INDIAN FINANCIAL MARKETS: EVOLUTION OF A DIALECTIC REGULATORY MODEL

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By

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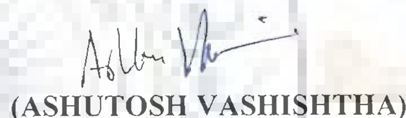
I hereby certify that the work which is being presented in the thesis, entitled **INDIAN FINANCIAL MARKETS: EVOLUTION OF A DIALECTIC REGULATORY MODEL** in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy and submitted in the Department of Management Studies of the Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out during a period from July 2004 to April 2008 under the supervision of Dr. Anil K. Sharma, Asst. Professor, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other institute.



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Signature of Supervisor

Signature of External Examiner

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Needless to mention, errors and omissions, if any, are due to me alone. In no way any of the individuals or institutions associated with the completion of this work, directly or indirectly, is responsible for the same.

(Ashutosh Vashishtha)

ABSTRACT

Existence and growth of financial markets is very essential for the growth of any economy. Distortions and malpractices in the functioning of these markets, if unchecked in time, may sooner or later spell doom for the whole economy. In recent times, the financial sectors in most countries around the world have undergone major changes. Deregulation, liberalisation, technological and financial innovations, emergence of financial conglomerates, gradual disappearance of traditional frontiers separating banking, securities and insurance domains from each other, growing competitive conditions, mergers, etc. are the predominant features of financial markets in most countries. The need for an effective financial regulatory system is today greater than ever before. A debate is already under-way as regards the nature of changes that are desirable. Some countries are adopting fully integrated, single-regulator agency system while others are opting for partly integrated, or multiple regulatory agencies system. The effectiveness of these models is yet to be established. Whatever the merit of contentions put forward in the debate, the fact remains that no model how so elegantly it may have been designed is necessarily the right path for all countries to tread upon. The specific circumstances of a country and its experiences with various regulatory initiatives in the past together with cognizance of relevant critical issues play a crucial role in the designing of an effective regulatory model.

The issue of desirability of a shift in the regulatory structure has been analysed in the present study using the broad dialectic analytic frame. The analysis is based on the perceptions of a sample group of regulators, financial intermediaries and investors regarding deficiencies in the present regulatory set-up and the need for a change in the same. Regression analysis, within the broad dialectic analytic frame, constitutes the core of research methodology.

The required data have been generated by addressing a well-designed questionnaire to a select sample group of 210 respondents who are participants in the financial markets in one way or other – regulators, financial intermediaries and investors (including academics). As such, the study is a cross-sectional perception analysis. The issues included for exposing to the respondents for ascertaining their views and suggestions mainly relate to (a) objectives of financial regulation and relevance of regulatory structure to the same; (b) deficiencies of the existing financial regulatory system and their significance as determinants and explicators of change in the system; (c) arguments for and against a structural change in the present regulatory system; and (d) determinants of effectiveness of financial regulation.

Protecting the economy against systemic risk, creating and sustaining fair markets, and prevention of financial crimes have been viewed as 'highly important' objectives of financial regulation by an impressive majority of respondents, in each category. They mostly believe that the dominant position of the Ministry of Finance and RBI, lack of communication and co-ordination, and overlapping areas of jurisdiction of various regulators constitute the most predominant grey areas in the existing regulatory system.

A substantial majority of respondents belonging to the categories of Financial Intermediaries and Investors is in favour of unified regulation. In sharp contrast to this, among the Regulators only a few of them are in favour of integration of existing multiple sectoral regulators. But 'lead' model has been revealed to be the rallying point for most of the respondents holding extreme positions in this regard.

Respondents mostly share the view that the RBI's domain of role needs to be seriously reviewed. The RBI is believed to be over-burdened due to its twin roles of acting as monetary authority and government's banker which may not only dilute latter's banking sector supervisory role but also have the potential of conflicting with

each other. Lastly, for the effectiveness of regulation, the respondents suggest proper mechanism for ensuring communication and coordination among regulators, optimal-mix of externally imposed regulation and the market-generated regulation, cost-benefit analysis of new regulatory initiatives, and regulatory bench-marking,.

Making use of inputs received from respondents and employing the analytic frame of linear regression, an attempt has been made to 'predict' the broad structural form of a financial regulatory model which may be expected to emerge, in due course, as a natural consequence of interaction of diverse forces presently operating in the system. The main objective of regression analysis is to ascertain if there is any discernible and significant pattern in the perceptions of different groups of present regulatory system in terms of its objectives and deficiencies, and the need for change or no change in the same.

