took place during 1967-81. The DIC Act was amended in 1968 to extend the insurance scheme to deposits with cooperative banks. This phase witnessed strong growth and consolidation of the deposit insurance fund consequent upon the expansion of bank deposits and progressive increase in the coverage of insured deposits. The Reserve Bank promoted a public limited company named Credit Guarantee Corporation in 1971. The main thrust of the credit guarantee schemes introduced by the Credit

Guarantee Corporation was to encourage the commercial banks to meet the credit needs of the hitherto neglected sectors, particularly the weaker sections of the society engaged in non-industrial activities. The two organisations – the DIC and the Credit Guarantee Corporation of India Ltd – were merged in 1978, leading to formation of the Deposit Insurance and Credit Guarantee Corporation of India (DICGC) with the 'twin and cognate' objectives of giving protection to small bank depositors and providing guarantee cover to credit facilities extended to certain categories of small borrowers belonging to the weaker sections of society.

4.35 The establishment of the banking and other specialised institutions had significant implications for the working of the Reserve Bank in that it widened the spectrum of the financial sector and heightened the supervisory role of the Bank. The institutional build-up was largely complementary to the monetary policy on the following counts. First, a well-developed financial system assisted the Bank in implementing its general and selective credit policies by providing effective channels for transmitting their impulses. Second, to the extent the growth of savings and the ability of banks to mobilise the same increased, their dependence on the Reserve Bank for accommodation was reduced. Once the banking system was better able to meet the expanding demand for credit from its own resources, the traditional instruments of monetary policy could be expected to fully come into play. Third, the mobilisation of savings by the institutional agencies led to a better convergence between the demand for investible funds in the economy and their supply.

Social Control and Nationalisation

4.36 The events that were crucial in strengthening the institutional credit delivery mechanism were the policy of 'social control' launched in 1967 and the nationalisation of 14 private commercial banks in 1969, which usurped the responsibilities of the Bank in the development planning process. Social control over banks was envisaged through the "Banking Laws (Amendment) Bill, 1967", which sought to amend certain provisions of the Banking Regulation Act, 1949, the Reserve Bank of India Act, 1934 and the State Bank of India Act, 1955. The need for it was felt in the context of the major lacuna that many rural and urban areas still remained inadequate in banking, notwithstanding the considerable progress made in both functional and geographic coverage of the Indian banking system during the plan era. Also, the large

industries and big and established business were found to be receiving a major portion of the credit facilities, which was detrimental to the interests of the preferred sectors such as agriculture, small scale industries and exports. Accordingly, a National Credit Council (NCC) was set up in December 1967 to assess the demand for bank credit from the various sectors of the economy, determine the priorities for the grant of loans and advances commensurate with the availability of resources and the requirements of priority sectors and to coordinate lending and investment policies of various institutional agencies to ensure the efficient use of the overall resources.

4.37 The Government of India nationalised 14 major Indian scheduled banks having deposits of Rs.50 crore and above through the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1969. The objectives of bank nationalisation went far beyond the objective of social control. The objective of the 'takeover' as illustrated in the preamble of the Act was "to control the heights of the economy and to meet progressively, and serve better, the needs of development of the economy in conformity with national policy and objectives". In essence, the nationalisation of banks aimed at accelerating the pace of expansion of commercial banks branches in rural areas and augmenting the flow of bank credit to agriculture and to the weaker sections of the society (RBI, 1985).

4.38 With nationalisation, the ownership of the banks was vested with the Central Government, while the operational aspects of banks continued to be the look out of the Reserve Bank. This paved the way to a 'centralised control and direction' over the banking system. While the main objective of nationalisation was that credit should be available to a wider range of people than before, the major task of the Reserve Bank was to ensure the compliance to its policies by the nationalised banks. This called for significant changes in the institutional arrangements and more stringent control and supervision of the banking system.

4.39 In terms of outcome, this phase of nationalisation greatly succeeded in mobilising private savings through the banks. The savings so mobilised were used for supporting public borrowing as well as for meeting hitherto neglected genuine credit needs. This success led to the nationalisation of six more private commercial banks in 1980 through the Banking Companies (Acquisition and Transfer of Undertakings) Ordinance, 1980. With the second phase of nationalisation, the public sector banks accounted for

over 90 per cent of the total deposits of all scheduled commercial banks. While the Reserve Bank had not been a party to the bank nationalisation in 1969, the initiative for the second phase of nationalisation in 1980 came from the Reserve Bank, the reason being the need to supervise private banks to ensure their compliance with social control norms, given the fact that several small private banks had grown to respectable size and it was not easy to control their activities in practice (RBI, 2005a).

Credit Control

4.40 Since the 1970s, the Reserve Bank faced the twin problems of making provisions for financing economic growth and ensuring price stability in the wake of a sharp increase in money supply emanating from the rapid expansion in credit. The increased public expenditure and the coincident rise in banks deposits began to place a greater pressure on the effectiveness of monetary policy. The Reserve Bank had to adopt a balancing approach to handle this knife-edged problem and resorted to the policy of a 'controlled expansion' of credit to meet the twin objectives of making provision of credit for attaining faster rate of economic growth and ensuring price stability.

4.41 A key issue in this context was that the traditional instruments of credit control, *viz.*, the Bank Rate and OMOs were found inadequate for controlling the banks' power in expanded credit creation. The fact that the deposits of commercial banks were rising rapidly under the impact of deficit financing and the commercial banks did not have the need to approach the central bank for accommodation, the Bank Rate as an instrument of monetary policy became less effective. Moreover, in the absence of an articulate and broad-based market for government securities, the scope for OMOs as a monetary policy instrument was also relatively limited. This warranted the introduction of additional instruments of credit control.

4.42 An important requirement was the flexibility to alter the reserve requirements of the commercial banks. The amendments of the RBI Act (Section 42 prescribing the reserve requirements of scheduled banks) and the Banking Regulation Act (Section 18 dealing with the cash reserve requirements for non-scheduled banks) in 1962 provided the flexibility in this regard. Originally, under the RBI Act, scheduled banks were required to maintain with the Reserve Bank a minimum cash reserve of 5 per cent of their demand liabilities and 2 per cent of their time liabilities in India at the close of business on any day. The

amendment to the RBI Act in 1956 empowered the Bank to vary the reserve requirement between 5 per cent and 20 per cent of banks' demand liabilities and between 2 per cent and 8 per cent of their time liabilities in India. The 1962 amendment fixed the reserve requirement uniformly at 3 per cent of banks' total demand and time liabilities in India (doing away the distinction between demand and time liabilities) and the cash reserve requirement could be varied between 3 per cent and 15 per cent. These legislative measures added more instruments at the disposal of the Reserve Bank to control the credit expansion of commercial banks.

4.43 Another measure was the activation of selective credit controls. The Reserve Bank introduced selective credit control for the first time in May 1956 in the context of multiplication of banks' advances. The continued loss of foreign reserves towards plan financing again forced the Bank to use an additional credit restraint measure *viz.*, 'quota-slab' system, instituted in October 1960. This was in the form of credit rationing through a price instrument. The advantage of this instrument was that it would at the same time not directly increase the cost of government borrowing or affect the gilt-edged market. Under this system, each scheduled bank was assigned a quarterly quota equal to half of the average volume of reserves, which it had to maintain under Section 42(1) of the RBI Act during each week of the preceding year. The quota slab system could be liberalised or tightened as necessary for effective quantitative check on credit expansion.

4.44 The quota-slab system, where availability of credit was the key control variable, was replaced in 1964 by a scheme of accommodation based on banks' net liquidity ratio (NLR), which was considered to be a less discretionary form of central bank control over the expansion of commercial bank credit than the quota-slab system. The NLR formula envisaged using a variant of the statutory liquidity ratio (SLR) to regulate the cost of the Bank's loans to scheduled commercial banks. The net liquidity represented the proportions of a bank's cash, balances with the Reserve Bank, current account deposits in the notified banks and investment in Government and other approved securities, less its total borrowing from the Reserve Bank, SBI and IDBI to its aggregate demand and time liabilities. The NLR normally equaled the prevailing overall liquidity ratio (SLR plus CRR).

4.45 The credit authorisation scheme (CAS) as an instrument of credit control was introduced in

November 1965 to align credit policies closely with the Five Year Plan. Under the scheme, scheduled commercial banks were required to obtain the Reserve Bank's authorisation before sanctioning any fresh credit of Rs.1 crore or above to any one borrower or any fresh limit which would take the total limits engaged by the borrowers from the entire banking system to Rs.1 crore. This scheme also helped in preventing the problem of pre-emption of scarce bank reserves by a few large borrowers and enforcing a measure of financial discipline on them.

Exchange Management and Control

4.46 Mention was made in the preceding section about the role of the Reserve Bank in the repatriation of India's sterling debt during the Second World War period. While that related to the problem of "plenty", the problem relating to the external sector of the Indian economy in the subsequent years that engaged the attention of the Government and the Reserve Bank was one of dealing with the "scarcity" of foreign exchange, which assumed serious proportions during the 1970s.

4.47 Prior to the Second World War, India was a net debtor country with a large surplus in the trade account. The then British Government introduced exchange control in India using its emergency powers under the Defence of India Rules. The Foreign Exchange Regulation Act (FERA), 1947, which was enacted under the British regime as a temporary measure, was later made a permanent Act in 1957 and it remained in force up till January 1974. The limited objective of the Act was to regulate the inflow of foreign capital, in view of the concerns about substantial non-resident interests and employment of foreigners. The prevailing mood in independent India was one of preserving and consolidating freedom and not permitting once again any sort of foreign domination, political or economic. The control framework was essentially transaction-based - all transactions in foreign exchange including those between residents and non-residents were prohibited, unless specifically permitted. The Second Five Year Plan with a substantial step-up in the investment on industrialisation put a heavy strain on foreign exchange resources. Exports were not picking up while imports were surging, aggravating the balance of payments crisis.

4.48 During the period from 1950-51 until mid-December 1973, India followed an exchange rate regime in which the Rupee was linked to the pound-sterling, except for the devaluations in 1966 and 1971.

There were several uncertainties in the situation having bearing on the balance of payments. Large quantities of food-grain and essential wage goods had to be imported. This led to concerns about capital outflows, reinforced by the repeated stress on balance of payments due to droughts, wars and oil shocks. In this context and with the adoption of development planning, emphasis was placed on utilising domestic savings for domestic investment.

4.49 In this backdrop, the recommendation of the Public Accounts Committee concerning the leakage of foreign exchange through invoice manipulation (June 1971) and the Report of the Law Commission on 'Trial and Punishment of Social and Economic Offences' (April 1972) induced the Government of India to re-focus on the FERA, 1947 for conserving foreign exchange rather than regulating the entry of foreign capital. The FERA, 1973 was drafted with the objective of introducing the changes necessary for effective implementation of the Government policy and removing the difficulties in the working of the previous enactment. As a crisis-driven legislation, the FERA, 1973 naturally contained several draconian provisions. Any offence under the FERA was a criminal offence liable for imprisonment. Severe restrictions on current account transactions continued till the mid-1990s when relaxations were made in the operations of the legislation of 1973 to enable convertibility on current account.

4.50 The control framework was equally valid for the capital account, though the capital account was negligible till the 1980s. Most receipts on capital account were on Government account and through external assistance in addition to the bilateral arrangement with erstwhile USSR. In the 1980s, there were significant private capital flows through External Commercial Borrowings (ECB) and deposits from Non-Resident Indians (NRI). The position changed in the 1990s, with gradual liberalisation of the capital account.

4.51 The FERA empowered the central Government to give to the Reserve Bank such general or special directions as it thought fit and the Bank was obliged to comply with these directions in discharge of its functions under the Act. To a large extent, the exchange control related to and supplemented by the trade control administered by the Chief Controller of Imports and Exports in the Ministry of Commerce of the Government of India. Exchange controls had a wider scope *vis-à-vis* the trade controls, as it involved supervision over the settlement of financial transactions in respect of all

exports and imports as also invisibles and capital transactions, whereas trade control was concerned with the physical transfer of goods (mostly confined to imports). The major functions of the Reserve Bank relating to exchange control included granting licenses to certain scheduled commercial banks to deal in foreign exchange (authorised dealers); and issuing directions to the authorised dealers and other entities (airline, shipping companies, travel agents and insurance companies) in matters concerning their operations having foreign exchange implications.

Monetary Framework and Policy Initiatives during the 1980s

4.52 The high inflation all over the world in the 1970s and the collapse of the Bretton Woods system led to a paradigm shift in monetary policy from the Keynesian to the Monetarist approach. Tracking the factors contributing to causes and sources of inflation, the developed countries began to target either inflation or monetary (or reserve) targeting. This influenced the thinking of the policy makers in the Indian context as well. The large deficits of Government and its financing by the Reserve Bank leading to a significant rise in money supply relative to output prompted a new look for evolving a broader approach in assessing the size and growth of overall money supply. The Committee to Review the Working of the Monetary System (Chairman: Sukhamoy Chakravarty) suggested that the monetary authority should embark on monetary targeting in a more formal and secured manner. The level of the monetary target needs to be determined on the basis of desired growth in output and the tolerable level of inflation. The monetary budgeting exercises undertaken hitherto provided the monetary authority with useful insights into the problems of formal monetary targeting.

4.53 The Chakravarty Committee suggested targeting the broad measure of money supply (M_3) with feedback. The Committee outlined a systematic operating procedure, in particular, the planning of the monetary and credit budget. The monetary budget was estimated using the core parameters of real growth and inflation and was followed with a consistency check with the estimated movements in the sources of money supply *viz.*, net domestic credit (net Reserve Bank credit to Government and the commercial sector), Net Foreign Assets (NFA) and Net Non-Monetary Liabilities (NNML) of the Reserve Bank. While movements in NFA and NNML are

determined on the basis of past trends, the Reserve Bank credit to the Government and the commercial sector was projected in a manner consistent with the overall size of the estimated monetary budget. The Committee also suggested an independent assessment of the seasonal demand for credit and recommended Reserve Bank support in the form of refinance for the shortfall, if any. Finally, the expected level of bank credit, so estimated, was to be used for developing appropriate sectoral allocation in the light of the plan priorities. Formulation of monetary policy thus became a formal mechanism of the restructured monetary policy programme. The Reserve Bank evolved a formal framework of monetary policy by the mid-1980s with M_3 as a nominal anchor to be targeted, broadly based on the recommendations of the Chakravarty Committee.

4.54 The Working Group on Money Market (Chairman: N. Vaghul), which examined the recommendations of the Chakravarty Committee regarding the development of the money market, submitted its report in January 1987. Following the report, a number of money market instruments were introduced: 182-day Treasury Bills, inter-bank participation certificates (IBPCs), certificates of deposits (CDs) and commercial papers (CPs). The Discount and Finance House of India (DFHI) was set up in 1988 for promoting a secondary market in various money market instruments.

4.55 The process of expansion in the banking network in terms of geographical coverage and heightened controls affected the quality of banks assets and strained their profitability. In response to these developments, a number of measures were undertaken in the mid-1980s for consolidation and diversification and, to some extent, deregulation of the financial sector. The consolidation measures aimed at strengthening banks' structures, training, house-keeping, customer services, internal procedures and systems, credit management, loan recovery, staff productivity and profitability. A health code system for banks was introduced in 1985. Certain initiatives were also taken to impart greater operational flexibility to banks. These include permitting the banks to enter into the business of equipment leasing and mutual funds, doing away with the requirement of prior authorisation under the CAS, rationalisation of bank deposit and lending rates by raising coupon rates on government securities and by removing the ceiling of 10 per cent call/notice money fixed by the Indian Banks' Association (Jadhav, 2003).

III. REFORM PHASE (1991-2005)

4.56 The process of liberalisation and globalisation of the Indian economy initiated since 1991 added several new dimensions to the responsibilities of the Reserve Bank. Along with financial sector reforms, the monetary policy framework has been fine-tuned and the conventional central banking functions including those of currency management and payment and settlement systems have been revamped in tandem with the global trends and domestic expediency.

Financial Sector Reforms

4.57 During the 1980s, the financial markets were highly segmented and controlled and the interest rates in the government securities market and the credit market were tightly regulated. The banking sector remained dominated by public sector banks with a significant quantum of non-performing assets. Credit was extended to the Government by mandating the maintenance of a minimum SLR whereby the commercial banks set aside substantial portions of their liabilities to investment in government securities at below market interest rates. The state of the development of financial markets turned out to be yet another major constraint. Removal of the institutional, technological and legal obstacles for the healthy growth of financial markets for effective transmission of the policy signals formed a major agenda for the reform of the financial sector since mid-1991.

4.58 Increasing globalisation of the Indian economy necessitated integration of domestic markets with international financial markets for full realisation of the benefits of globalisation. Financial sector reforms were initiated in India in 1992 with a view to improving the efficiency in the process of financial intermediation, enhancing the effectiveness in the conduct of monetary policy and creating conditions for integration of the domestic financial sector with the global system. The first phase of reforms, guided by the recommendations of the Committee on Financial System (Narasimham Committee I), aimed at enhancing the operational flexibility and functional autonomy of the financial sector with a view to fostering efficiency, productivity and profitability. The second phase, based on the recommendations of the Committee on Banking Sector Reforms (Narasimham Committee II), focused on strengthening the foundations of the banking system and bringing about structural improvements (Mohan, 2003).

Reforms in the Banking Sector

4.59 The first phase of reforms in the financial sector focused on deregulation of the banking industry including permitting the entry of new private sector banks. Simultaneously, measures were undertaken to strengthen the institutional framework in banking, non-banking financial companies, financial institutions and the capital markets through prudential norms, capital adequacy stipulations, improvements in payments and settlement systems and strengthening of the supervisory framework. Institutional measures also included setting up of the Board for Financial Supervision for strengthening the Bank's supervisory mechanisms, recapitalisation of banks and improvements in debt recovery.

4.60 The second phase of reforms focused on the banking sector with an emphasis on the prudential norms. Prudential norms have been introduced gradually to meet international standards. Action has been initiated to increase the capital adequacy ratio; assign risk weights to Government approved securities to take care of market risks; assign risk weights to open position in forex and gold. The required level of capital adequacy after implementing the recommendations of the Narasimham Committee II warranted a substantial infusion of capital into the banking system. Similarly, internationally accepted norms of income recognition have been introduced except that income on assets is not recognised if not received within two quarters after it is past the period due (*i.e.*, due date plus thirty days). A significant decision relates to the treatment of assets guaranteed by the State Government as non-performing under certain circumstances.

Reforms in Other Segments of the Financial Sector

4.61 Measures aimed at fostering competition and establishing prudential regulation and supervision have also been introduced for the non-bank financial intermediaries. The non-banking financial companies (NBFCs), especially those involved in public deposit taking activities, the Development Finance Institutions (DFIs), specialised term-lending institutions, urban cooperative banks all have been brought under the regulation of the Reserve Bank. With the aim of regulatory convergence for entities involved in similar activities, prudential regulation and supervision norms have also been introduced for DFIs, NBFCs and cooperative banks.

4.62 The insurance business remained within the confines of public ownership until the late 1990s.

Subsequent to the passage of the Insurance Regulation and Development Authority (IRDA) Act in 1999, several measures have been initiated, including allowing newer players/joint ventures to undertake insurance business on a risk-sharing/commission basis.

4.63 A package of reform measures to liberalise, regulate and develop the capital market was introduced for improving market efficiency, increasing transparency, integration of national markets and prevention of unfair trading practices. An important step was the establishment of the Securities and Exchange Board of India (SEBI) in February 1992 as the regulator for equity markets. Since 1992, reform measures in the equity market have focused mainly on regulatory effectiveness, enhancing competitive conditions, reducing information asymmetries, developing modern technological infrastructure, mitigating transaction costs and controlling of speculation in the securities market. Another important development under the reform process has been the opening up of mutual funds to the private sector in 1992, which ended the monopoly of UTI.

4.64 The Indian capital market was opened up for foreign institutional investors (FIIs) in 1992. The Indian corporate sector has been allowed to tap international capital markets through American depository receipts (ADRs), global depository receipts (GDRs), foreign currency convertible bonds (FCCBs) and External Commercial Borrowings (ECBs). Similarly, overseas corporate bodies (OCBs) and non-resident Indians (NRIs) have been allowed to invest in Indian companies. FIIs have been permitted in all types of securities including Government securities and they enjoy full capital convertibility. Mutual funds have been allowed to open offshore funds to invest in equities abroad.

Complementary Policy Changes

4.65 Reform measures across sectors as well as within each sector (notably, monetary, fiscal and external) were planned and sequenced in such a way so as to reinforce each other. The major aspects of such complementary reform measures are set out in the following paragraphs.

Debt Market Reforms

4.66 Several important reforms have been undertaken in the sphere of government securities market. The Reserve Bank entered into a historic agreement with the Government of India in September 1994 for gradual phasing out of ad hoc

treasury bills. Accordingly, the *ad hoc* treasury bills were discontinued with effect from April 1, 1997.

4.67 The management of public debt and operations of government securities market are governed by the Public Debt Act, 1944. The procedures prescribed are archaic and some of the provisions have ceased to be of relevance in the present context. A new legislation titled the Government Securities Act to repeal and replace the Public Debt Act was approved by the Union Cabinet and is awaiting Parliament clearance. However, since the Public Debt Act, 1944, is applicable for marketable loans raised by the Reserve Bank on behalf of both the Central and State Governments, the proposal requires consent of all State Governments. Upon the enactment of the new legislation, the Reserve Bank would have substantive powers to design and introduce an instrument of transfer suited to the electronic environment. As a debt manager, the Reserve Bank has the obligation of minimising the cost of borrowing to the Government. Normally, with an upward sloping yield curve, longer the maturity of the security, higher is the cost; thus there is a trade-off between tenor of borrowing and its cost (Mohan 2004a).

4.68 Interest rates on Government paper have been made market related and the maturity periods changed to reflect market preferences. Since April 1992, the Central Government borrowing programme has been conducted largely through auctions enabling market based price discovery. As a result of the institutions of market related interest rates on Government borrowing, OMOs, hitherto ineffective, gained considerable momentum. There has been a gradual shift in emphasis from direct to indirect instruments of policy - OMOs and repos have been actively used to influence the level of reserves available with banks. To augment the effectiveness of this instrument, greater efforts are being made to widen and deepen the money, foreign exchange and gilts markets and strengthen the banking system.

4.69 Liquidity management is undertaken by injecting and absorbing liquidity through a liquidity adjustment facility (LAF). Initially, under an interim adjustment facility introduced in 1999, injection of liquidity took the form of export refinance to commercial banks, collateralised lending facility (CLF) and additional collateralised lending facility (ACLF) to scheduled commercial banks and liquidity support at two levels, *i.e.*, level 1 and level 2 to Primary Dealers (PDs) by way of lending against the collateral of treasury bills and government securities. CLF and Level 1 were provided at the Bank Rate and ACLF

and level II at Bank Rate plus 2 per cent. Following the recommendations of the Narasimham Committee II, Stage I and Step I of Stage II of a full-fledged LAF were implemented effective June 5, 2000 and May 5, 2001 respectively.

4.70 Collateralised borrowing and lending obligations (CBLOs) were operationalised as a money market instrument through the Clearing Corporation of India Limited (CCIL) on January 20, 2003. With a view to developing the market for this instrument, the Reserve Bank introduced automated value-free transfer of securities between market participants and the CCIL during 2004-05. A repo market outside the LAF has been assiduously developed by the Reserve Bank to provide an avenue for bank and non-bank participants to trade funds after the conversion of the call/notice money market into a pure inter-bank market. In order to broaden the market, non-scheduled urban cooperative banks (UCBs) and listed companies with gilt accounts with scheduled commercial banks were allowed, subject to eligibility criteria and safeguards, to participate in the repo market outside the Reserve Bank. The minimum maturity period of CDs was reduced from 15 days to 7 days effective April 29, 2005 to align it with the minimum maturity of CPs and fixed deposits with banks. With the initiation of the process of financial liberalisation along the 1990s, financial markets have become progressively integrated as evident from the closer alignment of interest rates. Market integration has also implied that the interest rate channel of monetary transmission has gained some strength in recent years.

External Sector Reforms

4.71 The broad approach to external sector reforms was laid out in the Report of the High Level Committee on Balance of Payments (Chairman: C. Rangarajan). The Committee recommended, *inter alia*, the introduction of a market-determined exchange rate regime within limits; liberalisation of current account transactions leading to current account convertibility; compositional shift in capital flows away from debt to non-debt creating flows; strict regulation of external commercial borrowings, especially short-term debt; discouraging volatile elements of flows from non-resident Indians; full freedom for outflows associated with inflows (*i.e.*, principal, interest, dividend, profit and sale proceeds) and gradual liberalisation of other outflows; and the dissociation of the Government in the intermediation of flow of external assistance.

4.72 The developments in the subsequent years generally followed these recommendations. The Liberalised Exchange Rate Management System (LERMS) involving a dual exchange rate mechanism was instituted in March 1992 along with other measures of liberalisation in the areas of trade, industry and foreign investment. The dual exchange rate system was essentially a transitional phase, culminating in the unified exchange rate system effective from March 1, 1993. This brought about the era of market determined exchange rate regime of the rupee. It also marked an important step in the progress towards current account convertibility, which was finally achieved in August 1994 when India accepted Article VIII of the Articles of Agreement of the International Monetary Fund.

4.73 As a follow-up measure for the development of the foreign exchange market in India, an Expert Group (Chairman: O. P. Sodhani) was appointed in November 1994, which submitted its report in June 1995. This Group made several recommendations to develop, deepen and widen the forex market, ensure risk management, foster efficiency in the market by removing restrictions, introducing new products and tightening internal controls. Many of the subsequent actions were based on this Report.

4.74 In 1997, the Committee on Capital Account Convertibility (CAC) [Chairman: S. S. Tarapore], constituted by the Reserve Bank, indicated the road map for CAC – three crucial preconditions being,

fiscal consolidation, a mandated inflation target and strengthening of the financial system – and recommended a number of liberalisation measures including change in the legislative framework governing foreign exchange transactions. The liberalisation measures related to foreign direct investment, portfolio investment, Indian overseas investment in joint ventures/wholly owned subsidiaries, project exports, opening of Indian corporate offices abroad, raising of exchange earners' foreign currency (EEFC) entitlement to 50 per cent, forfeiting, allowing acceptance credit for exports and allowing FIIs to cover forward a part of their exposures in the debt and the equity markets.

4.75 The FERA, 1973 was repealed and replaced by a new legislation - Foreign Exchange Management Act (FEMA), 1999 - with effect from June 2000. The objective of the new legislation as stated in the preamble to the Act was to facilitate external trade and payments and promote the orderly development and maintenance of the foreign exchange market in India – a shift in the approach from “conservation of foreign exchange resources of the country and the proper utilisation thereof“ under the old Act. The shift in the policy approach entailed significant implications for the operations of the Reserve Bank (Box IV.2). Under the new system, all current account payments except those notified by the government are eligible for appropriate foreign currency in respect of genuine transactions from the authorised dealers without any

Box IV.2

Foreign Exchange Management Act, 1999

The reforms in industrial and trade policies initiated in the early 1990s, consistent with the changing international economic and trade relations, gave rise to the need for a more conducive climate for increased inflow of foreign investment and capital to accelerate the pace of industrial growth and export promotion. A comprehensive new legislation – the Foreign Exchange Management Act - was enacted in 1999, which in fact provided a *de jure* status to the shift in the external sector policies that began in 1990-91. More importantly, the FEMA diluted the rigorous enforcement provisions - unlike in FERA, the prosecution has to prove the guilt of the accused person. Further, FEMA provided for only monetary penalty for contraventions. Contravention of FEMA provisions are dealt with under civil procedures, for which separate administrative mechanisms in the form of Compounding Rules, Adjudicating Authority, Special Director (Appeals) and Appellate Tribunal have been established. Furthermore, for each process of law a timeframe has been provided in the Act.

The concept of compounding is another distinguishing feature of the FEMA. Under the FERA, all violations were subject to separate investigation and adjudication of the Directorate of Enforcement. The FEMA provides an opportunity of seeking compounding of contraventions, in terms of which a contravener has a *suo moto* opportunity of making an application to the compounding authority seeking the contravention to be compounded. The compounding authority is required to dispose of the application within 180 days.

The Government of India, in one of the recent Notifications, has designated the Reserve Bank as the compounding authority for all contraventions under the FEMA, except for those involving *hawala* transactions for which the Directorate of Enforcement would be the compounding authority. The new procedure would provide quick and hassle-free disposal of the cases involving contravention(s) of FEMA.

restrictions. The surrender requirements in respect of exports of goods and services continue to operate. The Reserve Bank would, however, have the necessary regulatory jurisdiction over capital account transactions.

4.76 The Reserve Bank has delegated considerable powers to the authorised dealers to release foreign exchange for a variety of purposes and has been focusing on the development of the foreign exchange market. In order to deepen the foreign exchange market, a large number of products have been introduced and the entry of newer players has been allowed. Additional hedging instruments, such as, foreign currency-rupee options have been introduced and authorised dealers have been permitted to use innovative products like cross-currency options, interest rate and currency swaps, caps/collars and forward rate agreements (FRAs) in the international forex market.

Changes in Monetary Policy Framework

4.77 Globally, the period since the 1990s has been characterised by certain striking similarities in the tools that monetary authorities employ to assess macroeconomic developments, the choice of instruments and the operating procedures. There is a greater activism in liquidity management and a focus on the short-end of the market spectrum engendered by the growing integration of financial markets domestically and internationally. There is greater coordination between central banks, fiscal authorities and regulatory bodies governing financial markets. There is also a greater sophistication in the conduct of monetary policy and central bankers are constantly engaged in refining their technical and managerial skills to deal with the complexities of financial markets. Broadly in line with the global trends, the emphasis of monetary policy formulation in India has been on progressive deregulation of the financial sector, providing an impetus to market development and paving the way for increased use of indirect instruments of monetary control.

Deregulation of Interest Rates

4.78 The process of simplification in the administered interest rate structure began in September 1990 with the reduction in the number of slabs for which lending rates were prescribed. In a major move, the minimum lending rate was abolished and the lending rates were freed in October 1994 for credit limits of over Rs.2 lakh. As a consequence of deregulation and simplification of interest rates, banks

now enjoy ample flexibility in deciding their deposit and lending rates. At present, except for the prescribed ceilings for the interest rates on export credit and small loans up to Rs.2 lakh, all other lending rates have been deregulated. On the deposits side, only savings deposit rates and NRI deposit rates are prescribed by the Reserve Bank. As per the current practice, banks set their lending rates with reference to a pre-announced benchmark prime lending rate (BPLR) by taking into account the risk premia and/or term premia. The BPLR is decided by taking into account various factors, such as, actual cost of funds, operating expenses, minimum margin to cover the regulatory requirements of provisioning/capital charge and profit margin. The BPLR also serves as the ceiling rate for small loans up to Rs.2 lakhs.

Reactivation of Bank Rate

4.79 The Bank Rate was reactivated in April 1997 as a reference rate and as a signalling device to reflect the stance of monetary policy. The interest rates on different types of accommodation from the Reserve Bank including refinance are linked to the Bank Rate. The activation of the Bank Rate endowed the Reserve Bank with an additional instrument.

New Monetary Aggregates

4.80 A Working Group on Money Supply: Analytics and Methodology of Compilation (Chairman: Dr. Y. V. Reddy) set up in December 1997 to re-examine the analytical aspects of monetary survey in the context of the emerging dynamics in the nature, quality and dimension of the money stock submitted its report in June 1998. Major recommendations of the working group included: comprehensive analytical surveys of the Reserve Bank, commercial and co-operative banks and the organised financial sector at regular intervals; compilation of four monetary aggregates [M_0 (monetary base), M_1 (narrow money), M_2 and M_3 (broad money)]; introduction of three liquidity aggregates (L_1 , L_2 and L_3); broadening of the definition of credit by including items not reflected in the conventional bank credit; redefining the NFAs of the banking system to comprise banks' holdings of foreign currency assets net of (a) their holdings of FCNR(B) deposits and (b) foreign currency borrowings.

The Policy Focus – Shift to the Multiple Indicators Approach

4.81 Under the "flexible monetary targeting approach" that India followed since the mid-1980s, growth in broad money (M_3) was projected in a manner

consistent with expected GDP growth and a tolerable level of inflation. The M_3 growth thus worked as the nominal anchor for policy. Reserve Money (RM) was used as the operating target and bank reserves as the operating instrument. As deregulation enhanced the role of market forces in the determination of interest rates and the exchange rate, the monetary targeting framework came under stress due to increasing liquidity mainly on account of capital inflows. There was also increasing evidence of changes in the underlying transmission mechanism of monetary policy with interest rates and the exchange rate gaining importance *vis-à-vis* quantity variables. These developments warranted reviews in the monetary policy framework and the Reserve Bank switched over to a more broad-based "multiple indicators approach" since 1998-99. Under this approach, policy perspectives are obtained from interest rates or the rates of return in different markets (money, capital and government securities), high frequency data on currency and credit extended by banks and financial institutions, fiscal situation, trade and capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange and output data.

4.82 A number of institutional arrangements have been put into place to monitor the multiple indicators. The Financial Markets Committee monitors the development in financial markets on a daily basis. The Committee reviews the developments in money rates, foreign exchange, spot and forward rates, movements in volume of funds both in money and forex markets, yield rates and volumes in government securities market and other developments in money and forex markets and banking and other market indicators. The Committee makes a quick assessment of the liquidity conditions and recommends strategies for intervention in money and security markets.

4.83 The informal monetary policy strategy meetings review monetary and liquidity conditions and related indicators and discuss policy strategies, based on the findings of technical studies on relevant issues and review the follow up actions on the recommendation of various committees relating to monetary policy. The Resource Management Discussions with banks focus on reviewing and obtaining projection of banks' major sources and uses of funds, collecting qualitative information on the goals perceived and the strategies proposed to be adopted by the banks in achieving these goals, obtaining feedback on the policy announcements and suggestions on future course of policy and seeking

banks' perception on liquidity and market conditions. The Technical Advisory Committee on Money and Government Securities and Forex Markets advises the Bank, on an ongoing basis, on development of the money and government securities markets. The views and decisions taken are crystallised into policy actions to achieve the desired objectives of monetary policy.

Short-term Liquidity Management

4.84 As reliance on direct instruments of monetary policy declined, liquidity management in the system could be increasingly undertaken through OMOs in the form of outright purchases/sales of government securities and daily repo and reverse repo operations. The OMOs are supplemented by access to Reserve Bank's standing facilities and direct interest rate signals through changes in the bank rate/repo rate. Short-term liquidity management is aided by conduct of repos on a regular basis. The nomenclature of repo and reverse repo was interchanged in conformity with the international usages (repos/reverse repos denote injection/absorption of liquidity by the Reserve Bank) with effect from October 29, 2004.

4.85 During the period between December 1992 and March 1995, the Reserve Bank undertook repos initially for one, two or three days covering five days in a weekly cycle, which was later replaced by a 14-day cycle covering the reserve make-up period. The repos were discontinued after March 1995 due to a lack of demand under tight liquidity conditions and resumed in early 1997. Repos of 3-4 days cycle were re-introduced, as shorter period repos provide greater maneuverability to the Reserve Bank in deciding the quantum of liquidity to be absorbed, depending upon the supply and demand conditions. The repo rates, apart from reflecting liquidity conditions, provide a floor for the overnight call money rates. In the event of tight liquidity conditions, the Reserve Bank's liquidity support to primary dealers enables it to directly intervene in the market, thereby moderating pressures on the overnight call money rates. The LAF has emerged as the principal operating instrument of monetary policy, enabling the Reserve Bank to modulate short-term liquidity under varied financial market conditions. The LAF operates through daily repo and reverse repo auctions that set a corridor for the short-term interest rates consistent with the policy objectives. In order to fine-tune the management of liquidity and in response to suggestions from market participants, the Reserve Bank has introduced from November 28, 2005 a

second liquidity adjustment facility (SLAF). Thus, at present, repos and reverse repos are being conducted twice a day. Although there is no formal targeting of overnight interest rates, the LAF has enabled the Reserve Bank to de-emphasise targeting of bank reserves and focus increasingly on interest rates. This also has helped reducing the CRR without engendering liquidity pressure.

Monetary Management under Capital Inflows

4.86 Following the adoption of structural reforms and external sector liberalisation in the early 1990s, the Indian economy experienced surges of capital flows. While the capital inflows eased the external financing constraint, they also posed dilemmas for the conduct of the monetary policy. Under the circumstances, the objectives of containing exchange rate volatility and the maintenance of orderly conditions in the forex markets become difficult to achieve. More particularly, if capital inflows outstrip the demand for foreign exchange, the appreciation of the domestic currency often necessitates interventions by the central bank to drain off the excess supply of foreign currency. In doing so, the accretion to official reserves implies an immediate expansion in primary money supply with attendant consequences for maintaining price stability.

4.87 Apart from the LAF, which is essentially an instrument of day-to-day liquidity management, sterilisation operations are conducted through several other means. Under the Reserve Bank of India Act, 1934, the Reserve Bank is not allowed to borrow beyond its paid-up capital of Rs.5 crore without collateral. In the past, the Reserve Bank had augmented its ability to carry out OMOs by converting non-marketable special securities (mainly funded from *ad hoc* treasury bills) into marketable paper. With the full conversion of the entire stock of such paper in September 2003, the Reserve Bank was unable to resort to such operations. The Reserve Bank cannot issue its own paper under the extant provisions of the Reserve Bank of India Act, 1934 and such an option has generally not been favoured in India. In addition, central bank bills/bonds would impose the entire cost of sterilisation on the Reserve Bank's balance sheet. Besides, the existence of two sets of risk-free paper – gilts and central bank securities – tends to fragment the market. Finally, as the Government cannot statutorily receive interest on surplus balances with the Reserve Bank, its surpluses are 'invested' in its own securities held by the Reserve Bank to avoid costs for the Government in

terms of idle funds. This arrangement, however, diminishes the availability of the stock of Government securities for sterilisation operations and overall liquidity management.

4.88 The Market Stabilisation Scheme (MSS) was introduced in April 2004 to provide the Reserve Bank with an additional instrument of liquidity management and to relieve the LAF from the burden of sterilisation operations. The MSS is an arrangement between the Government of India and the Reserve Bank to mop up the excess liquidity generated on account of the accretion of the foreign exchange assets of the Bank to neutralise the monetary impact of capital flows. Under the scheme, the Reserve Bank issues treasury bills/dated Government securities by way of auctions and the cost of sterilisation is borne by the Government.

Shifts in Basic Functions

Currency Management

4.89 Currency management is currently passing through an interesting phase. A number of significant steps have been taken in this sphere, which include: building up of the capacity of note printing presses, reforms in the operations of the Issue Department including in the note distribution network, introduction of new security features and a shift towards higher denomination notes in circulation.

4.90 The period in the 1990s was marked by a supply constraint as the capacity of the note printing presses fell far short of the demand for fresh notes. It was only in the last year of the decade that adequate capacity was built up with the setting up of two printing presses of the Bharatiya Reserve Bank Note Mudran Private Ltd (BRBNMPL), a wholly owned subsidiary of the Reserve Bank, at Mysore (Karnataka) and Salboni (West Bengal), which became fully operational in 1999 and 2000 respectively. Equipped with modern facilities for printing, process control, accounting and quality check in a secure environment, these are capable of printing notes in all denominations. The combined capacity of the presses is 19.8 billion pieces per year on a 3-shift basis. The BRBNMPL presses are one of the first bank note presses in the world to be awarded the ISO 9001:2000 certification by M/s Rheinsich Westfalischer, TUV, Germany in March 2001.

4.91 The operationalisation of the printing presses of BRBNMPL enabled the Reserve Bank to embark on the "Clean Note Policy" in 1999. The objective of

the Clean Note Policy is to withdraw non-issuable notes well in time and put fresh notes in circulation in their place. This exercise is dependent on the capacity of the Bank to cope with the need to process and dispose of the notes so withdrawn. While movement of soiled notes from currency chests to Issue Offices could be expedited by several methods, the real issue was the manner in which the processing capacity in the Issue Offices could be augmented so as to match the huge flow of notes from the chests. In view of the limitation to expansion of capacity manually, it became imperative to supplement the effort of manual processing by mechanical processing. The Bank adopted mechanisation of the note processing activity in a big way with installation of 48 Currency Verification and Processing Systems (CVPS) and 27 Shredding and Briquetting System (SBS) in 18 Issue Offices. The CVPS are high-speed fully automatic machines designed to sort currency notes into fit and unfit categories capable of processing 50,000-60,000 pieces of soiled notes per hour. The fit notes are counted and banded to make packets of 100 pieces each while the unfit notes pass on automatically to the on-line shredding unit where they are shredded into very small pieces. The shredded pieces are then sucked into the briquetting unit of the SBS where these are converted under high air pressure into compact briquettes and disposed of in an environment-friendly manner. A beginning has been made in the direction of mechanisation of cash handling activity by the commercial banks as well. As a first step for easing the pressure on the distribution channels, coin distribution has been outsourced to private transport operators and the practice of Reserve Bank staff and police personnel accompanying coin remittances has been done away with.

4.92 The security features of banknotes are reviewed and updated from time to time, taking advantage of the research and technology in the field. The approach has been to improve the security features on the existing design so as to combat counterfeiting and to incorporate a mixture of security features on a completely new series of notes. With the advancement of reprographic techniques, traditional security features were deemed inadequate. A new series of notes stylised as the 'Mahatma Gandhi Series' was introduced in 1996. A changed watermark, windowed security thread, latent image and intaglio features for the visually handicapped are amongst the new features. In tune with the international trends in security features, the Reserve Bank has now come out with banknotes of 2005 series

with machine-readable security features. In view of the greater risk perception in higher denomination banknotes, the banknotes of Rs 100, Rs 500 and Rs 1000 have been strengthened with more security features. It is noteworthy that all notes issued in any design by the Reserve Bank continue to be legal tender, although, over a period of time, notes in a particular design may not be seen any more because of lack of fresh issues in that design.

4.93 In tandem with the technological innovations, the Reserve Bank has taken up the task of putting in place an Integrated Computerised Currency Operations and Management System (ICCOMS) with a view to ushering in greater operational efficiency, improved customer service and providing decision support tools for policy making in the area of currency management. The project involves computerisation and networking of the currency chests with the Reserve Bank's Offices to facilitate prompt, efficient and error-free reporting and accounting of the currency chest transactions in a secure manner. The system will provide a uniform computing platform across all the Regional Offices for transaction processing, accounting and management information systems relating to currency.

4.94 The circulation of currency in India has increased phenomenally (both in volume and value terms). At the time of establishment of the Reserve Bank in 1935, the volume of notes in circulation stood approximately at 100 million pieces. As on March 31, 2005, the notes in circulation had risen to 36,985 million pieces (Rs.3,61,229 crore in value terms). As part of management of the demand for currency, it has been the endeavour of the Reserve Bank to contain the volume of notes in circulation by coinisation of lower denomination notes and a conscious shift towards higher denomination notes in circulation.

4.95 The Reserve Bank continues to conduct its currency management operations with a view to ensuring the optimal customer service through an adequate supply of good quality and secure notes and coins in the country. Clean notes and intensified anti-counterfeiting measures remains a concurrent objective, alongside continuous up-gradation of the security features. With the modernisation of infrastructure, diffusion of IT initiatives in computerisation of bank branch operations and the advances in the communication facilities are expected to bring about further improvements in customer satisfaction and create the necessary environment for ongoing improvements in currency management.

Payment and Settlement Systems

4.96 Payment and settlement systems feature prominently as the backbone of economic activity in any modern society. One of the characteristic features of the Indian economy is the widespread use of cash in the settlement of most of the financial transactions.

While this has been the trend for several years, it is noteworthy that India had pioneered the use of non-cash based payment systems long ago, which not only stood the test of time but had also established themselves as strong instruments for the conduct of trade and business (Box IV.3). With the gathering

Box IV.3

Evolution of Payment and Settlement Systems in India

The earliest payment instruments known to have been used in India were coins, which were either punch-marked or cast in silver and copper. While coins represented a physical equivalent, credit systems involving bills of exchange facilitated inter-spatial transfers. The most important form of credit instruments that evolved in India was termed as *Hundis*. Their use was most widespread in the twelfth century and has continued till today. *Hundis* were either used as remittance instruments (to transfer funds from one place to another) or credit instruments (to borrow money [IOUs]) or for trade transactions (as bills of exchange).

With the steady growth in volumes of trade and commerce and the growing confidence of the public in the usage of cheques *etc.*, transactions through these payment instruments grew rapidly. Bank employees had to frequently walk to other banks, collect cheques and drafts, present them to drawee banks and collect cash over the counter, which had the danger of loss in transit. Moreover, such methods could only serve the purpose of limited volumes of instruments. With the development of the banking system and a higher turnover in the volume of cheques, the need for an organised cheque clearing system emerged. Clearing associations were formed in the Presidency towns and the final settlement between member banks was effected by means of cheques drawn on the Presidency Banks. With the setting up of the Imperial Bank in 1921, settlement was done through cheques drawn on that bank.

In a country marked by the overwhelming usage of cash as a means for settlement of payments, the switch over to non-cash based modes has been a gradual but definitive trend. The most significant one has been the use of non-cash paper based systems (cheque-based) in which banks play a pivotal role. In order to ensure that cheques issued get transformed into cash, the process of settlement of these cheques which were exchanged between the bank whose customer had deposited the cheque and the bank on which the cheque was drawn on, commenced. The development of the banking system and higher turnover in the volume of cheques gave rise to the need for an organised cheque clearing process. Clearing associations were formed by banks in the Presidency towns and the final settlement between member banks was effected by means of cheques drawn upon the Presidency Banks.

The Calcutta Clearing Banks' Association, which was the largest bankers' association at that time, adopted

clearing-house rules in 1938. The association had twenty-five large banks as members and eight sub-members. However, the association did not cover many banks functioning in Calcutta. The cheques, drafts *etc.* of such non-clearing banks were collected by the clearing banks on payment of charges. This affected their business adversely, as the public was not likely to maintain accounts with banks whose cheques suffered a serious handicap of market acceptability. To overcome this problem, these banks formed themselves into a group called the Metropolitan Banking Association with fifty members, which conducted the Metropolitan Clearing House, in 1939. This association reached an understanding with the Calcutta Clearing House in 1940. In addition, two other clearings were conducted in Calcutta - the Pioneer Clearing and the Walks Clearing. The Bombay Clearing House was the only association to conduct clearings in Bombay. It had no parallel systems/institutions comparable to the Metropolitan Clearing House of Calcutta. The uniform procedures and charges for collection of non-clearing banks' cheques, drafts, dividend warrants *etc.* were adopted by the Bombay Clearing House in 1941-42.

After the setting up of Reserve Bank in 1935, the Clearing Houses in the Presidency towns were taken over by the Reserve Bank. The Reserve Bank, by virtue of extending the facility of maintaining the current accounts of banks, could facilitate the settlement arrived out of the clearing process. Thus began the early processes of clearing facilities extended by the Central bank. With the extension of current account facilities for banks at the various locations where the Reserve Bank had its offices, the management of clearing-houses at these locations also came under the purview of the Reserve Bank.

The Reserve Bank continued to extend clearing-house functions for almost five decades as a customary function. In view of the regulatory role played by the Reserve Bank and since the members of the clearing houses were commercial banks regulated by the Central bank, the Reserve Bank also took upon itself the role of regulating the clearing functions. Some of the initiatives in this regard included the formulation of Uniform Regulations and Rules for Bankers' Clearing Houses and the monitoring of payment flows through the larger clearing-houses.

Source: Reserve Bank of India (1998).

pace of globalisation and advances in technology, the importance of safe, sound, secure and efficient payment and settlement systems is recognised by the banks, the world over. It is in this context that the Core Principles for Systemically Important Payment Systems of the Bank for International Settlements (BIS) assumes significance.

4.97 Recognising the importance of payment and settlement systems, the Reserve Bank had taken upon itself the task of setting up a safe, efficient and robust payment and settlement system for the country for more than a decade now. Since clearing operations were at the heart of efficient payment and settlement systems, the thrust area was on such systems. One of the key driving factors in the reforms aimed at improving the existing systems was technology. With the technological developments, which have had a significant impact on the banking sector, the pace in reforms was accelerated with the fillip provided by technology for use by modern payment and settlement systems. In the recent past, the Reserve Bank has been placing emphasis on reforms in the area of payment and settlement systems. The efforts of the Reserve Bank have been to ensure full compliance to the core principles of BIS (mentioned above) and one of the moves aimed at reducing risks – especially settlement and systemic risks – has been the introduction of the Real Time Gross Settlement (RTGS) system.

4.98 Prime among the concerns of the Reserve Bank are the factors relating to risk management and risk reduction, with specific reference to systemic risks (which are risks capable of having a negative impact on the entire group of participants in any payment and settlement system). It was with this objective that the RTGS system was planned, which has now become a reality. The system, in its present form, would take care of all inter-bank transactions and other features would be added on soon. Banks have risen to the occasion in ushering in a system, which uses the latest technology and relies, to a large extent, on network-based information flows.

4.99 In view of the positive response of the financial sector to the initiatives of the Reserve Bank and the banking sector also coming of age, the Reserve Bank has now taken the policy perspective of migrating away from the actual management of retail payment and settlement systems. Thus, for a few years now, the task of setting up new MICR based cheque processing centres has been delegated to the commercial banks. This approach has yielded good results and the Reserve Bank now envisions the

normal processing functions to be managed and operated by professional organisations, which could be constituted through participation from banks. This would be applicable to the clearing houses as well, which will perform the clearing activities, but the settlement function will continue to rest with the Reserve Bank, which would ensure that the settlement is done in Central Bank money, as required in terms of the Core Principles of the BIS (*op cit*). With this, the Reserve Bank will continue to have regulatory oversight over such functions without actually acting as the service provider. The exception to this would be the RTGS, which, on account of its systemic importance, is retained by central banks the world over. The RTGS, which provides for funds transfer across participants in electronic mode with reduced risk, will be operated by the Reserve Bank. This system, apart from ensuring systemic efficiency, would also be attuned to the canons of the monetary policy.

Information Technology

4.100 Information technology (IT) has transformed the functioning of businesses, the world over. It has bridged the gaps in terms of the reach and the coverage of systems and enabled better decision-making based on latest and accurate information, reduced costs and overall improvement in efficiency. In the Indian context, the financial sector, especially the banking sector, has been a major beneficiary from the inroads made by IT. Many new processes, products and services offered by banks and other financial intermediaries are now IT-centred. Effective integration of technology with sound business practices requires business process re-engineering and banks in India need to follow up on the beginnings made in this regard. Newer delivery channels to customers – Automated Teller Machines (ATMs), and the networking of ATMs in the form of Shared Payment Networks, Internet Banking - and implementation of Core Banking solutions by most banks are some examples.

4.101 The Reserve Bank has played a proactive role in the implementation of IT in the banking sector. IT based initiatives would focus on meeting the three pronged objective of better house keeping, improved customer service and overall systemic efficiency. Within the Reserve Bank, initial efforts in the 1980s aimed at mechanisation of activities were expanded during the 1990s into computerisation of critical areas of operation. The Reserve Bank has come out with a Financial Sector Technology Vision Document

outlining the approach to be followed for IT implementation for the medium term period of about three years. This document will help banks in finalising their IT plans in tandem with the overall approach for the banking sector, as envisioned by the Reserve Bank.

4.102 In recent years, there has been a renewed thrust on putting in place comprehensive systems following the Generic Architecture within the Reserve Bank and providing solutions to enhance the efficiency of the payment and settlement systems in India. Priority is being attached to the strengthening of the institutional framework for the regulation and supervision of payment and settlement systems. As a part of this initiative, the Reserve Bank has constituted the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) as a Committee of its Central Board. The functions and powers of BPSS include policy formulation relating to the regulation and supervision of all types of payment and settlement systems, setting standards for existing and future systems, authorisation of the payment and settlement systems and determination of criteria for membership to these systems. A new department called the Department of Payment and Settlement System (DPSS) has also been constituted in the Reserve Bank. The National Payments Council, functioning since 1999, received recognition of a Technical Advisory Committee to the BPSS. The direction provided in the Vision Document would provide a road map for streamlining and refining the payment systems in the medium term.

Regulation and Supervision

4.103 Regulation and supervision of the financial system has received renewed focus in recent years in the context of the phenomenal expansion of the financial sector, technology-enabled innovations in financial products and deepening of global integration. The strategic importance of the banks in the financial system make it imperative for the central bank – historically, the lender of the last resort and the supervisor of the banking system - to pursue financial stability as an important macroeconomic objective, although, in India, there are separate institutions (*viz.*, the SEBI and the IRDA) to oversee the functioning of individual segments of the financial system. A number of initiatives have been taken by the Reserve Bank in reorienting the supervisory and regulatory framework and aligning it with the international best practices, while providing sufficient flexibility to the financial institutions to respond to the growing competition and

taking advantage of the business opportunities unfolded by technological advancements.

4.104 The Narasimham Committee II made a range of recommendations for improving the vigour of the banking system (capital adequacy, asset quality, non-performing assets, *etc.*) as also for strengthening the supervisory systems. The Committee observed that the issue of ‘autonomous status’ for the Board for Financial Supervision (BFS) of the Reserve Bank should be considered to segregate the regulatory and supervisory functions of the apex bank. The Committee made specific recommendations to restructure the BFS and to set up a separate Board for Financial Regulation and Supervision (BFRS). The Committee also recommended that the regulatory and supervisory authorities should take note of the developments taking place elsewhere in the area of devising effective regulatory norms and to apply them in India taking into account the special characteristics but not in any way diluting the rigor of the norms so that the prescriptions match the best practices abroad. The committee also highlighted the need for a review of banking sector laws, such as, the RBI Act, the Banking Regulation Act, the Nationalisation Act and the State Bank of India Act. The recommendations made by the Committee are being progressively implemented.

4.105 Following the recommendations of the Narasimham Committee II and more recently in the context of the Basel II Accord, the Reserve Bank has taken several measures to strengthen its regulatory and supervisory framework with a view to ensuring a sound, efficient and vibrant financial system in the country. The measures to contain the level of non-performing assets (NPAs) include the setting up of Debt Recovery Tribunals for expeditious adjudication and recovery of debts due to banks and financial institutions, Lok Adalats (people’s courts) and Asset Reconstruction Companies and Corporate Debt Restructuring (CDR) mechanisms. In order to ensure the functioning of institutions and markets on the basis of informed decisions, the Reserve Bank has issued guidelines to banks to enhance the level of transparency and disclosures with regard to their financial position (RBI, 2005).

4.106 In recent years, central banks are increasingly focusing their attention not only on individual banks but also on the issues of financial stability. Banks are subjected to more intense regulation as compared to the non-financial firms, in view of the special characteristics of banks. Banks are much more leveraged than the other firms due

to their capacity to garner public deposits. The asset-liability structure of banks is different from other financial firms. The deposits, which constitute a major part of the liability of banks, are repayable on demand, unsecured and their principal amount does not change in value whereas the loans of a bank are illiquid and there can be erosion in the value of loans and of other assets.

4.107 Bank regulation is increasingly getting risk-based with the realisation that the traditional supervisory practices were out of step with the sophisticated risk management techniques. The International Convergence of Capital Measurement and Capital Standards: A Revised Framework (popularly known as Basel II) has brought regulation and risk management to the center stage. Basel II rests on three pillars: minimum capital requirements, supervisory review process and market discipline. India has decided that all the commercial banks would have to be Basel II compliant by adopting, at a minimum, the Standardised Approach for credit risk and Basic Indicator Approach for operational risk under Pillar 1, with effect from March 31, 2007. As regards the supervisory review process (Pillar 2), the role of supervisors is to evaluate whether or not the banks are assessing their capital requirements properly in relation to their risks and if necessary the supervisors may intervene to mandate a higher capital requirement. As regards Pillar 3, the Reserve Bank has been advising banks to make disclosures in order to enhance market discipline.

4.108 The implementation of Basel II will initially require more capital for banks in India due to the fact that operational risk is not captured under Basel I and the capital charge for market risk was not prescribed until recently. As commercial banks are scheduled to start implementing Basel II with effect from end-March 2007, the Reserve Bank will focus on supervisory capacity-building measures to identify the gaps and to assess as well as quantify the extent of additional capital, which may have to be maintained by such banks. Finally, while recognising the importance of consolidation, competition and risk management to the future of banking, the Reserve Bank will continue to lay stress on corporate governance and financial inclusion.

IV. CONTEMPORARY ISSUES

4.109 The narrative in the preceding three sections revealed significant expansion as well as transformation in the central banking functions in India over the period since 1935. The initiatives that

the Reserve Bank undertook in developing financial institutions and markets reflect the structural features of the economy, in particular, the financial sector, as also the Bank's response to the unfolding of circumstances. Nonetheless, monetary policy remains the central preoccupation of the Reserve Bank as that of any other central bank. A number of issues – transparency, policy focus and central bank autonomy – have been the subject matters of intense debate, especially in the context of adoption of international best practices. A related question is whether the pursuit of financial stability as an explicit objective reduces the maneuverability of monetary policy (Nachane, 2005). It deserves a mention that these issues are inter-related. Transparency goes along with central bank independence - if the monetary policy decisions are to be taken independently then the public at large and the legislature in particular needs to be explained the rationale. The announcement of explicit policy objectives is a crucial ingredient of transparency in monetary policy formulation and the operational autonomy of the Reserve Bank is seen as a pre-requisite in the move towards ensuring transparency.

4.110 A comparison of the monetary framework in India in a global setting would be in order. In the Indian context, discretion gets a higher score than the specific short and medium-term policy focus objectives (exchange rate focus, money focus or inflation focus). Central bank independence gets a higher score *vis-à-vis* accountability and transparency. The emphasis on independence, in fact, finds the top rank in the monetary framework of central banks in most countries, although accountability to Government scores over independence in a number of developing economies. Financial stability issues get a high score in India, which is comparable to the crisis-affected Asian economies (Indonesia, Korea, Malaysia and Thailand). In the case of policy analysis, India's focus lies in the money and banking sectors. In the spheres of the analysis of inflation expectation and the use of models and forecasts, India's position is unenviable (Table 4.1).

Transparency in Monetary Policy Formulation

4.111 The traditional approach to central banking policy formulation characterised by "secrecy" or "unanticipated monetary policy" was relevant in a tightly regulated system where the financial markets looked to the central banks for direction and central banks were regarded as an arm of the government;

Table 4.1: Summary Scores for Monetary Framework Characteristics in Select Countries
(Percent of maximum)

Country	Short and medium term policy focus on particular objectives				Institutional Characteristics			Use and importance of various forms of monetary analysis			Structural Characteristics	
	Exchange rate focus	Money focus	Inflation focus	Discretion*	Independence	Accountability of Central Bank to Government	Policy Explanations	Inflation Expectations	Analysis using models and forecasts	Importance of analysis of money and banking sector	Importance of Financial Stability Issues in setting instruments	
1	2	3	4	5	6	7	8	9	10	11	12	
Bangladesh	31	75	44	63	56	83	39	25	6	56	17	
China	25	88	31	41	68	100	63	83	72	78	33	
India	6	50	44	75	83	67	75	0	11	89	67	
Indonesia	6	63	50	66	56	83	83	50	100	89	83	
Malaysia	38	0	44	75	85	83	71	67	17	56	67	
Sri Lanka	6	19	19	94	54	58	48	17	11	56	33	
Thailand	6	6	31	75	82	50	67	0	83	67	83	
Germany	13	88	19	28	96	17	70	50	56	56	33	
Japan	0	0	50	50	93	...	89	75	72	78	50	
Korea	6	75	63	59	73	83	88	17	78	100	58	
Sweden	13	0	100	6	97	83	95	100	78	33	42	
Switzerland	19	75	19	44	90	17	86	33	50	56	8	
UK	0	0	100	0	77	100	94	100	94	56	16	
USA	0	25	19	84	92	83	95	83	89	33	33	

* Discretion depends only on the scores for exchange rate targeting, money targeting and inflation targeting. Discretion is calculated as twice the maximum of these scores minus the sum of the other two. It is converted to an index between zero and 100, where a high score implies more discretion.

Source: Fry *et al* (2000).

central banks were not accountable to the public. In the context of free-enterprise markets, it is increasingly being recognised that financial institutions would be able to take rational decisions if they have the complete background to the policies. Thus, transparency is being viewed not only an aspect of good governance but a pre-requisite to the soundness of financial institutions. With the increasing convergence of views in this regard, the IMF recommended to the member countries to adopt a Code of Good Practices on Transparency in Monetary and Financial Policies (September 1999). Effective transparency, as per the IMF Code, requires more than just the release of adequate information on monetary and financial policies – it involves clarity of roles, responsibilities and objectives of central banks and an insight into the analytical underpinning of its policy action.

4.112 Against this backdrop, the Reserve Bank constituted a Standing Committee on International Financial Standards and Codes and a number of Advisory Groups to examine the specific aspects. The Advisory Group on Transparency in Monetary and Financial Policies (Chairman: M. Narasimham) made

a critical evaluation of the existing state of transparency of monetary and financial policies in India, identifying the areas where improvements were required. With a view to moving towards a more transparent system, the Advisory Group considered it best “to veer towards prescribing to the Reserve Bank a single objective while the government could have for itself a clearly set out hierarchy of objectives for which it could use its other instruments of policy”. Considering the fact that transparency is intricately related to the legislative framework, it highlighted the need for an amendment of the RBI Act to give a sharper focus to the objectives of monetary policy and to provide, through legislative amendments, “reasonable security of tenure” to the Top Management of the Bank. The recommendations of the Advisory Group include: separation of debt management and monetary policy functions so as to provide the Reserve Bank the “headroom” to operate monetary policy; setting up of a Monetary Policy Committee (MPC) as a Committee of the RBI Central Board; and assigning to the Reserve Bank a single objective for monetary policy, *viz.*, the inflation rate and then giving unrestricted instrument freedom to the Bank.

4.113 In Section III mention has been made about the measures undertaken by the Reserve Bank in evolving and adopting international best practices. It may be added that the Reserve Bank has been adopting a consultative approach - setting up working groups and committees with a wider participation of academicians and experts from the market to deliberate on various policy issues. The draft reports are generally placed in public domain for inputs, in particular, from industry associations and self-regulatory bodies. In conformity with international best practices and with a view to strengthening the consultative process in monetary policy formulation, the Reserve Bank set up in July 2005 a Technical Advisory Committee on Monetary Policy (TACMP) with external experts in the areas of monetary economics, central banking, financial markets and public finance. The Committee would meet at least once in a quarter to review the macroeconomic and monetary developments and advise the Reserve Bank on the stance of monetary policy. The views of the TACMP would be discussed in the following meeting of the Committee of the Central Board of the Reserve Bank. In the direction of separation of debt management from monetary policy formulation, two aspects – the initiatives taken by the Reserve Bank to strengthen the government debt market (elaborated in Section III) and the setting up of a separate department named Financial Market Department in the Reserve Bank in July 2005 – merit mention.

Rules Versus Discretion

4.114 In the sphere of monetary management, a crucial issue relates to policy focus, *i.e.*, the announcement of specific short and medium-term policy focus objectives. Since the 1990s, explicit targets are being widely used and a number of countries have adopted inflation targeting (Fry *et al*, 2000). In India, however, as mentioned earlier, the “multiple indicator approach” is being pursued. On this, the Advisory Group on Transparency in Monetary and Financial Policies (*op cit*) observed: “There is great comfort in a multiple objective approach in that precision is not required in defining the objectives and the Reserve Bank in turn does not have much accountability as it juggles with the almost impossible task of fulfilling contradictory objectives and as such accountability is blurred” (RBI, 2000).

4.115 Is the emphasis on discretion or the multiple indicators approach *vis-à-vis* the global convergence towards a single objective misplaced? From a historical perspective, the monetary policy stance in

India has been guided by the specific circumstances, at times deviating from the prevailing wisdom (Section I). In the present case, the emphasis on discretion reflects several factors. At an abstract level, the preference of central banks to exercise discretion in the use of policy instruments is based on the following argument. The continuous flow of new information and the process of expectation formation adding to the base level information about the current state of the economy might make the application of the rigid rules – based on historical information or abstract hypotheses – ineffective in addressing the unfolding problems (Vasudevan, 2003). There are also several practical difficulties in pursuing a single objective such as the explicit inflation target. Structural factors and supply shocks – both from within the economy and outside – render inflation dependent on monetary and non-monetary factors. A fully dependable measure of inflation for targeting purposes needs to be developed. Given the institutional features (the persistence of fiscal dominance), the debt management function gets inextricably linked with the monetary management function while steering the interest rates. In the absence of fully integrated financial markets, the effectiveness of the transmission channel of policy is yet to be established. Under these circumstances, it is necessary to carefully measure and balance the possible outcomes, taking into account the movements in a variety of monetary and other indicators.

Central Bank Independence

4.116 The debate on central bank independence in India is as old as the institution itself. At the time of the establishment of the Reserve Bank, public opinion in India was strongly in favour of an independent central bank. The “London Committee” (which was appointed to draft the Reserve Bank of India Bill, 1933) took the view that the Reserve Bank should be free from any political influence and considered private share holding as the best course to attain this objective. Whereas in those days it was essentially a question of ownership of the Reserve Bank, the contemporary debate on central bank autonomy generally focuses on the operational aspects - the fiscal dominance or what is described as the use of monetary policy as a ‘handmaiden’ to fiscal policy (Nachane, 2005); and the legislative provisions that constrain the operational flexibility of the Reserve Bank (RBI, 2000).

4.117 In the development phase, the growing borrowing programmes of the Government and its

Box IV.4**The Reserve Bank of India (Amendment) Bill, 2005**

The Union Finance Minister in his budget speech in February 2000 had observed that the fast changing world of modern finance had made it imperative to accord greater operational flexibility to the Reserve Bank in conducting monetary policy and regulation of the financial system and that he intended to bring to the Parliament proposals for amending the relevant legislation. The Reserve Bank of India (Amendment) Bill, 2005, as introduced in the Lok Sabha, aims at bestowing the enabling powers on the Reserve Bank to use a larger variety of financial instruments than hitherto and more flexibility to set the cash reserve ratio. The major provisions of the RBI (Amendment) Bill 2005 are as follows.

The Bill proposes to permit dealing in derivatives, and, with the approval of the Central Board, in any other financial instrument, by inserting a clause (6A) to Section 17. It seeks to specify the underlyings in respect of which derivatives may be dealt in by Reserve Bank so that the powers of Reserve Bank to deal in derivatives are not restricted as in the case of derivatives over which it has regulatory powers.

In order to clear ambiguities in the use of repos and reverse repos for liquidity management by the Reserve Bank, it is proposed to specifically authorise the Bank to lend or borrow securities, whether of Central Government, State governments, or any local authority or foreign securities. It is proposed to add clause (12AA) permitting the 'lending or borrowing of securities of the Central Government or a State Government or of such local authorities as may be specified in this behalf by the Central Government or foreign securities;' and clause (12AB) dealing in repo or reverse repo.

The Bill proposes to introduce a new chapter IIID, containing the definitions of the concepts (derivatives, repo and reverse repo) and the powers of the Reserve Bank to regulate the Money Market. In order to provide greater operational flexibility to the Reserve Bank, the Bill proposes to remove the minimum and maximum limits of the cash reserve ratio (CRR) under Section 42 of the RBI Act. Further, it is proposed to remove the provision for payment of interest to banks on the excess CRR maintained, as it reduces the effectiveness of CRR as a monetary policy tool.

monetisation by the Reserve Bank - gave rise to questions regarding the relative roles of the fiscal policy and the monetary policy. Monetary policy, particularly in the 1980s, had to address itself to the task of neutralising the inflationary impact of rising fiscal deficits. The Chakravarty Committee strongly advocated a system of monetary targeting that would bind the Government and the Reserve Bank to a mutually agreed level of net Reserve Bank credit to the Government. The case for according greater operational flexibility to the Reserve Bank in the conduct of monetary policy and regulation of the financial system has become stronger since the 1990s, especially in the context of increasing global integration of the Indian economy. Rangarajan (1993) defined the independence of central banks as "the institutional arrangements for the conduct of monetary policy" and condemned the practice of automatic monetisation of the Government's fiscal deficit through the issue of *ad hoc* treasury bills as the principal factor impinging on the effective conduct of monetary policy in the Indian context.

4.118 The phasing out of *ad hoc* Treasury Bills and the enactment of Fiscal Responsibility and Budget Management (FRBM) legislation are two important milestones in providing safeguards to monetary policy from the consequences of fiscal expansion and ensuring better monetary-fiscal co-ordination. The FRBM Act 2003, which became effective from

July 5, 2004, mandates the Central Government to eliminate the revenue deficit by March 2009 and reduce fiscal deficit to an amount equivalent to 3 per cent of GDP by March 2008. The proposed legislation to amend the RBI Act seeks to provide more operational flexibility to the Reserve Bank in conducting monetary policy, guiding the development of the financial sector and securing the stability of the financial sector (Box IV.4).

V. CONCLUSIONS

4.119 In the context of growing research interest on institutions as a determinant of economic development, this chapter provided a brief narrative on the evolution of central banking in India since 1935 when the Reserve Bank of India was established. The Reserve Bank was founded on the pattern of European central banks; but the evolution of its functions has undergone radical transformations from traditional central banking in the formative years to that of building institutional infrastructure during the development phase and ensuring financial sector soundness in the reform phase.

4.120 With the onset of economic planning and along with the structural transformation of the Indian economy, the functions of the Reserve Bank expanded manifold. As the central bank of a developing country emancipated from centuries old colonial rule, the

Reserve Bank had to take a proactive role in the nation building process in filling the resource gaps of the Governments in Plan financing and in creating necessary financial infrastructure. As a 'mother-of-institutions', the Reserve Bank played a crucial role in the development of the financial sector in India. In the initial years, the emphasis was on putting in place the institutional machinery to support developmental planning, whereas in the reform era, the focus has been on developing and nurturing the financial markets.

4.121 Global developments (such as, the Second World War, breakdown of the Bretton Woods system) did influence the functioning of the Reserve Bank; but the major milestones in the evolution of central banking in India emerged out of the critical role devolved on the Bank. The monetary policy framework in India has undergone shifts along with the global evolution in the art of central banking. In fact, India was the forerunner among developing countries to adopt monetary targeting in 1985. The transformations in the monetary framework since the 1990s – notably, the shift from direct to indirect instruments of control – have been in line with the global trends, while concerns regarding financial stability have been paramount in monetary management in India, as in other economies

(Jadhav, 2005). The Reserve Bank has chosen a consultative approach in policy formulation and a number of institutional arrangements have been put in place. On the issue of integrating Indian financial markets with the global financial system, however, India has chosen to proceed cautiously and in a gradual manner, adjusting the pace of liberalisation with the underlying macroeconomic developments, the state of readiness of the domestic financial system and the dynamics of international financial markets. The Reserve Bank has taken a number of initiatives to strengthen the supervisory and regulatory framework, while simultaneously providing sufficient flexibility to the financial institutions to respond to the growing competition and take advantage of the business opportunities unfolded by technological advancements. While pursuing the reforms, the Reserve Bank has also made conscious efforts to improve systemic efficiency by appropriately re-orienting the traditional functions including currency management and regulation of payments and settlement systems. All these initiatives have strengthened the financial sector in India, enabling it to adapt to the emerging environment and this is reinforced in the change in the perception of the world community towards India as an upcoming economic powerhouse.

5.1 The health of the financial sector is a matter of public policy concern in view of its critical contribution to economic performance. Financial regulation and supervision assumes importance in ensuring that the financial system operates along sound lines. As discussed in chapter III, there has been a long tradition of regulating financial systems by central banks in several countries.

5.2 The regulation and supervision of banks are key elements of a financial safety net as banks are often found at the centre of systemic financial crises (Diamond and Rajan, 2005). The primary justification for financial regulation by authorities is to prevent systemic risk, avoid financial crises and protect depositors' interest and reduce asymmetry of information between depositors and banks. As the costs of financial crises were perceived to be very high, the authorities realised that they should be avoided at all costs. As a result, banks came to be regulated everywhere. Besides, financial regulation attempts to enhance the efficiency of the financial system and to achieve a broad range of social objectives. Going by the experience in several countries, effective regulation is in the interests of all concerned, though it cannot be based on a 'one-size-fits-all' approach (Mistry, 2003). However, it is important to bear in mind that while financial institutions do benefit from an appropriate regulatory regime, there is not much evidence that the existence of a regulatory jurisdiction makes institutions stronger and less prone to shocks (Fiebig, 2001). There is neither a unique theoretical model, nor just one practical approach to the regulation and supervision of a financial system. The existence of different types of regulatory models of the financial system makes the ideal choice a difficult exercise.

5.3 The Indian financial system consists of commercial banks, cooperative banks, financial institutions (FIs) and non-banking financial companies (NBFCs). The commercial banks can be divided into certain categories depending on the ownership pattern, viz., public sector banks, private sector banks and foreign banks. While the State Bank of India and its associates, nationalised banks and Regional Rural Banks (RRBs) are constituted under respective enactments of the Parliament, the private sector

banks and foreign banks are considered as banking companies as defined in the Banking Regulation Act, 1949. The cooperative credit institutions in the country are broadly classified into urban credit cooperatives and rural credit cooperatives. The rural credit cooperatives are generally divided into short-term and long-term cooperatives. However, in some states, cooperative banks have unitary structure with a state level cooperatives operating through their own branches.

5.4 The regulation and supervision of the financial system in India is carried out by different regulatory authorities. The Reserve Bank regulates and supervises the major part of the financial system. The supervisory role of the Reserve Bank covers commercial banks, Urban Cooperative Banks (UCBs), some FIs and NBFCs. Some of the FIs, in turn, regulate and/or supervise other institutions in the financial sector, viz., RRBs, and central and state cooperative banks are supervised by National Bank for Agriculture and Rural Development (NABARD); and housing finance companies by National Housing Bank (NHB). Department of Company Affairs (DCA), Government of India regulates deposit taking activities of companies, other than NBFCs, registered under the companies Act, but not those which are under separate statutes. The Registrar of Cooperatives (ROC) of different states in case of single state cooperatives and the Central Government in the case of multi-state cooperatives are a joint regulator with the Reserve Bank for UCBs and with the NABARD for rural cooperatives. While RBI/NABARD is concerned with the banking function of the cooperatives, the management control rests with the State/Central Governments. This dual control impacts the supervision and regulation of the cooperative banks. The Insurance Regulatory and Development Authority (IRDA) regulates the insurance sector and the capital market, credit rating agencies, etc., are regulated by Securities and Exchange Board of India (SEBI).

5.5 In the past five decades, the Indian banking system has traversed through a difficult path endeavouring to balance several competing and conflicting demands on it from large, medium, small and tiny borrowers in both organised and unorganised

sectors. The banking system's activities were initially tightly regulated and their freedom was restricted. It also confronted several domestic stresses and external shocks. However, the regulations have changed over time to ensure that the banking system steps out of the restrictive operational environment and functions in an atmosphere that bestowed them freedom to innovate and operate in a competitive environment.

5.6 In recent years, the blurring of the distinction among financial intermediaries under the combined impact of domestic and cross-border integration, innovations in instruments and processes, advances in technology and the increasing volumes of capital intermediated by the financial system have necessitated a proactive strengthening of the regulatory and supervisory framework. Emergence of several players with diversified and significant presence in the financial sector makes it imperative for supervision and regulation to be spread across various segments of the financial system.

5.7 The basic issues relating to the form of organisation, extent of ownership, nature of control over management by major stakeholder and the system of corporate governance are still subject to considerable debate (Reddy, 2000). In recent years, there has been a shift in emphasis from micro-regulation to macro-management, supported by a tightening of prudential norms and improvements in the functioning of the financial system.

5.8 This chapter traces the broad transformation that has taken place in the role of the Reserve Bank as the regulator and supervisor of the Indian financial system with a specific focus on the banking system. The chapter is divided into six Sections. Section I traces the genesis and evolution of the financial regulation and supervision in India. Section II highlights the conceptual history of the regulatory and supervisory policies, and strategies in bank regulation and supervision in India. Section III briefly examines the conduct of monetary policy function and its compatibility with regulatory and supervisory role from the Indian perspective. Section IV then discusses some of the emerging issues such as ensuring financial stability, and Indian banking system's transition to Basel II and its implications. Section V makes an assessment of the role played by the Reserve Bank in the financial regulation and supervision, and sketches the future role expected of it. Finally, Section VI offers concluding observations.

I. GENESIS AND EVOLUTION OF FINANCIAL REGULATION AND SUPERVISION

5.9 There is no consistent theory that stipulates, anticipates and assists in controlling regulatory changes. An ideal structure of financial regulation in an economy depends upon the structure and degree of development of the financial system. The need for financial regulation rests on assumptions regarding the role of financial institutions in an economy (Box V.1).

5.10 Central banks' involvement with regulation and supervision of financial system in various countries has evolved gradually as the incidence of banking crises started increasing. Initially, the statutory regulation of banks was considered necessary for the protection of depositors, reduction of asymmetry of information and for ensuring sound development of banking. Subsequently, when the bank crises became widespread, financial regulation by authorities was considered critical to prevent systemic risk and avoid financial crises.

5.11 The need to entrust the regulation and supervision function to central banks is well recognised in view of the critical implications of bank failures. The owners or shareholders of the banks have only a minor stake and considering the leveraging capacity of banks (more than ten to one) it puts them in control of large volume of public funds, of which their own stake is miniscule. In a sense, therefore, they act as trustees and as such must be 'fit and proper' for the deployment of funds entrusted to them. The sustained, stable and continuing operations depend on the public confidence in individual banks and the banking system. The speed with which a bank under a run can collapse is incomparable with any other organisation. In a developing economy, tolerance for downside risk is much less among depositors, many of whom place their life savings in the banks. Hence from a moral, social, political and human angle, there is a more onerous responsibility on the regulator. Millions of depositors whose funds are entrusted with the bank are not in control of the management (Mohan, 2004a).

Core Central Banking Functions vis-à-vis the Function of Banking Regulation and Supervision

5.12 It was recognised in many countries that the ability of a central bank to effectively discharge the core functions would be constrained unless the financial system is efficiently regulated. The traditional central bank functions, viz., formulating monetary

Box V.1 Evolution of Thinking on Regulation

It is recognised that there are no well developed theories of regulation. 'Theory of innovation' postulates that regulatory changes can be measured by their effect on the quantitative and qualitative measures of the regulatory function (Kane, 1981). Theory of contestability (Baumol, *et al*, 1983) maintains that market structure adapts through the process of entry and exit to serve the needs of the customers at minimum cost. Frenkel, *et al*, (1991) distinguish between these two models according to their use of protective measures, bankruptcy procedures and contractual relationships between banks and customers. Sinkey (1992) attempted to develop a 'general theory of regulation' by combining 'agency theory' focusing on problems of hidden actions (moral hazard) and hidden information (adverse selection) with a 'theory of production of regulatory and financial services'.

Models conceived by Llewellyn (1996) and Goodhart, *et al* (1998) distinguish between 'institutional and functional regulation'. The institution based regulation focuses on the 'type of institution or firm', while the functional regulation

is 'regulation according to activity'. Differences in regulatory models governing financial systems can largely be due to differences in the 'prudential supervisory methods' and 'protective rules'. 'Prudential or preventive methods' are those aimed at controlling the levels of risk assumed by banks in order to reduce the probability of bank failures. 'Protective measures', on the other hand, offer protection to customers of financial institutions in the case of actual or impending bank failures and can be applied at a firm or industry level (Currie, 2003).

The banking sector regulation, broadly, takes two basic forms *viz.*, preventive regulation and protective regulation. 'Preventive regulation' prescribes entry requirements in the form of minimum capital requirements, ownership requirements and branch licensing. It also imposes ongoing requirements like capital to asset ratios, loan documentation, credit risk management, provisioning and write-off policies, internal control, *etc.* 'Protective regulation' consists of deposit insurance and lender-of-last-resort functions that are exercised by a central bank.

policy, note issue, providing clearing facilities have complex linkages with the function of financial regulation and supervision. An important reason for vesting a financial regulation function in a central bank is that both monetary and financial stability policies are intertwined. The transmission mechanism for monetary policy may be gravely impaired if credit flows are distorted by a defective or unstable financial system. To ensure a stable environment for controlling the money supply, central banks provided liquidity to the banking system on an *ad hoc* basis. By the early 1900s, the 'lender-of-last-resort' function developed into one of their core responsibilities. In consideration of these interrelationships among various functions, many central banks have willingly accepted the formal responsibility for supervising and regulating the banking sector.

Global History

5.13 In the nineteenth century, central banks had started focusing their attention on ensuring financial stability and their role had increasingly come to eliminate financial crises. The Bank of England (BoE) used to adjust the discount rate to avoid the effects of crises and this technique was used by other European central banks as well. In the United States, a series of banking crises between 1836 and 1914 had led to the establishment of the Federal Reserve System. The experience of the Great Depression had

a profound effect on banking regulation in several countries and commercial banks were progressively brought under the regulation of central banks (Box V.2). In more recent years, financial liberalisation and the emphasis on competition and market forces in many countries have led to the return of systemic risk and financial crises. Between 1980 and 1995, three quarters of IMF member countries had confronted at least one crisis. The above cited factors demonstrate that systemic risk manifested by crises became the basic reason for central bank's involvement with financial regulation and supervision. Central banks have also increasingly associated the tools of banking regulation and supervision to protect depositors' interest, enhancing the efficiency of the financial system and achieving certain social objectives. The financial history of several countries is replete with such instances.

5.14 Broadly, it is observed that initially central banks were not vested with the responsibility of financial regulation due to their preoccupation with other core central banking functions. Subsequently, owing to the need to address the issue of banking crises, many countries considered it appropriate to entrust the financial regulation and supervision function to their respective central banks. In more recent years, some countries are considering a reassignment of regulatory and supervisory function from the central banks to other newly created bodies due to various country-specific reasons (Table 5.1).

Box V.2**Genesis of Central Banks' Role as Financial Regulator and Supervisor - Global History**

In the early twentieth century, bank failures in various countries became too frequent and the ramifications were felt both by depositors and economies as a whole, the issue of identifying a suitable regulator and supervisor of the banking system and vesting the responsibility of regulation assumed importance. When the Bank of England (BoE) was established in 1694, its primary purpose was to raise money to finance the Government. In the UK, there was no formal system of banking regulation and no agency was empowered by law to deal with banking regulation until the 1970s, except the provisions of the Companies Act. Many banks collapsed during the early nineteenth century. The ramifications of spiralling bank failures forced the government to permit from 1826 the formation of joint stock banks allowing the risk to be spread amongst many proprietors. In 1866, the spectacular collapse of bill brokers - Overend Gurney and Company and in 1878 the collapse of the City of Glasgow Bank, sent shockwaves in the financial community. In 1890, BoE had to help the banking system recover from the devastating crisis in which Baring Brothers, a leading merchant banking house in London was involved. The BoE organised a rescue operation in the form of a guarantee fund and more than £17 million were promised, much of it from the powerful joint-stock banks. The crisis was averted but the leading role played by the BoE demonstrated the responsibility it had come to feel for the stability of the banking system as a whole. The banks were drawn into funding the government's war loans and advances, and note issue increased rapidly. Once again, BoE had to intervene, the strong growth and diversification of the larger banks in the 1970s was marred by troubles in the industry. High interest rates caused the collapse of many of these banks from late 1973 and as the crisis deepened, the BoE launched a rescue operation supported by the clearing banks. Public confidence was restored as the failing banks were either reconstructed or liquidated, but the result was the Banking Act, 1976, which increased the formal role of BoE in supervision and regulation of the banking system.

The experience of the United States was different. Before 1863, only State Governments had the power to regulate banks, and this consisted merely in issuing bank charters. In 1863, however, the Federal Government began to take active interest in bank regulation. The National Bank Act of 1864 provided that a Federal Agency, the Office of the Comptroller of the Currency, would have the power to license banks. The Federal Government's bank chartering powers expanded rapidly. In 1864, the Federal Government passed the National Bank Act, which stipulated that newly chartered banks had to buy federal debt and issue notes provided by the treasury. From 1836 until 1914, the U.S. did not have a central bank, but it had many financial crises. These crises were usually

followed by recessions. During 1913, through the Federal Reserve Act or Owen-Glass Act, the Federal Reserve System was created to function primarily as a reserves holding institute, a money-creator of last resort to prevent the downward spiral of withdrawal of funds.

The economic depression in the early 1930s had a disastrous impact on the banking system in America. Private banks, which had invested in stocks and shares found that the Wall Street Crash had eroded their funds severely. In December 1930, the Bank of the United States was forced to close. Many banks found it difficult to continue and within a few years a fifth of all banks in America were forced to close. By the beginning of 1933 the American people were starting to lose faith in their banking system. When Franklin D. Roosevelt was elected as president, he made it clear that his first concern would be to solve this banking crisis. The day after his inauguration, he called the Congress into a special session and declared a four day bank holiday. On March 9, 1933, the Congress passed the Emergency Banking Relief Act, which provided for the reopening of the banks as soon as examiners had found them to be financially secure. Later that year, Congress passed the Banking Act, 1933. The Federal Reserve Board was given tighter control of the investment practices of banks and the Federal Deposit Insurance Corporation was set up to insure all deposits in banks up to US \$ 5,000 (Franklin and Herring, 2001).

The experience of some other countries in delegating the responsibility of bank regulation was totally different. Despite the occurrence of banking crises and the need for central bank's intervention in resolving the crises, some countries established a separate regulatory authority outside the central bank to supervise the banking system, often several years before or after the creation of the central bank. The Canadian Government established the Office of the Inspector General of Banks in 1925 after the collapse of the Home Bank. The Bank of Canada was created nine years later (Georges, 2003). Canada's experience was not unique. A number of other countries, including Chile, Mexico, Peru, and the Scandinavian countries, developed central banks and bank regulators completely separately. More recently, countries such as the U.K. and Australia have modified the institutional mandates of their central banks by transferring their regulatory responsibilities to a separate agency. Therefore, the experiences of countries in creating an appropriate structure and entrusting the responsibility of bank regulation and supervision vary considerably, although the basic motive has been to maintain systemic stability. Thus, there is a considerable cross-national variation in the institutional structure of financial regulation and supervision, and the legislation related to it.

Table 5.1: Countries with a Single Supervisor, Semi-integrated Supervisory Agencies and Multiple Supervisors in 2002*

Single Supervisor for the Financial System		Agency Supervising 2 Types of Financial Intermediaries			Multiple Supervisors (at least one for banks, one for securities firms and one for insurance)	
		Banks and securities firms	Banks and insurers	Securities firms and insurers		
1. Austria	12. Japan Republic	23. Dominican	29. Australia	40. Bolivia	47. Argentina	62. Italy
2. Bahrain	13. Latvia	24. Finland	30. Belgium	41. Chile	48. Bahamas	63. Jordan
3. Bermuda	14. Maldives	25. Luxembourg	31. Canada	42. Egypt	49. Barbados	64. Lithuania
4. Cayman Islands	15. Malta	26. Mexico	32. Colombia	43. Mauritius	50. Botswana	65. Netherlands
5. Denmark	16. Nicaragua	27. Switzerland	33. Ecuador	44. Slovakia	51. Brazil	66. New Zealand
6. Estonia	17. Norway	28. Uruguay	34. El Salvador	45. South Africa	52. Bulgaria	67. Panama
7. Germany	18. Singapore		35. Guatemala	46. Ukraine	53. China	68. Philippines
8. Gibraltar	19. South Korea		36. Kazakhstan		54. Cyprus	69. Poland
9. Hungary	20. Sweden		37. Malaysia		55. Egypt	70. Portugal
10. Iceland	21. UAE		38. Peru		56. France	71. Russia
11. Ireland	22. UK		39. Venezuela		57. Greece	72. Slovenia
					58. Hong Kong	73. Sri Lanka
					59. India	74. Spain
					60. Indonesia	75. Thailand
					61. Israel	76. Turkey
						77. USA
As percent of all countries in the sample						
29%		8%	13%	9%	38%	

* Sample includes only countries that supervise all the three types of intermediaries (banks, securities firms and insurers).
Source : Martinez Jose de Luna and Rose Thomas A. 2003.

Genesis of Bank Regulation and Supervision in India

5.15 Indigenous system of banking existed in India for centuries, which met the requirements of an ancient economy (Rau, 1960). The roots of commercial banking in India dates back to early eighteenth century (Box V.3).

Efforts towards a Comprehensive Banking Regulation Legislation in India

5.16 The initial phases of commercial banking development in India bring out that during the formative stage of banking development, the banks were regulated and governed by the East India Company's Government, the Royal Charter and the Government of India. Before the enactment of the Banking Regulation Act, 1949, the provisions of law relating to banking companies were contained in the Indian Companies Act. Company law was introduced in India with the Companies Act 43 of 1850, which was based on the English Companies Act, 1844. In 1857, an Act for the incorporation and regulation of joint stock companies and other associations either

with or without limited liability of the members thereof was passed. But under this Act, the privilege of limited liability was not extended to a company formed for the purpose of banking or insurance. This disability was removed by the Act of 1860, based on the English Companies Act, 1857. The law relating to companies was re-enacted in a comprehensive form in the Companies Act, 1913, which was made applicable to banking companies as well.

5.17 A banking crisis that occurred during 1913 revealed weaknesses of the banking system such as the maintenance of an unduly low proportion of cash and other liquid assets, the grant of large unsecured advances to the directors of banks and to the companies in which the directors were interested. Some of the banks seem to have resorted to certain undesirable activities and practices. After hectic and uncontrolled expansion there followed the inevitable crash. In West Bengal, the position was especially grave. Four scheduled banks and a large number of non-scheduled banks failed. The amount of money lost, mostly the savings of the middle class, was over Rs.26 crore. The issue of failures of banks was

Box V.3 Evolution of Commercial Banking in India

The East India Company set up Bank of Bombay in 1720 with the objective of increasing trade and thereby the revenue of the Company. In 1773, Warren Hastings floated the General Bank of Bengal and Bihar, which was a private establishment but under the patronage of East India Company's government. The General Bank was closed in 1775 due to opposition in the Governor-General's council. In 1786, the General Bank of India was floated, which claimed limited liability on the shareholders. But neither British nor the Indian law existed at that time to confer the right of limited liability on the shareholders except by the Royal Charter. Subsequently, other banks, viz., the Carnatic Bank (1788), the Madras Bank (1795), the British Bank (1795) and the Asiatic Bank (1804) were established as private institutions.

On February 1, 1806, the Government Bank started functioning in Madras by the passing of the resolution by Bentinck in his Council. The Government Bank was empowered to issue notes subject to some conditions. Apart from Bank of Hindustan, two other European banks operated for various periods in eighteenth century Bengal. The Commercial Bank (1819) and the Bank of Calcutta (1824) were floated mainly by the agency houses. The Union Bank was born by the merger of the Calcutta Bank and the Commercial Bank. These private banks were owned by few individuals and managed by a few men and were legally termed as partnership firms with limited liability.

The Bank of Calcutta was established in 1806 as a joint stock bank with limited liability, which was brought under the Royal Charter in 1809 and renamed as Bank of Bengal. Subsequently, the Bank of Bombay (1840) and the Bank of Madras (1843) were established by Act III of 1840 and Act IX of 1843 by the East India Company. The Government Bank founded by Bentinck was replaced and closed simultaneously with the opening of the Bank of Madras in June 1843. The business of these Presidency banks were initially confined to discounting of bills or other negotiable private securities, keeping cash accounts, receiving deposits, and issuing and circulating cash notes. The major innovations in banking method and organisation came with

the establishment of Bank of Bengal, which included (a) use of joint stock system for raising capital; (b) conferring of limited liability on shareholders by means of a charter; (c) provision for the note issue which could be accepted for public revenue payments; (d) general provision for acceptance of deposits from the general public; (e) imposition of explicit limit on credit and the kind of securities it could accept; and (f) provision for regulatory changes in the board of directors. The Royal Charter governed the three Presidency banks, which was revised from time to time. There were no legally recognised commercial banks with special right within India other than the Presidency banks. The East India Company's government reserved the right to regulate the monetary and credit system to itself.

With the passing of the Paper Currency Act, 1861, the right to issue currency notes by the Presidency banks was abolished and the same function was entrusted to the Government. With the collapse of the Bank of Bombay, the New Bank of Bombay was established in January 1868. In 1876, the Presidency Bank Act came into existence, which brought the three Presidency banks under the common statute and restriction on business. In terms of Act XI of 1876, the Government of India decided on strict enforcement of the charter and the periodic inspection of the books of these banks. In 1921, the three Presidency banks and their branches were merged to form the Imperial Bank of India, which acquired the triple role of a commercial bank, a banker's bank and a banker to the government. In 1951, when the first Five Year Plan was launched, the development of rural India was accorded the highest priority. The All India Rural Credit Survey Committee recommended the creation of a State-partnered and State-sponsored bank by taking over the Imperial Bank of India and integrating with it, the former State-owned or State-associated banks. Accordingly, an Act was passed in the Parliament in May 1955 and the State Bank of India was constituted on July 1, 1955. Later, the State Bank of India (Subsidiary Banks) Act was passed in 1959 enabling the State Bank of India to take over eight former State-associated banks as its subsidiaries.

Source : Evolution of the State Bank of India, (Part I and II).

investigated in detail by the Indian Central Banking Enquiry Committee (1929-31), the terms of reference of which included "the regulation of banking with a view to protecting the interest of the public". The Report of the Indian Central Banking Enquiry Committee emphasised the need for enacting a special Bank Act, covering the organisation, management, audit and liquidation of banks. The authoritative recommendations of the Committee have been an important landmark in the history of banking reforms in India.

5.18 When the Reserve Bank of India Act, 1934 came into effect, an important function of the Reserve Bank was to hold the custody of the cash reserves of banks, granting them accommodation in a discretionary way and regulating their operations in accordance with the needs of the economy through instruments of credit control. With regard to the banking system of the country, the primary role of the Reserve Bank was conceived as that of the lender-of-last-resort for the purpose of ensuring the liquidity of the short-term assets of banks.

5.19 The first attempt at banking legislation in India was the passing of the Indian Companies (Amendment) Act, 1936, incorporating a separate chapter on provisions relating to banking companies. There were two important features of the new legislation, which embodied some of the recommendations of the Indian Central Banking Enquiry Committee. For the first time, a determined effort was made to evolve a working definition of 'banking' and to segregate banking from other commercial operations. The special status of scheduled banks was recognised though certain provisions of the amended Act, such as building up of reserves, were made applicable only to non-scheduled banks, on the ground that the scheduled banks could be left to the general supervision and control of the Reserve Bank. These provisions, however, touched only the fringe of the problem of banking regulation.

5.20 The failure of the Travancore National and Quilon Bank (TNQ Bank) in the middle of 1938 created a public scare. The role of the Reserve Bank in this episode came under public and media gaze. The banking crisis of 1938 was largely a localised affair confined to South India. However, it was observed that majority of the non-scheduled banks continued to be without any control as they were not willing to submit their operations to the Reserve Bank's regulation. Between 1939 and 1949, as many as 588 banks had failed in various States.

5.21 The Reserve Bank submitted to the Central Board, in October 1939, a Report on the non-scheduled banks, with special reference to the distribution of their assets and liabilities. The Report mentioned that several of these banks had poor cash reserves, low investment ratio, over extension of the advances portfolio and a large proportion of bad and doubtful debts. There had been a mushroom growth of banks whose financial position was suspect and all this information was given only on the basis of dressed-up balance sheets, which did not disclose many of the more unsatisfactory features. The Reserve Bank's proposal for a Bank Act was sent to the Government of India in November 1939, and circulated to the public by the Government in January 1940 among banks, banking and commercial associations, prominent members of the public and the press, with the request that the replies be sent to the Reserve Bank within a period of six months. The replies received indicated that generally the business community and their associations welcomed the draft Bill. However, based on the comments received from

various local Boards of the Bank, the Reserve Bank wrote to the Government that the opinion in the country was not ripe for undertaking elaborate bank legislation at that point of time.

5.22 The efforts were revived again in September-October 1943 for a more comprehensive Bank Act. On April 6, 1945, the Finance Member moved in the Legislative Assembly a motion for reference of the Bill to a Select Committee. The motion was adopted by the House in April 1946, but the Committee could not meet until November 1946. The amendments and suggestions made by the Committee formed the basis for the Banking Companies Act, 1949. The regulatory measures taken on an *interim* basis include the Banking Companies (Inspection) Ordinance, 1946 and the Banking Companies (Restriction of Branches) Act, 1946. The Bill as amended by the Select Committee was introduced in the Legislative Assembly on February 8, 1949 and was passed on February 17, 1949 as the Banking Regulation (BR) Act. Thus, the banking regulation and supervision function is governed by the provisions of the Act, which comprehensively deals with several aspects of the banks ranging from setting up of a bank to amalgamation besides several operational issues. The Department of Banking Operations, which was entrusted with the administration of the Act, was originally organised in August 1945 to provide the requisite administrative machinery to discharge the several duties and responsibilities, which were expected to devolve upon the Reserve Bank after the passing of the Banking Companies Bill.

5.23 In sum, the decades of 1930s and 1940s had witnessed proliferation of banks, which were not regulated and supervised statutorily in a comprehensive manner. As a sequel, several banks failed. In order to protect the interests of the depositors and develop the banking system on sound lines, the regulation and supervision of the banking system was entrusted to the Reserve Bank by enacting the Banking Regulation Act, 1949. The Banking Regulation Act has been modified continuously in response to financial developments and there have been 33 amendments to the original Act so far.

II. DEVELOPMENT OF BANK REGULATION AND SUPERVISION POLICIES IN INDIA

5.24 As the functions of the Reserve Bank evolved over years, the regulatory and supervisory approaches were modified as and when deemed necessary. The focus of the Reserve Bank's role as a

regulator and supervisor has shifted gradually from micro regulation of banks' day to day activities to macro supervision with a view to ensuring that the regulations are adhered to in an environment where banks' management are given freedom to take all commercial decisions based on their own judgment. Some major developments tracing the evolution of the Reserve Bank's role as a financial regulator and supervisor of commercial banks, cooperative banks, non-banking financial companies and financial institutions are presented in this section.

A. Regulation and Supervision of Commercial Banks

5.25 Before 1950, there were a number of bank failures and the banking sector had not then developed to meet the requirements of the economy. The supervisory powers conferred initially in 1940 vested the Reserve Bank with the right to inspect banking companies on a restricted scale in consultation with the Government of India. The purpose of these inspections was limited to satisfy the Reserve Bank regarding the eligibility for a license, opening of branches, amalgamation, and compliance with the directives issued by it. With the prior consent of banking companies concerned, the Reserve Bank undertook to inspect their books and accounts with a view to determining the real or exchangeable value of their paid-up capital and reserves for the purpose of considering their eligibility for inclusion in the Second Schedule to the Reserve Bank of India Act. Specific powers to inspect banking companies were granted to the Reserve Bank by the Banking Companies (Inspection) Ordinance, 1946. The Ordinance made the prior consent of a banking company unnecessary for its inspection and also widened the objective of the inspection. The Reserve Bank, under the Banking Regulation Act, 1949 is required to satisfy itself, by inspecting the books of accounts and methods of operation of the banking company, before granting a license. This provision helps to ensure that the banking company is in a position to pay its depositors in full as their claims accrue and that its affairs are not conducted to the detriment of its creditors.

5.26 The purpose underlying the inspections gradually shifted from a quantitative assessment of the real or exchangeable value of the paid-up capital and reserves of a banking company to a qualitative appraisal of its financial position, management and methods of operation. In July 1949, the policy of instituting systematic periodical inspections of all

banking companies was announced. In February 1950, it was decided that all banking companies would be inspected in turn, irrespective of their size and standing and that such inspections would be a regular feature of the Reserve Bank's supervisory activities.

The Foundation Phase (1950-1968)

5.27 The focus of regulation and supervision during the 1950s was to facilitate the creation of a structure of banking system to cater to the requirements of the nascent economy, which had embarked on a path of planned economic growth. The Reserve Bank commenced systematic periodical inspections of all banks in March 1950. These inspections brought out certain undesirable features in the operation of some banks such as defective advances and investments; deficiencies in management and control; inadequate branch supervision; low level of reserves; low level of investments in Government securities; and inadequate provision for investment depreciation. Many of these deficiencies occurred more frequently in the case of non-scheduled banks. The Reserve Bank had, in those cases where such shortcomings were noticed in an inspection designed to assess eligibility of banks for licences, postponed taking any decision so as to give the respective banks a fair chance to qualify for the license, and in a number of cases licences were granted after improvement had been recorded. In 1953, the Reserve Bank tentatively agreed for amalgamation of some banks, if they were deemed to be in the interest of the depositors.

5.28 The administration of the Banking Regulation Act, 1949 brought forth certain loopholes in the law in dealing with managerial irregularities of banking companies, in particular, the powers of the Reserve Bank in respect of the terms of appointment of directors, managing directors and chief executive officers. The issue of directives to banking companies in relation to matters of policy was found to be inadequate. It was with a view to obviating these shortcomings that the Act was amended in January 1957. Other developments such as provision of refinance facilities to banks and enactment of the SBI Act to ensure that flexibility was provided to the banking system so as to make it more responsive to the requirements of a developing economy.

5.29 The collapse of the Palai Central Bank and Laxmi Commercial Bank, both in 1960, affected several aspects of the Reserve Bank's policy towards commercial banks. The failure of these two banks alerted the Reserve Bank to the need to improve the inspection machinery so that it could undertake

surprise inspections of banks or even some of their branches and thereby detect frauds. Following the closure of the Palai Central Bank, the Reserve Bank acquired new powers to enforce amalgamations and the speedier 'de-licensing' of banks. In 1961, the Reserve Bank reorganised and strengthened its inspection arrangements to cover many more branches than in the past and they were widened to include elements of selective audit. The Reserve Bank evinced keen interest in evolving capital adequacy norms for Indian banks as well as introducing a deposit insurance scheme, considering capital standards of commercial banks. These measures helped to strengthen the role of Reserve Bank's inspections.

5.30 Between 1960 and 1968, the thrust of the regulatory and supervisory function of the Reserve Bank continued to be on ensuring soundness of operations of banks, and consolidation and protection of the interests of the small depositors through various measures, including compulsory amalgamations and liquidations. The deposit insurance scheme was also introduced during this period. Through the branch licensing policy, the Reserve Bank started correcting the lopsided branch distribution of Indian banking with its concentration in towns. The growth of banking in some under-developed areas was encouraged through a programme of branch expansion and enlargement of facilities for remittance of funds. During this period, the control exercised by a particular group of persons over the affairs of respective banks in which they have ownership interest was diluted. The need to give the banking system a sense of direction was recognised in 1967 and the 'social control' concept was introduced over issues related to deployment of credit (Malhotra, 1990).

The Phase of Strengthening and Consolidation (1969-1991)

5.31 The nationalisation of 14 major commercial banks on July 19, 1969 was a turning point in the Indian banking system with the entry of the public sector. The focus of regulation was reoriented to meet the objectives of the nationalisation of banks. In the context of the wider role assigned to banks following the nationalisation, a re-orientation of the system of bank inspections was called for. The objectives as per the re-orientation of bank inspections were the evaluation of the overall performance of each bank in different aspects. The Reserve Bank initially advised the newly nationalised banks to consult it before sanctioning any proposal that required their Board's approval under normal circumstances. The Reserve

Bank had also assured the nationalised banks unqualified support in the unlikely event of a transfer or withdrawal of business. The Reserve Bank held discussions with these nationalised banks regarding the steps necessary to implement objectives of nationalisation and issues related to rationalisation of branch expansion.

5.32 The Central Government in consultation with the Reserve Bank constituted the first Board of Directors for each of the nationalised banks on July 18, 1970. Thus, as a regulator, the Reserve Bank ensured that the newly nationalised banks would continue to operate smoothly and the depositors and customers would not be inconvenienced.

5.33 The Government had also started exercising control over matters such as banks' branch expansion policy leading thereby to a situation under which duality of jurisdiction over banking system's regulation arose. The Reserve Bank made concerted efforts to ensure that banking facilities are expanded in a balanced manner through its licensing policy. The setting up of the National Credit Council (NCC), arising out of the policy of 'social control', also had a bearing on the branch licensing policy and procedures. The NCC suggested certain revisions in the branch licensing policy. Accordingly, the policy was modified in May 1968. The Lead Bank Scheme introduced in December 1969, had its genesis in this endeavour and it provides an example as to how banking became an instrument of social policy.

5.34 After nationalisation, the branch licensing policy underwent a major transformation. The Reserve Bank had proposed that applications for new offices would be considered after assessing the business potential of the particular locality and whether the area was adequately banked. However, the Department of Banking, Ministry of Finance was of the view that branch expansion was still largely urban-oriented in terms of the policy specified in May 1968 and that the norms of 1:1 for urban and rural areas and 10 per cent of branches in centres with a population of less than one lakh in the seven under-banked States were probably not relevant any longer. The Department of Banking also felt that the opening of branches by a nationalised bank in a State or Union Territory where it did not have a large presence already should be discouraged because of the difficulties arising from language barriers and the unfamiliarity of senior officers with local problems. The Reserve Bank, however, was of the opinion that the responsibility for branch licensing must continue to be that of the Reserve Bank.

5.35 Subsequently, the Reserve Bank had conceived a perspective plan calling for a branch expansion programme covering three years, 1972 to 1974. This was to be prepared by each bank, giving priority to underdeveloped/under-banked districts. But, the Ministry of Finance had a different perception. They felt that the proportion of rural offices opened by banks had shown a declining trend and that the modified formula had a built-in tendency to reduce the ratio of rural and semi-urban branches to total offices. However, a study conducted by the Reserve Bank concluded that the revised formula of the Reserve Bank had not adversely affected the opening of bank offices in rural and semi-urban areas and had no built-in tendency to reduce the proportion of such offices to the total. Subsequently, the newly created Department of Revenue and Banking in the Ministry of Finance had also insisted on a faster pace of branch expansion in rural and semi-urban areas. The Reserve Bank accommodated this view by issuing guidelines to all the commercial banks. The Reserve Bank pointed out that the stage had been reached wherein banks have to give adequate and due consideration to the need for reducing the inter-State and inter-district disparities in branch development and also to pay attention to the process of consolidation.

5.36 To strengthen the supervisory mechanism further, it was decided to institute a new type of inspection during 1977-78, viz., Annual Appraisal of banks in addition to the Financial Appraisal. While the main emphasis in Financial Inspection was on appraising assets and liabilities and methods of operations of banks, in the Annual Appraisal system of inspection more stress was laid on an objective assessment of systems and developmental aspects. The system of inspection of banks has been subjected to continuous scrutiny to ensure that the exercise yields the desired objectives.

5.37 During the 1970s, the Reserve Bank also dealt with various issues related to strengthening of the management of private sector banks through reconstitution of their boards. Attention was also given to supervision and control of foreign branches of Indian nationalised banks. Issues related to accounting in the banking sector, provision of refinance, and introduction of systems and procedures inspection in the banking system were also addressed.

5.38 During the 1980s, the Reserve Bank's regulatory and supervisory function focused on a variety of issues. In 1980, it was decided that public sector banks would aim at raising the proportion of their advances to priority sectors to 40 per cent by

1985 and a significant proportion would be allocated to the beneficiaries of the Twenty-Point Programme. The Reserve Bank endeavoured to ensure that small and marginal sectors would be provided with resources and induced banks to channel more credit to sectors starved of credit. The focus was on the issues that arose subsequent to nationalisation of six more banks in 1980.

5.39 The massive expansion of the banking system had resulted in certain stresses and strains. With wider geographical coverage, lines of supervision and control weakened. The Reserve Bank appointed a Working Group on inspection of banks in December 1981 to review the system of inspection of commercial banks in the public and the private sectors and to suggest improvements/modifications. Following the recommendations of the Working Group, the Annual Appraisal of inspection of public sector banks was dispensed with. With effect from January 1985, a system of Annual Financial Review was introduced to be conducted subsequent to the annual audit of the banks. Issues such as review of internal control systems at bank branches, reconstitution of boards of nationalised banks and increasing the capital base of banks in the context of growing international exposure of Indian banks were given importance. A review of existing system of inspection of banks was also undertaken. Rehabilitation of troubled central cooperative banks and land development banks was attempted. Local Advisory Boards of foreign banks were constituted. Consequently, in the middle of the 1980s the system entered its phase of consolidation, diversification and liberalisation (Malhotra, 1990). By this period, branch expansion had slowed down considerably.

The Phase of Deregulation and Liberalisation (1991 onwards)

5.40 The decade of the 1990s was a watershed in the history of the Indian financial system in general and the banking system in particular. Notwithstanding the remarkable progress made by the Indian banking system in achieving social goals during the 1980s, it experienced certain problems that led to decline in efficiency and productivity, and erosion of profitability. Factors such as directed investment and directed credit programmes affected the operational efficiency of the banking system. The quality of loan portfolio also deteriorated. The functional efficiency was affected due to over-staffing, inadequate progress in inducting technology and weaknesses in internal organisational structure of the banks. These factors necessitated urgent reforms in the financial system.

Accordingly, a Committee on the Financial System (Chairman: M. Narasimham, 1991) was constituted to look into various issues related to banking with a view to initiating wide ranging financial sector reforms. Following the Report of the Narasimham Committee I, the Reserve Bank adopted a comprehensive approach on the reforms of the financial sector.

5.41 The Department of Supervision (DoS), now called Department of Banking Supervision (DBS) was set up within the Reserve Bank in 1993 to strengthen the institutional framework. A high powered Board for Financial Supervision (BFS), comprising the Governor of Reserve Bank as Chairman, one of the Deputy Governors as Vice-Chairman and four Directors of the Central Board of the Reserve Bank as members was constituted in November 1994.

5.42 Measures such as deregulation of interest rates, reduction of statutory preemptions such as CRR and SLR, and provision of operational autonomy to the banks were taken to strengthen the banks. Further, various prudential measures that conformed to the global best practices were also implemented. One of the major objectives of banking sector reforms has been to enhance efficiency and productivity through enhanced competition (Mohan, 2005). Following the Narasimham Committee's recommendations guidelines to facilitate entry of the private sector banks were issued in 1993 to foster greater competition with a view to achieve higher productivity and efficiency of the banking system.

5.43 Over the years, the regulatory and supervisory polices in India have transformed significantly in tandem with the global developments and the changing pace of the Indian financial system. Apart from on-site inspections, the Reserve Bank has adopted three other supervisory approaches, viz., off-site monitoring, internal control system in banks and use of external auditors. A review of the Reserve Bank's inspection system was undertaken by a Working Group to Review the System of On-site Supervision over Banks (Chairman: S. Padmanabhan), set up in February 1995. The Group, while re-emphasising the primacy of on-site inspections, recommended switching over to a system of ongoing supervision. It recommended a strategy of periodical full-scope 'on-site examinations' supplemented by an in-house 'off-site monitoring system' and linked exercises in between two statutory examinations.

5.44 The Working Group recommended orienting supervision for enforcement of correction of deviations. It was decided that the periodic and full-scope statutory examinations should concentrate on

core areas of assessment, viz., (a) financial condition and performance, (b) management and operating condition, (c) compliance, and (d) summary assessment in line with the internationally adopted capital adequacy, asset quality, management, earnings, liquidity and system (CAMELS) rating model with systems and controls added to it for Indian banks and for foreign banks on CACS model (capital adequacy, asset quality, compliance, systems and controls). Subsequently, examination of 'liquidity' was added to make the model as CALCS. The periodic statutory examinations were to be supplemented by four types of regular and cyclical on-site assessments, viz., targeted appraisals, targeted appraisals at control sites, commissioned audits and monitoring visits.

5.45 The Off-site Monitoring and Surveillance (OSMOS) system was operationalised in 1995 as a part of crisis management framework for early warning system and as a trigger for on-site inspections of vulnerable institutions. The banks were required to increase the level of utilisation of the INFINET for regulatory-cum-supervisory reporting. To identify areas requiring urgent supervisory action and initiate timely action, the time limit has been reduced for submitting returns across all categories of banks since June 2005.

5.46 The recommendations of the Working Group on Internal Control and Inspection/Audit System in Banks (Chairman: R. Jilani) were implemented during 1997-98. The Bank had set up a Regulations Review Authority in April 1999. With a view to capturing the financial position of a bank having subsidiaries/joint ventures at a consolidated level, consolidated accounting and supervision has been introduced since March 2003. A Consolidated Prudential Reporting (CPR) system was introduced in 2003.

5.47 A Working Group was set up to examine the extant norms and practices followed for appointment of statutory auditors in the public sector banks keeping in view the vast changes that have taken place in size and complexities of operations. The role of external auditors in bank supervision has been strengthened.

5.48 Considering the complexities of banking business and emerging product innovations with complex risk profiles, the Reserve Bank initiated measures to implement Risk Based Supervision (RBS) approach to the supervision. The RBS process has been recently revisited by revising the risk profiling templates and introducing a new rating framework. This revision is likely to make the RBS process more risk-sensitive, objective and user-friendly (Box V.4).

Box V.4 Risk Based Supervision – Country Practices

The Risk Based Supervision (RBS) is based on the principle of differentiated supervision. A number of countries, both from advanced and emerging market economies group have adopted this risk-based supervisory approach. The Bank of England moved to risk-based supervisory approach following the publishing of two consultative papers in 1997 covering two approaches such as Risk Assessment, Tools of Supervision, Evaluation (RATE) and Schedule 3 Compliance Assessment, Liaison, Evaluation (SCALE). The Bank of England (the supervision now assigned to the Financial Services Authority) has adopted a flexible and differentiated risk-based approach in setting standards of supervision. Under this approach, the regulator prepares a risk map of an institution taking into account various external threats. The regulator also develops Risk Mitigation Programmes (RMP) including diagnostic, monitoring, preventive and remedial tools, which are designed to be outcome-oriented (Bank of England, 1998).

The Office of the Superintendent of Financial Institutions (OSFI), Canada introduced risk-based supervisory framework in August 1999 for supervising domestic and foreign operations, and activities of subsidiaries and affiliated companies of the bank. OSFI's risk-based approach to supervisory activities includes the evaluation of all significant activities of the bank, whether banking related or non-banking related. The approach of supervision includes assessing the inherent risks and control in various business risk areas (such as credit, market, operational, liquidity, etc.) and arriving at the 'net risk' of the bank.

In Australia, in the late 1990s, it was found that about 86 per cent of banks representing 95 per cent of total bank

assets were rated in the bottom of the risk exposures by the Australian Prudential Regulatory Authority (APRA) in the category of 'low' risk. Thus, it was found that the ratings provided insufficient basis for prioritising supervisory activities for entities within the banking sector. In this background and in line with the convergence with international best practices, in July 2000, the APRA adopted a risk-based supervisory methodology for sophisticated financial institutions, including most banks. APRA's supervision framework seeks to promote consistent, robust, effective and targeted risk-based supervision. In addition, these countries have taken the necessary steps in enhancing the effectiveness of 'risk-based approach' to supervision by refining the tools involved to meet the emerging needs.

In India, the idea to move towards risk-based supervision of banks was first mooted in 2000. The RBS framework of the Reserve Bank evaluates the risk profile of the banks through an analysis of various risks faced by a bank. There were two rounds of pilot run of RBS covering 23 banks. Based on the experience gained, the RBS process was revisited in October 2005 to make the risk profiling exercise more risk-sensitive, objective and user-friendly. A new rating framework has been designed for proper risk assessment and risk aggradation.

Smooth implementation of RBS framework for banks could be considered as a precursor to the New Capital Accord (Basel II) which would enable Indian banks to comply with the Basel II norms in an improved way. This would strengthen the risk management practices of Indian banks and shield them against any possible crisis (Leeladhar, 2005).

5.49 With the complex growth of the financial sector and also the growth of the cross-border financial conglomerates (FCs), the supervisory process requires special attention to address the country responses in dealing with country-specific systemic crises and potential risks associated with financial conglomerates. The Reserve Bank has initiated to hold half-yearly discussion meeting with the Chief Executive Officer of the FCs in association with other principal regulators to address outstanding issues/supervisory concerns, which would further strengthen the system of monitoring the FCs.

5.50 As a step towards building a safe and sound banking system backed by a strong supervisory regime, a system of Prompt Corrective Action (PCA) has been envisaged. Prevention of money laundering activities has assumed importance in international

financial relationships in recent years. In November 2004, the Reserve Bank revised the guidelines on 'Know Your Customer' (KYC) principles in line with the recommendations made by the Financial Action Task Force (FATF) on standards for Anti-Money Laundering (AML) and Combating Financing of Terrorism (CFT).

5.51 In recent years, comprehensive credit information, which provides details pertaining to credit facilities already availed of by a borrower as well as his payment track record, has become critical. Accordingly, a scheme for disclosure of information regarding defaulting borrowers of banks and financial institutions was introduced. In order to facilitate sharing of information related to credit matters, a Credit Information Bureau (India) Limited (CIBIL) was set up in 2000.

5.52 To tackle the issue of high level of non-performing assets (NPAs), Debt Recovery Tribunals were established consequent to the passing of Recovery of Debts Due to Banks and Financial Institutions Act, 1993. With a view to putting in place a mechanism for timely and transparent restructuring of corporate debts of viable entities facing problems, in 2001, a Scheme of Corporate Debt Restructuring (CDR) was started outside the purview of BIFR, DRT and other legal proceedings. To provide a significant impetus to banks to ensure sustained recovery, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act was passed in 2002. With a view to increasing the options available to banks for dealing with NPAs, guidelines were also issued on sale/purchase of NPAs on July 13, 2005.

Progress in Implementing Basel Norms

5.53 In order to strengthen the banking system, it was considered necessary to introduce capital adequacy norms to ensure uniform standards of capital structure and progress towards Basel Committee norms (Basel I). The adoption of Basel Core Principles for Effective Banking Supervision requires adherence to the principles of 'consolidated accounting and supervision' of the affairs of the bank's subsidiaries.

5.54 The Basel II framework has been designed to provide operations to banking system for determining the capital requirements for credit risk, market risk and operational risk and enable banks/supervisors to select approaches that are most appropriate for their operations and financial markets. Under Basel II, banks' capital requirements will be more closely aligned with the underlying risks in banks' balance sheets. With a view to ensuring migration to Basel II in a non-disruptive manner, given the complexities involved, a consultative approach is envisaged. Indian banks are preparing to adopt the Basel II norms from March 2007, as directed by the Reserve Bank. The pace and sequence of approaching various levels of sophistication under the Basel II standards would be decided by the Reserve Bank in due course.

Modernisation of Banking Regulation and Supervision

5.55 Considering the significance of the banking system from the systemic point of view, the issues related to corporate governance were given high importance. The Reserve Bank has been focusing on encouraging market discipline and ensuring good

governance with an emphasis on "fit and proper" management and diversified ownership in more recent times. Banks were encouraged to diversify and offer more varieties of products and services in addition to the conventional products. A policy regarding the approach to 'universal banking' was announced.

5.56 A Standing Technical Advisory Committee on Financial Regulation was constituted in November 2003 to strengthen the consultative process among banks, market participants and regulators of financial markets in the context of carrying forward India's prudential regulatory system. The Reserve Bank had also constituted a Working Group on Conflict of Interest in the Indian Financial Services Sector to identify the sources and nature of potential conflicts, and suggest possible measures/actions to be taken for mitigating them.

5.57 An independent Banking Codes and Standards Board of India has since been set up on the model of the UK in order to ensure that comprehensive code of conduct for fair treatment of customers is evolved and adhered to. With a view to achieving greater financial inclusion, since November 2005, all banks need to make available a basic banking 'no frills' account either with 'nil' or very low minimum balances as well as charges that would make such accounts accessible to vast sections of population. Banks are urged to review their existing practices to align them with the objective of 'financial inclusion'.

5.58 Computerisation of banking has received high importance in recent years due to technological advancement that are taking place in the financial systems world over. The direction towards 100 per cent computerisation has resulted in renewed vigour in the banks towards fulfillment of this requirement, which could provide better customer service, internal control and effective management. The financial sector technology vision document released by the Reserve Bank in May 2005 elucidates its thrust areas by providing generic information on various standards and approaches, IS audit and requisite focus on business continuity plans.

B. Regulation and Supervision of Cooperative Banks

5.59 The cooperative banking system is an important constituent of the Indian financial system. The cooperative banks in India play an important role in catering to the banking needs of the rural population and of certain sections of the urban population as

well. The inadequacy of rural credit engaged the attention of the Reserve Bank and the Government throughout the 1950s and the 1960s. The agricultural credit system as it has emerged has been a product of both evolution and intervention, and symbolises the system's response to the stimuli from continuing dissatisfaction with credit delivery (Mohan, 2004a).

5.60 The Reserve Bank of India Act, 1934 has specific provisions relating to agricultural credit. Section 54 of the RBI Act specifically authorised the creation of an Agricultural Credit Department within the Reserve Bank to deal not only with the rural credit but also with the long-term finance including refinance. Section 17 of the Act empowered it to provide agricultural credit through state cooperative banks or any other banks engaged in the business of agricultural credit. The foundation for building a broader credit infrastructure for rural credit was laid down by the All India Rural Credit Survey (1954). The Committee of Direction that conducted the survey recommended the creation of National Agricultural Credit Fund, which was subsequently created by the Reserve Bank. The Agricultural Refinance Corporation (ARC) set up by the Reserve Bank in 1963 provided funds by way of refinance, but credit cooperatives still did not function too well. Decentralised credit planning through the Lead Bank Scheme was also introduced to spearhead the credit allocation for, *inter alia*, agricultural lending. In order to emphasise the developmental and promotional role assigned to the ARC in addition to refinancing, the ARC was renamed as the Agricultural Refinance and Development Corporation (ARDC) in 1975. Despite all these efforts, the flow of credit to the agricultural sector failed to exhibit any appreciable improvement as the cooperatives lacked resources to meet the expected demand. To solve these problems, the Regional Rural Banks (RRBs) were set up in 1975. In order to strengthen the institutional credit for agriculture and rural development, NABARD was set up on July 12, 1982. On its establishment, NABARD took over the entire functions of the ARDC, the refinancing functions of the Reserve Bank in relation to cooperatives and Regional Rural Banks (RRBs).

5.61 The State Government and the Registrar of Cooperative Societies appointed by the State are the main regulatory authorities for the cooperative societies that are operating only within a State. The regulation and supervision of the urban cooperative banks (UCBs) have been brought within the ambit of the Reserve Bank's statutory control under the Banking Laws (as Applicable to Cooperative

Societies) Act, which came into force from March 1, 1966. The regulatory powers conferred on the Reserve Bank with regard to cooperative banks are limited. While the principles of supervision with regard to cooperative banks have been formulated and implemented by the Reserve Bank in respect of UCBs under the Banking Regulation Act, 1949, the Act does not apply to primary agricultural credit societies and land development banks, thus leaving them under the regulatory purview of the State.

5.62 One important feature of providing agricultural credit in India has been the existence of a widespread network of rural financial institutions. The present structure of the rural financial institutions consists of a three-tier rural cooperative credit institutions (Primary agricultural credit societies, District central cooperative banks, State cooperative banks), RRBs, Local area banks, urban cooperative banks and branches of commercial banks. Some important issues related to regulation and supervision of cooperative banks are discussed in this section.

5.63 The rural credit structure consists of many types of financial institutions as large scale branch expansion was undertaken to create a strong institutional base in rural areas. The number of various cooperative institutions at present is over 1,10,000. This has led to an expansion in rural credit. However, the share of cooperative institutions' credit to agriculture has been declining with the share of commercial banks and RRBs increasing during the 1980s and 1990s (Mohan, 2004a). This calls for a wider reach of the cooperative credit institutions.

Duality of Control

5.64 The 'duality of control' over the cooperative institutions is a contentious issue. The Task Force on Cooperative Credit System (Chairman: Jagdish Capoor, 1999) addressed the issue of duality of control over cooperative credit institutions and suggested to remove the overlap of controls and endowing functional autonomy and operational freedom to cooperatives. The Task Force suggested to draw an Action Plan to redefine the roles and responsibilities and areas of regulation through delegation of powers in respect of all the players in the field, *viz.* the State Government, Reserve Bank, NABARD and apex bank and cooperative institutions. In view of the weaknesses persisting in the cooperative banks, a system of preparation of institution specific development action plans and execution of Memorandum of Understanding have been initiated since 2003-04. Further, a Task Force (Chairman: A. Vaidyanathan)

was appointed in August 2004 to examine, *inter alia*, the issues relating to an appropriate regulatory framework for rural cooperative banking institutions. The recommendations of the Task Force have been accepted in principle by the Government.

Strengthening of the Financial Position of the UCBs

5.65 Keeping in view the weak financial position of many UCBs, the Reserve Bank has undertaken a series of measures directed towards strengthening of the UCBs. Since March 31, 1993, the UCBs have been advised to adhere to the prudential norms, which include applying capital adequacy standards, prescribing an asset-liability management framework, enhancing the proportion of holding of Government and other approved securities for the purpose of SLR stipulation, restriction on bank finance against the security of corporate shares and debentures, and limiting the exposure to capital market investment. In view of the challenges arising from the functioning of the UCBs for the financial system, the Reserve Bank appointed a High Power Committee (Chairman: K. Madhava Rao, 1999) to review the performance of UCBs and to suggest necessary measures to strengthen this sector. Based on the recommendations of this High Power Committee, measures have been initiated to strengthen the existing urban banking structure.

Strengthening of the Supervisory System Related to UCBs

5.66 Instances such as the Madhavapura Mercantile Cooperative Bank's failure brought to the fore the need to have stringent regulatory control over the cooperative banking system. In order to strengthen the supervisory mechanism, the Reserve Bank extended the Off-site Surveillance System (OSS) to all non-scheduled UCBs having deposit size of Rs.100 crore and above. A supervisory reporting system was introduced for the scheduled UCBs since March 2001 as a first step towards setting up of OSS for all UCBs. The capital adequacy norms have been introduced in a phased manner since March 2002. Better risk management through avoidance of concentration of credit risk, off-site surveillance for non-schedule UCBs and following up of KYC guidelines have also been introduced to strengthen the UCBs.

5.67 A total ban has been imposed since October 2003 on grant of loans and advances to directors of UCBs, their relatives and concerns in which they have interest with a view to preventing certain

irregularities. The Reserve Bank has also directed that UCBs should undertake usual due diligence in respect of investments in non-SLR securities. The Reserve Bank introduced a new system of grading of UCBs in April 2003, which is based on their CRAR, level of net NPAs, record of losses and compliance with regulatory environment. Similarly, a system of supervisory rating for UCBs under the CAMELS model has also been introduced. Initially, it was implemented for scheduled UCBs but, subsequently its simplified version was extended to non-scheduled UCBs in March 2004.

5.68 Notwithstanding the structural and cultural differences between UCBs and commercial banks, the above measures suggest that the Reserve Bank has been exercising its regulatory and supervisory powers to ensure that the cooperative credit structure is strengthened on the lines similar to the regulation and supervision of commercial banks.

5.69 In sum, the Reserve Bank has been bestowing greater attention in recent years towards strengthening of the regulation and supervision of the cooperative banking structure in the country. As a prudent step towards aligning the UCBs with the financial system, a Draft Vision Document (2005) of the Reserve Bank seeks to rationalise the existing regulatory and supervisory system; facilitate a focused system of supervision through enhancement of technology; and to evolve mechanism to address the dual control. The future course of action envisaged by the Reserve Bank is to remove operational irritants and to strengthen the UCBs and align them with the commercial banks.

C. Regulation and Supervision of NBFCs

5.70 In India, four types of non-banking financial companies (NBFCs), *viz.*, equipment leasing companies, hire-purchase companies, loan companies and investment companies are under the regulatory purview of the Reserve Bank. With the increasing services sector activity in India, the NBFCs have been playing a critical role in providing credit. NBFCs have extensive networks. The insertion of chapter III B in the Reserve Bank of India Act, 1934 enabled the Reserve Bank to regulate the NBFCs statutorily since February 1964. Since then, the Reserve Bank has initiated a series of measures to appropriately regulate and supervise the NBFCs according to the need from time to time. In 1966, new directives were issued to increase the regulatory powers of the Reserve Bank with regard to NBFCs.

Regulation of Deposit Acceptance Activities

5.71 In 1966, two new directives, *viz.*, the Non-Banking Financial Companies (Reserve Bank) Directions, 1966 and Non-Banking Non-Financial Companies (Reserve Bank) Directions, 1966 were issued. To remove the hardship faced by industrial undertakings in complying with the provisions of the directives on time, the Reserve Bank made certain modifications in the Directives in 1967.

5.72 During 1973-74, the Reserve Bank issued Miscellaneous Non-Banking Companies (Reserve Bank) Directions, 1973 to regulate the acceptance of deposits by the companies conducting prize chits, lucky draws, savings scheme, *etc.* In May 1987, the Reserve Bank issued Residuary Non-Banking Companies (Reserve Bank) Directions, 1987 to regulate such companies. The Reserve Bank of India (Amendment) Act, 1974 empowered the Reserve Bank to inspect NBFCs, whenever the Reserve Bank considers such inspection is necessary or expedient.

5.73 In pursuance of the recommendations of the Working Group on NBFCs in 1992 (Chairman: A.C. Shah), the Reserve Bank initiated a series of measures including redefining the deposit acceptance scheme of registration of NBFCs based on the net owned fund of Rs.50 lakh and above. The Reserve Bank also started regulating the asset side of the NBFCs. In 1994, NBFCs were subjected to prudential norms relating to income recognition, asset classification, provisioning and capital adequacy. Accordingly, registered NBFCs were required to achieve a minimum capital adequacy norm of 6 per cent in March 31, 1995. The CRAR norms for NBFCs have been progressively increased and the norm prescribed at present is 12 per cent.

5.74 In order to strengthen further the regulatory framework of these entities, the Reserve Bank of India (Amendment) Act was enacted in 1997. The legislative focus was primarily aimed at moderating their deposit mobilisation activity by linking the quantum of deposit acceptance to their net owned funds. It also prescribed the revised entry point norms, compulsory registration with the Reserve Bank, maintenance of certain percentage of liquid assets in the form of unencumbered approved securities, formulating a reserve policy and transferring certain proportion of profits every year.

5.75 In order to ensure that the depositors are served appropriately and systemic risks are avoided,

the current focus of the Reserve Bank is on improving their functioning, including transparency of operations, corporate governance, 'Know Your Customer' rules, *etc.* The NBFCs registered with the Reserve Bank that have net owned funds of Rs.5 crore have been permitted to undertake insurance business as agent of insurance companies on a fee basis, without any risk participation. A minimum 12 per cent capital adequacy for NBFCs, which want to enter into insurance joint ventures has been prescribed. If the company holds public deposits, the minimum capital adequacy has been proposed at 15 per cent. Further, minimum net worth requirement of Rs.500 crore, three years of continuous net profit, and maximum non-performing assets of 5 per cent of the total outstanding leased/hire purchase assets and advances have been prescribed for NBFCs.

Strengthening of the Supervision of NBFCs

5.76 In the wake of failure of some NBFCs and loss of depositors' money, the supervision of NBFCs assumed critical importance. In the backdrop of the recommendations of the Khanna Committee (1999), a comprehensive supervisory model has been devised for effective supervision of the NBFCs depending upon the size, type of activity and acceptance or otherwise of public deposits. For this purpose, a four-pronged mechanism comprising on-site inspection on the CAMELS pattern, off-site monitoring through periodic control returns using state-of-the-art information technology; an effective market intelligence network; and a system of submission of exception reports by statutory auditors of NBFCs were instituted in order to buttress the regulatory and supervisory framework for NBFCs. The system of on-site examination is structured on the basis of CAMELS approach and the same is akin to the supervisory model adopted for the banking system. The inspection policy of the NBFCs has recently been revised to regulate them effectively. In order to bring the functioning of the NBFCs in line with international best practices, the Reserve Bank initiated a consultative process with the NBFCs with regard to their plan of action for voluntarily phasing out of their acceptance of public deposits. Recently, the Reserve Bank has laid down a road map for Residuary Non-Banking Companies (RNBCs) with a view to ensure that the transition process of these institutions complies with the Reserve Bank's directions.

D. Regulation and Supervision of Financial Institutions

5.77 Over the years, the Reserve Bank has been involved in setting up of financial institutions such as the erstwhile Industrial Development Bank of India, Unit Trust of India, National Bank for Agriculture and Rural Development, National Housing Bank and Infrastructure Development Finance Company Ltd. Interestingly, although the Reserve Bank has helped to create and foster these institutions, it did not regulate them until the early 1990s. However, the Reserve Bank had the statutory powers to call for information and give directions to them under the RBI Act. Development Finance Institutions (DFIs) expanded rapidly, especially in the 1980s. Therefore, in the early 1990s, DFIs were brought under the monitoring arrangement of the Reserve Bank as an adjunct to monetary and credit policy. In 1994, major term lending institutions [IDBI, ICICI, IFCI, Small Industries Development Bank of India (SIDBI), Industrial Investment Bank of India (IIBI) and Exim Bank] were subjected to prudential guidelines relating to income recognition, asset classification, provisioning and capital adequacy. These norms were subsequently extended to Tourism Finance Corporation of India (TFCI) and IDFC. In 1996, refinancing institutions such as SIDBI, NABARD and NHB were also brought under the purview of the prudential regulations. Credit exposure norms relating to single borrower/group of borrowers have also been prescribed for all-India term-lending and refinancing institutions.

Strengthening of Supervision of FIs

5.78 In April 1995, select all-India financial institutions were brought under the supervisory purview of the BFS. Subsequently, the regulatory and supervisory framework of financial institutions has undergone a significant change along with the accelerated pace of commercial development of banks in the globalised environment.

5.79 Measures have been initiated to strengthen the supervision of FIs to make them stronger. All India financial institutions are being covered by an on-site supervisory process (CAMELS standards) since 1995 on the lines similar to that for commercial banks. Taking into account the developmental functions and supervisory functions exercised by some of the financial institutions such as NABARD, SIDBI and NHB, a modified approach for supervisory assessment of these institutions has been introduced. In view of the dichotomy among the FIs that gave rise to large

variations in the interest rates offered and maturity pattern, etc., which could eventually result in disorderliness of the market, the resource mobilisation by DFIs was brought under the purview of regulations in 1998. After reviews on an on going basis, the regulations have been liberalised and made flexible in line with developments in the debt market. Faced with rising resource cost, increased competition and decline in asset quality, DFIs have diversified their operations into para-banking activities. This necessitated a review of the regulatory mechanism for the DFIs. Based on the recommendations of the Working Group on Development Financial Institutions, the Reserve Bank would continue to supervise NABARD, SIDBI, NHB and EXIM Bank through on-site inspection and also supervise DFIs. On-site and off-site surveillance system has been instituted for DFIs more or less on the lines of commercial banks. A major restructuring in the financial sector is evident in the recent conversion of ICICI and IDBI into banks. It is recognised by the Reserve bank that the recent trends towards transformation of select FIs into banks warrant continued and appropriate regulatory and supervisory hold over them.

Broad Transformation in Reserve Bank's Regulatory and Supervisory Role

5.80 The regulatory and supervisory policies and strategies pursued by the Reserve Bank in the past few decades were largely need driven and in response to both domestic and global developments. In tune with the developments that have taken place from time to time in the Indian economy in general and the banking system in particular, the objectives and approaches of regulation and supervision have also been changed in the past five decades, while retaining the basic purpose of maintaining the soundness and stability of the banking system. Consequent to the changes in objectives and approaches to regulation and supervision in India, the role of the Reserve Bank as regulator and supervisor has also transformed significantly over the years.

5.81 As the Indian banking system has started acquiring gradually global character in recent years, the regulation and supervision have focused on preventing systemic instability, fostering competition, improving market practices, reducing information asymmetries and preventing money-laundering activities. Over years, in tune with the changing financial environment, certain regulations lost their relevance fully or partially like administration of interest rates and imposition of restrictions on activity,

location and investment activities of banks. The broad objectives of regulation and supervision of banks in India and the corresponding regulatory measures and controls during the past five decades have been portrayed in Tables 5.2, 5.3 and 5.4.

5.82 In sum, with constant changes in the domestic and external financial environment, the Reserve Bank has responded appropriately from time to time and in a proactive manner by changing the focus of its regulation and supervision function as the situation evolved. From the role of a facilitator of the process of creation of the financial structure in the 1950s, the Reserve Bank had extended its focus not only to expanding the structure but also to improving the

innate strength of the banking sector through enhancing operational efficiency, quality of assets and financial strength of banks, and ensuring the safety and soundness of the structure and depositors' interest during the subsequent decades. While the fundamental objective of regulation and supervision continued to be "maintaining the soundness and stability of the financial system" all along, regulation and supervision has simultaneously focused on other objectives such as transparency of balance sheet, protection of depositor interest, meeting social needs, improving the efficiency, fostering competition, improving market practices and reduction of asymmetries of information. The current and future focus of the regulatory and supervisory function of

Table 5.2: Financial Regulation Approaches, Measures and Objectives in India - 1950s to 1980s

Regulatory Approaches, Measures and Controls	Objectives			
	Increasing system's stability	Improving efficiency	Depositor protection and customer service	Meeting Social needs
MACROECONOMIC CONTROLS :				
Reserve Requirements	*			
Credit/Deposit Ceilings	*			
Interest Rate Controls	*			*
Restrictions on Foreign Transactions	*			*
CREDIT ALLOCATION				
Directed Selective Credit Programmes				*
Preferential Interest Rates				*
Compulsory Lending requirements				*
STRUCTURAL CONTROLS				
<i>Entry, Exit and Merger Requirements</i>	*	*	*	*
Geographic Restrictions	*			*
Activity Restrictions	*			*
PRUDENTIAL CONTROLS				
Capital Adequacy Requirements	*	*	*	
Portfolio Risk Concentration/Diversification	*	*		
Non-Performing Asset Classification	*	*		
Reporting Requirements	*	*		
ORGANISATIONAL CONTROLS				
Market Making rules	*	*	*	
Participation Rules	*	*	*	
Market Information	*	*	*	
Disclosure Requirements	*		*	
Minimum Technical Standards	*	*	*	
PROTECTIVE CONTROLS				
<i>Consumer Information Disclosure Requirements</i>			*	*
Consumer Confidentiality Protection			*	*
Consumer Compensation Rules in event of default			*	*
Dispute arbitration and settlement rules			*	*

Format Source : Mistry Percy, 2003, "Trends in International Financial System Regulation & Supervision", Commonwealth Secretariat's Meeting, London, June.

Table 5.3: Financial Regulation Approaches, Measures and Objectives in India - 1990s

Regulatory Measures	Objectives				
	To prevent Systemic Risk	Prevent Crises	Depositor Protection	Efficiency Enhancement	Bank Restructuring
Competition Policy			*	*	*
Disclosure Standards	*	*	*	*	
Conduct of Business Rules			*	*	*
Capital Adequacy Standards	*	*	*		*
Entry Tests (fit and proper persons)	*	*	*	*	*
Liquidity Requirements	*	*	*		*
Reporting Requirements	*	*	*		*
Restrictions on Services	*				*
Asset Restrictions	*				*
Deposit Insurance	*	*	*		*
Reserve Requirements	*	*	*		*
Customer Suitability Requirements			*		
Interest Rate Controls on Deposits	*		*		
Interest Rate Controls on Loans		*	*		
Investment Requirements					*
Geographic Restrictions					*

Format Source : *Mistry Percy, 2003, "Trends in International Financial System Regulation & Supervision", Commonwealth Secretariat's Meeting, London, June.*

the Reserve Bank would be on transforming the Indian financial system on the lines of global standards in efficiency and robustness so as to withstand shocks

and maintain stability, while protecting the depositors' interests. The role of regulation and supervision would continue to evolve, as has been the case worldwide.

Table 5.4: Financial Regulation Approaches, Measures and Objectives in India - 2000 and Beyond

Regulatory Approaches and Measures	Objectives				
	To enhance competition	To improve Market practices	To reduce Information Asymmetries	To prevent Systemic Instability	To prevent Money-Laundering
Competition					
Market Structure Policy	*				
Market Conduct					
Disclosure Standards		*			
Conduct of Business Rules		*			
Market Governance		*			
Prudential Regulation					
Entry Rules		*	*		
Risk Capital Requirements		*	*	*	
Balance Sheet Disclosures			*	*	
Off-Balance Sheet Restrictions			*	*	
Associated Institutions			*	*	
Liquidity Requirements			*	*	
Reserve Requirements			*	*	
Accountability Requirements			*	*	
Systemic Stability Rules					
Lender of last resort				*	
Oversight of Payments System				*	
AML-CFT Measures					
					*

Format Source : *Mistry Percy, 2003, "Trends in International Financial System Regulation & Supervision", Commonwealth Secretariat's Meeting, London, June.*

Regulatory Model in India

5.83 There is no unique theoretical model or just one practical approach to the regulation and supervision of a financial system. Four broad approaches for financial market supervision and regulation can be identified as 'institutional supervision', 'supervision by objectives', 'functional supervision' and 'single-regulator supervision' (Giorgio, 2001). In the more traditional 'institutional approach', supervision is performed over each single category of financial operator or over each single segment of the financial market and is assigned to a distinct agency for the entire spectrum of activities. The supervision by objectives model postulates that all intermediaries and markets may be subjected to the control of more than one authority, each single authority being responsible for one objective of regulation regardless of both the legal form of the intermediaries and of the functions or activities they perform. The functional supervision considers as 'given' the economic functions performed in the financial system. The single-regulator supervisory model is based on just one control authority and with responsibility over all markets and intermediaries regardless of whether, it is in the banking, financial or insurance sector. Barth *et al* (2001) documented a large body of literature that purported to explain the superiority of one model over the other. However, opinion continues to vary about the efficacy of various models of regulation and supervision.

5.84 It is indeed a difficult task to choose an ideal model of regulation, as there exist different types of models. Thus far, the operational experience, not only in the Euro area but also in the United States, indicates that central banks are carrying out supervisory tasks in an effective way. At the same time, little experience has been gained so far with the performance of the FSA-type single agency model in place in the U.K.

5.85 India has traditionally followed an institution-based system of regulation. The Reserve Bank acts as a supervisory body in respect of banks, NBFCs and all-India financial institutions (AIFIs). The ROC of different States are a joint regulator for the banks in the cooperative sector, both urban and rural. SEBI regulates the capital markets and several institutions such as the stock exchanges, mutual funds and other asset management companies, securities dealers and brokers, merchant bankers and credit rating agencies. The insurance sector is regulated by Insurance Regulatory and Development Authority (IRDA).

5.86 The issue about whether the current regulatory model and structures are appropriate or if there is a need to change them has been debated in recent years in India. The debate on the issue of regulatory overlaps and gaps was discussed by several committees and working groups. The views expressed by these Committees and the outcomes of the technical discussions are varied in nature. Some important views, in this context are that the duality of control over the banking system between the Reserve Bank and the Banking Division, Ministry of Finance should end and the Reserve Bank should be the primary agency for the regulation of the banking system. The Khan Working Group felt that it is desirable to establish a 'Super Regulator' to supervise and coordinate the activities of the multiple regulators in order to ensure uniformity in regulatory treatment. The Deepak Parekh Group felt that there is a need for greater coordination in regulation through the High Level Group on Capital Markets by conferring a legal status to it.

5.87 Considering all relevant factors, it has been argued that the existing regulatory gaps and overlaps should be identified without disrupting the existing regulatory structures and it is necessary to explore the feasibility of an umbrella regulatory legislation, which creates an apex regulatory authority without disturbing the existing jurisdiction. It was proposed that the BFS of the Reserve Bank can continue to supervise banks and non-banks but with a Deputy Governor as the Chairman, the insurance regulating authority should supervise insurance companies and SEBI should continue its regulatory jurisdiction over capital market. The apex financial regulatory authority may be constituted by statute with the Governor of the Reserve Bank as Chairman and the members could be Chairmen of the three regulatory agencies. The apex body should also include some outside experts on a part time basis. Finance Secretary could be a permanent special invitee or a regular member without voting rights as in the case of the Reserve Bank Board. The apex authority could have by law, jurisdiction to assign regulatory gaps to one of the agencies; arbitrate on regulatory overlaps and ensure regulatory coordination. The apex authority could be serviced by a part-time secretariat from the Reserve Bank. The spirit of this proposal is to improve and formalise the present informal arrangement into a legislative based authority. The justification for Governor of the Reserve Bank to be the Chairman of such an authority has also been debated and it was argued on the ground that every transaction, irrespective of the market in which it takes place, has

one leg in the cash/inter-bank market in terms of ultimate payment/settlement. Any problem in the market in which the transaction takes place has to impact the cash market. The Reserve Bank as the ultimate provider of liquidity (though may not be as regulator) has, therefore, to concern itself with the stability in the functioning of all financial markets (Reddy, 2001b).

5.88 In order to improve regulatory effectiveness, achieve regulatory harmony, plug the regulatory gaps and minimise the regulatory overlaps, the Reserve Bank has been taking various initiatives in recent years. There are certain mechanisms through which broad coordination is ensured among various regulators in the financial system. A system of regular exchange of information among various regulators has been put in place. Functioning of a High Level Committee on Capital and Financial Markets headed by the Governor of the Reserve Bank, with Finance Secretary, Chairman SEBI and Chairman IRDA as members has been looking into policy issues where there is a regulatory overlap. The Committee has set up three Technical Standing Committees with cross representation to provide an inter-agency forum to review the developments in the banking sector, the insurance sector and the capital market.

5.89 A detailed scrutiny of the structure of the Indian financial system, current regulatory structures and regulatory arrangements reveals that the regulatory overlaps, regulatory conflicts on 'turf grounds' and 'regulatory arbitrage' are negligible. It is also clear that the current regulatory practices are not creating an 'uneven field to perform', while regulating different types of financial institutions that are undertaking similar activities (Raj, 2005). In this context, the relevant point is not whether the choice should be either a single regulator or multiple regulators, but what works effectively and suits the economy keeping in view the circumstances in the Indian financial system and institutional background. "The choice should not be made as a measure of 'doing something' to meet pressing demands. The choice need not be made in extremes of single and multiple regulators since there are possibilities of hybrids and supplementing arrangements. Under any system, issues of information exchange and coordination are inevitable. In the final analysis, the regulatory objectives, coverage, skills, operational effectiveness and credibility are important, and structures remain one element of financial regulation" (Reddy, 2001b).

5.90 It is recognised that regulatory and supervisory approaches, systems and structures need to keep adapting to cope with the progressive evolution and integration of economies, financial product/service markets, technology, and the transformation of financial institutions in response to competition in meeting the changing market demands. In India, the current model of regulation with the Reserve Bank exchanging relevant information with other regulators in a synchronised manner is functioning effectively.

III. CONDUCT OF MONETARY POLICY AND COMPATIBILITY WITH REGULATORY AND SUPERVISORY ROLE

5.91 As discussed in chapter III, an important debate in the context of a central bank is whether there is any inherent conflict in discharging both the monetary policy and supervisory functions simultaneously by the central bank. An important argument for preserving a financial stability function in a central bank, even when regulation of financial entities is passed to another institution, is that monetary and financial stability policies are intertwined (Sinclair, 2000). Monetary policy can have important implications for financial stability and financial stability decisions, in turn, have implications for monetary policy.

5.92 Financial sector stability is best achieved in the context of a stable macroeconomic environment. An approach to macroeconomic policy management, which aims at keeping prices stable and facilitates flexible adjustment of the economy is fully consistent with prudential goals. International experience shows that financial and banking distress has been inextricably linked to currency and macroeconomic crises. Therefore, prudential policies need to aim at promoting financial system's stability, which is a pre-condition for macroeconomic stability. While the relationship between a supervisory role and monetary policy role is complementary from the central banker's perspective, in reality there might be occasions when there could be a potential conflict between these two functions (Box V.5).

5.93 There is a clear two way intimate inter-relationship between monetary policy and banking soundness (Reddy, 1998). The special links between monetary policy and banking soundness warrant that both functions need to be combined. The banking system continues to be the main vehicle for monetary policy signals in India. Bank soundness is, therefore, a legitimate concern of the Reserve Bank.

Box V.5**Conflict of Interest between Supervisory Role and Monetary Policy**

A practicing central banker can envisage situations of conflict between monetary policy objectives and prudential goals, which might arise particularly in conditions of serious economic or financial system stress. Such a situation arises when inflationary pressures require interest rates to be raised sharply and banks are potentially exposed to possible write-downs of their asset valuations. Conflict could arise if it were thought that the value of some assets underpinning bank loans might fall below the amount of the loans as a result of interest rate increases. This could become a prudential concern if borrowers were highly geared, as the fall in asset values would be substantial. Another issue could arise if the central bank became deeply involved in managing some kind of a banking crisis. This has the potential to significantly divert the central bank's attention from its monetary policy activities.

While the importance of central bank independence for the conduct of monetary policy has been the subject matter of numerous empirical studies, relatively little research has been focused on the significance of other aspects of the structure of the central bank, particularly its role in bank supervision. Recently, however, this role has received increased attention from policymakers. Although roughly three-quarters of OECD nations assign their central banks either total or shared responsibility for bank supervision, many of these countries are reviewing those responsibilities. For example, in mid-1997 the Bank of England was given greater independence, but was relieved of its bank supervisory responsibilities. In this context, the former Governor of the Bank of England said, "monetary and financial stability are inter-related. It is inconceivable that the monetary authorities could quietly pursue their stability-oriented monetary policy objectives if the financial system through which policy is carried on—and which provides the link with the real economy - were collapsing around their ears...This inter-relationship means that, whatever the precise institutional arrangements for financial regulation and supervision, central banks necessarily have a vital interest in the soundness of the financial system" (George, 1994).

One key element of the debate about whether the central bank should retain bank supervisory duty is whether these responsibilities contribute to the performance of

monetary policy. The Federal Reserve has effectively incorporated bank supervisory information into monetary policy deliberations. Expressing his views on the subject and pleading that the Federal Reserve should not be divested of the supervisory functions in his testimony to the Committee on Banking and Financial Services, U.S. House of Representatives on March 19, 1997, Chairman Alan Greenspan stated that "the Federal Reserve Board believes that financial modernisation should not undermine the ability and authority of the central bank of the United States to manage crises, assure an efficient and safe payment system, and conduct monetary policy. We believe all of these require that the Federal Reserve retain a significant and important role as a bank supervisor. In today's structure, we have adequate authority and coverage to meet our responsibilities". Although the U.S Congress attempted to divest the regulation and supervision function from Federal Reserve many times, as the Federal Reserve has convincingly argued against such separation and retained the function with it. Recently, the new Fed Chairman Ben Bernanke (2005) also said "modernisation of the banking system and the improvement of bank regulation and supervision are essential for promoting stable monetary policy and low inflation".

Whether a central bank is vested with the responsibility of supervision and regulation or not, good central banking requires a thorough understanding of financial institutions, financial markets, and financial system infrastructure. For monetary policy purposes, understanding the role of financial institutions and markets in the transmission process from central bank decision making to their ultimate economic effects, aids efficiency in policy implementation. It is also required for prudential purposes as, while it is institutions that fail, often financial markets and financial system infrastructures can be either the source of problems or transmit risk from one institution to another. Although the regulation and supervision was not a core central banking function initially, subsequently, most central banks have accepted the function of regulation and supervision. The debate is put to rest by Professor Goodhart: "after all, banking supervisors and those in the central bank concerned with systemic stability must continue to work closely together wherever the supervisors are physically located" (Goodhart, 2000).

5.94 The supervisory activities of the Reserve Bank have benefited from its price stability objective, and it is recognised that safety and soundness of banks must be evaluated jointly with its responsibility to ensuring stability and growth in the economy. To carry

out its overall responsibilities, the Reserve Bank has had to develop extensive and detailed knowledge of the intricacies of both Indian and global financial systems. The Reserve Bank with joint responsibilities for monetary policy and supervision has both the

insight and the authority to use techniques that are less blunt and more precisely calibrated to the problem at hand. Such tools improve its ability to manage crises and, more importantly, to avoid them. The dynamic financial system is vulnerable to episodes of stress. It is conceded that the Reserve Bank's ability to respond expeditiously to any particular financial stress does not necessitate comprehensive information on each banking institution. But it does require that the Reserve Bank has in-depth knowledge of how different institutions are likely to behave and what resources are available to them in the event of a severe financial stress. Even for those events that might precipitate financial crises, the system turns first to the Reserve Bank, not only because it is the lender-of-last-resort, but also because it has the expertise and the experience.

5.95 The Reserve Bank's supervisory responsibilities give it important qualitative and quantitative information that not only helps it in the design of monetary policy, but provides important feedback on how policy stance is affecting bank actions. To illustrate, the rising shares of bank credit to housing, real estate and retail finances have warranted appropriate policy responses to ensure credit quality. Asset price changes can have a powerful effect on investment and/or consumption through a financial accelerator effect and in this context, large swings in asset prices can pose a challenge for monetary policy. From the regulatory and supervisory perspective, especially in view of non-linearities in asset price changes, such a high growth needs to be regulated through the prescription of appropriate risk weights. Keeping in view such temporary cyclical penetration of credit, the Reserve Bank increased the risk weight, in December 2004, from 50 per cent to 75 per cent in the case of housing loans and from 100 per cent to 125 per cent in the case of consumer credit including personal loans and credit cards. Subsequently, the risk weight for credit risk on capital market and commercial real estate exposures increased from 100 per cent to 125 per cent in July 2005.

5.96 Confidential supervisory information garnered through bank examinations can potentially improve the conduct of monetary policy (Joe *et al*, 1999). Therefore, it is advantageous to simultaneously pursue the monetary policy function along with banking regulation and supervision. In the Indian context, these two functions are more complementary than conflicting.

IV. EMERGING ISSUES

5.97 In the emerging milieu, in order to ensure that the Reserve Bank's regulation and supervision function continues to be effective, certain issues need to be addressed. Prominent among these issues are ensuring financial stability, smooth transition to Basel II regime, and appropriate structures to regulate and supervise the emerging financial conglomerates and the electronic banking.

(i) Ensuring Financial Stability

5.98 The notion that a central bank should have responsibility for financial stability is deep rooted in the history of central banking. Financial instability has been sufficiently prominent over the last couple of decades to rise to the top of the international policy agenda (Claudio, 2002). In the wake of several financial crises that occurred worldwide and the devastating implications of the crises to respective economies, 'financial stability' is being recognised as a critical function of central banks.

5.99 A broad transformation is discernible in the Reserve Bank's role in ensuring financial stability since its inception. Its role in preventing bank failures and maintaining financial stability has been strengthened and fine-tuned over the years. The approach adopted by the Reserve Bank to maintain financial stability is multi-pronged: maintenance of overall macroeconomic balance through monetary policy; improvement in the macro-prudential functioning of institutions and markets; and strengthening micro-prudential institutional soundness through regulation and supervision. In this regard, the Reserve Bank has been working in close coordination with other domestic regulators.

5.100 The maintenance of macroeconomic stability to prevent financial crises is a major concern of the Reserve Bank. Containing inflation and stabilising inflation expectations through its monetary policy, the Reserve Bank has also helped in fostering financial stability.

5.101 Strong and efficient financial markets provide stability to the financial system. The Reserve Bank has been encouraging efficient and smooth functioning of the financial markets by closely monitoring developments in key markets through its own operations in these markets for monetary policy purposes, and where necessary, by establishing an appropriate regulatory framework.

5.102 A strong capital base is imperative to enable the banks to acquire resilience to withstand shocks. By prescribing capital adequacy norms, the banks' ability to withstand shocks has been strengthened. After complying with the Basel I requirements, the Indian banks are now moving towards the New Capital Adequacy Framework (Basel II) regime. The Reserve Bank has accepted to adopt the Basel II in principle. Encouragement has been given to banks to formalise their capital adequacy assessment process (CAAP) in alignment with their business plan and performance budgeting system.

5.103 A troubled bank always needs adequate funds at right time to avoid defaults and runs. The measures for crisis resolution include the role of the central bank as the lender-of-last-resort. The Reserve Bank provides liquidity to banks as and when necessary for prudent liquidity management. It lends directly to an individual financial institution, which is fundamentally sound and solvent but in temporary liquidity distress.

5.104 The ownership and control of private sector banks when well diversified, helps to minimise the risk of misuse or imprudent use of leveraged funds. Towards the sound development of banks through healthy competition, the Reserve Bank issued detailed guidelines in February 2005 stipulating diversified ownership and restrictions on cross holdings by banks. On the issue of effective control over banks, the Reserve Bank has stipulated that aggregate foreign investment in private banks from all sources cannot exceed 74 per cent of the paid-up capital.

5.105 Considering the fact that weak payment system would endanger financial stability, the Reserve Bank has been nurturing and promoting safe and robust payment systems. A Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) has recently been constituted to prescribe sound policies relating to the regulation and supervision of all types of payment and settlement systems.

5.106 The Reserve Bank has been making a contribution to regulatory arrangements through its knowledge of day-to-day dealing with financial institutions. The surveillance and monitoring mechanism for the banking system has been strengthened through refinements in the existing practices. Stress was laid on on-site and off-site supervision, consolidated accounting and supervision and risk-based supervision. Risk-based supervision has been introduced on a pilot basis. An integrated

view of all the segments of the financial system, *viz.*, banking, cooperative banking, NBFCs and FIs has been considered from the system's stability angle. In order to address weakness in a bank at an early stage, guidelines on 'prompt corrective action' have been issued. To ensure financial stability and to protect the banking system from untoward financial crisis, instructions on exposure norms, credit exposure on derivative products, 'Know Your Customer' and Anti-Money Laundering have been issued.

5.107 Keeping in view the weak financial position of some of the cooperative banks, the Reserve Bank has imposed strict prudential norms like pay order/demand draft discounting norms, stock lending norms, capital market exposure limit, gold lending norms, *etc.*, to limit the damages and to avoid such recurrence in future. But at the same time, to maintain the financial stability, the Reserve Bank has taken action against the defaulting cooperative banks. The actions were directed towards safeguarding the interests of the depositors rather than shareholders. The Reserve Bank has been cautious so as to avoid any kind of moral hazard problems that may lead to setting a bad precedence for the banking system.

5.108 An important issue to consider in this context is that despite the regulatory rigours in place, bank failures and run on banks have occurred in the Indian financial system. The Reserve Bank's presence as a regulator and supervisor is not a guarantee to protect the banks from runs or failures due to their own violation and mismanagement. The incidents of bank failures in an era of effective regulation need to be viewed as failure of a financial institution due to its own mismanagement. Systemic concerns coupled with the necessity to safeguard the interest of small depositors have been paramount in the minds of the policy makers while dealing with insolvent banks in India (Mohan, 2005).

(ii) Basel II Norms and its Implications

5.109 The banking systems worldwide are migrating to the Basel II regime. The Basel II framework is expected to promote adoption of stronger risk management practices by banks to address major risks. In the context of the Indian banking system's transformation to Basel II, some issues are likely to arise.

5.110 Though concurrent efforts are underway in India to refine and upgrade financial information monitoring, data dissemination and data warehousing in various banks, the magnitude of the task appears to be difficult as there are a large number of

commercial banks in India, which are at various levels of development. As the new accord is resource-intensive requiring large database, strong information technology architecture enabling building of risk profiles of banks on various scenarios, it places heavy demand on banks and the regulator to improve their information base through appropriate tools. Capacity building, both in banks and at the regulatory bodies, while working under the Basel II norms, especially in respect of adopting the advanced approaches is critical. Implementation of various simplified approaches require preparation on the part of the banks, banking regulator and the rating agencies. The rating agencies perhaps would need to develop a framework for assigning 'Issuer Rating'. Encouraging ratings of issuers as well as non-availability of reliable and qualitative historical data related to ratings is important. Inadequate historical data in conjunction with associated cost of developing and maintaining such data may also influence the speed of migration to advanced approaches of risk measurement under Basel II. As the implementation of Basel II gathers momentum, several banks in India may need additional capital

to provide for capital charge for market risk and operational risk.

5.111 Despite these challenges, it appears that Indian banks would be able to migrate to Basel II norms as India has chosen to adopt simpler options for the transition initially. The Reserve Bank has adopted a consultative and participative approach for both designing and implementing the transition process. Many public sector banks and old private sector banks have already prepared a roadmap for migrating to Basel II by adopting Standardised Approach for credit risk and Basic Indicator Approach for operational risk.

(iii) Consolidated Supervision and Financial Conglomerates – Regulatory Preparedness in India

5.112 Financial conglomerates have grown rapidly since the late 1980s with the deregulation of domestic financial markets. To align its regulatory and supervisory architecture to the international best practices, India has also adopted the framework of consolidated supervision (Box V.6).

Box V.6

Consolidated Accounting and Supervision

Consolidated supervision is an essential element of effective bank supervision and it complements the conventional technique of supervision of banks on individual basis. It is a group-wide approach to supervision where all the risks run by a banking group are taken into account in totality, independent of wherever they are booked. A major element of this approach is the preparation of financial statements on a consolidated basis - combining the assets and liabilities and off-balance sheet items of banks, and their related entities, treating them in effect as if they were a single entity. Such reports enable the supervisors to measure the financial risks faced by bank groups and apply supervisory standards such as large exposure and connected exposure limits and minimum capital adequacy ratios on a group basis. This approach helps in assessing the potential impact of other group companies on the bank. It incorporates both accounting consolidation and consolidated supervision, which form key aspects of the supervision of banking groups.

In terms of guidelines and other quantitative methods to facilitate Consolidated Accounting, banks have been advised, *inter alia*, that as a prudential measure aimed at better risk management and avoidance of concentration of credit risks, in addition to adherence to prudential limits on exposures assumed, banks should also adhere to prudential limits on single and group borrower exposures. As a part of the harmonisation of the prudential norms

between banks and DFIs, guidelines on consolidated accounting and supervision, which were prescribed for banks, were also extended to DFIs as well from April 1, 2003. FIs have also commenced preparation/publishing Consolidated Annual Accounts as part of their Annual Report. The prudential norms relating to consolidated supervision (as on June 30, 2004) are applicable only to commercial banks *viz.* public sector, private sector and foreign banks. Commercial banks are required to prepare consolidated financial statements and adhere to certain prudential regulations on group basis. Foreign banks/other financial entities operating in India, whose parent is an overseas entity and groups whose parent is a non-banking entity (whether financial or non-financial) have been excluded from the framework of consolidated supervision. The UCBs and RRBs are not subject to consolidated supervision as they do not have subsidiaries. Also, the State Cooperative Banks (SCBs) and District Central Cooperative Banks (DCCBs) have not been issued any guidelines and therefore, they don't have to prepare consolidated accounts. As banks grow larger in size and enter and carry out intra-group complex operations, consolidated accounting and supervisory techniques would have to evolve further to meet the emerging needs and appropriate fire walls would have to be built to address the risks underlying such large organisations and banking conglomerates.

5.113 The emergence of financial conglomerates in India poses certain challenges to the existing regulatory and supervisory framework in the country. One challenge emanates from the moral hazard aspect, as some financial conglomerates have become too large. They pose the dilemma of 'too-big-to-fail' before the regulators. Another challenge relates to contagion or reputation effects on another subsidiary in a different segment arising from 'holding-out' phenomenon in a conglomerate, which warrants supervisory intervention. The complexity and non-transparency of intra-group transactions and exposures, non-arm's length dealings within a financial conglomerate give rise to concerns about regulatory arbitrage used by some of the financial conglomerates, which increases the risk of contagion.

5.114 The Reserve Bank had set up a multi-disciplinary Working Group in November 2000 (Chairman: Vipin Malik) to examine the feasibility of introducing consolidated accounting and other quantitative methods to facilitate consolidated supervision. On the basis of the recommendations of the Working Group, guidelines on consolidated supervision were issued to banks for implementation with effect from the year ended March 2003. The components of consolidated supervision in India include: preparation of Consolidated Financial Statements (CFSs) for public disclosure and Consolidated Prudential Reports (CPRs) for supervisory assessment of risks, which may be transmitted to banks or other supervised entities by other Group members. Besides, certain prudential regulations such as capital adequacy, large exposures/risk concentration on group basis are also applied. To supplement the consolidated supervision and as a proactive stance to address these issues and for further strengthening financial stability, the Reserve Bank had set up a Working Group of Financial Conglomerates. The Group, in its Report submitted in June 2004, suggested the creation of an Inter-Regulatory Forum with members drawn from the Reserve Bank, the SEBI and the IRDA. The Forum would exclusively monitor the activities of financial conglomerates. The new framework would be a complementary forum to the already existing regulatory structure - supervision of individual entities by respective regulators viz., the Reserve Bank, the SEBI, the IRDA and the system of Consolidated Prudential Reporting introduced in regard to banks. The Reserve Bank has already put in place a system of supervision of financial conglomerates in India. In June 2004, a Financial Conglomerate Cell was created in the Department of Banking Supervision of

the Reserve Bank, which is the nodal unit and coordinates with the other two regulators (SEBI and IRDA) on matters of conglomerate supervision.

5.115 The operations of financial conglomerates require that the intricate and complex relationships among the group entities be understood in proper perspective. Also the danger of contagion as adverse developments in one part of the conglomerate could affect the operation of other parts also needs proper appreciation. The present inter-regulatory forum is an informal group without an effective coordination among the set of regulators in terms of sharing of information with each other. This necessitates that a formal regime be created which makes sharing of information among the supervisors mandatory. The regulation of financial conglomerates in India is still at an evolutionary phase, but measures have already been initiated to strengthen the regulatory framework to attune it to the emerging needs.

(iv) Regulation and Supervision of Electronic Banking in India

5.116 Electronic banking is a process of delivery of banking services and products through electronic channels such as telephone, Internet, cell phone, etc., and it encompasses Internet banking, telephone banking, mobile banking, etc. The development of regulation and supervision of e-banking is still evolving in many of the emerging economies (Box V.7).

5.117 Several initiatives taken by the Government of India as well as the Reserve Bank have facilitated the development of e-banking in India. As a regulator and supervisor, the Reserve Bank has made considerable progress in consolidating the existing payment and settlement systems, and in upgrading technology with a view to establishing an efficient, integrated and secure system functioning in a real-time environment, which has further helped the development of e-banking in India. The Government of India enacted the IT Act, 2000 with effect from October 17, 2000, which provides legal recognition to electronic transactions and other means of electronic commerce.

Upgradation of the Supervisory System

5.118 The Reserve Bank has been gearing up to upgrading itself as a regulator and supervisor of the technologically dominated financial system. In 1998, it availed the technical assistance project of Department for International Development (DFID), UK for upgrading its supervisory system and adaptation

Box V.7**E-Banking Regulation and Supervision – International Experience**

Finland was the first country in the world to have taken a lead in e-banking. The Scandinavian countries have the largest number of Internet users, with up to one-third of bank customers in Finland and Sweden taking advantage of e-banking. Internet banking is also widespread in Austria, Korea, Singapore, Spain, Switzerland, etc. E-banking facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably. While the e-banking has improved efficiency and convenience, it has also posed several challenges to the regulators and supervisors (BIS, 2000).

In response to the challenges thrown by the Internet banking, regulators and supervisors from various countries have prepared their own mechanism of regulation. There is a matrix of legislation and regulations within the United States that specifically codifies the use of and rights associated with the internet and e-commerce, in general, and electronic banking and internet banking activities, in particular. The concerns of the Federal Reserve are limited to ensuring that Internet banking and other electronic banking services are implemented with proper attention to security, safety and soundness of the bank, and the protection of the banks' customers.

In the U.K, there is no specific legislation for regulating e-banking activities. The FSA is neutral on regulations of electronic banking. In Sweden, no formal guidance has been given to examiners by the Sveriges Bank on e-banking. General guidelines apply equally to Internet banking activities. The role of the Bank of Finland has been, as

part of general oversight of financial markets in Finland, mainly to monitor the ongoing development of Internet banking without active participation. The Reserve Bank of New Zealand applies the same approach to the regulation of both Internet banking activities and traditional banking activities. There are however, banking regulations that apply only to Internet banking. Supervision is based on public disclosure of information rather than application of detailed prudential rules (Report on Internet Banking, 2001a).

The Monetary Authority of Singapore (MAS) subjects Internet banking to the same prudential standards as traditional banking. The MAS drafted an 'Internet Banking Technology Risk Management Guidelines' in September 2002, which calls upon all banks providing internet banking to establish a sound and robust risk management process. The Hong Kong regulatory approach towards e-banking is less specific in nature. The Hong Kong Monetary Authority (HKMA) expects their banks to undertake a rigorous analysis of the security aspects of their system by getting it reviewed by qualified independent experts (Report on Internet Banking, 2001a).

Like many of these countries, India does not have specific regulatory laws for e-banking. The existing regulatory framework over banks has been extended to Internet banking as well. However, certain guidelines have been issued to banks to recognise the risks arising from electronic modes and to devise control mechanisms that are needed to mitigate such risks. Banks offering the e-banking services in India need to comply with the guidelines.

of its supervisory functions to the computerised environment. It issued guidelines on 'risks and control in computer and telecommunication system' in February 1998 to all the banks advising them to evaluate the risks inherent in the systems and put in place adequate control mechanisms to address these risks, which can be broadly put under three heads, viz., IT environment risks, IT operations risks and product risks.

Promotion of Internet Banking

5.119 The Reserve Bank had set up a Working Group to examine different aspects of Internet banking (I-banking). The Working Group had focused on three major areas of I-banking, i.e., (i) technology and security issues, (ii) legal issues and (iii) regulatory and supervisory issues. The Group submitted its report in June 2001 and the Reserve Bank while accepting the recommendations of the Working Group, issued guidelines on 'Internet Banking in India' for implementation by banks. It also stated that the

earlier guidelines issued by the Reserve Bank on 'Risks and Controls in Computers and Telecommunications' (1998) would equally apply to Internet banking as well.

Strengthening Regulatory Framework Related to Technology

5.120 The existing regulatory framework over banks has also been extended to Internet banking. These guidelines covered various issues that would fall within the framework of technology, security standards and legal and regulatory issues. Virtual banks, which have no offices and function only online are not permitted to offer e-banking services in India and that only banks licensed under the Banking Regulation Act and having a physical presence in India are allowed to offer such services. Further, banks are required to report to the Reserve Bank every breach or failure of security systems and procedures in Internet banking, while the Reserve Bank at its discretion may decide to commission special audit/inspection of such banks.

As per recent guidelines, banks no longer need any prior approval of the Reserve Bank for offering the Internet banking services. Nevertheless, banks must have their Internet policy and they need to ensure that it is in line with parameters as set by the 'Working Group on Internet Banking in India' in 2001.

Issues Related to Electronic Money

5.121 The Reserve Bank had constituted another Working Group on Electronic Money, which submitted its Report in July 2002. The Group identified certain areas of concern from the point of view of the central bank in the context of more widespread use of e-money so that the conduct of monetary policy is not impaired and at the same time, the integrity of the instrument is also preserved. Some of the suggestions made by the Group include multi-purpose e-money to be issued only by authorised banks on a credit basis, which should be strictly regulated and closely monitored; ensure redeemability in order to preserve the unit of account function of money as well as to control money supply in the economy; and reporting of monetary statistics for the purposes of monetary policy and protection against criminal abuse, such as money laundering.

Ensuring e-security

5.122 No innovation is without challenges and IT is no exception to this rule. The most prominent challenge arising from these innovations relates to the concept of security (Mohan, 2004c). Considering the scope for fraud in the e-banking area and the possibility of contagion, the Reserve Bank as a regulator and supervisor has been proactive in addressing the risks associated with e-banking that could have otherwise undermined the credibility of the Indian banking sector. The Reserve Bank has been promptly addressing issues related to fraud with the use of electronic banking facility. Even after issuing guidelines for a secured e-banking, the Reserve Bank from time to time advises the banks on control mechanisms to combat such frauds. In a recent case of attempt of fraud by a customer while using internet banking facility, the Reserve Bank advised the concerned bank to plug the loopholes and the same was also communicated to other banks so that they remained vigilant and control the misuse of internet banking system.

5.123 In India, the legal infrastructure for promoting e-banking has not yet been put in place in a comprehensive manner. India does not have a licensed certifying authority appointed by the

Controller of Certifying Authorities to issue digital signature certificates. Also, India is not yet a signatory to the International Cyber Crime Treaty, which seeks to intensify co-operation among different signatory nations for exchanging information concerning crime and cyber criminals. Further, there are unresolved legislative issues related to cyber crimes laws, clarification relating to regulatory authority over e-money products, consumer protection and privacy laws. To make the e-banking operations in India more widespread, secure and efficient, these issues need to be addressed by relevant authorities.

5.124 As the banking practices and legislations concerning e-banking are still in the process of evolution in India and abroad because of technological innovations, there is a need for a constant review of various legislations and regulatory framework relating to banking and commerce. The Reserve Bank is monitoring and reviewing the legal and other requirements of e-banking on a continuous basis to ensure that the e-banking would develop on sound lines and the e-banking related challenges would not pose a threat to financial stability.

V. REGULATION AND SUPERVISION IN INDIA – AN ASSESSMENT

5.125 The primary purpose of banking regulation in India by the Reserve Bank has been to ensure financial stability and maintain confidence in the financial system by enhancing its soundness and efficiency. Barring some stray and isolated cases of individual bank stress, the regulation and supervision policies pursued by the Reserve Bank have been successful in ensuring that the broad objectives of regulation are met. The regulatory gaps have been continuously monitored and plugged through appropriate measures from time to time. The Indian public has trust in the soundness of the banking system going by the fact that they consider bank deposits absolutely safe. Consequent on two spells of bank nationalisation in 1969 and in 1980, public sector bank ownership has contributed to this strong sentiment. The sound financial position and strength of the banking system reflects the effectiveness of the Reserve Bank's regulatory and supervisory approaches. Over the years, India has started adopting international best practices and implementing standards and codes to ensure that the Indian financial system functions on sound lines.

5.126 An important feature of the move towards globalisation of the Indian financial system has been the intent of the authorities to move towards

international best practices (Mohan, 2005). India has always taken proactive initiatives in both conception and implementation of good practices in the financial sector administration. India is fully supportive of the need to observe certain minimum universally accepted standards in areas relevant to the maintenance of stability in the international monetary system, including increased transparency in formulation and implementation of monetary and financial policies and improvements in dissemination of relevant data. India advocates a voluntary approach, fair, equitable, and continuous process taking duly into account the institutional and legal structure and stage of development in different countries (Reddy, 2001a).

5.127 India has been closely associated with various standard setting bodies and has been taking active part in the work of several key international fora devoted to the task of developing and promoting implementation of financial standards and codes. In order to guide the process of implementation of international standards and codes, in India, the Reserve Bank in consultation with the Government, constituted in 1999, a 'Standing Committee on International Financial Standards and Codes' under the Chairmanship of a Deputy Governor, RBI and Secretary, Department of Economic Affairs, Ministry of Finance, Government of India as Alternate Chairman.

International Benchmarks and Standards – A Cross-country Comparison

5.128 International comparisons regarding the status of implementation and the impact of these standards on financial systems of various economies is a difficult exercise due to lack of uniform, authentic and latest information on relevant parameters. However, one can employ the information and data available in the World Bank Database (2003) on country practices on regulation and supervision to attempt cross-country comparisons with regard to financial regulation and supervision. Barth, *et al* (2003) have compared the regulation and supervision structures in different countries. There is also a private initiative known as 'e-Standards Forum' that provides comparable information on various countries with reference to implementation of financial standards and codes. In the absence of any official and authentic source of the relevant information, an attempt has been made here to make use of both the information made available by the e-Standards Forum in public domain and the World Bank database to benchmark the Indian banking system with other countries and make an objective assessment of India's performance

in conforming to standards, codes and best practices.

5.129 The e-Standards Forum computes indices for 13 international standards and codes for 83 countries for comparison purposes. The Standards Index measures a country's level of compliance with these international standards and codes. It ranks countries from 1 (most compliant) to 83 (least compliant) and provides a score from 0 (worst performance) to 100 (best performance) (Table 5.5).

5.130 As per the scores compiled by the e-Standards Forum and updated periodically based on a common criteria, India has fared well in Data Dissemination, Monetary Transparency, Fiscal Transparency, Corporate Governance, Money Laundering and Banking Supervision with a score of 60 per cent. For the purpose of benchmarking the Indian financial system with others, a brief look at the scores of select other countries is in order. With reference to the Banking Supervision standards, India with a score of 60 is ahead of Argentina (40), China (40), and Mexico (40) and is at par with Japan, the Philippines, Russia, Singapore and South Korea.

5.131 A database was created by the World Bank, which documented important facts with respect to regulatory and supervisory practices of the banking sector in 107 countries. These indicators mainly provide information on capital standards, supervisory capacity, prompt corrective action abilities and restructuring powers. A set of indicators is presented in Table 5.6 on banking regulation in twelve countries including India.

5.132 There are no uniform country practices in regulation of the banking system in various countries considering the special features of each country and region. However, a broad pattern could emerge when a cross-country assessment is undertaken. In order to facilitate a broad comparison of important regulatory practices in various sample countries, a summary index has been constructed using the methodology of Stallings and Studart (2003). This Overall Regulation Index (ORI) has been constructed by dividing the values in each row in the Table 5.6 by the average of that row and then summing them up by country (Chart V.1).

5.133 Chart V.1 shows that among the select countries, Argentina is a tightly regulated country followed by Mexico. It is interesting to observe that the United States and Australia have lower level of regulatory restrictions than countries like Argentina and Mexico. India's position in this respect is comparable to that of benchmark countries *i.e.*, the

Table 5.5: Scores of Select Countries on Compliance with International Standards and Codes

	Data Dissemination	Monetary Transparency	Fiscal Transparency	Insolvency Framework	Accounting	Corporate Governance	Auditing	Money Laundering	Payment System: CB	Payment System	Banking Supervision	Securities Regulation	Insurance Supervision
India	80	60	60	20	20	60	20	60	40	40	60	20	40
Argentina	80	60	60	60	20	40	60	60	0	0	40	60	60
Australia	80	100	80	80	60	60	60	80	80	100	80	80	80
Brazil	80	80	80	40	20	40	40	80	0	0	0	60	0
Canada	80	100	100	60	20	60	20	80	100	100	100	80	100
China	20	40	20	0	40	60	0	60	0	0	40	40	0
France	80	100	80	40	40	60	60	80	100	100	100	60	40
Germany	80	100	80	80	20	60	60	80	100	100	80	80	80
Japan	80	80	80	60	40	60	40	80	80	80	60	100	60
Malaysia	80	60	60	0	40	60	60	60	40	60	0	40	40
Mexico	80	80	80	60	0	60	60	80	60	40	40	40	60
New Zealand	40	100	80	40	60	60	60	100	80	80	80	80	20
Philippines	80	80	60	0	40	60	60	60	0	0	60	80	0
Russia	60	40	60	40	40	60	60	60	20	40	60	40	60
Singapore	80	60	60	80	40	60	60	80	0	80	60	60	80
South Korea	80	80	80	40	20	60	60	60	60	80	60	80	80
Thailand	100	80	60	40	40	40	0	40	60	80	0	60	0
United Kingdom	80	100	80	60	40	80	60	80	80	100	80	80	80
USA	80	100	100	80	40	80	20	80	100	100	100	100	80

Note : Full Compliance – 100, Compliance in Progress – 80, Enacted – 60, Intent Declared – 40, No Compliance – 20, Insufficient Information – 0.

Source : e-Standards Forum.

USA and Australia. Malaysia had the least ORI score among the select countries. However, in this context, it needs to be stressed that a lower ORI score need not necessarily be reflecting a lenient regulatory

system in a country. It is possible that in some of the countries with a lower ORI score, the regulatory practices have been advanced to a point where the institutions are accorded more autonomy with regard

Table 5.6: Bank Regulation - Select Indicators 1999-2000

	India	Malaysia	Mexico	Argentina	Brazil	Philippines	Thailand	Russia	S.Korea	Germany	Australia	USA
Minimum Capital Asset Ratio Requirement (%)	8.0	8.0	8.0	11.5	11.0	10.0	8.5	12.0	8.0	8.0	8.0	8.0
Actual Risk-adjusted Capital Ratio (%)	11.6	13.0	13.5	16.4	15.8	18.0	13.0	12.0	10.0	11.0	11.0	12.0
Capital Stringency Index	5	1	5	6	3	3	3	4	5	5	6	4
Capital regulation Index	7	3	7	8	6	4	5	5	6	6	7	6
Overall bank Activities and Ownership Restrictiveness Index	2.5	2.5	3.0	1.8	2.5	1.7	2.2	2.0	2.2	1.2	2.0	3.0

Notes : 1. Computed using the methodology in Stallings and Studart (2003).

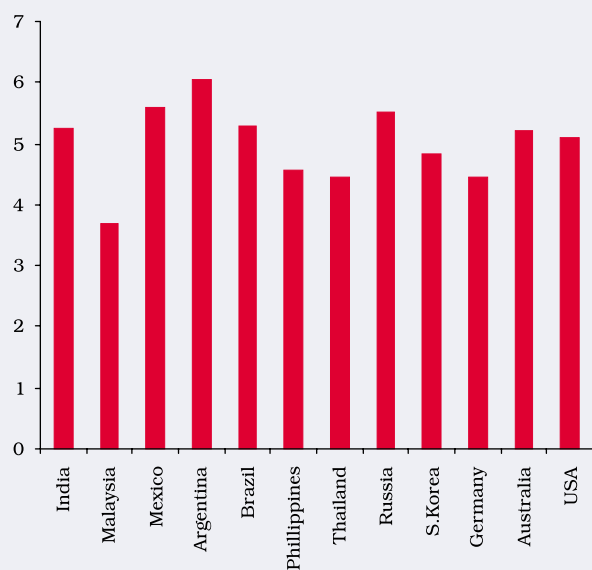
2. The 'capital stringency index' includes adherence to the BIS guidelines, but also various measures of the degree to which leverage potential is limited.

3. The 'capital regulation index' combines the 'capital stringency index' with one measuring the type of assets that can count toward the capital asset ratio.

4. The 'Activities and Ownership Index' deals with types of activities that banks can engage in and restrictions on who can own a bank.

Source : See Barth, Caprio and Ross (2001) for a description of the database, which was constructed from a survey of bank regulators and supervisors in 107 countries.

Chart V.1: Overall Regulation Index



to regulation or market-based regulation might be playing a significant role. Similarly, a higher ORI score does not necessarily imply a greater resilience to shocks. The purpose of this analysis is limited to bringing out that the Indian regulatory practices are broadly conforming to the practices followed in advanced economies.

5.134 Using the same World Bank data source, the Table 5.7 portray the trends with respect to bank supervision also. To take a synoptic view of the supervision practices in the select countries, an Overall Supervision Index (OSI) has been constructed, following the same methodology used to construct the ORI. The Philippines, Brazil, South Korea, Argentina and Mexico have the highest ratings (the stringent supervisory standards), with Russia at the lower end along with India. The position of India with benchmark countries *i.e.*, the United States (8.5) and Australia (7.9) was marginally lower with a rating of 6.4 (Chart V.2).

Table 5.7: Bank Supervision - Select Indicators 1999-2000

Country/Item	India	Malaysia	Mexico	Argentina	Brazil	Philippines	Thailand	Russia	S. Korea	Germany	Australia	USA
Professional bank supervisors per institution	5.5	4.7	11.5	2.4	4	7	10	2.4	5.7	1	2	0.1
Official supervisory index	9	11	10	12	15	12	11	8	10	11	12	14
Prompt corrective action index	0	2	3	0	6	6	0	2	4	0	0	5
Restructuring power index	2	3	3	3	3	3	3	3	3	2	3	3
Declaring insolvent power index	0	2	2	2	2	2	2	1	2	2	1	2
Supervisory forbearance discretion index	3	0	1	3	2	1	2	1	1	3	3	1
Supervisor tenure index	7	..	..	6.2	15	25	10	..	17	10	2	7
Likelihood supervisor moves into banking index	1	2	1	3	2	3	2	3	1	2	3	1
Percentage of top ten banks rated by international credit rating agencies	..	100	..	100	100	60	90	..	100	100	100	100
Private monitoring index	6	9	6	8	8	8	6	5	6	5	10	8

.. Not Available.

- Notes :**
1. Official Supervisory Power Index combines 16 measures of supervisory power to judge whether the supervisory authorities have the authority to take specific actions to prevent and correct problems.
 2. Prompt Corrective Action Index signifies whether a law establishes pre-determined levels of bank solvency deterioration which forces automatic enforcement actions such as intervention.
 3. Restructuring Power Index represents whether the supervisory authorities have the power to restructure and reorganise a troubled bank.
 4. Declaring Insolvency Power: whether the supervisory authorities have the power to declare a deeply troubled bank insolvent.
 5. Supervisory Forbearance Discretion Index: Even when authorised, supervisory authorities may engage in forbearance when confronted with violations of laws or regulations or with other imprudent behavior on the part of banks.
 6. Likelihood Supervisor Moves into Banking: This variable is the fraction of supervisors employed by the banking industry subsequent to retirement.
 7. Private Monitoring Variables: Though the banks behaviour is circumscribed by various regulations and supervisory actions, private market forces also affect them. It is, therefore, important to try to capture to some degree the extent to which market or private supervision exists in different countries.

Source : Barth, Caprio and Levine (2001) for a description of the database, which was constructed from a survey of bank regulators and supervisors in 107 countries.

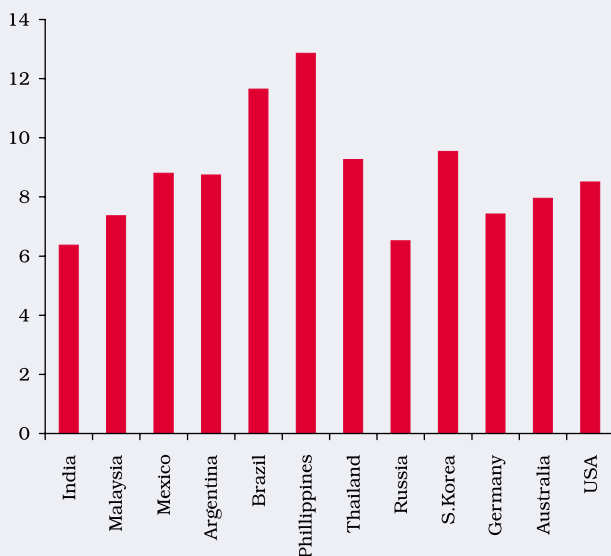
5.135 It needs to be recognised that the ORI and OSI summarise large amount of data into a single number and represents the position at a particular point of time and, therefore, subject to the normal limitations. Nevertheless, as the methodology used to compiling this data pertaining to various countries is uniform, it broadly brings out the regulatory and supervisory situation in various countries thereby facilitating rough and ready inter-country comparisons. The broad picture that emerges from the above analysis is that the current regulatory and supervisory practices applicable to the Indian banking system are broadly in alignment with the best practices elsewhere. The Reserve Bank's regulatory and supervisory policies have put in place the best global procedures, tools and practices in the Indian banking system, which are comparable to advanced banking systems. As a regulator and supervisor of the financial system, the Reserve Bank has endeavoured to implement standards, codes and best practices in a manner that is consistent with domestic circumstances.

5.136 The effective regulatory and supervisory policies pursued along with a series of financial sector reforms implemented in the banking system have strengthened the Indian banking system considerably. In line with international developments, the regulatory and supervisory framework has been broadened with considerable reinforcement for stability through a set of micro and macro-prudential measures, which have imparted strength to the Indian banking system. The regulatory and supervisory policies have been made more liberal by giving ample operational flexibility to

Indian banks in meeting the global competition. This has enabled Indian banks to consolidate and realign their business strategies to survive the emerging competition. The prudent regulatory and supervisory structure has provided the necessary base and ingredients for healthy growth of the financial sector. While enabling a substantial deepening of the Indian financial system, the policies have also strengthened the health of the financial intermediaries and enhanced the instruments available in the financial system. The paradigm shift in the regulatory framework for banks since the reforms has achieved the desired results, while depicting the growing strength and resilience of the Indian financial system.

5.137 The regulatory and supervisory policies have been effective in fostering the growth of banking industry and increased its reach to a wider base of the population. The advent of new banks and the ensuing competition has led to a substantial expansion in branches of commercial banks. The banks in India have acquired strong balance sheets, while working in a milieu of adequate operational flexibility. In the post-reform period, banks have consistently maintained high rates of growth in their assets and liabilities. Deposits as a ratio of total liabilities of scheduled commercial banks have increased from 77.7 per cent in 1991-92 to 80.1 per cent in 2004-05. There has also been a marked improvement in the financial health of banks as reflected in capital adequacy and improved asset quality. As at end-March 2005, 86 out of 88 scheduled commercial banks operating in India maintained a CRAR at or above 9 per cent. There has also been a considerable improvement in the asset quality of Indian banks, while NPAs declined substantially and consistently since the mid-1990s to 2.0 per cent (net NPAs) at end-March 2005. There has been an increase in profitability levels of various banks in India. In terms of profitability, major Indian banks compare favourably with banks in other economies. The operating expenses per unit of asset have also declined in recent years. Increase in business per employee, decline in staff cost, etc., has reflected in increased efficiency of the Indian banking system. The sequenced implementation of international best practices and gradual opening up of the financial sector in India has enabled the country to avoid major financial sector crisis as experienced by many other emerging economies since the 1990s (Mohan, 2005). These quantitative and qualitative indicators point to the fact that the performance of the Indian banks on various parameters has been gradually approaching international standards.