The regression results point out to a regulatory model which structurally lies somewhere between a partly unified / 'lead' model, at the one extreme, and a fully unified model (outside the RBI), on the other extreme. One may see this model as the consensus model which may be expected to meet the challenges thrown by the rapidly growing and complex modern financial markets. The model highlights the need for ensuring communication and coordination among regulators as the most important requirement for effectiveness of regulation. Views may differ whether this is achievable within the present regulatory set-up or an alternative one. The converging view-point on this issue rallies around the need for departure from the existing model in favour of a unified model, and at least the 'lead' model, immediately. The thrust of the findings of the present study is in favour of adoption of at least the 'lead' model (with lead outside the RBI) presently, and a shift in the direction of structural unification, ultimately. Also, the evidence from the study does not substantiate the presence of any coherent, valid and reliable relationship between the importance of

various objectives of financial regulation, on the one side, and the desirability of structural unification, on the other.

Ultimately, what really matters is the effectiveness of regulation, rather than the form of regulatory structure. Unified regulation is one of the several options. Many factors play an important role in the determination of the regulatory regime, which a country needs to adopt. A regulatory regime must be such that it satisfies the environment in which it is to be implemented; it must take complete cognizance of the business activities of the regulated financial institutions and the specific circumstances of the country.

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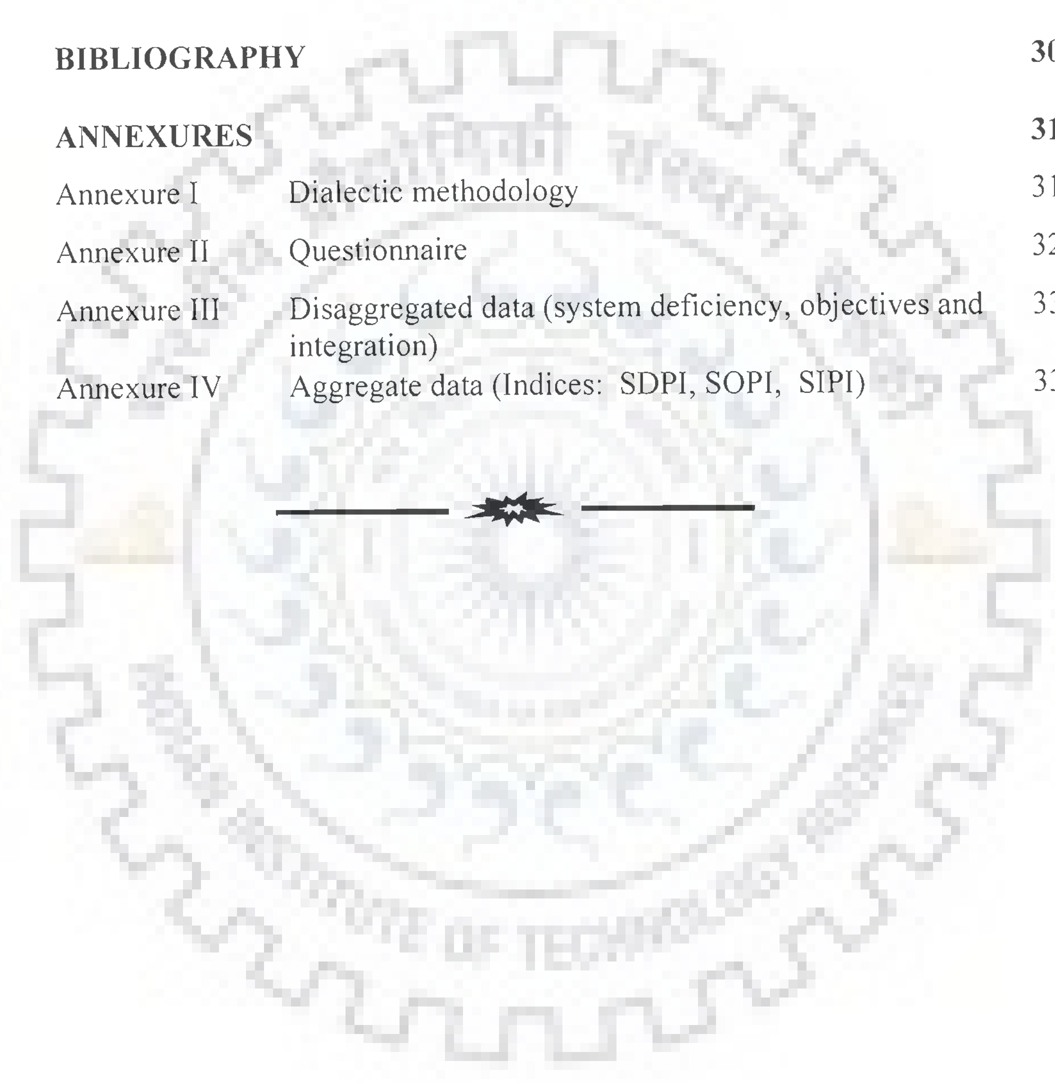