Chart V.2: Overall Supervision Index



5.138 The regulatory and supervisory environment is, however, not without some concerns. The financial health of cooperative banks and regional rural banks is far from satisfactory. There is scope for improving the efficiency of banks in terms of their profits and profitability. Reduction in transaction costs is an area for focused attention (Mohan, 2005). Customer services need to be improved and further renewed focus is necessary on financial inclusion. The banking services accessibility to rural masses needs to improve further. Credit delivery mechanism to various needy sectors needs further improvement. Legal changes need to be effected in certain areas. Notwithstanding these concerns, an objective evaluation of the regulatory and supervisory functions of the Reserve Bank bring out that it has by and large, succeeded in protecting the interests of depositors and maintaining the soundness of the banking system though some stray incidents of bank failures occurred.

5.139 Indeed, the regulatory and supervisory process in India at the current juncture is at an exciting phase and is progressing towards further maturity aiming to impart greater strength and stability to the financial system. Therefore, the legitimate question to be posed at this juncture is 'from here to where'? It would be useful to identify the factors that may affect the functioning of the Indian banking system in the short, medium and long term. Accordingly, the regulatory focus and the supervisory processes would need to be altered in some areas and fine-tuned in some other areas in the light of the challenges identified.

5.140 Financial systems worldwide are still evolving and the Indian financial system is not an exception. Rapid growth of computer and telecommunications technology would continue to transform the Indian financial sector. Financial innovations have been the driving force behind the blurring of distinctions among what were, traditionally, very distinct forms of financial firms. In recognition of the new market realities and progression towards universal banking, appropriate legal and regulatory changes would need to follow. The deregulation and liberalisation process is likely to get further expedited. Regulatory response in India has already been focused on promoting a financial system, which is based on market principles. The economic rationale for banking sector consolidation in India is unquestionable at the present juncture. The character of the ownership is undergoing change away from a predominantly Government ownership. The regulatory response, against this backdrop, could be to play a role of facilitator while leaving the market forces to decide the extent and content of the consolidation process.

5.141 Consequent to the sweeping changes that are affecting the way in which banking business is conducted in tune with implementation of stringent capital standards, a key requirement to be fulfilled by the banks as well as the regulator is that of nurturing high quality human resources in the system to cope with and to adapt to the new environment. Owing to the existence of various segments within the Indian banking sector, the regulatory requirements still leave room for regulatory arbitrage and at times, circumvention. In this context, the need for doing away with multiple regulatory jurisdictions over the cooperative banking sector has been recognised and further sustained efforts are needed in that direction. While banks and NBFCs have differences in their structure, due to the similarities in the activities undertaken by them, there are areas of operational convergence. Therefore, an important issue is to bring clarity to the extent of 'regulatory convergence' between banks and NBFCs.

5.142 The Reserve Bank's responsibility in a rapidly changing technological era is more onerous as such changes bring in new and additional challenges in periodical upgradation of the technology and consequent changes in supervision strategies. Challenges to the Indian payment systems may come from key operational dependencies on various technology platforms and messaging services that are used in various settlement mechanisms. Non-implementation of basic internal controls can have appalling consequences. Adequate internal controls are a key prerequisite for the system of risk-based supervision, which has already been put in place. While it is ideal to leave the broad framework of the internal control to the individual banks, the Reserve Bank can possibly play a role of educator by throwing light on the best practices and frameworks adopted by the best-managed banks in a global context. Experience with some recent episodes of banks' stress indeed calls for continuous vigilance against causes of bank failures such as credit concentrations, mismanagement, frauds and undertaking unfamiliar and risky activities. Effective arrangements of market intelligence assume critical importance in this context.

5.143 Availability of a large volume of high quality financial information is important in the Indian context. In its duty to safeguard and reinforce financial stability, the Reserve Bank has a legitimate interest in the quality of accounting standards and their effective implementation. As India gets increasingly integrated with the rest of the world, the Indian banking system's interaction with foreign banks and *vice versa* would rapidly increase. Greater attention may be needed to overseas operations of Indian banks and cross-border

transactions to collaborate with foreign supervisors more intimately. In the context of money laundering activities, cooperation among various foreign supervisors assumes importance.

5.144 Whilst the majority of people in India today have access to financial services, there are still others who experience difficulties in availing the full range of services and products from the banking system. Promoting 'financial inclusion' should be a key element of Indian regulatory approach in future through sensitising the banking system with regard to their corporate responsibility. Substantial improvement of customer service is indeed a challenge that both banks and regulator need to be strengthened further. The Banking Ombudsman Scheme has been modified recently to address the concerns related to customer service.

5.145 As the Indian banking system responds to these multitude of challenges, the nature of supervision would also need to undergo significant change. As the industry makes efforts to keep pace with new practices and innovations, supervisors too need to re-orient their skills and practices. If Indian banks are to compete globally, the time is opportune for them to institute sound and robust risk management practices (Mohan, 2003). In order to reduce regulatory burden and improve the effectiveness of supervision, banks need to be encouraged to have sound internally developed models and practices in risk management. The future goal of the Reserve Bank as a regulator and supervisor would possibly be maintaining an appropriate balance between allowing the banks maximum possible freedom to innovate efficient business practices, while carefully protecting the safety of depositors' interest, ensuring the soundness of the banking system and maintaining financial stability. Considering the diversity in stature and size of banks in India, a clear distinction between the largest and complex banks, and the majority of small and medium sized banks may be necessary. While the rigorous risk appraisal is mandatory for the large banks and conglomerates, the overwhelming majority of small banks need a differential and institution-specific approach. 'Simplicity' versus 'complexity' and 'risk sensitivity of regulator' reminds that 'one-size-does-not-fit-all' and calls for a differential treatment.

VI. CONCLUSIONS

5.146 While reckoning the emerging challenges and the changes to be effected in the regulatory and supervisory approaches, the long-term vision for

Indian banking system is to transform itself from essentially a domestic one to the global level. Taking the banking industry to the heights of international excellence will require action on several fronts such as induction of new technology, improved credit risk appraisal, continuous financial innovation, better internal controls and appropriate legal framework. Ultimately, the credibility of both the banking system and the regulator lies squarely in the public confidence. The role of the Reserve Bank in this context boils down to promote safety and soundness, while allowing the banking system to compete and innovate. However, it is recognised that the banking regulation is designed to 'limit' but not to 'eliminate' the risk of failure (Greenspan, 2005). Further, while the banking system and the regulators adjust and adapt to the changes influencing their functioning, they cannot ignore the realities of the Indian economy. Governance and 'financial inclusion' would emerge as the key issues for a country like India, at this stage of socio-economic development' (Reddy, 2005). Therefore, the benefits of the improved efficiency of the banking system due to a reoriented regulatory and supervisory structure should ensure that the entire range of products and services from the new age banking system are made available to all sections of the society.

5.147 In sum, the changing role of financial regulation and supervision of the Reserve Bank is one of less accent on 'micro regulation' but more focus on 'prudential supervision'; less emphasis on 'regulatory intervention' but more thrust on creating an environment in which the banks think freely and innovate, less reliance on 'rules' but more importance to 'principles'; and less weightage to 'monitoring the banks' day to day activities' but more attention to 'risk assessment and risk containment'. In future, the regulatory and supervisory role would not only be 'friendly' and 'frank', but also 'prompt' and 'firm'. The Reserve Bank's new role recognises the differences among various segments of the Indian banking system and accommodates appropriate flexibility in the regulatory treatment. The changing face of regulation and supervision would accord importance to intensified use of technology in supervisory processes and substantially enhancing the skills and capacities of the supervisors. The regulatory and supervisory role of the Reserve Bank in future would guide and facilitate the metamorphosis of the domestic banks into strong and globally acknowledged players, while fully meeting the socio-economic objectives, and would continue to maintain stable and orderly conditions in the financial system.

6.1 The importance of developing appropriate financial institutions and financial markets in promoting economic growth can be hardly overemphasised. Central banks in emerging markets have made conscious efforts towards developing efficient markets and institutions in recent years, especially after some weaknesses in the system were revealed during several financial crises that occurred in the 1990s in different parts of the world. There is a growing recognition among central bankers around the world that a well functioning financial market enables efficient use of market-based instruments of monetary policy by improving interest rate signals in the economy. Apart from enhancing the efficiency of monetary policy, deep and well functioning financial markets promote mobilisation of domestic savings and improve the allocative efficiency of financial intermediation, and foster the necessary conditions to emerge as an international or a regional financial centre (Turner and t'dack 1996). Strong domestic financial markets also act as a buffer against external disturbances and help in absorbing shocks to the domestic banking system during crises. Further, they provide incentives for development of hedging instruments, and lower macroeconomic volatility and financial instability. Efficient financial markets also have several indirect benefits such as rapid accumulation of physical and human capital, more stable investment financing, and faster technological progress.

6.2 Financial market development is a complex and time-consuming process. There are no short cuts for developing well-functioning markets with depth and liquidity (Tarapore, 2000). Some of the pre-conditions for financial market reform are macroeconomic stability, sound and efficient financial institutions and structure, prudential regulation and supervision, strong creditor rights, and contract enforcement. Measures to improve market infrastructure must be implemented at an early stage of reform alongside appropriate legal framework. These conditions facilitate growth of financial transactions including inter-bank transactions and active liquidity management. At the same time, there are at least three major macroeconomic features which can inhibit reform of domestic financial markets. First, large Government deficits can crowd out

financing of the private sector thereby inhibiting the growth of corporate debt markets. Second, high and variable inflation rates and unrealistic exchange rates also stifle the financial markets by raising uncertainties about the risks and returns to financial activity. Third, financial repression policies such as high inflation taxation, high required reserve ratios, subsidised or directed credit programmes, credit rationing, and ceilings on deposit and loan interest rates also hinder financial market development.

6.3 As indicated in chapter III, the sequencing and pace of reforms are also vital to safeguard monetary and financial stability and avoid reversals. While the existing research has not been able to zero in on the most efficient path of financial market reforms, the issues that have been extensively debated include: whether bank-based or market-based system of development should be adopted; the order of sequencing of reforms of various segments of the financial market to be followed; and whether or not capital account liberalisation should precede domestic financial market reform.

6.4 Since the setting up of the Reserve Bank of India in 1935, the role of the Reserve Bank in the financial sector and financial market development has undergone significant changes. Emerging primarily as a bank-based financial system, the development of financial system in India has been to finance the planned development efforts. To this end, institutional development received considerable attention of the Reserve Bank. The broad based development of the banking sector to meet short-term financing needs was supplemented by the setting up of specialised development financial institutions by the Reserve Bank to cater to long-term financing needs. Since the early 1990s, the introduction of financial sector reforms provided a strong impetus to the development of financial markets. The introduction of market based monetary policy instruments, the liberalisation of capital controls and integration of the Indian economy with global markets in the 1990s exposed the country to potentially volatile capital inflows posing new challenges and dilemmas for the Reserve Bank in monetary and exchange rate management. This called for a renewed thrust towards deepening and ensuring stability in the financial markets.

6.5 The objective of this chapter is to trace the changing role of the Reserve Bank in financial market evolution and development in India, particularly in the context of increasing globalisation and liberalisation. Section I deals with the structure and development of financial markets in India with particular focus on the money, Government securities and foreign exchange (Forex) markets which are regulated by the Reserve Bank. The evolution of these markets over time and their current status are reviewed. Section II delineates the changing role of the Reserve Bank in the financial markets in the context of liberalisation and globalisation of the economy and highlights the importance of appropriate institutional and legal reforms. The final section presents some concluding observations.

I. FINANCIAL MARKET DEVELOPMENT: THE INDIAN EXPERIENCE

6.6 India has a long and chequered history of financial intermediation. By the turn of the twentieth century, India had insurance companies (both life and general) and a functional stock exchange. Even before the setting up of the Reserve Bank of India in 1935, the country had money, Government securities and foreign exchange markets. The markets were, however, characterised by paucity of instruments, limited number of players and lacked depth, partly because the Indian financial system was primarily a bank-based system.

6.7 The course of development of financial institutions and markets during the post-Independence period was largely guided by the process of planned development pursued in India with emphasis on mobilisation of savings and channelising investment to meet Plan priorities. At the time of Independence in 1947, India had a fairly well-developed banking system. The adoption of bank dominated financial development strategy was aimed at meeting the sectoral credit needs, particularly of agriculture and industry. Towards this end, the Reserve Bank concentrated on regulating and developing mechanisms for institution building. The commercial banking network was expanded to cater to the requirements of general banking and for meeting the short-term working capital requirements of industry and agriculture. Specialised development financial institutions (DFIs) such as the IDBI, NABARD, NHB and SIDBI, *etc.*, with majority ownership of the Reserve Bank were set up to meet the long-term financing requirements of industry and agriculture. To facilitate the growth of these

institutions, a mechanism to provide concessional finance to these institutions was also put in place by the Reserve Bank.

6.8 Thus, while characterised by significant institutional development, the environment in the financial sector up to the 1990s was not particularly conducive for the development of deep and wide financial markets. In fact, it had resulted in segmented and under-developed markets characterised by paucity of instruments, and limited number of participants. Banks and financial institutions functioned in a highly regulated environment, characterised by an administered interest rate structure, quantitative restrictions on credit flows, fairly high reserve requirements and pre-emption of significant proportion of lendable resources for the priority and Government sectors. While the quantitative restrictions resulted in credit rationing for the private sector, interest rate controls led to sub-optimal use of credit resulting in low levels of investment and growth. These, coupled with other factors such as the absence of proper accounting, transparency and prudential norms, resulted in a large build-up of non-performing assets in the banking system. The resultant 'financial repression', led to erosion of profitability in the banking sector, besides decline in productivity and efficiency. The bank-based and highly controlled regime turned out to be inimical to financial market development.

6.9 In the context of the balance of payments crisis of 1991, a comprehensive structural and financial sector reform process was initiated in India as recommended by the Committee on the Financial System (Chairman: M. Narasimham, 1991) which became the starting point for gradual deregulation of the financial sector and development and integration of various segments of the financial market. Measures were initiated to streamline functioning of the financial system to create a sound, competitive and efficient banking system capable of meeting the increasing challenges of liberalisation and globalisation. Some of the major structural changes in the financial sector comprised removal of barriers to entry, introduction of free pricing of financial assets in most of the segments, relaxation of quantitative restrictions, new methods of floatation/issuance of securities, increase in the number of instruments, enlarged participation, improvement in trading, clearing and settlement practices, improvement in the informational flows, transparency and disclosure practices. Simultaneously, measures were initiated since 1992-93 to strengthen the

banking system by putting in place capital adequacy requirements, asset classification and provisioning norms, asset-liability management systems and risk management systems. Such measures contributed towards growing competition in the banking sector and integration of the money, foreign exchange and Government securities markets and they have been integrated into the overall deregulation process of the financial sector.

The Role of Reserve Bank of India

6.10 The role of the Reserve Bank in the financial markets assumed significance due to the following factors: First, the primary interest of the Reserve Bank in financial markets is because of its criticality in the transmission of monetary policy. From an operational perspective, reliance on indirect instruments and money market operations for conducting monetary policy necessitated development of the money, Government securities and foreign exchange markets. Second, financial stability has emerged as one of the increasingly important concerns for the Reserve Bank resulting in increased attention to financial market development. The money market is the focal point for Reserve Bank intervention for equilibrating short-term liquidity flows on account of its linkages with the foreign exchange market. The Government securities market has become the focal point for the entire debt market due to several considerations: First, the fiscal deficit of the Government, both Centre and the States, continues to be fairly high, resulting in large market borrowings by the Central and State Governments. With the corporate debt market still in its nascent stage of development, the Government securities market is the largest component of the debt market. Second, it serves as a benchmark for pricing of other debt market instruments. Third, it provides an efficient transmission channel for monetary policy. The Reserve Bank's attention to the foreign exchange market development is primarily directed towards imparting stability to the exchange rate.

6.11 The stake of the Reserve Bank in the financial markets arises on account of several reasons: First, the Reserve Bank as a monetary authority is most concerned with the transmission of monetary policy. Second, it must be recognised that India is neither a closed economy nor an open economy. In reality, India is an opening economy and a careful management of the process of opening is critical for growth and stability (Reddy, 2005). Third, since the markets were repressed in several ways in the past by law, regulation and policies, the Reserve Bank has, therefore, been facilitating the development of

markets by creating an enabling environment through legal changes, technological and institutional development and dynamic improvements in market micro-structure. Fourth, the regulation of some of the financial markets is warranted by virtue of the Reserve Bank's Charter. This relates to the money market, which is central to monetary policy, the Government securities market which is significant from the point of view of developing a yield curve, and the forex market which is integral to external sector management. The amendments to the Securities Contract Regulations Act and Government notifications thereunder giving jurisdiction to the Reserve Bank has helped in formalising this aspect. Fifth, technological infrastructure has become an indispensable part of the reform of the financial markets, with the gradual development of sophisticated instruments and innovations in market practices. The Reserve Bank has, therefore, taken active interest in developing appropriate technological infrastructure to facilitate market development in areas such as payment and settlement systems, Delivery *versus* Payment (DvP) and Electronic Funds Transfer (EFT). Last though not the least, modern financial markets are complex. The Reserve Bank, therefore, needs to equip and continuously update itself to perform its developmental and regulatory roles effectively. The process involves constant interaction with the global counterparts in order to identify best practices, benchmark existing practices in the Indian markets, identify gaps and take measures to move towards international standards, within the framework of India's unique country circumstances.

Structure and the Growth of Financial Markets in India

6.12 The financial sector in India currently comprises financial institutions, financial markets and financial instruments. The various segments of the financial market in India are the credit market, the money market, the Government securities market, the foreign exchange market, the capital market and the insurance market. While the money, Government securities and foreign exchange markets are regulated by the Reserve Bank, the capital market falls within the purview of Securities and Exchange Board of India (SEBI) and the insurance market is regulated by the Insurance Regulatory and Development Authority (IRDA). Several measures have been taken by the Reserve Bank over the years and by the SEBI (during the 1990s) for developing these markets.

6.13 On account of the relatively underdeveloped nature of the financial markets till the 1990s, firms to a large extent depended on financial intermediaries for meeting their funds requirement. Existence of segmented markets tended to obscure the transmission of monetary policy impulses that result in sub-optimal allocation of resources (Kamesam, 2001).

6.14 Financial market reform in India is thus, a more recent phenomenon and formed an important component of the overall financial sector and structural reform process initiated in the early 1990s. Financial market reform in India has followed a well calibrated approach. As a matter of fact, the reform process started from the mid-1980s with initiation of several measures following the recommendations of the Committee to Review the Working of the Monetary System in India, 1985 (Chairman: Sukhamoy Chakravarty) and the Working Group on the Money Market, 1987 (Chairman: N. Vaghul). The process, however, gathered momentum in the early 1990s with wide ranging reforms in all segments (money, forex and Government securities) of the financial market. A gradual approach to market reform has been followed in India so as to avoid destabilising effects.

6.15 The general approach to financial sector and market reform in India has been a transparent, collaborative and consultative process aimed at resolving many possible dilemmas. The reform process itself was characterised by caution with a tilt towards preserving stability, careful sequencing of measures, mutually reinforcing monetary measures and ensuring consistency and complementarity with other policies. Further, reform in the financial markets has always been undertaken within the overall monetary policy framework and is coordinated with reforms in the money and foreign exchange markets. Many of the major reforms have been implemented in phases, allowing for transition so as not to destabilise market conditions or any group of participants or the financial system in general (Reddy, 2005).

6.16 The development of the money and Government securities markets in India was triggered by three major developments. First, the replacement of automatic funding of the Government deficits through *ad hoc* Treasury Bills (which carried a fixed coupon rate of 4.6 per cent per annum from December 1974) by Ways and Means Advances (WMA) at interest rates linked to the Bank Rate in 1997 which led to greater market financing of fiscal deficit and fostered the development of the Government securities market. Second, the introduction of an

enabling institutional and legal framework and the development of an array of indirect instruments of monetary control such as the Bank Rate (re-activated in April 1997), the strategy of combining auctions, private placements and open market operations in Government paper since 1998-99 and the liquidity adjustment facility (LAF) (instituted in June 2000) contributed significantly to financial market development (Reddy, 2000). Third, the setting up of an appropriate legal, institutional, technological and regulatory framework has helped in increasing liquidity and transparency across different segments of the financial market.

State of the Financial Markets in India

6.17 The evolution of the financial markets in India has been a gradual process and is broadly categorised into pre-reform period (*i.e.*, before 1990s when markets were in a state of inertia/transition) and reform/post-reform period (since the early 1990s when markets were characterised by large scale and rapid reform).

Money Market

6.18 Money market is the most important segment of the financial system as it provides the fulcrum for equilibrating short-term demand for and supply of funds, thereby facilitating the conduct of monetary policy. It is a market for short-term funds with a maturity of up to one year and includes financial instruments that are close substitutes for money. The money market is generally expected to perform three broad functions: (i) it provides an equilibrating mechanism to even out demand for and supply of short-term funds; (ii) it also presents a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy; and (iii) it provides reasonable access to providers and users of short-term funds to fulfil their borrowing and investment requirements at an efficient market clearing price (Vaghul, 1987).

6.19 There is no demarcated distinction between the short-term money market and the long-term capital market, and in fact there are integral links between the two markets as the array of instruments in the two markets invariably form a continuum (Vaghul, 1987). The Reserve Bank is the most important constituent of the money market. Owing to its implications for conducting monetary policy, the money market falls under the direct purview of regulation of the Reserve Bank. The primary objective of the Reserve Bank's operations in the money market

has been to ensure that short-term interest rates and liquidity are maintained at levels which are consistent with the overall monetary policy objectives, viz., maintaining price stability, ensuring adequate flow of credit to the productive sectors of the economy and maintaining orderly conditions in the financial markets. Liquidity and interest rates in the system are influenced by the Reserve Bank through the use of various instruments at its disposal such as cash reserve ratio, standing facilities/refinance schemes, repo and reverse repo transactions, changes in the Bank Rate, open market operations, and some times through foreign exchange swap operations. Recognising the important role of the market in the monetary policy process, the Reserve Bank has taken active interest in continuously refining the money market instruments in order to have greater control over the liquidity in the system and for creating an efficient mechanism to impart interest rate signals.

Pre-Reform Period

(i) 1930s to 1960s

6.20 The Indian money market during the period was characterised by paucity of instruments, lack of depth and dichotomy in the market structure. The inter-bank call money market was the core of the Indian money market. Before the creation of the Reserve Bank in 1935, the money market consisted of two fairly distinct sectors, viz., the organised and unorganised sectors (SBI, 2003). While the organised sector consisted of the Imperial Bank of India – a quasi-central bank till 1935, the Indian joint-stock banks and the exchange banks, the indigenous bankers such as the shroffs, money lenders, chetties, multanis, nidhis, chit funds, etc. formed the unorganised part. Cooperative credit institutions occupied an intermediate position between the two sectors. The Imperial Bank, the foremost commercial bank of the country and a few of the leading Indian joint-stock banks discounted *hundis* (internal bills of exchange). This was the main credit instrument of the unorganised sector which provided the only link between the two sectors. Owing to the absence of a proper central bank, the money market was characterised by sharp imbalances between the supply and demand for funds, wide fluctuations in interest rates during the busy and slack seasons and marked regional variations in interest rates. The Imperial Bank could not, however, lend stability to the money market as it had to borrow from the Government at high rates of interest. Nevertheless, the bank rendered assistance to the money market

by using the large Government balances at its disposal, which constituted its major investible resources.

6.21 The Imperial Bank acted as the bankers' bank, though not statutorily, till 1935 and held the balances of other banks (both Indian and exchange) and also granted accommodation to them when in difficulty or during periods of tight money conditions. (This position remained unchanged even after 1935 at regions where the Reserve Bank had not set up offices). Advances were generally granted by way of demand loans against the Government or other gilt edged securities, though at times these were also in the nature of overdrafts.

6.22 The Bank Rate was the prime lending rate at which the Imperial Bank generally advanced money against Government securities. This rate was determined by the Committee of the Central Board of the Imperial Bank and depended on the demand for money which in turn was determined almost entirely by the requirements of trade, particularly foreign trade, in staple commodities such as foodgrains, raw cotton, raw jute and jute manufactures. The rates of interest on loans, including the Bank Rate, fluctuated according to the ebb and flow of this trade. The Imperial Bank would usually not reduce the Bank Rate when its cash to liabilities ratio (an indication of liquidity) was found to be low. Apart from the Bank Rate, the Imperial Bank also periodically announced a *hundi* rate, which was generally equal to or slightly higher than the Bank Rate. Through the rates which the Imperial Bank charged on its advances and the discount of *hundis*, and by its willingness or refusal to extend financial assistance, it could profoundly influence the provision of credit as well as money market rates.

6.23 As early as in 1931, the Indian Central Banking Enquiry Committee (1931) had underscored the need for integration of the two sectors of the Indian money market. It had recommended linking of indigenous bankers satisfying certain conditions such as minimum capital and reserves, nature of business, having audited accounts etc., with the Reserve Bank. Subsequently, the Reserve Bank drew up a scheme in August 1937 for inclusion of indigenous bankers doing banking business under the Second Schedule of the Reserve Bank Act, 1934.

6.24 After the formation of the Reserve Bank in 1935, the organised market comprised the Reserve Bank, the Imperial Bank of India, foreign banks and the Indian joint stock banks. *Quasi-Government*

bodies and large-sized joint stock companies also participated in the money market as lenders, the money lent by them being usually termed as 'house money' (RBI, 1958). Financial intermediaries such as call loan brokers, general finance and stock brokers also functioned in the market. Although the magnitude of funds dealt within the call market was not large in relation to the deposit resources of banks, it was the most sensitive segment of the money market. The Imperial Bank of India did not participate in the call money market, but other banks obtained loans and advances from it. Subsequently, however, banks increasingly shifted their demand for accommodation to the Reserve Bank. Besides the call money market, there was no other significant segment in the market.

6.25 With the creation of the Reserve Bank of India in April 1935, the task of determining the Bank Rate was taken over by it from the Imperial Bank. It was on July 4, 1935, *i.e.*, the day before the scheduled banks were to lodge their statutory deposits with the Reserve Bank, that the Bank Rate of 3.5 per cent was officially announced for the first time by the Reserve Bank. It was the standard rate at which the Reserve Bank was prepared to buy or re-discount bills of exchange or other eligible commercial papers. Subsequently, the official rate of the Imperial Bank was redesignated as the Imperial Bank advance rate (as distinct from the Imperial Bank *hundi* rate), which was to be the rate for advances against Government securities and the benchmark for the calculation of interest on other advances on which a fluctuating rate of interest was charged. In order to serve the economy in general and the rural sector in particular, the All-India Rural Credit Survey Committee recommended the creation of the state-partnered and state-sponsored bank by taking over the Imperial Bank of India, and integrating with it, the former state-owned or state-associate banks. An Act was, accordingly, passed in the Parliament in May 1955 and the State Bank of India was constituted on July 1, 1955.

6.26 Though the Reserve Bank was empowered, under the statute, to use the usual instruments of monetary policy, the choice of the instruments of monetary control that could be used was limited by the structural characteristics of the money market. An important aspect of the money market in India was the seasonality in the demand for money and credit which broadly followed the course of the agricultural season. The incidence of closing of accounts of the Government at the end of the

financial year in March also added to the element of seasonality in the money market.

6.27 The money market structure in India, loose as it was, however, was not entirely uncoordinated (RBI, 1958). The indigenous bankers enjoyed rediscount facilities from the Imperial Bank of India and other commercial banks which, in turn, had access to the Reserve Bank. Recourse on the part of the indigenous money market to the resources of the organised market took place usually during the busy season when the crops were being harvested and moved from the producer to the wholesaler. At around the time the Reserve Bank was established, the unorganised money market was the most important segment accounting for as much as 90 per cent of the transactions. Since then, its importance in overall terms fell considerably. But for certain sectors such as agriculture, retail trade, various classes of small borrowers and also to an extent small scale industry, this market continued to remain an important source of finance, its chief advantages being flexibility in operations and ease of access to the borrowers. But these advantages were more than offset by the highly onerous terms on which resources were made available to the borrowers. One of the most important objectives of policy at that time was, therefore, to devise methods to facilitate the flow of credit to these sectors from the organised sector and to provide it on reasonable terms.

6.28 Rediscounting bills were among the most important instruments of credit control and the Indian Central Banking Enquiry Committee (1931) had recommended early establishment of a market in commercial bills. No steps could, however, be taken by the Reserve Bank in this direction until the beginning of 1952 because of the War and the difficulties arising out of the partition of the country. The Bill Market Scheme was finally introduced on January 16, 1952. Under the scheme, the Reserve Bank made advances to scheduled banks in the form of demand loans against their promissory notes supported by 90 days usance bills or promissory notes of their constituents. It was primarily a scheme for providing accommodation to banks. The scheme, however, did not succeed in developing a market in genuine bills.

6.29 The short-term control measures were intended to regulate the amount and cost of temporary accommodation to the banks during the busy season; and for holding inventories of essential commodities. For short-term control, the access of commercial banks to the Reserve Bank was regulated

by the Net Liquidity Ratio (NLR) System¹. The long-term control measures were aimed at bringing about the desired directional changes in credit flows and in the cost of credit to the different sectors.

6.30 Over the years, the Reserve Bank had, through its loan and open market operations, succeeded to a considerable extent in reducing the level of interest rates in general and call money and bazaar bill rates in particular, as also in mitigating the seasonal fluctuations in interest rates, which had been a marked characteristic of the Indian money market, prior to the Reserve Bank's establishment.

(ii) 1970s and 1980s

6.31 The money market during the 1970s and 1980s was also characterised by poor liquidity, the paucity of instruments and limited number of participants. The major features of the Indian money market during the period were :

- (a) Restricted market with a narrow base and limited number of participants – banks and two all India financial institutions. The entry into the market was tightly regulated. Moreover, the market was lopsided with a few large lenders and a large number of borrowers. The market lacked participants who could make for an active market by alternating between lending and borrowing.
- (b) The overall size of the market was also very small relative to the size of the economy – overall transactions barely formed 3 to 4 per cent of the bank deposits.
- (c) The market was also characterised by paucity of instruments and dealings were generally confined to overnight call and short notice (up to 14 days), inter-bank deposits/ loans, Repo market and bills rediscounting.
- (d) The interest rates in the market were also tightly regulated and controlled (by a voluntary agreement between the participants through the Indian Banks' Association (IBA) intermediation). However, during periods of tight liquidity, the prescribed rates were not strictly adhered to, and more often breached (Vaghul 1987).

6.32 Owing to the above features, the unorganised money market used to meet the sectoral financing gaps (*i.e.*, the requirements of unsatisfied borrowers

in the organised financial system). Interest rates in the unorganised sector were higher than those in the organised sector and were more market-related. The call money market, the dominant market, was strictly an inter-bank market till 1971 when the UTI and LIC were allowed to operate in the market. While commercial and cooperative banks participated as both lenders and borrowers, LIC and UTI, institutions with a sizeable short-term float funds, were permitted to lend in order to augment the supply of funds in the market. The overnight call/term money had traditionally facilitated banks in maintaining reserve requirements. Thus, in the 1970s and 1980s, call money market in India remained basically "an over the counter (OTC) market" as brokers were not permitted in the market – (Until March 1978, call money market transactions could be undertaken through brokers. Since then, banks were prohibited by the Reserve Bank, from paying brokerage on call money market operations as it had stopped payment of brokerage on deposits).

6.33 Prior to December 1973, the call market rates were freely determined by the market but as the rates touched a high of 25 to 30 per cent and remained at that level, the IBA intervened and brought some order in the market as it was felt that high interest rate over long periods would distort the entire banking system operations and would also militate against the basic objectives of planned credit allocation under an administered structure of lending rates. A ceiling of 15 per cent on call money rate was fixed by the IBA in December 1973; the ceiling was, however, reduced in phases to 8.5 per cent by March 1978. The resurgence of inflationary pressures and the sharp upward movement in administered interest rates in 1979-80 necessitated increase in the ceiling on call rates to 10 per cent in April 1980.

6.34 The volume of business in the call money market which was Rs.573 crore in 1982-83 (average borrowings of banks), increased to Rs.1,067 crore by 1985-86. The inter-bank term deposits/loan market, where funds were lent out for periods of over 14 days was also equally under-developed. The participants in the market were commercial and cooperative banks. Interest rates in the market were not governed by any Reserve Bank directive. However, the IBA had fixed ceiling rates for inter-bank transactions. During periods of tight liquidity, interest rates ceilings in the market were breached

¹ The NLR was the proportion of a bank's cash, balances with the Reserve Bank, current account deposits in the notified banks and investments in Government and other approved securities less its total borrowings from the RBI, SBI and IDBI to its aggregate demand and time liabilities.

as in the case of call money. The volume of transactions in the market ranged between Rs.420-1,000 crore in 1985-86.

6.35 In well-developed money markets, Treasury Bills are generally an integral part of money market operations. In the Indian context, however, the role of Treasury Bill (an instrument of short-term borrowing by the Government) as a money market instrument was largely attenuated because of certain historical developments (Vaghul, 1987). First, the substantial Treasury Bill creation which reflected Government deficits, had largely remained unfunded over the years and the bulk of Treasury Bills were held by the Reserve Bank. Second, the discount rate on 91 day Treasury Bills had remained unchanged at 4.6 per cent since 1974 and moreover, this rate was totally out of alignment with other short-term rates. Third, as these Bills were freely rediscounted by the Reserve Bank, the banks used the Treasury Bill market essentially for parking funds for very short periods of one to two days and given the stipulation of the cash reserve ratio (CRR) as an average for a fortnight, there were very large and volatile fluctuations in investments of banks in Treasury Bills as also the banks' cash balances with the Reserve Bank. These violent fluctuations were entirely counter-productive and gave wrong signals for monetary management. Accordingly, to overcome the problems, two measures were taken by the Reserve Bank, *i.e.*, the recycling of Treasury Bills and the introduction of an additional early rediscounting fee.

6.36 A new scheme called the Bills Rediscounting Scheme was introduced with several new features in November 1970 under which the Reserve Bank rediscounted genuine trade bills at the Bank Rate or at a rate specified by it, at its discretion. Over the years the rediscounting facility was made restrictive and made available on a discretionary basis. The other instrument in the money market was participation certificates (introduced in 1970). Both of these were, however, not significant.

6.37 The Chakravarty Committee (1985) was the first to make comprehensive recommendations for the development of the Indian money market. This was followed by the Vaghul Committee set up by the Reserve Bank to specifically examine various aspects for widening and deepening of the money market. Following the recommendations of these two Committees, several new initiatives were taken.

Instruments such as the Certificates of Deposit (CDs introduced in 1989), Commercial Paper (CP introduced in 1989), inter-bank participation certificates (with and without risk) were introduced to increase the range of instruments. Certificates of Deposit are basically negotiable money market instruments issued by banks and financial institutions during tight liquidity conditions. Smaller banks with relatively smaller branch networks generally mobilise CDs. As CDs are large size deposits, transaction costs on CDs are lower than retail deposits. The Discount and Finance House of India (DFHI) was set up in 1988 to impart liquidity to money market instruments and help the development of secondary markets in such instruments. The DFHI was jointly set up by the Reserve Bank, public sector banks and financial institutions. The Reserve Bank, however, disinvested its shareholding in DFHI in March, 2003. To enable price discovery, interest rates in the money market were freed in 1989. In the case of call money, the rates were deregulated in stages. Interestingly, money market rates were freed in India before the deregulation of deposit and lending rates of banks.

6.38 Repurchase Agreements (Repo), a short-term money market instrument is used for smoothening volatility in money market rates by central banks through injection of short-term liquidity into the market as well as absorbing excess liquidity from the system². Being a money market instrument, regulation of the repo market falls under the Reserve Bank's jurisdiction. Accordingly, the Reserve Bank has been concerned with use of repo as an instrument by banks or non-bank entities and issues relating to type of eligible instruments for undertaking repo and eligibility of participants to undertake such transactions and it has been issuing instructions in this regard to banks, in consultation with the Central Government. In India, banks often entered into buy back arrangements in respect of Government and other approved securities and PSU bonds among themselves and with their large public sector and corporate clients until April 15, 1987 when the Reserve Bank issued certain guidelines, *inter alia*, by prohibiting buy back arrangements in respect of corporate securities and bonds issued by public sector undertakings. From December 1, 1987 the units of Unit Trust of India were not eligible as approved security for the purpose of entering into repo transactions. In order to ward off any undesirable developments following the detection of large scale misuse of repos, banks were prohibited from entering

² Repo arrangements do not necessarily involve the central banks; they can be among market participants.

into buy back arrangements in Government and other approved securities with non-bank clients, while they could enter into buy-back arrangements with other banks (inter-bank) with effect from April 4, 1988.

Reform/Post- Reform Period (1990s)

6.39 The money market in India witnessed significant progress particularly from the mid-1990s, in terms of refinements in money market instruments, introduction of new instruments and supplementary measures to add depth and liquidity to the market. The money market instruments in India during the period mainly consisted of: (i) Call/ Notice Money, (ii) Term Money, (iii) Certificates of Deposit, (iv) Commercial Paper, (v) Treasury Bills, (vi) Repurchase Agreements (Repos), (vii) Interest Rate Swaps/Forward Rate Agreements, and (viii) Rediscounting of commercial bills scheme.

6.40 During the 1990s, the participation in the call money market was widened to cover primary and satellite dealers and corporates (through primary dealers) besides other participants. While banks and primary dealers are permitted to lend and borrow in the market, other entities could participate only as lenders. Following the recommendations of the Narasimham Committee (1998) and the Reserve Bank's Internal Working Group to Examine the Development of Call Money Market (1997), steps were initiated to reform the call money market and make it a pure inter-bank market, in a phased manner starting in 1999. With the development of the repo market since the late 1990s, the call money market has gradually been transformed into a pure inter-bank market including primary dealers. This process, which was initiated in 1999, was completed in August 2005.

6.41 A significant development in the Indian money market has been the introduction of Rupee derivatives, *i.e.*, Interest Rate Swaps (IRS)/ Forward Rate Agreements (FRA), in 1999 to further deepen the money market and enable market participants to hedge their risks. In addition to several other measures taken since its introduction, with effect from May 20, 2005, market participants were advised to use only domestic Rupee benchmarks for interest rate derivatives. Market participants were, however, given a transition period of six months for using Mumbai Inter-bank Forward Offered Rate (MIFOR) as a benchmark, subject to review. However, on request from the Fixed Income Money Market and Derivatives

Association (FIMMDA), market participants have been allowed to use MIFOR swaps in respect of transactions having underlying permissible forex exposures, for market making purpose, subject to appropriate limit as may be approved by the Reserve Bank.

6.42 The repo market suffered a major setback due to the securities irregularities of 1992. The Janakiraman Committee, set up in the wake of the securities market irregularities reported that there existed a thriving market for repos and virtually all wholesale participants of the money market and not only banks, used repo transactions widely, despite there being an explicit prohibition on their use. After the detection of the irregularities, the Reserve Bank imposed a ban on ready forward deals and banks were prohibited from undertaking repos in Government dated securities and approved/trustee securities from June 22, 1992. Repos in Treasury Bills were, however, exempted from prohibition. Double ready forward deals, including those in Treasury Bills were also strictly prohibited and the ban was extended to financial institutions as well. Justice Variava's judgement was of great significance in the context of development of the repo market in India as it held that all repo transactions undertaken by banks and other institutions were illegal and void as they were prohibited under Section 16 of the Securities Contract Regulation Act (SCRA), 1956 and Government's notification dated June 27, 1969³. In order to legally facilitate the repo transactions, the Reserve Bank had to take up the issue with the Government to exempt banks and such of those entities deemed necessary by the Reserve Bank, from the prohibition contained in the notification. Amending the Notification which prohibited forward transactions in securities, the Government issued notifications by virtue of which banking companies, cooperative banks, Primary Dealers (by name) and Satellite Dealers (by name) were permitted to undertake ready forward transactions in specified securities, provided the transactions were settled through SGL Accounts maintained at the Public Debt Office, Mumbai. Further, non-bank entities as notified by the Central Government were permitted to undertake reverse repos only.

6.43 Several reforms were undertaken in the repo market since 1999, by way of widening of participants and instruments, institutional development and by bringing uniformity in trading and accounting practices with the help of FIMMDA. A Clearing Corporation of

³ Report on Repurchase Agreements (Repos), Reserve Bank of India, August 6, 1999.

India Ltd. (CCIL) was set up to make the repo operations efficient, with adequate safeguards. The turnover in the repo market has shown an increasing trend on account of various factors such as limits placed on eligible market participants relating to call/notice money transactions, introduction of DvP III, permitting rollover of repo and market repo rate ruling below the call rate during certain periods. Effective February 23, 2003, based on the advice of the Technical Advisory Committee (TAC) on Money and Government Securities Markets, repo eligibility was extended to select category of non-SGL account holders with adequate safeguards to ensure delivery *versus* payment and transparency. Also effective May 11, 2005, participation in market repo facility has been extended to non-scheduled urban cooperative banks and companies having gilt accounts with scheduled commercial banks, subject to certain eligibility criteria and safeguards. Collateralised Borrowing and Lending Obligations (CBLO) has also emerged as a promising instrument in the money market with a sharp increase in volumes. CBLO is unique to India. It was launched by CCIL in January 2003 for the benefit of non-bank participants who were either phased out of the inter-bank call money market or were given restricted access to the market or were unable to get fair quotes from larger market participants.

6.44 In India, CP is issued by well rated corporates and financial institutions in accordance with the terms and conditions set out by the Reserve Bank. Over the years, there has been a substantial relaxation in the conditions relating to issuance of CP. Banks are the major investors in CP. Liquidity in the banking system and the differential between CP rate and banks' Prime Lending Rates (PLRs) have been the main drivers of CP market in India. Banks have at times arbitrated between the call and the CP market by borrowing from the former market and lending in the latter as inter-bank call rates have generally tended to be lower than CP rates. Corporates in India have preferred to resort to CP issuance as against borrowings from banks when money market rates were below the PLRs of banks. Active secondary market for CP could not emerge in India due to the preference of investors to hold the instrument upto maturity owing to higher risk adjusted returns as also the differences in stamp duty between different investors and the States.

6.45 Important measures taken to activate the CP market were the delinking of CP from the cash credit limit in October 1997, further conversion of CP into a stand-alone product in October 2000 and trading

of CPs in dematerialised form which helped to lower transaction costs and reduction in stamp duty effective March 1, 2004. Large investment interest by mutual funds on account of Reserve Bank's guidelines on non-SLR debt securities and also policy induced phasing out of leasing and finance companies from accessing public deposits also spurred the CP market.

6.46 Since its introduction in 1989, several initiatives were taken by the Reserve Bank to provide flexibility and depth to the CD market. Secondary market for CDs has not developed in India due to the preference of holders to hold the instrument upto maturity due to the higher interest rates offered on it relative to retail deposits. The flexibility of CDs has improved over the years through measures such as reduction in the minimum lock-in period, amount of issue and preferring dematerialised form.

6.47 In the recent period, following, *inter alia*, the recommendations of the Technical Group on Money Market (May 2005), the focus and policy thrust of the Reserve Bank in the money market has been towards encouraging the growth of collateralised market, developing the rupee yield curve, ensuring transparency and better price discovery, providing avenues for better risk management and strengthening monetary operations. In the near future, there are several areas of the money market on which the Reserve Bank would need to focus. Though repo has emerged as a major money market instrument, the implementation of the FRBM is likely to reduce the supply of Government paper calling for broad-basing the pool of securities to act as collateral for repo and CBLO markets. There are various issues relating to the OTC derivatives such as ambiguity over legality of such contracts, absence of netting laws, *etc.* In this context, amendment of the Reserve Bank Act, 1934 to provide legal clarity to OTC derivatives assumes significance as it could lead to further development of the market.

6.48 To enable orderly development of the money market, prudential limits have been set on borrowing and lending in the call money market for different categories of participants based on different benchmarks. The feasibility of migrating from different benchmarks to standardised benchmark needs to be explored. Further, with improvements in the Asset Liability Management (ALM) framework and risk management systems, the possibility of allowing more flexibility to banks and Primary Dealers (PDs) in the call/notice money market as warranted by balance-sheet structure may have to be examined.

Money Market Activity

6.49 The call/notice money market which formed the core segment of the Indian money market for many decades has gradually been giving way to other instruments such as the IRS/FRAs, repos, CP, CBLO and CDs (Table 6.1). The daily average turnover in the call money market, which stood at around Rs.35,144 crore in 2001-02 almost halved to Rs.14,170 crore in 2004-05, reflecting, *inter alia* the conscious decision on the part of the Reserve Bank to make the call/notice money market a pure inter-bank market.

6.50 Since the early 1990s, call rates have fluctuated widely depending upon the liquidity conditions in the system. The average call money rate which ranged between 7 per cent (1993-94) and 17.7 per cent (1995-96) during the early 1990s fluctuated in a narrow range of 4.6 per cent to 9.2 per cent between 2000-01 to 2004-05 reflecting, *inter alia*, the comfortable liquidity in the system as also the success of the Reserve Bank's liquidity adjustment policy through LAF. Several factors like the overall liquidity, Government's borrowing programme, growth in non-food credit, capital flows, tax outflows, seasonal factors (large currency drawals) and the Reserve Bank's market operations (open market operations, repo/reverse repo, refinance/standing facilities, cash reserve ratio) influence the call money market. While historically, statutory preemptions (CRR/SLR requirements) and reserve maintenance period were major factors that influenced the call money rates in India, with the gradual opening up of the economy since the early 1990s and the integration of the various segments of the financial markets, call rates have tended to be influenced by developments in the forex, the Government securities and at times, the capital market.

6.51 The term money market which is the market for short-term funds of over 14 days has not yet developed notwithstanding several measures taken in the past. Despite the fact that banks were exempted from the maintenance of CRR and SLR on inter-bank liabilities from April 19, 1997, the average daily turnover in the term money market has not increased substantially.

6.52 Banks issue CDs, particularly, during periods when the demand for credit is high. CD issuance has fluctuated widely since 1993. With the tightening of liquidity conditions and increased demand for bank credit, CD issuance has picked up sharply during 2005 (Outstanding amount was Rs.30,445 crore on December 9, 2005 (Chart VI.1).

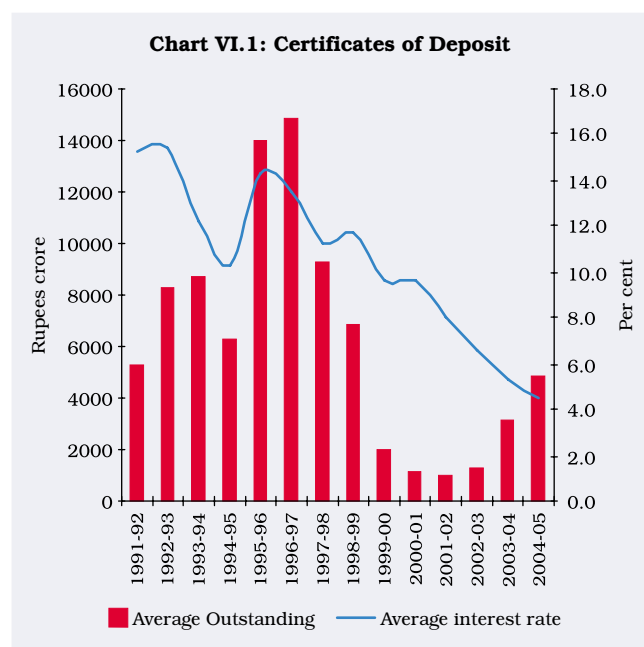


Table 6.1: Activity in the Money Market

Year	Average Daily Turnover			Outstanding Amount*			Forward Rate Agreements/ Interest Rates Swaps (Notional Amount)	Commercial Bills Rediscouted by Commercial Banks
	Call Money Market	Term Money Market	Repo Market (Outside the LAF)	Collateralised Borrowing and Lending Obligations (CBLO)	Commercial Paper	Certificates of Deposit		
1	2	3	4	5	6	7	8	9
1999-00	23,161	–	6,895	–	7,014	1,908	–	–
2000-01	30,423	–	10,500	–	6,751	1,199	18,014	–
2001-02	35,144	195	30,161	–	7,927	949	50,503	–
2002-03	29,421	341	46,960	30	8,268	1,224	1,50,039	417
2003-04	17,191	519	10,435	515	7,835	3,212	3,74,631	515
2004-05	14,170	526	17,135	6,780	11,723	6,052	8,12,500	355

* end-March.

Source : Handbook of Statistics on Indian Economy; Annual Report, RBI, various issues.

Chart VI.2a: Commercial Paper

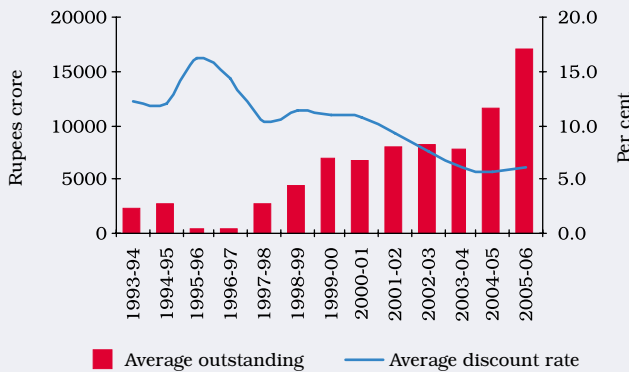
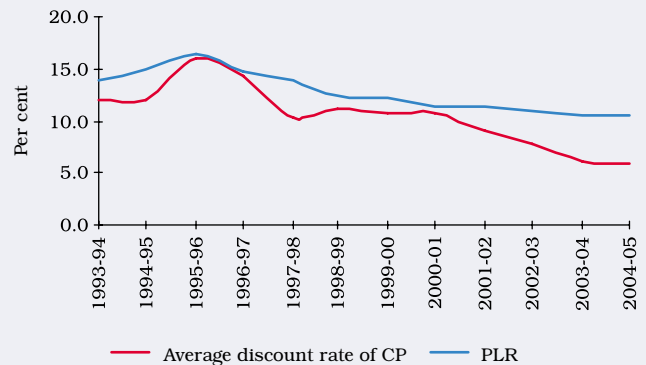


Chart VI.2b: Average Discount Rate of CP v/s PLR



6.53 The steady increase of CDs has been on account of several factors such as the revised guidelines by the Reserve Bank on investments by banks in non-SLR debt securities, reduction in stamp duty on CDs effective March 1, 2004, withdrawal of tax deduction at source, disallowing premature closure of deposits under CDs *vis-à-vis* alternative competing instruments such as fixed deposits and greater opportunity for secondary market trading. On the demand side, the Securities and Exchange Board of India placing a bar on mutual funds (MFs) from parking funds in bank deposits coupled with improved funds position with MFs provided an impetus to the CD market. An encouraging development in the CD market is that some of the top rated banks have been getting their CDs rated for better access to the market even when such rating is not mandatory under the extant guidelines.

6.54 Issuance of CP by corporates has also picked up rapidly since 2003-04. The outstanding amount of CP increased sharply from Rs.577 crore in end-March 1993 to Rs.1,500 crore at end-March 1998 and stood at Rs.17,180 crore at end-December, 2005.

6.55 It has been observed that corporates resort to CP issues when the money market rates are generally lower than the bank's PLR. This is reflected in the fluctuating volumes (Chart VI.2a & VI.2b).

6.56 As mentioned earlier, a remarkable development in the Indian money market has been the introduction of Rupee Interest Rate Swaps/ Forward Rate Agreements in 1999 to enable market participants to hedge their risks and also facilitate the emergence of a rupee yield curve. The popularity of these instruments is evident from the fact that within a very short span, the volumes in the market (notional principal amount) increased by leaps and bounds from

around Rs.18,014 crore at end-March 2001 to over Rs.13,15,306 crore by September 2005.

6.57 The repo market (market repo) is another segment of the money market, which has grown significantly as it has emerged as one of the most important alternative instrument for parking short-term funds with the gradual move towards a pure inter-bank call/notice money market. Notwithstanding some fluctuations, the average daily turnover in the repo market had increased sharply, particularly since 2001-02 and touched a peak in 2002-03. Thereafter, it declined and stood at around Rs.17,135 crore in 2004-05.

6.58 In sum, in recent years, the Reserve Bank's approach has been to foster balanced development of different segments of the money market, introduce new instruments and make the existing instruments more flexible, reduce dependence of participants on uncollateralised exposures, facilitate price discovery in the short-end and upgrade the payment system infrastructure. Accordingly, the Reserve Bank's strategy has focused on developing pure call/notice money market, instituting full-fledged Liquidity Adjustment Facility, developing infrastructure, promoting transparency, and initiating various measures pertaining to instruments for non-bank participants. Following the various initiatives taken by the Reserve Bank over the years, the depth and liquidity in the money market has increased significantly.

Government Securities Market

6.59 The Government securities market in India forms an overwhelming part of the overall debt market. Interest rates in this market provide benchmarks for other segments of the financial market. Historically, the impetus for development

of the Government securities market in India has come from the large Government borrowing requirements while an additional reason during the 1990s was the increased capital flows and the need for sterilisation. The Reserve Bank used domestic eligible marketable bonds from its portfolio whenever it wanted, to sterilise the monetary expansion.

Legal Basis

6.60 The legal basis for Reserve Bank's operations in the Government securities market is provided by Sections 20, 21 and 21A of the Reserve Bank of India Act, 1934, according to which the Bank is entrusted with the function of management of public debt and issue of new loans of the Union Government and State Governments. The provisions of the Public Debt Act, 1944 also enjoin upon the Reserve Bank the responsibility of administration of the public debt. The functions include issuance of new loans, payment of interest every half year, retirement of rupee loans and all matters pertaining to debt certificates and registration of debt holdings.

6.61 The Reserve Bank actively operates in the gilt-edged market in order to create orderly conditions in the market by influencing the prices and yields of securities. Under Section 17(8) of the Reserve Bank of India Act, 1934, the Reserve Bank is authorised to purchase and sell securities of the Union Government or a State Government of any maturity and the security of a local authority specified by the Central Government on the recommendations of the Central Board. In fact, this section provides the legal setting for the conduct of open market operations. However, at present the Reserve Bank deals only in the securities issued by the Central Government and not in those of State Governments and local authorities. The Reserve Bank derives its regulatory power over the Government securities market from Section 16 of the Securities Contract (Regulation) Act, 1956, under which the Government has delegated the powers exercisable by it to the Reserve Bank.

Pre- Reform Period (1930s to 1980s)

6.62 A deep and liquid Government securities market could not emerge particularly from 1950s due mainly to the heavy borrowing requirements of the Government and the artificially low coupon rates on Government securities which had an impact on the entire yield structure of financial assets in the system. Financing of the budget deficit of the Central Government by the Reserve Bank took place through an arrangement of automatic monetisation through

ad hoc Treasury Bills. To ensure absorption of the large supply of Government bonds in the face of administered rates, the Reserve Bank mandated maintenance of a minimum statutory liquidity ratio (SLR) whereby the commercial banks had to set aside substantial portions of their liabilities for investment in Government securities at below market interest rates. The market was also characterised by several peculiarities such as voucher trading, switch quotas, cash purchase and separate purchase and sale lists.

6.63 Historically, investors in the gilt-edged securities included individuals as well as financial institutions. Over a period, the gilt-edged market had assumed the nature of captive market with the financial institutions as the major subscribers. Effective from March 16, 1949, banks had to maintain liquid assets in cash, gold or unencumbered approved securities amounting to not less than 20 per cent of their total demand and time liabilities (DTL) under Section 24 of the Banking Regulation Act, 1949. The SLR was the outcome of the action taken to prevent banks from offsetting the impact of variable reserve requirements by liquidating their Government security holdings. The Act was subsequently amended in 1962 requiring all banks to maintain a minimum amount of liquid assets equal to not less than 25 per cent of their DTL in India effective from September 16, 1964. Since 1970, the SLR has been gradually increased with the objective of restricting the expansionary trend in bank credit as also for augmenting banks' investments in Government securities particularly in the context of financing of the Five Year Plans. The Regional Rural Banks and cooperative banks were permitted to maintain the SLR at the minimum of 25 per cent. The SLR was frequently increased in the 1970s touching 34 per cent in December 1978, 35 per cent in October 1981, and further to 38.5 per cent in September 1990.

6.64 One aspect of the financial market structure in India during the pre-reform was the narrowness of the market for Government and semi-Government securities. This meant that there was little scope for using open market operations in Government securities for controlling liquidity. The Reserve Bank's operations in this sphere were, therefore, directed mainly at ensuring orderly conditions in the Government securities market so that there was a reasonable allocation of the available resources between the Central Government, the State Governments and the various other borrowers in the public sector on the one hand, as also the

Government sector and the rest of the economy on the other.

6.65 The practice of tax deduction at source (TDS) on Government securities had led to the practice of voucher trading in Government securities and price distortions in the market. Prevalence of this practice made it necessary for the Reserve Bank to fix quotas in regard to switch transactions, suspension of trading in a particular scrip for one month before the interest due date, *etc.*, which to some extent restricted the freedom of the dealers in the market. Furthermore, it created a situation in which the Reserve Bank had to impose limitations on its open market operations. Triangular switches without any ceiling, were also permitted to encourage inter-bank dealings in Government securities and approved brokers were allowed to submit such contracts. However, in reality the banks were utilising the triangular switches, mostly for availing themselves of the income-tax voucher benefit. An Internal Group set up by the Reserve Bank in 1981 had recommended that steps should be taken to stop voucher trading by removing the incentive for such trading. The removal of TDS at source on Government securities market in 1997 put an end to this practice and also heralded the beginning of tax reforms in the debt market.

6.66 The policy pursued initially was to maintain separate lists for purchase and sale transactions and different scrips were included in these lists. Securities with a stock of less than a fixed amount were placed on the list of securities meant for buying and those with a stock of more than that specified amount were put on the sales list. The loans maturing within three years were included in the buying list irrespective of the stock position, so as to enable the Reserve Bank to facilitate conversion of maturing loans. From the point of view of allowing greater freedom to the dealers in the gilt-edged market to manage their portfolio in a flexible manner, it was considered necessary to create conditions, wherein the investors would be able to sell and purchase securities of their choice. The scope for this, given the state of secondary market was rather limited. The Reserve Bank, therefore, had to take up the responsibility of meeting the demand for different scrips emanating from different groups of investors. Towards this end, it became necessary to dispense with the practice of keeping separate purchase and sale lists and accordingly, the Reserve Bank was prepared to buy or sell all the securities which it normally dealt with in its open market operations.

Post-Reform Period

6.67 The 1990s marked a watershed in the development of the Government securities market with wide ranging reforms in terms of instruments, institutions and procedures. A major development in the market was the introduction of an auction system for dated securities in June 1992, which marked a move towards market related rates on the Government securities. Plain vanilla, fixed coupon bonds formed most of the Government bond issuances prior to the 1990s. An abiding objective of the Reserve Bank as the Government's debt manager has been to evolve Government securities with new features to suit both the preferences of the Government as well as the market and in tune with evolving market conditions. The sale of Government securities in India was done both through pre-announced/tap issues. Auctions were of the discriminatory/multiple price, sealed bid type. With a view to eliminating the problem of "winner's curse" associated with the multiple price auction and broadening the market participation, the uniform price auction method was introduced in respect of 91-day Treasury Bill. Simultaneously, with a view to moderating the adverse impact of the large borrowing programme, the Reserve Bank has been accepting private placement of Government stocks and releasing them to the market when the interest rate expectations turned out to be favourable. As a part of market development measure, a variety of Treasury Bills, *viz.*, 14-day, 91-day, 182-day, 364-day maturities were introduced. Key instruments were also introduced at the longer end of the maturity spectrum with special features to hedge various risks and suit investor preferences during the 1990s. Innovations were also introduced with respect to long-term bonds, such as zero coupon bonds (January 1994), floating rate bonds (1995-96) and capital-indexed bonds (December 1997). Bonds with call and put options were also issued.

6.68 In the reform period, major efforts towards institutional strengthening in the Government securities market were undertaken. To develop the secondary market for Government securities, the Securities Trading Corporation of India (STCI) was set up by the Reserve Bank jointly with the public sector banks and all-India financial institutions in May 1994. Over the years, as the market reached progressively high stages of development, the Reserve Bank divested its holdings in the institution. The system of Primary Dealers in Government securities was also introduced in March 1996 to provide two-way quotes and develop the market. A

delivery *versus* payment system (DvP) was introduced in transactions in the Government securities market from July 1995. In order to encourage schemes of mutual funds which are dedicated exclusively to investments in Government securities, the Reserve Bank also introduced a liquidity support facility, either by way of outright purchases or reverse repos in Central Government securities. In order to provide a safety net or exit route for PDs so that they can actively make market in Treasury Bills, the Reserve Bank commenced purchase of Treasury Bills through OMO with exclusive access to PDs from February 2000. The Negotiated Dealing System (NDS) was operationalised from February 15, 2002 to provide, *inter alia*, an on-line electronic bidding platform for primary auctions in Central/State Government securities and OMO/LAF auctions.

6.69 The investor-base in the Government securities market has widened since the early 1990s, which now comprises commercial banks, cooperative banks, insurance companies, provident funds, financial institutions (including term-lending institutions), mutual funds, gilt funds, primary dealers, non-bank finance companies and corporate entities. The Reserve Bank earlier held Government securities predominantly for supporting the Government borrowing programme as also for conducting open market operations. Banks have been the dominant investors in the Government securities primarily on account of SLR requirements. However, in recent years, it has been found that banks have invested in the Government securities well beyond the statutory requirements partly because of relatively attractive rates of return and zero risk weight assigned to such investments under capital adequacy norms and partly because of relatively sluggish demand for commercial credit. The size of the Government securities market is large and is growing. It is evident from the large stock of outstanding dated securities of Central Government, which as on March 31, 2005 amounted to Rs.8,953 billion or 28.9 per cent of GDP.

6.70 Some of the initiatives undertaken in the Government securities market to improve the functioning of the market are: (i) establishment of Cash and Debt Management Group consisting of officials from the Reserve Bank and the Government in May 1997 which has systematised and rationalised the borrowing programme of the Government as it could be completed without destabilising the financial markets; (ii) mechanism of conducting auctions in Government securities were progressively refined by

combining both price-based and yield-based auctions, thereby improving liquidity, elongating the maturity for debt and facilitating the emergence of benchmarks; (iii) the institutional infrastructure has been strengthened by increasing the number of Primary Dealers (from 2 in 1996 to 17 in 2005) and making them functionally stronger through imposition of capital adequacy norms and other prudential norms. (iv) changes in valuation norms for banks' investment portfolio have been introduced; and (v) the Reserve Bank has moved away from announcing the yield curve for Government securities (from October 2000), which is now given out by the FIMMDA on a daily basis.

6.71 Several other measures have also been taken to improve the functioning of the Government securities market. 14-day and 182-day Treasury Bills were withdrawn and the notified amount of 91-day Treasury Bills was simultaneously increased. 182-day Treasury Bills were reintroduced in April 2005. A Negotiated Dealing System was introduced in February 2002 to facilitate electronic bidding, secondary market trading and settlement and to disseminate information on trades on a real-time basis. The Reserve Bank started the automation of its Public Debt Offices for this purpose. To act as the counterparty in all trades involving Government securities, Treasury Bills, repos and foreign exchange, the CCIL was set up. The entire system would operate in a networked environment and Indian Financial Network (INFINET) would provide the backbone for communication. In August 2005, an electronic order matching trading system was incorporated into the NDS to facilitate anonymous secondary market trading in Government securities.

6.72 In the Government securities market, the primary challenge facing the Reserve Bank in an FRBM environment is how to ensure effective debt management. While entrusting the responsibility of full underwriting of auctions to the PDs, as recommended by the Technical Group on Central Government securities market (July 2005), a smooth transition has to be planned in the interest of stability in the financial markets.

6.73 Considering the larger responsibility cast on the PDs, in order to make the PD system effective, they may have to be compensated with appropriate incentives such as funding of repo and exclusivity in auctions, which is a typical feature in most countries with PD system. Absence of short sales constrain the market making role of PDs by restricting their ability to hedge market risk. The recommendation of the

Technical Group for introduction of short selling is expected to fill-up this gap. In this context, the main challenge is to ensure that the benefits of short selling leads to a more efficient price discovery process, while at the same time avoid undue price volatility caused by short squeezes and cornering of stocks, and putting in place an effective system to address situations of delivery shortages. A securities borrowing window at the Reserve Bank as suggested by the Technical Group for PDs, could be a step in the right direction.

6.74 “When, as and if issued” (also known as “when-issued” (WI) markets are in place in many developed countries. WI trading in Government securities functions somewhat like trading in a futures market in that positions may be taken and covered many times before the actual settlement date. Such trading takes place between the time a new issue is announced and the time it is actually issued. In the FRBM environment, the Reserve Bank’s absence from primary auctions necessitates a more efficient market mechanism for absorption of primary auctions. WI market would thus be a necessary ingredient of such a mechanism and needs to be actively encouraged.

6.75 The Reserve Bank has since the late 1990s, been following a policy of passive consolidation, through the process of reissue of existing securities in order to improve market liquidity. Of the 111 outstanding securities issued by the Central Government as on date, only 20 have a size of

Rs.15,000 crore or more. Thus, while re-issuance has achieved some degree of consolidation, there are still a large number of small sized securities and very few actively traded in the market. At present there is an imperative need for active consolidation, which would involve buying back of large number of small sized illiquid securities from existing holders and issuing a smaller number of liquid securities in exchange. However, structural issues like the skewed pattern of holding of Government securities in India and the impact on banks’ balance sheets of selling securities out of their ‘Held to Maturity’ category, need to be addressed.

Market Activity

6.76 The Government securities market witnessed significant growth in terms of volume and liquidity following the various measures taken by the Reserve Bank since early 1990s. The outstanding stock of Central Government securities increased by around twelve-fold from 1992 to 2005 (Table 6.2). As a proportion of GDP it has doubled from 14.7 per cent to around 28.9 per cent during the above period. The turnover in the Government securities market, which was around one-third of the GDP in 1996 had increased sharply to over 200 per cent of GDP in 2003, but declined thereafter to 73 per cent in 2005 mainly due to increase in the interest rates in the recent years.

6.77 A significant feature in the Government securities market has been elongation in the average

Table 6.2: Snapshot of the Indian Government Securities Market

Item	1992	1996	2002	2003	2004	2005
1	2	3	4	5	6	7
Outstanding stock (Rs. in billion)	769	1,375	5,363	6,739	8,243	8,953
Outstanding stock as ratio of GDP (per cent)	14.68	14.20	27.89	27.29	30.09	28.94
Turnover / GDP (per cent)	–	34.21	157.68	202.88	87.78	72.99
Average maturity of the securities issued during the year (in years)	–	5.70	14.90	15.32	14.94	14.13
Weighted average cost of the securities issued during the year (per cent)	11.78	13.77	9.44	7.34	5.71	6.11
Minimum and maximum maturities of stock issued during the year (in years)	N.A.	2-10	5-25	7-30	4-29	5-30
PDs share in the turnover						
A. Primary market			70.46	65.06	50.84	36.02
B. Secondary market		–	22.04	21.72	24.25	26.7

* CCIL : Clearing Corporation of India Limited.

Note : Turnover is the total of outright (volume*2) and repo (volume*4) turnover.

Source : Report on the Internal Technical Group on Government Securities Market, 2005, RBI.

Chart VI.3a: Yield Curves of Treasury Bills

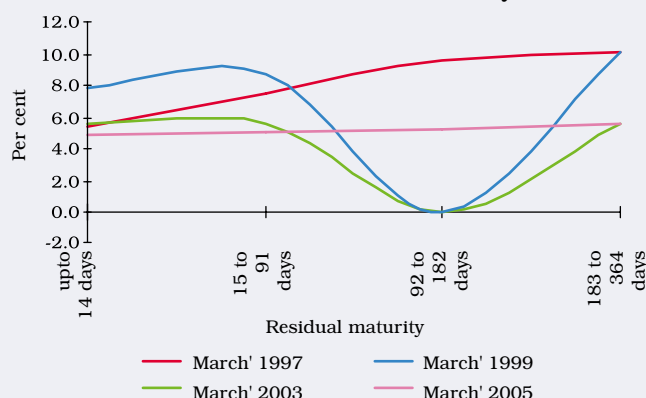
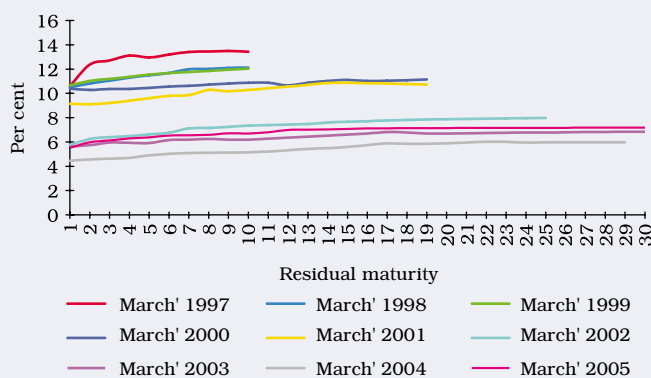


Chart VI.3b: Yield Curves of Central Govt. Securities



maturity profile of Government securities to 14.1 years in 2005 from 5.7 years in 1996. In the context of declining interest rate scenario, the Reserve Bank successfully increased the tenor progressively to 30 years, which had ranged upto 10 years during the 1990s. The weighted average cost of securities issued which went up from 11.8 per cent in 1992 (first-year of market-related rate), to 13.8 per cent in 1996, declined thereafter to 6.1 per cent in 2005. Various factors such as the need to develop the yield curve for longer tenors and to reduce the potential redemption pressure and refinance risk, necessitated elongation of maturity profile of Government securities.

6.78 Minimising the cost of borrowing of Government is a primary concern of the Reserve Bank

Table 6.3: Weighted Average Yield and Maturity for Market Loans of Government of India

Year	Weighted Average Yield (New Loans) (Per cent)	Range of Maturity of New Loans (Years)	Weighted Average Maturity (New Loans) (Years)	Weighted Average Maturity of Outstanding Stock (Years)
1	2	3	4	5
1995-96	13.75	2-10	5.7	N.A.
1996-97	13.69	2-10	5.5	N.A.
1997-98	12.01	3-10	6.6	6.5
1998-99	11.86	2-20	7.7	6.3
1999-00	11.77	5-20	12.6	7.1
2000-01	10.95	3-20	10.6	7.5
2001-02	9.44	5-25	14.3	8.2
2002-03	7.34	7-30	13.8	8.9
2003-04	5.71	4-29	14.94	9.78
2004-05	6.11	5-30	14.13	9.42

Source : Report on the Internal Technical Group on Government Securities Market 2005, RBI.

as a debt manager. Normally, with an upward sloping yield curve, longer the maturity of the security, higher is the cost; thus there is a trade off between tenor of borrowing and its cost (Mohan, 2004). However, the falling interest rates scenario witnessed generally upto 2003-04 and the comfortable liquidity position in the system had helped the Reserve Bank to achieve the twin objectives of elongation of maturity profile of new debt and reduction in the cost of borrowing (Table 6.3 and Chart VI.3a & VI.3b). These developments besides reflecting the depth and resilience of the market is also an indication of the transition from passive to active debt management by the Reserve Bank.

6.79 The increasing secondary market activity in the Government securities market is a noteworthy feature in India. There has been a more than

Table 6.4: Volume of Secondary Market Transactions in the Government Securities Market

Year	Share of Outright (Per cent)	Share of Repo (Per cent)	Total (Rs. billion)
1	2	3	4
1996-97	76.40	23.60	1,229
1997-98	86.74	13.26	1,857
1998-99	82.53	17.47	2,272
1999-00	84.66	15.34	5,393
2000-01	81.95	18.05	6,981
2001-02	77.00	23.00	15,739
2002-03	71.20	28.80	19,557
2003-04	63.69	36.31	24,334
2004-05	41.09	58.91	21,894

Source : Report on the Internal Technical Group on Government Securities Market 2005, RBI.

Table 6.5: Ownership of Central Government Securities (Share in Total)

(Per cent)

Category of holders	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Reserve Bank of India (own account)	25	22	11	3	3	9	3	13	11	8	9	8	7
Commercial banks	55	60	65	72	69	64	68	58	59	61	61	61	58
Life Insurance Corporation of India	13	15	16	17	17	18	20	19	18	18	19	20	19
Unit Trust of India	0	0	0	5	6	4	1	1	0	0	1	0	0
NABARD	0	0	2	2	1	1	1	1	0	0	0	0	0
Primary Dealers	0	0	0	0	0	0	0	0	0	0	2	1	1
Others (including EPF, Coal Mine PF and Others)	7	3	6	1	4	4	7	9	11	12	8	10	13
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Based on Outstanding as at end-March 2003.

Source: Report of the Internal Technical Group on Central Government Securities Market, 2005, RBI.

seventeen-fold increase in the volume of transactions between 1996-97 to 2004-05 (Table 6.4).

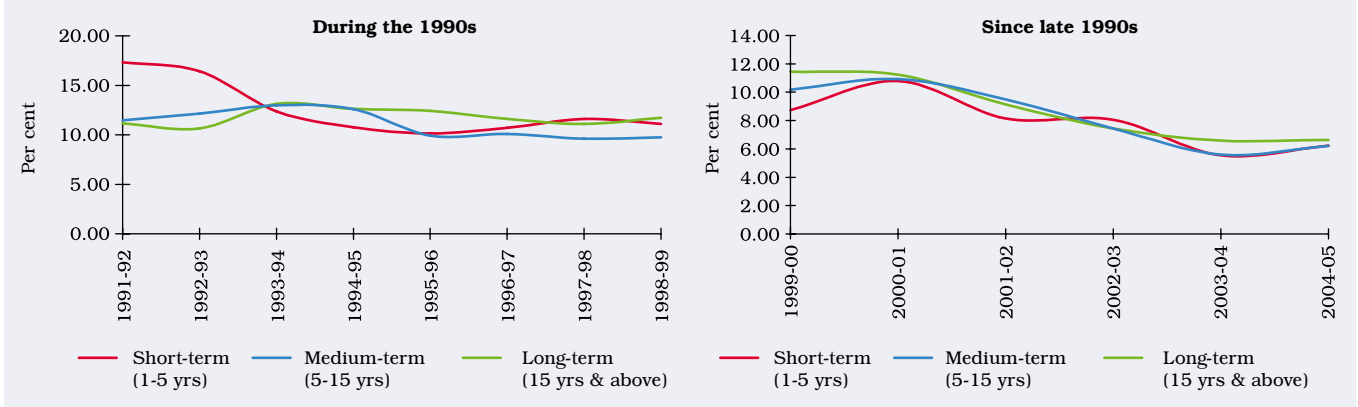
6.80 Trading in the Government securities market had exceeded the combined trading in equity segments of all exchanges in the country indicative of the deepening of the market (Mohan, 2004). This trend reversed in 2004-05. The share of commercial bank holdings of Government securities continued to rise during the 1980s and the early 1990s. It reached a peak of 72 per cent as at end-March 1994 before declining to 58 per cent at end-March 1998 (Table 6.5). Today in terms of size, product diversity, activity and technological state, the Indian Government securities market is one of the best among Emerging Market Economies (EMEs) (Jadhav, 2005).

6.81 Yields across various maturities have been moving, by and large in tandem, since the late 1990s (Chart VI.4).

Foreign Exchange Market

6.82 During the past seven decades the foreign exchange market in India has witnessed a significant transformation from a highly controlled to a liberal regime. The forex market basically comprises Authorised Dealers (ADs) which are mostly banks, exporters and importers, individuals and the Reserve Bank. Before 1990s, the market was highly regulated. In view of the scarcity of foreign exchange reserves, banks, exporters and individuals had to surrender the foreign exchange earned/received by them to the Reserve Bank. The forex market in India has acquired

Chart VI.4: Gilt Yield



increasing depth with the transition to a market determined exchange rate system in March 1993 and the subsequent gradual but significant liberalisation of restrictions on various external transactions.

6.83 The mode of exchange rate determination is of paramount importance to the development of foreign exchange market. Internationally, the exchange rate regimes have witnessed significant changes over the past several decades. There is no single exchange rate regime which can be considered appropriate for all countries, at all times. Though the choice of an exchange rate regime is country-specific and contingent, *inter alia*, on macroeconomic policies, there is a growing consensus globally in favour of a flexible/floating rate regime

Pre-Reform Period (1930s to 1980s)

6.84 India's forex market lacked depth and liquidity during the above period. Exchange control and the fixed exchange rate regime came in the way of forex market development. Since the 1930s up to early 1990s the policy relating to exchange rate varied significantly. After the 'Sterling area'⁴ arrangement (up to 1974), the external value of currency was determined in terms of a basket of currencies until the two-stage liberalisation of exchange rate in the early 1990s. Exchange control was introduced in India on September 3, 1939 following the outbreak of the Second World War mainly to conserve the non-sterling area currencies and utilise them for essential purposes. The objective of exchange control was primarily to regulate the demand for foreign exchange for various purposes, within the limit set by the available supply. It, thus, involved rationing of foreign exchange among various competing demands for it. In the closing stages of the War, it became clear that control over foreign exchange transactions would have to continue in the post-War period in the interest of making the most prudent use of the foreign exchange resources. It was, therefore, decided to place the control on a statutory basis and the Foreign Exchange Regulation Act of 1947 was accordingly enacted. The Act, which came into force on March 25, 1947 was initially valid for a period of five years and was further extended for another five years in 1952. It was finally placed on a permanent basis in 1957. The Act empowered the Reserve Bank, and in certain cases the Central Government, to control and regulate dealing in foreign exchange payment outside

India, export and import of currency notes and bullion, transfers of securities between residents and non-residents, acquisition of foreign securities, etc. The Act was later replaced by a more comprehensive legislation, *i.e.*, the Foreign Exchange Regulation Act, 1973 (FERA).

6.85 The stance of policy during the control regime was to manage the exchange rate mainly for facilitating India's imports before 1990s. The strict control on forex reserves through FERA had the dubious distinction of creating one of the largest and most efficient parallel markets for foreign exchange in the world, *i.e.*, the hawala (unofficial) market (Tarapore, 2000).

Legal Basis

6.86 For the purpose of management of the foreign exchange reserves, the Reserve Bank had been empowered to buy and sell foreign exchange from and to scheduled banks, under Section 17(3)(a) of the Reserve Bank of India Act, 1934. The Government's notifications under Section 40 prescribed the rates at which the Reserve Bank was bound to buy and sell Sterling (or other foreign exchange) without limit. However, the Reserve Bank's day-to-day operations with the Authorised Dealers were conducted under the powers derived from Section 17(3) of the Act, at rates determined from time to time within the stipulated margins. The foreign currencies that were purchased by the Reserve Bank under this Section were Pound Sterling, US dollar (since October 1972), Deutsche Mark (since March 1974) and Japanese Yen (since end-May 1974). Pound Sterling was, however, the only currency sold by the Reserve Bank, up to February 1993, as it was the intervention currency. There after the US dollar became the intervention currency.

6.87 In the late 1960s, most of the Sterling area countries including India began to diversify their foreign exchange reserves with a view to spreading the risk of losses arising from fluctuations in the exchange value of Sterling. To prevent the balance of payments of the United Kingdom from being adversely affected by liquidation of Sterling holdings by the Sterling area countries, the United Kingdom Government entered into agreements with them, effective September 25, 1968, undertaking to maintain the US dollar value of the bulk of their

⁴ The 'Sterling area' comprised mainly the British Empire countries which had close historical, economic and political ties with the United Kingdom and the value of whose currencies was based on Pound Sterling. The object of this arrangement was to produce a central pool of non-sterling area currencies to be owned and operated by the United Kingdom for the use of the members of the Sterling area.

Sterling reserves. In return for the guarantee, the Sterling area countries undertook to keep a minimum percentage of their total official external reserves in Sterling, known as the minimum Sterling proportion, at all times. The arrangements also envisaged that the Sterling area countries would voluntarily deposit a part of the non-Sterling currencies in their reserves with the Bank for International Settlements (BIS).

6.88 As long as India was a member of the group of countries known as the 'Sterling area', of which the United Kingdom was the centre country, India's foreign currency assets had to be kept almost entirely in Sterling, the foreign currency assets in non-Sterling area currencies being transferred to the U.K. in return for Sterling deposits. With effect from June 23, 1972 when the Pound Sterling was floated, the United Kingdom authorities restricted the Sterling area to the United Kingdom, the Channel Islands, the Isle of Man, the Republic of Ireland and Gibraltar for purposes of exchange control and others were designated as non-residents.

6.89 The agreement with India, which was initially for a period of three years, was renewed periodically till it was finally terminated on December 31, 1974. The process of diversification of the reserves was accelerated thereafter. From October 4, 1975 the Reserve Bank stopped announcing its buying and selling rate for spot US dollars and also stopped selling any foreign currency. However, the Reserve Bank continued to buy US dollars from the ADs.

6.90 In July 1978, the statutory provisions in the Reserve Bank Act, 1934 were amended and enlarged with a view to enabling the Bank to utilise more effectively the foreign exchange reserves, which had been rising continuously since 1975. The Reserve Bank was buying US dollar, Pound Sterling, Deutsche Mark and Yen, both spot and forward for varying maturities up to 12 months but only sold Pound Sterling and Dollar on spot basis. The buying and selling rates of Pound Sterling of the Reserve Bank acted as floor and ceiling rates and the inter-bank market remained within these rates.

6.91 Until the early 1970s, in view of fixed rate regime, the forex market was perceived as a mechanism for putting through merchant transactions. With the collapse of the Bretton Woods agreement and the floatation of major currencies, the conduct of exchange rate policy posed a great challenge to central banks as currency fluctuations opened up tremendous opportunities for market players to trade in currency volatilities in a borderless market (Sodhani, 1995). The forex market in India, however, remained

relatively insulated, due to the exchange controls, which inhibited capital movement and further, banks were required to undertake only cover operations and maintain a square or near square position at all times.

6.92 As demand began to slowly build up, banks in India were permitted by the Reserve Bank to undertake intra-day trade in forex in 1978. Consequently, the stipulation of maintaining square or near square position was to be complied with only at the close of business each day. The extent of position which could be left uncovered overnight (the open position), as well as the limits up to which dealers could trade during the day was to be decided by the management of banks.

6.93 As opportunities to make profits began to emerge, the major banks started quoting two-way prices against the Rupee as well as in cross-currencies (*i.e.*, Euro-currencies), and gradually, trading volumes began to increase. This was supported by a major change in the exchange rate regime in 1975 whereby rupee was de-linked from the Pound Sterling and under the managed floating arrangement, the external value of rupee was determined by the Reserve Bank in terms of a weighted basket of the currencies of India's major trading partners. Given the Reserve Bank's obligation to buy and sell unlimited amounts of the intervention currency, *i.e.*, Pound Sterling, arising from the banks' merchant purchases, its quotes for buying/selling effectively became the fulcrum around which the market moved.

6.94 As volumes increased and the profit motive led to the widely different practices (some of which were irregular), the need for a comprehensive set of guidelines covering the entire gamut of dealing operations to be observed by banks engaged in forex business was felt. Accordingly the "Guidelines For Internal Control over Foreign Exchange Business" were framed for adoption by the banks in 1981.

6.95 During the late 1980s, deterioration in the macroeconomic situation warranted a structural change in the exchange rate regime which in turn had an impact on the forex market. Large and persistent external imbalances were reflected in a rising level of external indebtedness. The exchange rate of the rupee became increasingly misaligned, despite the graduated real depreciation of the rupee *vis-à-vis* major currencies. The Gulf War of July 1990, given the fragile state of the economy, triggered off an unprecedented crises of liquidity and confidence which called for the adoption of exceptional corrective steps. The country simultaneously embarked on a stabilisation and structural reform process to generate impulses for growth.

Reform/Post-Reform Period (1990s onwards)

6.96 This phase was marked by wide-ranging measures to widen and deepen the market, besides exchange rate liberalisation. The impetus for forex market reform was provided by recommendations of the Rangarajan Committee (1992), the Sodhani Committee (1995) and the Tarapore Committee (1997). The importance attached to the forex market is amply evident from the preamble to the Foreign Exchange Management Act (FEMA, 1999). One of the main objectives of the FEMA is the orderly development of the foreign exchange market in India.

6.97 In the early 1990s, the forex market in India was in the initial stages of development and suffered from several shortcomings. The spot as well as forward markets lacked depth and liquidity. The market was skewed with a handful of public sector banks accounting for bulk of the merchant business and the foreign banks a greater share of inter-bank business. The forward rates reflected demand and supply, rather than interest rate differentials due to absence of integration between the money and forex markets and the restrictions placed on borrowing/lending in the international market. On account of ceilings on open positions and gaps, there was a virtual absence of market making. The cross-currency market had not developed on account of prohibition on initiating transactions in the overseas market. Besides forward contracts and cross currency options, there was no free access to other hedging products. The Sodhani Committee, therefore, recommended that any attempt at vitalising the forex market should necessarily, start with relaxation of regulations governing these issues.

6.98 Alongwith the changes in the policies in foreign trade and foreign investment, a significant change occurred with respect to exchange rate management. From a managed floating system under which the exchange rate was officially determined, the regime had passed through several phases to reach a market based system under which the exchange rate is determined by forces of demand and supply (Rangarajan, 2000). Radical changes in policy in regard to the exchange rate of the Rupee were made in 1991. First, the Rupee rate was adjusted downwards in two stages, on July 1 and July 3, 1991. The two-step downward adjustment of the Rupee in terms of the intervention currency, viz., the Pound Sterling, worked out to 17.38 per cent. Thereafter, the rupee exchange rate was anchored to a rupee-US dollar rate close to Rs.26 a dollar. Second, on March 1, 1992, partial convertibility of the rupee was introduced in the form of a dual exchange rate system

called the Liberalised Exchange Rate Management system (LERMS) alongwith other measures of liberalisation in the areas of trade, industry, foreign investment and the import of gold. Under the system all foreign exchange receipts on current account transactions (exports, remittances, etc.) were required to be surrendered to the ADs in full. The rate of exchange for conversion of 60 per cent of the proceeds of these transactions was the market rate quoted by the ADs while the remaining 40 per cent of the proceeds were converted at the Reserve Bank's official rate. The ADs in turn were to surrender to the Reserve Bank 40 per cent of their purchase of foreign currencies representing current receipts at the official rate of exchange announced by the Reserve Bank. They were free to retain the balance of 60 per cent of foreign exchange for being sold in the free market for permissible transactions.

6.99 As a transitional arrangement, LERMS served to impart stability to the external value of the rupee and to prepare the narrow inter-bank foreign exchange market for an increased volume of transactions. However, it involved a dual exchange rate system, implicit in which was a tax on exports arising out of the differential in the rates of surrender of export proceeds. Moreover, the system could not be sustained for long as it called for the rationing of subsidised foreign exchange among certain imports, inevitably resulting in distortions in resource allocation. As it functioned, there were indications of the diversion of remittances from their normal route to the capital account, since inflows into certain non-resident rupee deposit accounts were allowed full conversion at the market exchange rate whereas remittances in the form of current transfers were to be converted at the market exchange rate only to the extent of 60 per cent. A downward adjustment in the official exchange rate took place in early December 1992 and ultimate convergence of the dual rates was made effective from March 1, 1993. Some of the features of the so-called modified LERMS were :

- (i) All foreign exchange receipts were converted at market determined rates of exchange from March 2, 1993.
- (ii) The unification of exchange rates marked an important step in the progress towards convertibility on the current account. The freely floating exchange rate regime continued to operate within the framework of exchange control. Current receipts were surrendered to the banking system, which in turn met the demand for foreign exchange arising out of permissible purposes. The

rates of exchange at which these transactions were effected were determined in the market.

- (iii) The ADs were not required to surrender to the Reserve Bank any part of foreign exchange sold to them. The Reserve Bank could, however, at its discretion, enter the market to purchase/sell foreign exchange. The Reserve Bank's obligation to sell forex for any purpose other than debt service payments of the Government of India was replaced. It currently buys/sells only US dollars, which in March 1993 replaced, the Pound Sterling as the intervention currency. From March 2002, Euro became an additional intervention currency.
- (iv) With effect from October 4, 1995, the Reserve Bank discontinued quoting its buying and selling rate. At present, the Reserve Bank announces a Reference Rate based on the quotations of a few select banks in Mumbai at twelve noon every day. Among other things, the Reference Rate is also applicable to Special Drawing Rights transactions.
- (v) In order to ensure that exchange rate of the rupee fully reflected the demand-supply situation and in furtherance of the move towards eliminating transaction through reserves, it was decided with effect from July 3, 1995 to route debt service payment (civil) of Government of India through the market.

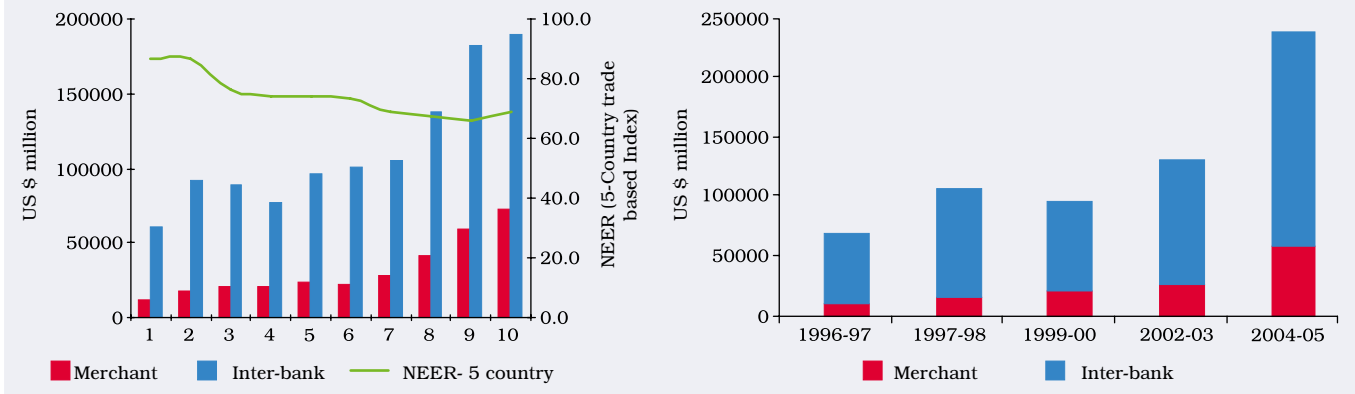
6.100 Current account transactions were freed of exchange control regulations and controls over several transactions on capital account were also eased. India now has a floating rate with no fixed rate target. Daily movements are very closely watched by the Reserve Bank. The Indian forex market is relatively thin, and the declared policy of the Reserve Bank is to meet temporary demand-supply imbalances, which arise from time to time. The objective is to keep market movements orderly and ensure that there is no liquidity problem or rumour or panic-induced volatility (Jalan, 2000). While the central bank of the country intervenes in the foreign exchange market, it does so primarily to prevent volatility and instability (Rangarajan, 2000).

6.101 Given the lack of depth and liquidity in the forex market, the aim was to remove the imperfections. The major initiatives taken to widen and deepen the Indian forex market and to link it with the global financial system were: (i) freedom to banks to fix net overnight position limits and gap limits (with the Reserve Bank formally approving the limits), initiate trading positions in the overseas markets, determine the interest rates (subject to a ceiling) and maturity period of FCNR(B)

deposits (not exceeding three years) with exemption of inter-bank borrowings from statutory pre-emptions, and use derivative products for asset-liability management; (ii) in order to facilitate integration of domestic and overseas money markets, ADs were allowed to borrow abroad related to their capital base as a prudential measure. ADs were allowed to avail of loans, overdrafts and other types of fund-based credit facilities from their overseas branches and correspondents upto 15 per cent of their unimpaired Tier-I capital or US\$ 10 million or its equivalent, whichever was higher. The funds are allowed to be used for any purpose - other than lending in foreign currencies. ADs have been provided the flexibility to cross these limits solely for replenishing their rupee resources in India for normal business operations and not for deployment in call money or other markets; (iii) corporates were provided significant freedom in managing their foreign exchange exposures. Though, they were permitted to hedge anticipated exposures, this facility was temporarily suspended after the East Asian crises. Exchange Earners' Foreign Currency (EEFC) account entitlement has also been rationalised. Various risk management strategies have been allowed to corporates, such as freedom to cancel and rebook forward contracts, although currently freedom to rebook cancelled contracts is suspended, while rollover is permissible. Other risk management tools subject to prudential requirements have been allowed like cross-currency options on a back-to-back basis, lower cost option strategies like range forwards and ratio range forwards and others and hedging of external commercial borrowings (ECBs) exposures. In a market determined exchange rate regime, the behaviour of the customers and the ADs significantly influences the course of the exchange rate. CCIL commenced settlement of forex operations for inter-bank US Dollar/Indian Rupee spot and forward trades from November 2002 and inter-bank US dollar / Indian rupee cash and tom trades from February 2004. The period also witnessed greater integration of the forex market with the domestic financial markets and the global markets.

6.102 The Technical Group on the Forex Market (2005), has made various recommendations for further liberalisation of the extant regulations. Some of the recommendations, such as, freedom to cancel and rebook forward contracts of any tenor, delegation of powers to ADs for grant of permission to corporates to hedge their exposure to commodity price risk in the international commodity exchanges/markets and extension of the trading hours of the inter-bank foreign exchange market have already been implemented.

Chart VI.5: Turnover in the Foreign Exchange Market



6.103 Greater liberalisation enjoins upon banks to act more responsibly so as to instil confidence in corporate entities undertaking derivatives transactions. Following the instances of some international banks encountering compensation claims owing to slackness on their part, there is a need for all banks in India to introduce a customer suitability and appropriateness policy. The “appropriateness standard” ensures that banks use the same principles for taking credit decisions in respect of complex derivative transactions, as they do for non-derivative transactions.

6.104 Derivatives accounting in India is still in the formative stage. There is a need for greater clarity of derivative accounting in the books of banks and corporates (in regard to revenue recognition and valuation of assets and liabilities) as also between hedge and trading transactions. In the context of good corporate governance, the issue of greater disclosure on the part of banks and corporates has become important. In the case of complex structured products, it is imperative on the part of the banks/corporates to be transparent and disclose the nature and quantum of risks contracted and put in place systems to monitor these risks.

6.105 On account of the large outstanding forward positions, banks in India carry risks on their books. CCIL's proposal to extend guaranteed settlement of US dollar-rupee forward transactions from trade date is expected to significantly increase the depth and liquidity in the forward market and thereby reduce such risks. Further liberalisation of the capital account in line with Tarapore Committee recommendations is likely to pose new challenges for the forex market in future.

Market Activity

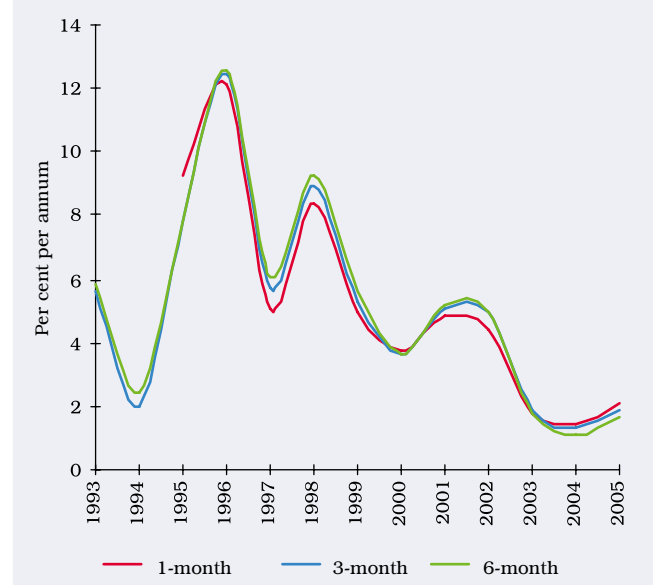
6.106 The monthly turnover in the foreign exchange market increased by over 1.7 times from about US \$ 17

billion in July 1996 to about US \$ 29 billion in May 2005. Though inter-bank transactions account for bulk of the transactions in the forex market, its share has come down over the years (from around 87 per cent in July 1997 to 72 per cent in May 2005) (Chart VI.5). Simultaneously, the share of merchant transactions has more than doubled (from 13.5 per cent to 27.8 per cent during the same period). The forward market segment (swaps plus forward) has grown at a faster pace, relative to the swaps.

6.107 Reflecting the build-up of forex reserves, the strong capital flows and the confidence in the Indian economy, the forward premia has come down sharply from the peak reached in 1995-96 (Chart VI.6).

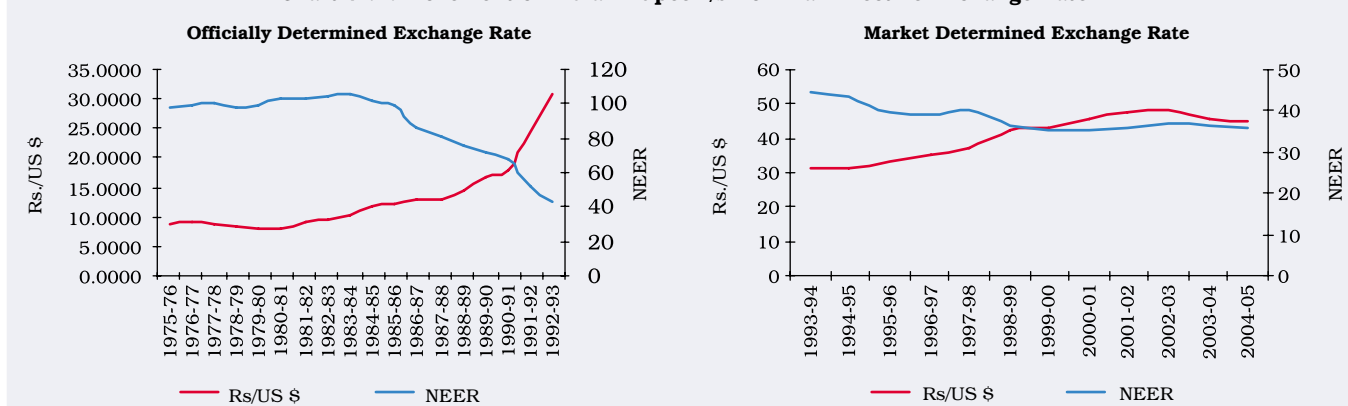
6.108 Under the market determined exchange rate regime, the Indian Rupee has moved in an orderly

Chart VI.6: Movement of Forward Premia



FINANCIAL MARKET EVOLUTION AND GLOBALISATION

Chart VI.7: Movement of Indian Rupee v/s Nominal Effective Exchange Rate



manner and the foreign exchange market has displayed stable conditions. This has been particularly so after 1999-2000 as compared with the earlier regime, *i.e.*, prior to 1992 when exchange rate of rupee was officially determined by the Reserve Bank (Chart VI.7).

Relative Size of Financial Markets and Integration

6.109 All the three segments of the financial markets witnessed significant growth in terms of volume,

participants and liquidity following the various measures taken since early 1990s to widen and deepen the markets as discussed above. The money market has emerged as the most significant component of the rupee denominated financial market in India surpassing the volumes traded in the Government securities market and equity markets- its share almost doubled from just around 1.6 per cent of GDP in 1990-2000 to 3.1 per cent of GDP in 2002-03, but declined sharply thereafter owing, *inter alia*, to the fall in the call money market turnover (Table 6.6).

Table 6.6: Relative Size of Domestic Financial Markets in India (Rupee Denominated)

(Rupees crore)

Markets	Average Daily Turnover	Nominal GDP at current market price	Col. 1 as per cent of Col.2	M3	Col. 1 as per cent of Col.4	Bank Deposit	Col. 1 as per cent of Col.6	Bank Credit	Col. 1 as per cent of Col.8	Central Govt. Internal Debt	Col. 1 as per cent of Col.10
1	2	3	4	5	6	7	8	9	10	11	12
Money Market*											
1999-00	30,056	19,36,831	1.6	11,24,174	2.7	8,13,345	3.7	4,35,958	6.9	7,14,254	4.2
2000-01	40,923	20,89,500	2.0	13,13,220	3.1	9,62,618	4.3	5,11,434	8.0	8,03,698	5.1
2001-02	65,500	22,71,984	2.9	14,98,355	4.4	11,03,360	5.9	5,89,723	11.1	9,13,061	7.2
2002-03	76,722	24,63,324	3.1	17,17,960	4.5	12,80,853	6.0	7,29,215	10.5	10,20,689	7.5
2003-04	28,146	27,60,025	1.0	20,05,676	1.4	15,04,416	1.9	8,40,785	3.3	11,41,706	2.5
2004-05	31,830	31,05,512	1.0	22,53,938	1.4	17,00,198	1.9	11,00,428	2.9	12,70,272	2.5
Govt. Securities Market											
1999-00	—	19,36,831	—	11,24,174	—	8,13,345	—	4,35,958	—	7,14,254	—
2000-01	2,802	20,89,500	0.1	13,13,220	0.2	9,62,618	0.3	5,11,434	0.5	8,03,698	0.3
2001-02	6,252	22,71,984	0.3	14,98,355	0.4	11,03,360	0.6	5,89,723	1.1	9,13,061	0.7
2002-03	7,067	24,63,324	0.3	17,17,960	0.4	12,80,853	0.6	7,29,215	1.0	10,20,689	0.7
2003-04	8,445	27,60,025	0.3	20,05,676	0.4	15,04,416	0.6	8,40,785	1.0	11,41,706	0.7
2004-05	4,826	31,05,512	0.2	22,53,938	0.2	17,00,198	0.3	11,00,428	0.4	12,70,272	0.4
Equity Market											
1999-00	—	19,36,831	—	11,24,174	—	8,13,345	—	4,35,958	—	7,14,254	—
2000-01	9,308	20,89,500	0.4	13,13,220	0.7	9,62,618	1.0	5,11,434	1.8	8,03,698	1.2
2001-02	3,310	22,71,984	0.1	14,98,355	0.2	11,03,360	0.3	5,89,723	0.6	9,13,061	0.4
2002-03	3,711	24,63,324	0.2	17,17,960	0.2	12,80,853	0.3	7,29,215	0.5	10,20,689	0.4
2003-04	6,309	27,60,025	0.2	20,05,676	0.3	15,04,416	0.4	8,40,785	0.8	11,41,706	0.6
2004-05	6,566	31,05,512	0.2	22,53,938	0.3	17,00,198	0.4	11,00,428	0.6	12,70,272	0.5

* includes Call Money, Term Money and Repo Markets.

Source : Handbook of Statistics on Indian Economy; Annual Report, RBI, various issues

Table 6.7: Relative Size of Foreign Exchange Market in India

(US \$ Million)

Foreign Exchange Market-Monthly Average Turnover	Foreign Currency Assets*	Col 2 over Col 3 (per cent)	External Debt*	Col 2 over Col 5 (per cent)
1	2	3	4	5
1999-00	–	35,058	–	98,263
2000-01	1,19,521	39,554	302.2	1,01,326
2001-02	1,23,947	51,049	242.8	98,843
2002-03	1,32,072	71,890	183.7	1,04,958
2003-04	1,78,400	1,07,448	166.0	1,11,715
2004-05	2,41,010	1,35,571	177.8	1,23,310

* As at end-March.

Source: Handbook of Statistics on Indian Economy.

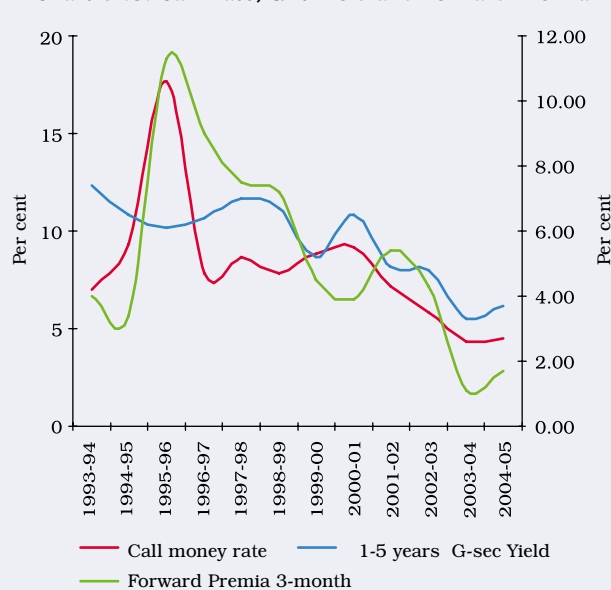
6.110 The sharp decline in turnover was mainly on account of the move towards a pure inter-bank call money market. The share of the Government securities market has, however, increased from around 0.1 per cent to 0.3 per cent of GDP between 2000-01 to 2002-03 before declining in 2004-05 due to rising interest rates which impacted trading activity. The share of the equity market to GDP had also more than halved between 2000-01 and 2004-05. The relative size of the forex market had also grown significantly (Table 6.7).

6.111 One of the primary goals of financial market development in India has been to foster integration of financial markets which, besides creating competitive markets, assist in using market based instruments of monetary policy. The relative share of various segments of the domestic financial market reveals that money market constitutes the bulk of the market, followed by the equity market and then the gilt market (Table 6.8).

Market Integration

6.112 The major thrust of Reserve Bank's policies has been on the development of deep, liquid and

Chart VI.8: Call Rate, Gilt Yield and Forward Premia



integrated financial markets. Accordingly, the reform process has helped in integration of various segments of the financial markets. The channels of linkages between markets vary. For example, the integration between call money market and forex market operates essentially through banks' permissible limits on investments in overseas markets, and options to hedge, prepay, etc., in foreign currency under FCNR (B), on banks' own account or that of corporates. These linkages are expected to get widened and deepened and have to be tracked. Another example relates to the linkages between call money market and Government securities market where large positions in Government securities are funded through short-term borrowings, especially from the call money market. Various segments of the financial markets have become better integrated, particularly from the mid-1990s (Chart VI.8).

Table 6.8: Indian Domestic (Rupee-denominated) Financial Markets at a Glance

1	Money Market-Average Daily Turnover* (Rs. Crore)	Govt. Securities Market-Average Daily Turnover (Rs. Crore)	Equity Market-Average Daily Turnover		Grand Total (2+3+4+5)	Percentage share in Total		
			BSE (Rs. Crore)	NSE (Rs. Crore)		Money Market	Government Securities Market	Equity (BSE+NSE)
2000-01	40,923	2,802	3,981	5,327	53,034	77.2	5.3	17.6
2001-02	65,500	6,252	1,229	2,081	75,061	87.3	8.3	4.4
2002-03	76,722	7,067	1,250	2,461	87,500	87.7	8.1	4.2
2003-04	28,146	8,445	1,980	4,329	42,900	65.6	19.7	14.7
2004-05	31,830	4,826	2,053	4,513	43,222	73.6	11.2	15.2

*: Covers Call Money, Term Money and Repo Markets.

Source: Handbook of Statistics on Indian Economy; Annual Report, RBI, various issues.

6.113 As reforms in the financial markets progress, linkages between the different segments of market and between domestic and international markets improve. Internationally also there will be growing pressure for rapidly and more deeply integrating domestic and global markets. In the context of integration of Indian financial market with international markets, the move towards capital account convertibility, which has an important bearing on the forex market, assumes paramount significance. Some of the pre-conditions/signposts for capital account convertibility, as mentioned in the Capital Account Convertibility (CAC) Report, such as, fiscal consolidation, mandated inflation rate, consolidation of the financial sector, adequacy of foreign exchange reserves, sound BoP situation, *etc.*, are to be adhered to properly before rupee can be made fully convertible on the capital account. With the growing integration of both the real and the financial sectors with the international economy, the impact of external impulses would be felt more strongly, making it imperative to have the preconditions in place before full capital account convertibility is allowed.

6.114 The emerging linkages among money, Government securities and foreign exchange markets have at times necessitated the use of short-term monetary measures by the Reserve Bank alongwith meeting demand-supply mismatches to arrest excessive volatility in the foreign exchange market. The Indian financial markets have in recent years, exhibited some tendency to be in tandem with global financial market, reflective of the growing integration between domestic and international markets on the one hand and among various segments of the domestic financial market on the other, as a result of financial sector reforms and increasing globalisation led by Information Technology. The far-reaching

financial sector reforms have facilitated India's movement to an open economy framework in which interaction between forex, Government securities and money market has become quite important. The opening of the economy has brought about gains in terms of inflows of foreign investments, which have contributed to growth and employment. However, these gains have also posed new challenges for managing the macroeconomy amidst large and volatile capital flows (Mohan, 2004). This has had implications for monetary management. India has addressed this challenge with appropriate monetary-fiscal coordination. Suitable changes were made in the LAF scheme. The MSS was introduced to address more enduring portion of the liquidity overhang. In the context of market integration, the Reserve Bank keenly watches the global developments which could have a bearing on the Indian economy and the financial markets and has been taking prompt corrective measures. For instance, the Reserve Bank actions following the East Asian crises and subsequently the September 11, 2001 crises in the various financial markets and its efficacy has been globally acknowledged (Jalan, 2000).

Volatility

6.115 Financial market integration appears to have reduced volatility over time. The volatility in the call money market (as measured by the standard deviation and coefficient of variation) has come down during the period 1996-97 to 2004-05 as compared to the early 1970s and 1990s (Table 6.9). After activating Bank Rate in April 1997, an informal corridor was set by the Bank Rate (ceiling) and the repo rate (floor). However, after introduction of LAF in 2000, the informal corridor has been set by the repo and reverse repo rates (Chart VI.9). The foreign exchange market

Table 6.9: Volatility in Major Financial Markets

Period	Money Market				Forex Market: Forward Premia						G- Sec Market: Gilt Yield\$					
	Call Money Rate		Repo Rate		1-month		3-month		6-month		Short-term		Medium-term		Long-term	
	SD	CV	SD	CV	SD	CV	SD	CV	SD	CV	SD	CV	SD	CV	SD	CV
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1970s	2.68	32.22									0.53	10.66	0.52	9.76	0.54	9.08
1980s	1.16	12.25									3.48	40.62	1.63	19.75	1.47	16.14
1991-92 to 1995-96	5.35	39.31	2.12 [^]	27.24 [^]			4.41 [*]	70.57 [*]	3.93 [*]	62.82 [*]	3.29	24.52	1.21	10.23	1.05	8.78
1996-97 to 2004-05	1.82	25.50	1.69	27.96	2.19	48.08	2.62	53.05	2.90	56.50	2.20	24.43	1.90	21.58	2.23	23.07

\$: redemption yields

* : Covers the period from 1993-94 to 1994-95

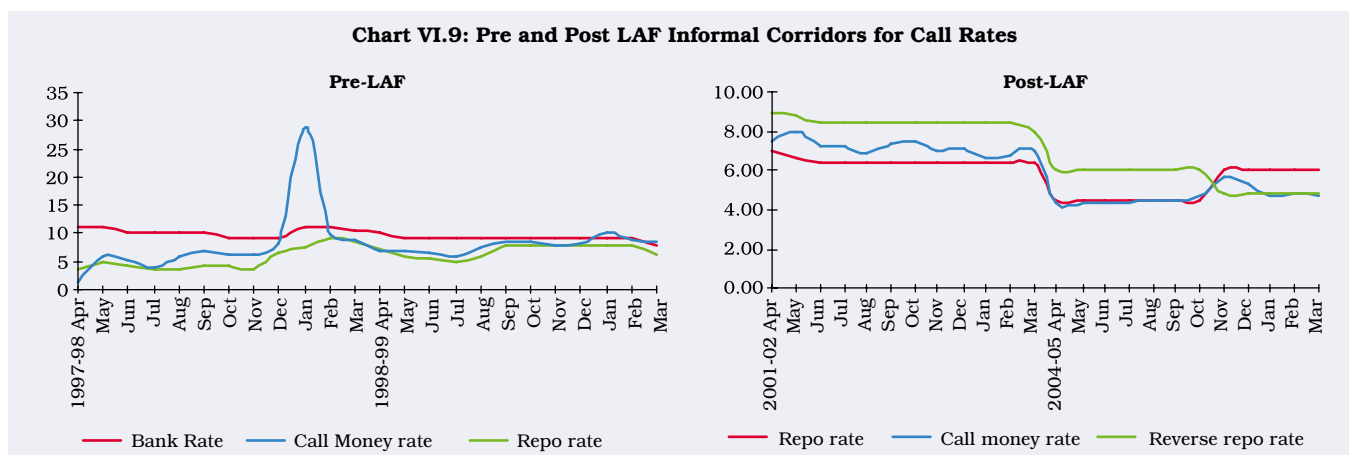
[^] : Covers the period from 1992-93 to 1994-95

Short-term: 1-5 years: Medium-term: 5-15 years: Long-term: 15 years and above

SD: Standard Deviation CV: Coefficient of Variation

Source: Handbook of Statistics on the Indian Economy, RBI.

Chart VI.9: Pre and Post LAF Informal Corridors for Call Rates



also witnessed lower volatility since the mid-1990s compared to the early 1990s, which may be on account of increase in depth of the market. However, in the Government securities market, the trend has just been the opposite with volatility increasing since mid-1990s compared to early 1990s due, *inter alia* to increase in secondary market activity.

6.116 Preliminary evidence of financial market integration is provided by the strength of association (*viz.*, cross correlation) of rates across various segments of the financial markets (Table 6.10). The linkages between the call and gilt markets during the period 1996-97 to 2004-05 are found to be stronger than in the early 1990s (1993-94 to 1995-96) reflecting greater integration. Surprisingly, the linkages between call and forex market (forward premia) appear to have weakened since the mid-1990s compared to the earlier period which may be on account of various measures taken by the Reserve Bank in the wake of the East-Asian crises to check spillover of the volatility in the external sector to the domestic financial markets.

6.117 Despite the differences in the time periods, the improved correlation coefficients reflecting increased integration of various segments of the

financial markets as also within the money market is in line with the findings of earlier empirical studies. (Reserve Bank, 2000-01 and 2003-04).

Market Development – Dilemmas and Challenges

6.118 As in the case of most central banks, in the context of financial market reform, the Reserve Bank had to contend with different issues, some of them conflicting, such as:

- (i) The multiple regulators in the Indian financial markets (while the Reserve Bank regulates the money, Government securities and forex markets, the SEBI regulates the equity market and IRDA the insurance sector) has necessitated close coordination between the Reserve Bank and other regulators to smoothen the market reform process (as banks and financial institutions are major players in several markets).
- (ii) In the Government securities market, the Reserve Bank has twin roles to play, *viz.*, that of a regulator and as a debt manager (the role of debt management has been enjoined by the Reserve Bank Act). Containing the adverse

Table 6.10: Correlation Coefficients Among Major Financial Market Rates

Period	Call Rate & Forward Premia			Call & Repo Rate	Call Rate & Gilt Yields			Forward Premia & Gilt Yields		
	1-month	3-month	6-month		Short-term	Med-term	Long-term	1-month	3-month	6-month
1	2	3	4	5	6	7	8	9	10	11
1970s					0.75	0.69	0.66			
1980s					0.63	0.82	0.87			
1991-92 to 1995-96		0.96 *	0.96 *	0.88 **	0.43	-0.80	-0.65		-0.98*	-0.65 *
1996-97 to 2004-05	0.73	0.67	0.65	0.59	0.87	0.97	0.94	0.87	0.72	0.78

* Covers the period from 1993-94 to 1995-96.

** Covers the period from 1992-93 to 1995-96.

Source: Handbook of Statistics on the Indian Economy, RBI.

impact of high fiscal deficits, without at the same time diluting the monetary policy stance has been the real challenge facing the Reserve Bank on several occasions in the past.

- (iii) Given the large capital inflows, exchange rate management has emerged as a major dilemma for the Reserve Bank calling for close coordination between monetary and external sector management. The exchange rate has emerged as a very critical factor in the conduct of monetary policy with progressive globalisation of the economy. Furthermore, it has been recognised that the excessive weight that may be given to popular perceptions in regard to exchange rate as against what is warranted by compulsions of economic factors could certainly complicate monetary management. Creating public awareness of the forex situation and forex markets has been an important task for the Reserve Bank. Other issues facing the Reserve Bank in forex management as in the case of other central banks are: (a) the appropriateness of the exchange rate regime (particularly, in the context of the hypothesis of the so-called "impossible trinity" which posits that full Capital Account Convertibility, monetary independence (for inflation control), and a stable currency are not feasible (b) which rate should be monitored (nominal or real) and (c) stability versus volatility in exchange markets (Jalan, 2001).
- (iv) Smooth and efficient financial markets have necessitated constant interaction with market participants without in any way compromising confidentiality so as to effect changes in the regulatory aspects of the markets through consultative mechanisms.
- (v) In the context of globalisation and liberalisation, transparency and data dissemination are necessary to check oligopolistic tendencies and to facilitate development of competitive markets. The Reserve Bank has been disseminating data on various aspects of financial markets and its operations. In this context, how much to reveal to the market without compromising monetary policy and financial stability has emerged as a challenge.
- (vi) A major challenge within the Reserve Bank has been to institute arrangements to improve the skills of its personnel to keep pace with the speed and the skills of market participants.
- (vii) There are also some conflicts in the role of the Reserve Bank as regulator and supervisor of

banks. For example, while from the supervisory perspective, issuing short-term paper to match ALM guidelines is more favourable, the Reserve Bank as debt manager prefers to balance the maturity profile with long duration paper.

II. CHANGING ROLE OF THE RESERVE BANK IN FINANCIAL MARKETS IN THE CONTEXT OF LIBERALISATION AND GLOBALISATION

6.119 A significant feature during the past century has been the rapid evolution in the role of central banks globally. This was brought about by several factors like the liberalisation of the domestic economy and the financial system; and globalisation and technological advances. While during most of the last century central banks had made their decisions largely in a domestic context, this situation changed markedly for many countries from the early 1990s (Greenspan, 1997). In the context of the volatile capital flows and a series of crises, central banks in several countries were forced to re-examine their roles, particularly with regard to financial market development and expend considerable efforts and resources in developing strong domestic financial markets.

6.120 The experience of countries such as India has shown that with a move from plan-based and regulated structure to a market-based system, central banks' role have also undergone significant changes. Though the central bank continues to have regulatory and developmental roles, the nature of such role has changed. As a regulator of financial markets, the primary concern of the central bank is financial stability and maintenance of orderly conditions in the markets. Towards this end, it strives to create a congenial regulatory environment to support orderly market development by putting in place appropriate systems, procedures, standards and codes, risk management systems and accounting standards on par with global standards. Similarly, the developmental role of the central banks in markets involves removing irritants to market development (creating new institutions, instruments, and providing necessary infrastructural and technological support by way of modern payment and settlement systems). The integration of domestic financial markets with the global markets calls for closer coordination among central banks and international standard setting agencies to bring greater transparency and uniformity in standards across world markets to prevent crises and contagion. The changes in the structure of the

economy and the financial markets, together with globalisation, have necessitated changes in the monetary policy framework and operating procedures in several countries, including India. Globalisation and liberalisation have also created various dilemmas in central bank's operations.

6.121 All central banks are fundamentally concerned about the flow of credit in their economies, whether this credit flows from banks, non-bank financial institutions, or institutional investors. In the new financial landscape institutional investors and other non-bank financial institutions hold a larger share of assets and credit risk than ever before. A large proportion of the financing needs are intermediated through securities markets which is very much in keeping with their traditional responsibilities (McDonough, 1998). Accordingly, the two important responsibilities of central banks in respect of global fixed income and debt markets are: (i) to enhance the price discovery process by promoting transparency in their own actions; (ii) to ensure that the banks, as providers of liquidity, perform their proper role in supporting the trading process by making sound credit decisions.

6.122 Globalisation and integration of financial markets have posed new challenges and dilemmas for central banks in monetary, financial and external sector management. In the context of the integration of the Indian financial markets with the global markets, the regulatory and supervisory role of the Reserve Bank has become critical for maintenance of financial stability. Accordingly, the Reserve Bank refined its monetary policy operating procedures and instruments as also its regulatory mechanism to match global standards. Various aspects of financial institutions, markets and financial infrastructure such as risk management systems, income recognition and provisioning norms, disclosure norms and accounting standards have been introduced in line with international best practices.

Evolution of the Monetary Policy Transmission Mechanism

6.123 Monetary policy in India has been continuously responding to changes in both the domestic and global macroeconomic conditions and accordingly, the operating procedures have undergone significant changes. While before the mid-1990s, reserve money was used as the operating target and banks' reserve served as the operating instrument, there has been an increase in the role of market forces in the determination of both interest

rates and exchange rates, with deregulation. However, this framework came under increasing stress - the upward pressure on the money supply exerted by increasing liquidity on account of capital flows had to be sterilised (Mohan, 2004). In the context of the increasing evidence of changes in the underlying transmission mechanism of monetary policy following the importance gained by interest rates and exchange rates *vis-à-vis* quantity variables as pricing decisions were largely left to market forces, the monetary policy framework in India was revamped during the late 1990s. The reform of monetary and financial sectors enabled the Reserve Bank to expand the array of instruments at its command. The reliance on reserve requirements, particularly the cash reserve ratio, has been reduced as an instrument of monetary control. The CRR has been brought down from a peak of 15.0 per cent in 1994-95 to 5.0 per cent at present. The Statutory Liquidity Ratio has also been brought down from 38.5 per cent in 1992 to its statutory minimum of 25 per cent. Consequently, the Reserve Bank adopted a more broad-based multiple indicator approach since 1998-99, whereby interest rates or rates of return in different markets (money, capital and Government securities markets) alongwith such data as on currency, credit extended by banks and financial institutions, fiscal position, trade, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange available on high frequency basis are juxtaposed with output data for drawing policy perspectives. Such a shift was gradual and a logical outcome of measures taken over the reform period since early 1990s (Reddy, 2002).

6.124 In a deregulated financial environment with reasonably open capital account, monetary policy has to respond to unexpected changes on a short-term basis. The switchover to a multiple indicator approach provided necessary flexibility to the Reserve Bank to respond to changes in domestic and international economic and financial market conditions more effectively.

6.125 Some of the important factors that shaped the changes in monetary policy framework and operating procedures in India during the 1990s were the delinking of the budget deficit from its automatic monetisation by the Reserve Bank, increasing capital flows and reform of the financial markets. With the increasing globalisation and liberalisation of the Indian economy, monetary policy witnessed significant changes. While upto the early 1990s, monetary policy in India, attempted to control the cost, quantum and direction of flow of credit, the various policies initiated during the 1990s and the

development and the integration of the financial markets enhanced the role of price signals of the central bank thereby making interest rates an increasingly dominant variable in monetary policy transmission mechanism in India, in place of the earlier quantity variables (Mohan, 2004). Further, with the progressive opening up of the Indian economy, monetary policy, exchange rate policy and fiscal policy had to increasingly be coordinated to ensure that the policies do not work at cross purposes (Tarapore, 2000).

6.126 In this context, the Reserve Bank has endeavoured to develop the financial markets in order to prepare the ground for moving to indirect instruments of policy. As a first step, yields on Government securities were made market related. Simultaneously, the Reserve Bank helped in creating a variety of other market related financial products. In the next stage, the interest rate structure was simultaneously rationalised and banks were given the freedom to determine their major interest rates which facilitated the use of open market operations (OMO) as an effective instrument for liquidity management as also to curb short-term volatilities in the foreign exchange market. Another important and significant change introduced during the period was the reactivation of the Bank Rate by initially linking it to all other rates including the Reserve Bank's refinance rates (April 1997). The subsequent introduction of fixed rate repo (December 1997) helped in creating an informal corridor in the money market, with the repo rate as floor and the Bank Rate as the ceiling. The use of these two instruments in conjunction with OMO enabled the Reserve Bank to keep the call rate within this informal corridor for most of the time. Subsequently, the introduction of LAF from June 2000 enabled the modulation of liquidity conditions on a daily basis and also short-term interest rates through the LAF window, while signaling the stance of policy through changes in the Bank Rate. The thrust of monetary policy particularly since the mid-1990s, has been on use of policy instruments in a more flexible and bi-directional manner. Although there is no formal targeting of overnight interest rates, the LAF has enabled the Reserve Bank to de-emphasise targeting of bank reserves and focus increasingly on interest rates. Overnight interest rates are now gradually emerging as the principal operating target (Mohan, 2004).

6.127 While the monetary system in India is still evolving and the various inter-sectoral linkages in the economy are undergoing changes, the emerging

evidences on transmission channel suggest that the rate channels are gradually gaining importance over the quantity channel. The econometric evidence produced by the Third Working Group on Money Supply (1998) indicated that output response to policy operating through the interest rate was gaining strength. Similarly, the impact of an expansionary monetary policy on inflation was found to be stronger through interest rates than the exchange rate, given the relatively limited openness of the economy.

6.128 With increasing market orientation, monetary policy in India has been focusing on structural and regulatory measures designed to strengthen the financial system and to improve the functioning of various segments of the financial market. Several measures have been introduced after extensive consultations with experts and market participants and have been directed towards increasing the operational efficiency of monetary policy, redefining the regulatory role of the Reserve Bank, strengthening the prudential and supervisory norms, improving the credit delivery system and developing the technological and institutional framework of the financial sector (Reddy, 2000). The interaction of technology with deregulation has also contributed to the emergence of a more open, competitive and globalised financial market. The various reforms have laid a solid foundation which enabled the Reserve Bank to respond more effectively to the international challenges such as the East-Asian currency crises, sanctions and domestic uncertainties, besides assisting the attainment of a respectable level of growth rate, reasonable price and exchange rate stability. The Reserve Bank's conduct of monetary policy, particularly during the crises years has commanded respect and credibility, both domestically and globally.

6.129 The increasing linkages among money, Government securities and foreign exchange markets require that at times the Reserve Bank use short-term monetary measures alongside intervention to arrest excessive volatilities in the foreign exchange market. In the present market determined exchange rate regime, the primary objective of the Reserve Bank continues to be the maintenance of orderly conditions in the foreign exchange market, meeting temporary demand-supply gaps which may arise due to uncertainties or other reasons, and curbing destabilising and self-fulfilling speculative activities. In this context, the Reserve Bank closely monitors the developments in the financial markets at home and abroad and takes such measures, as it considers necessary from time to time.

Transparency, Cooperation and Best Practices

6.130 Transparency in market operations is essential for smooth functioning of financial markets as also efficient monetary policy transmission mechanism (details in chapter III). The benefit of transparency is that it reveals information about current and future behaviour of the central bank and thereby influences expectation formation and market behaviour. In the context of globalisation, the need for disseminating adequate, timely and quality data relating to various aspects of the economy such as real sector, interest and exchange rates and prices, for efficient functioning of markets has gained significance as inadequate information can result in asymmetric information and can lead to problems like moral hazard and heightened volatility in the markets. The Reserve Bank has, therefore, taken several initiatives to disseminate data on financial markets as also its operations at regular intervals to facilitate orderly functioning of markets.

6.131 Following the East Asian, Latin American and Russian financial crises, there has been a growing recognition for cooperation and exchange of information by regulators of the financial system and central banks (details in chapter III). India has been taking active part in the working of several key international fora on financial standards and codes. Through SEBI, India is represented on the International Organisation of Securities Commission (IOSCO), and was an early subscriber to the Special Data Dissemination Standards (SDDS).

6.132 The globalisation and blurring of distinction between the domestic and international markets (for equity, bonds and foreign exchange instruments) has necessitated code of best practices to create sound and strong financial markets and institutions. While the money market is generally a national market, the Government securities market, equity market and foreign exchange markets have increasingly become integrated globally calling for a common set of standards and codes regarding various aspects relating to the markets such as valuation of assets, accounting norms and disclosure standards by regulators and market participants. In the case of the securities market, the IOSCO has played a key role in bringing out global standards and the norms while for the derivatives market the International Swaps and Derivatives Association (ISDA) has played a crucial role in prescribing the best market practices. Besides, the efforts by these agencies, international institutions like the IMF, the World Bank and the G-20 have also taken keen interest in promoting convergence of

global best practices for financial markets to ensure financial stability.

Institutional and Technological Infrastructure

6.133 In the liberalised financial market, participants need efficient institutional and technological infrastructure to effectively compete in domestic and global markets. Central banks have a key role in putting in place state of the art technological infrastructure and other supportive institutional framework designed to enhance financial market efficiency. In the area of institutional and technological infrastructure for financial market development several initiatives have been taken by the Reserve Bank such as operationalisation of DvP System, the Clearing Corporation of India, Real Time Gross Settlement System (RTGS), Centralised Funds Management System (CFMS); NDS and the Structured Financial Messaging Solution (SFMS) (details in chapter IV).

Legal Framework

6.134 Financial market reform depends on corresponding developments in the legal framework. Changes in statutes have been a gradual and slow process constraining market development in India, as in many other countries. Legislative changes, which were required to support the reforms were becoming increasingly difficult after 1993. Therefore, some of the desired changes had to be adjusted within the parameters and structure of existing laws (Rangarajan, 2000). Several measures taken for development of financial markets required changes in legislation or introduction of new laws. Illustratively, these included amendments to the Public Debt Act and introduction of Government Securities Bill (to provide flexibility in undertaking transactions in Government securities and facilitate retailing), amendments to the Reserve Bank of India Act (to bring about among other things greater flexibility in monetary policy operations by reducing the statutory minimum for CRR/SLR, enable separation of debt management functions, etc.); enactment of the Fiscal Responsibility and Budget Management Act (FRBM) (to bring reasonable control over fiscal management), amendment to the Banking Regulation Act (to encompass areas of security laws and regulatory framework of banking), amendment to the Negotiable Instruments Act (to bring it in conformity with the Information Technology Act, 2000 to bring electronic cheque, securitised certificate and other evolving products within its ambit); and enactment of Bill on asset securitisation (to create an enabling environment for market for asset securitisation).

6.135 As per the announcement in the Union Budget 2005-06, a Bill to amend the Reserve Bank Act, 1934 for providing, among other things, legality to OTC derivatives has been introduced in the Parliament. Similarly, the Government Securities Bill seeks to broaden the market for Government securities by facilitating retail interest while also ensuring an orderly secondary market. Some of the substantive improvements expected in the management of public debt on account of this Bill are: (i) stripping and reconstitution of Government securities to facilitate improved secondary market liquidity, and enabling better risk allocation for investors, (ii) provision for hypothecation, pledge and creation of lien on Government securities, etc. These measures are expected to facilitate market developments.

Role of Consultative Approach

6.136 A hallmark of the financial market reform process in India has been the consensus building, which is operationalised through inter-departmental working groups, inter-agency committees and Technical Advisory Committees at the formulation stages and Financial Markets Committee (FMC) at the monitoring stage. The aim is to involve all the stakeholders in the formulation and implementation stages. Greater deregulation underscores the importance of closely monitoring market developments by the regulator which takes place through the FMC in the Reserve Bank, (it meets daily before the opening of the markets and at times on more than one occasion, when situation warrants). The FMC reviews the liquidity and interest rate situation in financial markets and advises the top-management on the course of action that would be required by the Reserve Bank during the day. This institutionalised framework helps the Reserve Bank to take an integrated view on all important decisions having an impact on financial markets. As excessive volatility in the financial markets could impair the balance sheet of banks, have adverse effects on confidence in the markets and also pose a threat to financial stability, the Reserve Bank continuously monitors developments in various segments of the financial market and takes necessary corrective measures. A separate Financial Markets Department (FMD) has been set up in the Reserve Bank to provide greater focus to market surveillance.

III. CONCLUSIONS

6.137 A review of the financial market development in India during the past seven decades reveals that

the Reserve Bank has been successful in creating deep and vibrant money, Government securities and foreign exchange markets, though they still need to be strengthened further. The success of the reform process has so far depended on several factors like macroeconomic stability, sound financial institutions, a favourable legal framework, technological support and congenial policy environment. Further, financial market reform was calibrated with reforms in other areas, in particular with fiscal reforms, and reforms in the external sector. Financial market development in India has, apart from improving monetary policy transmission mechanism facilitated changes in monetary policy strategies: from emphasis on credit allocation to monetary targeting and the subsequent multiple indicator approach. These changes would not have been possible without financial market development. The success of deregulation of interest rate regime in India owes significantly to the simultaneous development of financial markets. Financial markets have enabled banks and institutions to better manage their affairs, liquidity and treasury operations and thereby strengthened their fund-based income and profitability. Further, the growth of financial markets in the 1990s contributed towards improved asset and liability management by banks and other financial entities. At the same time there was a significant shift in the financing pattern of larger companies, which moved away from the banking system to raise resources from the financial markets.

6.138 Though the various initiatives taken by the Reserve Bank have resulted in deep and wide, money, Government securities and forex markets, the reform process is far from over.

6.139 In the money market, the policy thrust of the Reserve Bank would continue to be to encourage the development of collateralised market, broad-base the pool of securities to act as collateral for repo and CBLO markets and provide avenues for better risk management with further improvements in the ALM framework. In the Government securities market, in the FRBM environment short-selling with appropriate safeguards, developing "When Issued" market, active consolidation and ensuring effective debt management are likely to be some of the challenges facing the Reserve Bank. In the forex market, further liberalisation of the capital account in line with CACs recommendations could pose fresh challenges to the Reserve Bank. Greater attention may have to be paid on aspects such as upgrading risk management systems, derivatives accounting standards, customer suitability and appropriateness standards and improve disclosure.

6.140 In the context of integration of the Indian financial markets with the global markets, the Reserve Bank has been constantly refining and fine-tuning its regulatory mechanism to match global standards. To safeguard financial stability, central banks, including the Reserve Bank, have to closely monitor the current and evolving global developments. Global financial imbalances, coupled with other developments such as abundant liquidity and generally low interest rates in the global financial markets, growing sophistication of financial market participants and the proliferation of complex and highly leveraged financial instruments including credit derivatives and structured products such as Collateralised Debt Obligations could cause liquidity and interest rate risks and heighten volatility in the financial markets, if there is an abrupt and sharp readjustment. This issue has gained more relevance in the context of the recent trend of consolidation in the financial sector. The single most important risk factor for financial markets in good times is complacency (Global Financial Stability Report, 2005). This coupled with factors such as low risk premiums and untested elements of risk management systems dealing with complex financial instruments could ultimately become hazardous to financial markets. These developments pose a challenge to the Reserve Bank and other central banks, as they have to factor these in while designing monetary policy responses, devise strategies to mitigate systematic liquidity risks to stave off crises and keep a close watch on financial market innovations.

6.141 Central banks, including the Reserve Bank, have to be vigilant about the risk profile of financial intermediaries, particularly concentration risk and their vulnerability to abrupt market price shocks. The current global financial scenario highlights the need for appropriate risk management strategies as also for greater coordination and information sharing among central banks to prevent transmission of adverse developments abroad to the domestic economy and markets.

6.142 Notwithstanding the significant changes in the financial markets, there are several imponderables which may have a bearing on monetary policy. Some of the developments which are likely to have a bearing on the size and evolution of the money and Government securities markets in the coming years are implementation of the FRBM Act, 2003 (which would put an end to the Reserve Bank's participation in primary auctions of Central Government securities from April 1, 2006). While this would lead to functional separation of debt management from monetary

operations thereby enabling the Reserve Bank to have greater control over the composition of its balance-sheet and flexibility in monetary operations, it would also call for greater coordination between the Reserve Bank and the Government for ensuring stability in the financial markets. In the context of the changed monetary and debt management scenario, the Reserve Bank has to take steps to fine-tune its open market operations and LAF. Greater accuracy in forecasting market liquidity over the short- to medium-term has also become very crucial. The issue of broad-basing the pool of securities to act as collateral for the Reserve Bank repo may also have to be examined.

6.143 Another challenge confronting the Reserve Bank in the medium-term is the increasing openness of the Indian economy and the management of liquidity, following strong capital inflows. As there is a trade-off between the excessive volatility in the financial markets, exchange rates and interest rates which are likely to result in erosion in the competitiveness of the economy on the one hand, and financial cost of sterilisation (measured as outgo of coupon on the sterilised amount over and above the earnings from deployment of foreign exchange reserves) on the other, the Reserve Bank has to properly balance its sterilisation operations. In addition, sterilisation operations also have implications for the issue of stabilisation of short-term interest rates in the money market calling for fine-tuning of its policy instruments by the Reserve Bank so as to keep call money rates range bound (within the corridor of the repo and reverse repo rates).

6.144 Liberalised and integrated financial system and markets pose fresh challenges to central banks as they tend to amplify existing distortions in macroeconomic management. It often generates excessive optimism and under-pricing of financial assets, which coupled with capital account convertibility and high fiscal deficits lead to crises. In a liberalised financial system, it is no longer regulation, but market discipline, which maintains financial stability. This necessitates greater transparency, fostering strong institutions and developing better risk analysis systems. Improvements in market discipline also call for greater coordination between banks, major players in the financial markets and regulators. Market discipline (Basel II, Pillar III) therefore, assumes significance: commercial banks in India will start implementing Basel II norms with effect from March 31, 2007. In order to have greater transparency in the financial position and risk profile of banks, India has been

expanding the area of disclosures. Adoption of Basel II would improve risk management systems and enhance the competitiveness of Indian banks, thereby enabling them to play a more active role in global financial markets.

6.145 Over the years, the changes in monetary and financial regime globally have changed the dynamics of the financial markets. In the area of monetary policy, the low and stable inflation coupled with very strong central banks have changed the monetary dynamics. Consequently, while rising inflation is no longer a major concern, excessive increase in asset prices and credit have emerged as major challenges facing the central banks as this could lead to financial

instability. As economies have become more pro-cyclical, inflation is no longer the major indicator of financial stability because strong swings in asset prices could lead to financial instability. In the context of financial stability, besides improved transparency, better analysis of trends in major sectors of the economy and banks to detect signs of stress, policies which better affect inflation expectations and cautious liberalisation of international capital movements have assumed significance. The Reserve Bank and other central banks have to pursue market driven strategies and policies that are stable and forward looking to anchor expectations. Fiscal discipline and deep and well functioning financial markets are necessary for the success of central bank's policy strategy.

VII

ISSUES IN MONETARY AND FISCAL INTERFACE

7.1 Central banking is an evolving process responding to political and economic forces over a period of time. In principle, effective coordination between the central bank, which formulates monetary policy, and the Government, which is responsible for fiscal policy, is required for achieving the common set of macroeconomic objectives.

7.2 In operationalising monetary-fiscal coordination, Governments in a number of countries in recent years have increasingly disciplined themselves by enacting fiscal responsibility legislations encompassing, *inter alia*, restrictions on central bank accommodation and setting of borrowing limits while making monetary policy more flexible and independent for stabilising inflation. This has been further supported by explicit articulation of the role of an independent central bank. Importantly, some countries that have had a history of hyper-inflation have often enacted legislations on central bank autonomy.

7.3 The Reserve Bank of India, although established as a privately owned and managed entity, was virtually subservient to the directives of the Government. In this regard, while the members of the Central Board of the Reserve Bank represented domestic interests, the Governor was appointed by the British Government to look after the interests of the Crown and ensure that the Reserve Bank's policies did not conflict with those of the Bank of England. In fact, the Reserve Bank's Board had to perform tune its decisions on monetary and exchange rate policies in accordance with the requirements of the British Government.

7.4 The monetary fiscal interface in post-Independence India since nationalisation of the Reserve Bank in 1949 has followed a sequence typical of a developing country. With the onset of development planning, fiscal policy assumed the responsibility of triggering a process of economic growth through large public investment, facilitated by accommodative monetary and conducive debt management policies. In this context, it may be noted that fiscal, monetary and debt management policies have been inextricably interrelated in the determination of the level, composition and cost of public debt. The rationale of financing public debt at sub-market rates was that public sector projects having long gestation lag require

low interest rates, which the Government should be able to get by virtue of being a sovereign borrower. While this enabled the Government to reduce the cost of financing, it often constrained monetary policy instrument-independence in pursuing macroeconomic policy objectives. By the end of the 1980s a fiscal-monetary-inflation nexus was becoming increasingly evident whereby excessive monetary expansion on account of monetisation of fiscal deficits fed into inflation, which in turn, led to a greater increase in the expenditures of the Government than its revenue mobilisation thereby further widening the budgetary gaps. As a rearguard action, the Reserve Bank endeavoured to restrict the monetary impact of budgetary imbalances by raising the reserve ratios to be maintained by banks thereby adversely affecting their profitability *vis-à-vis* non-banks. As the growth of pre-empted resources was inadequate to meet the Government's requirements, it had to perform borrow funds from outside the captive market by offering fiscal privileges. The unsustainability of this development process necessitated a multi-pronged reform strategy in fiscal, monetary and debt management policies during the 1990s so as to usher in greater instrument-independence for the Reserve Bank.

7.5 Against the above backdrop, the remainder of the chapter is organised as follows. Section I presents the evolution, theory and analytical framework of monetary fiscal interface. Section II discusses cross-country practices in this regard emphasising that though monetary fiscal interface differ on the modalities, a common realisation is that consistency and complementarity of monetary and fiscal policies are required to engender market confidence and ensure monetary stability. The evolutionary process of monetary fiscal interface in India during the period 1935-2003, sequenced into three phases, is discussed in Section III. The first phase covers the formative years (1935-1950), the second phase discusses the period of fiscal activism and monetary accommodation (1950-1991) and the third phase depicts the macroeconomic crisis followed by fiscal and financial sector reforms (1991-2003). A critical link between the monetary and fiscal policies in India has been the management of public debt by the Reserve Bank. Accordingly, Section IV presents the evolving public debt management of the Reserve

Bank, tracing the shift from a passive to a more active debt management strategy. Section V discusses the fiscal legislation, monetary management and debt management covering the period 2003-2005. The monetary-fiscal coordination in the context of the Fiscal Responsibility and Budget Management (FRBM) Act is set out in Section VI. Section VII presents an assessment of monetary fiscal interface in India while Section VIII puts forth some issues by way of concluding observations.

I. MONETARY FISCAL INTERFACE: EVOLUTION, THEORY AND ANALYTICAL FRAMEWORK

Evolution

7.6 Central banks have a distinct historical origin which influences not only the tasks that these banks perform at present, but also the way in which they operate. Although central banks may differ in terms of their operating procedure, they are universally responsible for the conduct of monetary policy. In this regard, the refinements in monetary theory have greatly contributed towards developing a theory of central banking.

7.7 The early central banks (like in Sweden and England) were not intended to undertake the functions of a modern central bank but were set up to support the Governments in financing their budgetary gaps. This was facilitated by the legislations granting monopoly rights of issuing currency to the central banks. Such delegation of the power to the central bank for money creation entails with it the responsibility to preserve the value of currency. Over a period of time, the privileged position of the central bank, being the monopoly issuer of currency and simultaneously acting as the banker to the Government, resulted in a situation where the owner of the central bank (*i.e.*, the Government) became its principal debtor. As a stakeholder, Governments became prone to leveraging their central bank indebtedness for their financing purposes. However, such unmitigated access to central bank credit often resulted in erosion of the value of the currency issued by the central banks. While the lower value of currency mitigated the real burden of Government debt, it also created an uncertain macroeconomic environment in terms of lower purchasing power of the currency. Thus, the role of the central bank being the banker to the Government hindered its principal objective of maintaining monetary stability. Therein lay the genesis of the conflict of monetary policy objectives of the central bank with its role of being the banker to the Government.

7.8 Evidence suggests that Governments utilised their unlimited access to central bank credit for financing colonial expansion, wars and for building up the war ravaged economies post-World War II (Jadhav, 2003). During this period, the pressures of deficit financing of Governments did not fuel inflationary expectations as economies operated below their existing capacities. However, with progressively higher capacity utilisation, the fiscal policy-led recovery process quickly hit a roadblock in the wake of supply shocks such as spiralling international oil prices and real productivity shocks. This resulted in economic stagnation while stoking inflationary pressures across countries leading to stagflation in the 1970s. Accordingly, a reassessment of the role and objectives of central banks was made, both in academic circles and by policy makers, whereby primacy was accorded to the objective of price stability *vis-à-vis* the pursuit of an accommodative monetary policy stance in financing Governments. There was a realignment of policy priorities by various Governments and central banks with the former being bestowed with the responsibility of enhancing economic growth while the latter was mandated to ensure monetary stability. However, as both these objectives are desirable from a societal perspective, better coordination between the two arms of economic policy (fiscal and monetary) has been emphasised since the mid-1980s for realising stabilisation objectives.

Macroeconomic Theory

7.9 Keynes revolutionised macroeconomic thinking by constructing a monetary theory that revolved around a fully developed financial system with the central bank at its centre (Keynes, 1936). The Keynesian vision of the economic system was not that of a self-regulating entity, but of a complex set of causal linkages that a policy maker seeks to guide. In this context, whereas fiscal policy measures were recognised as the prerogative of national Governments, the levers of monetary policy lay with the central bank for steering the economy in the desired direction.

7.10 Deviating from the classical economists view that money is just a *veil*, Keynes integrated the monetary and the real sectors of the economy by emphasising the interlinkage between the rate of interest and the level of investment in the economy. He argued that central banks, by creating money, could precipitate a change in the rate of interest, which in turn, may alter the incentives for firms to make long-

term investments, and therefore influence the level of real economic activity. Since money can be created by the central bank by directly financing developmental expenditure or indirectly through funding of Government deficits, the genesis of monetary-fiscal nexus was embedded in Keynesian monetary theory. Keynes, however, suggested that the relationship between money demand, interest rates and the level of economic activity was volatile, subject to sharp changes depending on the expectation of wealth holders and their fears about the future.

7.11 In the first two decades after World War II, the Keynesian orthodoxy took the position that spending decisions of consumers and firms move largely independent of asset rates of return and is more responsive to expectational variables. This extreme non-monetary interpretation of Keynes became the conventional wisdom for central bankers. As a result, fiscal policy came to the centre stage of policy affairs while monetary policy was relegated to the background. The ascendancy of fiscal policy during this period was partly due to the Depression of 1930s and the process of post-World War II reconstruction besides the acceptance of the Keynesian policy prescription that deficiency of aggregate demand could be resolved by expansionary fiscal policy.

7.12 The Keynesian orthodoxy was called into question by a series of events in the early 1970s: breakdown of the fixed exchange rate system, the first OPEC oil shock, bad harvests and crop failure combined with the aftermath of the Vietnam War led to acceleration in inflation and high unemployment in the USA. The economies of several other countries also faltered simultaneously. This phenomenon of 'stagflation' seemed at odds with the conventional wisdom of the short-run Phillips curve trade-off of achieving lower unemployment rate at the cost of higher inflation. Subsequent analysis showed that there is essentially no long-run trade-off between inflation and unemployment, which paved the way for a more determined fight against inflation.

7.13 During the 1970s the new-classical economists, assuming rational expectations of market participants and a market-clearing approach without rigidity, argued that anticipated policy measures do not matter and only unanticipated policy can have any real, but temporary, impact. In order to avoid generating such surprises on market participants, it was argued

that stabilisation policy should not be discretionary as it leads to market distortions. Hence, rule based monetary and fiscal policy, which helps in avoiding expectational mismatches and uncertainty of outcomes, were recommended for policy purposes.

7.14 The rational expectations paradigm substantially influenced the theory and the conduct of future monetary policy. Economists of Keynesian persuasion demonstrated that, even with the assumption of rational expectations, anticipated policy measures could have real effects provided the market clearing assumption was relaxed (Fischer, 1977 and Phelps & Taylor, 1977). Further research underscored the view that fiscal policy is not sufficiently agile to be effective in a stabilisation role as it is heavily influenced by exogenous political considerations (Dornbusch and Fischer, 1990). Thus, the role of macroeconomic stabilisation was largely left to the central bank; fiscal policy represents merely another demand shock to be countered by monetary policy. As a result, monetary policy gained ascendancy necessitating, in many cases, institutional changes like the creation of independent central banks to counter fiscally profligate governments. Such thinking largely influenced the functioning of the erstwhile German Bundesbank and laid the foundation for the European Central Bank.

7.15 During the 1980s, the theory of stabilisation policy received a further boost through the application of game theory. In this set-up, non-cooperative behaviour in the form of frictions between the two arms of economic policy (fiscal and monetary) resulted in sub-optimal outcomes for society involving losses in social welfare. As a result, greater monetary fiscal coordination has been emphasised upon since the mid-1980s in order to achieve the socially desirable objectives of growth along with price stability.

Monetary Fiscal Coordination: Theoretical Underpinnings

7.16 The traditional targets and instruments approach of Tinbergen provides a useful framework for monetary-fiscal coordination, as the coordination problem is basically one of an effective shortage of instruments (Tinbergen, 1952)¹. If the number of fiscal instruments is adequate, it is not necessary for the Government to coordinate its actions with those of

¹ Stabilisation policy suffers from difficulties arising out of the interrelationship between instruments and targets as the pursuit of one target could drive another off course. In this context, Tinbergen advocated the choice of one single instrument for the pursuit of one specific target, *i.e.* the number of targets and instruments should be identical.

the central bank. In this regard, it is important to know the number of independent instruments at the disposal of both the Government and the central bank, and this depends on both the choice of appropriate model of the economy and the precise list of targets. If the fiscal instruments are potent, they may be adequate, provided monetary policy is perfectly coordinated with fiscal policy as lack of coordination more often results in a sub-optimal outcome (Box VII.1). There is a perverse case, however, in the Latin American context (*viz.*, Argentina) where a hyper-inflationary situation warranted fiscal measures such as indexation of wages and salaries to protect real consumption levels. This resulted in a wage-price spiral with the economy getting permanently saddled with higher inflation. Thus, monetary-fiscal coordination, in terms of greater accommodation of inflation from the fisc, resulted in an inferior outcome.

7.17 Another strand of research, however, suggests that monetary-fiscal coordination is not important². In the forward-looking New-Keynesian models, the fiscal stance is relevant to monetary policy only to

the extent that it represents a demand shock, to be offset by the monetary authority. Over a longer horizon, fiscal consolidation will result in a lower equilibrium real interest rate (Taylor, 1995). In such an environment, keeping inflation near a target will require a reduction in nominal interest rates. Fiscal policy shifts will, therefore, require monetary policy adjustments, but the mix between fiscal and monetary policy remains irrelevant to macroeconomic outcomes.

7.18 The irrelevance of the policy mix, however, is not conclusive as there are three distinct, but interrelated, issues in favour of policy coordination (Kuttner, 2002). First, the most obvious impact of the monetary-fiscal policy mix on economic outcomes is on the composition of output. In a closed economy, any increase in real Government expenditure leads to some crowding out of investment demand. By reducing the real interest rate, expansionary monetary policy can offset some of the crowding out, although presumably at the cost of higher inflation. Moreover, a related dimension concerns the effect of the

Box VII.1

Issues in Monetary and Fiscal Coordination

There are several merits in coordinating fiscal and monetary policies. First, they interact to affect aggregate demand and determine output and interest rates in the short run. Second, in an open economy context, while higher interest rates arising out of tight monetary policy can adversely influence the cost of production of tradable goods, fiscal policy measures through tariffs, quotas and customs duties can alleviate the burden of producers of such goods. Third, monetary-fiscal coordination ensures the optimal mix of bond and money financing of Government deficits as open market operations of the central bank determines the extent of money/bond financing. Fourth, political pressures may impose coordination as Governments, in a democracy, enjoy popular mandate in setting economic policy objectives, which the monetary authority has to adhere to. Fifth, timing considerations and variable lags with which fiscal and monetary policy instruments impact upon targets in the short and long run also necessitate some coordination between the two arms of economic policy. Finally, uncertainty about uncoordinated policy outcomes may be minimised through active coordination as coordination failures often result in large losses of social welfare.

The moot question, however, is whether more coordination is necessarily better. If the central bank and the

Government agree on what needs to be done, but a coordinated approach cannot be put in effect because of errant behaviour by one of the two authorities, then coordination must improve things whereby the sensible policy maker must dominate the perverse one. In reality, however, fiscal and monetary policies are often poorly coordinated. If both authorities take consistent and credible actions, then the lack of coordination can stem from one of three causes, *viz.*, (i) the fiscal and monetary authorities might have different objectives, *i.e.*, different conceptions of what is best for society; (ii) the two authorities might have different opinions about the likely effects of fiscal and/or monetary policy actions on the economy, *i.e.*, they might adhere to different economic theories; and (iii) the two authorities might make different forecasts of the likely state of the economy in the absence of policy intervention (Blinder, 1982). The coordination problem can be solved by vesting the powers of decision making in the hands of the authority with the proper objective or correct theory or accurate forecast, if it is known which of the two authorities is correct. In reality, this is rarely known in advance. The best strategy, therefore, is to give some power to each authority and also to give each some ability to cancel out the actions of the other, although this may result in a conflict of interest in the worst case or, more often, end in a stalemate.

² In the Mundell-Flemming framework, the issue of coordination between monetary and fiscal policies does not exist in a world of perfect capital mobility, as fiscal policy is only effective if the exchange rate is fixed while monetary policy is effective when exchange rate is flexible.

monetary-fiscal policy mix on the current account of the balance of payments. Any fiscal expansion would tend to increase the domestic interest rate and the resulting interest rate differential will induce an inflow of foreign capital thus limiting the crowding out. However, the capital inflows imply a current account deficit brought about by an appreciation of the domestic currency. This was the conventional explanation on 'twin deficits' of the USA in the 1980s. More recently, the opposite problem, *i.e.*, tight fiscal policy and loose monetary policy was responsible for the weakness of the euro immediately after its launch in 1999 (Cohen and Loisel, 2001).

7.19 A second set of monetary-fiscal interactions stems from the implications of the view that every fiscal policy action involving an increase in the current budget deficit must be financed either through an increase in future tax revenues or through erosion in the value of nominally denominated Government liabilities, such as money which may involve overtly resorting to seignorage to finance the deficit. Even without an explicit monetary response, the intertemporal fiscal balance could be restored through an increase in the price level thereby reducing the value of outstanding Government liabilities. While the conventional view is that fiscal deficit leads to excessive monetary expansion resulting in inflation, the 'Fiscal Theory of the Price Level' (FTPL) argues that fiscal imbalances lead to an increase in inflation and it is the money supply that subsequently adjusts to higher prices (Woodford, 2001).

7.20 A third set of considerations arises with the non-cooperative behaviour between the monetary and fiscal authorities. The behaviour of the fiscal authority can affect the monetary authority's ability to attain its inflation objective. However, the underlying source of conflict in these situations stems from differences between the authorities' goals. While the monetary authority aims to reduce output and inflation below the fiscal authority's desired level, fiscal policy aims to raise output and inflation above the comfort zone of the monetary authority. The non-cooperative outcome is an inflationary fiscal policy, which is offset by a contractionary monetary policy (Nordhaus, 1994). Moreover, pre-commitment on the part of the monetary authority is not useful as the value of the commitment gets completely negated by discretionary fiscal policy actions (Dixit and Lambertini, 2003).

Analytical Framework of Monetary Fiscal Interface

7.21 Fiscal and monetary policies are the two arms of overall macroeconomic policy and share the basic objectives of economic stabilisation. While fiscal policy determines the size of public debt, monetary policy determines the extent of its financing from the central bank and debt management policy decides the cost and composition of public debt. The objectives of these policies may not always be in harmony; moreover, these policies may have inherent advantages in achieving certain objectives which call for policy coordination. In this regard, several issues can be addressed within a broad common framework of monetary-fiscal coordination.

7.22 The relationship between fiscal and monetary policies can be analysed in the context of the choice between bond financing and money financing of fiscal deficit. Bond financing entails net placement of government debt in domestic or foreign markets. Money financing³, on the other hand, arises out of changes in central bank accommodation to government in the forms of central bank's subscription to primary issuance of Government paper, open market operations and clean advances. A high proportion of bond financing adversely impacts on economic growth through upward pressure on interest rates. Money financing, with consequent impact on the monetary-base, fuels inflationary pressures which in turn leads to a larger deficit, thereby, resulting in a vicious circle of high deficit, high money financing and high inflation⁴. Monetisation of government deficit need not necessarily have an adverse effect, especially under conditions of excess capacity.

7.23 Money financing of the fiscal deficit is seldom voluntary on the part of the central bank. A central bank may be obligated to extend credit to Government through subscription to Government paper in the primary market auctions. Similarly, stipulated provisions in the charter of central banks about mandatory transfer of annual profits due to government ownership of central banks are further examples of non-voluntary financing. Moreover, the financing of fiscal deficit may be at market related rates or at highly concessional rates, the latter being a derivative of non-voluntary financing. Furthermore, exchange guarantees, deposit insurance, contingent liabilities and directed credit are some quasi-fiscal

³ A distinction also needs to be made between direct monetisation and monetisation through operations in the secondary market.

⁴ The "Unpleasant Monetarist Arithmetic" proposition of Sargent and Wallace (1981) demonstrated that bond financing could also lead to greater inflationary pressures, which gives a fiscal causation to inflation.

activities undertaken by the central bank on behalf of the Government, whose costs do not get reflected directly in the Government's budget. In contrast, central bank purchase of Government paper in the secondary market, governed by liquidity management considerations, is an example of voluntary financing.

7.24 In the above context, it is pertinent to note that each form of financing of fiscal deficit has a different impact on monetary policy. While reliance on domestic credit has implications for credit availability for the commercial sector, interest rates and monetary base, reliance on foreign borrowing additionally impinges on management of the external sector. Financing deficit through Government bonds in a non-voluntary manner may also result in crowding out of the private investment. The analytics of monetary-fiscal policy interface is thus not confined only to the quantum of monetisation of fiscal deficit, but extends to optimal financing mix for the fiscal deficit that stabilises inflation, interest rates and exchange rates at levels conducive for macroeconomic stability (Reddy, 2000a).

7.25 Successful stabilisation policy requires that fiscal and monetary policies are perfectly coordinated, both for expansion and contraction of economic activity. In advanced economies, the need for coordination is relatively less as each policy pursues its own path and objective and adjustments are made through market forces. In developing countries, however, there is a greater requirement for closer coordination since the market mechanism is not perfect. Moreover, conflicts of interest may arise between the policy authorities and the sub-targets assigned to each policy, which necessitate closer coordination. It is important to recognise, however, that the instrumentality of coordination has to be tailored to suit country specific circumstances and requirements.

II. MONETARY AND FISCAL INTERFACE: CROSS COUNTRY EXPERIENCE

7.26 Although there seems to be an emerging consensus, in principle, with regard to the benefits of a coordinated approach in policy formulation, in practice, however, the institutional setting and operational arrangements for the coordination of monetary and fiscal policies differ widely among

various countries. The exact scope and content of coordination varies depending on the country's history, socio-political considerations, the stage of financial market development and the objectives set for these policies. However, a common thread seems to be the imposition of formal restrictions on Government access to central bank credit. In this regard, greater autonomy for the central bank is suggested, as an institutional mechanism, to limit the flow of resources from the central bank to the Government (Alesina, 1988). Typically, arrangements have been made to restrict (i) direct credit; (ii) profit transfers; (iii) *quasi*-fiscal activities; and (iv) separate debt management from monetary policy functions. The following paragraphs enumerate, in brief, the various country practices and international experience on these issues.

Central Bank Credit to Government

7.27 A starting point to evaluate the nature of coordination between monetary and fiscal authorities is to see the extent of accommodation to the fiscal authority by the central bank. A survey conducted by the Bank of England comparing 122 developing countries with 20 OECD (Organisation for Economic Cooperation and Development) countries shows that although there was not much to choose between the two groups in terms of growth rates, inflation was three times higher in developing countries (Fry *et al*, 1999). Furthermore, developing countries relied heavily on reserve requirements (bank reserves held with the central bank were five times higher than in developed countries) to neutralise the monetary impact of Government borrowing (Governments borrowed twice the amount from central banks in developing countries than that in the OECD countries). These findings suggest that fiscal forbearance has been practiced to a great extent in developing countries in the presence of a subservient monetary authority⁵.

7.28 Central bank credit to Government is the most visible form of revenue transfers and has attracted the maximum attention of policy authorities seeking monetary-fiscal coordination. The general approach has been to set limits to the access of Governments to credit from the central bank⁶. Usually, constraints are binding on direct forms of credit. A

⁵ Fiscal forbearance is attributed to four factors, viz., (i) Government ownership of central banks; (ii) Governments are entitled to seignorage profits from central banks currency issuance; (iii) central banks act as bankers to the Governments and (iv) central banks manage the public debt of Governments for a commission (Pringle and Courtis, 1999).

⁶ A study conducted by the IMF showed that at end-December 1992, more than half of the countries surveyed prohibited overdrafts on current account to Governments. 44 per cent of developed countries and 22 per cent of developing countries prohibited loans and advances (Cottarelli, 1993).

cross-country survey on the monetary policy frameworks of 94 economies conducted by the Bank of England in 2000 reveals a strong preference for prohibition of any form of central bank financing to the Government (Table 7.1).

7.29 Many countries prohibit central bank purchase of Government securities in the primary market through fiscal responsibility legislation. On the other hand, secondary market purchases and Government deposits with the central bank are relatively unconstrained. Examples of countries with binding constraints on Government's access to central bank credit are Germany, USA, Japan and France among developed countries, and Chile, Peru, Argentina and Brazil among developing countries. Countries with weak constraints are UK, Spain, Ireland and Italy among developed countries and India, Indonesia and Malaysia among developing countries. In countries where financial markets are underdeveloped, there is no viable alternative to allowing Governments to access credit from the central bank. Even if ideal conditions do not exist, all credit to Government by central banks should be at market rates, securitised and credit arrangements such as ceilings and limits should be clearly specified. Compliance criteria should be set out with the consequence of non-compliance stated explicitly. At the same time, there should be limits in place on indirect forms of credit from the central bank to the Government, such as through financial institutions and public sector enterprises.

Central Bank Profits

7.30 Another form of revenue transfer is profits of central banks⁷. In fact, Governments may consciously limit credit taken from central banks in

the interest of credibility and maximise profit transfers, which do not carry a cost in the form of interest rate charge and help to bridge the revenue account of the budget. In this regard, an effective mechanism for ensuring higher profit transfers from the central bank is to ensure a higher level of indebtedness of the Government to the central bank. A larger amount of subscription to Government securities by the central bank would augment its interest income, which can then be passed on to the Government as higher profits⁸. Calculations show that profit transfers were as high as 4 to 5 per cent of GDP in some countries (Fry *et al, op cit*). In several cases, independent calculations of seignorage were higher than transferred profit. This indicates that central bank transfers are often more hidden than actual (Fry *et al, op cit*).

Quasi-Fiscal Activities and Central Bank Losses

7.31 Another way of monetisation is to transfer some activities, which are fiscal in character, from the Government to the central bank. Debt management, exchange rate management when the exchange rate regime is determined by the fiscal authority, financial sector strengthening, exchange guarantees, deposit insurance and contingent liabilities, directed credit and financial repression are all *quasi-fiscal* activities which are often conducted by the central bank on behalf of the Government. They are not a charge on the budget and, therefore, remain hidden. The costs, and more importantly, the losses arising out of these activities, show up in the balance sheet of the central bank and hence on a lower transfer of profits to the Government. In particular, *quasi-fiscal* activities resulted in central bank losses in Latin American countries such as Chile in the late 1980s. In the Philippines during the 1990s,

Table 7.1: Central Bank Credit to Government

Limits on Central Bank Financing of Fiscal Deficit	(Number of Countries)			
	Industrialised	Transitional	Developing	All
1	2	3	4	5
(i) Prohibited, never used, very small amounts	26	11	9	46
(ii) Narrow, well enforced limits	1	5	9	15
(iii) Limits exist that are usually enforced	1	4	20	25
(iv) Wide limits exist and some procedures exist when limits are missed	0	2	5	7
(v) No limits or little enforcement	0	0	1	1

Source: Mahadeva. L. and G.Sterne (ed.): *Monetary Policy Frameworks in a Global Context*, Routledge, 2000.

⁷ For example, the Bank of England passes the entire profits from issuance of currency to the Treasury.

⁸ This further necessitates the prohibition on central banks from participating in primary market auctions.

these losses led to considerable financial meltdown for the central bank (Dalton and Dziobek, 1999).

Debt Management

7.32 In view of the imperatives to limit *quasi*-fiscal activities of central banks, several industrial countries have taken initiatives in separating debt management from monetary policy and introduced appropriate mechanisms for sharing information between debt managers and the central bank. This is most evident for those countries that are members of the European Monetary Union (EMU), since monetary policy is conducted by the European System of Central Banks (ESCB), while debt management is conducted by the national authorities, thereby minimising the risk of possible conflicts of interest between debt management and monetary policy (IMF, 2002). Reinforcing the separation of debt management from monetary policy in the EMU are provisions in the Maastricht Treaty, which prevent Governments from borrowing from their national central banks, and set debt limits, which foster debt sustainability. In Italy, debt managers continuously monitor and formulate projections of expected Government cash flows, taking into account the usual annual cyclical and extraordinary patterns of revenues and expenditures. In addition, debt managers and the Bank of Italy regularly exchange information on the movements of cash that the Treasury holds with the central bank, through which most Government cash flows are channelled. Only the Treasury is authorised to transact through this account in order to ensure proper financial control over the Government's finances.

7.33 Industrialised countries have also taken steps to ensure that debt managers and central banks coordinate their activities in financial markets so that they are not operating at cross-purposes. In the U.K., the Debt Management Office (DMO) avoids holding auctions at times when the Bank of England is conducting money market operations, and does not hold reverse repo tenders of 14-day maturity. It also does not conduct any *ad hoc* tenders on days when the Bank's Monetary Policy Committee is announcing its interest rate settings.⁹

7.34 Industrial countries have also found ways to deal with the potential conflicts that can arise between central banks and debt managers when central banks seek to use Government securities in their open market operations. This issue is especially important

when Government borrowing requirements are modest or non-existent, but the central bank needs a large volume of low-risk assets for use in implementing monetary policy. In the EMU, the ESCB has developed a broad list of public and private securities that it is willing to use in its open market operations so as to avoid the need to rely strictly on Government securities. Similar steps have also been taken by central banks in the other industrial countries.

7.35 The coordination challenges are more acute for emerging market and developing countries that do not have well-developed financial markets. The lack of central bank independence and the absence of well-developed domestic markets make it difficult for them to wean Governments off central bank credit. It also makes the task of separating debt management and monetary policy objectives more difficult because both activities often need to rely on the same market instruments and are forced to operate at the short end of the yield curve. An IMF-World Bank survey documented debt management practices of 18 countries (including India) in varying stages of economic development, which clearly brings out the differences in objectives for debt management and coordination between fiscal and monetary policies through certain critical parameters (IMF, 2002) (Table 7.2).

Table 7.2: Survey of Debt Management Practices

(Number of Countries)

Debt Management Practices	Yes	No
1	2	3
I. Institutional Framework		
(i) Annual borrowing authority	14	4
(ii) Debt ceiling limit	10	8
(iii) Separate debt agency	4	14
II. Portfolio Management		
(i) Government cash balances managed separately from debt	11	6
III. Primary Market Structure for Government Debt		
(i) Central bank participates in the primary market	6	12
(ii) Central bank participates only on a non-competitive basis	6	8
Note	: Total does not necessarily add up to 18 as it is based on the number of respondents.	
Source	: Guidelines for Public Debt Management (IMF-World Bank, 2002).	

⁹ However, these restrictions do not apply to bilateral operations conducted by the DMO owing to their relatively low market profile compared to auctions.

7.36 Many countries, such as Poland, have experienced difficulties in projecting Government revenues and expenditures and in establishing appropriate coordination mechanisms and information sharing arrangements between the Ministry of Finance and the central bank (Ugolini, 1996). Nonetheless, some have taken important steps towards ensuring proper coordination between debt management and monetary policy activities. In Brazil and Colombia, debt managers and central bankers meet regularly to share information and construct projections of the Government's current and future liquidity needs. In Brazil, the central bank also has an opportunity to comment on the annual financing programme, and the Government is legally prevented from borrowing directly from the central bank. In Mexico, debt management, fiscal policy, and monetary policy are formulated using a common set of economic and fiscal assumptions. Moreover, the Mexican central bank acts as the financial agent of the Government in many transactions. This helps to cement a continuous working relationship in Mexico between fiscal, debt management, and monetary policy authorities, and foster appropriate sharing of information. In Slovenia, the central bank comments on the annual financing program contained in the fiscal documents, and the Government is legally prohibited from borrowing directly from the central bank.

7.37 Among other emerging market countries, Jamaica has allowed for a more clearly defined set of debt management objectives that are determined independently of monetary policy consideration. There are also regular meetings between senior officials of the planning authorities and the Bank of Jamaica to ensure consistency in Government's economic and financial programmes. In Morocco, the Treasury and External Finance Department participate actively in defining the orientations of the budget law, particularly the level of the budget deficit and the resources to bridge the gap (IMF *op cit*). In India, the requisite coordination among debt management, fiscal, and monetary policies is achieved through regular meetings within the central bank, as well as through regular discussions between the central bank and Ministry of Finance on the implications of borrowing requirements. In addition, an annual pre-budget exercise ensures consistency between the monetary and fiscal objectives.

7.38 Fiscal and monetary coordination is still evolving. While country practices differ, a definite consensus seems to be emerging. Consistency and complementarity of monetary and fiscal policies build confidence, which is a major factor in ensuring

stability. The various country experiences clearly show that even modern safeguards like stated objectives and accountability cannot prevent fiscal profligacy. This realisation has gained momentum in the 1990s, provoking efforts in various countries to limit access to central bank credit. Typically, reforms have focused on the central banks since the burden of fiscal adjustment is reflected in the activities of the monetary authority. Several countries have attempted to legislate institutional arrangements for an independent central bank so as to insulate it from political pressure and allow autonomy in the operation of monetary policy. Countries have also attempted to make their central banks more accountable through increased transparency and disclosure practices and openness in the formulation and setting of monetary policy. The experience of the developed countries shows that separation of debt management function from monetary policy operation is contingent upon the development of financial markets. A well-functioning Government securities market ensures progressively greater mobilisation of resources by the Government from the market rather than from the central bank, thereby providing greater manoeuvrability for monetary policy operations. Furthermore, a clear articulation of monetary policy objectives through firm commitment to price stability in the developed economies has anchored inflation expectations, thereby facilitating the emergence of a smooth term structure of interest rates. This has been instrumental in the progress of financial market development, particularly the debt market, paving the way for the ultimate separation of monetary and debt management functions of the central banks in the developed economies. At the same time, developing countries have made efforts to broaden and deepen financial markets, which provide an effective environment for coordination through adjustments brought about by market forces. In a few countries, monetary fiscal coordination is being subjected to clearly specified rules for both monetary and fiscal policies.

III. EVOLUTION OF THE MONETARY FISCAL INTERFACE IN INDIA

7.39 Fiscal and monetary policies have been formulated over the years in India, in a typical developing economy context, to pursue a common set of objectives such as high and sustainable economic growth (accompanied with equity); a reasonable degree of price stability; and a viable balance of payments situation. In principle, coordination between fiscal and monetary policies in India is enshrined in the Reserve Bank of India Act,

1934, whereby the Reserve Bank manages the public debt of the Central and the State Governments and also acts as a banker to them¹⁰, and in turn, the respective Governments are obliged to maintain minimum balances with the Reserve Bank without receiving any interest. The process of coordination of these two policies has, however, evolved in India with the effective dominance of the Government over the Reserve Bank historically. The colonial setting during the inception of the Reserve Bank prompted the erstwhile British Government to adopt a stance of fiscal neutrality while restricting the Reserve Bank's role only to day-to-day management of the financial system. The financing requirements of the World War II necessitated the Government to take recourse to primary accommodation from the Reserve Bank. Post-Independence, the Indian Government took the lead role in pursuing the desirable objectives of a developing economy, with the Reserve Bank adopting an accommodative monetary policy stance. After nationalisation of banks, the Government could additionally garner resources through captive contributions from a rapidly spreading government owned banking system. As the unbridled fiscal accommodation eventuated into a macroeconomic crisis in the early 1990s, the proactive role by the Government and the Reserve Bank relaxed fiscal dominance in the monetary policy formulation process, thereby imparting greater balance to the coordination between the two arms of macroeconomic policy formulation.

7.40 Monetary fiscal interface in India has been based on how budgetary imbalances have been financed by the Reserve Bank's net accommodation to the Government and other modes of deficit financing¹¹ and how monetary policy operating procedures have been adapted in the wake of extant fiscal exigencies, on the one hand, and the evolving macroeconomic conditions on the other. Within this framework, up to the 1990s, the fiscal deficit entailed overall monetary expansion and the Reserve Bank had to reactively cross subsidise the increased banking sector's accommodation of the Government and other preferred sectors by rationing credit to the commercial sector. Recognition of the detrimental effects of fiscal dominance in the 1980s prompted its

formal assessment in monetary policy formulation in a money-output-prices framework with the help of the money multiplier in explaining money supply-reserve money relationship, whereby considerable emphasis was paid to reduce the monetisation of fiscal deficit. Post macroeconomic crisis, as the fisc's recourse to the central bank was disciplined, a phase of low monetisation and high share of bond financing of fiscal deficits followed amidst liberalisation of interest rates and development of the Government securities market. The Reserve Bank, in this phase, has been pursuing an active public debt management policy so that the rising debt levels of the Government and the high proportion of bond financing do not impact economic growth adversely through upward pressure on interest rates. Concomitantly, as the source of monetisation became more varied, being essentially driven by external factors, as markets became freer and institutions became operationally independent, the Reserve Bank adopted the framework of a multiple indicator approach in its assessment of all these factors in the monetary policy formulation.

7.41 Against the above background, three important phases of the monetary fiscal interface are discussed in this section. The first phase relates to the period 1935-1950, the second phase covers the period 1950-1991, mostly indicating the fiscal dominance and monetary accommodation and the third phase includes the period 1991-2003, broadly presenting the macroeconomic crisis, and subsequent fiscal and financial sector reforms.

First Phase: Formative Years (1935 to 1950)

7.42 The monetary fiscal interface evolved in the formative years in the context of the Reserve Bank's endeavour to adapt central banking functions and techniques amidst a practically non-existent modern banking system; the need to shoulder special responsibilities with the outbreak of World War II; the Reserve Bank's new role with the advent of Independence in India; and its transformation from being privately owned to a nationalised undertaking (RBI, 1970). The Reserve Bank had to grapple with a recession in the Indian economy in the initial years of its existence in the 1930s followed by high inflation during World

¹⁰ While these functions are mandatory for the Central Government (under Sections 20 and 21), the Reserve Bank undertakes similar functions for the State Governments, with the exception of Jammu and Kashmir and Sikkim, through separate agreements with the respective States (under Section 21 A).

¹¹ As per the analytical framework set out by Rangarajan, Basu and Jadhav (1989), the gap between the Government expenditure (non-interest and interest) and its revenue receipts is financed through domestic debt liabilities held outside the Reserve Bank and within the Reserve Bank.

War II. It had to bolster stability in the macroeconomic policy formulation amidst the frequently changing stances of fiscal policy during post World War II period (1945-1951) prompted by a prolonged political crisis leading to Independence, social upheavals concomitant with India's partition and the Korean war boom.

Fiscal Conservatism and Early Monetary Operations

7.43 During the 1930s, the Government of India pursued a policy of *laissez faire*, focusing on balanced budget and pegged exchange rate, in sharp contrast to the proactive fiscal and exchange rate policies adopted during that period in the United States, United Kingdom and France to drive out recession. In fact, achievement of budgetary equilibrium was regarded as a pre-condition for the setting up of the Reserve Bank. With the Government's borrowings being minimal during the first four years of the Bank's existence reflecting the fiscal neutrality stance, the Reserve Bank was not required to provide any persistent support to the Government's borrowing programme or for stabilising prices of Government securities. Monetary policy, therefore, focused on day-to-day management of money and foreign exchange markets, which itself required a degree of skill in view of the limited flexibility in operation of monetary policy instruments.

War Financing and Monetary Expansion

7.44 With the outbreak of World War II Government expenditure, which was modest during the first two years of the War, had nearly doubled in 1942-43 and continued to rise. War expenditure accounted for over 77 per cent of the aggregate Government expenditure in 1945-46. As a result, the Reserve Bank shouldered added responsibility of financing war expenditures of the United Kingdom and her allies to the extent that the Government of India fell short of meeting them despite increased

tax mobilisation and borrowing efforts and recording overall budgetary surpluses. During 1940-1946, the Reserve Bank financed 45 per cent of the combined outlay of the Government of India and Allies. Furthermore, unlike pre-war years, during the 1940s the Reserve Bank had to deal with the abundantly cumulating sterling balances reflecting the Recoverable War Expenditure which were not usable immediately and also had to finance substantial Government expenditure through issuances of currency. The resultant monetary expansion fuelled high levels of inflation in the War years which have not been witnessed thereafter (Table 7.3).

7.45 Fiscal policy fluctuated during the post-War years, reflecting the rapidly changing political, social and economic conditions. The initial fiscal relaxation anticipating a post-War deflation had to be quickly reversed as inflationary pressures resurfaced, and heavy direct taxation resulted to correct budget deficits and restrict the private demand. During the post-War period as a whole, there was a retreat from the cheap money policy. Monetary expansion was moderate as the expansionary effects of budget deficit and bank credit expansion were almost neutralised by deficits in the balance of payments.

Instruments of Monetary Policy in Formative Years

7.46 During the formative years, the Reserve Bank could neither vary the cash reserve ratio (CRR) nor did it feel its necessity, as banks, in view of low credit off-take, invested a major portion of their deposit accretion in Government securities¹². As the Bank Rate was kept constant (except for 50 basis point reduction in 1935), the only instruments at the disposal of the monetary authority during the formative years of the mid-1930s and the 1940s were undertaking sterling purchases from banks, modulating weekly Treasury Bill tenders and resorting

Table 7.3: Macroeconomic and Monetary Indicators: 1930s and 1940s

(Per cent)

Period (Average)	Growth Rates			Ratio of RBI's Foreign Assets to Domestic Assets	Currency to GDP
	Real GDP	WPI	Money Supply		
1	2	3	4	5	6
1936-40	1.3	4.3	9.6	39.1	8.0
1941-45	1.0	18.1	37.8	95.4	12.5

Source: Jadhav *et al*, 2003.

¹² Reserve requirements were initially conceived as a means to safeguard the interest of depositors. Thus, originally, under Section 42(1) of the Reserve Bank of India Act, 1934, scheduled banks were required to maintain with the Reserve Bank a minimum cash reserve of five per cent of their demand liabilities and two per cent of their time liabilities.

to open market operations (OMO) to enable banks to switch from long-dated Government securities to short and medium dated ones. Notably, the operations of these instruments were mainly triggered by Government's requirements, with the needs of the market being subsidiary. In fact, the need to keep stable interest rates also had to facilitate the pegged exchange rate regime and promote sterling inflows. The Reserve Bank also advised commercial banks to observe restraint in lending for speculative purposes such as advances against shares, bullion and foodgrains since World War II.

Second Phase: Fiscal Dominance and Monetary Accommodation (1950 to 1991)

7.47 During the post-Independence period, the Reserve Bank was nationalised and it assumed comprehensive and effective powers of control of the entire banking system after the passage of the Banking Companies Act, 1949 (renamed as Banking Regulation Act, 1949 in 1966). In the foundation phase of central banking in India the monetary fiscal interface evolved in the context of the emerging role of the Reserve Bank in four different aspects. First, was the reactivation of the Reserve Bank's monetary policy, particularly from the mid-1950s, which while anticipating or reacting to short-term pressures, had to be sensitive to the needs of the planning process. Second was the regulation of commercial banks and the promotion of their orderly development. Third and fourth were the Reserve Bank's involvement in promoting the institutionalisation of credit to agriculture and industry in the 1960s and 1970s, respectively (Balachandran, 1998). The emergence of inflationary pressures in the 1970s in the context of supply shocks elicited a coordinated monetary fiscal policy response. The appearance of deficit in the revenue account of the Government for the first time in 1979-80 and widening of the same phenomenon during the subsequent period coupled with the increased reliance on money financing necessitated a re-evaluation of the monetary fiscal coordination framework in the mid-1980s.

Fiscal Activism and Plan Financing

7.48 With the gradual abatement of political and economic uncertainty after Independence, fiscal policy played a major role in the socio-economic development process through successive Five-Year Plans since 1950-51. In a nascent economy, where the income levels and, *ipso facto* financial savings were low, the fisc assumed the responsibility to

create the capital base in the form of infrastructure and promote rural development. Financing of capital formation had to be undertaken on non-commercial terms in view of the long gestation periods and high capital-output ratios associated with such projects. The State apparatus was, therefore, used to gain commensurate command over the resources of the economy. The overall investment target set out in the plans provided the backdrop for monetary policy formulation, which was increasingly viewed as an instrument to achieve certain national goals, including the responsibility to deepen the financial system. The First Five Year Plan document envisaged 'judicious credit creation somewhat in anticipation of the increase in production and availability of genuine savings' (Gol, 1951). Monetary growth was moderate in the early 1950s. There was no undue pressure on monetary policy to maintain price stability since the large foreign exchange reserves enabled any adverse impact of inflation to be countered through heavy imports and better capacity utilisation in the industrial sector.

7.49 Doubling of the plan outlay in the Second Plan and subsequent increases in successive Plans necessitated generation of resources both internally as well as from sources outside the Government to meet the financing needs. Deficit financing was used by the Government as a means to cover the gap between ambitious investment plans and the low levels of savings in an underdeveloped economy for fuller utilisation of productive capacities which was consistent with the prevailing Keynesian orthodoxy. With increasing dependence on market borrowings and deficit financing to meet the financing requirement of successive plans since the mid-1950s, the conduct of monetary policy came to be governed by the size and mode of financing the fiscal deficit. Thus, monetary policy had to reconcile the objective of price stability within the broader context of deficit-financed growth envisaged under the plans.

Deficit financing – Impact on Monetary Policy

7.50 While the provisions of the Reserve Bank of India Act, 1934 authorises the Reserve Bank to grant advances repayable not later than three months from the date of advance, these provisions are enabling and not mandatory. These advances, in principle, were to bridge the temporary mismatches in the Government's receipts and expenditures and were really intended as tools for Government's cash management. However, in practice, the tool of deficit financing became a permanent source of financing

the Government budget deficit through automatic creation of *ad hoc* Treasury Bills whenever Government's balances with the Reserve Bank fell below the minimum stipulations (Box VII.2). Thus, although the *ad hoc* Treasury Bills had a 91-day tenor and were meant to finance Government's temporary needs, the practice of replacing maturing bills with fresh creation of *ad hoc* Treasury Bills resulted in deficit financing becoming a tool of permanent and virtually unlimited source of financing for the Government. This led to the Reserve Bank's loss of control over base money creation.

7.51 The availability of unlimited resources by way of credit from the Reserve Bank through the issuance of *ad hoc* Treasury Bills undermined the financial discipline of the Central Government (Table 7.4). Easy recourse to credit from the Reserve Bank not only eroded fiscal prudence at the Centre, but also enabled State Governments to run overdrafts (ODs), a substantial part of which was taken over by the Centre against fresh loans from the Reserve Bank (Balachandran, 1998).

7.52 Apart from the routine credit to top the Central Government's stipulated minimum balances, the

Table 7.4: Reserve Bank's Financing of Budget Deficit

(Rupees crore)

Period	<i>Ad hocs</i> created	<i>Ad hocs</i> Cancelled	Net <i>ad hocs</i> Created	<i>Ad hocs</i> Funded	Net after funding
1	2	3	4	5	6
I Plan	350	10	250	0	250
II Plan	1,975	1,030	945	500	445
III Plan	2,430	1,630	800	275	525

Source: G.Balachandran, 'The Reserve Bank of India, 1951-67', 1998.

Reserve Bank also created additional *ad hoc* Treasury Bills at the instance of the Government whenever the latter was required to hold larger cash balances. As there was unbridled expansion of budget deficits and the Government was not in a position to redeem the *ad hoc* Treasury Bills, the Reserve Bank was saddled with a large volume of these Treasury Bills in its Issue Department balance sheet. Hence, the *ad hoc* Treasury Bills were periodically funded into dated securities from July 1958 under the condition that the Reserve Bank would transfer higher profits earned on account of additional interest income from such conversions.

Box VII.2 *Ad hoc* Treasury Bills

The origin of *ad hoc* Treasury Bills in India dated back to World War II when they were issued by the Government of India to the Reserve Bank mainly in connection with the temporary financing of sterling debt repatriation. Since the Government's receipts through rupee loans did not always coincide with the repatriation of sterling debt, *ad hocs* were issued to provide the Reserve Bank with alternative eligible rupee assets. The *ad hocs* were retired when the Government's dated securities programme was subsequently undertaken. *Ad hocs* were also created in 1948-49 to replace sterling securities transferred to the U.K. Government in terms of the sterling balance agreement of 1948.

The origins of *ad hoc* Treasury Bills to finance Government deficit can be traced to the First Five Year Plan, although their volume was to be limited to the extent that it was non-inflationary. However, an operational arrangement in early 1955, which was reached between the Government of India and the Reserve Bank of India, enabled automatic creation of *ad hoc* Treasury Bills to restore Central Government's cash balance to the minimum stipulated level whenever there was excess cash drawn down. Thus, *ad hoc* Treasury Bills were being automatically created when the Central Government's actual balances fell short of the stipulated minimum level (Rs.50 crore on Fridays and Rs.4 crore on other days at that time) but were cancelled on replenishment of the balances up to the stipulated level.

Although this was deemed to be a temporary arrangement, from 1958 the *ad hoc* Treasury Bill financing as well as their funding into dated securities had become a regular feature. 'Funding', in general, refers to the consolidation of public debt by issue of 'funded' debt, *i.e.*, long-dated or undated securities' in place of 'floating' debt, *i.e.*, Treasury Bills and ways and means advances (RBI, 1983). The problem of automatic monetisation was compounded as large amounts of *ad hocs* were rolled over and from 1982 were converted to undated non-marketable special securities carrying a discount rate of 4.6 per cent. Initially, the Government's conversion of the outstanding *ad hocs* into dated securities was in the range of Rs.50-100 crore a year till 1981. Since 1982 there was not only a spurt in such conversions but also a fundamental change in the basic characteristics. While the earlier conversions were in the form of Government dated securities with specific maturities at varying interest rates, after 1982 the conversions were into 4.6 per cent special securities with no specific date for redemption and which were exclusively taken up by the Reserve Bank. As at end-March 1994, the outstanding amount of special securities held by the Reserve Bank under such conversions was Rs.71,000 crore (RBI, 1994). The outstanding amount of *ad hoc* Treasury Bills converted to special securities was Rs. 1,21,818 crore as at end-March 1997 (RBI, 2005a).

7.53 Monetisation of deficits was not restricted to the amounts raised by the Government through *ad hoc* Treasury Bills but also through subscription to primary issuances of Government securities. Plan financing targets for market borrowings increased from the Second Plan requiring the Reserve Bank to step in to subscribe to the issuances of Government securities not absorbed by the market. The Reserve Bank preferred to support the Government's primary issuance rather than accommodate the Government through deficit financing. Accommodating the Government through subscription to primary issuances, however, constrained the operation of monetary policy as it entailed postponement of increases in the Bank Rate in order to control cost of Government borrowings. Use of open market operations, the other general instrument of credit control available with the Reserve Bank during this period, was also limited in the absence of a broad-based market for Government securities. As signs of a credit boom in the private sector surfaced during the mid-1950s, the Reserve Bank had to arm itself with an additional tool of monetary control. The Reserve Bank of India (Amendment) Act, 1956, thus, empowered the Reserve Bank to vary the cash reserve ratio (stipulated proportion of balances to be maintained by banks with the Reserve Bank relative to their net demand and time liabilities), thereby enabling flexibility in the operation of this monetary policy instrument. Prior to this amendment, the Reserve Bank had no power to vary commercial banks' reserve requirements which were fixed at five per cent of demand liabilities and two per cent of time liabilities. The adoption of variable reserve requirements assumes importance in the light of the simultaneous switch to a minimum reserve system from a proportional reserve system¹³. Although the Reserve Bank was vested with adequate powers to employ Selective Credit Control as an instrument in 1949 it operated this tool systematically only after 1956 for regulating the bank advances to essential commodities,

thereby curbing inflationary pressures. Despite these measures, the manoeuvrability in monetary policy was constrained by the depletion of reserves and the unconstrained recourse of deficit financing.

Economic Shocks and Credit Rationing to Banks

7.54 The Reserve Bank, which initially played a passive role in the resource assumptions of the plans, increasingly became proactive in the 1960s, urging the planners to adopt more realistic growth and resource mobilisation targets. This resulted in the formulation of a monetary budget for the Third Plan. The spurt in Government expenditure in the first half of the 1960s to meet defence and developmental needs, the emergence of food imbalances which was only partially offset by imports, and price-indexation of wages resulted in a sharp rise in inflationary pressures. The task of monetary policy formulation was, therefore, rendered more difficult. The Reserve Bank had to adopt a suitable strategy for tightening monetary policy without compromising on accommodation to the Government. Accordingly, the Reserve Bank tightened monetary policy during the first half of 1960s through a series of hikes in the Bank Rate and made refinance support to banks for extending credit to the private sector more restrictive so as to neutralise the monetary impact of Reserve Bank's credit to the Government. The Reserve Bank, therefore, imposed a 'quota-slab' system¹⁴ in 1960 which progressively raised the cost of banks' borrowing from the Reserve Bank. The increased cost of refinance under the quota-slab system, however, prompted the banks to obtain funds by undertaking outright sale of Government securities which did not affect their quota of refinance available at the Bank Rate.

7.55 In order to ensure that banks continue to hold Government securities, the Reserve Bank replaced the quota slab system with a system of net liquidity ratio (NLR)-based lending to the banks in 1964¹⁵.

¹³ Under the erstwhile proportional reserve system, for the purpose of note issue, gold coin, bullion and foreign securities were to constitute not less than 40 per cent of the total assets. Under the Reserve Bank of India (Amendment) Act, 1956 and the Reserve Bank of India (Second Amendment) Act, 1957, there is no ceiling on the amount of notes that can be issued by the Reserve Bank. However, the aggregate value of gold coin, bullion and foreign securities held with the Issue Department of the Reserve Bank should not at any time be less than Rs.200 crore, of which a minimum of Rs.115 crore should be in the form of gold.

¹⁴ 'Quota slab' was a system of graded lending rates on the Reserve Bank's refinance to the banks whereby borrowings within the quota were at Bank Rate and those above were charged different grades of penal rates. The 'quota' was linked to CRR balances maintained by the banks with the Reserve Bank.

¹⁵ Net Liquidity Ratio = [(Banks' Cash balances + Current Account Deposits with other banks + Balances with the Reserve Bank + Investments in Government and other approved securities) - (total borrowings from the Reserve Bank, State Bank of India and Industrial Development Bank of India)] / Aggregate demand and time liabilities. NLR-based refinance was discontinued in 1975 in order to regulate both the cost and availability of refinance more effectively.

Under this system, liquidation of Government securities by banks and their recourse to borrowings from the Reserve Bank/ other designated institutions would reduce their NLR below the stipulated level and progressively raise the rate of interest on the entire quantum of refinance support for the banks. As the NLR-based refinance discouraged the banks from liquidating their Government security holdings, it stabilised the Government securities market. Furthermore, since NLR netted out all borrowings of a bank from designated institutions for the purpose of availing refinance from the Reserve Bank, it was a stringent monetary policy tool.

7.56 An abiding responsibility of the Reserve Bank as a central bank has been to monitor the liquidity position of banks. Accordingly, besides the CRR (in vogue from 1935), the Statutory Liquidity Ratio (SLR) became operative under Banking Regulation Act, 1949 as a key prudential instrument whereby the Reserve Bank directed the banks to maintain a stipulated ratio of 'liquid assets' relative to their demand and time liabilities so as to ensure availability of sufficient liquid resources for meeting a drain on their resources should it arise, thereby preserving stability in the banking system. Originally, 'liquid assets' of banks that were to be reckoned under SLR included their holdings of cash, gold, entire amount of balances with the Reserve Bank and current account balances with other banks and unencumbered Government and other approved securities. Since operation of CRR as a variable instrument from 1960, the banks showed a tendency to liquidate their Government securities to fulfill higher CRR requirements. While this would enable banks to keep higher CRR, this would only alter the composition of their SLR portfolio with a decline in holdings of Government securities and a corresponding increase in balances with the Reserve Bank. In order to discourage the practice followed by banks liquidating their Government securities to fulfill higher reserve requirements and stabilise Government securities market, the Banking Regulation Act, 1949 was amended in 1962 to exclude the balances maintained under CRR from being reckoned under SLR. The stipulated level of minimum SLR was also raised from 20 per cent to 25 per cent of demand and time liabilities of banks to strengthen their liquidity. Consequent upon nationalisation of banks and the spread of the banking system from 1969, the SLR, through gradual hikes up to the early 1990s, became essentially an instrument to secure an increasing captive investor base for Government securities as the Government's fiscal deficit expanded (Box VII.3).

The Reserve Bank also promoted channelising of credit flow into certain preferred sectors such as export, small-scale industries and defence sectors.

7.57 The Reserve Bank had to contend with the domestic inflationary fallout of the rupee's devaluation in 1966 and mitigate the impact of severe industrial recession triggered by import compression. The Government also played a proactive role in containing inflationary pressures through a system of administered prices. The Government's food price policy through this system, operative since the World War II, became a tool of controlling increases in food prices. The pricing policy of foodgrains alternated between control, decontrol and partial control up to the Third Plan depending upon harvest conditions and pressures on food prices. The establishment of Agricultural Prices Commission and Food Corporation of India in 1965 started an administrative procurement and issue price system in foodgrains to address, *inter alia*, the need to raise agricultural production as also to give relief to the consumers. The role of Government in controlling inflation widened with the extension of its administered price system to non-agricultural commodities since the Fourth Plan through State participation and control in regard to both wholesale and retail trade. This reduced the scope of automatic linkages between cost and price increases, or between price and wage increases, that exist in the economy. The control was in operation particularly in consumer goods and industrial raw materials which would have a significant bearing on the general cost structure in the economy. Administered prices, therefore, were not restricted to agricultural commodities but also to industrial goods such as cement and steel (Ghosh, 1974).

Social Control and Credit Planning

7.58 With the fiscal policy laying greater emphasis on social justice and alleviating poverty in the 1970s, monetary policy shifted from 'physical planning' in the financial sector to 'credit planning' in terms of direct lending and credit rationing as a consequence of bank nationalisation in 1969 and public sector involvement in several financial institutions. These structural and organisational changes in the financial system enabled the public sector to draw increasingly on the financial resources of the economy. This altered the nature of relationship between the Reserve Bank and the Government, with the former playing a more limited role in the structure of the financial system and use of the interest rate as monetary policy instrument.

Box VII.3

Statutory Liquidity Ratio: Genesis and Functions

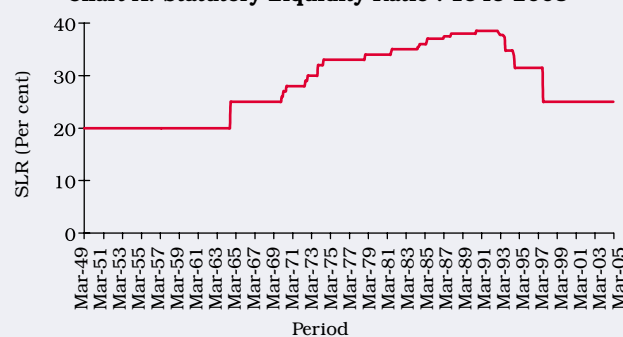
Commercial banks in India have traditionally been subject to two types of reserve requirements, viz., the CRR and the SLR. While the former is a stipulation under Section 42 of the Reserve Bank of India Act, 1934, the latter is specified in Section 24 of the Banking Regulation Act, 1949 under which all banking companies are required to hold a minimum stipulated proportion of their demand and time liabilities in India in the form of cash, gold, balances with the Reserve Bank, current account balances with other banks, money at call and short notice and unencumbered Government and other approved securities. The primary objective of the stipulation of liquidity ratio was to ensure that banks hold sufficient liquid reserves to meet any unexpected drain. Thus, it sought to impose financial discipline on banks and provide some protection to depositors. Commercial Paper (CP) being short-term money market instrument, could have qualified as a 'liquid asset'. However, paucity of good quality CP, necessitated inclusion of Government securities, even though they may have a medium to long-term tenor, in the definition of SLR as they have a gilt edged character and are the easiest stock to liquidate in a crisis (Balachandran, 1998).

Cash maintained with the Reserve Bank for the purpose of meeting CRR requirement formed part of the overall liquidity ratio until 1962. This enabled banks to liquidate their Government security holdings whenever the marginal reserve requirement was raised, thereby blunting the effectiveness of this instrument. During the early 1960s while average overall liquidity ratio continuously declined, the credit to deposit ratio increased, raising apprehensions of bank credit outpacing deposit growth and eroding the liquidity position of the banks. The Banking Regulation Act was, therefore, amended in 1962, raising the minimum SLR of banks from 20 per cent to 25 per cent of their demand and time liabilities in India. The SLR to be maintained was made exclusive of balances maintained for the purpose of meeting cash reserve ratio requirements. Any balances in excess of the prevailing CRR requirements could, however,

be included in the computation of SLR. This amendment ensured that with every increase in CRR, the overall liquidity obligations were correspondingly raised. Banks were required to comply with this requirement from September 16, 1964. The amendment of the Banking Regulation Act in 1983 empowered the Reserve Bank to increase SLR of banks upto 40 per cent.

Although SLR was initially conceived as a measure of securing the liquidity of banks, it also had implication for their ability to expand credit to the private sector. In the light of the monetary expansion triggered by the Reserve Bank's unbridled accommodation of the Government and the need to restrain the pace of expansion of bank credit, the SLR instrument became a tool for mobilising greater resources for the Government from the banks. The SLR was raised gradually from 25 per cent in 1970 to 38.5 per cent in 1990 (Chart A). This served to increase the captive investor base for Government securities, thereby reducing the pressure on the Reserve Bank to absorb these securities. However, the incidence of macroeconomic crisis in the early 1990s and the emphasis of the role of SLR as a prudential instrument rather than as an instrument for accommodating fiscal deficit led to scaling down of the SLR back to the statutory minimum of 25 per cent in October, 1997.

Chart A: Statutory Liquidity Ratio : 1949-2005



7.59 Amidst the inflationary pressures triggered by the oil shock of 1973 fiscal policy undertook stringent measures to reduce disposable income. In a bid to prevent large fluctuations in prices of wheat, the Government nationalised wholesale trade in wheat in 1973 and made procurement price and issue price uniform throughout the country. Over the years, in addition to the commitment towards a large volume of developmental expenditure, the Government's expenditure widened to include rising subsidies. Increase in net transfers to the States on the basis of the recommendation of the Seventh Finance Commission, large interest payments on growing debt, and downward rigidity in prices further

contributed to increased current expenditure. Current revenues, on the other hand, were less buoyant, leading to the emergence of structural imbalances in the form of sizeable revenue deficits in the Central Government budget from 1979-80 and in the combined finances of the Centre and the States since 1982-83.

7.60 The single most important factor influencing monetary policy in the 1970s and the 1980s was the phenomenal growth in reserve money, the major source of which was Reserve Bank's credit to the Government (RBI, 1985). With little control over this variable, monetary policy focused on restricting overall liquidity with a view to containing monetary

expansion and to stem inflationary pressures which built up steadily during the 1970s. The SLR was frequently used as a tool to minimise the impact of fiscal operations on the growth of reserve money as it diverted bank credit away from “general uses” towards funding the Government. The Reserve Bank raised the SLR in three instalments from 25 per cent to 28 per cent in 1970 in order to secure larger subscriptions from banks for Government securities. Since then the SLR was revised upwards periodically and reached 35 per cent in December 1978. The Reserve Bank supplemented the SLR increases with increases in CRR from 1973 to neutralise the effect on base money creation brought out by its accommodation to the Government, thereby restricting the growth in money supply. Thus, a substantial volume of credit was pre-empted from the banks at relatively low interest rates. In fact, as the interest rate on Treasury Bills was left unchanged at 4.6 per cent from 1974 the real interest rate was negative for a large part of the 1970s. As a result, the banks which subscribed to these Treasury Bills rediscounted them with the Reserve Bank at the earliest opportunity, leaving the Reserve Bank with a substantial stock of these Treasury Bills. Moreover, the *ad hoc* Treasury Bills which are essentially short-term in nature became a long-term source of financing the budget, as the volume of outstanding Treasury Bills could not be retired due to the continuance of budgetary deficits. Interest rates on Government securities were, however, raised sharply during the period 1979-81 in response to a spurt in inflation rates on account of the second oil shock of the decade and drought. In order to contain inflationary pressures, the Reserve Bank also raised the Bank Rate periodically during the 1970s.

Recognition of the Problem of Fiscal Profligacy and the Transition to Monetary Targeting

7.61 Despite increases in tax/GDP ratio over the years, the revenue deficit which emerged in 1979-80 in the Centre's Budget continued to enlarge in the 1980s, raising concerns over the rising public debt and interest payments and the consequent resource constraint for meeting developmental needs. Strong inflationary pressures witnessed during the previous decade led the Government to pursue a developmental strategy consistent with price stability

in the Sixth Plan. However, there was a series of upward revision in administered prices in 1984-85 and 1985-86 in order to meet cost escalations, promote production, restrict consumption of certain commodities, reduce the magnitude of subsidies and to strengthen mobilisation of resources for financing development plans.

7.62 Removal of infrastructural bottlenecks and increasing productivity were given importance in the Seventh Plan. In its discussion paper on ‘Long-Term Fiscal Policy’ (LTFP) presented to the Parliament in December 1985, the Central Government recognised the deteriorating fiscal position as the most important challenge of the 1980s and set out specific targets and policies for achieving fiscal turnaround. The measures implemented under LTFP, however, gave only a temporary reprieve and the fiscal situation started to deteriorate from 1989-90 as a result of the unbridled growth in public expenditure and insipid performance of the public sector enterprises. With near stagnant gross domestic savings and financial savings relative to GDP at 18.4 per cent and 6.4 per cent, respectively, in the first half of 1980s and the policy decision to raise interest rates on Government securities in line with the recommendation of the Chakravarty Committee¹⁶ the cost of borrowing rose steadily throughout the 1980s. The increase in coupon rates of dated securities and the increase in the borrowing cost of small savings and provident funds led to a sharp increase in interest burden during the second half of the 1980s, pre-empting an increasing proportion of current receipts.

7.63 The steady increase in market borrowings witnessed in the 1980s was accompanied by an increase in Reserve Bank's support to such borrowings. Recognising that an excessive budget deficit would unduly shift the burden of controlling inflation to monetary policy, the Seventh Plan postulated a non-inflationary fiscal policy by fixing deficit financing within safe limits (Malhotra, 1985). Reflecting this, the net Reserve Bank credit to Government as a proportion of reserve money, which reached a peak of 103.3 per cent in 1986-87, declined to 95.0 per cent by the close of the decade.

7.64 Expressing concern over the increased recourse to deficit financing, the Chakravarty Committee emphasised the need to ensure that the Reserve Bank's credit to the Government does not exceed

¹⁶ In order to conduct a comprehensive review of the functioning of the Indian monetary system and to suggest measures for improving the efficacy of monetary policy in the promotion of the basic plan objectives, the Committee to Review the Working of the Monetary System was set up by the Reserve Bank in 1982 (Chairman: Sukhamoy Chakravarty). The Committee submitted its report in 1985.

the safe limit for expansion of reserve money from the point of achieving price stability. The Committee noted that 'a feasible approach to evolving a policy framework for ensuring a desired rate of growth of reserve money and money supply involves a certain degree of coordination between the Government and the Reserve Bank' (RBI, 1985). The Committee recommended that the monetary authority may embark on a strategy of monetary targeting with feedback employing broad money (M_3) as the target variable. This strategy would bind the Reserve Bank and the Central Government in a common effort to achieve the desired rate of growth in money supply, taking into account the expected rate of growth of the real sector and the tolerable increase in price level. The Committee also recommended that an aggregate monetary budget be formulated, both annually and for the period covered by the Five Year Plans, in order to achieve reasonable coordination between production and credit plans. In order to eliminate the likelihood of any significant monetisation of debt and consequent increase in Reserve Bank credit to the Government beyond agreed limits, the Committee proposed an upward revision of yields to be coupled with shortening of maturities of Government securities.

7.65 In accordance with the recommendations of the Chakravarty Committee, the Central Government set out the 'anticipated net Reserve Bank credit to the Government' as a memorandum item in its Budget since 1985-86 so as to gauge

accurately the extent of monetisation of the Budget thereby bringing into sharper focus the relevance of the monetary impact of fiscal operations. Banks were also advised in 1985-86 to eschew volatile movements in their cash balances with the Reserve Bank and in their holdings of Treasury Bills as these movements generate instability in the net Reserve Bank credit to the Government.

7.66 The monetary policy strategy shifted from the credit planning approach to a monetary targeting approach from 1986-87 in accordance with the Chakravarty Committee's recommendation. This involved greater coordination between the Reserve Bank and the Central Government as the exercise of setting monetary targets was taken up immediately after the presentation of the Union Budget when the two vital inputs, *viz.*, the magnitude of budgetary deficit and the level of market borrowing programme were made available.

7.67 The sharp deterioration in the fiscal situation during the late 1980s raised concerns over the sustainability of the fiscal policy. Consequent to this development, analytical interpretation of the deficit incurred by the Government and financing thereof was warranted (Rangarajan, *et al*, 1989). Accordingly, the concept of gross fiscal deficit (GFD) reflecting the net borrowing requirement of the Government was introduced. Subsequently, Central Government in its Economic Survey and the Reserve Bank in its Annual Report made extensive use of the concept of fiscal deficit and its financing (Box.VII.4).

Box VII.4

Measurement of the Fiscal Gap – Budget Deficit, Monetised Deficit and Fiscal Deficit

The fiscal gap up to the mid-1980s was measured in terms of 'budget deficit' which referred mainly to the changes in the amount of *ad hoc* Treasury Bills and other 91-day Treasury Bills outstanding and the changes in the Central Government's deposit balances with the Reserve Bank and its other cash balances. While the budget deficit, as was defined at that time, severely understated the monetary impact of fiscal operations since it did not include Reserve Bank's investment in dated securities, there was also some overstatement of the monetary impact to the extent that the Treasury Bills were held by the banks. In view of this, the Chakravarty Committee emphasised the need to have a measure for the full extent of Government's reliance on Reserve Bank so as to quantify the monetary impact of fiscal operations. Since a sizeable part of the new issues of Government securities was taken up by the Reserve Bank in the

absence of adequate response from the market and subscriptions to dated securities had as much effect on the reserve money growth as purchase of Treasury Bills, the Committee recommended that the net changes in the Reserve Bank's holding of dated securities and Treasury Bills after adjusting the Government deposits with the Reserve Bank, *i.e.*, the net RBI credit to the Government may be taken to measure the extent of monetisation of Government deficit. The Committee also recommended that the fiscal gap be measured in terms of fiscal deficit which would measure the net borrowing requirement of the Government. The Economic Survey of the Government of India for 1989-90 brought out a measure of the fiscal gap in terms of the difference between Government expenditure and net lending on the one hand and current revenue and grants on the other. This was the first official recognition of the concept of fiscal deficit.

Debt Management *versus* Monetary Management

7.68 During the initial years, the Reserve Bank's investments in the Central and State Government securities were subject to the condition that the total amount would not exceed the aggregate of share capital, reserve funds and three-fifths of the deposit liabilities of the Reserve Bank and a stipulated ratio for composition of short and long dated securities. The fixing of limits on the Reserve Bank's holdings of Government paper was, to a large extent, a lesson from international experience, whereby central banks across the world were forced to provide unlimited accommodation to their Governments' financing requirements from the First World War up to the Great Depression of the 1930s. The restrictions were subsequently removed and provided flexibility to the Reserve Bank in the conduct of open market operations. During the years of World War II, open market operations became an integral part of public debt management to maintain stability of Government security prices and facilitate maximum subscription to the Government issuances.

7.69 Although substantial contribution to the Government's borrowing programme came from non-bank sources such as princely States, big industrialists and businessmen during the formative years, they used to dispose them off to the banks subsequently. The Central Government's net borrowing during 1945-1951 was negative and the Reserve Bank undertook open market purchases of Government securities so as to mitigate tight monetary conditions and banks were advised to maintain a more balanced maturity distribution and desist from the tendency to hold only long-dated securities. During the initial years of planning, the Government's market borrowing programme was insufficient to satisfy the market's appetite and the Reserve Bank had to resort to sale of securities from its stock. This soon reversed during the Second Plan, with a progressive decline in the public's contribution to Government's borrowing.

7.70 The captive market for Government securities resulting from SLR requirement applicable to banks and similar statutory provisions governing investment of funds by financial institutions and insurance companies facilitated the floatation of debt at relatively low interest rates. With the Government borrowings showing a secular increase since the mid-1950s and captive investors reluctant to

subscribe to securities beyond their statutory requirements, the Reserve Bank had to step in to absorb the residual issues.

7.71 The substantial hikes in coupon rates, particularly for long-dated securities since the first half of the 1980s increased the demand for these securities. This coupled with the stricter enforcement of SLR maintenance on a daily basis ensured higher contributions from the banking sector to the Government's market borrowings. Towards the close of the decade, however, non-market sources of raising funds, such as small savings and provident funds gained importance, relegating internal debt management policy to the background (Tarapore, 1990).

7.72 The fairly underdeveloped state of the Government securities market till the early 1990s was a critical hindrance for a successful coordination between monetary and debt management. With the interest rates of Government securities administered and largely uncompetitive, open market operations served more as an adjunct of fiscal policy rather than as a monetary instrument.

Inter-relationship between Monetary, Fiscal and Debt Management Policies – 1935-1991

7.73 The basic philosophy which underlined the monetary-fiscal relationship during the pre-reform period lay 'not in the independence of the Reserve Bank but the importance of a basic accord to ensure that monetary and fiscal policies work in harmony and pull in the same direction'¹⁷. Accordingly when the fisc was dominant, the Reserve Bank's operations had to subserve the interests of the former. While the Reserve Bank's monetary and debt management policy stance had to be generally dovetailed with the fiscal policy there were, however, some episodes of conflicts as well as coordination.

Episodes of Policy Conflicts

7.74 As early as in 1957, the Reserve Bank had raised concerns over its accommodation of the Government through *ad hoc*s when it drew the attention of the Government to the fact that the creation of *ad hoc* Treasury Bills to maintain the Government's closing balance each week had become a 'merely ...mechanical process' with no checks on the Government's ability to spend without

¹⁷ Statement made by former Reserve Bank Governor L.K.Jha, as quoted in Balachandran, 1998 p.730.

regard to the available resources. According to the Reserve Bank, ‘...with an automatic expansion of currency at the will of Government, the Bank ... is not really in a position to discharge the responsibility vested in it by statute of regulating the issue of banknotes... with a view to securing monetary stability in India’ (Balachandran, 1998). Although the Government assured the Reserve Bank that the latter would be involved in the discussions of the Government’s borrowing programme and the ways and means requirements, the absence of any formal checks on the issue of *ad hoc*s considerably weakened the Reserve Bank’s ability to influence their outcome.

7.75 The large size of the Government borrowings often posed problems for the monetary authority in effecting changes in the interest rates as the Government was averse to higher interest rates. This forced the Reserve Bank to adopt other measures without directly raising the cost of borrowing for the Government. For instance, faced with inflationary pressures, the Reserve Bank had to tighten its monetary policy by imposing an incremental CRR in 1960 although it wanted to raise the Bank Rate. This measure, however, could not moderate the expansion of bank credit as banks met this requirement by liquidating their holding of Government securities, thereby leading to a slump in the Government securities market (Balachandran, *op cit*). It was not until 1963 that the Reserve Bank could raise Bank Rate by 50 basis points. Thus, the Reserve Bank’s freedom to choose the monetary tool it wanted to employ was, to some extent, compromised.

7.76 Moreover, during the 1960s, the Reserve Bank’s OMOs increasingly threatened to undermine its monetary policy rather than support it. During 1960-66, the Reserve Bank raised its Bank Rate from 4 per cent to 6 per cent and initiated a series of measures to regulate accommodation to banks so as to restrict monetary expansion. However, to stabilise market conditions, the Reserve Bank became a net purchaser of Government securities through its OMOs, thereby infusing liquidity into the system (Balachandran, *op cit*).

Episodes of Coordination

7.77 While the primary concern of the fiscal policy was to stimulate growth, the Government did not refrain from adopting strong measures to tackle inflation in the mid-1970s. The Government undertook measures to curtail expenditure, limit disposable income, restrict dividend payments and impose compulsory saving schemes on tax payers in the high income bracket¹⁸. The Government also raised the rates of union excise duties and introduced interest tax of 7 per cent on the gross interest earned by scheduled banks on their domestic loans and advances. With the easing of inflationary conditions the interest tax was withdrawn in 1978 but was reintroduced in 1980 in response to fresh inflationary pressures emanating from the second oil shock. As use of interest tax as a long-term resource augmenting instrument would considerably reduce the effect of monetary policy in responding to the fast changing conditions (Singh, 1982) the Government withdrew the tax in 1985.

7.78 The monetary measures undertaken during this period included raising the Bank Rate, deposit rates, lending rates and rediscount rates. Furthermore, selective credit controls were imposed on sensitive commodities such as foodgrains, cotton, oilseeds and oil, sugar and textiles to discourage the use of bank credit for speculative hoarding of these commodities. Thus, while monetary policy generally played an accommodative role to fiscal policy, there was a close coordination between the two policies at times when drastic monetary control measures were required. This period also signified the emergence of the interest rate as an instrument of credit policy, better inventory control and the discretionary element in Reserve Bank lending to banks. The coordination between monetary and fiscal policies was further strengthened in the wake of the macroeconomic crisis of 1991 and the policy response to it.

Third Phase: Macroeconomic Crisis, Reforms and their Impact

Core Problem in the Macroeconomic Crisis of 1991

7.79 The higher growth performance of the Indian economy in the 1980s tapered in the early 1990s as

¹⁸ The Additional Emoluments (Compulsory Deposit) Ordinance, 1974 provided for compulsory deposit of the entire additional wages and salaries and half of the additional dearness allowance, which were to be frozen with the Reserve Bank and repaid in five annual instalments after the expiry of the period of deposit. The Companies (Temporary Restrictions on Dividends) Ordinance, 1974 provided for limiting the after-tax profits distributed by companies and the third ordinance, a compulsory deposit scheme was introduced to cover all income tax payers with a net annual income exceeding Rs.15,000. These deposits were also to be frozen with the Reserve Bank and repaid in five annual instalments commencing from the expiry of two years from the end of the financial year in which the deposit was made.

mounting and persistent fiscal deficits spilled over to the external sector and the large current account deficit in the balance of payments became unsustainable with foreign exchange reserves dipping below US\$ 1 billion on July 12, 1991. Furthermore, the unbridled monetary accommodation of the fiscal deficits and the resultant monetary expansion fuelled double digit inflation. These macroeconomic imbalances, accentuated by the impact of the global economic shock, triggered an unprecedented external payment crisis.

7.80 The high fiscal deficits, particularly revenue deficits of the Central Government, had set up a 'vicious circle of increased borrowing and attempts to force the banks to lend at below-market rates' (RBI, 1992). Fiscal dominance constrained the conduct of monetary policy in five ways. First, the SLR, which was originally intended as a prudential instrument for banks to undertake risk-free investment, became a vehicle for pre-empting resources of a captive banking system for the Government. The SLR was raised from 25 per cent of gross demand and time liabilities in 1964 to 38.5 per cent of net demand and time liabilities (NDTL) in September 1990. Second, to the extent the banking system's resources fell short of the Government's increasing requirement, the Reserve Bank monetised the fiscal deficits with the ratio of monetisation to GDP nearly doubling from 1.1 per cent during the 1970s to 2.1 per cent in the 1980s. Third, by the end of the 1980s a fiscal-monetary-inflation nexus was becoming increasingly evident whereby excessive monetary expansion on account of monetisation of fiscal deficits fed into inflation, which in turn, led to an increase in the expenditures of the Government greater than its revenue mobilisation, thereby widening the fiscal deficits further. Fourth, with the compulsion of making available larger resources for the Government, the Reserve Bank had to mitigate the monetary impact of the fiscal deficits by impounding the resources that the banks could have extended to the commercial sector through periodic hikes in the CRR from 3 per cent of NDTL in September 1964 to 15 per cent in July 1989. Finally, the need to contain the interest burden of public debt necessitated a regime of administered interest rates which blunted the interest rate channel of monetary policy transmission mechanism.

Crisis Resolution Strategy and Relaxation of Fiscal Constraint on Monetary Policy – 1991-92 to 1993-94

7.81 The incidence of macroeconomic crisis turned to be a blessing in disguise for two reasons. First, it

gave due recognition to the core problem of escalating fiscal deficit which hindered an appropriate monetary fiscal interface for sustaining economic growth and applying brakes in the emerging high inflationary expectations. Second, the crisis created an exigency and elicited strong and decisive coordinated response on the part of the Government and the Reserve Bank to charter a strong reversal of *hitherto* followed policies. In fact, it has been argued that 'the uniqueness of 1991 lies in the fact that the Government used the opportunity created by the crisis to push through reforms that had little to do with the crisis itself' (NCAER, 2001).

7.82 The Government and the Reserve Bank pursued jointly a crisis resolution strategy imparting a new direction to the monetary fiscal interface, whereby fiscal policy for the first time assigned due importance to monetary management. In pursuance of this strategy, a sharp correction in fiscal deficit was implemented in 1991-92 and fiscal consolidation was continued by lowering gross fiscal deficit relative to GDP through expenditure compression measures and by taking substantially lower recourse to monetisation during 1990-91 to 1996-97. Notably the revenue deficit was also brought down by the Central Government during this period. The control over the budgetary disequilibrium and the debt of the Central Government relaxed the extent of fiscal dominance in monetary policy formulation and facilitated the Reserve Bank in bringing down CRR and SLR, in line with the recommendations of the Committee on the Financial System (Chairman: M. Narasimham, 1991), thereby freeing resources of the banking system for the commercial sector. The Reserve Bank also undertook a two-step downward adjustment of the exchange rate of rupee in July 1991 and introduced a dual exchange rate system in March 1992 to maintain competitiveness in exports. It also undertook measures to contain imports so as to restore the precarious position of foreign exchange reserves. Measures were also taken to restrain demand and reign inflationary pressures. The Reserve Bank eventually migrated to a market-determined exchange rate system by March 1993. The coordinated strategy of stabilisation and reform initiatives facilitated a pick up in the real GDP growth by the mid-1990s.

Direct to Indirect Instruments of Monetary Control

7.83 The proactive fiscal compression measures, the decision to use SLR as a prudential instrument and its phased reduction along with CRR set the stage

Table 7.5: Monetary Policy Instruments

Instrument/ Decade	1930s-1940s	1950s	1960s	1970s	1980s	1990s	2000s and so far
1	2	3	4	5	6	7	8
CRR				✓	✓	✓	✓
SLR				✓	✓	✓	
Standing Facilities		✓	Based on Net liquidity	Sector specific refinance	Sector specific refinance	Sector specific refinance de-emphasised	
Selective Credit Controls	✓	✓	✓	✓	✓	Phased out	
Open Market Operations	✓	✓	✓	✓		Reactivated in 1992-93	✓
Bank Rate		✓	✓	✓		Reactivated	✓
Repos/Reverse Repos auctions under Liquidity Adjustment Facility (LAF)							✓
Market Stabilisation Scheme							✓

✓ Denotes active operation of the instrument.

for the Reserve Bank to reactivate its indirect instruments of monetary policy (Table 7.5). The Reserve Bank used the Bank Rate as an instrument of monetary policy after a decade, raising it by two percentage points in 1991 to contain inflationary pressures. As OMO could be calibrated to target liquidity in the financial system, the Reserve Bank reactivated OMO as an instrument of monetary management. This was enabled by a transition to a system of market determined interest rates in Government securities and the development of an adequate institutional framework in the Government securities market. The Reserve Bank also introduced repos to undertake temporary absorptions of liquidity by selling Government securities to the market and reversing the transaction after a predetermined period, initially kept as a fortnight to match the cycle of reserve management by the banks.

7.84 The active application of indirect instruments for mitigating inflationary pressures continued during 1993-1995 in the wake of unprecedented capital flows and the consequent higher monetary expansion. As the exchange-rate system became market-based and a transition was being made towards current account convertibility, the Reserve Bank had to absorb excess capital flows in the first round to keep the exchange rate stable. It had to divest Government securities from its portfolio through the open market and repo operations so as to sterilise the monetary impact of the capital inflows and to restrain inflationary pressures. Thus, the Reserve Bank's recourse to OMO sales acted as a

substitute to a hike in CRR and obviated the need to resort to an across-the-board monetary tightening.

Easing of the Fiscal Constraint on Monetary Policy: 1994-2003

7.85 An abiding joint objective of the fiscal and monetary policies during this phase was to make arrangements to delink fiscal deficit from automatic monetisation so as to improve the efficacy of monetary management. Operationalisation of landmark historic agreements between the Reserve Bank and the Central Government in September 1994 phased out the process of automatic monetisation of fiscal deficits through *ad hoc* Treasury Bills. While monetary policy objectives continued to focus on price stability and facilitating adequate credit availability for assisting economic growth, the emphasis between the two depended upon evolving conditions. Predicated upon the reduction of automatic monetisation, the fiscal dominance on monetary policy was getting toned down considerably. Although fiscal deficits started increasing from 1997-98, a steady financing support from the market as well as small savings/investments by the National Small Savings Fund (NSSF) helped in restraining monetisation of deficits. Monetary policy, on the other hand, had to face new challenges in the form of cycles of capital flows as well as credit off-take. Under a deregulated environment, the Reserve Bank had to shoulder the additional responsibility of maintaining interest rate conditions conducive to economic growth and minimising cost

of Government borrowings, while maintaining monetary and financial stability.

Phasing out Ad hoc Treasury Bills

7.86 In pursuance of the recommendations of the Chakravarty Committee, the Reserve Bank adopted a framework of monetary targeting with feedback since the mid-1980s, whereby the targeted growth of money supply was consistent with economic growth and an acceptable level of inflation. Adherence to the target implied a limit to the monetisation of Government deficit. Despite the proactive fiscal compression and Reserve Bank's efforts in moderating money supply during the early part of the 1990s, the continuance of the *ad hoc* Treasury Bills implied that there could not be an immediate check on the monetised deficit. In fact, there were instances when the fiscal deficit was large during the course of the year but had moderated by the year-end. Recognising

this, the Government and the Reserve Bank agreed in 1994 to a three-stage process of elimination of *ad hoc* Treasury Bills over a three-year period ending 1996-97 (Box VII.5).

7.87 As a result of the process of limiting the issuance of *ad hoc* Treasury Bills, the monetised deficit fell sharply during 1994-95 and for the first time in almost two decades monetary expansion during the year was not attributable to the monetisation of the fiscal deficit. The Central Government did not take recourse to *ad hoc* Treasury Bills during the greater part of the year resulting in a sharp decline in the extent of monetisation of Central Government's deficit through *ad hoc* Treasury Bills from 22.2 per cent as at end-March 1994 to 1.8 per cent as at end-March 1995. However, in the wake of a spurt in commercial credit offtake during 1995-96, despite a reduction in the Centre's fiscal deficit, the Reserve Bank had to undertake large scale

Box VII.5

Transition from Automatic Monetisation to Ways and Means Advances

Monetary policy had to contend with the imperatives of automatic monetisation through accommodating Government of India's *ad hoc* Treasury Bills up to March 1997. In order to check this unbridled automatic monetisation of Government deficits, the First Supplemental Agreement between the Reserve Bank and the Government of India on September 9, 1994 set out a system of limits for creation of *ad hocs* during the three-year period ending 1996-97 before being completely phased out from April 1997. It was agreed during 1994-95 that the net issue of *ad hoc* Treasury Bills would not exceed Rs.6,000 crore as end-of the year, whereas it would not exceed Rs.9,000 crore for more than 10 continuous working days during the year. It was further agreed that if the net issue of *ad hoc* Treasury Bills exceeded Rs.9,000 crore for more than the stipulated period, the Reserve Bank would automatically reduce the excess amount of the *ad hoc* Treasury Bills beyond the prescribed level by auctioning of Treasury Bills or floatation of Government of India dated securities. While the year-end limit was lowered further to Rs.5,000 crore for 1995-96 and 1996-97, the 'within-the-year' limit was retained at Rs.9,000 crore for these two years. It was agreed that a suitable daily monitoring mechanism would be put in place by the Reserve Bank so as to furnish an updated position of the net issue of *ad hoc* Treasury Bills to the Government. Accordingly, the Reserve Bank was responsible to advise the Government about the net increase in *ad hocs* on a daily basis and the number of consecutive working days when the net issue of *ad hocs* exceeded the stipulated level, while on receipt of this information the Government had to convey to the Reserve Bank its views and

instructions on regularisation or the extent to which market borrowings had to be raised.

In pursuance of the Second Supplemental Agreement between the Reserve Bank and the Government of India on March 6, 1997, the *ad hoc* Treasury Bills were completely phased out by funding *ad hoc* Treasury Bills as on end-March 1997 into special undated securities at an interest rate of 4.6 per cent on April 1997 and were replaced by a system Way and Means Advances (WMA) commencing April 1, 1997. In order to smoothen the transition, the proportion of auction 91-day Treasury Bills was increased. Under the WMA system the Reserve Bank has been extending short-term advances only up to the pre-announced half-yearly limits, at a mutually agreed rate of interest rate and fully payable within three months. The Government of India was also allowed to incur overdraft but at an interest rate higher than that of the WMA which, effective April 1, 1999 has been restricted to a maximum of 10 working days. Furthermore, it was also agreed that the Reserve Bank would trigger fresh floatation of Government securities whenever 75 per cent of the WMA limit was reached. It was also agreed that the Government's surplus cash balances with the Reserve Bank beyond an agreed level would be invested by it in its own paper. With the depletion of Government securities from the Reserve Bank's portfolio on account of its sterilisation operations, investment of Central Government's surplus cash balances in dated securities was temporarily suspended between April and June 2004 before being partially restored with a ceiling of Rs.10,000 crore (enhanced to Rs.20,000 crore in October 2004).

devolvement of Government securities to ensure completion of the market borrowing programme, thereby increasing monetisation. The conditions normalised subsequently and the net issuances of *ad hoc* Treasury Bills reverted to well below the ceiling by the second half of 1996-97, reflecting greater market participation (Table 7.6).

7.88 The discontinuance of *ad hoc* Treasury Bills and its replacement by WMA in 1997-98 turned out to be valuable in three respects. First, the shift from the administered interest rate (4.6 per cent) to market-determined interest rates made the Government more conscious of the true costs of its borrowing programme. While this was expected to impart fiscal discipline, the move towards bond financing induced conditions for increased private capital formation. Second, it freed monetary policy from the fiscal deficit's straitjacket. Third, it allowed interest rate to reflect the opportunity cost of holding money among financial and other assets so as to improve its allocative efficiency (Jalan, 2002).

Monetary Policy Strategy under Reduced Monetisation of Fiscal Deficits

7.89 The coordinated strategy of phasing out of the *ad hocs* and institution of fiscal discipline under WMA freed monetary management from the vestiges of uncontrolled direct monetisation of fiscal deficit. A Monitoring Group on Cash and Debt Management of the Central Government with representatives from the Central Government and the Reserve Bank, set up in 1997 to manage this WMA system, has been periodically reviewing, *inter alia*, the monthly fiscal deficit, progress of borrowing programme, instruments of borrowing and cash position of the Central Government so as to identify suitable strategies for effective cash management. In order to facilitate cash

management in the absence of 91-day tap Treasury Bills and *ad hoc* Treasury Bills, the Reserve Bank introduced auctioning of the Central Government's 14-day Treasury Bills during 1997-98. Consequently, despite some stress in the Central Government's finances, its recourse to WMA has, by and large, been below the WMA limits reflecting a strong market support to the Government's market borrowing programme. In fact, despite continued fiscal stress, the net Reserve Bank's credit to the Central Government declined and recorded a surplus in 1999-2000 for the first time since 1977-78.

7.90 The movements in net Reserve Bank credit to Government, which captures the net monetary impact of the fiscal operations, increasingly depended upon the interface between the Reserve Bank's primary and secondary market operations and its active public debt management which facilitated lower recourse to WMA. The extent of monetisation through devolvement/private placement could, therefore, be moderated through OMO. While the primary market operations have been driven by the objectives of debt management policy, *viz.*, to ensure financing of fiscal deficit in a cost effective manner, the Reserve Bank's secondary market operations in the form of OMO or repo are driven by imperatives of monetary management.

Fine-tuning of Monetary Policy Operating Procedures

7.91 Freed of direct fiscal dominance, monetary policy formulation could address long-term structural issues while simultaneously pursuing short-term policy measures to take care of the specific economic situation. With the opening up of the Indian economy and introduction of market-determined exchange rate management the sources of monetisation increasingly shifted from fiscal policy to external flows. Thus, on the one hand, the monetary authority's control over monetary aggregates came to be influenced by capital flows, exchange rate movements and financial innovations; on the other hand, money demand became more interest sensitive due to the deregulation of interest rates, thereby changing the relationship between money, output and prices. These developments called for fine-tuning of monetary policy operating procedures as well as intermediate targets to be pursued towards achieving the overall objectives of economic growth, inflation and financial stability. Accordingly, the Reserve Bank switched over from a monetary targeting to a multiple-indicator approach whereby information on an array of indicators such as currency, credit extended by banks and financial

Table 7.6: Fortnightly Average of Net Issue of *Ad hoc* 91-day Treasury Bills (Face Value)@

(Rupees crore)			
Fiscal Year	1994-95	1995-96	1996-97
1	2	3	4
April-June	-1,593	10,398	13,654
July-September	-4,864	12,445	9,299
October-December	-6,013	10,030	5,633
January-March	-919	8,844	2,861
End-March	1,750	5,965	4,685
Fiscal Year Average\$	-3,249	10,280	7,612

@ As per RBI Records. \$ After Closure of Accounts.

Source: Reserve Bank of India Annual Reports.

institutions, fiscal position, trade, capital flows, interest rate, inflation rate, exchange rate, refinancing and transactions in foreign exchange started being monitored on a high frequency basis for monetary policy formulation.

7.92 Simultaneously, the shifts in the channels of monetary policy transmission brought about by the freeing up of financial prices called for harnessing monetary policy instruments to address both the price and quantum of liquidity. The Reserve Bank continued to promote the use of indirect instruments in the conduct of monetary policy. The Bank Rate was reactivated as an interest rate signalling mechanism over the medium-term from 1997 while the repo rate emerged as the marginal liquidity management rate with the money market rates expected to hover within the corridor of the repo rate and Bank Rate. Since the latter half of the 1990s the Reserve Bank adopted a strategy of undertaking private placement/devolvement of Government securities in the face of adverse market conditions but offloading them through open market sales when conditions became more conducive. As far as direct instruments were concerned, the SLR was lowered to its statutory minimum level of 25 per cent of NDTL in October 1997 and the policy of phased reduction in CRR and rationalisation of the Reserve Bank's refinance facilities were continued notwithstanding some temporary two-way drifts around the long-term path to meet specific circumstances.

7.93 An important prerequisite for the Reserve Bank to modulate primary liquidity conditions by operating the OMO is for it to have an adequate stock of Government securities in its portfolio. The increasing market participation in the primary issuance of Government securities, and the Reserve Bank's predominant use of OMO sales from its portfolio of Government securities for absorbing the excess liquidity prevailing almost continuously since 1998-99 resulted in a steady diminishing of marketable securities available on its own account. An important aspect of OMO since 1998-99 has been inclusion of Treasury Bills of varying maturities. As external capital flows picked up, the Reserve Bank had to supplement the outright OMO sales of Government securities with reversible absorptions under the Liquidity Adjustment Facility (LAF), operative from June 2000, for sterilising the monetary

impact of its accretion in net foreign currency assets. The LAF instrument, which was introduced to manage liquidity only at the margin, therefore, became a tool for managing enduring liquidity and was losing its efficacy as an instrument to manage short-term liquidity.

Role of Treasury Bills¹⁹

7.94 Treasury Bills, the key short-term borrowing instrument of the Central Government²⁰ and a convenient risk-free short-term investment avenue for the market, have served as an important tool of short-term liquidity management for the Reserve Bank. However, up to the early 1990s (especially from 1965 with a migration to the tap issuance system), the Treasury Bills could not be operated as a monetary instrument with flexible rates for liquidity management through open market operations. Market participants displayed a tendency to rediscount their initial subscriptions with the Reserve Bank which resulted in the latter passively absorbing a large volume of Treasury Bills in addition to its holding of *ad hoc* Treasury Bills issued to refurbish Government balances. The absence of a market outside the Reserve Bank for the Treasury Bills and the inflexibility in the discount rate from 1974 limited the use of Treasury Bills as a monetary tool or an efficient money market instrument. Furthermore, quite often in the 1980s, the nominal discount rates dipped below the inflation rates implying negative real interest rates.

7.95 The auctioning of 182-day Treasury Bills in 1986 followed by a switch over to a full-fledged auctioning system in issuances of all Treasury Bills by the early 1990s and the institutionalisation of a system of primary dealers realigned the discount rates of Treasury Bills to the market-determined rates. It also helped in the development of a Treasury Bill market outside the Reserve Bank and facilitated the use of Treasury Bills as a monetary instrument to suitably manage short-term liquidity through open market operations. The underlying rationale for developing the Treasury Bill instrument during this phase lay in providing short-term funds to the Government at market-determined rates which, through the emergence of market reference rate, would also facilitate monetary policy operations. The issuances of Treasury Bills were also modulated in the wake of extinguishing *ad hoc* Treasury Bills and

¹⁹ Discussion here focuses on Treasury Bills other than *ad hoc* Treasury Bills issued to replenish Government balances. For a detailed discussion on evolution of Treasury Bill market please refer to chapter VI.

²⁰ The Reserve Bank undertook sale of Treasury Bills on behalf of State Governments during the period 1938-1950.

the need to adhere to the discipline required under the WMA, on the one hand, and the requirement of developing a proper risk-free short-term yield curve for the market under evolving liquidity conditions, on the other. Since April 2004, the Treasury Bills have also been used for sterilising the monetary impact of capital flows under the MSS.

Reserve Bank's relations with the State Governments: 1935-2003

7.96 The Reserve Bank's relations with the States (then Provincial Governments) was not direct till April 1, 1937 as the Central Government met the ways and means requirements of the Provincial Governments. With the introduction of Provincial autonomy in 1937 and the States Reorganisation Act, 1956, the Reserve Bank entered into separate agreements with the Provinces/States to transact banking business of the Provincial Government/State Government concerned. The Reserve Bank, besides performing routine agency and banking function for the State Governments, also helped float State Loans; extended ways and means advances to tide over temporary mismatches in receipts and expenditure of the States; and accommodated, to a great extent, their propensity to draw unauthorised overdrafts (ODs).

7.97 In terms of the agreement between the State Governments and the Reserve Bank, the latter is required to transact the general banking business of the States for which they have to keep a specified minimum balance²¹ with the Reserve Bank. Under the agreements, the States were required to meet any temporary deficits in their minimum balances either by using their own Treasury Bills or by obtaining WMA from the Reserve Bank. The WMA extended to the State Governments by the Reserve Bank were limited to a multiple of the minimum balances held by them with it. The Reserve Bank also extended special WMA against Central Government securities. Despite these facilities, the WMA limit was frequently violated by some State Governments running ODs for extended periods. As the State Governments could not eliminate their excess drawings by the close of the year, the Central Government took over their unauthorised ODs. The Centre adjusted the amount against its assistance to the States either in the same year or over a period

of years and, in certain cases, extended special loans to States to clear their ODs. By the mid-1960s the States' ODs impinged upon the Centre's efforts to stabilise its finances in the wake of the balance of payments problems and the consequent need for obtaining assistance from the IMF. Furthermore, since the Central Government was itself running budget deficits, the unauthorised ODs of the State Governments were replaced, at frequent intervals, by loans from the Reserve Bank to the Centre against *ad hoc* Treasury Bills. Thus, although the Reserve Bank did not indulge in direct monetisation of the State Governments' ODs, such monetisation took place indirectly.

7.98 As the ODs by States were augmenting the reserve money, three groups were set up by the Reserve Bank in 1971, 1978 and 1985 to examine the WMA and OD scheme to suggest measures to bring about greater financial discipline among the States. The recommendations of these groups for the Reserve Bank included, *inter alia*, suspension of payments after due notice if the ODs persisted beyond seven working days; requesting State Governments to take corrective measures in case of indebtedness beyond 45 days even within the WMA limit and cautioning them if they exceed 75 per cent of the WMA limit. Although these recommendations were accepted, up till 1985 the Reserve Bank was unable to resort to the extreme measure of 'stop payment' uniformly for all the States. As a result, notwithstanding the repeated notices to the States sent by the Bank, several States remained in ODs for extended periods. With the implementation of the Overdraft Regulation Scheme effective October 2, 1985, the prescribed limit of seven consecutive working days for overdrafts was strictly enforced and the Reserve Bank and its agencies stopped payments on behalf of the States if they remained in overdraft beyond the prescribed period.

7.99 In view of structural difficulties faced by the State Governments in meeting temporary mismatches and keeping in view issues relating to fiscal and monetary management, the Reserve Bank modified the WMA scheme for the State Governments, which had operated from April 1937 to end-February 1999, on the basis of recommendations of the Informal

²¹ The minimum balances were fixed at Rs.195 lakh for the first time in April 1937 but became effective from April 1, 1938. The amount of minimum balances have been revised upwards four times since then - April 1953 (Rs.4.00 crore), March 1967 (Rs. 6.25 crore), May 1976 (Rs.13.00 crore) and April 1999 (Rs.41.04 crore). In 1999, the Reserve Bank delinked the limits on WMA from minimum balance but revised and linked the minimum balances to the same base as Normal WMA.

Advisory Committee on Ways and Means Advances to State Governments (Chairman: B. P. R. Vithal). Accordingly, effective March 1999 the Reserve Bank delinked the normal WMA limits from the minimum cash balance approach and switched over to a formula-based approach whereby the revised WMA limits were based on the three-year moving average of the aggregate of revenue receipts and capital expenditure. The underlying rationale of the formula was that it would closely approximate the States' cash flows, while excluding the impact of the revenue deficit. Under the revised scheme, the limits on special WMA were directly proportional to the State Governments' holdings of Central Government dated securities and Treasury Bills with no ceiling. However, the disciplinary mechanism underlying the overdraft regulation was tightened and no State was to be ODs beyond 10 consecutive working days (12 days effective February 2001) beyond which the Reserve Bank was to stop payment on behalf of the concerned State Governments. The overdraft was constrained within a limit of 100 per cent of normal WMA in a financial year with a cautionary advice by the Reserve Bank on the first occasion of infringement and a grace of three consecutive working days (five days effective February 2001) to bring the ODs within the limit beyond which payments had to be stopped. The interest rates charged on the WMA and OD were Bank Rate and Bank Rate *plus* two percentage points, respectively. The minimum balances were also revised upwards linking them to the volume of budgetary transactions. The review of future revisions by the Reserve Bank was to be taken after three years.

7.100 Although the WMA facility was intended to bridge the temporary mismatches between receipts and expenditure, the States' recourse to ODs for long periods resulted in a situation whereby WMA effectively became a safety net between two spells of ODs. Notwithstanding this, the Advisory Committee on WMA to State Governments (Chairman: C. Ramachandran) continued the liberal dispensation of the prevalent normal WMA scheme in view of the serious liquidity crunch resulting from worsening fiscal situation in many States (RBI, 2003b). The Committee, however, simplified the formula by linking WMA limits to a single variable, *i.e.*, revenue receipts, as the inclusion of capital expenditure tended to cause distortions. Moreover, the Committee felt that revenue receipts are

relatively transparent and also determine the repaying capacity of the States. Accordingly, the Reserve Bank revised the WMA Scheme for the States on March 3, 2003²². Interest rate on Special WMA was kept below that of normal WMA so as to encourage the recourse to Special WMA before availing normal WMA. A differential interest rate became applicable for the normal WMA on the basis of duration so as to discourage utilisation beyond 90 days.

7.101 To sum up, the evolutionary process of monetary fiscal interface in India up to 2002-03 can be assessed in terms of three major turning points. First, the advent of development planning in India and the large resource requirements it entailed called for greater monetary accommodation, often automatic, to the Government with the consequential loss of monetary control. The nationalisation of banks in the late 1960s gave greater access to the Government over financial resources to meet its growing needs. From the 1970s, the instruments of monetary policy were deployed as a rearguard action to counter the effects of monetisation of deficits. The second turning point was the due recognition by the Government and the Reserve Bank of the implications of monetisation of fiscal deficit through the analytical framework of 'monetary targeting with feedback' which sought to restrict the Reserve Bank's credit to the Government so as to contain reserve money expansion within safe limits for achieving price stability. In the aftermath of the macroeconomic crisis of 1991, the Government and the Reserve Bank initiated a joint strategy of medium-term fiscal consolidation and containment of monetisation of fiscal deficit. The fiscal consolidation during the first half of 1990s set the stage for the third turning point, whereby the Government in its Budget 1994-95 stated that '...Government should not be able to finance its deficits by creating money, through unlimited recourse to the Reserve Bank, by issue of *ad hoc* Treasury Bills. This practice has also weakened the Reserve Bank's capacity to conduct effective monetary policy...'. Accordingly, a formal agreement between the Government and the Reserve Bank in 1994 guided the eventual phasing out of automatic monetisation through *ad hoc* Treasury Bills by end-March 1997. The phasing out of *ad hoc*s and the pursuit of an active public debt management policy by the Reserve Bank enabled greater flexibility in monetary management.

²² The revised normal WMA limits have been computed by taking into account the average of revenue receipts for the preceding three years and then applying a higher multiplication factors of 3.19 and 3.84 for non-Special and Special category States, respectively, so that adequacy of limit is ensured.

IV. EVOLUTION OF PUBLIC DEBT MANAGEMENT

7.102 The Reserve Bank manages the debt of the Central Government by statute while it manages the debt of State Governments on the basis of separate agreements. It advises the Government during the formulation of its annual borrowing programme. An abiding objective of public debt management policy over the years has been the minimisation of cost of borrowing for the Government within the overall objectives of monetary policy. Towards this end, the Reserve Bank, in consultation with the Government, manages the timing, type of instruments, maturity profile and composition of debt. Operationally, it also deals with the servicing and repayment of government debt.

7.103 The evolution of public debt management in India has been inextricably linked with the developments in monetary fiscal interface. While fiscal policy has determined size of the public debt, the debt management policy has determined its composition so as to minimise its cost and modulate its maturity pattern contingent upon policy and investor requirements, and liquidity conditions. The monetary impact of debt depended upon its holding pattern, particularly the extent of which was held by the Reserve Bank (Tarapore, 1990). Up to the early 1990s, debt management was passively driven by fiscal policy compulsions of essentially financing Government borrowings through direct monetisation (automatic in terms of *ad hoc* Treasury Bills and Reserve Bank's holdings of Government securities) and captive subscriptions from the banks through the SLR mechanism at pre-determined low sub-market coupon rates. As the public debt levels mounted, the high levels of monetisation of fiscal deficits, the statutory pre-emptions of resources from banks, and distortion of term structure of interest rates consequent upon artificially low interest rates on Government paper made the process of passive debt management unsustainable. Accordingly, in the wake of macroeconomic crisis in 1991 a phase of pursuing active debt management commenced from the early 1990s by systematically developing the Government securities market, reducing the levels of statutory pre-emptions, sharply reducing the monetisation of deficits and activating indirect instruments of monetary policy. Government borrowing was made market-related through the introduction of auctions in primary issues which enabled the Reserve Bank to impose market discipline on fiscal activism. The abolition of *ad hoc* Treasury Bills and introduction of the WMA for the

Central Government eliminated the softer mode of financing fiscal deficit through automatic monetisation. Apart from guiding the sequence of policy reforms in the Government securities and other financial markets so as to make them more integrated, the Reserve Bank also examined the microstructure of markets so as to strengthen their processes and make them more transparent, efficient, fair and risk-free. The process of market development also helped monetary and debt management operations of the Reserve Bank with the reactivation of the instrument of open market operations.

Passive Public Debt Management

7.104 The Reserve Bank as a debt manager had to ensure that while the borrowings of the Government were on the best possible terms and conditions, the adverse effects of Government borrowings on industry and trade were minimised. The strategy for Central Government bond issuances were varied by the Reserve Bank, from time to time, during the years of the World War II, depending upon the evolving conditions. The nomenclature of the various loans was done carefully to draw appeal from the subscribers. Broadly, the war was financed with a coupon rate of three per cent, the prevailing Bank Rate, although the issue price was varied according to the maturity of the loan. The loans issued comprised short, medium and long-term maturities. Market preference was for long-term securities anticipating substantial cheapening of money.

7.105 The floatation of loans was generally done during the slack season so that the Government's borrowing needs did not clash with the private sector's requirement for funds. The Central loans were floated ahead of State loans. There were two instances, in 1954 and 1963, when the Reserve Bank resorted to combined floatation of loans for the Central and State Governments. In both the cases the loans did not meet with any 'notable success' since a majority of the States refrained from aggressively promoting the loan in which their share was determined by the Centre. Hence, the Reserve Bank reverted to floating separate loans for the Centre and the States from 1964 onwards.

7.106 The Reserve Bank offered a menu of Government securities of different maturities from the Second Plan onwards, in order to provide investors with a broad loan mix and to address the problem of unbalanced portfolios, as opposed to the single medium dated securities sold during the First Plan period. The concentration was, however, in short dated

instruments since these were more popular with the market. The maturity pattern of Government securities underwent a transformation over the years reflecting the nature of investible funds, the coupon rates on different securities, the pattern of ownership and the risk of depreciation. The problem of bunching of repayments led the Reserve Bank and the Government during the late 1950s to lengthen the maturity pattern of the loans despite the higher cost involved. The first long-dated security was issued in 1959 with a 20-year maturity, followed by a 23-year maturity security in 1962. The maximum maturity was lengthened to 30 years in 1969-70.

7.107 The share of short-term securities in the total outstanding securities declined steadily during the 1960s and the early 1970s, even as that of long-term securities continued to rise. There was no perceptible change in the share of medium term securities except for a spurt in the mid-1970s. In 1974-75, deviating from the prevailing practice of lengthening maturities, the Reserve Bank resorted to shortening maturities in order to reduce the extent of depreciation on account of an upward movement in prices. In 1984-85 the maximum maturity was lengthened from 28 years to 30 years but was brought down to 20 years in 1986-87 in line with the recommendations of the Chakravarty Committee recommendation.

7.108 The annual increase in interest rates of Government securities till the late 1970s was marginal, thereby resulting in a misalignment of the coupon rates and yields on Government securities *vis-à-vis* the interest rates on other instruments. An Internal Working Group (Chairman: D.C.Rao), set up in 1980 to address the issues relating to debt management, recommended a one-time increase of three percentage points in interest rates on Government securities to bring them in alignment with other interest rates. The Reserve Bank, therefore, effected larger increases in coupon rates from the early 1980s, particularly at the long-end. The coupon rates for long-dated securities increased from 6.5 per cent in 1977-78 to 11.5 per cent in 1985-86. Despite these increases the interest rates on Government securities remained unattractive, as the interest rate on a 30-year Government security was below that offered by banks on five-year term deposits and other comparable instruments. The Chakravarty Committee in 1985, therefore, made several recommendations to ensure positive real interest rates on Government securities. The implementation of these recommendations created the environment for realigning interest rates on Government securities closer to the market rates in the early 1990s.

Management of State Government Debt

7.109 States' market borrowings in the post-War period were smaller than War years due to diminished capacity of the market to absorb them. Since 1951, the Reserve Bank abandoned underwriting of State loans, which it had undertaken since 1938 and undertook several measures to promote the market for State Governments loans which included limited subscription to the primary issuance of State Loans from early 1950s, evening out the market for State Government securities and attempting to reduce the size of loans.

7.110 State loans were expanded, from the mid-1950s, to accommodate large plan outlays. As the State loans appealed to only a limited clientele who preferred yield to liquidity, State Governments resorted to forcing their securities upon unwilling subscribers, mostly small banks and insurance companies, who then offloaded these at a discount soon after the closure of the issues, destabilising the Government securities market. The Reserve Bank had to intervene and subscribe to the State Government issues to make good for shortfalls in public subscriptions, especially in the early 1960s. As part of the disinflationary policy of the Government, the Reserve Bank discontinued subscribing to State loans from 1965-66 onwards. The Reserve Bank, instead encouraged the States to distribute the unsubscribed portions of their loans among themselves.

Reactivating Public Debt Management

7.111 During the phase of fiscal dominance, the problem of overarching public debt management inhibited efficient monetary control. The initiatives for relaxing fiscal dominance in monetary policy and progressive market-orientation of Government debt through the auction system in 1990s provided greater headroom to the Reserve Bank to undertake active monetary and debt management. Unlike the pre-reform phase when the cost of the Government debt was contained administratively at sub-market interest rates, under a system of market-determined cost of Government borrowings from the 1990s an abiding responsibility of the Reserve Bank as debt manager of the Government has been to minimise cost of public debt, keeping in view the rollover risk, within the overall objectives of monetary policy. The Reserve Bank had to undertake active public debt management, especially in view of growing market borrowing of the Government fuelled by re-emergence of high fiscal deficits from the second half of 1990s.

7.112 A challenge faced by the Reserve Bank has been to reduce the interest cost of market borrowings even in the face of ever increasing quantum of such borrowings by the Government. The Reserve Bank faced a twin challenge in the 1990s in pursuing its objective of controlling interest cost. First, the market realignment of interest rates on Government securities implied an increase from the sub-market levels in the pre-reform phase. Second, a steady increase in the share of Government securities in financing fiscal deficit of the Central Government from 21 per cent in 1991-92 to 80 per cent in 2004-05 reflected the significant role played by marketable securities. Thus, the Reserve Bank was vested with the responsibility of managing the cost of an increasing proportion of the Government borrowing.

7.113 The Reserve Bank followed a four-fold strategy in its public debt management. First, it modulated the maturity pattern of the primary issuances so as to minimise the cost. Second, during occasions when the market was not conducive for subscription at a reasonable cost it acquired Government securities under devolvement/private placement and offloaded the same once market conditions stabilised. Third, the Reserve Bank has been taking measures to broaden and deepen the Government securities market by widening the investor base and introducing new innovative instruments from time to time to suit market demand. Finally, the Reserve Bank introduced in 2002-03 the issuance of half-yearly indicative calendars for the core component of the Central Government's market borrowing programme to provide transparency and thereby enable the market participants to improve their investment planning.

Management of Maturity Pattern and Cost of Government Debt

7.114 The growing volume of domestic Government debt cast uncertainties in financial markets, fuelling investor expectations of higher interest rates, on the one hand, and restricting the manoeuvrability of the debt managers for ensuring interest rates conducive to promoting economic growth and financial stability on the other. As the higher stock of Government debt constrained the leverage in lowering interest rates on long-term, the Reserve Bank had to place bond issuances at the shorter end of the market during the first half of 1990s. In view of the market perception and the transition from pre-announced coupon to market related rates as well as the need

to widen investor base beyond the captive confines, the maximum maturity was reduced from 20 years to 10 years and the minimum maturity was lowered from five years to two years. As a result, the share of short dated securities (*i.e.*, under five years) as a proportion of total outstanding dated securities sharply rose between March 1991 and March 1998, while that of securities with a tenor above 10 years declined. Inevitably this led to a sharp bunching of securities for redemption and frequent roll-over of short-term issues which together posed problems for the Reserve Bank in the management of liquidity. In order to avoid such bunching of future repayments, the Reserve Bank adopted a conscious strategy from 1998 to elongate the maturity pattern of Government debt through issuances of long-term papers to reduce refinancing risk (Table 7.7). Accordingly, securities over 10-year maturity constituted the largest share of outstanding stock of Government debt. The maximum maturity of Central Government securities was increased from 25 years to 30 years during 2002-03. The weighted average maturity of the outstanding Central Government stock of securities rose from 6.6 years in 1997-98 to 13.76 years as at end-March 2005. The successful elongation of the maturity in a market related interest rate environment has been facilitated by the development of the Government securities market and reasonably benign inflation environment in the recent years.

7.115 The Reserve Bank also had to carefully weigh considerations on elongating maturity so as to continue to pursue the objective of minimising the cost of borrowings as elongation of maturity could invariably involve increasing interest costs. However, the soft interest rate conditions since the late 1990s helped the Reserve Bank in lowering the weighted average yield of market loans from 12 per cent in 1997-98 to 6 per cent in 2004-05. In order to reduce the large debt servicing burden on Government,

Table 7.7: Maturity Profile of Central Government Securities

(Per cent)

Year (end-March)	Outstanding Stock		
	Under 5 Years	5-10 Years	Over 10 Years
1	2	3	4
1990-91	9	6	86
1997-98	41	41	18
2004-05	27	30	43

Source: Reserve Bank of India Annual Reports.

particularly in a rising interest rate scenario, the Reserve Bank has also conducted issuances of floating rate bonds.

Developing the Government Securities Market

7.116 Development of the Government securities market is critical for facilitating active public debt management policy, development and integration of financial markets and operation of indirect instruments of monetary policy (Reddy, 2002). While a better functioning Government securities market has provided greater degrees of freedom to the Reserve Bank as the debt manager to optimally manage the maturity and cost of public debt, it has also enabled monetary policy to lower the statutory pre-emption ratios and use open market (or repo) operations for monetary management (Rangarajan, 1997a). Introduction of an auction procedure for the Centre's borrowing through dated securities from 1992-93 paved the way towards market-determination of interest rates in the Government securities market. Subsequently, the Reserve Bank has been taking a number of measures to develop the Government securities market. These include introduction of new instruments, development of an appropriate institutional infrastructure in the form of primary dealers for proper intermediation of the Government securities market, widening of investor base and the setting up of delivery-versus-payment system in 1995 to minimise settlement risk in Government security transactions. As part of further reforms, the Reserve Bank developed benchmark securities by consolidating new issuances in key maturities, enhanced fungibility and liquidity by re-issuances of existing loans and promoted retailing of Government securities. Since the late 1990s, the Reserve Bank has been pursuing a policy of passive consolidation of Central Government securities through the process of reissuance of existing securities through price-based auctions²³.

Management of State Governments' Market Borrowings

7.117 The allocation of funds to State Governments under the Market Borrowing Programme (MBP) is finalised by the Central Government and the Planning Commission in consultation with the Reserve Bank. As per the 'traditional tranche method' in vogue up to 1998, the Reserve Bank completed the combined

borrowing programme of all the State Governments in two or more tranches through bond issuances with a pre-determined coupon and pre-notified amounts for each State. The traditional tranche ensured success of the primary issuances of the State Governments in an era of high SLR and small size of State Government borrowings. However, a progressive reduction in the SLR requirements which resulted in excess holdings of SLR securities by banks and the differing perceptions of individual States by the investor community required a move away from the traditional tranche method. In the context of financial sector reforms and to provide scope to better managed States to access funds directly at market rates, effective from 1998-99, an option was made available to the State Governments to enter the market individually using the auction method²⁴ (with pre-determined notified amount but without pre-determined coupon rate) or tap method (with pre-determined coupon rate but without pre-determined notified amount). The State Governments have adopted the auction system for raising a part of their market borrowings since January 1999. The experience of the States that used the auction method indicated that some of them could mobilise loans at competitive rates while other States had to pay higher rates. The factors which seemed to determine the spreads, apart from size and timing of the issues, included overall strength and prospects of a State's finances, its overall indebtedness including its off-budget borrowings and contingent liabilities like guarantees, efforts to control its indebtedness and its track record of honouring guaranteed commitments. In case of some of the States which did not opt for the flexible auction method, the Reserve Bank continued with the traditional tranche method as it was perceived to be both preferable and cost efficient. However, as banks and financial institutions were increasingly linking their subscriptions to the track record of the States, particularly in honouring their guaranteed bonds and loans of their enterprises as well as the liquidity of the State Government securities, the Reserve Bank introduced 'umbrella tap tranche' method whereby combined borrowings for all States were raised indicating a targeted amount at a predetermined coupon but without notifying the amounts for individual States. The Consolidated Sinking Fund (CSF) was set up in 1999-2000 to meet redemption of market loans of State Governments with each State having to contribute 1 to 3 per cent of

²³ Details of evolution of Government securities market are discussed in chapter VI.

²⁴ The auction method permitted the States to raise, at their discretion, 5-35 per cent of their allocated MBP through auctions.

its outstanding market loans each year to the Fund. The accretions to the Fund were to be invested in the securities of the Central Government.

7.118 The issues that continued to linger in ensuring successful completion of the MBP of the States include scope of underwriting by the PDs, allowing the States to access funds beyond the ceiling of allocation through the 'flexible' method, difficulties in accessing the market for the States who have not cleared their overdues in respect of bonds of the State level institutions with State Government guarantees, separation of debt management from monetary management and thereby having a separate institutional framework for mobilising State Government borrowings.

Reserve Bank's Consultative Approach in Management of Public Debt

7.119 As alluded to earlier, a Monitoring Group on Cash and Debt Management of the Central Government has been managing the WMA system since 1997 through periodic review of the relevant variables pertaining to the borrowing and cash position of the Central Government on an ongoing basis. Furthermore, a Technical Advisory Committee on Government Securities market was formed in January 1997 in order to develop the Government securities market through consultation. This Committee has been providing advice on all policy matters concerning the Government securities market.

7.120 To sum up, the evolving debt management strategy of the Reserve Bank over the years has been influenced by the changes in the operating procedure of monetary policy and the development of financial markets, institutions and instruments. Prior to the 1990s, the Reserve Bank's passive debt management strategy led to large involuntary holding of Government securities by the financial sector at sub-market interest rates which resulted in financial repression. Consequently, the Reserve Bank had to shift towards a more active debt management strategy by institutionalising market mechanism for Government securities, thereby encouraging voluntary financing of fiscal deficit by the financial sector. This also facilitated the conduct of monetary policy through indirect instruments of policy, viz., open market operations which activated the interest rate channel of monetary policy transmission. A migration to market related interest rates, however, raised the cost of Government borrowing necessitating a strategy of shortening the maturity profile of the same. The redemption pressure on account of bunching of

repayments led to a shift in strategy in the late 1990s towards elongating the maturity profile amidst softer interest rates and low inflation expectations. The Reserve Bank also undertook consolidation of the primary issuances of the Government paper through reissuances of key benchmark securities under price-based auctions to improve tradeability of Government securities and enhance the price discovery process. With the opening up of the economy and a more active debt management policy, there was gradual shift in the operating procedure of monetary policy to a multiple indicator framework since the late 1990s, whereby both quantum and rate variables of high frequency, including fiscal indicators, were monitored for drawing policy perspectives. In this regard, a mechanism for coordination of the technical expertise of the Reserve Bank and the Government in matters relating to monetary and debt management has been put in place in the form of a monitoring group on Cash and Debt Management of the Central Government since April 1997. The Reserve Bank has also introduced a system of advance announcement of indicative calendars of Government securities auctions from 2002-03 to stabilise market sentiments. The Reserve Bank, however, gauges the pulse of the market before conducting auctions of Government paper. The public debt management function of the Reserve Bank has been further strengthened since 2003-04 by the enabling environment created by fiscal consolidation.

V. FISCAL LEGISLATION, MONETARY AND DEBT MANAGEMENT (2003-2005)

Operationalising Rule-based Fiscal Consolidation

7.121 The deterioration of the fiscal situation and increased dis-saving of Government administration by the latter half of 1990s renewed the urgency for improving public finances, both at Centre and State levels, particularly, in view of the need to benchmark Indian codes and practices to international standards in the aftermath of its membership to G 20 group of countries (Reddy, 2000a). Accordingly, the Government constituted a Committee on Fiscal Responsibility Legislation (Chairman: E.A.S. Sarma) in January 2000 to examine the various aspects of the fiscal system and recommend a draft legislation on fiscal responsibility. The Union Budget 2000-01 underlined, in the context of medium-term management of fiscal deficit, the need for 'a strong institutional mechanism embodied in a Fiscal Responsibility Act'. The Reserve Bank facilitated the preparation of the Fiscal Responsibility Legislation

by providing technical inputs. The spirit of rule-based fiscal consolidation was evident in the introduction of the Fiscal Responsibility and Budget Management (FRBM) Bill in December 2000 which proposed a legal and institutional framework for initiating a medium-term management of fiscal deficit. The enactment of the FRBM legislation in August 2003 set the tone of fiscal consolidation during 2003-04. A combination of measures to enhance revenue buoyancy and contain revenue expenditure along with a cut back in capital expenditure and higher realisation of disinvestment proceeds resulted in all key deficit indicators of the Central Government being lower than budget estimates for the first time since the initiation of structural reforms. The commitment to fiscal

prudence was further demonstrated by notifying the FRBM Act and Rules in July 2004 which, in turn, streamlined the presentation of the Union Budget from 2004-05 (Box VII.6).

7.122 The Central Government's finances, guided by the FRBM Act, improved as revenue deficit and gross fiscal deficit declined at a greater pace than the minimum stipulated levels during 2004-05 under the FRBM Act/Rules. The incremental liabilities accruing during that year were below the FRBM ceiling (Table 7.8). The Reserve Bank also provided technical assistance to an inter-institutional Working Group (2005) with select representatives from the Central and the State Governments in the preparation of a model Fiscal Responsibility Legislation (FRL) for the State Governments.

Box VII.6

Progress Towards Enacting Fiscal Responsibility Legislation

The genesis of the need for enacting the Constitutional provision for imposing a ceiling on borrowings of the Central Government (Article 292) dates back to 1957-58 when such a view was expressed by the Estimates Committee on Budgetary Reforms. The constitutional provision limiting Government borrowings could not, however, be enforced as a law due to the Government's opposition claiming that this provision was 'permissive, not mandatory'. Furthermore, the Government opined that the Parliamentary approval of the Budget implied approval for borrowings as well as deficit financing (clearly indicated in the Budget) and that legal limits necessarily had to be high and wide which in reality provide no checks. The Reserve Bank, in general, did not dispute this view, although in 1964, reacting to the Ninth Report of the Public Accounts Committee, it urged the Government to give a 'careful thought' to recognise explicitly the principle of parliamentary sovereignty over Government borrowing. The Estimates Committee, 1991-92 raised the issue of legal stipulation on Government borrowing again but recommended its periodic review which was resisted by the Government on three grounds. First, the constitutional limit could cover only market loans, Treasury Bills and external loans but not the borrowings under the Public Account of India. Second, the fixation of Government borrowings on the security of the Consolidated Fund of India and fresh liabilities under Public Account of India as a ratio to GDP would operationally not be feasible as GDP estimates were available with a lag. Finally, any such limit when exceeded would have to be regularised in due course which would not be an improvement over the prevailing system of Parliamentary voting in the case of excess expenditure over grants. The Reserve Bank also raised the issue of placing limits on public debt within the Constitutional purview while mandatorily disclosing

information to the Parliament on other liabilities, contingent liabilities and overall public sector deficit (RBI, 1997a).

The Fiscal Responsibility and Budget Management (FRBM) Bill was introduced in December 2000 and after some revisions the FRBM Act 2003 was enacted on August 26, 2003 and was notified on July 5, 2004 along with the FRBM Rules, 2004. The Act embodies the spirit of inter-generational equity and provides for long-term macroeconomic stability by reducing fiscal deficit and eliminating revenue deficit by March 31, 2008 (extended to March 31, 2009 *vide* Finance Act, 2004). These deficits could, however, exceed the targets on grounds of national security, national calamity or other exceptional circumstances. The Act prohibits direct borrowings by the Centre from the Reserve Bank from the year 2006-07 onwards except by way of Ways and Means Advances to meet temporary mismatches in receipts and payments or under exceptional circumstances. The Reserve Bank may, however, buy and sell securities in the secondary market. The Act also stipulates quarterly reporting of the Central Government finances in relation to the budget estimates. The FRBM Rules, 2004 have set annual targets for phased reduction in key deficit indicators over the period ending March 31, 2008 and imposed ceilings on Government guarantees and additional liabilities. In accordance with the FRBM Rules, 2004, the Union Budgets 2004-05 and 2005-06 presented the Macroeconomic Framework Statement, Medium-term Fiscal Policy Statement and Fiscal Policy Strategy Statement. The Central Government's Task Force on Implementation of the Fiscal Responsibility and Budget Management Act, 2003 (Chairman: Vijay Kelkar) drew up the medium-term framework for fiscal policies to achieve the FRBM objectives by 2008-09.

Table 7.8: FRBM Rules for the Central Government

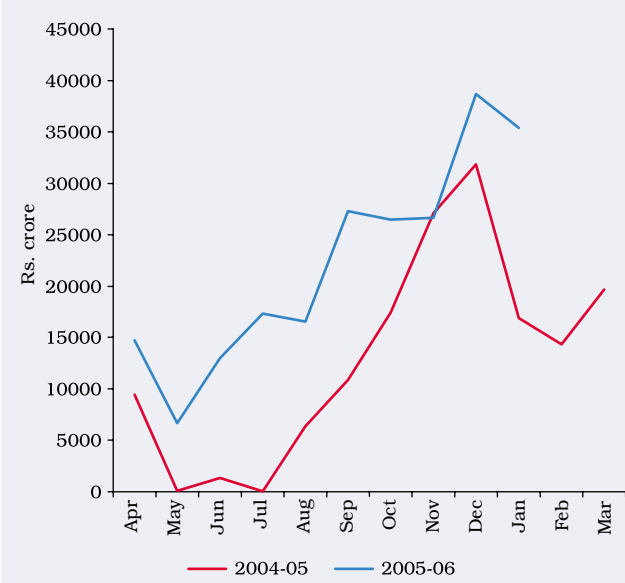
Parameter	Provisions in the FRBM Rules	2004-05
Gross Fiscal Deficit (GFD)	To be reduced by 0.3 per cent or more of GDP every year, beginning with the year 2004-05, so that it does not exceed 3 per cent of GDP by end-March 2008 (later extended to end-March 2009).	Reduced by 0.3 per cent of GDP in revised estimates over 2003-04 (RE) and 0.4 per cent in Provisional Accounts over 2003-04.
Revenue Deficit (RD)	To be reduced by 0.5 per cent or more of GDP at the end of each year, beginning from 2004-05, in order to achieve elimination of the RD by March 31, 2008, as prescribed in the FRBM Act (later extended to end-March 2009).	Reduced by 0.9 per cent of GDP in revised estimates over 2003-04 (RE) and 1.0 per cent in Provisional Accounts over 2003-04.
Contingent Liabilities	The Central Government shall not give guarantees aggregating an amount exceeding 0.5 per cent of GDP in any financial year beginning 2004-05.	The available information on guarantees as furnished in the Union Budget 2005-06 relates to the fiscal year 2003-04.
Additional Liabilities	Additional liabilities (including external debt at current exchange rate) shall not exceed 9 per cent of GDP for the year 2004-05. In each subsequent year, the limit of 9 per cent of GDP shall be progressively reduced by at least one percentage point of GDP.	7.8 per cent of GDP in terms of preliminary estimates.

Monetary Policy in a Framework of Rule-based Fiscal Consolidation

7.123 Monetary policy, though relieved of fiscal dominance, faced new challenges emerging from the liquidity overhang resulting from strong capital flows. The Reserve Bank responded with a policy mix of sterilisation, prepayment of external debt and liberalisation of foreign exchange transactions. Furthermore, the maintenance of sizeable surplus cash balances by the Central Government became a persistent feature since August 2003, enabled by increased issuance of Treasury Bills and operation of debt swap scheme, while its recourse to WMA has been virtually absent (Chart VII.1).

7.124 In accordance with the Second Supplemental Agreement between the Reserve Bank and the Central Government in 1997, the Centre has been investing its surplus cash balances over and above the minimum stipulated limit in its own paper purchased from the Reserve Bank from 1997-98. The Reserve Bank also pursued a policy of converting the entire stock of Central Government's non-transferable 4.6 per cent Special Securities to marketable securities by the year 2003-04, thereby ensuring availability of sufficient securities in the portfolio of the Reserve Bank to conduct open market operations (Table 7.9). The surge in capital inflows and the recourse to open market operations for sterilising their monetary impact, however, depleted the Reserve Bank's stock of Government securities. This

Chart VII.1: Daily Average Centre's Surplus Cash Balances



necessitated the use of Liquidity Adjustment Facility (LAF) operations, an instrument for managing short-term liquidity, for sterilising capital flows. The ratio of open market sales by the Reserve Bank to the addition to its gilt portfolio dropped to about 50 per cent during 2003-04 from an average of 90 per cent in the preceding five years following a switch to LAF operations (RBI, 2004).

7.125 The Reserve Bank examined alternate instruments for sterilisation in the wake of persistent

Table 7.9: Reserve Bank's Stock of Central Government Securities

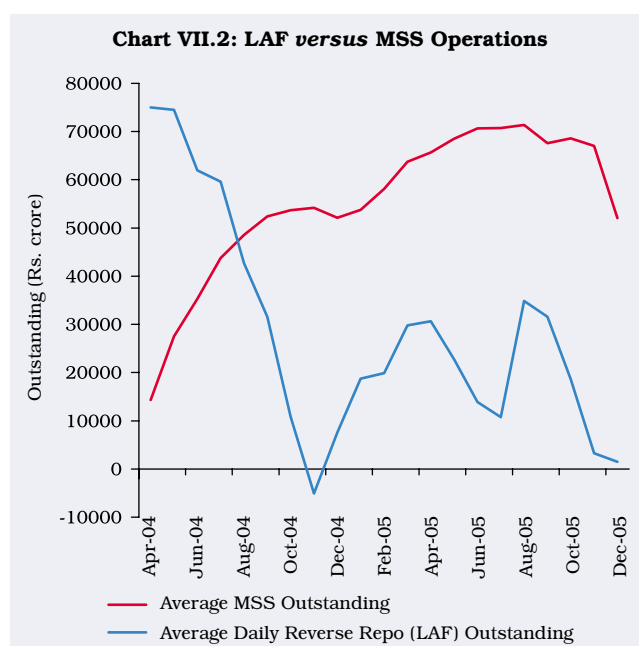
(Rupees crore)			
Fiscal Year	Outstanding Dated Securities	Outstanding amount of Special Securities Issued in Conversion of <i>Ad hoc</i> Treasury Bills	Total Outstanding
1	2	3	4
1996-97	6,666	1,21,818	1,28,484
1997-98	31,977	1,01,818	1,33,795
1998-99	42,212	1,01,818	1,44,030
1999-2000	35,190	1,01,818	1,37,008
2000-01	41,732	1,01,818	1,43,550
2001-02	40,927	1,01,818	1,42,745
2002-03	55,438	61,818	1,17,256
2003-04	77,397	0	77,397
2004-05	80,770	0	80,770

Source: Reserve Bank Annual Report 2004-05.

capital flows and depletion of Government securities from its portfolio. In this context, the Reserve Bank's Working Group on Instruments on Sterilisation (Chairperson: Usha Thorat) was in favour of revisiting the 1997 agreement so that the Government's surpluses with the Reserve Bank are not automatically invested and can remain as interest-free balances with the Reserve Bank, thereby releasing the Government securities for further sterilisation operations (RBI, 2003c). Accordingly, investment of the Central Government's surplus cash balances in dated securities was discontinued temporarily from April 8, 2004. Subsequently, with the introduction of the Market Stabilisation Scheme to absorb liquidity, investment of the Centre's surplus cash balances in its own paper was partially restored in June 2004 with a ceiling of Rs.10,000 crore (enhanced to Rs.20,000 crore in October 2004).

Market Stabilisation Scheme

7.126 In pursuance of the recommendations of the Working Group on Instruments on Sterilisation, the MSS was introduced from April 1, 2004 under a Memorandum of Understanding (MoU) between the Central Government and the Reserve Bank. Under this scheme, injections of primary liquidity on account of any increases in the Reserve Bank's net foreign



assets (NFA) are absorbed by the issuances of Central Government Treasury Bills and dated securities under MSS. The money raised under the MSS is held by the Government in a separate identifiable cash account maintained and operated by the Reserve Bank, which would be appropriated only for the purpose of redemption and/or buyback of issuances under MSS. Thus, the increases in the Reserve Bank's NFA are matched by accretion in Government balances under MSS, thereby driving down the net Reserve Bank credit to the Government and nullifying the monetary impact of an increase in the Reserve Bank's NFA. The operation of the MSS has emerged as a key instrument of sterilisation and has effectively curbed the burden on LAF operations (Chart VII.2).

Public Debt Management amidst Low Monetisation

7.127 A new dawn of fiscal marksmanship, large capital flows, comfortable liquidity conditions and stable inflation expectations have facilitated the conduct of public debt management by the Reserve Bank. The debt management operations were particularly strengthened for the Central Government in the wake of their lower market borrowings during 2003-04 and 2004-05. The investments by the National Small Savings Fund (NSSF) from the debt swap scheme (DSS)²⁵ proceeds relieved the pressure

²⁵ Under the DSS, operative between 2002-03 to 2004-05, the State Governments prepaid high cost debt to the Central Government, which, in turn, used such proceeds for redeeming its securities issued to the NSSF. The NSSF reinvested the same in Special Central Government Securities at lower interest rates.

on the market borrowings for financing fiscal deficit of the Central Government for these two years. Furthermore, the availability of surplus cash balances with the Centre additionally warded off pressure on the market borrowing programme during 2004-05. A noteworthy feature has been the virtual absence of recourse to WMA due to availability of surplus cash balances with the Centre. The conducive macroeconomic conditions and better fiscal marksmanship facilitated, to a great extent, the Reserve Bank's pursuit of its twin objectives of minimising of cost over time and lengthening the maturity of debt. The weighted average cost of market borrowings of the Centre as well as the States showed a decline for eight years in succession up to 2003-04 while weighted average maturity of market borrowings continued to be elongated. Notwithstanding a hardening of interest rates during 2004-05 attributable to spurts in international oil prices, global upturn of the interest rate cycle and sharp spikes in domestic inflation, public debt continued to be managed successfully with the increase in the weighted average cost and a decline in the weighted average maturity being only marginal. The innovative public debt management techniques in terms of measures in developing the Government securities market, a salient feature since the late 1990s continued and supported the increasing subscription of the Government's market borrowings by banks, financial institutions and insurance companies.

Public Debt Restructuring

7.128 The major risk associated with the management of public debt is the size of the debt itself and the pressure on account of its servicing. Fiscal adjustments through restructuring of public debt aim at mitigating the burden associated with unsustainable debt-GDP ratios and rising debt service burden. The underlying rationale for explicit debt reduction is to avoid a situation of 'debt overhang' when debt exceeds a country's repaying capacity. Debt restructuring is usually undertaken through debt swap, debt buyback, rescheduling, debt relief and concessional refinancing. The high accumulation of public debt in the Indian economy since the mid-1990s has created a heavy debt-servicing burden. Various measures have evolved over the years including market-related primary issuance of Government securities, introduction of varied instruments and alignment of the maturity period of new debt issuances to redemption pattern of existing debt stock. Efforts have been made to actively restructure public debt as part of the fiscal

consolidation process as envisioned by the Government in its Union Budget 2003-04. Accordingly, the Central Government prepaid high cost foreign currency loans to the World Bank and Asian Development Bank in 2002-03 and 2003-04. The Reserve Bank also conducted the first-ever buyback auction for 19 high coupon but relatively illiquid Central Government securities on a voluntary interactive basis and reissued four existing liquid securities of equal face value. Furthermore, an innovative scheme of restructuring and consolidation of States' debt was also undertaken through the DSS, whereby the States prepaid high cost debt from the Centre with fresh market borrowings and small savings proceeds at prevailing interest rates over a three-year period ending 2004-05.

Reserve Bank's Recent Initiatives as Manager of States' Debt

7.129 A noteworthy feature in recent years has been a lower recourse of the States to WMA and OD reflecting, *inter alia*, an improvement in the States' finances resulting from an array of fiscal reforms including higher revenue mobilisation since the late 1990s as also steady flow of resources in the form of small savings collections. The Reserve Bank also provided the States with greater flexibility by allowing them to raise up to half of their market borrowings through the auction method where specific requests were made by them.

7.130 Reserve Bank has been organising the conferences of the State Finance Secretaries in a structured manner since 1997, wherein a consensual approach among the Central Government, State Governments and the Reserve Bank has evolved on issues relating to the State finances. In this context, the Reserve Bank has continued its efforts to sensitise the States about the problems posed by the increasing volume of their guarantees to State-level institutions as the devolvement of these guarantees on the State Governments would impinge on their debt sustainability and overall financial stability. In pursuance of the recommendations of the Report of the Technical Committee on State Government Guarantees, so far nine States have fixed statutory/administrative ceilings on guarantees issued by them (RBI, 1999 and 2005d). In order to collect and monitor information on State Government guaranteed advances and bonds from the investors' side on a periodic basis, the Reserve Bank constituted a Standing Committee on Information on State Government Guaranteed Advances and Bonds in 2004.

It also constituted a Group to Study the Pension Liabilities of the State Governments (Chairman: B. K. Bhattacharya) which in its report recommended certain alternative long-term structural solutions to the pension problems of the States (RBI, 2003a). The Reserve Bank also set up a Working Group on Methodology of Compilation of data on State Government liabilities for devising a methodology of compilation of data on various types of debt liabilities of the States.

7.131 To sum up, the period 2003-2005 marked a renewed commitment by the Government towards fiscal consolidation in the wake of fiscal deterioration in the late 1990s. The Reserve Bank also sensitised the Government on the consequences of fiscal dominance and highlighted the importance of placing a statutory ceiling on debt. The Government, therefore, embarked on a rule based fiscal consolidation process which was facilitated by the favourable macroeconomic environment. This phase also witnessed better cash management resulting in a lower recourse by the Government to WMA from the Reserve Bank. These factors have facilitated the conduct of both debt and monetary management which, in turn, have helped in stabilising interest rate expectations despite hardening of international crude oil prices. In respect of relations with the State Governments, the Reserve Bank has pursued a consultative approach for improving fiscal management in the context of the financial sector reforms. In this context, the State Finance Secretaries Conference arranged by the Reserve Bank has been providing a platform for exchange of views between Central and State Governments and the Reserve Bank on critical policy issues which, *inter alia*, include ceiling of State guarantees, scheme of consolidated sinking fund and approach to market borrowing programme.

VI. MONETARY FISCAL COORDINATION IN THE CONTEXT OF FRBM ACT (2005 - 2009)

7.132 The monetary-fiscal coordination and public debt management has entered a new phase in the context of the framework of cooperative fiscal federalism from 2005-06 and the Reserve Bank's scheduled withdrawal from participating in the primary Government securities market from 2006-07 as stipulated under the FRBM Act, 2003. At the State level, 16 State Governments have also enacted Fiscal Responsibility Legislations (FRLs), partly driven by the Twelfth Finance Commission's

(Chairman: C. Rangarajan, 2005) (TFC) debt relief incentives. These measures aim at eliminating the revenue deficit by 2008-09, reduce fiscal deficit and, thereby, the debt of the State Governments. Operationalising the TFC's recommendations the Central Government has and would continue to release only the grant portion of Central assistance to State Plans and allow the States to approach the market directly for raising their loan portfolio from 2005-06 onwards. With the progressive reduction of Centre's intermediation of States' borrowings, except for those that are fiscally weak, the Reserve Bank would have to shoulder the responsibility of facilitating the States' market borrowings requirements. The Reserve Bank will facilitate a smooth transition in consultation with the Central and the State Governments.

7.133 With the operationalisation of the Reserve Bank's withdrawal from the primary market from April 2006, it would not be able to act as an underwriter of the last resort in the Government's issuances and provide the Government with funds as and when it required²⁶. This would require an alternative institutional arrangement to be put in place for ensuring that debt management objectives continue to be met and the Government is able to borrow under all conditions without exacerbating market volatility. As the Reserve Bank would continue to intervene in the secondary market, the open market operations would become a key instrument for monetary and public debt management, thereby necessitating a reorientation through a review of processes and technological infrastructure consistent with market advancements.

Debt Management Strategy under New Setting

7.134 The phase of the Reserve Bank's withdrawal from the primary market for Government securities would become operational on April 1, 2006. The Reserve Bank has been undertaking preparatory work anticipating this since the initiation of reforms. An abiding strategy of the Reserve Bank in developing Government securities market since the early 1990s has been to work towards an appropriate juncture when non-captive investors can play a predominant role in the secondary segment of the market, thereby facilitating an underwriting of the entire auction issues by the primary dealers which can, in turn, make these securities accessible to the final investors. A well

²⁶ It was visualised in the early 1990s that there would be a gradual progress to a system of increasing participation of primary dealers and eventually to a stage where primary dealers would be required to take up the entire issue (RBI, 1993).

developed Government securities market would allow the Reserve Bank to refrain from participating in the primary issuances of the Government security, but undertake liquidity management through buying and selling of securities under its open market operations. Recognising the expected change in the debt management operational setting under FRBM from April 2006, the Reserve Bank's Internal Technical Group on Central Government Securities market examined the balance sheet of progress in the development of this market and recommended measures for reorienting and strengthening the operating framework for the conduct of monetary policy, public debt management and regulatory oversight of the Government securities market, particularly in order to strengthen the OMO framework so as to address the emerging needs and equip both the Reserve Bank and market participants appropriately. As the recommendations imply a fundamental alteration of the debt issuance system, they are being examined and would be finalised by the Reserve Bank only after consultations with the Government as also market feedback.

7.135 Assessing the progress, the Technical Group noted that though the evolution of debt management, open market operations and the Government securities market has been satisfactory, there is a need to reorient the OMO due to three factors. First, the financial market integration in India is 'still far from complete' with continued prevalence of segmentation in terms of maturity, liquidity and risk; asymmetric integration; and lack of depth. Integration was also found incomplete even within the Government securities market across tenors as revealed by instances of distortion or inversion of yield curves amidst surplus liquidity conditions. Second, while debt management has continued to elongate the maturity profile of the Government securities, liquidity was often limited to few segments. Third, the tendency of banks to refrain from the market during an interest rate upturn could become even more stark when the proposed amendment is made to the Banking Regulation Act of providing flexibility to the Reserve Bank in setting lower SLR. The Group, thus, recommended that while the OMO would continue to be principally directed at residual/unanticipated 'autonomous' liquidity movements driven by Government's borrowing or capital flows, the Reserve Bank may retain the option of participating in the secondary market as felt appropriate to contain excessive volatility, promote orderly market conditions and improve market liquidity in Government securities.

7.136 In the aftermath of the Reserve Bank's exit from the primary market, the Group recommended measures for a more active and dynamic participation of primary dealers by favouring 100 per cent underwriting commitment on the basis of minimum and auction-determined additional bidding commitments. In exchange, the possibility of providing PDs with a repo facility to park their auctioned stock with the Reserve Bank after the auction allotment to tide over any temporary funding risk may have to be examined. The Group also favoured a 'measured approach' in selectively permitting exclusivity to PDs in primary auctions, while setting aside apprehensions of the possibility of cartelisation, risks of 'front running' by PDs and increased cost of acquisition of securities by investors. While PDs could be incentivised for 'market making', the Group noted that the Reserve Bank may continue to develop the market amidst the changed contextual setting through introduction of new instruments; introduction of Separate Trading for Registered Interest and Principal of Securities (STRIPS); 'active consolidation' of Government stock through buy-back of large number of small-sized illiquid securities in exchange for small number of liquid securities; improvement of transparency and flexibility of the auction process; undertaking phased introduction of 'short-selling' with appropriate safeguards; and phased introduction of 'when issued' market so that market turnover is not affected on an interest rate upturn.

Separation of Public Debt and Monetary Management: Issues and Options

7.137 Public debt management is the process of establishing and executing a strategy for managing the Government's debt in terms of optimising the cost and maturity of debt, ensuring the required amount of funding for the Government and developing an efficient market for Government securities. Monetary management, on the other hand, is the mechanism of influencing the cost and availability of credit by regulating the supply of money and interest rates in the economy within the overall objective of attaining price stability. Thus, a conflict between debt management and monetary management develops when the monetary authority has to pursue the dual objective of minimising the cost of debt for the Government while simultaneously aiming at achieving price stability. Often, the emergence of inflationary pressures requires a tightening of monetary policy stance by raising interest rates, which may adversely impact on the cost of Government borrowings. It is, therefore, held that sound financial management is

ensured when the two activities are kept separate (Sundararajan *et al*, 1997). The essential pre-condition for this separation is that the Government fully meets its funding requirements by public borrowings at market-related rates without the need for central bank's accommodation of debt. Monetary policy, then, can solely concentrate on its principal task of controlling inflation.

Case for Separation

7.138 In advanced economies with fully liberalised and well developed financial and Government securities markets, debt management is based on the fiscal operations of the Government while monetary policy is carried out independently. This helps to ensure that the debt management decisions are taken independent of the interest rate decisions and conflict of interest in market operations is avoided. In these countries, the alignment of policy objectives is achieved through the work of market forces, with financial market rates increasingly used as inputs in decision-making. Furthermore, the independent pursuit of the objectives of fiscal, monetary and debt management policies is also supported by institutional arrangements that separate the objectives and instruments of the central bank, the treasury and debt management authorities, respectively. Such separation is already in practice in Australia, Ireland and the UK.

7.139 Creating a separate debt office, however, does not necessarily ensure an independent debt management policy. In order to develop a sound and balanced approach to debt management, establishing clear objectives and organisational responsibility for the debt office is paramount while the deregulation and development of financial markets are prerequisites for the separation of public debt management from monetary policy. As a consequence, practically all decisions regarding debt management matters are transferred to the debt office and formal coordination exists in terms of ensuring consistency in policy objectives.

Case against Separation

7.140 In emerging market economies with underdeveloped financial markets, monetary and debt management cannot be strictly separated, since debt management operations may necessitate central bank interventions and thus have an impact on interest rates and domestic financial markets. Therefore, sequencing of financial sector reforms is important to achieve separation. In many emerging market economies, the central bank undertakes debt

management functions mainly because it has the required expertise to monitor relevant information and accordingly modulate market liquidity as part of its monetary policy operations.

7.141 In the early stage of financial market reform, debt instruments and primary market issuance are often used for monetary purposes, calling for much closer day-to-day collaboration between the monetary and fiscal authorities. In this regard, development of financial markets and well coordinated monetary and debt management procedures are mutually reinforcing. The adoption of market based instruments-which initially require arrangements for close coordination of objectives and instruments-expands opportunities for active liquidity management by the central bank and provides incentives for institutional development. In turn, the resulting increase in depth and efficiency of money and Government securities markets opens up additional opportunities to strengthen instruments and coordination procedures of monetary and public debt policy. In this regard, countries undergoing a transition from 'captive sourcing' of Government borrowing requirements (through statutory liquidity requirements) to 'voluntary sourcing' (using market based practices) need to build up supporting debt management functions. Placing those functions within a comprehensive framework for public debt management is important in achieving the objectives of debt and monetary management.

7.142 In the last two decades, while a consensus seems to have emerged on the need to separate monetary and debt management, institutional separation of these two functions may not always be feasible in emerging market economies. In these economies, where the central bank has an operational role for debt management, the nature of the role, the timing and type of policy operation needs to be clearly specified in order to ensure functional separation between public debt and monetary management.

The Indian case

7.143 In India, where public debt management and monetary policy are vested with the Reserve Bank, the debate on separating debt management from monetary policy formulation is contingent upon reasonable progress being made towards satisfying the three necessary preconditions for this separation, *viz.*, development of financial markets, reasonable control over the fiscal deficit and necessary legislative changes (RBI, 2002a). The Indian economy has made considerable progress in developing its financial

markets and in particular the Government securities market. Furthermore, fiscal dominance in monetary policy formulation has become less binding in recent years. With the onset of a rule-based fiscal consolidation process, the stipulated withdrawal of the Reserve Bank from the primary market of Government securities and expected legislative changes permitting a reduction in the statutory minimum SLR, the case for separation of debt management from monetary policy in India has, perhaps, never been as compelling before as at present. In this regard, the Committee on Capital Account Convertibility (Chairman: S.S.Tarapore) had recommended the separation of debt from monetary management (RBI, 1997b). The Advisory Group on Transparency in Monetary and Financial Policies had recognised that separation of debt management and monetary policy is a necessary condition but the sufficient condition is the need for a reasonable degree of fiscal responsibility (RBI, 2000).

7.144 The core issue of the conflict between monetary policy and public debt management lies in the fact that while the objective of minimising market borrowing cost for the Government might generate pressures for keeping interest rates low, compulsions of monetary policy amidst rising inflation expectations may necessitate a tighter monetary policy stance. Although during the pre-reform period in India, monetary policy passively accommodated fiscal policy through monetisation, the inflationary pressures were kept within control through the Government's administered price system, its proactive coordination with the Reserve Bank and the Reserve Bank's sterilisation of the monetary impact through progressive increases in the CRR of banks. During the post-reform period, although monetisation of fiscal deficits has been scaled down, the public debt has risen unabated. The Reserve Bank could, nevertheless, proactively manage public debt and minimise its cost as requisite developments in the Government securities market and prevalence of generally comfortable liquidity conditions prompted the banks to invest in Government securities far in excess of their SLR stipulations. As inflationary pressures moderated considerably since the latter half of 1990s, the Reserve Bank could maintain interest rates at levels, which were conducive for economic growth while meeting its debt management objectives of minimising cost for the Government.

7.145 The argument in favour of separating debt management from monetary policy rests in assigning

an exclusive single goal of price objective for monetary policy, which would provide transparency in central banking operations thereby enhancing its credibility. While, in principle, separating debt from monetary management enhances efficiency in monetary policy formulation, the debate in the Indian context needs to recognise certain key dynamics of debt-monetary interface in India.

7.146 First, in the Indian context, the joint policy and procedural initiatives by the Government and the Reserve Bank have facilitated in achieving reasonably good degree of coordination between public debt management and monetary policy formulation. While fiscal discipline and reduced monetisation of deficits as well as reactivation of public debt management since the 1990s have imparted considerable autonomy to the operation of monetary policy, the Reserve Bank's proactive debt management, including efficient operation of the Government securities market, has also facilitated the conduct of monetary policy, particularly through its indirect instruments. In fact, the Reserve Bank's holding of huge stock of Government securities as the debt manager enabled it to sterilise the monetary impact of the capital flows through open market operations.

7.147 Apart from coordination at the policy level, procedurally a regular system of coordination has also been established, whereby, annually, the Reserve Bank advises the Government in December/January on the likely course of monetary policy in the ensuing year and the feasible level of Government borrowing consistent with the monetary policy objectives, taking into account the projected level of economic growth and the tolerable level of inflation. The Government's borrowing programme as subsequently announced in the Budget, in turn, forms a crucial input in framing the stance of monetary policy set out in the Reserve Bank's Annual Policy Statement. In recent years, the need for a greater coordination on a day-to-day basis has also been recognised through the development of a 'Short-Term Liquidity Forecasting Model' in the Reserve Bank which projects 'net liquidity' for guiding its policy actions in the market on a daily basis. In its capacity as the debt manager to the Government, the Reserve Bank is able to assess systemic liquidity with reasonable accuracy for monetary management operations through the liquidity assessment model.

7.148 Second, the Reserve Bank's experience in managing public debt over the years has equipped it

with the requisite technical capacity of fulfilling the twin responsibilities of debt management and monetary policy operation efficiently, consistently and in a coordinated manner in tune with the requirements of the Government and market conditions. For instance, in order to contain the interest cost of Government borrowings, the Reserve Bank has had to adjust the timing of issuances, the types of instruments and its maturity profile, depending on market sentiments. In the absence of suitable market conditions, the Reserve Bank has devolved the Government securities in its own account and offloaded them as market became more conducive. Furthermore, during the recent years, the Reserve Bank has developed appropriate tools like LAF so as to insulate internal debt from the short-term effects of monetary policy, which has, in turn, also facilitated the operation of monetary policy quite independently. In this context, it needs to be noted that coordination achieved in India has been essentially similar in procedure to that between the Treasury and the Federal Reserve Board in the USA. For example, the Treasury and the Federal Reserve Board have traditionally maintained independence in their respective tasks of debt management and conduct of monetary policy. However, coordination exists between the Fed and the Treasury. The goal of the Treasury is to finance Federal debt with minimum disruption to financial markets. The Fed acts as the agent for the Treasury and conducts all auctions, collects proceeds and maintains accounts of the Federal debt (Blommestein and Thunholm, 1997).

7.149 As it may be observed from the above discussion, while coordination between monetary and public debt management has improved in India, several challenges lie ahead. First, the persistence of a large Government market-borrowing programme has implications for the efficient conduct of the Reserve Bank's debt and monetary management operations. Second, in the wake of operationalisation of the recommendations of the Twelfth Finance Commission, the Centre ceases to operate as an intermediary for mobilising resources for States with the latter having to raise funds directly from the market. Third, while the Government sector's demand for market borrowing may remain unabated, the growth in demand of bank credit from the commercial sector, particularly in the wake of increased economic activity, would also compete for resources of the financial system. Fourth, the Reserve Bank's withdrawal from the primary market issuance of Government paper from April 1, 2006 would have implications for the management of

interest rate expectations. Fifth, the implementation of the proposed amendment to the Banking Regulation Act permitting flexibility to banks for lowering SLR below 25 per cent of net demand and time liabilities of banks would reduce the captive subscription to Government securities. All these challenges call for the Reserve Bank's continued effort in widening the investor base of the Government securities market within the overall framework of developing the debt market.

7.150 A pragmatic view needs to be taken on the issue of separation in India after weighing the *pros* and *cons* of what is really gained from separation of public debt from monetary management. The options for separation are limited, *viz.*, (a) transferring debt management responsibility to the Government, (b) the creation of a separate debt office specifically for that purpose and (c) retaining debt management with the Reserve Bank while functionally separating it from monetary management. The first option faces some legal constraint as the Reserve Bank is empowered to manage public debt by statute. Moreover, fiscal activism could have serious ramifications for the credibility of debt management operations when both are conducted by the same entity. The second option of setting up an independent debt authority though having the advantage of unbiasedness in decision making would be constrained by the narrow objective of optimising public debt rather than factor in the monetary implications of such actions. Moreover, both these options requiring an institutional separation of monetary and debt management functions would have to recognise the comparative advantage of the institutional memory and the technical expertise reposed with the Reserve Bank in managing the public debt over the years and the evolution of a formal institutional mechanism for resolving issues relating to functional coordination among monetary, fiscal and debt management policies. The third option of retaining public debt management with the Reserve Bank, thus, merits some consideration. With the progress of fiscal consolidation under the FRBM phase, a view has been emerging that the Reserve Bank would have to reorient Government debt operations and simultaneously strengthen monetary operations. This entails a functional separation between debt management and monetary operations of the Reserve Bank (RBI, 2005b). In this regard, a separate Financial Markets Department (FMD) within the Reserve Bank was set up in 2005 with the objective of functionally separating monetary and debt management functions.

**VII. MONETARY FISCAL INTERFACE:
AN ASSESSMENT**

Trends in Fiscal Imbalances and Macroeconomic Consequences

7.151 An analysis of the Central Government finances over the years shows an increasing trend in the gross fiscal deficit interrupted by brief phases of corrective efforts during the mid-1970s and the first half of 1990s. The emergence of deficits in the revenue account since the late 1970s led to a sharp deterioration of GFD which spilled over to the external sector, culminating in the macroeconomic crisis of the early 1990s (Chart VII.3). The post-reform experience reveals that strong inflows both in the current and capital accounts of the balance of payments in the Indian economy staved off the adverse impact of continued fiscal imbalances on the external sector. However, recent years have witnessed some improvement in GFD, reflecting improved revenue buoyancy and expenditure rationalisation supported by a rule-based fiscal consolidation.

7.152 Revenue imbalances in the combined Government finances of the Centre and States since the early 1980s, primarily on account of higher interest payments, subsidies and defence expenditure coupled with losses in the public sector enterprises led to widening of the fiscal gap. The first half of the 1990s witnessed fiscal consolidation, mainly through cutbacks in capital outlays of the Central Government. The impact of the Fifth Pay Commission is visible on revenue deficit of the State

Chart VII.3: Fiscal and External Imbalances

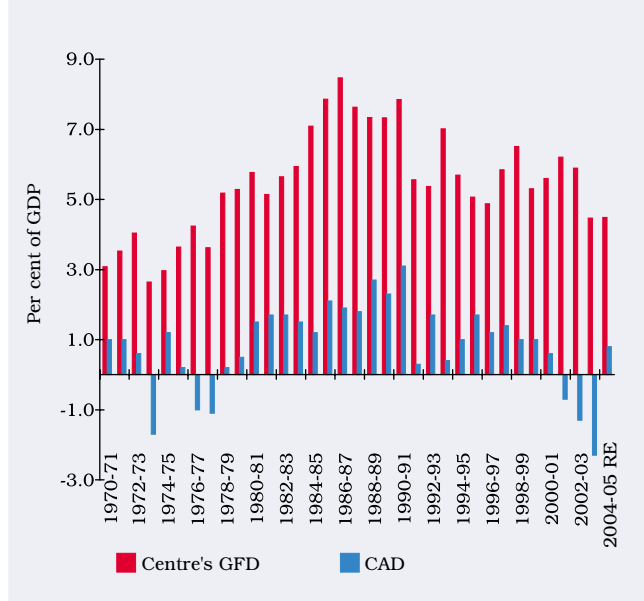
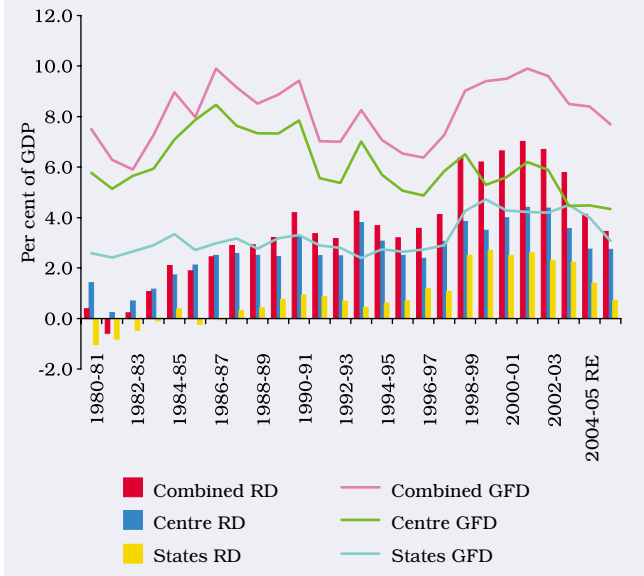


Chart VII.4 : Revenue and Fiscal Deficit of the Centre and States



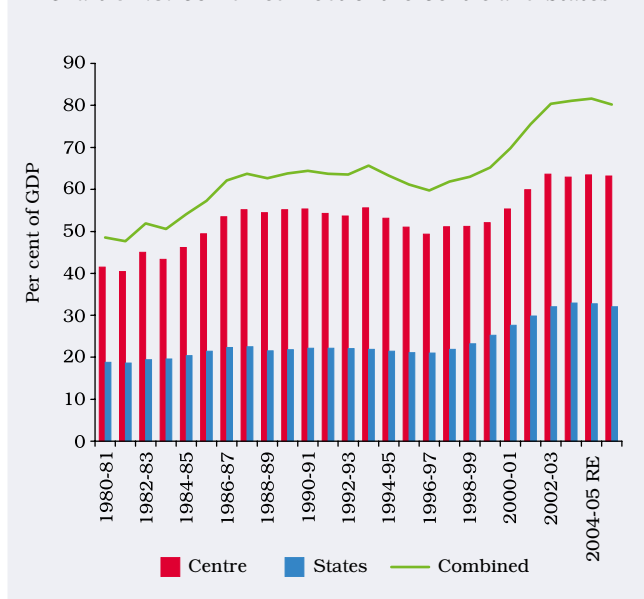
Governments in the second half of the 1990s which ultimately resulted in widening of the combined revenue and fiscal deficits. The recent thrust on fiscal consolidation through fiscal legislation resulted in the downward movement of both revenue and fiscal deficits at the Centre as well as the State levels (Chart VII.4).

Debt Position

Problems of Mounting Debt Burden

7.153 The dynamics of public debt, which turned adverse in the 1980s, reflected a sharp deterioration in the fiscal deficit of the Government. The debt/GDP ratio of the Central Government rose from 41.6 per cent in 1980-81 to 55.3 per cent in 1990-91. This had three major implications. First, the concomitant rise in interest burden absorbed an increasing proportion of revenue receipts thereby raising the revenue deficits. Interest payments/revenue receipts ratio increased from 21.0 per cent in 1980-81 to 48.7 per cent in 1993-94. Second, the increasing levels of borrowings exerted an upward pressure on interest rates, crowding out interest-sensitive private investments in the short run and thereby adversely impacting economic growth. Third, the large borrowings added to the repayment burden resulting in the problem of frequent debt rollovers. The fiscal compression measures initiated by the Central Government in 1991 and consequent control on net market borrowings facilitated a reduction in its debt/GDP ratio from 55.3 per cent in 1990-91 to 49.4 per

Chart VII.5: Combined Debt of the Centre and States



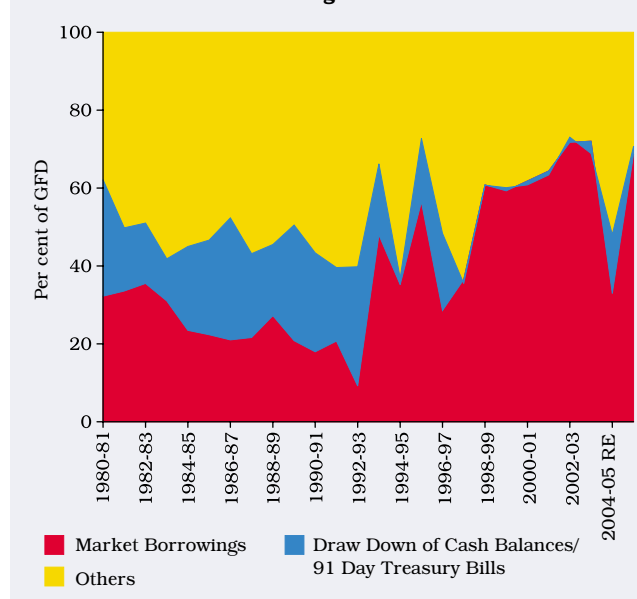
cent by 1996-97. Furthermore, interest payments/revenue receipts ratio declined to 45.4 per cent in 1995-96. However, a reversal in the fiscal consolidation process during the second half of the 1990s and the consequent increase in market borrowings pushed up the Central Government's debt/GDP ratio. The interest payments/revenue receipts ratio, however, continued to decline to 41.8 per cent in 2004-05, reflecting essentially revenue buoyancy. The State Governments' debt/GDP ratio increased from 18.8 per cent in 1980-81 to 22.5 per cent in 1990-91 but after declining marginally to 21.1 per cent in 1995-96 increased again to 33.3 per cent in 2004-05 (Chart VII.5).

Financing of Fiscal Deficit

7.154 The financing of the fiscal deficit of the Government is critical as it has important implications for the monetary fiscal interface. The relative share of market borrowings in total financing and direct financing by the Reserve Bank have important implications for the objectives of monetary policy. In respect of the Central Government, the automatic monetisation effected through recourse to *ad hoc* 91-day Treasury Bills was the major financing item prior to April 1997. With the discontinuation of *ad hoc* Treasury Bills, the share of monetised deficit in the Central Government's GFD has come down (Chart VII.6).

7.155 An analysis of credit extended to the Government sector since the 1980s by the Reserve

Chart VII.6: Financing of GFD of the Centre



Bank and the rest of the banking sector reveals an increase in the contribution by other banks during the mid-1980s on account of increases in coupon rates along with higher SLR stipulation. The transition from a passive to active debt management policy since the early 1990s by introducing auction system and development of new instruments is reflected in the increase in financing of the Government deficit by the banks and a concomitant decline in the Reserve Bank's contribution (Box VII.7). In fact, the banks' contribution exceeded the SLR stipulation since 1999-2000 indicating a shift from involuntary to voluntary holding of Government securities (Chart VII.7).

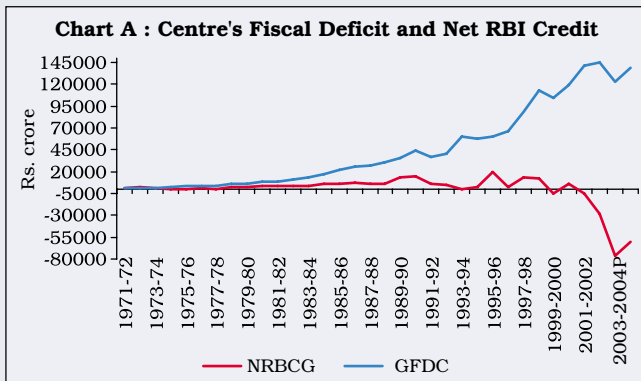
7.156 The Reserve Bank's net credit to the Government was the primary driving force of reserve money growth up till the early 1990s (Chart VII.8). Sharp increases in the former have almost always been accompanied by a similar increase in the latter. The Reserve Bank had to, therefore, resort to changes in CRR to modulate the growth in money supply. The CRR, originally conceived as a prudential measure, was increasingly used as a monetary tool to neutralise the impact of reserve money expansion induced by deficit financing.

7.157 With the onset of economic reforms, the Reserve Bank's contribution to the Central Government's borrowing programme declined for the most part of the 1990s. However, the severe strain in the Central Government finances and associated higher market borrowing requirement in the late

Box VII.7

Gross Fiscal Deficit and Central Bank Financing of Government: The Indian Experience

The trends in fiscal deficit and variation in the central bank credit to Government are considered to be crucial in analysing fiscal dominance. Such an analysis is broadly indicative of the extent of coordination between monetary and fiscal policy. In the Indian context, the gross fiscal deficit of the Central Government (GFDC) has, in general, been increasing during the period 1971-2005, particularly since the middle of the first half of the 1980s. The variation in net Reserve Bank credit to the Centre (NRBCG) has, however, had distinct phases (Chart A). The relationship between the two variables, accordingly, is expected to have undergone some major structural changes.



To examine the statistical relationship between the GFDC and NRBCG (during 1971-2005), the following regression equation with a first order autoregressive component (AR1) is estimated:

$$NRBCG = 15019.95 + 0.78*GFDC + [AR1=1.11]$$

(0.54) (0.00) (0.00)

Adjusted R² = 0.75(1)

(Figures in parentheses are p values)

The relationship between the GFDC and variation in NRBCG is positive and statistically significant. It is, however, evident from Chart A that NRBCG has witnessed some structural changes and hence the relationship between the two variables has undergone similar changes. Two major factors triggering the structural changes in the series are: (i) the change in the institutional and policy framework since April 1997, whereby the Reserve Bank discontinued the issuance of 91-day *ad hoc* Treasury Bills and introduced the mechanism of Ways and Means Advances; and (ii) the surge in capital inflows since 2001 mainly emanating from movements in international interest rates. To examine the statistical significance of the

anticipated change in the relationship between the two variables, Chow's (1960) breakpoint test was applied with the following results:

Structural change test for year 1997-98
F-Statistic : 6.80; Probability : 0.00

Structural change test for year 2001-02
F-Statistic : 25.13; Probability : 0.00

Structural change test for year 1997-98 and 2001-02
F-Statistic : 14.09; Probability : 0.00

The F-statistic, which is based on the comparison of restricted and unrestricted sum of squared residuals, is high and statistically significant indicating that there has been structural change in 1997-98 and 2001-02 in the relationship between the GFDC and variation in NRBCG. To further examine the stability of coefficients across the three sub-samples, following Kennedy (2003), the Chow test was carried out for both the periods (1998 and 2002) together which indicated presence of structural change in relationship between the two variables. Since the macroeconomic conditions have a direct bearing on capital flows, the impact of capital inflows on NRBCG is further examined by incorporating NFARB (net accretion to foreign exchange assets of the Reserve Bank (net of revaluation) representing capital inflows) in the regression equation (2). The coefficients of both the variables turned out to be statistically significant with expected signs.

$$NRBCG = 1758.63 + 0.22*GFDC - 0.75*NFARB + [AR1= 0.31]$$

(0.17) (0.00) (0.00) (0.11)

Adjusted R²=0.97.....(2)

(Figures in parentheses are p values)

The above exercise reveals that the evolving Government securities market and surge in inflows of capital in recent years have substantially changed the nature of financing of the Government's deficit. The accretion to domestic monetary resources available from swapping the inflows was used by the banks to invest in Government securities. Concomitantly, since the Reserve Bank divested its stock of Government securities through OMO sales in order to neutralise the monetary impact of the swapped inflows, this resulted in a decline in net RBI credit to the Centre. Thus, the Central Government's gross fiscal deficit has been largely financed by banks rather than Reserve Bank's credit, thereby resulting in lower monetisation of deficit.

1990s amidst tight liquidity conditions necessitated a higher primary subscriptions by the Reserve Bank (Chart VII.9). Therefore, the Reserve Bank's

intervention by way of devolvement and private placement facilitated in managing the cost of Government's market borrowings.

Chart VII.7: Banking Sector Accommodation of Combined Fiscal Deficit

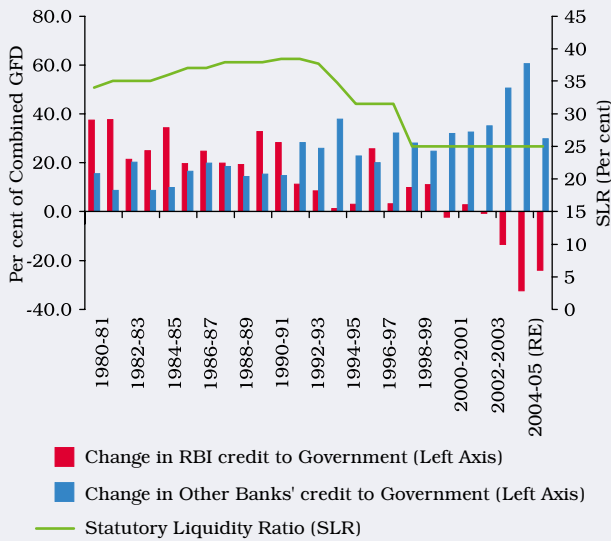
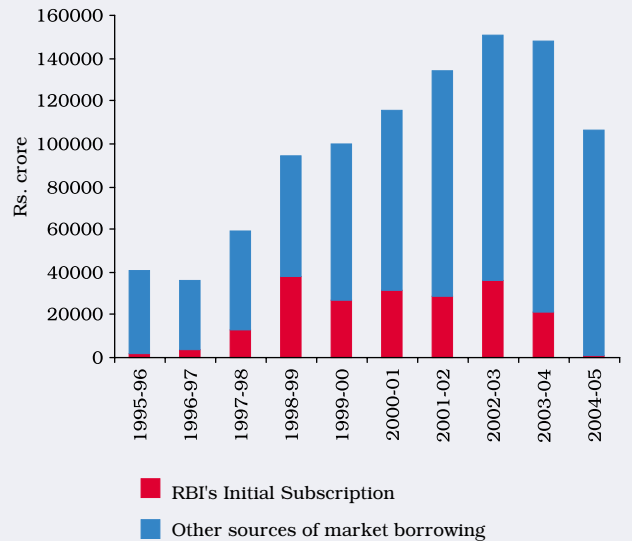


Chart VII.9: RBI's Initial Subscription to Centre's Gross Market Borrowings



7.158 Despite large interventions of the Reserve Bank in the primary market, the net Reserve Bank credit to the Central Government maintained, in general, a declining trend on account of open market sales conducted by the Reserve Bank. It is pertinent to note that the net Reserve Bank credit to the Central Government turned negative since 2001-02 as a consequence of open market sales conducted to sterilise the monetary impact of large capital inflows (Chart VII.10). Thus, with the opening up of the economy, increases in the net foreign assets of the

Reserve Bank became an important source of reserve money expansion.

7.159 An important aspect of Reserve Bank's debt management operations in India in the 1990s has been to minimise the interest cost of market borrowings by modulating the maturity structure suitably. This had resulted in a compression of average maturity of market debt, with a significant decline in the proportion of long-term debt to total outstanding debt from 75.8 per cent at end-March 1992 to 18.2 per cent at end-March 1998. Taking cognisance of

Chart VII.8: Monetised Deficit and Monetary Aggregates

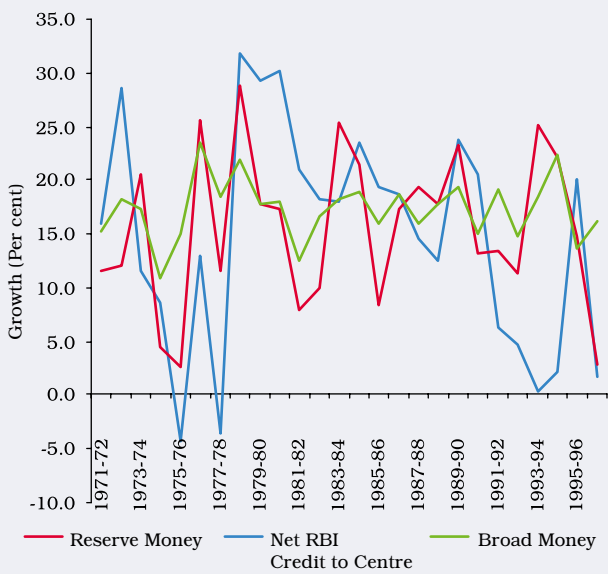


Chart VII.10: Reserve Bank's Open Market Operations

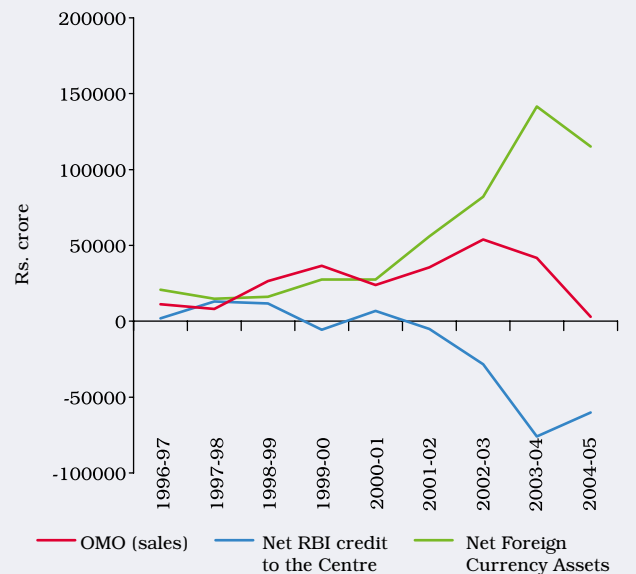
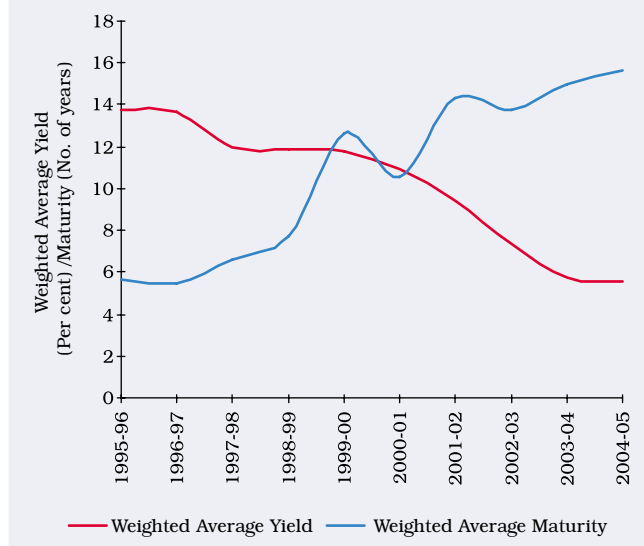


Chart VII.11: Yield and Maturity of Primary Issuances of the Centre



the problem of bunching of repayments and frequent roll-over arising from a large share of short-term debt in total debt, the Reserve Bank took a conscious decision to lengthen the maturity structure of market debt since 1998-99 amidst softer interest rate conditions so as to balance the objectives of interest cost and roll-over. This debt management strategy resulted in a gradual reduction in the average yield while elongating the average maturity of Central Government market loans over time (Chart VII.11).

7.160 An overall assessment of monetary fiscal interface indicates that fiscal deficit contributed positively in driving growth in money supply through net Reserve Bank credit to the Government particularly before 1997-98. Subsequently, the phasing out of automatic monetisation of fiscal deficit and surge in capital inflows have caused structural breaks in the relationship between net Reserve Bank credit to the Centre and its gross fiscal deficit in the years 1997 and 2001. Such a break in the relationship indicated a shift in the sources of money creation from the Government sector (net Reserve Bank credit to the Government) to the external sector (net foreign assets of the Reserve Bank) during the first half of the current decade. Thus, the impact of fiscal operations on monetary policy, which was predominant till 1997, weakened thereafter.

VIII. CONCLUSIONS

7.161 From the conceptual evolution of monetary fiscal interface in India documented above, it may be

useful to draw some lessons from the Reserve Bank's experience over the past seven decades. First, the Reserve Bank had to cope with the challenges thrown up by the changing phases of fiscal policy – from fiscal neutrality to fiscal dominance and further to fiscal consolidation - by suitably adapting the operating procedure of monetary policy and making institutional arrangements so as to foster monetary and financial stability. In this regard, the macroeconomic crisis of 1991 created urgency in addressing the imbalance in the monetary fiscal interface due to fiscal dominance. This was facilitated through a mutual agreement between the Reserve Bank and the Government to phase out automatic monetisation of fiscal deficit.

7.162 Second, despite some improvement in the monetary fiscal interface, fiscal dominance persisted with growing market borrowings, necessitating the Reserve Bank's adoption of a strategy of appropriately combining devolvement/private placements with open market operations in order to contain the cost of Government borrowings.

7.163 Third, the opening up of the economy posed new challenges in the conduct of monetary policy. In the wake of large capital flows, the dynamics of monetary fiscal interface has undergone a steady transformation whereby the problem of "impossible trinity" of fixed/managed exchange rate (for relative price stabilisation purposes and a credible nominal anchor), an independent monetary policy (for output stabilisation purposes) and an open capital account (for greater efficiency) has been addressed in a phased manner. While the Reserve Bank has been empowered with greater instrument autonomy, the exchange rate adjustment has essentially been market-driven with episodic interventions to counter self-fulfilling speculative activities. However, the opening up of the capital account has been calibrated sequentially which, as evident from the East Asian Crisis, has turned out to be prudent. The Reserve Bank, being at the helm of money, Government securities and foreign exchange markets, could balance diverse considerations of interest rate and exchange rate stability through appropriate market interventions and interest rate signals.

7.164 Finally, the Reserve Bank could carefully craft its debt management policy so as to simultaneously meet the objectives of minimising cost as well as reducing rollover risks of Government borrowings through elongation of maturity of Government paper. Thus, in this regard, the Reserve Bank has been successful in meeting the challenges of debt

management while ensuring orderly financial market conditions.

7.165 While the Reserve Bank's varied experience in handling different challenges would help in future policy formulation, it is imperative to take cognisance of certain issues, which are bound to shape the future course of monetary fiscal interface. First, there is a need to evaluate the progress made by the monetary fiscal coordination in India in relation to international evidence. While the survey of international best practices reveals that there is an institutional limit on central bank's accommodation to Government in most countries, in the Indian context, the extent of monetisation of public debt has declined in recent years as a result of the emerging macroeconomic dynamics whereby large capital flows had to be sterilised through open market operations.

7.166 Second, a unanimous view emerging from the international experience is that central banks refrain from participating in the primary market auction of Government securities. In India, as per the FRBM stipulations, the Reserve Bank would not be participating in the primary market auctions from April 2006 onwards. This would be in tune with the traditional argument that the power to spend money should be separated from the power to create money (Reddy, 2001). While the withdrawal of the Reserve Bank will impart greater functional autonomy to monetary policy, the Reserve Bank will have to keep a vigil on interest rate uncertainties and create alternate financing mechanism for ensuring successful completion of the Government's market borrowing programme. With the growing integration of financial markets, future demand pressures on the bond market would have repercussions for the entire structure of interest rates in the economy (Mohan, 2002).

7.167 Third, with high levels of public debt in India, the case for a separation of monetary and debt management seems to be gaining ground. International experience suggests that functional autonomy of debt from monetary management has been operationalised by hiving off the debt management office from the central banks thereby benefiting from the institutional memory and expertise of a common pool of resources. For instance, in the United States the Treasury and the Federal Reserve Board have traditionally maintained independence in their respective tasks of debt management and conduct of monetary policy though coordination exists between them. On the other hand, in many developing countries, the central bank

continues to be responsible for both monetary and debt management operations although it does not participate in the primary market of Government securities as a competitive bidder. Given the complexities in separating the function of monetary and debt management, a minimum requirement should be that their relationships and transactions be reported as transparently as possible (Reddy, 2001). In the event of a functional separation, greater explicit coordination between the monetary and the debt authorities would be required to resolve policy dilemmas of simultaneously undertaking exchange rate, monetary and debt management, which the Reserve Bank has hitherto addressed by virtue of being vested with all three responsibilities.

7.168 Fourth, the key to successful monetary-fiscal coordination is the realisation by the fiscal authorities that the control over deficits reins inflation expectations thereby facilitating the conduct of monetary policy. Thus, if inflation expectations are anchored at low levels, a proactive monetary policy can ensure a stable and low interest rate regime that is conducive to maintaining the momentum of economic growth while facilitating the task of public debt management.

7.169 Fifth, in the context of undertaking fiscal consolidation within the FRBM framework, it is imperative that the Governments do not take recourse to 'creative accounting' in order to fulfil the targets set under the fiscal rules. In this context, there is a need to transparently report all fiscal liabilities so that the monetary authority can accurately assess the credit needs of the Governments in the long-term and accordingly design its monetary policies.

7.170 Finally, coordination between fiscal and monetary policies can be ensured while maintaining operational autonomy if there is a consultative approach in (a) evolving macroeconomic objectives; (b) recognising the implications of various possible policy options for attaining these objectives; and (c) sharing and use of respective forecasts of the state of economy in the absence of policy interventions (Reddy, 2001). In this context, although a reasonable degree of monetary fiscal coordination has been achieved in anticipating future liquidity requirements through the operationalisation of a Short Term Liquidity Forecasting Model, there is a need to adapt the same to suit the future contextual settings over a longer term, particularly in the light of evolving macroeconomic scenario arising out of FRBM stipulations.

8.1 The balance sheet of a central bank is, in many ways, unique in character and distinct from those of other commercial organisations, including banks. It portrays the financial outcome of its diverse roles and responsibilities in an economy. Seen from this standpoint, it reflects a confluence of accounting principles and macro policies. By the virtue of being the monetary authority, a central bank's balance sheet reflects its exclusive feature of asset creation backing incurrence of monetary liabilities. A central bank is generally not only the sole currency issuance authority of a country, but also responsible for price and exchange rate stability in the economy and is often assigned special responsibilities as the banker to the Government and regulator of banking and financial system in the interest of financial stability. The interplay of such diverse functional responsibilities of a central bank has a significant bearing on various aspects of the macroeconomic framework with implications for external, fiscal and monetary sectors. The evolution of a central bank's balance sheet is, thus, generally closely linked to the development dynamics of an economy reflecting the central bank's role as the monetary authority and regulator of banking sector and financial markets. Against this backdrop, this chapter presents an analytical account of the evolution of the functioning of the Reserve Bank of India as reflected in the dynamics of its balance sheet¹.

8.2 The rest of the chapter is organised as follows. Section I provides an overview of the analytics of the balance sheet of a central bank. It focuses on the major liabilities and assets of a central bank and the analytical representation of the primary monetisation inherent in the balance sheet in terms of the creation of primary money. This section also encompasses a brief survey of recent literature. Section II focuses on the cross-country experiences in connection with central bank balance sheets. This encompasses a host of issues including the differences among central banks in terms of composition of assets and liabilities, capital and reserve positions while also throwing light on country practices in the context of demarcation of responsibilities between the central bank and the Government. Views on capital and reserve position of central banks and the mechanism of profit distribution

between the Government and the central bank in different countries have also been dealt with in this Section. Section III presents a detailed phase-wise analysis of the Reserve Bank balance sheet taking into account the regime shift in terms of monetary policy evolution against the backdrop of the changing macroeconomic environment. In order to bring out the structural shifts taking place through the period covered, the analysis is presented separately for the formative phase (1935-1949), foundation phase (1950-1967), phase of social control (1968-1990) and phase of financial liberalisation (1991 onwards). Section IV analyses the profit and loss account of the Reserve Bank. Apart from discussing constituents of and the trends in income and expenditure of the Reserve Bank, this section focuses on the transfer of profits to the Central Government as well. Section V highlights some of the recent issues in this regard. In particular, it examines three specific issues, viz., (a) transparency in central bank accounts, (b) risk management in central banks, and (c) contingency reserves. Section VI summarises major inferences and outlines the emerging issues in the light of the impact of policy actions of the Reserve Bank on its financial statements.

I. ANALYTICS OF CENTRAL BANK BALANCE SHEETS

8.3 A central bank balance sheet is a reflection of its various functions, particularly its role as a monetary authority and as banker to the Government and banks. In performing these roles, the central bank issues currency to meet public demand and provides credit to various sectors of the economy, thereby, injecting fresh money into the system that provides the basis for creation of money supply by the banking system through the money multiplier process.

8.4 A central bank typically incurs two types of liabilities, viz., (a) monetary liabilities and (b) non-monetary liabilities (Table 8.1). Monetary liabilities of a central bank balance sheet include currency and bank reserves. The size of bank reserves or banks' deposits held with the central bank depends on its three constituents, viz., required reserves, settlement balances and excess reserves. Amongst non-

¹ This chapter includes discussions on the Profit and Loss Account of the Reserve Bank of India as well.

monetary liabilities, Governments typically park their cash balances with the central bank, which is usually their only banker. The capital account comprises paid-up capital – often fully state-subscribed and reserves, kept for contingency and prudential purposes besides revaluation accounts. Miscellaneous liabilities, such as bills payable, are grouped together under ‘other liabilities’.

8.5 On the asset side, most central banks continue to hold ‘monetary’ gold. The quality of the assets backing the national currency is further reinforced by restricting investments in terms of sovereign paper of either domestic Governments or foreign Governments, often in foreign currency. Although some do accept commercial paper, most central banks prefer to deal in gilts because of the concomitant absence of default risk (Zelmer, 2001). Central banks also offer lines of credit to their Governments and to banks (especially, refinance) as their bankers and sometimes as liquidity support to rest of the financial sector as well.² Non-financial assets such as land and buildings and bills receivable are shown under ‘other assets’. However, they are generally negligible in dimension compared to financial assets of central banks.

8.6 The extent of primary monetisation implicit in a central bank’s balance sheet can be assessed by redrawing its assets and liabilities into an analytically meaningful construct of reserve money or high powered money, which is central to the money-multiplier theory of money stock determination. For the purpose of constructing reserve money, a distinction is made between the monetary and non-monetary liabilities (and assets) of a central bank as its assets and liabilities are redrawn to arrive at the sources (assets) and components (liabilities) of reserve money. Several liabilities of a central bank

are actually non-monetary in character because they are liabilities to itself (such as reserves) or illiquid (such as revaluation accounts). Government balances are also typically treated as non-monetary because the Government is usually considered an issuer of money along with the central bank because of its ability to create fiat money. Monetary analysis, thus, focuses on the ‘monetary liabilities’, mainly in the form of currency and banks’ deposits with the central bank, usually called reserve money (Table 8.2).

8.7 The balance sheet of the central bank reflects the flow of primary liquidity in the system and is, thus, considered critical from the point of view of analytics of liquidity management. An analytical decomposition of a stylised central bank balance sheet can be useful in segregating the primary liquidity provided by a central bank into autonomous and discretionary liquidity (Borio, 1997). While autonomous liquidity encompasses the primary liquidity available to banks, arising out of regular central banking functions as the currency authority, banker to banks and to the Government, discretionary liquidity can be assessed by tracking the central bank’s money market operations and reaction of the monetary authority to autonomous changes in market liquidity.

8.8 The size and the composition of various assets and liabilities of a central bank balance sheet depend

Table 8.1: A Stylised Central Bank Balance Sheet

Liabilities	Assets
1	2
1. Paid-up Capital	1. Loans and Advances
2. Reserves	of which: Government
3. Currency	Banks
4. Banks’ Deposits with Central Bank	Others
5. Government Deposits	2. Investments
	of which: Government Securities
	Foreign Assets
	3. Gold
6. Other Liabilities	4. Other Assets
Total Liabilities (1 to 6)	Total Assets (1 to 4)

Table 8.2: A Stylised Decomposition of Reserve Money

Components	Sources
1	2
1. Currency	1. Net Central Bank Credit to Government (a+b-c)
2. Banks’ Deposits with Central Bank	a. Loans and Advances to Government
	b. Investment in Government Securities
	c. Government Deposits with Central Banks
	2. Loans and Advances to Banks and Others
	3. Net Foreign Assets of Central Bank (a+b)
	a. Investments in Foreign Assets (net)
	b. Gold
	4. Net Non-monetary Liabilities (a+b+c-d)
	a. Paid-up Capital
	b. Reserves
	c. Other Liabilities
	d. Other Assets
Reserve Money (1+2)	Reserve Money (1+2+3-4)

² Most central banks act as lender of last resort to the banking system.

BALANCE SHEET OF THE RESERVE BANK

critically on the strength of financial deepening and the resultant degree of monetisation in an economy at any given point of time. As the banking and financial networks spread in a country, banking habits are inculcated in economic agents resulting into a switch from demand for cash to bank deposits. The lower order of cash demand – that is, a lower order of leakage from the banking system – leads to higher degree of monetisation. The expansion in banking activities and the higher degree of monetisation are typically reflected in the balance sheet of the central bank in the form of rising bank reserves necessary for higher inter-bank settlement requirements and prudential and policy considerations. However, at an even matured stage of the payment and settlement systems, with strong deregulated clearing networks, the requirement of excess reserves for settlement purpose comes down significantly. The lower requirement of bank reserves, together with lower cash demand, thus, often ends up shrinking the size of the central bank balance sheet. On the other hand, the asset composition of a central bank balance sheet tends to be driven by the state of financial development. In the initial stage of financial development, the central bank's direct accommodation to Government increases the size of the balance sheet by increasing holding of Government paper. With development of

financial markets, central banks are commonly seen to move more and more towards indirect instruments of monetary management and a central bank's balance sheet increasingly reflects the impact of its market operations. While by using direct instruments of monetary management (e.g., the reserve requirements) a central bank affects the commercial banks' balance sheets directly, by employing indirect instruments (e.g., open market operations) the effects on the market participants' balance sheets evolve subsequent to the effects of the central bank's policy actions on its own balance sheet. Thus, with relatively advanced state of affairs, the composition and movements in the assets and liabilities of a central bank is potentially even more revealing.

Impact of Monetary Operations on Central Bank's Balance Sheet

8.9 In this context, it may be useful to analyse the impact of such policy operations on the balance sheet of a central bank (Table 8.3).

Changes in Reserve Requirements

8.10 Most of the central banks are empowered to levy a cash reserve requirement on banks' eligible demand and time liabilities. Changes in reserve

Table 8.3: Balance Sheet Movements under Different Monetary Policy Instruments

Monetary Policy Instrument	Operation	Central Bank Balance Sheet Movements		
		Monetary Base	Net Domestic Assets	Bank Reserves
1	2	3	4	5
1. Standing facilities	• Higher loans through refinancing facility	↑	↑	↑
	• Higher deposits through deposit facility	↓	↓	↓
2. Open market operations	• Outright purchase of securities or repos	↑	↑	↑
	• Outright sales of securities or reverse repos	↓	↓	↓
3. Foreign exchange operations	• Purchase of foreign currency	↑	Constant	↑
	• Foreign exchange swap (purchase forex spot and sell forward)	↑	Constant	↑
4. Reserve requirements	• Increase in reserve ratios:			
	- Short-run	↑	↑	↑
	- Medium-run	uncertain	uncertain	uncertain
	• Reduction in reserve ratios:			
- Short-run	↓	↓	↓	
- Medium-run	uncertain	uncertain	uncertain	

Source: Schaechter, A. (2001): "Implementation of Monetary Policy and Central Bank Balance Sheet", *IMF Working Paper*, WP/01/149.

requirements alter the composition of reserve money, the profitability of the balance sheet as well as bank liquidity. A change in the cash reserve ratio (CRR) alters the ratio of currency and reserves on the liability side. The impact on the asset side depends on the particular monetary environment. Typically when the central bank finances Government expenditure in a developing economy, it tends to neutralise the monetary impact by raising the CRR, thereby, expanding its balance sheet. If the CRR is raised to sterilise the impact of capital inflows, there would be a shift in favour of net foreign assets. If CRR is raised in order to tighten monetary conditions to arrest capital outflows, the market liquidity gap generated by the mix of higher reserve requirements and draw down of foreign exchange assets is likely to be funded by an increase in net domestic assets either through repos or higher recourse to standing facilities. Finally, a reduction in CRR is almost always associated with a reduction in domestic assets as banks either invest the release of resources in reverse repos or in retiring standing facilities. The impact of reserve requirements on central bank profitability also depends on the monetary situation. First, the payout in the form of interest on CRR balances is a charge on income. Moreover, the change in the ratio of domestic and foreign assets affects central bank's income to the extent of the differential between domestic and international interest rates.

Refinance Facilities

8.11 An increase (reduction) in standing facilities of the central bank to the banks results in a change in the size of reserve money. Typically in a less developed economy, when the central bank aims at promoting sector-specific refinance facilities, the banks' lending to those sectors is refinanced from the central bank leading to an expansion of the central bank's balance sheet.

Open Market Operations (OMOs)

8.12 A basic liquidity management instrument of a central bank is its dealing in Government paper. Open market operations (including repo operations) have emerged as the principal tool of managing liquidity and stabilising short-term interest rates particularly for economies at a relatively matured stage of financial development. The impact of OMO on the central bank balance sheet (and reserve money) is essentially situation-specific. In case OMO is necessitated by changes in demand for either currency or bank

reserves, there would be a corresponding change in the size of the balance sheet (and reserve money). In case, OMO is driven by changes in capital flows, there is no change in the balance sheet size (and reserve money) although monetary conditions in terms of money market rates and exchange rates could be affected. In each case, the composition of the balance sheet (and reserve money) in terms of net domestic and foreign assets would undergo a change depending on the operations involved. In terms of profitability, there are two effects: direct and indirect. In case Government securities are bought outright, the central bank earns interest income from the Government. The central bank also incurs profits/losses in the conduct of OMOs. In case of repo (reverse repo) operations, the central bank earns (pays) interest from (to) the counterparties, viz., commercial banks and primary dealers. Besides, tightening monetary conditions results in a depreciation of the Government securities portfolio, which would have to be accounted for against current income.

Discount / Bank Rate

8.13 The Discount / Bank Rate is the standard rate at which loans to the Government by the central bank and a part of standing facilities to bank's and Primary Dealer's are remunerated. This often serves as the key policy rate acting as a signal for the interest rate in the economy particularly over the medium term. While an increase in the Bank Rate entails higher income from standing facilities, there is a higher outgo on account of higher interest payable on CRR balances in case if a central bank follows the practice of remunerating CRR balances at a rate linked to the Bank Rate.

Recent thinking on Central Bank Balance Sheet

8.14 Central bank balance sheet has received considerable attention in recent literature. The balance sheet of a central bank is seen as a reflection of its interaction with market participants as part of monetary policy operations, and various issues, such as, strength, solvency, transparency and risk management have been flagged in the context of the central bank balance sheet.

8.15 Notwithstanding the fact that the performance of a central bank is judged on the basis of its policy effectiveness in terms of achievement of assigned objectives, there is, by and large, an acceptance of the fact that the strength of the balance sheet improves the effectiveness of a central bank in the discharge of its various functional responsibilities. This

view is a corollary of the developments that have supported greater central bank independence and have made central banks more transparent and accountable in terms of their financial performance (Sullivan, 2003).

8.16 In recent years, as central banks move towards international best practices, one of the key concerns has been adequacy of capital cushion in the wake of increasing sensitivity of central bank balance sheet to market fluctuations. Although some central banks with strong balance sheets hold very low capital, the international developments tend to support the argument that a central bank should hold sufficient capital to remain solvent (Sullivan, 2003; Stella, 1997, 2002 and 2003; Martinez-Resano, 2004). While there is no definitive view on 'capital adequacy' for central banks, determinants of the appropriate level of capital have been looked at from the point of view of the policy regime and policy objectives of central banks. Recent literature underscores the need for an assessment of central bank's financial vulnerability based on 'Value at Risk' (VaR) approach, taking into account risks both from traditional central banking operations and off-balance sheet positions of a central bank (Blejer and Schumacher, 1998). The view in support of strong capital position has been so forceful that several central banks have started examining different options for strengthening their capital position with a view to remaining solvent and operationally independent.

8.17 Differences in composition of assets and liabilities across central banks get closely linked to the relative importance of their functional responsibilities and other country-specific practices. The role of central banks in the economy has undergone a significant shift in terms of their objectives and operations through various phases in the past. Central banks have assumed different responsibilities in different phases influenced by the prevailing macroeconomic, financial, political and legal environment, exchange rate ideology and the relative significance assigned to their role as fiscal agent of the Government and the note issuance authority. In the present environment, central banks are being perceived as modern institutions with a distinctive monetary policy function (Scobie and Cagliosi, 2000).

8.18 It is held that ideally a central bank should hold sufficient capital to absorb any losses arising from the discharge of its functions, and enable it to maintain a non-negative capital position (Sullivan, 2003). A weak financial position of a central bank hampers its

functioning as a fiscal agent of the Government or its credibility to maintain an effective domestic payment system. It would be appropriate for the central banks to adopt, over the medium-term, a risk-based level of capital adequacy which allows a zero capital or non-negative capital position in the context of central bank independence, policy efficacy, reputation and fiscal transparency (Stella, 1997). This view is held notwithstanding the recognition that the establishment of a risk-based capital for central banks is often difficult. At the same time, an undue emphasis on adjustments in levels of capital to risk-based capital adequacy norms may lead to impairment of policy efficacy.

8.19 Notwithstanding wide variations across central banks, there appears to be a recognition of the fact that central banks should be strong in terms of their capital and reserve position to shoulder their policy responsibilities, to safeguard against an increasingly risk prone financial and operational environment, and above all to remain independent. "The appropriate level of central bank net worth is that sufficient to ensure that in the normal course of operations, the bank will be able to meet its policy goals and preserve its financial independence from the treasury" (Stella, 2002).

8.20 An issue that has been extensively debated in the literature relates to the presentation of 'Financial Statements' keeping in view the compulsions being brought about by transparency and accountability requirements for central banks (Sullivan, 2003; International Monetary Fund, 2000; Capie *et al*, 1994). The valuation criteria and other accounting practices still differ across central banks. The central banks are not yet agreeable to the implementation of international accounting standards applicable to commercial financial entities. However, some central banks have put in place their own accounting and reporting standards that are broadly in line with the international standards except for the fact that certain provisions have been modified/adopted to suit their country-specific requirements, and provide for profit smoothing (Martinez-Resano, 2004; Foster, 2004). In the literature, the sustainability of central bank debt issuances for sterilisation operations or extending support during the banking crisis has been examined particularly from the point of view of the burden that such issuances impose on central banks in the medium-term (Stella, 2002). Risk management for central bankers has become a difficult task in an environment of economic uncertainty and volatility in financial markets, which have a significant bearing

on financial performance of central banks (Foster, 2004). While the focus has been on risk management for central banks' foreign reserves, the identification, measurement and management of other financial and operational risks is considered no less important. The risk management procedures have been developed and suitably translated into corporate governance by larger central banks.

II. STYLISTED FACTS FROM CROSS-COUNTRY EXPERIENCES

8.21 While the basics of central banks' balance sheets have elements of commonality, they do differ in terms of specifics reflecting differences in operations such as monetary or debt management as well as the objectives of monetary policy. They also differ in size and composition. Besides, depending on the institutional arrangement between the central bank and the Government, there are variations in the pattern and extent of profit transfer. The financials also differ in terms of accounting policies and disclosure norms.

Size of a Central Bank Balance Sheet

8.22 The size of a central bank balance sheet is primarily a reflection of functional responsibilities including monetary policy objectives, operational practices and degree of development of financial markets in an economy. The balance sheet size, therefore, varies across central banks (Table 8.4).

Composition of Central Bank Balance Sheet

Liabilities

8.23 The notes issued by a central bank typically constitute its major liability. The size of banks' balances with a central bank, the second most important monetary liability of a central bank, provides an idea about their 'voluntary' or 'compulsory' nature. Central banks of New Zealand, Hong Kong, Mexico, Australia and Switzerland do not impose cash reserve requirements on banks. In some countries, a change in reserve requirement by a central bank requires Government approval while in others this authority lies with the central bank. Similarly, Treasury deposits are symptomatic of the banking relationship between the Treasury and the central bank³. Treasury deposits may not necessarily be kept with the central bank.

Table 8.4: Size of Central Bank Balance Sheet

Central Bank	Reference Date	Total Liabilities as per cent to GDP
1	2	3
Australia	June 30, 2005	10.1
Brazil	May 31, 2005	28.3
Canada	December 31, 2004	3.6
Germany	December 31, 2004	13.3
India	June 30, 2005	21.9
Japan	March 31, 2005	29.8
Korea	December 31, 2004	32.5
Malaysia	December 31, 2004	63.6
Portugal	December 31, 2004	22.8
Russia	December 31, 2004	17.0
Singapore	March 31, 2005	10.3
South Africa	March 31, 2005	9.4
Sweden	December 31, 2004	7.2
USA	December 31, 2004	6.9

Source: Balance Sheets of respective central banks

Furthermore, there is no uniform practice of remunerating these deposits across countries. In Japan, USA, South Africa and Russia Government deposits are unremunerated. There is also the tradition of not paying for the services provided by the central bank as fiscal agent (Germany and the Netherlands). In USA, the Department of Treasury is permitted by statute, but not required, to pay for these services. In addition to these deposit balances, there are instances of country-specific practices e.g., Bank of Korea holds substantial amount in the form of Foreign Exchange Stabilisation Fund deposits. There are also a few instances of central banks playing the role of intermediaries for the purpose of raising foreign resources for on lending to the Government (Argentina and Chile) (Table 8.5).

Central Bank Papers

8.24 The issue of central bank's own liabilities has often been associated with the lending support extended to banks in times of banking crises (Chile and Indonesia) or with the sterilisation initiatives to counter the impact of excessive capital inflows. The Central Bank of Argentina issues its own securities as a monetary absorption tool. The securities have been issued in Argentine pesos and US dollars since

³ Some central banks have control over government deposits. Bank of Canada can transfer government deposits from commercial banks to itself; in Germany, government deposits can be held outside the central bank only with its authorisation. Belgium imposes a ceiling on Government deposits linked to Government revenue in the previous year.

BALANCE SHEET OF THE RESERVE BANK

Table 8.5: Major Liabilities of Select Central Banks

(Per cent of Total Liabilities)

Central Bank	Reference Date	Currency	Deposits of Banks and Financial Institutions	Deposits of Government	Central Bank Paper	Securities sold under repurchase agreements*
1	2	3	4	5	6	7
Argentina	December 31, 2004	23.9	9.4	0.1	13.1	0.0
Australia	June 30, 2005	41.9	1.5	31.7	0.0	9.7
Canada	December 31, 2004	94.7	1.1	2.3	0.0	0.0
Chile	December 31, 2003	12.1	1.1	0.8	82.7	0.0
India	June 30, 2005	55.4	18.3	10.6	0.0	0.0
Indonesia	December 31, 2004	19.5	12.6	7.7	22.1	0.0
Jamaica	August 24, 2005	10.7	9.4	7.8	64.8	0.0
Japan	March 31, 2005	49.6	24.0	5.0	0.0	16.2
Malaysia	December 31, 2004	11.4	43.8	9.0	5.9	9.8
Mexico	December 31, 2004	36.0	24.6	11.9	24.6	0.0
Russia	December 31, 2004	40.8	19.8	21.7	0.2	0.0
Singapore	March 31, 2005	8.0	3.9	52.1	0.0	0.0
South Africa	March 31, 2005	38.4	17.7	1.6	10.1	5.6
Sweden	December 31, 2004	59.6	0.3	0.0	0.0	0.0
USA	December 31, 2004	88.7	3.0	0.7	0.0	3.8

* In some cases these details are not separately available.

Source: Balance Sheets of respective central banks.

2002. A portion of these securities has been allowed to be used for repurchase agreements as monetary regulation instrument from May 2004. In Hong Kong, the central bank securities were issued with a view to establishing a benchmark yield curve to help develop the corporate bond market as well as an

instrument for OMOs in the absence of availability of Government paper on account of Government surpluses (Hawkins, 2003). Central bank paper issuances have been significant in Korea, Indonesia, Argentina, Chile, Thailand, UK, South Africa and Mexico (Table 8.6).

Table 8.6: Central Bank Paper in Balance Sheet of Select Central Banks

Central Bank	Instrument	Percentage share of central bank paper in total liabilities
1	2	3
Argentina	Central bank securities	13.1
Brazil	Own issue debt securities	2.4
Chile	Central bank bonds/indexed promissory notes/indexed coupons/deposit certificates	82.7
India	—	—
Indonesia	Bank Indonesia certificates	22.1
Korea	Monetary Stabilisation bonds	56.4
Malaysia	Bank Negara paper	5.9
Mexico	Mexico Regulation bonds	24.6
South Africa	Reserve Bank debentures (unsecured) issued to the market on tender for 28 or 56 days.	10.1
Thailand	Bank of Thailand bonds	25.1@
UK	Debt securities	26.7@

@ As percentage to total liabilities of Banking Department.

Note: Data pertain to 2004 except for Brazil and South Africa for which they pertain to 2005.

8.25 In several cases, the sterilisation of foreign exchange intervention through the issue of central bank paper has had serious implications from the point of view of its impact on profitability of central banks (e.g., Venezuela, Chile, Uruguay, and Portugal). In fact, the burden on the central bank arising as a result of interest expenses and the resultant losses in several cases raise concerns about the sustainability of central bank debt issuances. The counteractive response has been reflected in substitution of central bank paper by Government paper in a number of Latin American countries. In Uruguay, in the late 1980s, the central bank began replacing its own bills with Treasury Bills in the conduct of open market operations. This process was completed by the end of 1993 resulting in transfer of cost of OMOs to the Treasury. Similarly, under the Brazilian Law of Fiscal Responsibility, the central bank was required to cease issuing its own debt effective May 2002 and use only Government securities for all monetary operations.

Assets

8.26 The composition of assets in terms of international *vis-à-vis* domestic assets is indicative of the role of a central bank in controlling the external value of domestic currency or managing exchange rate stability.

8.27 In USA, the Fed is responsible for formulating and executing monetary policy but it conducts all foreign exchange trading for the US Treasury and the Federal Reserve System at the direction of the Federal Open Market Committee and Treasury. Furthermore, the US Treasury decides exchange rate policy in consultation with the Federal Reserve System. In contrast, the central banks of New Zealand and Chile are explicitly entrusted with the task of maintaining stability in domestic and external values of their currencies⁴. In several cases, Treasury or other Government organisations also hold foreign exchange assets in their own portfolios (Canada, USA, New Zealand and Japan). In Japan, the total reserve holding by Bank of Japan accounted for only 3.3 per cent of its total assets. The South African Reserve Bank holds gold and foreign exchange on its balance

sheet but the risk is borne by the South African Government⁵. Reflecting these diverse practices, the share of international assets to total assets of these central banks is relatively low (e.g., Bank of England, Federal Reserve Bank of New York in USA, Bank of Japan, Bank of Canada). At the other extreme, there are central banks that hold sizeable international assets with some of them holding these reserves to support their exchange rate policy (Table 8.7).

8.28 Institutional and functional arrangements in respect of financial support to the Treasury vary widely though an increasing independence granted to central banks in these areas has manifested in reducing share of central bank funding across countries. Lending to the Government (loans, overdraft and purchase of bonds in primary market) is not

Table 8.7: Major Assets of Select Central Banks

(Per cent of Total Assets)

Country	Gold, International Reserves & other Foreign assets	Loans and advances to banks/ other institutions	Claims on Government	Securities purchased under resale agreements*
1	2	3	4	5
Argentina	37.1	13.2	13.7	0.0
Australia	73.5	0.0	0.0	0.0
Canada	1.1	0.0	92.4	5.4
Chile	60.9	3.1	0.0	4.1
India	83.8	0.6	0.1	0.0
Indonesia	45.3	2.3	42.6	0.0
Jamaica	57.0	0.0	36.1	0.0
Japan	3.3	25.0	65.9	3.5
Malaysia	89.0	3.7	0.1	6.2
Mexico	73.0	13.5	0.0	0.0
Russia	85.4	0.6	11.6	0.0
Singapore	95.9	0.0	3.5	0.0
South Africa	76.7	0.0	10.3	10.5
Sweden	79.4	0.0	0.0	9.3
USA	4.3	0.0	89.5	4.1

* In some cases these details are not separately available.

Note : The dates for the data of the central banks for the respective countries are same as in Table 8.4.

Source : Balance Sheets of respective central banks.

⁴ In Hong Kong, foreign reserves are held in the Exchange Fund but the management of reserves is with the Hong Kong Monetary Authority. In Canada, international reserves are held as an asset in the Government's Exchange Fund Account. In New Zealand, the central bank also holds foreign currency assets to enable intervention in the foreign exchange market.

⁵ The Bank maintains the 'Gold and Foreign Exchange Contingency Reserve Account' representing the amount due to the Bank by the South African Government in respect of realised profits and losses incurred on gold and foreign exchange transactions. The amount due is interest free and repayment terms are subject to an agreement between the National Treasury and the Bank.

constitutionally allowed in Brazil, Chile, Peru and Poland⁶. Loans to Government are either prohibited by constitution or law in China, Indonesia, Mexico, Hungary, Russia, Turkey, Euro area, United Kingdom (under Maastricht Treaty) and the United States⁷ (Hawkins, 2003). The fiscal discipline initiatives that culminated in Stability and Growth Pact in the Euro area, fiscal consolidation measures in New Zealand and Australia and also in a number of other countries point towards the reduced dependence of the Government on support from the central bank lending⁸. The practice of imposition of ceiling on lending to Government by central banks is generally considered as an institutional guarantee of central bank independence. Although there is a tendency to revise the ceiling upwards at regular intervals by some central banks, the practice itself gives some credibility to fiscal discipline. Non-bank private sector claims of central banks are mostly insignificant. Central bank of Brazil, however, holds sizeable private sector claims in its balance sheets.

Role of Capital and Reserves in Balance Sheet Management

8.29 Internationally, the issue relating to adequacy of capital and reserves of central banks is unsettled with the country practices varying widely and providing no clear direction in this area. An analysis based on capital and reserve position of select central banks reveals that the ratio of capital and reserves to total liabilities ranges between 0.10 per cent and 38.0 per cent. The large variations can neither be explained in terms of exchange rate regimes, nor in terms of other economic factors, *viz.*, ownership structure, fiscal deficit, undervalued/overvalued exchange rate policies. There seems to be lack of convergence among central banks on the issue of adequacy of reserve levels. This can also be inferred from the fact that there are no international norms on capital and reserve position of central banks. Nevertheless, the important determinants of the level of reserves of central banks are identified as the composition of assets, degree of openness, exchange rate regimes, associated risks and availability of hedging

mechanism, type of monetary policy and intervention tools used, movements in exchange and interest rate variables, other operational and financial risks faced by them, and financial stability concerns. Central bank reserves are generally stipulated at a certain level, in either absolute (Bank of Canada) or relative terms (linked to some component of balance sheet *e.g.*, monetary liabilities in the case of Bank Indonesia). There are also cases of stipulation of central bank reserves in terms of macroeconomic variables, *viz.*, Gross Domestic Product (Bank of Mexico) or some measure of 'solvency' of the central bank.

8.30 Recent developments indicate a preference for holding capital and reserves at a sufficient level to maintain financial soundness of a central bank. For example, the Bank of Japan considers that its capital adequacy ratio (capital base including reserves and provisions as a ratio of the period average of bank notes issued) should be around 10 per cent. The Federal Reserve of USA and Bank of Canada, however, still hold very low capital. In both the cases, international reserves are mainly held in the 'Exchange Stabilisation Fund' or 'Exchange Fund Account' and are therefore not on the central bank balance sheet. In Norway, the proceeds from oil sales are held by a separate government agency. Given this, the view that emerges is that the central banks that do not hold reserve assets on their balance sheets, are less exposed to foreign exchange risk and therefore, require relatively small capital reserves and *vice versa*. On the contrary, the capital requirements are expected to be larger for central banks entrusted with *quasi*-fiscal activities to ensure that any possible losses arising on account of such activities do not interfere with their monetary policy objectives.

8.31 Central bank practices reveal that several central banks maintain revaluation reserves, in addition to general reserves, as stipulated by the legislation or at their own discretion (Table 8.8).

8.32 In case of certain countries, though rare, central bank stocks are traded in stock markets. The reaction of the market to central bank stocks in those countries reveals interesting findings (Box VIII.1).

⁶ In Chile, purchase of bonds in the secondary market by central bank is also prohibited by constitution that puts it in the category of countries having the most stringent legal restrictions on government funding.

⁷ The US Budget Enforcement Act 1990 was an attempt towards fiscal discipline. However, the government funding *via* purchase of bonds in secondary market continues and financing of treasury is an important item on the asset side of the Federal Reserve.

⁸ The constraints on central bank credit to the government have been brought about through restrictions on overdrafts, fixed-term loans and advances and purchase of securities in primary market while allowing discretion in respect of purchase of securities in secondary market, repurchase agreements and government deposits at central bank.

Table 8.8: Capital Account of Central Banks

(Per cent of Total Liabilities)

Country	Capital
1	2
Australia	11.3
Brazil	2.0
Canada	0.1
Germany	11.2
India	15.0
Indonesia	16.8
Italy	19.0
Japan	3.5
Korea	2.3
Malaysia	18.1
Portugal	13.3
Russia	4.6
Singapore	9.2
South Africa	4.0
Sweden	35.7
Switzerland	38.0
Thailand	4.9
UK	7.2
USA	2.9

Note: Data pertain to 2004 except for Australia, Brazil, India, and South Africa for which they pertain to 2005.

Distribution of Profit

8.33 Distribution of central bank profit to Government is almost universal and is also independent of the ownership structure of central banks. The practices differ across countries to the extent that the distribution of profit to the Government is a first charge in several cases and is at pre-determined rates linked to share of surplus, total assets/selected assets/liabilities, paid-up capital or some other criterion

without any discretionary authority vested with the central bank or its board while in other cases, the central bank profit is distributed only after its transfer to reserves in accordance with the central bank legislation in this regard or at discretion of the central bank/Government (Annex VIII.1). Even in countries where the allocation of profit to the central bank reserves is a first charge, the profit allocations to the Government turn out to be sizeable. At the other extreme, some central banks have even utilised their reserves/provisions for dividend distribution to the Treasury in years of negative operating profit (e.g., Portugal, Czech National Bank and Korea)⁹.

8.34 Central banks typically have statutory caps on the amount transferable to the non-Government public. The dividend amount payable to the shareholders by the Bank of Japan is fixed at 5 per cent of its surplus income. Bank of Belgium, Bank of Greece, Swiss National Bank and Central Bank of Turkey also have stipulations that limit the surplus allocations to non-Government shareholders. By virtue of being the note issuance authority, the central banks remit their profits to the Government even if they are privately owned (e.g., South African Reserve Bank). During the initial years of its operations, i.e., the private shareholding era, the Reserve Bank of India paid a dividend at the rate of 3.5 per cent of share capital to private shareholders (remaining surplus was transferred to the Government) which was raised to 4 per cent from June 1943 and remained unaltered till the Bank was nationalised on January 1, 1949. The limitation of dividend was intended to ensure that the Reserve Bank's business activities were not governed by profit considerations.

Box VIII.1

Market Performance of Central Bank Stocks

Share capital of central banks are typically subscribed to by the Government (in some cases by commercial banks too) and central bank stocks are generally not tradable. However, in case of certain countries, e.g., Belgium and Japan, central bank stocks are found to be traded on the Brussels and Tokyo stock exchanges, respectively, giving birth of the rare possibility where the central bank can be owned by the public and the capital market can also offer a quantitative evaluation of a Government agency.

Empirical investigation of central bank stock return assuming its linear relationship with stock market return, bank-specific factors and macroeconomic factors shows that the stocks of the central banks of Belgium and Japan have been under-performing *vis-à-vis* their respective stock market indices. Stocks of these two central banks are found to be under-performing on a risk-adjusted basis too. Empirical testing shows that the only factor

which is statistically significant in determining returns on central bank stocks is the stock market return. Although, macroeconomic variables such as the unemployment rate, the dollar exchange rate, and the growth in industrial production show some significant relationship in a univariate context, neither the assets of the central bank nor the macroeconomic factors are significant determinants of central bank stock returns in multivariate analysis. A study examining the effect of certain macroeconomic events on the value of the Bank of Japan stock also turns out to be statistically insignificant.

Source:

Goldberg L.G. and Rezaul Kabir (2002): The Stock Market Performance of the Central Banks of Belgium and Japan, *Journal of Economics and Business*, Vol 54.

⁹ Bank of Thailand maintains 'Reserve' for stabilisation of profits payable to Government.

Accounting Practices

8.35 Most central banks follow an accrual system of accounting for recognition of income and expenses¹⁰. The international standards stipulate the adoption of fair value as a measurement basis for financial instruments as against the continued use of conservative asset valuation standards by several central banks. Under the conservative method of valuation of assets and liabilities at cost price both in terms of the price of the asset and, in the case of foreign assets and liabilities, the exchange rate of the transaction, changes in values of assets or liabilities and the related profits and losses are recognised only at the time of disposal of the asset or liability (Sullivan, 2002). There is no unanimity of view on the issue of adoption of mark to market principle of valuation by central banks (Annex VIII.2). Given the fact that the central banks are required to act in the public interest, it is held that the requirement of mark to market should not be made applicable to them. However, the risks attached to large-scale foreign exchange intervention by central banks suggest that the adoption of this valuation principle would be in their own interest.

8.36 Central banks face the challenge of making their financial statements more transparent and credible while also striking a proper balance between adequate dividend distribution and improving their capital positions. The recognition of unrealised profits in income statements poses problems from the standpoint of dividend distribution if liquid assets do not back such profits. The distribution of dividends based on unrealised profits has the limitation of being pro-cyclical rather than counter-cyclical. A view is held that market value based accounting practices increase a wedge between short-term and medium-term central bank financial vulnerability (Martinez-Resano, 2004). In view of these constraints, the preferred choice is to adhere to market value specification under the International Accounting Standards (IAS) with appropriate modifications. For example, Norges Bank follows a market value based financial reporting framework with smoothing provisions¹¹. The European System of Central Banks (ESCB) has adopted a modified fair value accounting system that is based on an asymmetric approach to the treatment of unrealised gains and losses for prudential reasons, *i.e.*, to control its financial

strength. While unrealised losses for each asset class are irreversibly recorded in its profit and loss statement, unrealised gains are taken to a revaluation account in the liability side. This practice is considered as an acceptable solution to the independence-accountability trade-off by several central banks. It is also considered appropriate as the provisioning methodology under IAS precludes creation of banking reserves that can be used as buffer against adverse foreign exchange movements. The Federal Reserve System and the Bank of England, however, continue to follow proprietary accounting principles based on an amortised cost approach that has an in-built profit-smoothing feature.

Reporting and Disclosure Practices

8.37 There is a trend towards increasing transparency in balance sheet disclosures in recent times. The Bank of Canada provides details of expenditure by different functions, *viz.*, monetary policy, currency, financial system, funds management and retail debt services. Bank Indonesia publishes details of both income and expenditure by functions such as Monetary Operations (foreign reserve management, money market activities and credit and financing), Payment System Services, Banking Services and others. The Reserve Bank of New Zealand also reports income and expenses by functions in its financial statement. While a few central banks provide activity-wise details of income and expenditure, the Bank of England holds the view that disaggregated analysis by business unit or geographic segment is not considered appropriate for financial reporting purposes.

8.38 The central banks have started disseminating information on off-balance sheet instruments, *viz.*, collateral received, forward foreign exchange and interest rate transactions, securities and other items held in custody, in their financial statements (*e.g.*, Portugal). Off-balance sheet instruments with a positive net market value are reported as assets and those with a negative value as liabilities in the balance sheet of central bank of Sweden (Riksbank). Forward exchange contract liabilities are reported as component of total liabilities by the central bank of South Africa. Off-balance sheet instruments revaluation differences are shown in 'other liabilities' (*e.g.*, Germany).

¹⁰ Bank of Russia accounts for income and expenses in the Profit and Loss account on a cash basis.

¹¹ The fluctuations in profit distribution to the Treasury are avoided by maintaining adequate capital and reserves linked to net open foreign exchange position and holdings of domestic securities, and distributing the average amount transferred to the holding account in the preceding three years.

8.39 The Bank of England, the Bank of Thailand and the Reserve Bank of India prepare separate accounts of the Banking and Issue Departments. Bank of Thailand also excludes accounts of the Exchange Fluctuation Fund and the Financial Institutions Development Fund. South African Reserve Bank provides financial statements for the Group (*i.e.*, the Central Bank and its subsidiaries) and Bank, separately while the Reserve Bank of Australia prepares and disseminates consolidated financial statements covering its subsidiary and controlled entities.

8.40 Reporting of income by functions, however, is not very common in dissemination of financial results by central banks. In the absence of such details, it is not possible to distinguish the central bank revenue accruing from its monopoly function of note issuance. Many central banks continue to be conservative in adoption of valuation criteria and are less transparent in release of information in their financial statements. In several cases, the conservative approach towards disclosures is supported on the basis of the need to ensure policy effectiveness of central banks. However, the trend towards greater central bank independence has made them accountable and transparent in dissemination of information, considered essential in the context of an assessment of their policy efficacy and from the financial sector stability angle. The international accounting standards now focus on recognition of the 'economic value' rather than the 'cash flow' effect of an entity's operations. Notwithstanding the fact that central banks have mandates that set them apart from commercial organisations, keeping in view their exposure to

financial risks, it is considered appropriate for them to adopt the same framework as other commercial entities. Recent developments indicate that the central banks are favourably inclined towards the adoption of international standards applicable to commercial financial entities. This is despite the fact that central banks are not profit maximising entities and their shares are generally not exchanged for 'market' value.

III. EVOLUTION OF CENTRAL BANKING IN INDIA AND RESERVE BANK BALANCE SHEET

8.41 The Reserve Bank of India was established as a private shareholders' bank on April 1, 1935 "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" (Preamble to the Reserve Bank of India Act, 1934). The Reserve Bank took over the control of the Issue Department from the Government and the management of the public debt and Government accounts from the erstwhile Imperial Bank.

8.42 A distinctive feature of the Reserve Bank's financials since its inception has been preparation of two separate balance sheets - one for the Issue Department and the other for the Banking Department. The practice originated from the recommendations of the Hilton Young Commission (1926) following the practice of the Bank of England (Box VIII.2). The Bank, however, prepares a single consolidated profit and loss account¹². Furthermore, a unique practice has been the preparation of unaudited accounts separately

Box VIII.2

Hilton Young Commission and the Reserve Bank Balance Sheet

The separation of Issue and Banking Departments could be traced in "fixed fiduciary issue system" which had been adopted by the UK under its Bank Charter Act of 1844. The Act of 1844 required the separation of the business of note issuing and banking into two separate departments - the Issue Department and the Banking Department. The Issue Department dealt exclusively with the issue and redemption of notes. It held the gold reserves and fixed amount of Government debt as securities backing all the notes issued entitled under the Act. The notes created and issued to the public constituted the active circulation, while the balance of notes issued but not held by the public constituted reserve held by the Banking Department. The Banking Department became responsible for the discount, credit and banking business.

The Royal Commission on Indian Currency and Finance (Chairman: Hilton Young) proposed a proportional reserve system to be adopted by the Reserve Bank of India. While such a system,

per se, does not necessitate the separation of the banking and note issuing departments of the Reserve Bank, such a bifurcation of balance sheet had drawn inspiration from the observation of the Commission that:

"The accounts of the Reserve Bank should be presented in the simplest possible form, and it is essential from this point of view to set out in a separate statement the assets and liabilities in respect of the note issue. We think that such a separation would inspire greater confidence in the new note. Although this is a novel way of dealing with the matter, there would seem to be no strong reason why it should not be adopted."

Source:

The Report of the Royal Commission on Indian Currency and Finance (Chairman: Hilton Young), 1926.

¹² It may be noted that for national accounting purpose, the Issue and Banking Departments of the Reserve Bank are treated separately. While the Issue Department is treated as part of 'public administration', the Banking Department is seen as a constituent of 'banking and insurance'.

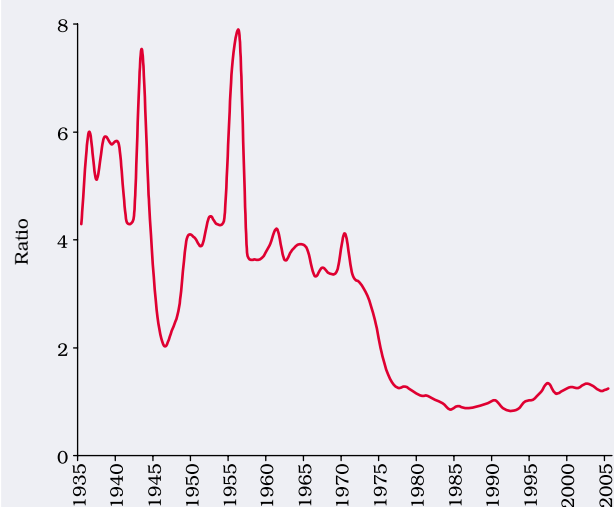
for these two Departments at a weekly frequency under Section 53(1) of the Act and their transmission to the Government. The annual audited accounts, again in bifurcated fashion, are prepared at the end of June followed by transfer of profit to the Government.

8.43 In pursuance of the recommendations of the Hilton Young Commission, the balance sheet of the Issue Department of the Reserve Bank shows the backing of the liabilities in the form of 'notes in circulation' by assets comprising primarily gold coins and bullion, rupee coins, rupee securities and foreign securities. The liabilities of the Banking Department include paid-up capital, Reserve Fund, National Industrial Credit Fund and National Housing Credit Fund, deposits held by Government, banks and others, Bills payable and 'other liabilities' comprising the reserves and provisions. Assets of the Banking Department comprise cash balances (notes, rupee coins and small coins), bills purchased and discounted (Government Treasury Bills and commercial trade bills, both domestic and external), balances held abroad with foreign central banks and international financial entities, investments in Government of India securities, foreign securities, shares in subsidiaries and associate institutions and loans and advances primarily to NABARD under General Line of Credit (GLC) I against loans to commercial and state cooperative banks for seasonal agricultural operations, and GLC II for various other approved short-term purposes.

8.44 An important indicator of the impact of financial deepening on the balance sheet of the Bank is the ratio of Issue to Banking Department Balance sheet (Chart VIII.1). The ratio of Issue to Banking Department balance sheet size, which declined considerably since the early-1970s, hovered around unity since 1980s. While the ratio of notes issued to combined balance sheet of the Bank was marginally higher in the 1950s, it exhibited a steady decline during the phase following nationalisation of banks, reflecting spread of the banking system and the resultant increase in bank reserves with the Reserve Bank (Table 8.9).

8.45 The remaining section analyses the evolving role of the Reserve Bank and its ramifications for the balance sheet in the context of the major functions, viz., note issuance authority, banker to Government, banker to other banks, developmental role and exchange rate and foreign exchange reserves management. The changing contours of the Reserve Bank's balance sheet during the course of its history reflect its evolution across various phases,

Chart VIII.1: Ratio of Issue to Banking Department Balance Sheet



viz., (1) formative years (1935-1949); (2) foundation phase (1950-1967); (3) phase of social control (1968-1990); and (4) phase of financial liberalisation (1991 onwards). These phases have been quite distinct in terms of the role of Reserve Bank and its functional relationships with the Government and the rest of the financial system. The changing role of central banking in India has been reflected in the size of Reserve Bank balance sheet, its composition (domestic vis-à-vis international assets), support to the Government, quantum and terms of financing to the financial system, build up of foreign exchange reserves and ultimately in the income profile of the Bank. In line with the developments in the area of transparency and disclosure norms at the global level, the balance sheet of the Reserve Bank reflects an apparent shift towards the adoption of international best practices in accounting and disclosures. Against this backdrop, this section would probe into each phase in greater detail.

Table 8.9: Note Issuances

Phases	Notes Issued as percentage of	
	Reserve Bank's Total Liabilities	GDP
1	2	3
1935-50	80.2	—
1951-60	81.5	12.1
1961-70	78.7	10.5
1971-80	64.2	9.6
1981-90	48.8	9.9
1991-00	51.5	10.4
2001-04	55.8	11.7

(i) Formative years (1935-1949)

8.46 Since its inception in 1935, the Reserve Bank was the note issuance authority of the country¹³. The Reserve Bank was also responsible for preserving the exchange parity of the rupee with sterling. During the early phase, the financial policy of the Government was against budgetary deficits. In fact, the achievement of budgetary equilibrium had been regarded as a pre-condition for the establishment of the Reserve Bank. However, during the war period, *i.e.*, 1940-46, the high proportion of deficit financing resulted in a substantial monetary expansion leading to inflationary pressures.

Note Issuance Authority

8.47 The system of note issue was founded on the proportional reserve system which was replaced by a system of minimum holding of foreign securities of Rs.400 crore and gold coin and bullion of Rs.115 crore or a total of Rs.515 crore in 1956. Under the Reserve Bank (Second Amendment) Act, 1957, the aggregate value of gold coin, gold bullion and foreign securities in the Issue Department was stipulated at not less than Rs.200 crore at any time, of which the value of gold coin and bullion should at no time be less than Rs.115 crore. These stipulations have not been revised since then.

Banker to the Government

8.48 The Reserve Bank, as the banker to Government, extended Ways and Means Advances (WMA) since 1935 with a view to bridging the temporary mismatches between receipts and payments of the Government. Besides the grant of short-term accommodation, the Reserve Bank, in the formative phase, could purchase the securities of the Central and Local Governments of any maturity up to the aggregate of the share capital of the Bank, the Reserve Fund and three-fifths of the liabilities of the Banking Department in respect of deposits. This arrangement continued till 1954 when it was replaced by a system of automatic monetisation of budget deficits through the issue of *ad hoc* Treasury Bills.

Exchange Rate and Foreign Exchange Management

8.49 The provisions of the Reserve Bank of India Act imposed on the Bank the obligation to preserve the ruling exchange parity of the rupee with sterling at an exchange rate of 1s. 6d. per rupee. During the initial years (1935-1945), the Reserve Bank built up large sterling balances on account of export surpluses followed by financing war expenditure. In the wake of continuous accumulation of sterling balances, the inflationary pressures built up in the system. The Government's borrowing from the banks was used during 1943 - 44 for sterilising surplus spending power with a view to arresting the upward trend of prices. This, however, resulted in a sharp rise in cash balances of the Government with the Reserve Bank. In order to counter inflationary pressures, sales of monetary gold on behalf of Government were undertaken. The intermittent volatility in exchange rate, at times on account of speculative forces, was managed through appropriate adjustments in money rates with a view to giving support to the exchange rate.

8.50 In 1935, Gold held in the Issue Department, that served as the backing for notes in circulation, was held both in India (Rs.41.55 crore) and abroad (Rs.2.87 crore). However, there was transfer of gold held outside India to the country during 1940 - 41, increasing the gold held in India on the assets side of the Issue Department, to Rs.44.41 crore. This was effected through exchange of gold held in India by the Reserve Bank on behalf of the British Government with that held by the latter in London on behalf of the Reserve Bank. Presently, the entire gold of Issue Department is held in India though the Act allows that 15 per cent of the total gold held in the Issue Department can be held abroad¹⁴.

8.51 On expiry of the sterling balance agreement entered into with the UK (July 1948 to June 1951), a fresh long-term agreement was made allowing a release up to £35 million from India's sterling balances in each of the six years beginning July 1, 1951 and also permitting carry forward of the amount not drawn in a particular year for release in a later period¹⁵. The open market operations were guided by the requirements of the Treasury. The Bank was required

¹³ Under Section 22 of the Reserve Bank of India Act, the Bank continued to issue currency notes of the Government till its own distinctive notes were ready for use. In January 1938, the Bank made its first issue of currency notes in denominations of Rs.5 and Rs.10.

¹⁴ The entire gold holding of Banking Department amounting to 65.5 tonnes is held abroad.

¹⁵ The Agreement provided for a total release of pound 160 million (including pound 80 million in India's No. 1 Account) for expenditure over the three-year time period. Of this, a maximum of pound 15 million was to be provided in hard currencies during the first year of the period of the Agreement.

to meet the exchange requirements of Government for remittances to London and repayment of sterling obligations. In 1949, the rupee was devalued by 30.5 per cent; this was in line with the devaluation of currencies of sterling area member countries and a large number of countries in Europe, the Middle East and the Far East. On January 1, 1949, the Reserve Bank Act was amended enabling the holding of other 'foreign securities' in addition to sterling that was in accordance with the obligations assumed by India as a member of the IMF.

Other Major Events

Nationalisation of the Reserve Bank

8.52 Consequent upon the nationalisation of the Reserve Bank, on January 1, 1949, the private shareholding was acquired by the Government through payment of compensation at a fixed rate partly in the form of Government promissory notes of the 3 per cent First Development Loan 1970-75, repayable at par, and partly in cash. The earlier Government holding of 2,200 shares was acquired at par.

Indo-Pak Partition and the Reserve Bank Balance Sheet

8.53 Following the partition of India and Pakistan, the State Bank of Pakistan took charge of the liabilities (along with the corresponding assets) of around Rs.134 crore from the Issue Department of the Reserve Bank of India during the period April 1948 – June 1949. Furthermore, assets (around Rs.101 crore) of the Banking Department were also transferred on July 1, 1948 to the State Bank of Pakistan against an equivalent amount of liabilities consisting deposits of the Pakistan Central and Provincial Governments and of scheduled banks in Pakistan. There was a transfer of additional sterling securities for Rs.12.19 crore to the State Bank of Pakistan against the return of an equivalent amount of rupee securities by it in May 1950. In addition to these, the Government of India paid a sum (out of the surplus profit received from the Bank in 1947-48) in relation to the total value of Pakistan notes in circulation in Pakistan on June 30, 1948, plus the total value of India notes returning from circulation in Pakistan in the year commencing on July 1, 1948 to the total value of India notes and Pakistan notes in circulation in India and Pakistan on June 30, 1948.

(ii) Foundation Phase (1950-67)

8.54 During the early phase of planning, the Reserve Bank focused not only at developing the necessary legislative framework, but also played an

important developmental role through the setting up of an institutional network and by extending financial support for reorganisation and consolidation of the banking and financial system in India. The role of the Reserve Bank in the early days of the planning process was charted out in the First Five-Year Plan (Government of India, 1951):

“...Central banking in a planned economy can hardly be confined to the regulation of overall supply of credit or to a somewhat negative regulation of the flow of bank credit. It would have to take on a direct and active role, firstly in creating or helping to create the machinery needed for financing developmental activities all over the country and secondly, ensuring that the finances available flow in the directions intended...”

Developmental Role

8.55 This concept of “development central banking” encompassed the following three-pronged strategy:

- creating an institutional framework of industrial financing, including promotion of development finance institutions;
- providing concessional finance to banks, especially through refinancing and to development finance institutions through the National Industrial Credit (Long Term Operations) Fund, set up in 1964; and
- promoting rural credit, by providing funds through the National Agricultural Credit (Long Term Operations) Fund and the National Agricultural Credit (Stabilisation) Fund, set up in 1956 and strengthening the cooperative credit structure.

8.56 A major step in the strategy was the transformation of the Imperial Bank of India into the State Bank of India (with the Reserve Bank as a major policy holder) in July 1955, placing a large banking network at the disposal of the Government and the central bank.

8.57 Developmental activities of the Reserve Bank were reflected in its balance sheet in the form of subscription to share capital of several development finance institutions and contribution through various sector-specific dedicated development funds. With a view to catering to the requirements of industrial finance, the Bank played an active role in the establishment of the Industrial Finance Corporation of India and contributed to its share capital and bonds. Financial contributions by the Bank were even

seen in the form of investments in the capital of State Financial Corporations, debentures floated by Central Land Mortgage Banks (subject to Government guarantee)¹⁶.

8.58 The significance of the agriculture sector in the Indian economy was recognised at the inception stage itself as Section 54 of the Reserve Bank Act imposed on the Bank the obligation to create a special Agricultural Credit Department. The setting up of the National Agricultural Credit (Long-Term Operations) Fund and the National Agricultural Credit (Stabilisation) Fund in terms of the provisions of the Reserve Bank (Amendment) Act, 1955 and the annual contributions to these funds was another major development initiative undertaken by the Bank¹⁷. The NAC (Long-Term Operations) Fund was constituted on February 3, 1956 with an initial sum of Rs.10 crore while the NAC (Stabilisation) Fund was constituted on June 30, 1956 with an initial sum of Rs.1 crore. The first annual contribution of Rs.5 crore to the NAC (Long-Term Operations) Fund was made out of the Bank's income for the year ended June 30, 1956. The Bank also participated in the setting up of "Refinance Corporation for Industry Private Ltd." in 1958 that became a public limited company effective March 28, 1961. With the establishment of the Industrial Development Bank of India on July 1, 1964, the Refinance Corporation was taken over by the IDBI on September 1, 1964. Another development was the insertion of a new Section 46 C that provided for the establishment of the National Industrial Credit (Long-Term Operations) Fund that was credited with an initial contribution of Rs.10 crore.

Exchange Rate and Foreign Exchange Management

8.59 The period from the early 1950s witnessed deterioration in the balance of payments position (considered necessary for carrying out the development plans) while the liquidity growth

remained strong. The Reserve Bank's accumulated foreign exchange reserves in the post-devaluation and post-Korean war periods, besides the assurance (of an annual withdrawal of pound sterling 35 million) under the Indo-UK Sterling Balances Agreement, financed the deficit in the balance of payments.

Banker to Banks

8.60 The emergence of inflationary pressures in the 1950s necessitated the Reserve Bank to undertake monetary tightening by raising the Bank Rate in 1951 after 16 years and by closing the open market purchases of Government paper from the banks. This policy, thus, discouraged the prevalent practice by the banks to disinvest Government paper during the busy season, thereby restricting the extent of primary monetisation through the Reserve Bank balance sheet.

(iii) Phase of Social Control (1968-1990)

8.61 The macroeconomic environment remained less favourable with three major oil price shocks (1973-74, 1979-80 and 1983-84) taking place during this period that exacerbated the already strained external resource position of the country. The advent of social control of banks in the late 1960s introduced a policy-induced channelisation in the banking system's resources to the 'priority' sectors backed by the Reserve Bank's refinance facilities. Another salient feature of this phase was the emergence of fiscal imbalances and the unabated recourse of the Government to the Reserve Bank for financing the deficits. This process of automatic monetisation of deficits called for successive increases in the statutory pre-emptions in the form of CRR and statutory liquidity ratio (SLR) in an attempt to neutralise the potential inflationary impact of increased monetisation. The Reserve Bank's balance sheet continued to reflect its role in developmental activities.

¹⁶ Including the Industrial Finance Corporation of India (1948), for medium- and long-term finance, Refinance Corporation of India (1958), to provide banks refinance against industrial loans, Industrial Development Bank of India (1964), the apex term-lending institution (which also took over the Refinance Corporation). The Reserve Bank also played an active role in setting up a network of State Financial Corporations to meet the credit needs of local medium- and small-scale industries in the early 1950s. The Reserve Bank also subscribed to 50 per cent of the initial capital of the Unit Trust of India (1964).

¹⁷ In terms of the recommendations of the All-India Rural Credit Survey, the Reserve Bank was required to credit the NAC (Long-Term Operations) Fund with an initial sum of Rs.10 crore and annual contributions of not less than Rs.5 crore during the five years commencing with the year ending June 30, 1956. In the case of NAC (Stabilisation) Fund, the stipulation was "this Fund will be credited with such sums as the Bank may contribute every year provided that the contribution during each of the five years commencing with the year ending June 30, 1956 shall not be less than Rs.1 crore. In the case of both the Funds the Central Government may, if necessary, authorise the Bank to increase or reduce its contribution in any year." The annual contribution to NAC (Long-Term Operations) Fund was enhanced from Rs.5 crore to Rs.10 crore and further to Rs.11 crore during the year ended June 30, 1962, Rs.12 crore during 1962-63. The annual contributions were enhanced significantly during the Social Control phase and these two Funds were finally transferred to NABARD on July 12, 1982.

Banker to the Government

8.62 The Reserve Bank continued to provide substantial accommodation to the Government. In the absence of any institutional arrangement placing limits on the Government for the issue of securities and therefore on credit to the Government from the Bank, the issue of *ad hoc* Treasury Bills led to severe automatic monetisation during this phase, posing serious problems for monetary management. The large order of deficit financing exerted pressure on the Reserve Bank's balance sheet and turned out to be the single most important driver of reserve money expansion. The Reserve Bank's accommodation to the Government soared, with the net RBI credit to the Government accounting for 90 per cent of reserve money in the 1980s (Jadhav, 1994).

Banker to Banks

8.63 The strategy of neutralising the monetary impact of deficit financing on the asset side through higher cash reserve requirements on the liability side began to expand the Reserve Bank's balance sheet as a proportion of GDP from the mid-1970s. The restrictive measures became more and more stringent with progressive increases in CRR and SLR requirements and curtailment of discretionary refinance¹⁸ to banks from time to time. The rate of interest on required reserves beyond the mandatory minimum of 3.0 per cent of banks' demand and time liabilities was raised steadily from 4.75 per cent in June 1973 to 6.5 per cent in June 1978 in order to cushion the impact of the hike in the CRR, thereby adversely impacting the profitability of the Reserve Bank. This was also aided by the process of progressive increases in SLR stipulations for banks generating additional demand for Government securities. The period was marked by an overall policy of credit restraint that was reflected in a sizeable decline in the Reserve Bank refinance to banks. In fact, there was also a special emphasis on effective maintenance of the SLR on a daily basis. It was in this context that the Committee to Review the Working of the Monetary System (Chairman: Sukhamoy Chakravarty, 1985) emphasised the need to ensure that deficit financing did not exceed "safe limits".

Developmental Role

8.64 The contributions to the three National Funds increased substantially in line with the national priorities to make available adequate credit flow to the agriculture and industrial sectors. The Reserve Bank started contributing towards a dedicated housing credit fund also during this phase. The Reserve Bank increased its allocations to the national funds, which rose from 7.1 per cent of the balance sheet during 1971-75 to an average of 10 per cent of the balance sheet during 1975-80. In 1984-85, the total contribution to these Funds amounted to Rs.675 crore, which increased subsequently to reach Rs.995 crore in 1990-91. Continuing with its developmental role further, the Reserve Bank, along with the Central Government contributed share capital of Rs.100 crore in equal proportions to National Bank for Agriculture and Rural Development (NABARD), which started functioning on July 12, 1982. On July 9, 1988, the National Housing Bank was set up with an initial share capital of Rs.100 crore contributed entirely by the Reserve Bank. The National Housing Credit (Long Term Operations) Fund was established under the Reserve Bank of India Act, 1934 in January 1989 with an initial corpus of Rs.50 crore with the intention of crediting to the Fund every year such sums of money as it may consider necessary¹⁹. Subsequently, consequent upon a decision of the Central Government announced in the Union Budget for the year 1992-93, the Reserve Bank discontinued the practice of crediting large sums to the said Fund and since then only a token amount of Rupees one crore is being transferred to the Fund every year.

Foreign Exchange and Exchange Rate Management

8.65 The phase saw deterioration in the balance of payments, notwithstanding some intermittent improvements in the 1970s. There was a temporary spurt in inward remittances through the Foreign Currency Non-Resident (Account) [FCNR(A)] scheme introduced by banks in November 1975. The external position, however, deteriorated by the early 1980s as a result of a rise in the oil import bill and a deterioration in the terms of trade, and despite the Central Government's negotiated loan of SDR 5 billion from the IMF under the Extended Fund Facility (EFF) in

¹⁸ The refinance facilities were available to banks in the form of Food Credit, Export Credit, Stand-by, Discretionary and 182-days Treasury Bill Refinance.

¹⁹ Annual contribution to the Fund is being made from the profits of the Reserve Bank. The amount in the said Fund can be applied by the Reserve Bank only for (i) making loans and advances to National Housing Bank (NHB) for its business and (ii) purchasing bonds and debentures issued by NHB.

November 1981, the foreign currency assets of the Reserve Bank declined.

8.66 Furthermore, the rupee was devalued sharply by 36.5 per cent on June 6, 1966 and thereafter the Rupee-Pound Sterling exchange rates were revised in tandem with the fluctuating exchange rates of major international currencies. Notwithstanding the continued weakness in pound sterling, the Reserve Bank preferred to continue with the existing sterling system till September 24, 1975 when it finally decided to abandon the rupee's peg to the pound sterling and link it to a basket of currencies²⁰. The sterling devaluation caused a loss in foreign exchange reserves of the Reserve Bank, but resulted in a gain in terms of repayment obligations in rupee terms. In view of considerable volatility in sterling, the British Government offered to provide a guarantee in terms of the dollar for all the sterling holdings of sterling countries if these holdings exceeded 20 per cent of their total gold and foreign exchange reserves. In the process of negotiations, all sterling holdings in excess of 10 per cent of India's gold and foreign exchange reserves qualified for the guarantee and the period of the agreement was negotiated and fixed at three years. Reflecting developments on the exchange rate front, there was a temporary change in revaluation of reserve holdings in each quarter with reference to market rates (not the central rate that was used earlier), allowing booking of revaluation gains as unrealised appreciation in the Issue Department. In other words, the gain was treated as some sort of a secret reserve. However, the decision relating to transfer of gains to a secret reserve was reversed and the entire revaluation gain of Rs.26.4 crore was transferred to the Exchange Fluctuation Reserves (EFR) and shown in 'other liabilities'.

8.67 During this period, there was also a shift in the Reserve Bank's policy from holding investment with central banks to deposits with the Bank for International Settlements (BIS) (Deutsche mark and French franc) that provided benefits of rising interest rates and opportunity for diversification of reserves. The diversification move resulted in the Reserve Bank's foreign exchange reserves outside sterling and dollars exceeding its reserves in sterling and dollars. This entire exercise yielded an appreciation gain of Rs.43.4 crore but then a cautious stance was adopted keeping in view the fact that there was no lender of last resort in the Euro-currency market. With the

strengthening of the dollar in the latter half of 1973, there was again a switch over from sterling to dollar holdings. As the process of reserve accumulation gained momentum, the statutory provisions relating to deployment of reserves were expanded to allow investment in Eurobonds and commercial bank deposits as also opening of gold accounts with central banks (RBI, 2005).

8.68 The macroeconomic imbalances consequent to the unabated increase in the fiscal deficit during the 1980s eventuated into a severe balance of payments crisis by 1991. The debt-service ratio that had been moving up steadily throughout the 1980s, reached a high of 35.3 per cent in 1990-91, putting India in the category of 'severely indebted countries' in terms of the World Bank criterion. The Reserve Bank's net foreign exchange assets as percentage of reserve money fell sharply from 10.3 per cent as at March 1987 to 5.5 per cent by September 1990 despite a strong export growth due to the pressure on account of repayment of borrowings under Extended Fund Facility (Chart VIII.2).

(iv) Phase of Financial Liberalisation (1991 onwards)

8.69 The macroeconomic crisis was tackled by a coordinated policy response from the Government and the Reserve Bank and the period since 1991 was marked by a number of significant policy

Chart VIII.2: Movement in NFA-Reserve Money Ratio



²⁰ The rupee was pegged to the pound sterling in 1931; this arrangement continued, except for a brief period of three months in September 1971, till it was decided to link the rupee to a basket of currencies in September 1975.

initiatives, such as Government borrowing at market rates, streamlining of quasi-fiscal activities and stoppage of contribution to long-term funds, reduction in pre-emptions, greater use of indirect instruments of monetary policy and disinvestment of shareholding of subsidiaries of the Reserve Bank. All these had profound implications for the Reserve Bank's balance sheet.

Banker to the Government

8.70 With the discontinuation of automatic monetisation of Government deficit through the phasing out of *ad hoc* Treasury Bills by April 1997, there has been a fundamental shift in the Reserve Bank's role as banker to the central Government. With the fixation of net bank credit to Government in line with the overall monetary target, the Reserve Bank began to exercise limited discretion in its acquisition of domestic assets as against the earlier system of automatic acquisition of domestic assets. Accordingly, the Reserve Bank's primary support to the Central Government has come down to fairly low levels backed by comfortable liquidity conditions on account of capital flows, the resultant increase in sterilisation operations through OMO and repo operations and newly-introduced instruments like Market Stabilisation Bonds. The Reserve Bank's subscription to primary issues of Central Government securities, which had been around 46.0 per cent of the gross amount mobilised through dated securities in 1998-99, declined sharply thereafter. In the changed scenario, the net Reserve Bank credit to the Government no longer reflects the extent of direct monetisation, but depicts the combined impact of the operations of the Reserve Bank in the money, Government securities and the foreign exchange markets.

Banker to Banks

8.71 The Reserve Bank gradually reduced the CRR along with rationalisation of the system of payment of interest on eligible CRR balances. The rationalisation process started with a shift from the discriminatory two-tier formula for remuneration of CRR balances to a uniform rate, and the linking of the remuneration of eligible CRR balances to the Bank Rate since November 3, 2001²¹. The SLR has also been reduced in a phased manner from 38.5 per cent in February 1992 to 25.0 per cent in October 1997. Concomitantly the Reserve Bank has rationalised the

standing refinance facilities to the banks by phasing out all refinance windows except export credit refinance. Accordingly, the expansion of the Reserve Bank's balance sheet is restricted to some extent by the lowering of bank reserves with the central bank, on the liability side, and by curbing the standing refinance support to the banks, on the asset side. During this phase as large capital inflows have poured into the economy, the Reserve Bank has been active in absorbing them in its balance sheet while simultaneously largely offloading Government paper as a means of sterilisation, thereby inducing a reallocation of its asset portfolio without any significant expansion of its balance sheet and reserve money.

8.72 Against the backdrop of strong and persistent inflow of foreign capital and the finite stock of Government securities available with the Reserve Bank, the Market Stabilisation Scheme (MSS) was introduced in April 2004 following the Memorandum of Understanding between the Government and the Reserve Bank, whereby, the Government issues securities specifically for the purpose of sterilisation operations. The issuances of Government paper under the MSS are undertaken to absorb rupee liquidity created by capital flows of an enduring nature. In order to neutralise the monetary and budgetary impact of this particular instrument, the proceeds under the MSS are parked in a separate identifiable deposit account maintained by the Government with the Reserve Bank which can be appropriated only for the purpose of redemption and/or buyback of paper issued under the MSS. The resultant decline in the net Reserve Bank credit to the Government neutralises the expansionary impact of an accretion to the Reserve Bank's net foreign assets due to capital flows. Despite issuance of Government paper under MSS being indistinguishable from normal gilt issuance from the angle of an investor, its issuance has a non-monetary character since MSS is the deposit of the Government with the Reserve Bank. Nevertheless, it has an expansionary impact on the size of the balance sheet of the Reserve Bank. The deposits under the MSS amounted to Rs.71,681 crore or around 10.5 per cent of the total liabilities of Reserve Bank as at end-June 2005. This, however, has declined to Rs.31,958 crore or below 5 per cent of total liabilities of Reserve Bank as on February 24, 2006. The operation of the MSS for sterilising capital flows has commenced a phase where the sterilisation costs are transparently borne by the Government instead of the Reserve Bank.

²¹ This has, however, been discontinued with effect from the fortnight beginning September 18, 2004 when the interest rate paid on CRR balances was lowered to 3.5 per cent per annum.

8.73 Besides, there had been considerable reduction of *quasi-fiscal* activities of the Reserve Bank²². An important *quasi-fiscal* activity involved the burden of exchange guarantee to banks for deposits under the Foreign Currency Non-Resident Accounts (FCNRA) falling on the Reserve Bank leading to increasing provisioning requirements against exchange guarantee for these deposits. The exchange risk was borne by the Reserve Bank not only in respect of deposits under FCNRA but also for India Development Bonds (IDBs) and surplus foreign currency funds parked by financial institutions with the Reserve Bank. While the practice of parking surplus foreign currency funds by financial institutions was discontinued, the IDBs were redeemed in early 1997. More importantly, the exchange rate risk liability relating to annual outflows of FCNRA deposits was taken over by the Government with effect from July 1, 1993 with an understanding that the Reserve Bank would transfer to Government profit amounts over and above the normal transfer to meet the FCNRA exchange losses. With the discontinuation of this deposit scheme after August 14, 1994, the exchange guarantees ceased to exist from August 17, 1997. Under the Foreign Currency (Non-Resident) Accounts (Banks) Scheme introduced from May 15, 1993, the exchange risk is borne by the banks themselves. Furthermore, the foreign currency funds raised through Resurgent India Bonds (1998) and India Millennium Deposits (2000) involved no exchange rate guarantee by the Reserve Bank.

Developmental Role

8.74 The developmental role of the Reserve Bank changed its character significantly in the post-liberalisation phase. Efforts of developmental activities in the pre-liberalisation phase were focused on building institutions, which engaged in directly providing finance for development. During the post-liberalisation phase, on the other hand, the Reserve

Bank started building institutions, which played a lead role in developing various segments of financial markets. The Reserve Bank promoted the Discount and Finance House of India (DFHI) in 1988 and the Securities and Trading Corporation of India (STCI) in 1994 with the objective of deepening and activating the Government securities market and the money market²³. Funds were contributed to various other development institutions like Infrastructure Development Finance Company Ltd. (IDFC), NABARD, NHB, Bharatiya Reserve Bank Note Mudran Limited and the like²⁴.

8.75 Since March 2002 the entire outstanding balance of the Development Finance Institutions (DFIs), such as, erstwhile IDBI, EXIM Bank, IIBI and SIDBI out of the NIC (LTO) Fund (Rs.3791.75 crore) was transferred to the Government in lieu of 10.25% Government Stock 2021 of an equal amount. In 2004-05, the Bank transferred its shareholding in Infrastructure Development Finance Company Ltd. to the Central Government at its then book value of Rs.150 crore. At end June 2005, total investment of the Bank in shares of subsidiaries/associate institutions viz., Deposit Insurance and Credit Guarantee Corporation, NABARD, SBI, NHB and Bharatiya Reserve Bank Note Mudran (Pvt) Ltd. taken together stood at Rs.3,973 crore.

8.76 The large annual allocations to the Statutory Funds were also discontinued during the liberalisation phase. In 1991-92, there was no appropriation to the Statutory Funds. Since 1992-93, only Rs.one crore per annum is being allocated to each Fund. It was decided in 1997-98 to transfer the unutilised balance in NIC (LTO) Fund arising from repayments of earlier loans to the contingency reserves on a year-to-year basis. Accordingly, the combined balance under NIC (LTO) Fund and NHC (LTO) Fund, which was around 4.1 per cent of total assets of the Bank as at end-June 1992, came down to as low as 0.03 per cent by June 2005.

²² *Quasi-fiscal* activities of central banks include intervention in foreign exchange markets, issuance of central bank securities to build up foreign exchange reserves, and participation in restructuring of the banking system (Hawkins, 2004). Other *quasi-fiscal* operations associated with exchange system include multiple exchange rate practices, exchange rate guarantees and assumption of exchange rate risk by the central bank, etc.

²³ Later on, in light of the conflict of interest arising as a result of the Reserve Bank's dual role as regulator and owner, the Reserve Bank diluted its ownership in SBI and divested its entire shareholding in DFHI.

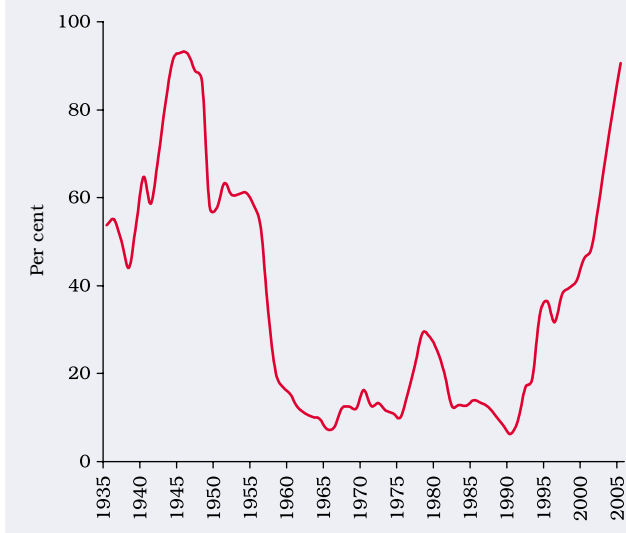
²⁴ The Reserve Bank contributed Rs.150 crore (Rs.20.30 crore in 1996-97 and Rs.129.70 crore in 1997-98) towards the share capital of Infrastructure Development Finance Company Ltd. (IDFC), established in 1996-97 to provide long-term finance for infrastructure development. In addition, the Bank paid Rs.350 crore towards subordinated debt of IDFC during 1997-98. The Reserve Bank also contributed Rs.400 crore during 1997-98 towards the additional equity of NABARD. The incremental authorised capital of NHB from Rs.300 crore to Rs.350 crore was also paid in 1997-98. In 1997, a loan of Rs.700 crore was granted to NHB out of NHC (LTO) Fund drawn from the Bank's CR that was eventually repaid by the NHB in January 2002. The entire equity of Bharatiya Reserve Bank Note Mudran Ltd. at Rs.800 crore was allotted to the Reserve Bank in 1997-98.

Management of Exchange Rate and Foreign Exchange Reserves

8.77 The external sector crisis that set in after the Gulf crisis of August 1990 became severe in the early part of 1991-92 with drying up of short-term and long-term finance to bridge the current account deficit. There was a draw down of India's Reserve Tranche position of SDR 487 million in the Fund, followed by purchase of SDR 1.27 billion under the IMF's financing facilities in 1990-91²⁵. The policy initiatives started with a two-step downward adjustment in the exchange rate of the rupee by about 18-19 per cent against major currencies on July 1 and July 3, 1991 aimed at improving competitiveness of exports, dispelling speculative pressures and stabilising the capital account. This was supplemented by tight monetary policy, aimed at demand containment and import compression, to ensure the effectiveness of exchange rate adjustment. Along with these stabilisation measures, a stage was set for undertaking a wide range of structural reform measures across real, fiscal and financial sectors. The fiscal adjustment was identified as an integral part of the overall structural adjustment process with a focus on the medium-term goal of fiscal consolidation and better coordination between fiscal and monetary policy (see chapter VII).

8.78 Against this backdrop, increasing responsibilities were thrust upon the Reserve Bank underlining the need to prepare itself to meet the challenges in the transitional phase of the reform process. The strengthening of balance sheet of the Bank assumed importance in this environment, driven by certain guiding principles of an ideal central bank balance sheet (Tarapore, 1996). In the financial liberalisation phase, concrete policy measures have been taken to put these principles in actual practice. In line with the basic principle that a central bank should not assume the risk of various types of exchange rate guarantees while avoiding the acceptance of domestic interest bearing obligations (e.g., payment of interest on banks' cash balances with the central bank), the FCNR (A) scheme was discontinued and the practice of interest payment on CRR balances was substantially rationalised. Developments in the 1990s supported a gradual rise in the share of foreign assets in the Reserve Bank's balance sheet (Chart VIII.3).

Chart VIII.3: Percentage of Foreign Currency Assets (including Gold) to Combined Balance Sheet



8.79 The qualitative change in the composition of Reserve Bank's balance sheet in favour of foreign currency assets is of high importance. In 1991, Foreign Currency assets (FCA) at Rs.2,383 crore constituted only 1.9 per cent of total assets. The share of FCA has gone up steadily to 87.2 per cent of total assets at end June 2005. In 1991, the percentage of FCA to notes issued was a meagre 0.4 per cent but it stood at 157.3 per cent at end June 2005. Concomitantly, the share of rupee securities as a percentage of notes issued recorded a sharp decline from 86.7 per cent in 1991 to 0.4 per cent by end June 2005. This is a positive development but it has also given rise to a new dimension of risk on account of increasing interest and exchange rate sensitivity of the Reserve Bank's balance sheet.

8.80 During the 1990s, India received large foreign exchange inflows. The process of financial liberalisation has impacted the process of accumulation of foreign exchange reserves in a number of ways.

- Unlike in the past, when the central bank was the repository of the claims of the rest of the world on the Indian banking sector, the Reserve Bank, in the post-liberalisation phase, empowered banks to freely deal in foreign exchange.

²⁵ The Government leased 20 tonnes of gold to the State Bank of India (SBI), which in turn entered into a sale with a repurchase option in the international market. This transaction brought in foreign exchange of US \$ 200 million or Rs.400 crore. Furthermore, the Reserve Bank raised US \$ 405 million or Rs.1,037.35 crore from Bank of England and Bank of Japan in July 1991 against the gold (a total quantity of 46.9 tonnes, i.e., the permissible limit of 15 per cent of gold that can be held outside) deposited with the former. The gold was repurchased by the SBI in November/December 1991. Of the total quantity, the Government sold 18.41 tonnes to the Reserve Bank of India. The gold holdings of the Reserve Bank involved in both the transactions amounting to 65.31 tonnes are held abroad.

- The increase of foreign exchange reserves during 1991-2005 worked out to three times of the additional external debt incurred suggesting that the bulk of the underlying capital flows were non-debt creating in character in line with the policy choice.
- Although the Reserve Bank continued to promote mobilisation of foreign currency deposits throughout the 1990s, the exchange guarantees provided in the earlier schemes, such as the FCNR(A) scheme and India Development Bonds (1990), were withdrawn in the case of subsequent schemes such as the FCNR(B) scheme, Resurgent India Bonds (1998) and India Millennium Deposits (2000)²⁶.

8.81 In a nutshell, thus, the evolution of the functions of the Reserve Bank on its balance sheet has been summarised in Table 8.10.

IV. PROFIT AND LOSS ACCOUNT OF THE RESERVE BANK

8.82 The Profit and Loss Account of the Reserve Bank is prepared in the form prescribed by the Reserve Bank of India General Regulations, 1949,

under Section 58 of the Act. The historical cost basis of accounting is generally used except where it has been modified to reflect revaluation.

8.83 During the period from 1935 to 1940, the annual accounts of the Reserve Bank were prepared on a calendar year basis and thereafter July-June was adopted as the accounting year. During the pre-nationalisation phase, the Balance Sheet and the Annual Report were submitted to the shareholders of the Bank but this practice was replaced by an arrangement requiring the submission of these statements to the President of India pursuant to the change in ownership in 1949. In the first annual accounts prepared for the period April 1, 1935 to December 31, 1935, there was a surplus income of around Rs.56 lakh from which dividend was distributed to the shareholders at the rate of three and a half per cent per annum while the balance was paid to the Government under Section 47 of the Reserve Bank of India Act.

8.84 An analysis of income and expenditure of the Reserve Bank over the years brings out some interesting features. Major sources of income are interest on domestic and foreign securities and foreign deposits, discount and rediscount charges and commission on management of public debt. The interest rate

Table 8.10: Impact of the Evolution of Select Functions of the Reserve Bank on the Reserve Bank's Balance Sheet in Various Phases: A Stylised Evolution Matrix

Phases	Note Issuance	Banker to Government	Banker to Banks	Exchange Rate & Foreign Exchange Management	Developmental Role
1	2	3	4	5	6
Formative Years (1935-1949)	Remains the sole currency issuer and the function remains broadly the same through different phases	Driven by event-based shocks like war.	–	Accumulation of foreign exchange reserves	–
Foundation Phase (1950-1967)		Automatic monetisation initiated - expansionary effects on the balance sheet	Increasing reserve requirements. Sector specific refinance - expansionary effect on the balance sheet.	Balance sheet driven by net domestic assets. Deterioration in balance of payments.	Introduced balance sheet support to development finance institutions
Phase of Social Control (1968-1990)		Heavy automatic monetisation - heavy credit to the Government			Very strong and consequent large transfers to LTO funds
Phase of Financial Liberalisation (1991 onwards)		Credit to Government shrinking with stoppage of <i>ad hoc</i> Treasury Bills, increasing sterilisation and introduction of MSS.	Reduction in reserve requirements - bankers' deposits coming down	Balance sheet driven by net foreign assets. Huge stock of foreign exchange reserves. Reserve accumulation non-debt creating in nature.	Change of role towards developing institutions & markets - but transfer to LTO funds became nominal

²⁶ In case of exchange rate fluctuations, the Reserve Bank revalues the foreign currency on the asset side and parks the gains/losses in its Currency and Gold Revaluation Account on the liability side.

environment has had an important bearing on 'Discount' and 'interest earnings' of the Reserve Bank while the Bank's investment account showed an inverse relationship with interest rate movements. In the formative years, the international interest rate environment emerged as an important determinant of the Bank's interest income on account of large share of foreign currency assets in balance sheet. For example, the fall in income from Rs.15.6 crore in 1945-46 to Rs.10.1 crore in 1946-47 was mainly the result of the reduced yield on sterling holdings in that year. With the creation of *ad hoc* Treasury Bills for the purpose of replenishing Government's cash balances in 1954, the 'Discount' component of income began to mirror the increasing size of these bills in the Bank's balance sheet. The 'Social Control' phase was a phase of continuous expansion in financial support extended to Government and therefore the terms of financial support became important determinants of interest and discount income of the Bank. An increase in coupon rates on Government securities in the mid-1980s had a positive impact on interest earnings of the Bank.

8.85 In the post-reform phase, the income profile of the Bank has undergone significant changes. The substitution of the relatively higher-yield domestic assets by the foreign exchange assets with lower returns has compressed annual income of the Reserve Bank. Furthermore, there has also been a fall in interest rates across board – both domestic and international. The reduced dependence of the banking system on the Reserve Bank driven both by withdrawal of refinance facilities except for export refinance and comfortable liquidity conditions have also reduced the interest earnings of the Bank. These factors, taken together, have brought about pressure on Reserve Bank's profits.

8.86 An analysis of the composition of expenditure shows an increase in the share of establishment expenditure in total expenditure, particularly during

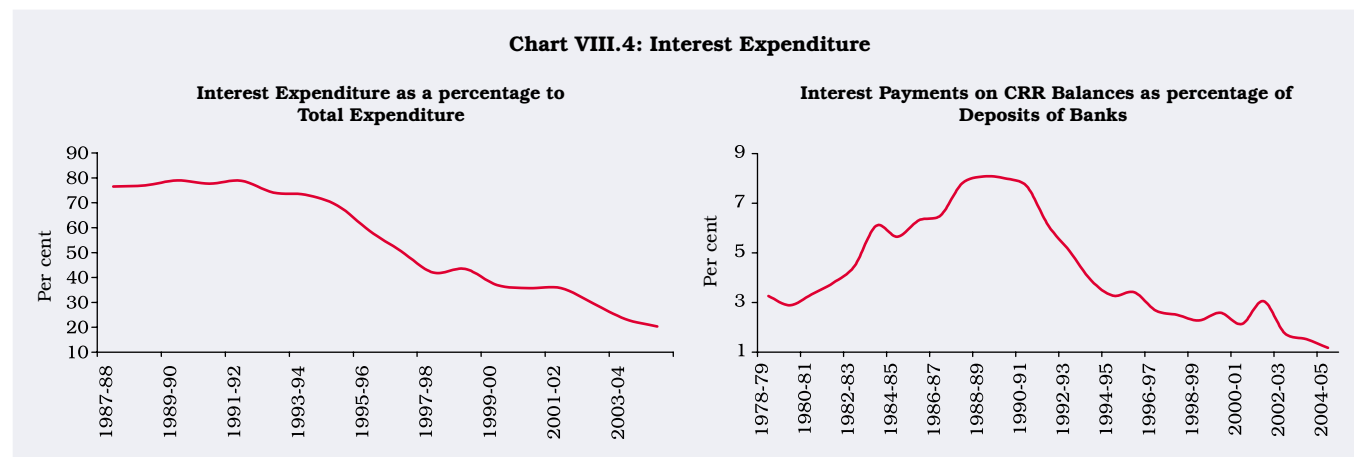
Table 8.11: Composition of Total expenditure (excluding Interest Expenditure)

(Per cent)

Phase	Establishment Expenditure	Non-establishment Expenditure
1	2	3
Formative Phase (1935-1949)	38.6	61.4
Foundation Phase (1950-1967)	51.1	48.9
Social Control Phase (1968-1990)	40.5	59.5
Liberalisation Phase (1991 onwards)	31.0	69.0

the period 1950 to 1967 reflecting increasing geographic and functional expansion of the Reserve Bank. During 1950 to 1967, number of offices of the Bank increased from 8 to 16 while total employees of the Bank increased from 6,046 to 17,717. The share of establishment expenditure in total expenditure declined in the subsequent stages of the liberalisation phase (Table 8.11). An important component of non-establishment expenditure is payment of 'agency charges' that recorded periodic increases on account of revisions in payment of commission to agency banks while also reflecting the impact of variation in Government turnover from year to year. The increasing dependence of the Bank on commercial banks as its agent for performing different functions relating to currency distribution, remittances and other banking requirements has also contributed to the rise in this component of expenditure. Details of interest expenditure available from 1988 onwards reveal that the interest expenditure constituted the largest portion of total expenditure during the period from 1988 to 1990 and was primarily by way of interest payments on eligible CRR balances of banks. However, the corrective mechanism set in the liberalisation phase through a gradual reduction in CRR of banks along with the rationalisation of remuneration on these balances (and linking it to the Bank Rate) resulted in a substantial decline in interest payments (Chart VIII.4).

Chart VIII.4: Interest Expenditure



In the recent years, the remuneration in the CRR balances has been delinked from the Bank Rate and fixed at 3.5 per cent (lower than the Bank Rate) thereby further reducing interest expenditure on CRR balances of banks.

8.87 In recent years, while total expenditure of the Reserve Bank has been rising due to agency charges and security printing expenses, establishment expenditure, as a percentage to total expenses, has generally demonstrated a declining trend. However, the share of Gratuity and Superannuation Fund contribution is showing an increasing trend in the overall establishment expenditure from the year 2002-03 on account of large-scale retirement under the Optional Early Retirement Scheme (OERS) introduced by the Reserve Bank and increase in the estimated liability assessed by actuarial valuations in a scenario of declining discount rate²⁷. The reduction in the work force due to the OERS (that closed on December 31, 2003) was 4,468 representing 15.8 per cent of the work force as on June 30, 2003 (RBI, 2004). While it is challenging to provide for large pension liabilities especially against the backdrop of declining interest rates, the Reserve Bank has consistently adhered to actuarial valuations while contributing to the Gratuity and Superannuation Fund (Table 8.12).

8.88 Reflecting the developments in income and expenditure of the Bank, the rate of surplus including contributions to Statutory Funds but excluding provisions, viz., allocations to contingency reserves posted a rise in the early 1940s, followed by a period of decline from the late 1940s to 1950 and an increase

during 1971-75 (Chart VIII.5). The rate of surplus maintained a declining trend from the mid-1970s to 1995 reflecting the large share of *ad hoc* Treasury Bills in its domestic securities portfolio that carried discount rate of 4.6 per cent, and increase in interest expenditure, following the sustained rise in reserve requirements and hike in remuneration of these deposits with the Reserve Bank.

8.89 The period 1975-1982 and 1985-1991 was characterised by increasing contributions to the National Agricultural and Industrial Credit Funds to enable higher credit flows to agriculture and industry with the ultimate objective of promoting growth prospects of these sectors. The annual contribution to these Funds from profits remained at the discretion of the Bank but a shift in the Bank's decision in support of larger allocations to the Statutory Funds implied a corresponding decline in the transfer of profit to the Government in relative terms. During the year ended 1991-92, there was no allocation made to these Funds, followed by the practice of a contribution of Rs.one crore per year to each of the four statutory funds from 1992-93 onwards (Chart VIII.6). The phasing out of transfers to the National Funds indirectly led to a larger profit transfer to the Government during 1993-94 to 2002-03.

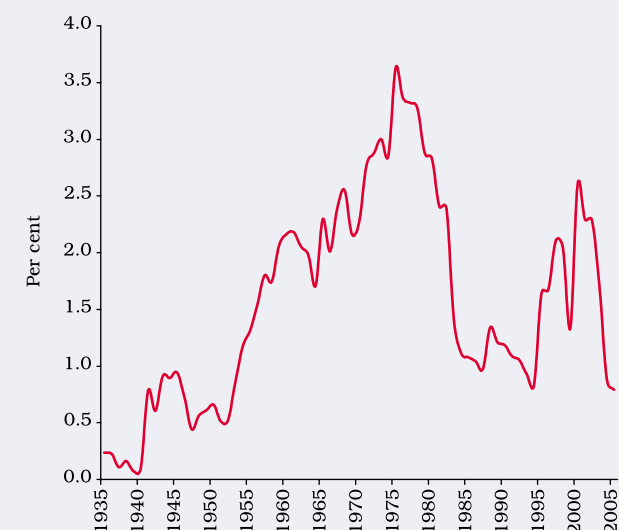
8.90 The Reserve Bank's balance sheet over the years carried large amounts of undated special securities generated out of conversion of *ad hoc* Treasury Bills and carrying a coupon rate of 4.6 per cent

Table 8.12: Reserve Bank's Gratuity and Superannuation Fund

(Rupees crore)			
Year	Establishment Expenditure	Gratuity and Superannuation Fund	Gratuity and Superannuation Fund as a per cent to Establishment Expenditure (per cent)
1	2	3	4
1980-81	71	1	1.4
1990-91	244	9	3.7
2000-01	871	38	4.4
2001-02	1304	525	40.3
2002-03	1489	684	45.9
2003-04	2233	1025*	45.9
2004-05	1647	756	45.9

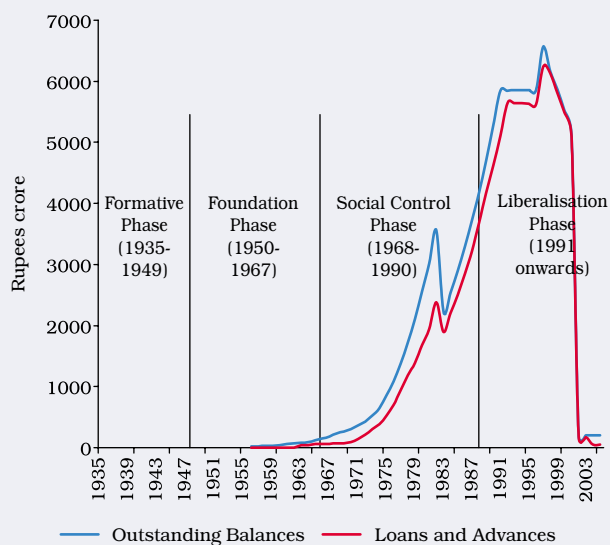
* Includes the amount paid to the Optional Early Retirement Scheme (OERS) optees on account of *ex-gratia*.

Chart VIII.5: Percentage of Surplus (excluding provisions) to Balance Sheet Size



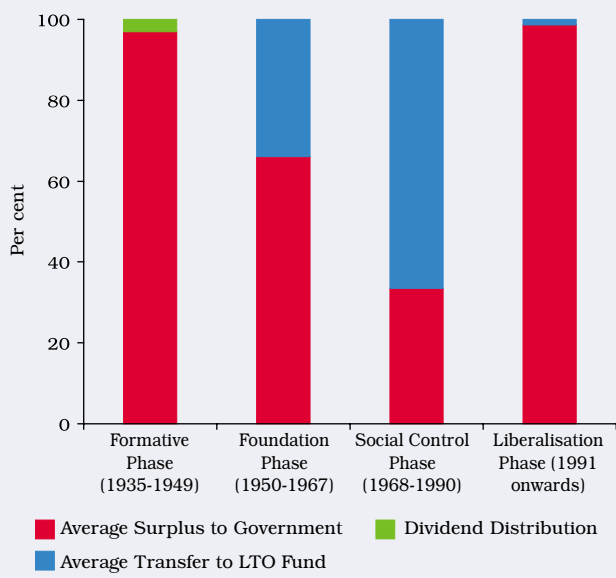
²⁷ Gratuity and Superannuation Fund contribution includes a) Pension Fund, b) Gratuity Fund and c) Leave Encashment (Retired Employees) Fund.

Chart VIII.6: Long-term Funds: Outstanding Balances and Loans and Advances



since 1982. In view of inadequate stock of Government paper to effectively conduct open market operations, the Reserve Bank started converting the entire stock of the Central Government's non-transferable 4.6 per cent undated special securities into marketable securities by the year 2002-03. The increased profit transfer to the Government has since then included compensation payment for the interest differential on account of such conversion, in addition to regular profit transfer (Chart VIII.7).

Chart VIII.7: Distribution of Total Surplus



V. SOME RECENT ISSUES

8.91 Central banks' balance sheets of late have started getting increasing attention. Both international financial organisations as well as individual central banks have played a crucial role. This section highlights three crucial issues for India against the backdrop of some recent developments, which have important future ramifications.

Accounting Standards and Transparency²⁸

8.92 Presently there are three basic accounting standards, viz., the International Accounting Standards (IAS), US Generally Accepted Accounting Principles (US GAAP) and the European Central Bank GAAP being used by central banks. The adoption of IAS has implications for risk management practices including operational decision-making and risk strategies of central banks (Box VIII.3).

8.93 In the Indian context, the Reserve Bank meets the basic requirements of income recognition on an accrual basis, periodic revaluation of the investment portfolio and annual external audit as prescribed by the IAS. In certain cases, the Reserve Bank, in fact, follows even stricter norms than the IAS prescription. For instance, the Reserve Bank marks its investments at the lower of book or market value, thereby adjusting unrealised losses against income without recognising unrealised gains. In case of foreign currency assets, revaluation arising out of exchange rate changes is symmetrically transferred to an adjustment account, denominated as the Currency and Gold Revaluation Account (Jadhav *et al*, 2003) (Box VIII.4).

8.94 The reform phase in India has been marked by a sea change in the direction of increasing transparency in financial statements of the Reserve Bank, particularly since the late 1990s. Although there were some attempts to increase transparency in the Bank's accounts in the second half of 1980s, the Reserve Bank balance sheet did not provide details of various items under income and expenditure; for instance, income used to be shown as net of interest payments and after allocations to internal reserves. The levels of internal reserves were not clearly revealed and clubbed under other liabilities (Tarapore, 1996).

8.95 With the gradual adoption of best accounting/prudential norms, the presentation of the 'Annual Accounts' of the Bank has reflected distinct

²⁸ The cross-country trends on central banking accounting principle as well as transparency has already been analysed in section II above.

**Box VIII.3
International Accounting Standards and Central Banks**

International Accounting Standards (IAS) norms stipulate proper documentation of hedged assets and related hedging instruments, fair valuation of Government debt instruments in central bank balance sheets based on discounted cash-flow techniques if market price is not available and recognition of gold (a non-financial asset) at the lower of cost and net realisable value. While the IAS norms on hedging require revamping of existing risk management strategies that may involve additional costs or operational inefficiencies, the proposed treatment of unrealised gains as income and their distribution as dividend to Government is not acceptable to the central banks from the point of its likely impact on money supply and inflation. There is also an apprehension that the implementation of IAS would impose an additional burden on account of the need to collect statistical data from the financial markets as part of monetary policy role of central banks.

The fair valuation method under IAS 39 (Financial Instruments: Recognition and Measurement) effective from January 1, 2001 calls for periodic valuation of most assets and liabilities at market prices (and not at historical cost) and incorporation of recognised but unrealised profits in net profit computation. This valuation practice is suggested for reasons of higher levels of transparency and accountability. However, the adoption of fair value disclosures has not been uniform across central banks (Annex VIII.3). In

several cases, the valuation change is transferred directly to the revaluation reserve without getting reflected in the income statement. While the revised IAS 21 require all gains and losses (realised and unrealised) on 'monetary assets' to be recognised in the income statement ('non-monetary assets' are not required to be revalued), the IAS 39 introduced a broader use of fair value for assets and liabilities with a proviso that all related gains and losses (both realised and unrealised) be reported in the income statement. The accounting standard allows flexibility by way of valuation of 'loans and receivables' and assets classified as 'held to maturity' at amortised cost. Furthermore, unrealised valuation component in the case of residual financial assets (available for sale) can be transferred directly to revaluation reserves. In IAS 39, all derivatives are required to be fair valued and carried on the balance sheet. The fair valuation accounting norms have an in-built bias for potential volatility of reported earnings and, therefore, raise the basic issue of risk attached to the distribution of unrealised profits as dividends. In the case of IAS 32 (definition of capital), there is an apprehension that its strict application may shift some of the existing capital instruments into the category of 'liabilities' (and not equity). There are also strict rules on impairment and provisioning that prohibit the creation of general banking reserves to cover unforeseen circumstances (Foster, 2004). Cross country experience suggests that a variety of accounting practices prevail across central banks (Table).

Table: Accounting Policies of Select Central Banks

Country	Accounting Practices
Australia	Follows the accounting standards and accounting interpretations issued by the Australian Accounting Standards Board. However, it will adopt and publish its financial statements under Australian equivalents to International Financial Reporting Standards (AIFRS) for the first time for the year ending June 30, 2006. The implementation of the new accounting standards has implications from the point of view of new disclosures.
Singapore	Follows the applicable Singapore Financial Reporting Standards from January 1, 2003. The financial statements disclose less information than would be required under the accounting standards keeping in view the opinion that for effective management of Singapore's monetary policy, it is appropriate not to meet, in some respects, the accounting standards. The accounts are prepared in accordance with the historical cost convention and on an accrual principle. Furthermore, interest income is recognised on a straight-line basis instead of the requirement of an effective yield basis under FRS 18. Investment assets are stated at the lower of cost and market value. Quoted bid, mid or last transaction prices are used as a measure of market value on a consistent basis across asset classes.
Canada	Financial statements are prepared in accordance with the Canadian Generally Accepted Accounting Principles (GAAP).
Italy	Applies in full the accounting rules and recommendations issued by the ECB.
USA	The Federal Reserve prepares its financial statements in accordance with the Financial Accounting Manual that is considered more appropriate to the nature and functions of a central bank than GAAP.
Euro System	The European Central Bank has formulated its own accounting standards to be adopted by the European System of Central Banks (ESCB). However, they are broadly in line with the international accounting standards (IAS) with the exception of different accounting treatment stipulated for unrealised valuation changes.

improvements in terms of transparency and disclosures during the liberalisation phase. A transparent system of allocation to reserves and transfer of profits to Government has already been put in place. In the Bank's accounts for the year ended 1997-98, 'Notes to Accounts' incorporated details of changes in the accounting policies and procedures

introduced during the year while also disclosing information relating to components of 'other liabilities' and 'other assets'. Annual accounts of the Bank now disseminate detailed information relating to composition of the balance sheet, valuation practices, changes in accounting practices and different sources of income and expenditure (Table 8.13).

**Box VIII.4
Gold Valuation in India**

- Gold Coin and Bullion remained unchanged at Rs.44.41 crore at the statutory rate of valuation, at the official parity of 8.47512 grains per rupee or Rupees 21 Annas 3 and Paise 10 per tola in terms of Section 33 (4) during the period from 1935 to 1955.
- With the change in proportional reserve system from 40 per cent of the assets of the Issue Department (and a minimum of Rs.40 crore in gold coin and gold bullion) to a minimum holding of Rs.400 crore in foreign securities and of Rs.115 crore in Gold coin and bullion under the Reserve Bank (Amendment) Act, 1956, it was decided to revalue gold at the official parity price agreed to by the IMF at the time of rupee devaluation in September 1949 viz., 2.88 grains (8.47512 grains earlier) equal to 0.186621 gramme of fine gold per rupee or Rs.62-8 per tola (i.e., equivalent of US \$ 35 an ounce agreed to by the IMF). The gold was revalued on October 6, 1956, increasing the value of gold held in the Issue Department to Rs.117.76 crore. Out of the total revaluation profit of Rs.77.74 crore, a sum of Rs.75 crore was transferred to the Reserve Fund and the balance of Rs.2.74 crore was included in the surplus profit payable to the Government.
- Following the devaluation of the rupee in June 1966, the gold held in the Issue Department was revalued in terms of Section 26 of the Banking Laws (Amendment) Act, 1968 and through an amendment of the Reserve Bank Act at the then prevailing parity rate (IMF) of 0.118489 gramme of fine gold per rupee or Rs.98.44 per tola (Rs.84.39 per 10 grammes) with effect from February 1, 1969. After revaluation, the value of gold held in the Issue Department increased to Rs.182.53 crore (from Rs.115.89 crore) during the year ended June 30, 1969. The profit on the revaluation of gold was transferred to the Reserve Fund.
- An amendment to Section 33(4) of the Reserve Bank Act, 1934 in October 1990 provided for valuation of gold coin/bullion at a rate 'not exceeding the international price' with effect from October 17, 1990. Accordingly, gold was revalued on October 17, 1990 at Rs.1,991.64 grammes, and the appreciation in the value of gold was credited to the Reserve Fund, raising it to Rs.6,500 crore. However, all revaluation gains/losses on account of changes in the gold prices are now being booked in CGRA.

Source: Reserve Bank of India Annual Reports, Various Issues.

Risk Management

8.96 Against the backdrop of the current globalised economic order, one of the biggest challenges for any central bank is effective risk management, which can play an important role in strengthening its balance sheet, and contribute to its creditworthiness in financial markets. Risk management strategy of

central banks is a core component of their overall strategy to maintain financial stability through minimising the scope for systemic risks. Recent developments point out that there is an increasing risk awareness and preparedness on the part of central banks in terms of risk management strategies although it is not considered satisfactory²⁹.

Table 8.13: Increasing Transparency and Disclosures in Annual Financial Statements of RBI

Item	Year of Introduction	Item	Year of Introduction
1	2	1	2
Details of interest receipts, information on interest payments to banks on their CRR balances with the Reserve Bank & contributions to the Statutory Funds	1979-80 to 1984-85	Unrealised gains in foreign currency assets	1994-95
Interest payment as an item of expenditure and contributions to the Statutory Funds	1987-88	Details of income from domestic investments others	1995-96
Details of income receipts, viz., interest, discount, exchange & commission	1990-91	Assets/Liabilities including details of Exchange Fluctuation Reserve, Exchange Equalisation Account and CR	1995-96
Significant Accounting policies and Notes to Accounts	1991-92	Investments in shares of Subsidiaries/ Associate Institutions	1995-96
Details of provisions for exchange cover for Foreign Currency Deposit Schemes	1991-92	Changes in the Accounting Policies and Procedures	1997-98
Table in the Annual Report to depict the trend in income and expenditure	1991-92	Income from Open Market Operations	1999-2000
Interest payments details	1991-92	Transfer of surplus to Government on account of conversion of Special Securities into marketable securities	1999-2000
Break-up of income from domestic & foreign sources	1994-95	National Housing Credit (Long-Term Operations) Fund details	2001-02
Transfers to Contingency Reserves	1994-95	Net earnings from foreign and domestic sources in absolute and percentage terms (excluding capital gain/loss in the case of foreign securities and profit on sale of domestic securities).	2002-03
Appropriation of disposable income	1994-95	Trends in foreign currency and domestic assets	2002-03
Transfer to Government for FCNRA losses	1994-95		
Contingency Reserve balance	1994-95		

²⁹ The Central Banking Publications Survey in 1999 revealed that only 15 per cent of central banks surveyed had an independent risk management unit.

Notwithstanding an attitudinal change in support of the adoption of risk management strategies, an active risk management approach may at times be avoided

if it is not in consonance with a central bank's statutory objectives of financial system and exchange rate stability (Box VIII.5).

Box VIII.5 Risk Management in Central Banking

Various key functions of a central bank, viz., monetary and exchange rate policy, oversight of payment system, supervision and crisis management involve a number of financial and non-financial risks such as reserve management risk, operational risks, risks associated with payment and settlement system, reputational risks, regulatory risks, technological risks and credit risk associated with lender of last resort function.

One of the key areas of risk management for central banks relates to the strategic management of foreign exchange reserves. Central bank investment decisions are often constrained by mandates relating to the objective function, type of assets, investment instruments and other detailed investment guidelines. The underlying idea is that central banks should guard against market, credit and liquidity risks of their investment portfolio. Given the constraints, it is the liquidity, safety and reasonable return considerations that generally underlie the foreign exchange reserve management strategy of central banks. However, the economic compulsions to improve the return on reserve assets have recently encouraged a shift from risk control strategy to a proactive risk management approach. This is getting reflected in an increasing use of private reserve management strategies and methods that are perceived to be aggressive and riskier. With a perceptible change in their risk outlook, several central banks have adopted a focused risk management approach. Under this approach, the emphasis is not only on an efficient allocation and management of foreign exchange reserves but also on the development of sound governance structures with a view to bringing about risk awareness while also infusing an element of discipline through in-built accountability clauses. Furthermore, the good corporate governance principles involving a three-tier governance structure comprising strategic asset allocation, tactical asset allocation and actual portfolio management responsibilities have been institutionalised as part of an appropriate organisational design to ensure a smooth implementation of daily reserve risk management.

Another area of risk management pertains to minimising 'operational risks' arising from inadequate internal processes or unanticipated external events that are viewed critical in the present day central banking environment. The operational risks are generally addressed through suitable provisions for disaster mitigation, crisis management and day-to-day operational risk management while also introducing proper reporting systems and controls. The adoption of best practices and standards has been an important step to reinforce the role of risk controls in a central bank's governance framework.

The establishment of an efficient payments and settlement system has been an integral part of risk management strategy. The objective has been to get as close to a real time transaction, clearing and settlement system as possible with a view to reducing financial float and minimising the risk of a breakdown of the payments system.

In this backdrop, the 'solvency' and 'vulnerability' analysis of central bank portfolios has also assumed significance. The 'Value-at-Risk' (VaR) method is used to quantify central bank solvency and vulnerability. The application of VaR approach to the central bank portfolio is based on the principle of 'economic' and not the 'historical' value of assets and liabilities including off-balance sheet transactions and commitments linked to the role of central banks as guarantors of the stability of the financial system and averters of systemic banking crises. The latter may involve an implicit or explicit deposit guarantee. The solvency analysis, based on VaR, incorporates the likely impact of such contingent liabilities for the quantification and measurement of risk. The assets and liabilities are broken into interest rate (domestic and foreign) and exchange rate positions and the economic value of the central bank portfolio, i.e., the net economic value of central bank equity, based on the VaR, is derived. This is nothing but "equity in terms of the exposure of the central bank positions to risk factors and, therefore, it allows for a direct estimate of how policy variables and exogenous prices bear directly on the ability of the central bank to preserve its solvency" (Blejer & Schumacher, 1998). Given this, the central bank VaR is defined as the worst loss that the central bank portfolio can suffer because of changes in the relevant prices and positions, over a determined horizon, with a certain probability.

The quantification of risks based on VaR is increasingly being adopted by central banks. The Reserve Bank of New Zealand uses VaR model limits and stop-loss limits in respect of its foreign asset portfolio. However, domestic securities held for monetary policy purposes are not covered under VaR. Bank of England uses VaR for monitoring and controlling market risk on the balance sheet while the Central Bank of Italy evaluates the riskiness of foreign exchange positions and securities portfolio on a VaR basis.

Several central banks have already put in place an institutional framework through the setting up of independent risk management units for the proper assessment, regular monitoring and management of risks faced by them (Colombia, Singapore, Korea, Thailand, Canada etc.). The supervision of risk management framework is typically entrusted to the Bank's top management Committee, the Audit Committee, and the Board of Directors – reflective of the importance most central banks attach today to their risk management operations.

Source:

1. Blejer Mario I. and Liliana Schumacher (1998), 'Central Bank Vulnerability and the Credibility of Commitments: A Value-at-Risk Approach to Currency Crises, IMF, May.
2. European Central Bank (2004): "Risk Management for Central Bank Foreign Reserves", May.

Profit Transfers and Reserve Adequacy

8.97 The central banks transfer their profit to the Government although it may not be a first charge on their profit. However, the focus on reserve building before allocation of profit by the central bank to the Government varies from country to country. Wherever the entire profit is required to be transferred to the Government, there is presumably an underlying guarantee that the Government would meet any future losses of the central bank. Notwithstanding this assurance, the central banks consider it prudent to build up their internal reserves to meet any unforeseen contingencies in future.

8.98 In the Indian context, there was no system of allocation to contingency reserves (CR) on a regular basis in the past. However, the need to build up such reserves was felt against the backdrop of difficult circumstances faced in 1993 when the CR fell to Rs.859 crore or 0.5 per cent of total assets of the Bank on account of draw down of huge amount (Rs.4,800 crore) for meeting commitment on exchange loss arising from FCNR (A) Scheme.

8.99 The Reserve Bank of India Act, 1934 prescribes share capital of the Bank at Rs.5 crore under Section 4. There is no specific reference in the Reserve Bank Act relating to the allocation of surplus between the Reserve Bank and the Government. Under Section 46 of the Act, the Government shall transfer to the Reserve Bank rupee securities of the value of Rs.5 crore to be allocated by the latter to the Reserve

Fund³⁰. This Section also provides that the Reserve Bank shall establish and maintain the National Funds *viz.*, the National Rural Credit (Long-Term Operations) Fund, National Rural Credit (Stabilisation) Fund, National Industrial Credit (Long-Term Operations) Fund and the National Housing Credit (Long-Term Operations) Fund through crediting of an initial sum, and such further sums of money as the Reserve Bank may contribute every year. The provisions of Section 47 of the Act mandate that after making provisions for bad and doubtful debts, depreciation in assets, contributions to staff and superannuation funds and for all other matters for which provision is to be made by or under the Act or which are usually provided for by bankers, the balance of the profits may be transferred to the Government. Thus, the Statute provides for the creation of provisions, as per prudent banking practice. Even in the absence of any statutory backing, the Reserve Bank has used the enabling provisions of Section 47 of the Reserve Bank Act, 1934 to create a number of reserves, and strengthened them in line with the central bank practices internationally (Box VIII.6).

8.100 Against the above backdrop – to hedge against variability in prices of domestic and foreign assets, possible losses on account of policy intervention, external shocks and other unforeseen systemic risk – in line with the suggestion of statutory auditors, the Reserve Bank has been pursuing a proactive policy of strengthening the balance sheet and accordingly set an indicative target of 12 per cent of its total assets to set aside under CR (including ADR

Box VIII.6

Reserve Accounts Maintained by the Reserve Bank

Contingency Reserve Account (CR)

The CR is maintained by the Reserve Bank in terms of the provisions contained in Section 47 of the Reserve Bank Act, 1934. This is maintained out of retained profits of the Reserve Bank for meeting unforeseen losses and contingencies which could arise on account of foreign exchange transactions, revaluation of foreign currency assets (beyond the balance in CGRA), depreciation of domestic and foreign securities, exchange guarantees, monetary/exchange rate operations, systemic risk, internal frauds, *etc.*

Asset Development Reserve (ADR)

This was created in 1997-98 to meet internal capital expenditure requirements of the Reserve Bank and to make investments in its subsidiaries and associate institutions with the aim of reaching a level for ADR at one per cent of the Reserve Bank's

total assets within the overall target of 12 per cent for CR by end-June 2005.

Currency and Gold Revaluation Account (CGRA)

All revaluation gains/losses on account of changes in the exchange rates and gold prices are booked in CGRA. A rupee appreciation implies lower rupee value of foreign currency assets and the corresponding depletion of the balance in the CGRA and *vice versa*. It was earlier named as 'Exchange Fluctuation Reserve' *i.e.*, an accounting head for valuation changes in exchange rates and gold. The Fund is volatile responding to movements in exchange rate of the US dollar *vis-à-vis* other currencies and gold price movements.

Source:

Reserve Bank of India Annual Reports, Various Issues.

³⁰ The appreciation gains on account of revaluation of gold from time to time were credited to this Fund. The cumulative appreciation gains credited to the Fund up to October 1990 amounted to Rs.6,495 crore.

of one per cent) to be achieved in phases by end-June 2005 (RBI, 1997-98). Towards this goal, the Reserve Bank accumulated a balance of Rs.60,840 crore under CR and ADR taken together by end-June 2003, which was 11.7 per cent of its total assets. However, with the introduction of the MSS and the resultant expansion of the Reserve Bank's balance sheet, the accumulated balance in CR and ADR taken together at Rs.68,811 crore worked out lower at 10.1 per cent at end June 2005.

VI. CONCLUSIONS

8.101 Analysis of the Reserve Bank's balance sheet over the last seven decades reveals the correlation of its evolution to shifts in the policy regime as well as changes in the macroeconomic environment. In line with the functional evolution of the Reserve Bank across the different phases, the balance sheet of the Bank has undergone considerable changes. From the primacy of the note issuance function during the formative years, to slow but steady fiscal ascendancy during the early phase of planning which culminated into a period of fiscal dominance (and higher pre-emption of the resources of the banking system) coupled with strong developmental role, the Reserve Bank balance sheet has undergone a structural transformation in the 1990s with dominance of foreign assets, market determination of public debt management and reduction in reserve requirements.

8.102 Cross-country experiences suggest that the central banks, depending on the composition of their balance sheets, broadly fall into two distinct categories. Some of them have most of their assets in the form of Government securities, while others hold their assets in foreign exchange reserves and gold. While the former may signify a case of fiscal dominance, its impact on revenues of the central bank gets linked to the financing terms, which may not be strictly based on market principles. The risk profile of the second category, *i.e.*, central banks with large foreign currency assets is substantially different as its balance sheet is constantly exposed to interest and exchange rate risks with the attendant implications of valuation changes and an adverse impact on its financial results. With the recent compositional shift in the Reserve Bank's balance sheet towards foreign currency assets and the resultant shift in the risk-return profile of the Bank, such concerns assume greater significance in the Indian context. With the change in asset composition of the Reserve Bank's balance sheet, relatively lower

rate of return on foreign currency assets, volatility in exchange and interest rates in the global markets and adoption of mark to market valuation norms with asymmetric treatment for appreciation gains, various risks, *viz.*, market risk, credit risk, liquidity risk, risks arising out of intervention operations, operational risk and lender of last resort risk, have assumed greater significance in the context of the health of the Reserve Bank's balance sheet and have intensified the need for adoption of effective and adequate risk management measures. The volatility in financial asset prices during the deregulation phase has had a bearing on the balance sheet of the Reserve Bank to the extent that it is asymmetric in terms of its impact on assets and liabilities. In the wake of these developments, the Bank has initiated several measures to ensure revaluation of both domestic and foreign assets on a prudential basis and also build up adequate cushion in the form of contingency reserves so as to impart policy flexibility in a liberalised environment.

8.103 Globally, there is lot of uncertainty relating to the likely impact of macroeconomic imbalances on financial asset prices. This makes the task of central bankers even more difficult in respect of their portfolio management decisions as any adverse exchange rate movements in international markets could cause significant losses to their foreign exchange portfolio. This issue is particularly important for countries where central banks have built up foreign currency assets through the issue of short-term liability instruments or central bank paper at market rates of interest and in cases where the revaluation risks are borne by central banks. This holds true for the Reserve Bank because it manages foreign exchange reserves and absorbs the valuation impact of exchange and interest rate movements in the international market.

8.104 A relevant issue in this context is that of sterilised intervention. While *per se* sterilised intervention involves adjustment within the assets side of the Reserve Bank's balance sheet (in terms of substitution of domestic assets by foreign assets), recent instruments such as market stabilisation bonds, though innovative, causes an expansion of the balance sheet. Such an expansion of the balance sheet may necessitate corresponding increase in contingency reserves. Thus, in the days to come, a contextual analysis of transfer of surplus and provision of contingency reserves would be needed in the wake of appropriate risk management strategy on the part of the Reserve Bank.

8.105 Another issue of importance is linked to the fact that the central banks now face competitive conditions in the area of various financial services being provided to the private sector. The increasing pressures on their incomes have encouraged consolidation measures aimed at cost effective services supported by the newer technologies. Certain central banks have also started periodic reviews of priced services operations and other system wide activities to take a view on provision and pricing of these services.

8.106 While the Reserve Bank has continued to conduct banking business of the Government, the view that has gained prominence is that the Reserve Bank should assign the retail banking business of the Government in favour of the agency banks with a view to ensuring that in the long run, the Bank will maintain only the principal accounts of the Government, leaving the day to day banking business to commercial banks functioning as its agents (Reddy, 2002). Another issue under consideration relates to the cost of conducting State Government business. Under the existing arrangement, the Bank is not entitled to receive any remuneration for the conduct of ordinary banking business of the Government other than such advantage that may accrue to it from holding of cash balances free of obligation to pay interest thereof.

Furthermore, the Reserve Bank incurs expenditure in terms of reimbursement of costs incurred by agency banks for conducting Government business. Country practices also reveal that the cost of conducting Government business in most countries is borne by the respective Governments and not the central bank. A rationalisation measure being contemplated in respect of remuneration payment to agency banks is to shift from the present cost based system to a system of bidding for Government business by agency banks.

8.107 Finally, to reiterate, balance sheets of central banks are unlike those of commercial organisations. A larger central bank balance sheet does not necessarily connote sound macroeconomy. Illustratively, a number of central banks of developed countries have a smaller balance sheet relative to the size of their economy. The balance sheet of the central bank needs to adhere to the principles of sound central banking ensuring price and financial stability on the one hand, and its developmental role on the other. Transparency is a necessary precondition in this regard. A transparent central bank balance sheet would go a long way to enhance the credibility of the central bank and efficiency of monetary policy. The evolution of balance sheet of the Reserve Bank over nearly seven decades bears testimony to these principles.

ANNEX VIII.1: Select Country Practices relating to Distribution of Profit

Country	Distribution of Profit
Euro system	Under the ESCB Statute, up to 20 per cent of its profit in any year may be transferred to the general reserve fund subject to a limit equal to 100 per cent of the ECB's capital. The remaining net profit is to be distributed to the National Central Banks and shareholders of the ECB, in proportion to their paid-up shares. However, the Governing Body may decide not to transfer net profit to the general reserve fund in any year.
Japan	Under Article 53 of the Bank of Japan Law, 5 per cent of net income for the fiscal year is required to be transferred to the legal reserves (the actual allocation may be higher) while shareholders are paid dividend at the rate of 5 per cent of the face value of shares and the remainder of its income is paid to the government.
Australia	Under Section 30 of the Reserve Bank Act 1959 net profit including transfers to/from unrealised profits reserve earnings available for distribution is payable to the Government after setting aside amounts for contingencies and for transfer to the Reserve Bank Reserve Fund that are determined by the Treasurer in consultation with the Reserve Bank Reserve Board. However, the actual profit distribution is phased out and transferred in more than one tranche extending to more than one financial year.
Singapore	Net profit for the year including transfer of reserves from Currency Fund is paid to the Government by way of contribution to Consolidated Fund, in line with the Statutory Corporations (Contributions to Consolidated Fund) Act, at 20 per cent of the profit for the year in 2005 and return of profit.
Korea	Transfers from the voluntary reserve make up for net loss, if any. Furthermore, in a situation of loss e.g., in 2004, undivided profit surplus of the previous period was transferred to the Government's General Revenue Account.
Germany	Net profit is transferred to the Federal Government after setting aside amount for statutory reserves. In the event of statutory reserves being at their fixed upper limit, the entire surplus is distributed to government.
Canada	Net revenue of the Bank is remitted to the Receiver General for Canada as the statutory reserve is at its fixed upper limit since 1955.
Portugal	Net profit for the year is distributed equally between allocation to reserves and the State.
UK	Profit of both Issue (entire) and Banking (some amount allocated to reserves) departments is payable to the Treasury.
Sweden	Notwithstanding a negative position in 2004, the Central Bank made a dividend payment to the Treasury and financed it through a reduction in the monetary policy repo.
South Africa	In terms of Section 24 of the South African Reserve Bank Act, 1989, nine-tenths of the surplus of the Bank, remaining after provisions normally provided for and payment of dividends (stipulated at 10 cents per share) is to be paid to the Government and one-tenth has to be credited to the statutory reserve fund.
Brazil	Net profit after constitution or reversal of reserves is transferred to the National Treasury. The negative result <i>i.e.</i> , excess of expenses over revenues relating to all central bank operations constitutes a liability of Treasury to Central Bank.
Italy	Net profit for the year, after allocations to the Ordinary Reserve and Extraordinary Reserve accounts and distribution of dividend to shareholders, is transferred to the State.
Norway	A third of the capital in the Transfer Fund that is built up out of any surplus after provisions for or transfers from the Adjustment Fund is transferred to the Treasury every year.
Russia	Under Article 23 of the 2005 Federal Budget Law, the Bank of Russia must transfer funds to the federal budget amounting to 80 per cent (up from 50 per cent earlier) of its profit for 2004 remaining after the payment of taxes and duties in accordance with the Tax Code of the Russian Federation.
Chile	In terms of Article 77 of Law 18,840, a deficit produced in any year will be absorbed with a charge to constituted reserves. When there are no reserves or they are insufficient, the deficit produced in a certain period will be absorbed with a charge to paid-in capital. However, even shareholders' equity was not sufficient to absorb the loss on account of the effects of exchange rate variations on assets in foreign currency at end December 2003, resulting in a shareholders' equity deficit.
USA	Under Section 16 of the Federal Reserve Act, Reserve Banks are required by the Board of Governors to transfer to the US Treasury as interest on Federal Reserve notes excess earnings, after providing for the cost of operations, payment of dividends, and reservation of an amount necessary to equate surplus with capital paid-in.

Source: Central Bank Balance Sheets.

BALANCE SHEET OF THE RESERVE BANK

ANNEX VIII.2: Valuation Norms for Government Securities/Foreign currency denominated Bonds of Select Central Banks

Australia	Domestic securities and marketable foreign government securities are valued at market prices on the last business day of June except when contracted for sale under repurchase agreements .
Canada	Assets and liabilities in foreign currencies are valued at the rates of exchange prevailing at the balance sheet dates. Investments in treasury bills and bonds are recorded at cost and are adjusted for amortisation of purchase discounts and premiums using the constant yield method for TBs and bankers' acceptances and the straight line method for bonds.
Euro system	The Euro system follows the harmonised accounting rules under which gold, foreign exchange, security holdings and financial instruments are valued at market rates and prices at the end of each quarter. The revaluation takes place on an item-by-item basis for securities, interest rate swaps, futures, forward rate agreements and other interest rate instruments. Foreign exchange holdings are revalued on a currency-by-currency basis.
Germany	Gold, foreign currency instruments, securities and financial instruments are valued at mid-market rates and prices on the balance sheet date.
India	Foreign assets of Reserve Bank are translated at the exchange rates prevailing on the last business day of the week and also on the last business day of the month. Foreign securities, other than Treasury bills are valued at the lower of book value or market price at prevailing exchange rates ³¹ . Treasury bills are valued at cost. Gold is valued as at the end of the month at 90 per cent of the daily average price quoted at London for the month. SDRs and RTP are valued at IMF's official rates. Rupee securities are valued at lower of book value or market price. 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.
Japan	Effective from fiscal 2004 Government securities are being valued at amortised cost determined by the moving average method while foreign currency denominated bonds are valued at market price.
Malaysia	Gold, Securities and investments are stated at cost. Assets and liabilities in foreign currencies are revalued into domestic currency at rates of exchange ruling on the balance sheet date.
Portugal	Assets, liabilities and off-balance sheet instruments denominated in foreign currency are converted into euro at the exchange rate prevailing on the balance sheet date while the foreign exchange gains or losses in respect of foreign currency transactions are worked out on an item-by-item basis by reference to the respective weighted average cost. Marketable securities are valued at market price while non-marketable securities are recorded at historical cost.
Russia	Precious metals are accounted for at their acquisition cost while foreign currency assets and liabilities are revalued at the official exchange rates. Government securities in the investment portfolio are accounted for at their acquisition price while those in the trade portfolio are revalued at market rates (if available) and at their acquisition price otherwise.
Singapore	Gold, foreign assets and Government Treasury bills and bonds are stated at cost. Provision is, however, made for diminution in value, if any, based on the lower of cost or market value on an individual investment basis. Assets and liabilities in foreign currencies are translated into domestic currency at the rates of exchange ruling on the balance sheet with few exceptions.
South Africa	Financial instruments are measured initially at cost, including transaction costs. Subsequent measurement in respect of financial assets classified as 'held for trading' and 'available for sale' is at fair values (quoted market prices for quoted financial instruments and accepted valuation techniques for unquoted financial instruments). However, financial assets categorised as 'held to maturity', originated loans and receivables and non-trading liabilities are measured at amortised cost and are re-measured for impairment losses. Revaluation gains and losses on gold and foreign exchange transactions (including forward exchange contracts) have no impact on the Bank's statement as these are transferred to the account of the South African Government.
Thailand	Domestic securities are valued at cost after amortisation of premiums or discounts while foreign securities are stated at fair value.
UK	Government securities and other sterling debt securities are held as investment securities and are valued at cost adjusted for the amortisation of premiums or discounts on a straight-line basis over the period to maturity. Non-sterling investment securities are recorded at cost, in currency of denomination, adjusted for the amortisation of premiums or discounts on a straight-line basis over the period to maturity.

³¹ Profit/loss on sale of foreign currency assets is recognised with respect to the book value.

ANNEX VIII.3: Treatment of Unrealised Gains/Losses by Select Central Banks

Country	Treatment of unrealised gains/losses
Euro system	Unrealised exchange rate and market price valuation gains on the holdings of foreign currency assets and gold from the quarterly revaluation are not recognised as income but are credited to a revaluation account. Unrealised losses are taken to the profit and loss account at the end of the year if they exceed previous revaluation gains registered in the revaluation accounts on the liabilities side. Such losses are reversible on subsequent realisation of the asset or liability in question and not against any future unrealised gains. Unrealised losses resulting from the revaluation of a given security, or a foreign currency or holding of gold are not netted against unrealised gains in other securities or currencies.
France	Unrealised foreign exchange losses are taken to the profit and loss account and then covered by drawing on the "Revaluation Reserve of State reserves".
UK	While any net residual unrealised gain arising from exchange rate movements on the non-sterling investment securities is taken to an investment revaluation reserve with any net unrealised loss taken to the profit and loss account, all exchange gains or losses arising from exchange rate movements on the non-sterling securities available for active management are taken to the profit and loss account.
Sweden	Unrealised price and exchange rate gains and losses are reported separately. Unrealised gains and losses are transferred to the special revaluation accounts. If the unrealised losses exceed the unrealised gains in the corresponding revaluation account at the end of the year, the difference is transferred to the profit and loss account. Unrealised losses in a particular security, a particular currency or gold are not netted against unrealised gains in other securities, currencies or gold.
Thailand	Unrealised gains and losses from revaluation (price) of foreign securities are shown as a separate component of capital and are recognised in the profit and loss account on disposal. Unrealised gains and losses from conversion of foreign assets and liabilities at year-end exchange rates are recorded in the profit and loss account.
Australia	Realised and unrealised gains or losses on foreign currency and those arising from changes in market valuations of marketable foreign government securities and Australian dollar securities are immediately taken to profit but only realised gains are available for distribution.
Germany	Unrealised gains are not recognised as income but are transferred direct to a revaluation account. Unrealised losses are taken into the profit and loss account if they exceed previous revaluation gains registered in the corresponding revaluation account. Netting of unrealised losses in any given security, in any currency or in gold holdings is not permitted against unrealised gains in other securities, currencies or gold.
Portugal	Realised gains and losses arising from financial operations are taken to the profit and loss account on the settlement date while the revaluation differences between the market value and the weighted average cost are transferred in the course of the year to a specific revaluation account for each type of asset. At the end of the year negative revaluation differences are recognised in profit and loss account as 'write downs' on financial assets and positions. Revaluation differences in any one security or currency are not netted against each other.
South Africa	Gains and losses arising from a change in the fair value of available for sale assets are recognised directly in reserves and on sale of these assets, the cumulative gain or loss recognised in equity (reserve account) is transferred to the income statement of the period in which it takes place. Gains and losses arising from a change in the fair value of trading instruments, and on amortisation of premiums or discounts of financial instruments carried at amortised cost are recognised in the income statement of the period in which they arise.
India	Only realised gains are recognised. Unrealised gains/losses on valuation of gold and translation of foreign currency assets and liabilities are not taken to Profit and Loss Account but instead booked in Currency and Gold Revaluation Account.
Russia	Unrealised exchange rate differences are accounted for as "Accrued Exchange Rate Differences" and are not included in the Profit and Loss Account. However, if the balance in 'Accrued Exchange Rate Differences' Account is not sufficient, negative unrealised exchange rate differences are accounted for as Bank of Russia operating expenses.
USA	US government securities and investments denominated in foreign currencies are recorded at cost, on a settlement date basis, and adjusted for amortisation of premiums or accretion of discounts on a straight-line basis. Realised and unrealised gains and losses on investments denominated in foreign currencies arising on account of revaluation at current market exchange rates on a daily basis are reported as "Foreign currency gains (losses), net".

IX

ORGANISATIONAL EVOLUTION AND STRATEGIC PLANNING

9.1 The Reserve Bank of India Act, 1934, specifies that the Bank is a corporate body with special powers and obligations for serving national interest. Establishment of the Issue and Banking Departments was the statutory responsibility of the Reserve Bank and these were set up at inception of the Bank following the Bank of England model. The other departments have been set up for performance of functions that devolved on the Bank from time to time. The organisational transformation of the Reserve Bank of India, especially since independence has been marked with flexibility in responding to domestic necessities and compulsions, on the one hand, and evolving best international practices, on the other. The organisation has, over the years, evolved successfully with the changing economic and financial environment.

9.2 The Preamble to the Reserve Bank of India Act, 1934 stated that the Bank had been constituted 'to regulate the issue of bank notes and 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'. The Act provided for in-built flexibility, extra powers and manoeuvrability to the Bank in extraordinary circumstances. This chapter attempts to capture the organisational adaptability of the Reserve Bank to emerging economic scenario against the backdrop of the fundamental concern of the Bank for growth with price stability. Evolution of the organisational structure that has emerged in response to functional transformation is presented chronologically (Appendix 9.1), as far as possible.

I. CONSTITUTION AND GOVERNANCE (1920s TO 1940s)

9.3 Following severe public criticism of government's inability to manage the currency and exchange rate in line with public expectations, the Royal Commission on Indian Currency and Finance, 1926 recommended separation of control of currency and credit from the Government and proposed constitution of a central bank called Reserve Bank of India for undertaking these functions. The debate, however, got submerged in the political undercurrents of the time. The Commission had also suggested that

the central bank should undertake the functions of bankers' bank. The Report of the Indian Central Banking Enquiry Committee (1931), followed by the White Paper on Constitutional Reforms (1933), facilitated execution of the proposal for setting up of a Reserve Bank, free from political influences.

9.4 The India Office Committee's Report (IOC, 1933) recommended a shareholders' bank in order to eliminate fear of political interference. The Committee felt that the state capital would be a direct impetus to political dominance. It suggested that the composition of the Board be kept small to stress the relevance of individual responsibility. The contemporary international developments in central banking structures also profoundly influenced the shareholders' ownership structure of the Reserve Bank. The recommendations of IOC Report were endorsed by the London Committee which was set up subsequently to draft a Reserve Bank Bill. The Reserve Bank of India Bill (1933), underscored the desirability of entrusting the control of currency and credit to an independent authority which could act with continuity. The Bill was adopted as the Reserve Bank of India Act in 1934 in terms of which the Bank commenced operations in April 1935. Currency and exchange rate management were the core functions of the nascent central bank and received far more attention than banking management. In line with the intent, the significant aspect of the governance structure of the Bank was 'independence' from the Government in its day to day functioning.

9.5 The Act provided for constitution of a Central Board of Directors to be entrusted with the general superintendence and direction of the affairs and business of the Bank (RBI, 1970). The Board consisted of a Governor, two Deputy Governors (appointed by the Governor General in Council), four Directors (nominated by the Governor General in Council), eight Directors (elected on behalf of shareholders), and one Government official (nominated by the Governor General in Council but with no voting power). Representation of commercial bodies on the Board at this point was not considered necessary. Though there were no statutory provisions for representation of various economic interests, the judgement of Governor General in Council was relied

upon to remove any under representation or non-representation of the important sections of the society. The aim was that the governing body had the benefit of experience and special knowledge of representatives of special interests (RBI, 1970). The Central Government, that was the appointing authority for the Governor and Deputy Governors, however, could supersede the Central Board to safeguard against failures of the Board to carry out central banking business entrusted to it. Though the Act provided for specific provisions under which the Governor or Deputy Governors could be dismissed, the Central Government reserved the powers of dismissal without assigning any reasons or justification for the same in this regard. The Act endorsed establishment of five Local Boards [substituted by four as per the Reserve Bank of India (Amendment) Act no. 11 of 1947 after the termination of Burma Monetary Arrangement] to represent the respective geographical divisions that reflected the territorial or economic interests adequately. Two way communication between the Central Board and Local Boards (with members nominated by Central Board) was deemed relevant so that Local Boards could carry out the duties assigned to them by the Central Board as also enable them to advise on the matters referred to them. The Central Board was mandated to hold meetings not less than six times in a year and at least once in every quarter. The Governor presided over these meetings and also had a casting vote.

9.6 The Central Board of Directors held their first meeting on January 14, 1935 in Calcutta. The organisational preliminaries were finalised in the second meeting of the Board in Delhi in February 1935. The commencement of Bank's operations on the first day of the fiscal year (April 1, 1935) was a matter of administrative convenience for change over of Government accounts from the Imperial Bank to the Reserve Bank.

9.7 The organisational structure of the Bank comprised: (a) Central Office which included Secretary's Section, responsible for the secretarial work for the Governor and the Central Board, management of public debt, ways and means

requirements of Central and Provincial Governments and matters affecting policies of the Bank; and Chief Accountant's Section that maintained and supervised the Bank's accounts in the Issue¹ and Banking Departments², dealt with the expenditure matters, remittance of treasure, indent and distribution of notes and coins, etc., besides managing staff, personnel and premises details; and (b) Agriculture Credit Department which examined the problems of agricultural credit, and also coordinated operations of the Bank with the agencies engaged in extending such credit. The Central Office of the Bank, which was initially located in Calcutta, was permanently shifted to Bombay in December 1937.

9.8 At the outset itself, the Legislature attached considerable importance to the issue of rural finance. The Joint Select Committee (JSC, 1933) suggested preparation of a statutory report on indigenous bankers which could focus on linking of indigenous bankers with the Reserve Bank to ensure their eventual amalgamation into the modern banking system, so as to improve the informal machinery of agricultural finance. This was considered imperative for it would otherwise be impossible for the Reserve Bank to exercise full control over currency and credit and for the rural masses to derive advantages of banking and credit facilities on reasonable terms (RBI, 1970). Rediscounting bills of exchange and promissory notes issued or drawn by either the scheduled banks or cooperative banks for financing of seasonal agricultural operations, marketing of crops and extending loans to these effects formed integral part of the provisions of the Reserve Bank of India Bill, 1933. Following the proposals of JSC, the amended Bill paved way for establishment of a separate rural credit department, viz., Agriculture Credit Department (ACD, 1935). It was well recognised that the cooperative movement was the most suitable solution for addressing the credit needs of agriculturists, and further that the cooperatives could go well beyond the credit availability and cover other aspects of life of peasants by encouraging the use of better quality seeds, manures, etc., at lower cost and promote lessons of better farming and better living. In February 1937, a Statistical Section was started within the ACD, which was entrusted with

¹ Divided into Treasurer's Department (comprising the Issue branch and Exchange branch) and General Department (sub-divided into Registration Branch, Cancelled Note Verification Branch, Claims Branch, Resource Branch and Accounts Branch). Provision was also made for maintenance of currency chests and small coin depots by the Reserve Bank at branches of the Imperial Bank where there were no offices of Banking or Issue Departments of the Reserve Bank.

² Organised into five Departments, viz., Public Accounts Department, Deposit Accounts Department, Public Debt Office, Securities Department and Share Transfer Department.

the responsibilities of collecting and analysing data on scheduled banks besides preparing periodical reports on domestic money and financial markets. In April 1937, the Section took over the publication of 'Monthly Statistical Summary' from Central Accounts Office, Calcutta. The Section also earned the distinction of publishing the first issue of the "*Report on Currency and Finance*" covering the years 1935-36 and 1936-37 replacing the annual report of the office of Controller of Currency, which was wound up in October 1937. The ACD was further expanded in January 1938 by creating a separate Banking Section to look after the scheduled bank business.

9.9 In order to strengthen internal controls and tighten the systems and procedures with a view to undertake the anticipated increase in responsibilities, Inspection Department was constituted in the Central Office as early as in 1935. This Department assessed the achievements and performance of Central Office Departments and Regional Office Departments of the Bank, reflecting thereby a system of self assessment. The Department from time to time made suggestions to improve the overall performance by critically analysing staff requirements based on increase in the workload, and this served as feed back to top-management of the Bank.

9.10 Till this point of time, the Bank's statutes did not provide for any detailed regulation of commercial banking operations except for minor provisions in the Indian Companies Act, 1913, governing the companies engaged in business of banking. There was virtual absence of specific laws and machinery in this regard. The first attempt towards banking legislation could be traced to passing of Indian Companies (Amendment) Act, 1936. Expansion of the banking network across the country was viewed as a significant achievement considering the necessity of credit availability for development of various sectors of the economy. Since the banking crisis of 1913-14, wherein many joint stock banks failed, subsequent bank failures in the following decades were largely individual incidences resulting from endemic weakness and deficiencies to which several banking companies were prone to in the days of unregulated banking (RBI, 1970). The unhealthy spread of branch network and lapses in the scrutiny provisions for operations of banking institutions were exposed by the failure of Travancore National and Quilon Bank in the middle of 1938. Following the crises, special officers were deputed by the Reserve Bank for inspection of banks, and this enabled the Bank to exercise control over the banks in terms of obtaining

information. It, however, took the Reserve Bank and the Government a decade to formalise the comprehensive regulatory provisions and the Banking Companies Act was enacted in 1949, which was renamed as Banking Regulation Act (BR Act), 1949 in the year 1966.

9.11 The economic and financial problems faced by the country during the Second World War were enormous and this necessitated creation of a specialised Department to take control over the foreign exchange transactions. As a result, the Exchange Control Department was constituted in 1939. Exchange control which was *hitherto* the domain of the Central Government was passed on to the Reserve Bank for the sake of organisational convenience. The subsequent period witnessed expansion of the Bank's functions and responsibilities in the area of exchange control. Depending upon the volume of work, with headquarters at Bombay, branches of Exchange Control Department were opened at other centres, viz., Calcutta, Lahore, Kanpur, Rangoon and later at Karachi.

9.12 In performance of its role as banker and advisor to the Government, the Reserve Bank undertook the foreign exchange and currency remittance operations, managed public debt and arranged for issue of fresh loans. The Central Government also deposited their cash balances with the Bank free of interest. The operational terms and conditions for execution of these functions were settled with mutual consent. In terms of these arrangements, wherever the Reserve Bank did not have offices, the Imperial Bank branches were delegated such functions on the considerations of safety of public funds, adequacy of their network of branches and trustworthiness of their staff. Further, where there were no Imperial Bank branches, Government business was entrusted to any other bank on request of the Government, though responsibility for the funds continued to be with the Reserve Bank.

9.13 In execution of these diverse responsibilities, the Reserve Bank inherited most of its staff from the office of Controller of Currency, Government of India and the Imperial Bank. The necessary competencies for carrying out these functions in the nascent years were acquired during the course of operations. Areas of work such as currency management involved inventory and logistics, and people comfortable with these processes were required for undertaking these functions. Qualities such as loyalty, integrity and trustworthiness were considered critical for such jobs.

Therefore, separate recruitment policies were designed for the Cash Department and the general stream. Banking operations, however, were more formalised and the desirable competencies in this area were familiarity with accounting procedures, while policy making was reserved for the higher echelons.

9.14 A landmark organisational achievement for the Reserve Bank of India was appointment of the first Indian Governor, Sir C.D. Deshmukh, on August 11, 1943. Against the backdrop of uncertainties of frequent political power transfers, dismal growth prospects, after-effects of partition of the country, shift in taxation policies directed towards social causes, besides aiming to counter inflation, promote production and investment, there was one stabilising force that there was no change in the Governorship of the Bank till end-June 1949 and this imparted continuity in fiscal as well as monetary policy making (RBI, 1970). The post-War period was marked by reorganisation of existing Departments to tackle the increasing work pressures.

9.15 Economic intelligence and research assumed centre-stage in the backdrop of complex problems posed by the War years and partition of the country. Solution to these difficulties lay in collection, organisation and analysis of data on money, finance, banking, foreign exchange and other macroeconomic matters for normal functioning of the Bank. There was, thus a move towards publication of number of periodicals and reports such as Monthly Statistical Summary, Report of the Central Board to the shareholders, Weekly Report to the Committee of Central Board on financial conditions, Review of Cooperative Movement in India, and the like. Further, several special studies on national and international finance, sterling investments in India, repatriation of India's sterling debt, and compilation of India's international balance of payments and post-War planning, *etc.*, were also initiated. In recognition of the expansionary pressures, major organisational restructuring took place in August 1945. The ACD was reorganised into three separate sections, *viz.*, (i) Agriculture Credit Section, (ii) Statistical and Research Section to undertake various studies in monetary and fiscal areas, and (iii) Banking Section that took over the functions of maintenance of records of scheduled banks' daily balances, recovery of penal interest on shortfall in statutory balances and dealing with loan applications of scheduled banks from the Central Office of the Bank. In order to do justice to the diversification of activities of the

Bank in the areas of agricultural credit, banking operations and economic research, the later half of 1945 witnessed another round of reorganisation by upgrading the Statistical and Research Section into the Department of Research and Statistics (DRS), while also carving out two separate divisions, namely Economic Intelligence and Economic Research within the Department for the purpose of organising data compilation, analysis, publishing research papers, providing inputs for policy formulation and advising the Government on economic issues. The Banking Section was revamped into Department of Banking Operations, while the ACD remained a separate Department. This reorganisation was aimed at the Bank playing a proactive role in formulation of monetary and public debt policies, regulation of banking and promotion of financial institutions and functioning as the Government's economic and financial counselor in the post-War years. The establishment of the Department of Research and Statistics owed much to the initiative of the Governor, Sir C.D. Deshmukh (RBI, 1970).

9.16 A significant milestone in the year 1945 was Reserve Bank's active participation in the consultations and deliberations for establishment of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD). These initiatives facilitated India becoming a founder member of these institutions. The Government of India, in consultation with the Reserve Bank, appointed one Executive Director for India each for the IMF and the World Bank. Realising the relevance of compilation of Balance of Payments Statistics for India, a Balance of Payments Division was created within the Department of Research and Statistics in 1948. This ensured compliance with the obligation to supply information and statistics to the IMF by the Reserve Bank. The Bank for the first time conducted a census of India's foreign liabilities and assets as on June 30, 1948 and data relating to India's International Investment Position were released in 1950.

9.17 The first two decades after the country's independence witnessed profound changes in Indian banking. These decades marked a period of consolidation and saw catalytic efforts on the part of the Reserve Bank in terms of institution building. These initiatives triggered the growth and development of several specialised institutions. This also enlarged the sphere of the Bank's operations beyond core central banking and focused squarely on the developmental role.

9.18 The year 1949 marked two significant events in the banking history of the country, viz., the nationalisation of the Reserve Bank and passing of the BR Act, 1949. While the former sparked off efforts for reorienting the Bank's operations towards meeting the aspirations of Independent India, the latter empowered it with comprehensive command for supervision and regulation of the entire banking system. The provisions of the Act included control over policies of the banks regarding advances; comprehensive licensing system; submission of periodic returns by the banks; and preparation of inspection reports based on scrutiny of books and accounts of the banks by the Reserve Bank. Significantly, the Act also required the Reserve Bank to prepare and present a statutory annual report to the Government on "*Trend and Progress of Banking in India*". The Department of Banking Operations by this time was well equipped to take on the duties entrusted to it under the Act.

II. FUNCTIONAL AND ORGANISATIONAL EVOLUTION (1950s TO 1970s)

9.19 The decades of 1950s to 1970s are marked by many distinctive events. Following the enactment of the BR Act, 1949, the Reserve Bank made considerable progress in liberalising credit facilities to cooperative institutions. Further, setting up of the Rural Banking Enquiry Committee (1949) was a milestone in the field of rural finance. On recommendations of the Committee, the ACD was strengthened and the Department of Banking Development was set up in 1950 which played a proactive role in developmental pursuits of the Reserve Bank and also attended to matters relating to industrial finance. In order to formulate integrated policy with regard to agricultural credit, the All India Rural Credit Survey (1951) was conducted under auspices of the Bank. These measures were directed at extending banking facilities to semi-urban areas; address the problems of rural finance; deal with financing difficulties of medium and small scale industries (State Industrial Finance Corporations were established for the purpose); and mobilisation of rural savings. The work of inspection of the banking system was decentralised by opening offices of the Reserve Bank at various important centres in the country to ensure continuity of contact between the inspectorate and the banking institutions.

9.20 Against the backdrop of ambitious targets set out in Second Five Year Plan for industrial development, the need for availability of organised

credit to industry steered the policies of the Bank towards development of financial infrastructure in this direction. The earliest initiative of the Bank to this effect came about with formation of Industrial Finance Corporation of India (1948). This was followed by passing of State Financial Corporations Act, 1951 for establishing similar bodies at state levels. Industrial and Investment Corporation of India (ICICI, 1955) also extended the credit outreach of the industrial sector with a focus on financing the private sector. Besides, this period witnessed transformation of the Imperial Bank of India into the State Bank of India (SBI, 1955) and its Associate Banks as subsidiaries. There was, therefore, a visible attempt to expand the banking network and extend credit to non-banked semi-urban and rural areas. This move was also expected to promote lending to preferred sectors. Further expanding the arms of Reserve Bank of India, the Banking Companies (Amendment) Act, 1950 incorporated an important provision regarding licensing to opening of bank branches outside India. Further, another amendment to the Act in 1959 enlarged the scope of inspection to include inspection of foreign branches of Indian banks by the Reserve Bank (GOI, 1972). In addition, in order to bring the activities of non-banking companies into the ambit of regulation to protect depositors' interests, the Department of Non-Banking Companies was established in March 1966.

9.21 The full-fledged offices of Issue Department were established in Delhi and sub-office at Guwahati after partition of the country to address the administrative problems arising out of servicing of currency chests in these areas. Enactment of the Banking Companies Act, 1949 generated enormous legal work for the Bank to handle. A Legal Division was constituted (1950) to enable the Bank to cope with increasingly complex legal issues in discharge of its statutory functions. Further, in light of extension of the Reserve Bank of India Act to the States of the Indian Republic, the Bank encountered substantial legal issues relating to management of public debt of the State Governments. In this backdrop, the Legal Division was accorded the status of Legal Department (1960). Further, for provision of adequate infrastructural facilities, the Premises Department was set up in 1965 by enlarging the Premises Section in the erstwhile Chief Accountants Office.

9.22 After getting a grip on traditional central banking functions and making headway in the spread of rural and industrial finance, there was growing realisation for establishing specialised institutions and

hiving off some of the responsibilities, to be able to gradually refocus on the core central banking pursuits. Provisions were made to nominate officers on Governing Boards of associations engaged in trading in bullion, shares, *etc.*, in light of the fact that Reserve Bank's advice was sought on matters relating to such trading in view of close contacts of the Bank with these markets. The enactment to regulate transactions in securities was undertaken by Government of India in close coordination with the Reserve Bank in 1956 (RBI, 1970). Subsequently, the Bank's officers were also nominated on the Boards of East India Cotton Association and Bombay Oilseeds Exchange.

9.23 For the purpose of constantly improving the institutional machinery, the Bank established Deposit Insurance Corporation (1962); Agriculture Refinance Corporation (1963) as a subsidiary of the Bank; Industrial Development Bank of India (1964); and Unit Trust of India (1964). Credit Guarantee Corporation of India Ltd. (1971) was promoted by the Reserve Bank with two Board members from within the Bank.

9.24 During the War years, window dressing of accounts; opening of new banks with low intrinsic strength; adoption of unsound methods to attract deposits; unlawful interest interlinks between banks, insurance companies and industrial concerns were some of the disquieting trends that were detrimental to depositors' interests. The post-War period called for comprehensive banking legislation for addressing these issues. Following this, the concept of 'Social Control' took root in 1967 with growing realisation that left to itself the private sector was not forthcoming in recognising its larger responsibilities towards the society. The Government felt it necessary to exercise certain amount of authority over the banks to serve the cause of economic growth and facilitate credit access to productive sectors of the economy. In pursuance of this goal, the Indian Government nationalised fourteen major private sector banks in 1969 with a view to ensure branch expansions in relatively sparsely banked areas. The Reserve Bank, during this period, was trying to focus on credit planning and striving to guide the commercial banks towards assessment of quantum of season-wise, and sector-wise credit disbursal, *etc.* An important functional feature of credit planning was that the credit policy was decided in consultation with the bankers and monetary policy was regarded as adjunct of credit. 'Settlement of credit' was regarded as a major issue and credit allocation to certain preferred sectors was monitored scrupulously. Credit Planning and Banking Development Cell was

established in April 1970 to formulate the credit policy and monitor the Lead Bank Scheme which was introduced in 1969. The latter function was, however, subsequently transferred to the DBOD. The Cell that functioned as a part of the Secretary's Department was converted into an independent Credit Planning Cell in 1975.

III. STRUCTURAL REORGANISATION (1980s)

9.25 *Hitherto*, various crisis situations had induced policy makers to experiment with policies, to undertake reorganisation of the institutional structure from time to time and to change priorities as required, particularly in banking, exchange rate management and exchange controls. However, the Reserve Bank tried to exercise its strength of adaptability with a desirable degree of professionalism to meet the economic needs of the society. The fact remains that fiscal expansionism backed by societal concerns steered the focus of the Bank's policy initiatives towards containment of inflationary expectations and pressures during this period.

9.26 The rest of this section describes transformation in the organisational edifice of the Reserve Bank in the face of emerging requirements with the creation or elimination/ winding up of the Departments in the light of redefined role from time to time in response to the economic situations.

9.27 The administrative machinery of the Bank was expanded in the backdrop of increasing responsibilities. The Chief Accountant's Office was restructured (April, 1965) and this resulted in creation of new Departments. The first among these was the Department of Administration and Personnel (DAP). With multifold increase in responsibilities, the DAP was sub-divided in 1981 into (i) the Department of Administration (DA), and (ii) the Personnel Policy Department (PPD) with a view to leverage advantages of specialisation, avoid overlap of functions and redefine responsibilities. The second one was the Department of Accounts and Expenditure (DAE) which looked into internal accounts of the Bank, Government business and public debt, notes issue and control over foreign exchange reserves. The DAE was reorganised further into three separate units. First is the Department of Currency Management (DCM), which is concerned with devising policy measures to manage the core central banking functions of notes issue, currency management, establishing a network of currency chests and small coins depots. The Department endeavours to ensure availability of

adequate quantities and reasonably good quality notes and coins in the country. It works in close association with the Government and the note printing presses. It constantly reviews the security features of Bank notes and adopts anti-counterfeiting measures from time to time. Second is the Department of Expenditure and Budgetary Control (DEBC) which formulates the annual budget of the Bank and reviews expenditure and budgetary allocations, provident fund, pension fund and housing loan schemes of the employees. The third is the Department of Government and Bank Accounts (DGBA) which is entrusted with the responsibilities of acting as banker to the Government, accounting of public debt on behalf of Central and State Governments, maintenance of Bank's internal accounts, preparation of annual profit and loss account, and balance sheet of the Bank.

9.28 The Department of External Investments and Operations (DEIO) was carved out from the Foreign Accounts Division of the erstwhile Department of Accounts and Expenditure in 1986. This Department is concerned with the management and investment of foreign currency assets and gold, exchange rate of the rupee in line with the Bank's policy in this regard, handling external transactions on behalf of Government of India including transactions relating to the IMF, IBRD, ADB, *etc.*, the matters relating to gold policy, membership of the BIS and was also coordinating the banking arrangements between India and Russia.

9.29 In January 1982, with enormous expansion of Bank's activities, restructuring of the Departments again assumed focus. Accordingly, the Economics Department, established as an independent Department in 1959, was reorganised as Department of Economic Analysis and Policy (DEAP) to provide a better focus on economic issues while maintaining a viable size. The primary function of the Department is to provide advice and assistance to the Bank on policy issues particularly related to the economic and financial developments in India and abroad. The Department undertakes policy-oriented economic research and is a primary source of data relating to monetary aggregates, balance of payments, household financial savings, state finances and capital markets. The Department prepares weekly economic and financial reports for the Committee of the Central Board and maintains an up-to-date management information system on macroeconomic and financial issues for the top management and other operational Departments of the Bank. This is accomplished

through constant policy-oriented research activities covering broadly the entire spectrum of the financial system, besides the real sector.

9.30 The Department, which acts as the economic think-tank of the Bank, was divided into five major units, *viz.*, internal finance; international finance; prices; production, capital markets and national economic parameters; and a general unit. In view of the changing economic environment and increasing importance of the Indian economy in the global context, the structure of the Department has undergone several changes. In 1986, a Special Studies Unit was created to undertake research on different aspects of the economy. In 1991, the Development Research Group was created to undertake studies on issues of contemporary policy relevance jointly with external experts, especially from academia. In 1997, the Capital Market Division was carved out to focus on the primary sources of resource mobilisation in the capital market and to undertake analytical research on investment climate, stock market and institutional investors. Financial Markets Monitoring Unit was created in 2001 to coordinate the activities of fifteen Regional Offices of the Department and to serve as a nodal unit of market intelligence for the Central Board with inputs from the Regional Offices. Also, in 2001, consistent with recommendations of the Eleventh Finance Commission and 73rd and 74th amendments to the Constitution, emphasising strong and sustainable local bodies, the Division of State and Local Finances was carved out from the Division of Fiscal Analysis. The Division of Fiscal Analysis was simultaneously renamed as the Division of Central Finances.

9.31 The Department brings out seven major publications – five annual, *viz.*, the Annual Report, Report on Trend and Progress of Banking in India, Report on Currency and Finance, Handbook of Statistics on the Indian Economy and Finances of State Governments; a monthly Bulletin along with its Weekly Statistical Supplement and Reserve Bank of India Occasional Papers - a tri-annual research journal. It is interesting to note that the Department embarked on the publication of the Reserve Bank of India Bulletin in January 1947 – a monthly economic and financial journal, signifying that the Bank was well ahead of some of the contemporaries in this area. The analytical rigour, coverage and timeliness of these publications have established them as reference documents among the market participants, analysts, academics and international community. The initiatives of the Department in this direction have

been strengthened over time and the major strides are a theme based approach to the Report on Currency and Finance since 1998-99; introduction of quarterly reviews on 'Macroeconomic and Monetary Developments' since 2005; and subject-specific Handbook of Statistics annually.

9.32 Further, the Foreign Collaboration Survey and the survey on ownership pattern of Government Rupee securities are conducted by the Department. The role of the Department as advisor to the Government has appreciably enhanced over the years. In 1989, the economists from the Department were instrumental in estimation of gross fiscal deficit of the Central Government, the first ever attempt. A significant contribution of the Department was the expert inputs for the financial sector reforms in 1991, especially in the areas of fiscal and financial sector including banking and balance of payments. The Department played a key role in preparation of the Reports of three Working Groups on Money Supply. The Department was also actively involved in preparation of technical papers on fiscal issues pertaining to limits on public debt and stoppage of automatic monetisation of fiscal deficit in 1997. A recent major initiative is the technical support extended by the Department in formulating the draft for Fiscal Responsibility and Budget Management (FRBM) Act for the Central and the State Governments. The Department has provided insights on the issue of rising government guarantees in the form of a Technical Report on assessment of risks.

9.33 Besides the operational Departments within the Reserve Bank, the services of the officers of the Department are availed by the Government of India (Ministry of Finance) and other domestic organisations, International Financial Institutions (IMF, BIS, *etc.*) and foreign central banks on a continuous basis. The Bank's interface with most of the international bodies/expert groups such as the IMF, the BIS, the G-20 and various credit rating agencies, *etc.*, are generally handled by the DEAP.

9.34 The Department of Statistics was created in 1959 out of the erstwhile Department of Research and Statistics of the Bank with major objectives of conducting all-India surveys, analysis of corporate financial accounts, compilation of security price indices, preparation of flow of funds accounts and undertaking econometric studies. The Department was restructured and renamed as Department of Statistical Analysis and Computer Services (DESACS) in 1982 alongwith the erstwhile Economics Department when a few work areas were

interchanged between the two Departments. Three Regional Offices of the Department at Chennai, Kolkata and New Delhi were opened in 1985-86 to assist the Central Office. The Department underwent another structural change in 1995 with setting up of the Department of Information Technology (DIT). The DESACS has, over the years, developed expertise in design, development and maintenance of large statistical systems in the areas of banking, corporate finance and balance of payments; analytical research; and application of statistical methods of use to the Bank.

9.35 The major functions of the Department encompass collection, processing and dissemination of data on banking, corporate and external sectors; planning, designing and organising sample surveys; statistical research and analytical studies as inputs towards policy formulation; and decision-support to the top management. The Department collaborates with the Statistical Offices of the Government of India engaged in compilation of national accounts statistics, industrial statistics, price indices, *etc.* The Department is the only repository of detailed branch level data of the banking system in India, data on credit and deposits on census basis and ownership pattern of deposits, investments, *etc.*, on sample basis. These are used for deriving financial savings of the household sector in India and are also used in saving estimates prepared by the Central Statistical Organisation (CSO), Government of India. DESACS collects and compiles external sector statistics relating to exports, imports, external debt, external commercial borrowings, *etc.*, which provide key inputs for balance of payments and external debt statistics for which the Reserve Bank is the primary source. Periodical census and surveys are undertaken to compile data on foreign liabilities and assets for preparing the country's International Investment Position. A quarterly "Industrial Outlook Survey" is conducted in respect of the private corporate sector. DESACS also provides inputs for estimation of savings and investment of the private corporate business sector by the CSO.

9.36 In recent years, the Department has taken up new work areas such as compilation of International Banking Statistics, survey of software exports and maintenance of Special Data Dissemination Standards, *etc.* Creation of Centralised Data Base Management System (CDBMS, 1998), which offers a comprehensive database for the purpose of research is another milestone. The database was put in public domain

through the Reserve Bank web page in November 2004. Steps have also been initiated to conduct surveys on inflation expectations, capacity utilisation, etc., development of statistical indicators, improvement of methodology for projection of macroeconomic indicators, and introduction of an On-line Return Filing System (ORFS) for electronic submission of statutory and other data by the banking system. DESACS extends support to the operational Departments in the projects relating to information technology, data collection, processing and statistical analysis besides providing the services of its officers to other Departments within the Bank.

9.37 The Department brings out publications, viz., Statistical Tables relating to Banks in India, Basic Statistical Returns of Scheduled Commercial Banks in India, Directory of Commercial Bank Offices and Handbook on Quarterly Statistics of Scheduled Commercial Banks. It also contributes articles to the Reserve Bank monthly Bulletin on banking, corporate statistics, etc. Besides, various *ad hoc* reports and historical data are brought out by the Department in print/electronic form. The three Regional Offices maintain liaison with the Government and non-government organisations and banks.

9.38 The Rural Planning and Credit Cell (RPCC) was established in 1979 to ensure proper implementation of multi-agency approach to credit disbursement in rural areas. The Cell acted as Secretariat for the Steering Committee on Regional Rural Banks and Committee to Review Arrangements for Institutional Credit for Agriculture and Rural Development (CRAFICARD, 1979). The RPCC and ACD were merged with NABARD in 1982. Consequent upon transfer of functions of supervision and coordination of rural credit to NABARD, the Rural Planning and Credit Department (RPCD) was set up in the Reserve Bank in 1982. The RPCD is entrusted with the task of dealing with the Lead Bank Scheme, including formulation of District Credit Plans, priority sector advances, credit to weaker sections, rural development schemes, matters relating to state cooperative banks, central cooperative banks, the Regional Rural Banks, and coordination with NABARD, etc. The Urban Banks Cell, *hitherto* a part of ACD, was transferred to Department of Banking Operations and Development to function as Urban Banks Division. A full fledged Urban Banks Department was later set up in February 1984 to attend to the growing volumes of statutory and developmental work relating to urban cooperative banks.

9.39 The Industrial Finance Department was established in 1957 with the primary responsibilities of administering Credit Guarantee Scheme as an agent of the Central Government to address problems of SFCs and small scale industrial sector. With the establishment of DICGC in 1962 and IDBI in 1964, some of these functions were hived off and the Department was reconstituted as Industrial Credit Department (ICD) in 1981. The ICD was entrusted with the functions of provision of credit to industry, sick units, export finance, and also to administer the Credit Authorisation Scheme (CAS). It was expanded and converted into the Industrial and Export Credit Department (IECD) to carry out the functions relating to finance of small scale industries, monitoring of export financing and Districts Industries Centres. In pursuance of recommendations of an Expert Committee, the functions of IECD were merged with DBOD, DBS and MPD in July 2004.

9.40 The concept of centralised clearing operations took root in 1986 under the aegis of Uniform Regulations and Rules (URR) framed by the Reserve Bank. The URR regulations, common to all the clearing houses, have in-built flexibility to suit to the local practices.

IV. RECENT DEVELOPMENTS (1990 ONWARDS)

9.41 The Securities Department (a unit of the Banking Department at inception of the Bank) was entrusted with purchase and sale of government securities on behalf of the Government, certain approved institutions, viz., foreign banks and provident funds, etc. The Department also acted as custodian of the securities held by the Bank in its Issue and Banking Departments as well as those deposited by the insurance companies with the Government under the Insurance Act. The securities lodged as statutory deposits by the foreign banks operating in India and by other banks and financial institutions as cover for loans were also the responsibility of this Department. Over the years, however, the functions of this Department were taken over by Public Debt Office, Deposit Accounts Department and Public Accounts Department and by 1990, the Department ceased to function as a separate entity.

9.42 In the backdrop of the recommendations of the Committee on Financial Systems (Chairman: M. Narasimham, 1991), the supervisory role of the Bank was separated from traditional central banking functions with a view to put in place an integrated supervisory mechanism. Consequently, the Board for

Financial Supervision (BFS) was set up under the aegis of the Reserve Bank in terms of the Reserve Bank of India (BFS) Regulations, 1994. The BFS, chaired by the Governor, has four nominated non-official members from the Central Board of Directors. The Deputy Governors of the Bank are *ex-officio* members and one of them (holding the charge of regulation and supervision) is appointed as the Vice-Chairman. The Board is empowered to supervise and inspect the whole spectrum of the financial system, *viz.*, banks, non-banking finance companies (NBFCs), development finance institutions, urban cooperative banks, and primary dealers. The Department of Supervision (DoS), set up in 1993 was assigned the role to function as the executive arm of the BFS. The responsibility for regulation of various financial entities was assigned to different Departments. The Department of Banking Operations and Development to oversee regulatory functions of commercial banks and para banking institutions. These include, *inter alia*, formulation and implementation of banking policies; issue of directives; licensing of banks, branches and extension counters; legislations; procurement and scrutiny of statutory returns; complaints redressal and reconstruction of banks, *etc.* The Rural Planning and Credit Department continued to look after functions of the State and Central cooperative banks as well as the Regional Rural Banks and Urban Banks Department (UBD) that of the urban cooperative banks.

9.43 Extensive supervisory powers were assigned to Department of Supervision under the BR Act, 1949. Further, reinforcing the perception that inspection procedures of the Reserve Bank needed to keep pace with the expanse and the technological advancements taking place in commercial banking sector, the DoS was converted into Department of Banking Supervision (DBS) and the Department of Financial Companies (DFC) into Department of Non-Banking Supervision (DNBS) in July 1997 against the backdrop of necessity to regulate the activities of the non-banking finance companies resulting from the comprehensive changes in statutory provisions governing the NBFCs. The DFC, hereby, ceased to exist. The Financial Institutions Cell created in 1990 with a view to oversee the operations of financial and investment institutions was converted into Financial Institutions Division for ensuring coordinated and effective regulation and supervision. Subsequently, the supervisory role of the Division was merged with the DBS while the regulatory role was assigned to the DBOD. These organisational manoeuvres have

facilitated evolution of a well synchronised supervisory framework.

9.44 The criticality of human resources in execution of central banking functions gained prominence over the years in the Bank. Consequently, the erstwhile Department of Administration (DA) and Personnel Policy Department (PPD) were restructured in 1995 leading to creation of the Human Resources Development Department (HRDD) and the Department of Administration and Personnel Management (DAPM). The HRDD, with a professional base and multi-disciplinary manpower acts as the custodian of human resource policies and operations of the Reserve Bank, represents employee interests and ensures people sensitive solutions in the matters of personnel management. As a result of endeavours of the HRDD, the dormant issues of organisational regeneration, decentralisation of power, examination of manuals and statutes governing the Bank's operations for rationalisation, and perusal of rules and procedures concerning administrative, establishment and house-keeping matters, *etc.*, have been revived and assigned to various committees for examination. The growing concern for customer service resulted in putting in place a Complaints Redressal Cell (August, 1996) for addressing the complaints received from the general public with regard to deficiency in services rendered by various Departments of the Bank. Such cells were replicated subsequently at the Regional Offices. The Department brings out a quarterly in-house journal for connecting with the staff and promoting commitment.

9.45 Many developments have taken place in response to a renewed focus on the core central banking functions. The Credit Planning Cell, responsible for formulation of monetary policy and other policy initiatives was renamed as the Monetary Policy Department (MPD) on January 1, 1998 in order to respond to the changing environment. This was necessary in the context of growing integration of money, foreign exchange and other financial markets. The emphasis from hereon shifted to market analysis, policy evaluation and implementation techniques with the objectives of price stability, provision of adequate liquidity and financial stability. Subsequent to merger of some of the functions of the Industrial and Export Credit Department with other Departments in 2005, the responsibilities relating to sectoral deployment of credit including food credit fell into the ambit of MPD. With the creation of Financial Markets Department, however, certain activities of the MPD stand

transferred to the former (for details refer paragraph 9.51). In pursuance of effective communication and improving efficacy of transmission channels of monetary policy instruments, quarterly reviews of annual policy statement have been initiated in 2005-06 in place of bi-annual policy statements. The Technical Advisory Committee on monetary policy has also been constituted with a view to broad-base the policy formulation procedures.

9.46 The functions of the Secretary's Section were taken over by a full fledged Secretary's Department in 1970. The Department maintained dealings with the Press and the public while also performing functions relating to OMO, policy matters regarding the floatation of loans and other public debt matters. A Market Intelligence Cell was set up within the Department in 1992 with a view to tracking market developments and areas of concern to the Bank, now stands merged with the Regulatory Institutions Group, DBS. Consistent with the evolving structures, the Secretary's Department has come to play a key role by transforming the decision-making culture in the Bank. A significant step has been constitution of a Committee of the Deputy Governors to deal with all internal matters, with assistance from the Department. With an increasing interest in India at the international level, of late, there is a surge in foreign delegations representing both Government and multilateral financial institutions soliciting interface with the top-management at the Reserve Bank and the Secretary's Department plays a key role in arranging such meetings. Against the backdrop of efforts to strengthen and widen the Government securities market, the function of management of public debt was moved to the Internal Debt Management Cell (IDMC) created in 1992. The Cell now functions as a full fledged Department (paragraph 9.48 for more details).

9.47 The Press Relations Division (PRD) constituted in 1969 as a part of Economics Department was moved to the Secretary's Department in 1970 to handle the public and the press relations matters. Through the years, the PRD has become an effective communication channel of the Bank undertaking diverse responsibilities of educating the general public on central banking issues, management of the Bank's website, arranging press conferences for the top-management, publishing a fortnightly internal brochure, and a monthly Monetary and Credit Information Review (MCIR) for dissemination of information among banks and the public. The Division also regularly monitors all media reporting relating to

the Reserve Bank, banking and financial system in general and keeps the management informed about the relevant issues. The Division is mandated to evolve a transparent and interactive communication policy upholding the values of transparency, timeliness and credibility.

9.48 The Internal Debt Management Cell was created within the Secretary's Department in April 1992 by merging the Public Borrowing, Open Market Operations and Ways and Means Sections of the Secretary's Department. The Cell was constituted as an independent inter-disciplinary unit with a view to evolve policies relating to internal debt management as a part of the overall monetary policy, while retaining the earlier functions and to 'promote an active and efficient Government securities market'. The increasing responsibilities of the Bank in execution of open market operations as an active instrument of monetary policy resulted in expansion of the IDMC into a full fledged Department that was renamed as Internal Debt Management Department (IDMD) on May 7, 2003 in order to 'reflect the status and criticality of its activities'.

9.49 The changing global environment and practices necessitated the Reserve Bank to take notice of technology advances in order to keep pace with the evolving international standards. Resultantly, the Department of Information Technology was set up in January 1995 to undertake formulation and implementation of policies relating to information technology and provide centralised technological support to other Departments. The Department also acts as nucleus for interaction with the Government and the Institute of Development and Research in Banking Technology (IDRBT), Hyderabad, established and wholly funded by the Reserve Bank in 1996. The Management Services Department (MSD) that was functioning since 1979 with varied tasks of undertaking organisational analysis, systems research and development, work-procedure studies and codification, manpower planning, etc., ceased to exist with the emergence of the DIT and HRDD on the scene, as its functions were merged with these two Departments.

9.50 In a liberalised framework, there has been a paradigm shift in the external sector management policy. The dominant strands of the new policy encompassed achievement of full convertibility on current account; gradual movements in convertibility on the capital account; and the FERA (1947 and 1973) which exercised stringent controls on external

transactions repealed and replaced by FEMA (June, 2000). Reflecting the change of intent and policy, the Exchange Control Department (1939) was significantly downsized with effect from 1991 and renamed as Foreign Exchange Department on January 31, 2004.

9.51 The year 2005 was significant in view of the developments relating to the functioning of the financial sector. During the year, two Departments were established that would have a significant bearing on the operations of the Reserve Bank in the years to come. The Financial Markets Department (FMD) commenced operations in July 2005 in terms of re-orientation of the Government debt management functions and simultaneously strengthening of monetary operations within the Reserve Bank while moving towards functional separation of debt management and monetary operations. The Department took over the functions relating to money market operations, liquidity forecasting operations of the MPD, domestic operations in respect of the Government securities and the foreign exchange markets. Further, the monitoring of Market Stabilisation Scheme (MSS), market surveillance functions and coordination of policies relating to tracking the financial markets, in so far as they impact the monetary policy and financial stability would also form the responsibilities of this Department.

9.52 With a view to strengthen the institutional framework for regulation and supervision of payment and settlement systems that form the basis of the financial system, the Reserve Bank constituted a Board for Payment and Settlement Systems (BPSS) as a Committee of the Central Board which commenced operations in February 2005. The Board prescribes policies relating to payment and settlement systems and determines the criteria for membership to these systems relating to continuation, termination and rejection of the same. In consonance with the above, and to extend logistical support, a new Department of Payment and Settlement Systems (DPSS) was established which started operations from March 7, 2005 by carving out certain functions of the DIT. The DPSS will carry out the functions of policy formulation; regulation, supervision and overseeing the operations of the systems; implementation of core principles and standards; acting as the secretariat to the BPSS; performing activities related to National Payments Council and the Payment Advisory System Committee; designing, developing and integrating systemically important payment system projects and finally serving as the

nodal point for interface with the Government on these issues. Supervision of the participants of the systems, however, would continue with the respective supervisory Departments, viz., commercial banks by the DBS, cooperative credit sector by NABARD, urban cooperative banks by the UBD, and Clearing Corporation of India Limited and primary dealers by the IDMD.

9.53 In the area of currency management, the DCM has made significant strides. Mechanisation of verification, processing, sorting and disposal of soiled notes through environment friendly briquetting process have been the thrust areas in recent years. In this context, it is relevant to mention that 'Bharatiya Reserve Bank Note Mudran Ltd.' was established (registered under the Companies Act, 1956) in 1995 to manage the two new note printing presses at Mysore (Karnataka) and Salboni (West Bengal), wholly owned by the Reserve Bank. The company has already undertaken the initiatives to fund modernisation and expansion plans of the existing note printing presses at Nasik and Dewas. Another significant milestone for the Bank has been the establishment of a Monetary Museum, the first of its kind in India, opened for public on January 1, 2005 which displays the artefacts and exhibits of money ranging from Neolithic ages to the store value cards of the modern times and is a public delight in offering information on concepts relating to money including the evolution of e-money and money games on the kiosk.

9.54 Further, the Bank has put in place a network of twenty two Regional Offices functioning in various states of the country which serve and cater to the requirements of the regions in which they are positioned as also the adjoining areas. These offices perform a wide range of location specific functions.

V. MANPOWER MANAGEMENT

9.55 In the spheres of recruitment and promotion, the Bank has learnt from experience and evolved policies to meet its growing needs (RBI, 1970). In the initial years of operations, senior positions were manned by the staff drawn from the Imperial Bank of India and the Government. It endeavoured to utilise staff of the office of Controller of Currency of the Government on a permanent basis and those of the Imperial Bank on a temporary basis. The temporary staff were, however, gradually absorbed. The records confirm that the Governor recommended recruitments of officers with special qualifications

Box IX.1**Governance Structure in the Reserve Bank of India- Present Arrangements**

The powers and responsibilities of the Reserve Bank of India flow from the RBI Act, 1934. The general superintendence and direction of the Bank's affairs is vested in the Central Board of Directors, comprising the Governor and not more than four Deputy Governors appointed by the Central Government under Section 8(1)(a) of the Act, four Directors nominated by the Central Government, one each for Local Boards under Section 8(1)(b), ten Directors nominated by the Central Government under Section 8(1)(c), and one Government Official nominated by the Central Government under Section 8(1)(d). The Governor and Deputy Governors hold office for periods not exceeding five years (fixed by the Central Government) and are eligible for reappointment. In absence of the Governor, a Deputy Governor nominated by him functions as the Chairman of the Central Board.

Meetings of the Central Board are required to be held not less than six times a year and at least once in every quarter. Generally, the Board meeting in March every year is conducted in New Delhi to enable the Board to discuss the Union Budget with the Finance Minister after its presentation to the Parliament. The August meeting of the Board is usually held in Mumbai to facilitate passing of Reserve Bank's Annual Report and accounts. For practical convenience, the Board has delegated some of its functions by means of statutory regulations under Section 58(2) (i) of the Act to the Committee of Central Board comprising the Governor, Deputy Governors and such other Directors as may be present at the relevant time in the area in which the meeting is held. The Committee generally meets once a week to attend to the normal business of the Bank. Apart from the Committee of the Central Board, two other Committees viz., the Board for Financial Supervision and the Board for Payment and Settlement Systems assist the Board in supervising the areas assigned to them. There are three Sub-Committees: (i) Inspection and Audit Sub-Committee (ii) Staff Sub-

Committee and (iii) Building Sub-Committee to assist the Committee of Central Board in the respective matters.

The Bank usually follows the consensual approach to get the benefit of all shades of opinions in decision making. Senior Management Meeting, attended by the Governor, Deputy Governors, Executive Directors, select Chief General Managers and Regional Directors on a rotation basis deliberates upon and takes decisions on important matters (the periodicity of Senior Management Meeting is flexible). The Committee of Deputy Governors meets weekly and attends to the matters referred to it. The inspection reports of Offices, branches and Central Office Departments of the Bank are discussed in a Committee of Executive Directors for appropriate follow-up. Financial powers under the Expenditure Rules, 2005 are exercised by the Committee of Executive Directors. Committees of select Chief General Managers are also in place to address the specific technical issues. The major policy decisions are taken at the level of Central Board, Committee of the Board, the Governor, or the Deputy Governors. In other matters, decisions are taken at the levels of Executive Directors or Chief General Managers-in-Charge of the Central Office Departments. Annual Regional Directors' Conference is another forum where important issues are deliberated and decisions are taken.

In the day-to-day administration and functioning of the Departments of the Bank, decisions are taken at the level of Heads of Departments (Chief General Manager-in-Charge/Chief General Managers/General Managers) to junior most level of officers, *i.e.*, Assistant Managers depending upon the nature of the matter or activity. In some areas of work such as passing of bills and payments, *etc.*, the powers to be exercised are clearly defined in the relevant circulars, manuals, Book of Instructions, *etc.* With a view to minimize the delays and tiers of decision making, level jumping is in vogue wherever feasible.

either on contractual basis or by borrowing from different services, fixing the terms of appointment based on qualifications. It was also considered necessary to 'provide for a reasonable proportion of European officers'. Except for these categories, the existing grade / cadres were given priority in promotions. Comprehension abilities for procedural details and diligence at this point were considered to be of greater consequence than the academic brilliance. Subsequently, the recruitment procedures were simplified and reclassified from time to time. There were concerted efforts to recruit personnel of high caliber and well-calibrated strategies were adopted to retain the talent pool.

9.56 The Governor, time and again used his discretion in adopting recruitment methods that suited the then prevalent economic and political conditions. As the activities of the Bank diversified, especially in the fields of agricultural credit, the existing personnel proved qualitatively inadequate, so new cadres were introduced to meet the specialised needs. Alongside, the Governor also perceived the need for annual recruitment of probationers and further, a few persons with sound educational background were recruited as probationary assistants for complying with the upcoming needs in view of expanding operations of the Bank. Accordingly, following the directives from

the Governor, it was decided that an adequate reserve be created amongst the younger personnel and systematic training arrangements be put in place to equip the staff in anticipation of the future capability requirements. Intensive training and selection for senior grades was also undertaken in the years 1942 to 1949 for skill building. In the meantime, the Reserve Bank of India Staff (Assistants) Rules, 1944 were framed and were later incorporated into the Staff Regulations for selection of officers from assistants. Selections were made by the Governor on advice of Deputy Governors, subject to confirmation by the Committee of Central Board. During the Second World War, advance increments were granted to qualified personnel with impressive academic records in order to cope with the shortage of such personnel to shoulder mounting work pressures. The policy was extended to cover larger staff numbers in 1946 and 1948.

9.57 The ACD was an important arm of the Bank's policies to give a boost to rural credit. The thrust on rural credit was reflected in the recruitment policy as well. The Bank resorted to separate recruitment of rural credit officers from the agricultural colleges and some were taken on deputation. At another level, Industrial Finance Department was set up in the Bank to monitor the long-term credit needs of a planned economy. This called for a major expansion in the Bank's personnel to meet the goals and challenges of development.

9.58 Systematic and centralised recruitment procedures were adopted with the constitution of Central Recruitment Board in 1947. A comprehensive revision of pay scales was undertaken and new grouping introduced in 1948 classified the staff under the categories of class I (officers' cadre), class II comprising assistants, superintendents, deputy and assistant treasurers, *etc.*, class III constituting clerical and cash department staff and class IV – the subordinate staff. A noteworthy feature of the enrollment policy was representation to minorities. At the time of partition, the focus shifted in favour of meeting the special needs of economically and socially backward classes. Efforts were also made to bring within the ambit persons with physical disabilities, ex-servicemen, refugees, freedom fighters and retrenched Imperial Bank employees.

9.59 The management of increasing specialised work of research was entrusted to a competent economist and for the purpose a post of Director of Research was created in 1941. Setting up of a full fledged Department of Research and Statistics in 1945 necessitated engagement of specialised officers

that built up a team of some of the eminent economists and statisticians in the country. The Officer-in-Charge of the Department maintained constant liaison with the Provincial Governments. Dr. B.K. Madan, the then serving Economic Advisor to the Government of Punjab was the first incumbent for the post of Director in mid-1941. After holding higher positions of Economic Advisor and Executive Director, Dr. Madan became a Deputy Governor of the Bank in 1964. In 1943, services of Sh. J.V. Joshi, the Deputy Economic Advisor to the Government of India were obtained on loan basis as Senior Economist for the purpose of advising the Bank on economic matters including currency and central banking, besides reviewing and suggesting improvements to the existing machinery for collection and coordination of economic intelligence. Sh. Joshi retired as Executive Director in January 1955 after serving the Bank for over a decade (RBI, 1970).

9.60 The economic situation in the post-war period called for a more diverse set of capabilities, geared towards analysis and an investigative approach for inspecting the banks as well as for formulating public policy. Perhaps, the most effective supervisory power conferred on the Reserve Bank was the right to inspect banking companies at any time. The formidable task of putting in place efficient machinery for conducting inspection of banks necessitated devising sound strategies and resulted in creation of the Department of Banking Operations in 1945. The staff of the Department of Banking Operations was augmented from time to time. Arrangements were also made to recruit staff from outside, especially persons with practical experience in banking.

9.61 With the nationalisation of the Reserve Bank of India on January 1, 1949, the RBI Act was suitably amended to effect ownership transfer followed by constitutional amendments of Bank's Central and Local Boards. There was reconstitution of Central and Local Boards (four) of the Bank. The Governor was informally consulted by the Government for constitution of new Boards and the changes were limited to the minimum.

9.62 To address the challenging tasks faced by the Bank post independence, a careful process of selection for enrollment of specialised personnel was put in place. Qualified and experienced officers from some of the bigger and well-established commercial banks were recruited and trained. Calling for specialised skills involved issues of building capacity not only within the Bank but also in the banking sector as a whole. In pursuance of this, the Ramnath

Committee recommended setting up of the Bankers Training College (BTC) for enhancing skills of senior bankers in the banking industry. Accordingly, the College was set up in Bombay in 1954 with assistance from the Colombo Plan to train the personnel of commercial and cooperative banks. The Reserve Bank Staff College (RBSC), Madras was established in August 1963 to address the training needs of the middle and junior executive grades of the Reserve Bank. The College of Agricultural Banking (CAB) was established by the Bank in Pune in 1969 with the aim of providing cooperative banks and later also commercial banks with trained personnel to handle the business of financing of agriculture effectively. Both BTC and CAB also conducted special programmes for the officers of the Reserve Bank apart from admitting them in courses organised primarily for commercial and cooperative bank personnel. The National Institute of Bank Management (NIBM), Pune was established in 1969 to be the fulcrum of training and research in the banking system. The four Zonal Training Centres of the Reserve Bank at Mumbai, Kolkata, New Delhi and Chennai were established during the course of years to render educational services primarily to non-executive employees of the Bank. To foster research in the field of national and global issues of economic growth, the Bank established Indira Gandhi Institute of Development Research (IGIDR) in Mumbai in December 1987 which became a deemed University in 1995.

9.63 The Bank has been an equal opportunity employer and to put in place a system of fair and equitable selection process, the Reserve Bank Services Board was set up in 1968. The Board is an autonomous body for recruitment of officers at all-India level and has an arm's length relationship with the Reserve Bank in selection policies and procedures. Over time, the Services Board has evolved to assist the Bank in the internal selection and promotion exercises as well. With the expansion of Department of Research and Statistics, the Services Board initiated selection procedure for recruitment of specialised officers through all India competitive examinations and interviews. Similar procedures were also adopted for inducting competent personnel in the operational Departments.

9.64 Presently, the HRDD in the Bank is actively striving towards creating a facilitating environment

to enhance the efficiency of the Bank and to catalyse conditions for a more wholesome quality of life at the workplace as well as on personal front. Towards this end, the Department has put in place, within the short span of its coming into the present shape, human resource initiatives in the areas of (a) Performance Appraisal and Management System, (b) Promotion Policy, (c) Pay and perquisites of its employees, (d) Transfer and Placement Policy, (e) Capacity Building, (f) Human Resources Information Management System, (g) Scheme for Deputation/ Secondment, (h) Staff Suggestion Scheme, (i) Counselling, (j) Organisational Climate Survey, and (k) Summer Placement for students from reputed institutes, etc. An important step towards downsizing the organisational expanse was introduction of 'Optional Early Retirement Scheme' (OERS) in August 2003. The scheme which was open for all categories of employees³, was offered to the employees with the Bank retaining the prerogative of acceptance or non-acceptance of the options.

9.65 These initiatives have not only resulted in cutting down of the complex processes and procedures but have also facilitated reducing the transaction costs. Further, the policies of the Department have also enabled to revitalise the organisational culture and the work environment. This in turn, has resulted in a shift from the micro-level monitoring of processes and practices to an increasingly self-regulatory schemes with improved capacities to set effective, compliant and understandable procedures.

VI. STRATEGIC PLANNING

9.66 The Reserve Bank has evolved in terms of its structures and functions in response to the role assigned to it with the growth of the economy from the colonial to the independent era. Further, over the years, its responsibilities have been continuously redefined alongwith changes in the emerging economic, social and political environment even without conscious strategic planning. In recent years, however, the issue of strategic planning has increasingly engaged the attention of central bankers. The Bank for International Settlements (BIS) has played a key role in assisting the central banks to devise strategies with a view to provide insights into the issue and facilitate adoption of suitable strategic planning models.

³ Employees who had completed 25 years of full time regular service and 50 years of age as on August 1, 2003 were eligible. The scheme was closed on December 31, 2003. A total number of 4,468 employees across the officer and the non-executive classes opted for the scheme.

9.67 Central banks have to constantly reinvent themselves to take on new roles and functions and stand ready to manage crisis situations. The financial markets supervised by central banks move too fast for them to stay still. Further, the administrative machinery of central banks comprising the Governors, Boards and managers have to constantly deliver on their ongoing policy objectives. This requires continuous updating of the management skills to prosper in a challenging environment.

9.68 In this scenario, clarity of legal mandate; sound internal procedures; establishment of explicit authority; and amalgamation of central bank objectives and action plans with its responsibilities assume special significance. The Governors and Boards of central banks need a definite vision and also the ability to create a strong and dynamic institutional framework for imparting a practical perspective to the same. The mandatory implements of strategic planning embellish the organisational structures, cultures, reporting relationships, career paths and the work content to suit to the economic backdrop.

9.69 Central banks, created and empowered by statutes, earlier did not consider the necessity of adopting strategies for survival or success. Transformation in the global economic environment and evolving complexities in financial systems has, however, forced central banks to take notice of strategic planning as a major management tool. Further, strategic planning is significant from the viewpoint of central banks in emerging economies as they cope with the changing expectations that they are subject to. Table 9.1 presents select characteristics of the Strategic Planning processes followed by some of the countries (BIS, 2004).

9.70 Communication with a clear sense of purpose and direction in the light of array of audiences that the central banks address is an important element of strategic planning. Central banks are judged by the public face that they present and have become increasingly transparent in recent times. A significant development in this regard has been the increasing efforts undertaken by central banks to communicate their views about the economic outlook and its implications for monetary policy operations. The most important channels of monetary policy communication are central banks' economic commentaries accompanying their interest rate moves, parliamentary hearings and monetary policy reports. The events that do not occur often, such as unscheduled rate moves are expected to have a significant effect on markets precisely because they

are rare. However, more frequent channels of communication allow central banks to convey information gradually, as they learn about changes in current and expected future conditions for monetary policy (Connolly and Kohler, 2004).

9.71 The strategic plan of a central bank ensures amalgamation of its goals, objectives and action plans with its primary tasks and responsibilities. As is the case in the corporate sector, central banks have a mission: to achieve the long-term objective of macroeconomic development through maintaining price stability and thereby ensuring financial stability. Strategic planning, in this context, enables central banks to pool in the available resources and utilise them effectively to achieve the desired objectives. The successful implementation of the strategic plan, however, depends on a host of factors such as the legal framework governing the central bank, the degree of its independence, accountability and transparency.

9.72 In the aftermath of the South East Asian crisis of 1997, many emerging market economies amended laws governing their central banks. Such amendments have ensured greater independence in the conduct of monetary policy. The statutory independence increases the accountability of central banks to convince the stakeholders that they are performing their role dutifully and effectively. This, however, calls for broad-based realisation within the central bank that departmental goals must serve strategic objectives. Senior management support is, of course, integral to the entire process. The driving forces in implementing changes in programs in central banks include political demands for transparency, openness and delivery of tangible and measurable results. The institutional changes, which are generally stressful, lead to restructuring of some key central banking functions and call for a higher degree of adaptability and flexibility on the part of the senior managements. Many of the central banks, in recent years have shown the capacity to manage such upheavals with amazing success.

Strategic Planning in the Reserve Bank of India

9.73 The Reserve Bank of India Act, 1934 confirms commitment to excellence, transparency and accountability in operations. The provisions of the Act stand for a sound regulatory framework and effective functioning of the market mechanism. The functional responsibilities of the Bank can be broadly categorised into monetary policy, financial sector development, maintenance of financial stability,

Table 9.1: Selected Characteristics of Strategic Planning Processes

Central bank/ monetary authority of	Approximate frequency of planning process ⁴	Length of planning process	Primary time horizon ⁵	Strategic planning process starts with substantive input from
Austria:				
<i>Major strategy process</i>	Every 3 years	1 year	4 years	Executive Board
<i>Minor strategy process</i>	Annual	3 months	1 year	Planning and controlling division
Brazil			Vision: 5 years Macro-objectives: 2 years	
Canada	Every 3rd year		3 years	Environment scan, Board of Directors
Chile	Annual		2 years	Board
Finland	Annual	1 year	4 years	Executive Board
Hong Kong SAR	Annual	2-3 months	3 years	Departments
Japan	Annual	5-6 months	1 year	Special committee at Executive level
New Zealand	Annual	3 months	Macro trends/environment issues: 5-10 years Strategic objectives: 5 years Priority objectives: 1 year	Pre-planning seminar led by external experts
Poland	Annual	3-4 months	3 years	Management Board
Singapore	Annual	4 months	1 year	Environment scan and review
Sweden	Annual	A few months	1 year	Executive board
Thailand	Annual	5 months	1 year	Top management committee
United Kingdom	Annual		1 year ⁶	Away-day for Executive Team and senior management
United States (Board of Governors)	Every 2nd year		4 years	Board members and senior officers
<i>Addendum : BIS</i>	<i>Annual</i>	<i>4 months</i>	<i>Macro trends/strategic objectives: 3-5 years Primary objectives: 1 year</i>	<i>Executive Committee</i>

⁴ This should be used as rough indication. Some institutions have not settled on a fixed periodicity, while at others the magnitude of the strategic planning effort varies from year to year.

⁵ Typically, this refers to the time period specified in the name of the plan. Annual plans usually include medium-term considerations.

⁶ The current strategic planning process is under review at the Bank of England, and there is a desire to move away from the one-year-ahead focus and develop the Bank's medium-term strategy (3-5 years).

Source: BIS Presentation at SEACEN EXCO Seminar, Colombo, Sri Lanka (January, 2004).

regulation and supervision, currency issue and its role as banker to government and to banks. Till the mid-1980s, the Reserve Bank had not embarked upon strategic planning. The Bank could, however, undertake the organisational restructuring through the years without any systematic planning process in place and with flexibility that perhaps has no parallels.

9.74 Whereas some efforts were made by the Reserve Bank to realign its organisational structure in 1982, a comprehensive strategic planning exercise was undertaken by engaging a private consultancy agency in 1992. The objective was to set out a roadmap to redefine its role and to review internal organisational and managerial efficacy. Externally, such a course was to address issues emerging out of

changing expectations from a central bank in the context of a liberalised external environment and to reposition the Bank firmly in the global context. The overarching strategic plan designed by the agency was supported by departmental position papers and documents on specific subjects, viz., technology, human resources, environmental trends, etc. The final plan consisted of four sections, viz., statement of mission, objectives and the policy of the organisation; review of organisational strengths and weaknesses; strategic actions concomitant to the central banking functions; and the implementation strategy.

9.75 Implementation of the recommendations of the report of the consultancy agency (Appendix 9.2) resulted in a far-reaching transformation of the organisational structure of the Bank. The rearrangements included creation of the Department of Information Technology and the Human Resources Development Department by winding up of the Management Services Department and reconstitution of the Secretary's Department to carve out an Internal Debt Management Cell which was later converted into the full fledged Internal Debt Management Department.

9.76 Further, many qualitative measures have been introduced by the management from time to time in order to improve overall efficiency. Various initiatives have been taken such as introduction of clean note policy; designing of Central Data Base Management System (CDBMS); evolving Integrated Establishment System (IES) towards business process reengineering; constitution of Financial Markets Committee (meeting daily); Regulatory Interactive Group (meeting fortnightly); and recently, adherence to the Right to Information Act (October, 2005) in furtherance of commitment to transparency. Major qualitative and quantitative performance indicators during the post-reform period are presented in Appendix 9.3 and Appendix 9.4, respectively.

9.77 To re-strategise its action plan taking off from the consultancy exercise, a new Strategic Action Plan (SAP) has been put forth which seeks to provide strategic direction and coherent framework to guide the Bank's operations and support activities over next three to five years. The plan is presently under active consideration of the Bank. The 'Consultative Paper (2005)⁷ offers a medium-term perspective of the SAP complemented by annual reviews, enabling necessary readjustments. The SAP aims at effective policy interventions and defines central bank responses in

the changing economic environment in order to consolidate India's new found recognition.

Mission and Vision

9.78 The Mission statement, drawing from the mandate of the Bank as per the Reserve Bank of India Act, 1934, states 'To foster price stability coupled with productivity-led economic growth consistent with employment objectives while ensuring the integrity, efficiency and stability of the financial and payment systems'. The values underlining the mission statement include public interest (reflecting accountability and responsiveness to the Indian Parliament, the Government of India and the public in general); integrity (endorsing professional ethics and standards in operations and dealings); excellence (transparency and accountability in operations besides fostering motivation, expertise and professionalism); independence of views (valuing independent professional judgement and encouraging consultative policy formulation); and finally responsiveness and dynamism (adapting to changing demands and also catalysing change). The Vision statement seeking to reach the destination states- 'The Bank aims to be a leading central bank with credible, transparent, proactive and contemporaneous policies and seeks to be a catalyst for the emergence of a globally competitive financial system that helps deliver a high quality of life to the people in the country.'

9.79 The Mission statement and the organisational values are long-term principles, whereas the Vision for future, strategic objectives and the guidelines are subject to regular reviews in response to internal and external transformation affecting the Bank. Such rearrangements make it mandatory to adopt forward-looking attitudinal changes and reinforce capability build-up to keep pace with global progressions. The issues of structured decision making which were so far dormant would come to occupy the centre-stage with the adoption of strategic planning.

Approach

9.80 The SAP envisaged for the Reserve Bank is a mix of top down and bottom up approach to optimise the advantages of both. In the backdrop of organisational objectives, the plan reiterates anticipation of evolving external environment in the medium-term; revisiting strengths and weaknesses

⁷ 'Strategic Action Plan- A Consultative Paper', Reserve Bank of India, Human Resources Development Department, 2005.

(evaluation of capabilities); and doing away with the outdated mandates for enhancing efficiency in operations in furtherance of best public interests. The results of these efforts are likely to manifest in attaining a visible focus, reinforced proficiency, realisation of shared sense of purpose, optimising resource use and build-up of momentum to achieve goals.

Strategic Objectives

9.81 The SAP recognises the Reserve Bank as a multitasking entity and requires competencies in terms of appropriate infrastructure and human resources. The vast and intricate organisational structure comprising the Central Office and Regional Offices of the Bank offer support to this effect. This is complemented by access to an exhaustive data base on the Indian economy (disseminated through the publications and the website); professional training establishments; competent manpower; and availability of adequate financial resources.

9.82 The strategic objectives of the Reserve Bank comprise, *inter alia*, monetary stability, financial stability, efficacy of Payment and Settlement Systems, credible currency management, effective public debt management and advisory role to the Government of India on economic policies. The cardinal objectives, besides the aforementioned include catalysing conditions to ensure equitable and balanced growth; manage investment assets of the banks; serve public interest; protect depositors interest; and ensure more coordinated regime among various regulators such as Insurance Regulatory and Development Authority and Securities and Exchange Board of India to prevent regulatory arbitrage.

Strategic Planning Framework and its Implementation

9.83 The efforts to reposition the Bank in the changing global environment require focus on core areas, addressing prioritisation of actions, strengthening of internal capabilities and competency gaps in operations through recruitment, lateral entry, intensive training and reformed placement policies. The areas of strength of the Bank are set against inherent weaknesses in the form of structural rigidities, slow decision-making, lack of accountability, absence of market-linked remunerations, inadequate internal communication mechanism, negligence of human resources, sub-optimal placements, less than

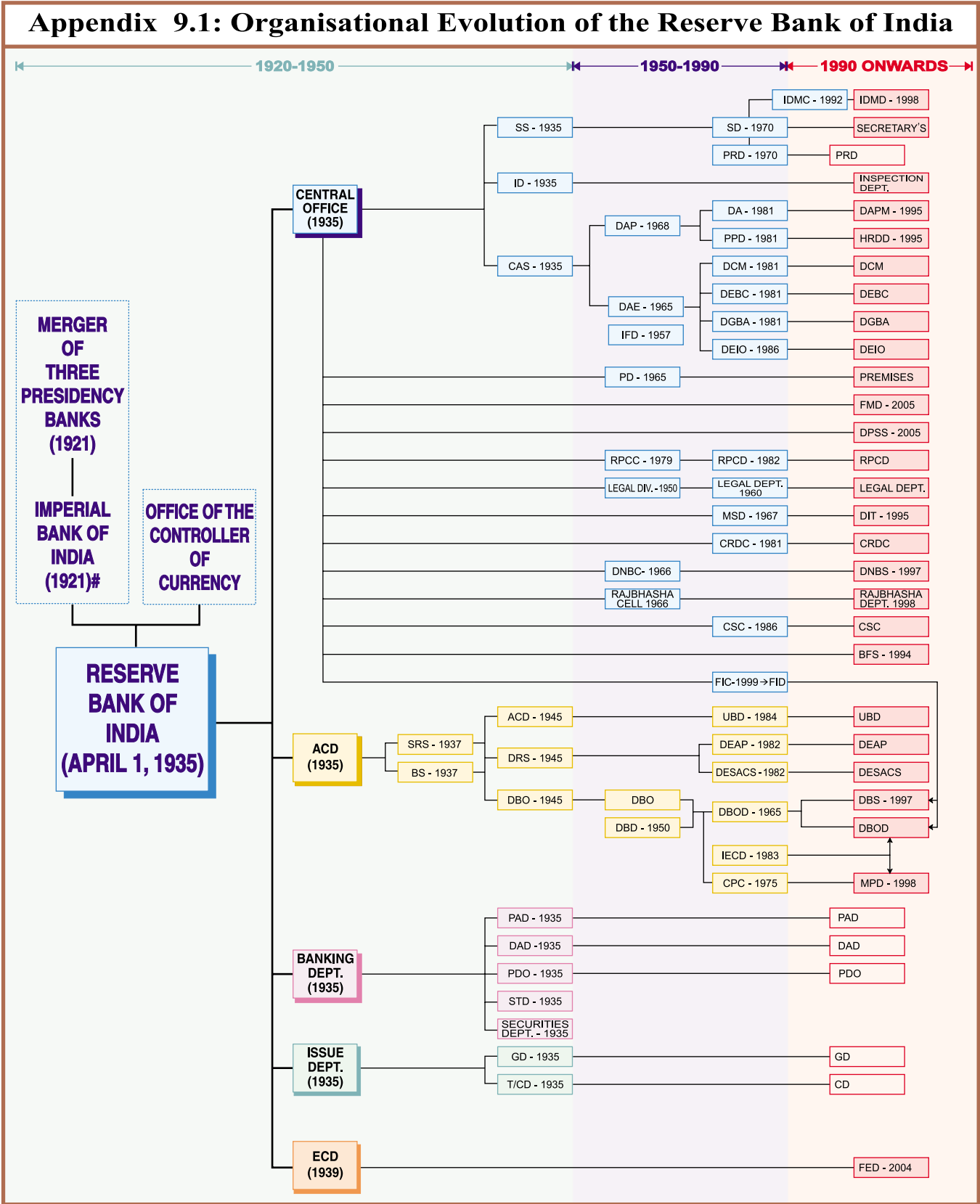
adequate technology absorption, lack of specialisation, inadequate knowledge management and relatively low motivational levels.

9.84 To be able to address these concerns in a pragmatic manner, there is a need to resolve conflicts of interests and focus on core central banking functions while abiding by the core principles. Further, it is imperative to introduce efficiency criteria in the operations, de-emphasise hierarchies, transform work processes and encourage corporate communication. Leveraging training infrastructure and propagation of corporate culture are also crucial.

9.85 The strategic planning framework of the Reserve Bank affirms an interface between the external environment and internal strategies, dovetailed with optimal utilisation of existing capabilities. As a prerequisite, it is envisaged that a dedicated Strategic Planning Section be created. The Central Board of Directors would remain the main forum for drawing 'external expertise'. Other experts in the relevant areas could be consulted as and when necessary. The quarterly reviews of annual monetary policy statement would continue to provide necessary inputs on the economic environment of the country, the global touch down, emerging market situations and government policies for the purpose of realignment of SAP through the course of time.

VII. CONCLUSIONS

9.86 In terms of organisational structures and evolution of central banks, there are no standard international models. Central bank structures have evolved as responses to the ever changing contemporary economic, political and financial conditions in most countries. The Reserve Bank has been able to evolve successfully through the eventful years of its existence. The adoption of Strategic Action Plan that is under consideration for implementation, however, raises the risk and question of being rigid in the face of a changing external environment. The historic flexibility inbuilt in the functional approach *hitherto* adopted by the Reserve Bank that withstood the challenges of times should not be sacrificed in the process. The dilemma, therefore, is either to be bound by a set model of planning or to adapt to the changes as they come in the backdrop of rapid economic transformation that calls for far quicker responses than ever before.



CARRIED OUT SOME FUNCTIONS OF CENTRAL BANK AND IN 1955 IT WAS CONVERTED INTO STATE BANK OF INDIA.

PLEASE SEE LIST OF ABBREVIATIONS FOR FULL NAMES OF THE DEPARTMENTS.

Appendix 9.2

Summary of Draft of the Report on the Strategic Action Plan for the Reserve Bank of India (1993-2002)

I. Introduction

A consultancy Agency (1992) was entrusted with the task of drafting a strategic plan for the Reserve Bank covering the period 1993-2002 to redefine the role of the Bank and review the organisational and management effectiveness. The action plans were sequenced into three phases: 1993-1995; 1995-1998; and 1998-2002.

II. Mission

The Mission statement, consistent with the RBI Act proclaimed that 'RBI seeks to develop a sound and efficient financial system with monetary stability conducive to balanced and sustained growth of the Indian economy'. The mission philosophy emphasised: excellence with transparency and accountability in operations, dynamism, professionalism, ethical standards, fostering high levels of motivation, skills and efficiency, sound regulatory framework conducive to an efficient market mechanism, adoption of modern technology in operational and decision-making processes, openness, trust and respect in all relations.

III. Objectives

Monetary Policy Objectives

Containing inflation and promoting economic growth; advising the Government on deficit financing and public debt management; balance of payments and management of foreign exchange reserves; and development of the financial sector; promotion of non-currency form of payments while improving the quality, design and availability of currency.

Financial Sector Developments

Effective prudential supervision of systems and information access, market intelligence and contingency planning to avoid systemic risks and assist banking and financial entities to become globally competitive.

Organisational Development

To evolve a policy on Bank's stake-holding in subsidiaries and their management; development of strategic information system for taking a proactive stance in decision-making; high quality and timely economic research to support the decision-making;

efficient and professional management of Bank's internal financial resources; public relations based on its values and strategic role to establish a distinct identity; to ensure that excellence is recognised, merit is rewarded and exploring the full potential of every employee for mutual advantage.

IV. Review of Organisational Strengths and Weaknesses

Strengths

A large body of competent officers and staff; access to key data on the economy; wide organisational network with 22 Regional Offices; established infrastructure; ability to attract talent; and financial self sufficiency.

Weaknesses

Structural rigidity, lack of accountability and slow decision-making; eroded specialist know-how; strong employee unions with rigid industrial relations stance; surplus staff; weak market intelligence.

V. Strategic Actions

Strategic actions derived from mission and objectives are aimed at successful management of the changing environment based on certain assumptions.

Assumptions

Government's policies on liberalisation and privatisation would continue; fiscal deficit would be contained and progressively reduced as a percentage of GDP; full convertibility of rupee on current account and move towards capital account in the long run; financial sector reforms would continue; disintermediation and diversification of financial system and products with the entering of new Indian private sector participants as well as MNCs; monetary policy would be conducted through indirect instruments; and interest rates would be deregulated.

Strategic Actions – Phases

Strategic actions are sequenced to be implemented in three phases under the heads: "Monetary Policy and Financial Sector", identified as the thrust area; "Legal Framework" for appropriate legal support; "Customer Service" for positive relationships in a new era; and "Organisational Support" dealing with the

overall organisational aspects such as structure, systems, human resource development and the use of modern technology.

Monetary Policy – Phase-I

The complete responsibility of monetary policy formulation rests with the Department of Monetary Policy with support from the DEAP; the IDMC (now IDMD) is entrusted with the responsibility for open market operations in Government securities as well as development of primary and secondary markets; developing new instruments and enlarging the scope of participation in the Government securities market and to reduce SLR while maintaining overall liquidity in the system; to increase the spread between deposit and lending rates alongside reducing the difference in average rates of deposits and advances to promote competition and efficiency; mechanism for making all eligible assets available for open market operations; to take up long-term monetary policy formulation and liquidity forecasting and make public policy pronouncements on target inflation rates; coining lower denomination currency notes and introduce higher denomination notes and to promote non-cash banking like EFT; and establish currency transit areas to increase the spread of currency distribution and allow competent banks to operate the currency chests.

Supporting Systems

Enlarged communication net-work and integrated online banking system. Set up a Division in the DEAP exclusively for analytical support for monetary policy formulation. Using Banknet or Nicnet for forex data for efficient estimation and analysis.

Monetary Policy – Phase-II

De-administer interest rates on lending and deposits and full convertibility on current account; accountability to the Parliament on responsibility for monetary policy; to take up with the Government the issue of liability management on forex flows on behalf of the Government.

Financial Sector – Phase-I

To set up a supervisory board for single entity supervision and inspection of the financial system; to organise DBOD, FIC,DFC,IECD and UBD⁸ under a single Department of Supervision towards the

objective of integrated policy making for the entire financial system under a separate Department of Financial System Regulation (DFSR).

Policies on Regulation and Supervision

Steps towards formulation of entry norms, capital adequacy, licensing, interest rates, liquidity, etc. Punitive actions for non-compliance with the prudential guidelines. To define the nature of appropriate supervision (on-site or off-site). Better coordination with the other regulatory authorities like SEBI on areas of overlap. To formulate guidelines for mergers and amalgamations for banks and financial companies. Discontinuing the practice of nominating the Reserve Bank officers on the Boards of SFCs, RRBs, FIs, etc. Withdraw controls on the commercial or managerial aspects of the banking business. Promotion of new financial products and services. Engaging outside agencies in auditing, uniform inspection methods for different entities of the banking sector, a new inspection methodology on special areas rather than total operations with a defined periodicity. Review the case for charging inspection fee.

Market Intelligence

Establish Research and Intelligence Wings in all Regional Offices and all operational Departments of the Central Office.

Supporting Legal Framework

The Bank should prepare a strong case for changes in its purview and put up before the Government for action.

Customer Service – Phase-I

Set up a Department of Corporate Communications by merging functions of Press Relations and Publications (DEAP); and Department of Payment and Systems, adoption of single window approach for collection of data, single window inspection, to rationalise returns related to forex operations and introduce automated note counting and cheque reader/sorter systems.

Customer Service – Phase-II

Establish advanced levels of EFT systems across the banking sector; set up legal framework to support the advanced systems implementation.

⁸ Department of Banking Operations and Development, Financial Institutions Cell, Department of Financial Companies, Industrial and Export Credit Department and Urban Banks Department, respectively.

Organisational Support

Strategy Implementation needs organisational support by appropriate restructuring and other actions to improve the effectiveness of systems and procedures, human resources and technology.

Organisational Restructuring

Re-organise new Departments⁹: DFSR, DOS, DOPS and DIO; organise new Departments: DHRM, DITS, DOF, DOPR and Department of Corporate Communication; relocate DFC at Mumbai; establish a three tier organisational structure; Central Office responsible for policy formulation, the Zonal Offices for policy input and Regional Offices for policy implementation.

Technology

To form DITS to bring together all computer systems; Divisions of MSD and DESACS; implementing LAN/WAN for intra computer communications; office automation; efficient and reliable payment systems.

Human Resources Development

To form Department of Human Resources Management by merging DA and PPD; put in place a job–design system; take up with unions schemes like ERS, golden hand-shake and redeployment; develop training and reskilling in an automated and computerised environment; establish database on personnel and skill inventory.

Research Support

Create Department of Policy Research by merging relevant Divisions of DEAP and DESACS; Research and Intelligence Wings (RIWs) to create computerised database in various policy Departments.

Systems and Procedures

Updating operating manuals; introduce cost and budget centres and a system of Department-wise and

operation-wise cost reports; system of formal presentations by Heads of Departments on quarterly basis; integrate annual work plans of Departments with annual budgets; mechanism of contingency planning confirming to all operational Departments; introduce concept of funds planning and opportunity cost of funds; and to review need for an integrated Balance Sheet of the Reserve Bank.

The Phase-III

To review the previous phases towards the new-look of the Reserve Bank and actions in the first two phases are intended to take towards the new-look based on the objectives of strategic planning.

VI. Organisational Plan

Relevant for Departmental organisation, Regional organisation structure and top-management structure.

Objectives: better management of internal resources, responsiveness to changes in operating environment and flexibility to adapt, synergy of operations through regrouping, manageable level of decentralisation of decision-making, reduction in span of control at the top, greater focus on and strengthening of neglected areas like customer service, media relations, etc. By the end of the first phase, there would be 11 Departments in place of 25 existing Departments, by regrouping of Departments.

VII. Implementation Strategy

The features are: 1) communication of the strategic action plan under 'the strategic plan task force' internally for effective implementation and commitment 2) accountability for implementation would be the prerequisite for proper implementation and follow-up of the plan, and put up quarterly reports to the top-management committee on implementation of the plan, highlighting the problems or barriers for effective implementation.

⁹ Department of Financial System Regulation; Department of Supervision; Department of Payment Systems; Department of International Operations; Department of Human Resources Management; Department of Information Technology Services; Department of Finance; Department of Policy Research, respectively.

Appendix 9.3

Qualitative Enhancement in the Functioning of the Reserve Bank during the Post Reforms period@

Regulation and Supervision

1. Initiatives to establish Debt Recovery Tribunals across the country.
2. Constitution of Board for Financial Supervision (BFS) as also exclusive Departments to handle the supervision of banking system.
3. New institutions, viz., urban cooperative banks, non-banking finance companies, development finance institutions, primary dealers have been brought within the ambit of regulation and supervision of the BFS, within the Reserve Bank.
4. The system of on-site inspection has been strengthened as also made compulsorily 'annual' irrespective of the size of the banks, based on CAMELS format.
5. The inspection pattern has been extended to non-banking finance companies, development finance institutions, primary dealers, and urban cooperative banks in line with that of the commercial banks.
6. The off-site monitoring system introduced for aforementioned institutions, carried out by dedicated officials through online return filing, covering all important aspects of the business.
7. An in-built asset-liability and risk management system advocated for the above institutions has been introduced under the overall guidance and supervision of the Reserve Bank.
8. Financial Conglomerates Cell has been constituted as a nodal agency to coordinate with other supervisory bodies. As a step towards consolidated Supervision, the Consolidated Accounting Framework has been introduced.
9. Prompt Corrective Action (PCA), Credit Information Bureau (CIB), and Banking Ombudsman Scheme have been put in place.
10. Substantive initiatives have been taken to improve customer service in the financial system.
11. Stringent measures have been introduced to prevent money laundering practices and combat financing of terrorism.
12. Macro-prudential Indicator System has also been instituted.

13. Comprehensive guidelines have been issued to banks on corporate governance.
14. Reserve Bank has been preparing the banking system to adopt Basel II norms, select banks have already been taken for quantity impact study.

Financial Markets, Transparency and Communication

15. To improve the qualitative standards in the payment and settlement system, the Reserve Bank has instituted a separate Board for Payment and Settlement Systems and a separate department, viz., the Department of Payment and Settlement System for extending logistical support.
16. Efforts are also on to put in place the related legislative measures to prevent the electronic transactions related and cyber related frauds.
17. All important notifications, circulars are issued based on the response received on the draft placed on the website.
18. Comprehensive Data Base Management System (CDBMS) on the Indian economy is placed on the Bank's website which is updated regularly.
19. All the publications are placed for free access to the public through the website. The information system of the Reserve Bank is much ahead of the requirements of International Monetary Fund under the Special Data Dissemination Standards.
20. The Reserve Bank has been continuously facilitating the development of markets through necessary institutional changes and dynamic improvements in market micro-structure.
21. Appropriate legal, institutional, technological and regulatory framework that has been put in place has helped in increasing volumes and transparency in the primary and secondary market operations of the Government securities.
22. A number of new money market instruments, viz., Certificates of Deposit, Commercial Paper, repos, Rupee derivatives, i.e., Interest Rate Swaps (IRS)/ Forward Rate Agreements (FRA), Collateralised Borrowing and Lending Obligations (CBLO), etc., have been introduced.

@ The measures highlighted are not exhaustive.

Monetary Management

23. With the surge in capital flows, the exchange rate management emerged as a major challenge for the Reserve Bank and called for close coordination between monetary and external sector management and has been successfully handled by the Bank.
24. The efficacy of transmission channels of monetary policy has tremendously improved over the years with concerted efforts of the Reserve Bank.
25. The opening up of the Indian economy has brought about a significant change in the balance sheet of the Reserve Bank and source of liquidity in the system necessitating frequent policy interventions by the Reserve Bank by way of sterilisation.
26. A number of new Monetary and Liquidity Aggregates have been worked out and are published regularly encompassing the entire financial sector going beyond the banking system.
27. Since the year 2000, a review of the Indian Economy in the form of a document 'Macroeconomic and Monetary Developments' is released alongwith the Bank's Annual Monetary Policy Statements in April/ May. It was subsequently released biannually alongwith the mid-term review as well. Since April 2005, the reviews are being released on a quarterly basis.

Debt Management Areas

28. The Reserve Bank has set up a Consolidated Sinking Fund (CSF) since 1999-2000 to meet redemption of market loans of the States.
29. The Reserve Bank has continued its efforts to sensitise the States about the problems posed by the increasing volume of their guarantees and on the need for rationalising user charges on an objective criteria consistent with the risk guarantees.
30. The Reserve Bank also pursued a policy of converting the entire stock of Central Government non-transferable 4.6 per cent Special Securities to marketable securities by the year 2003-04, thereby ensuring availability of sufficient securities in the portfolio of the Reserve Bank to conduct open market operations.
31. The Market Stabilisation Scheme (MSS) was introduced in April 2004 to provide the Reserve

Bank with an additional instrument of liquidity management and to relieve the Liquidity Adjustment Facility from the burden of sterilisation operations.

Currency Management

32. There has been a qualitative improvement in the overall approach to the work through mechanisation and computerisation of the entire payment and settlement system.
33. In the area of currency management, the Bank went in for mechanisation of the entire note processing activity with installation of 48 Currency Verification and Processing Systems (CVPS) and 27 Shredding and Briquetting Systems (SBS) in 18 Issue Offices. The process until the adoption of this System was carried out manually by employing large staff numbers.
34. Adoption of clean note policy to ensure supply of quality notes and coins to the public.
35. With increased pressure on the distribution channels, coin distribution has been outsourced to private transport operators and the practice of the Reserve Bank staff and police personnel accompanying coin remittances has been done away with.
36. The security features of banknotes are being constantly reviewed and updated, taking advantage of the research and technology in the field, as also to ensure safety and security against counterfeiting.
37. Mechanisation of verification, processing, sorting and disposal of soiled notes through environment friendly briquetting process have been the thrust areas in recent years.
38. 'Bharatiya Reserve Bank Note Mudran Ltd.' was established (registered under the Companies Act, 1956) in 1995 to manage the two new note printing presses at Mysore (Karnataka) and Salboni (West Bengal), as wholly owned by the Reserve Bank.
39. Another significant milestone for the Bank has been the establishment of a Monetary Museum.

Human Resources Management

40. The Human Resources Development Department in the Bank is actively striving towards creating a facilitating environment to enhance the efficiency of the Bank and to catalyse conditions

for a more wholesome quality of life at the workplace as well as on personal front.

41. Initiatives have not only resulted in cutting down the complex processes and procedures, it substantially reduced the transaction costs. The Department has also enabled a significant shift in the organisational culture and the work environment.

Exchange Control Management

42. With regime shift from Exchange Control to Exchange Management, a vast area of operations relating to the control mechanisms of the erstwhile Exchange Control Department have been done away with and consequently, the Department has been down-sized and renamed as Foreign Exchange Department.

Banker to Government

43. Over the years, there has been quantitative and qualitative enhancement in the initiatives undertaken by the Bank with the introduction of technology in carrying out banking and accounting operations of the State and Central Governments.
44. The Central and State Governments can now access the secured Central Accounts Section, Nagpur website to ascertain their daily balance positions on real time basis.
45. On-line Tax Accounting System for Direct Taxes (OLTAS) project has been in operation since April 2004. The project involves 33 banks with 12800 branches aimed at flow of tax payers data from the banks directly to the Government Accounts.

The system is constantly monitored by the Reserve Bank.

- (i) Important Systems envisaged under the Reserve Bank of India Surveillance include: The Electronic Accounting System in Excise and Service Tax (EASIFEST) project which envisages a comprehensive e-payment module.
- (ii) The MCA 21 is a prestigious mission mode e-governance project of the Ministry of Company Affairs, it envisages the introduction of secure electronic filing (e-filing) related to all services that are covered by the nationwide network of MCA offices.

Research and Publications

46. A host of new publications both statistical and economic and policy research oriented have been added over the years encompassing the entire operations of banking and financial sector and the Indian economy. These publications, besides being brought out in print form and on CD Roms are placed on the Bank's website. The publications have earned wide appreciation both in the domestic and the international circles.
47. A significant departure has been the adoption of theme-based approach for the Report on Currency and Finance since 1998-99. This enables the Reserve Bank to address the issues of contemporary relevance.
48. Sales and Dissemination Cells have been opened in all the Regional Offices of the Bank for wider circulation of RBI publications.

Appendix 9.4
Functional Matrix of the Reserve Bank

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1	2	3	4	5	6	7	8	9
RBI Balance Sheet (Ratio to GDP)	11.65	21.83	21.62	21.09	21.54	19.82	18.29	19.26
Currency Management								
Total Notes Issued (Rs. crore)	53,807	62,290	69,795	83,832	1,02,342	1,20,107	1,34,907	1,48,550
No of Currency Chests	3864	3902	3976	4059	4099	4101	4128	4157
Total Repositories and Small Coin Depots	3422	3590	3670	3762	3806	3898	3957	4030
Regulation and Supervision Commercial Banks								
Number of Banks	272	272	272	272	281	281	287	300
No. of Branches	60220	60570	61169	63755	64234	64937	65562	66408
Urban Cooperative Banks								
No. of Banks	1397	1401	1339	1400	1431	1501	1653	1502
DFIs								
No.	8	8	10	10	10	10	9	10
NBFCs								
No.	10127	11278	11010	11270	10725	12530	-	1420
Debt Management								
Marketing Borrowing (centre+states) Rs. crore	11,558	12,284	17,690	54,533	43,231	46,783	42,688	67,386
Auctions Gross								
1. 14 Day T Bills	-	-	-	-	-	-	-	69,236.6
2. 91 Day T Bills	-	-	1,350	15,012	12,450	24,050	25,200	13,200
3. 182 Day T Bills	3,425	7,318	245	-	-	-	-	-
4. 364 Day T Bills	-	-	8,797	20,303	16,857	1,875	8,240	16,246.6
Secondary Market - Volume (Rs. billion)								
Repo (% Share)	-	-	-	-	-	-	1,229	1,857
outright (% Share)	-	-	-	-	-	-	23.6	13.26
							76.4	86.74
Foreign Currency Operations								
Forex Reserves (US \$ in million)	5,834	9,220	9,832	19,254	25,186	21,687	26,423	29,367
Payment and Settlement								
Cheques cleared (RBI) lakh Nos.	3518	4132	4618	4736	4854	4398	4715	5040
Volume of business amount (RBI) Rs. crore	18,39,460	29,22,990	32,37,473	31,98,789	35,14,402	38,02,485	45,68,598	55,62,533
		1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1		10	11	12	13	14	15	16
RBI Balance Sheet (Ratio to GDP)		19.33	18.59	19.50	19.96	21.10	22.09	21.99
Currency Management								
Total Notes Issued (Rs. crore)		1,72,573	1,92,535	2,12,936	2,44,655	2,75,444	3,19,761	3,61,229
No. of Currency Chests		4181	4242	4386	4422	4486	4454	4451
Total Repositories and Small Coin Depots		4046	4058	3970	3962	4076	4103	4083
Regulation and Supervision Commercial Banks								
Number of Banks		301	298	300	297	292	290	284
No. of Branches		67157	67868	67937	68195	68500	69170	70324
Urban Cooperative Banks								
No. of Banks		1748	2050	1942	1937	1941	1926	1872
DFIs								
No.		11	11	11	10	10	8	8
NBFCs								
No.		1536	1005	981	910	875	777	573
Debt Management								
Marketing Borrowing (cen+state) Rs. crore		1,06,067	1,13,336	1,28,483	1,52,508	1,81,979	1,98,157	1,45,602
Auctions Gross								
1. 14 Day T Bills		18,150	16,453	10,480	1,100	-	-	-
2. 91 Day T Bills		16,697	8,155	7,255	20,216	26,402	36,789	1,00,592
3. 182 Day T Bills		-	2,900	2,600	300	-	-	-
4. 364 Day T Bills		10,200	13,000	15,000	19,588	26,126	26,136	47,132
Secondary Market - Volume (Rs. billion)								
Repo (% Share)		2,272	5,393	6,981	15,739	19,557	24,334	21,894
outright (% Share)		17.47	15.34	18.05	23	28.8	36.31	58.91
		82.53	84.66	81.95	77	71.2	63.69	41.09
Foreign Currency Operations								
Forex Reserves (US \$ in million)		32,490	38,036	42,281	54,106	76,100	1,12,959	1,41,514
Payment and Settlement								
Cheques cleared (RBI) lakh Nos.		4891	5167	5270	5377	5980	6241	7130
Volume of business amount (RBI) Rs. crore		62,09,523	78,95,492	91,89,683	1,09,47,391	1,09,78,762	91,78,751	83,54,830

10.1 This Report has attempted to capture the changing features of central banking in India since the inception of the Reserve Bank in 1935. The functions of the Reserve Bank have emerged out of a diversity of roles entrusted to it and its key functions have been specifically examined in this Report – regulation and supervision, financial markets, the monetary fiscal interface and dynamics of the balance sheet. The changing contours of monetary policy were dealt with extensively in last year's edition of the Report on Currency and Finance (RBI, 2005). The organisational and operational evolution of the Reserve Bank has reflected its functional responsibilities as they emerged with the changing socio-economic and political conditions through its history, a phenomenon similar to most of the central banks.

10.2 In the last century, across the world, central banks have played an increasingly important role in macroeconomic policy making and have continually reoriented their policies to cope with new challenges thrust upon them. To strengthen the monetary policy transmission channels, central banks have also played a vital role in the development of financial markets and the related institutions, especially after the South East Asian crisis of 1997. The central banks of developing countries have matured immensely in terms of policy making and have leap-frogged by adopting the best practices in the payment systems and banking technology. Indeed many central banks have taken over a whole range of functions, becoming multitasking institutions that conduct monetary policy, regulate and supervise the banking system, perform a crucial role in the payment and settlement system, and seek to maintain financial stability in the economy. Interestingly, central banking was initially practiced with a large number of informal norms, conventions and self-imposed codes of conduct. These were later formalised and institutionalised into laws that form the basis of modern central banks in recent years.

10.3 The functions of central banks have evolved with their respective financial systems and successfully transitioned from direct to indirect instruments of monetary policy. But, most importantly, since the early 1990s, the objectives of monetary policy have become increasingly focused and more precisely defined, consistent with the central banks' goals of price and financial stability.

10.4 In recent years, the emphasis on regulation and supervision of financial system has been intensified as central banks are increasingly focusing their attention on financial stability. Commercial banks, generally the most prominent part of the financial system, are subjected to more intense regulation as compared to the non-financial firms, as banks are much more leveraged than other firms due to their capacity to garner public deposits. In view of rapid globalisation, integration of financial markets and free movement of capital, bank regulation is increasingly becoming risk-centric. The adoption of Basel norms by many central banks, especially Basel II, has not only brought regulation and risk management in focus but also helped in universalising uniform standards across the banks in different countries.

10.5 Central banks have served as a reservoir of expertise that is generally drawn upon by governments and institutions, both domestic and international. In this context, economic research has played a critical role in defining the functional responsibilities of any central bank. Central banks have occupied the center-stage of the financial system in any economy despite a continuous change in their functions and are expected to continue to make a significant contribution in policy making and financial stability.

I. CENTRAL BANKING EVOLUTION IN INDIA

10.6 There is no standard international model for the evolution of a central bank. The Reserve Bank has undergone incessant transformation on account of a continuous change in its environment and has successfully operated in distinctly different regimes since 1935. The only constant in the evolution of the Reserve Bank since its inception is change. During most part of the earlier phase, it was a privately owned institution, though formed under a statute and overseen by the then colonial Government. The Central Office of the Reserve Bank, which was initially located in Calcutta was permanently shifted to Bombay, the commercial capital, in December 1937. Establishment of the Issue and Banking Departments was the statutory responsibility of the Reserve Bank and these were set up at inception of the Bank. The

other departments were formed to perform functions that devolved on the Reserve Bank in different economic situations and political regimes.

10.7 The evolution of the Reserve Bank since independence has been marked with flexibility in responding to domestic necessities and compulsions, and an endeavour to match the best international practices. The transformation in central banking functions over the decades can be traced quite conveniently through the different phases. In the early years, the main functions were note issuance and banker to the Government. The Reserve Bank provided a range of services to the Government, facilitated war finance, administered exchange control and ensured a smooth transition of currency management from the colonial to independent India. In its formative years, there was no formal monetary policy formulation other than regulating the supply and demand for credit in the economy. The Bank Rate, open market operations and the reserve requirements were the prime mechanisms for modulating credit availability. The regulatory and supervisory role received focus only after 1949, with the nationalisation of the Reserve Bank and enactment of the Banking Regulation Act, in the backdrop of a number of bank failures.

10.8 The functions of the Reserve Bank, as the central bank of a developing country emancipated from centuries of colonial rule, became more diversified with the launch of Five-Year Plans in 1951, in terms of Plan financing and institutional development to promote savings and investment in the economy. The Reserve Bank was expected to finance the resource gap of the Government that had taken up the task of growth promotion in the economy. The system of automatic monetisation of fiscal deficit initiated in 1955 which restricted the operation of monetary policy, was extensively used until 1994. In the 1960s and 1970s, institutional development assumed importance in view of the weak financial system that existed alongwith an underdeveloped commercial banking network in the economy. To facilitate sectoral development, specialised institutions were set up. The developmental phase that followed, mainly involving nationalisation of banks and directed priority sector lending, was characterised by a number of controls and regulations.

10.9 Monetary policy assumed a new focus in the 1980s. The expanding banking network in terms of geographical coverage, even in non-viable locations, sectoral allocation of credit, maintenance of high levels of reserve ratios and concessional rates of

interest in some sectors affected the quality of bank assets and strained their profitability. The high level of monetisation of the fiscal deficits and market borrowings by the Government at non-market rates of interest, alongwith administered interest rates resulted in somewhat stunted growth of the market for financial assets. The underdeveloped state of financial markets impaired the effective transmission of policy signals.

10.10 In the 1990s, the process of liberalisation of the economy added several new dimensions to the responsibilities of the Reserve Bank. In the backdrop of financial sector reforms, the monetary policy framework was adjusted and conventional central banking functions were revamped in consonance with global trends, technological developments and domestic expediency. The first phase of reforms focused on deregulation of the banking industry; strengthening of the institutional framework in banking, non-banking financial companies and financial institutions through prudential norms; and improvements in payment and settlement systems. The second phase of reforms emphasised the adoption of prudential norms in the financial system, in a gradual manner with an objective to converge to the international standards.

10.11 A number of innovative measures were undertaken by the Reserve Bank in the earlier years of reforms to overhaul the financial system. The important measures were - deregulation of interest rates, rationalisation and lowering of reserve ratios, elimination of automatic monetisation of the fiscal deficit, activation of the Bank Rate and introduction of indirect instruments of monetary policy, especially the Liquidity Adjustment Facility, to modulate daily liquidity. Although there is no formal targeting of overnight interest rates, the LAF has enabled the Reserve Bank to de-emphasise targeting of bank reserves and to focus increasingly on maintaining an interest rate corridor. The introduction of measures has been gradual and has generally been done after wide consultations with market participants, policy makers, international experts and academicians through various technical committees and sub-groups.

10.12 In the context of the monetary policy framework, there has been greater activism in liquidity management and an enhanced focus on the short-end of the market. In the deregulated framework, with the role of market forces becoming critical, there has been increasing evidence of changes in the underlying transmission mechanism of monetary policy, *i.e.*, interest rates and the exchange rate gaining

importance *vis-à-vis* quantity variables in India. With the liberalisation of the external sector, the monetary targeting framework came under stress owing to increasing capital inflows. These developments solicited review of the monetary policy framework and in accordance with this, the Reserve Bank switched to a more broad-based “multiple indicators approach” in 1998 in monetary policy formulation.

II. REGULATION AND SUPERVISION

10.13 The regulatory and supervisory role of the Reserve Bank gained prominence after independence but has been in focus since nationalisation of commercial banks in 1969. At present, the complex financial system in India, mainly consisting of commercial banks, cooperative banks, financial institutions and non-banking financial companies, is regulated and supervised by different authorities. The Reserve Bank regulates and supervises major part of the financial system covering commercial banks, cooperative banks, some financial institutions and deposit taking non-banking finance companies. In the initial years, the regulation of banking system was geared towards meeting the demands of a developing economy and a number of measures undertaken to strengthen the banking system were successful. Then, the regulatory and supervisory functions of the Reserve Bank focused primarily on ensuring soundness of banking operations and protection of small depositors through measures of compulsory mergers and liquidations, and introduction of deposit insurance scheme. Reserve Bank’s new era of regulation began with the ‘Social Control’ of banking which took the shape of nationalisation, directed lending to priority sector and administered interest rate regime. The need for social control over banks was felt in the context of the major lacuna that banking services were not available in many rural and urban areas, as well as in many preferred sectors, notwithstanding the considerable progress made in both functional and geographic coverage of the banking system since 1951. In terms of outcome, nationalisation succeeded in spreading the network of banks in rural areas and mobilising private savings. However, the savings so mobilised were mainly used for supporting government borrowings though *hitherto* neglected genuine credit needs in the rural areas were also met to a certain extent. The Reserve Bank supported nationalisation of the banks to ensure compliance with social control norms. This called for significant changes in the institutional arrangements, and more stringent regulation and supervision of the banking system.

10.14 The phase of excessive regulation and financial repression in the 1970s and 1980s resulted in large scale inefficiency and rigidities in the financial system. The reforms in the 1990s mainly led to a shift of banking sector supervision from micro level intervention towards prudential regulation at the macro level, reduction in statutory pre-emptions, liberalisation of entry level norms and introduction of Risk Based Supervision and international accounting standards, in consideration of the Basel norms.

10.15 In order to ensure financial stability in the economy alongwith the rising level of economic activity and integration of the financial system, the Reserve Bank has initiated measures to strengthen the cooperative sector, in particular the urban cooperative banks (UCBs), while recognising its low manoeuvrability due to ‘duality of control’. The regulatory and supervisory measures in this direction are steered towards bringing UCBs on par with the main-stream banking system. The agreements between the Reserve Bank and some of the State Governments to facilitate corrective action in a critical situation, and preparation of institution specific development action plans are important developments, given the complexity of dual control.

10.16 The banking system in India is attempting to transform itself to international standards, despite the emerging challenges. To achieve international excellence, the Reserve Bank is promoting safety and soundness while allowing banking system to compete and innovate through induction of new technology, improved credit risk appraisal, continuous financial innovation, better internal controls and appropriate legal framework.

10.17 The Indian approach to banking sector reforms has been gradual and different from many other emerging market economies, where financial sector reforms resulted in privatisation of erstwhile public sector financial intermediaries. To infuse market discipline, a key objective of privatisation, the public sector banks have been allowed to raise capital from the market in a phased pattern and have hence been listed in the stock market. As the commercial banks are scheduled to implement Basel II with effect from end-March 2007, the Reserve Bank has begun to focus on supervisory capacity-building measures, to identify the gaps and to assess as well as quantify the extent of additional capital, which may have to be maintained by such banks. Finally, while recognising the importance of consolidation, competition and risk management to the future of banking, the Reserve Bank has stressed corporate governance and financial inclusion increasingly.

10.18 In recognition of the importance of payment and settlement systems, the RTGS system was operationalised in March 2004 to take care of all inter-bank transactions. In view of the positive response of the financial sector to the initiatives of the Reserve Bank and with the banking sector coming of age, the Reserve Bank has taken the policy perspective of migrating away from actual management of retail payment and settlement systems but to continue to have regulatory oversight over such functions.

10.19 The Reserve Bank has played a proactive role in implementation of IT in the banking sector as IT based initiatives help to achieve better house keeping, improved customer service and overall systemic efficiency. Consequently, many new processes, products and services offered by banks and other financial intermediaries are now IT-centered.

III. FINANCIAL MARKET DEVELOPMENTS

10.20 The Reserve Bank, like other central banks, has taken a keen interest in the development of financial markets, especially the money, government securities and forex markets in view of their critical role in the transmission mechanism and implementation of monetary policy. The money market is the focal point in intervention by the Reserve Bank for equilibrating short-term liquidity flows, and on account of its linkages with the rest-of-the-world, the foreign exchange market. Similarly, the government securities market has become important for the entire debt market as it serves as a benchmark for pricing of market instruments.

10.21 The conscious efforts by the Reserve Bank to develop efficient, stable and healthy financial markets gained importance as they were repressed in several ways, in the past, by law, regulation and policies. Several factors, mainly administered interest rates, directed credit, weak banking structure, lack of proper accounting and risk management systems hindered market development in India until the 1990s. It was realised early in the reform process that mere easing of restrictions would not automatically help to create vibrant financial markets. Hence, the Reserve Bank initiated measures to facilitate the development of markets through necessary institutional changes and dynamic improvements in market microstructure. Over the years, several measures were taken by the Reserve Bank to address these issues and create a supportive environment for market development. The pace of the reform was contingent upon putting in place appropriate systems and procedures, technologies and market practices. The experience

of India indicates that financial market development is a complex process and depends on several factors like sound financial institutions, a favourable legal framework, technological support and congenial policy environment.

10.22 In India, the Reserve Bank has followed a gradual and well-calibrated policy of market reform. The markets have now grown in size, depth and activity, paving the way for a flexible use of indirect monetary policy instruments by the monetary authority. There has also been greater coordination between the Government and the Reserve Bank, as also between the various regulators of financial markets, which has helped in orderly and smooth development of the financial markets in India. Though the various initiatives have resulted in developing deep, wide and liquid, money, government securities and foreign exchange markets, the reform process continues. In context of the integration of the Indian financial markets with global markets, the Reserve Bank has been constantly refining the operating procedures and instruments as also various aspects of financial institutions, markets and financial infrastructure, consistent with international best practices to minimise the domino effect.

10.23 A review of market developments in India during the past seven decades reveals that there is a close link between reforms in the banking sector, monetary policy and financial markets, and that they have to develop together to reap the benefits of reforms so as to avoid disruptions. Financial markets have enabled banks and financial institutions to improve the management of liquidity and treasury operations, and thereby strengthen their fund-based income and profitability. Financial markets development in India, apart from improving monetary policy transmission mechanism, has also facilitated the switchover of emphasis of the monetary policy from credit allocation to monetary targeting and subsequently to the multiple indicator approach.

IV. MONETARY FISCAL INTERFACE

10.24 The monetary fiscal interface in India post-Independence, followed a sequence typical of a developing country whereby monetary policy was expected to accommodate the expansionary fiscal policy. With the onset of development planning requiring large public investment, the fiscal-monetary-inflation nexus was apparent by the end of the 1980s whereby excessive monetary expansion on account of monetisation of fiscal deficits fuelled inflation.

10.25 The history of monetary fiscal interface in India offers useful lessons from the Reserve Bank's experience over the past seven decades. The Reserve Bank had to cope with the challenges emerging from the changing phases of fiscal policy – from fiscal neutrality to fiscal dominance and further to fiscal consolidation, and adapted its instruments and operating procedures suitably so as to foster monetary and financial stability. It was the macroeconomic crisis of 1991, which highlighted the urgency to address the fiscal dominance over monetary policy. Therefore, to phase out automatic monetisation of fiscal deficits, a historic agreement was signed between the Government and the Reserve Bank – a significant step in cooperation and understanding between the fiscal and monetary authorities.

10.26 In view of the high levels of public debt in India, continuation of high fiscal deficit and a history of fiscal dominance, the case for separation of monetary and debt management has evoked some debate. In theory, separation between the two functions would enhance the efficiency in monetary policy formulation and debt management, but the debate in the Indian context needs to recognise certain key dynamics of fiscal-monetary nexus. First, in India, the joint policy initiatives by the Government and the Reserve Bank have facilitated the achievement of a remarkable degree of coordination between debt management and monetary policy formulation. While fiscal discipline and reduced monetisation of deficits have imparted considerable autonomy to the operation of monetary policy in recent years, the Reserve Bank's proactive debt management techniques have also facilitated the conduct of monetary policy, particularly through the use of indirect instruments. In fact, the substantial stock of Government securities held in the portfolio of the Reserve Bank was used to sterilise the monetary impact of the capital flows. Second, the Reserve Bank's experience in managing government borrowings over the years has equipped it with the requisite technical expertise to efficiently fulfill the twin responsibilities of debt and monetary management and simultaneously meet the expectations of the Government and the markets. Third, in the next few years, significant changes are slated to unfold in the Indian fiscal system – a) the central government would cease to operate as an intermediary for mobilising resources for States with the latter having to raise funds directly from the market (as per the recommendations of the Twelfth Finance Commission); b) the Reserve Bank's withdrawal from participation in the primary market of Government securities from April 1, 2006 would have implications

for the management of interest rate expectations; and c) the implementation of the proposed amendment to the Banking Regulation Act permitting flexibility in reserve ratios to banks would reduce the captive subscription to Government securities. Therefore, in view of the concerns expressed above, a pragmatic view needs to emerge on the issue to ensure smooth functioning of the financial markets.

10.27 An important aspect of the monetary fiscal interface relates to the autonomy of the central bank. In the process of evolution, globally, while the spectrum of activities of the central banks has widened, the stance regarding the independence of central banks has taken interesting turns. In the Indian context, two related aspects regarding central bank autonomy are being emphasised. The first one relates to the fiscal dominance over monetary policy. The second aspect pertains to the legislative provisions, which clearly provide for government direction of the Reserve Bank, including the appointment of its top management. During the development phase, the growing market borrowings of the government and its monetisation by the Reserve Bank gave rise to questions regarding the relative roles of fiscal policy and monetary policy. Monetary policy, particularly in the 1980s, had to address the task of neutralising the inflationary impact of rising fiscal deficits by mopping up the large increases in reserve money. However, in recent years, the phasing out of automatic monetisation of fiscal deficits in 1997 and the enactment of FRBM legislation in 2003 are two important milestones in the direction of providing safeguards to monetary policy from the consequences of expansionary fiscal policy and ensuring healthy monetary fiscal relationship.

10.28 It is also imperative to take cognizance of an important issue that could shape the future course of the monetary fiscal interface. As per the FRBM stipulations, the Reserve Bank would not be accommodating the Government in the primary market from April 2006. This measure while imparting greater functional autonomy to the monetary authority would necessitate a strict vigil on interest rate movements and sharpening of other tools to transmit monetary signals to the market.

V. THE RESERVE BANK BALANCE SHEET

10.29 The balance sheet of a central bank is, in many ways, unique in character and portrays the financial outcome of its diverse roles and responsibilities in a changing environment in the economy. The Reserve Bank balance sheet has undergone a fundamental change over the past seven decades along with

transformation of the Indian economy. From the primacy of the note issuance function during the formative years to steady fiscal ascendance during the early phase of planning which culminated into a period of fiscal supremacy coupled with strong developmental role, the Reserve Bank balance sheet has indeed come a long way in the 1990s to achieve dominance of foreign assets, considerable downsizing of investment in Government securities and reduction in reserve requirements. With a compositional shift in Reserve Bank's balance sheet, the risk profile assumes significance especially in a situation characterised by relatively lower rate of return on foreign currency assets, volatility in exchange and interest rates in the global markets, and adoption of mark to market valuation norms with asymmetric treatment for appreciation gains. This situation intensifies the need for adoption of effective and adequate risk management measures. Therefore, the Reserve Bank has not only initiated several measures to ensure revaluation of both domestic and foreign assets on a prudential basis, but also built an adequate cushion in the form of contingency reserves to impart policy flexibility and maintain public confidence.

10.30 In the case of a central bank, larger balance sheet does not necessarily connote sound macro economy. In contrast, transparent balance sheet enhances the credibility of the central bank and infuses efficiency in the conduct of monetary policy. A distinctive feature of the Reserve Bank since its inception has been preparation of two separate balance sheets - one for the Issue Department and the other for the Banking Department – providing transparency in its conduct of monetary policy. The balance sheet data is disseminated regularly at weekly intervals to the public. Similarly, the compilation and publication of broad money data at fortnightly frequency, and the reserve money at weekly frequency by the Reserve Bank, compares well with some of the leading central banks in the world.

VI. COMMUNICATION POLICY

10.31 The Reserve Bank has, over the years, transformed functionally and structurally to the changing domestic and external needs through appropriate policy responses. Transparency has assumed renewed focus with a clear communication policy of the Bank, which enables it to disseminate a wide range of information regularly to the public. The focus of the communication policy until 1991 was on a healthy interaction with the press so as to highlight the transparent manner in which the Reserve Bank

conducted the tasks associated with central banking. In recent years, the Reserve Bank has been laying emphasis on a well-designed communication policy with three main features - transparency, timeliness and credibility. The objective of the communication policy is achieved through extensive dissemination of information on the Bank's policies and the processes of their formation. The Reserve Bank extensively uses its website for dissemination of information. The publications of the Reserve Bank, also available on the website, containing data, research studies and speeches of top-management of the Reserve Bank, provide rationale and explanations behind the policy decisions. In an interesting development in recent years, the Reserve Bank regularly solicits feedback on important issues placed on its website.

VII. ASSESSMENT

10.32 The evolution of central banking, not only in India but also globally, indicates that the central banks have successfully continued to adapt to the changing economic environment. In the interaction between the financial intermediaries and the central bank, the focus has been the welfare of the general public. Central banks carefully watch the market trends and monitor numerous variables, both quantity and rates, in the domestic and global economy. The information contained in these indicators and the direct feedback from the market participants helps in calibrating and crafting an appropriate monetary policy to ensure price and financial stability. In the last hundred years, when most central banks were established, the markets, the objectives and instruments of monetary policy have changed. Despite these changes, the central banks have established themselves as a necessary and a permanent part of the financial system.

10.33 The Reserve Bank presently at its seventieth anniversary has had a fair degree of success in achieving the twin objectives of growth with stability, especially in the post-reform period. The well calibrated strategies of the Reserve Bank in refining monetary policy operating procedures, managing the capital flows, ensuring evolution of competitive markets and sustaining a healthy financial system, while also performing the developmental role have yielded visible results. While successfully facing the challenges of globalisation, the Reserve Bank has earned international credibility in terms of efficacy of its policies. The Reserve Bank has achieved commendable transparency in its operations, especially in terms of evolving a communication

policy aimed at addressing a wide range of audiences. In sum, notwithstanding the changing challenges of different regimes, the Reserve Bank has managed to evolve constructively on a continuous basis to cope with demands for stable macroeconomic management and financial stability,

while meeting the objectives of economic growth and development. As the economy becomes increasingly open and global, the role of the Reserve Bank will undergo further change and it will need to equip itself for coping with these emerging challenges on a continuous basis.

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