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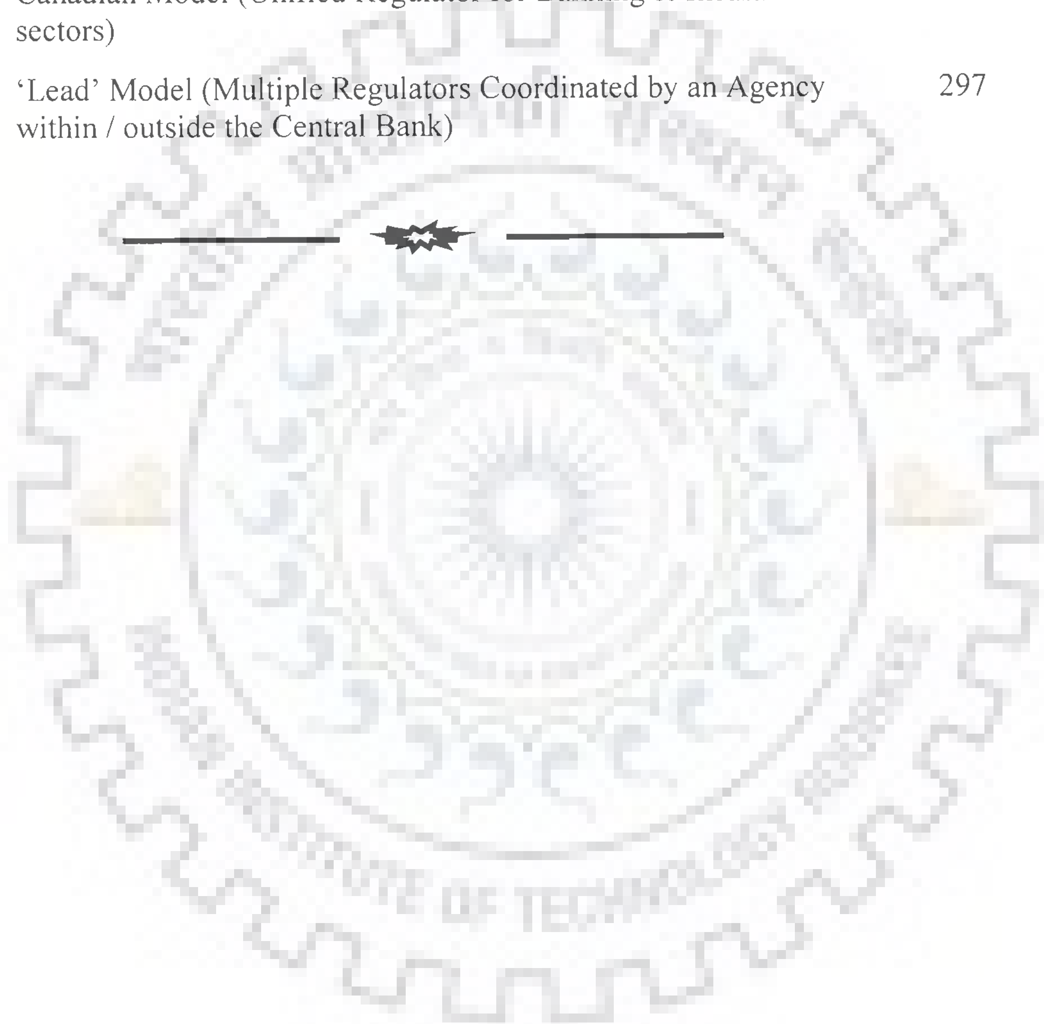


ABBREVIATIONS

ARF	Asset Reconstruction Fund (India)
BCBS	Basel Committee on Banking Supervision
BOI	Bank for International Settlement
CBFAI	Central Bank as Financial Authority Index
CCI	Controller of Capital Issues
CPR	Consolidated Prudential Reporting
CRR	Cash Reserve Ratio
DCA	Department of Company Affairs (India)
ECB	European Central Bank
EXIM Bank	Export and Import Bank (India)
DRI	Differential Rate of Interest
FACI	Financial Authorities' Concentration Index
FDI	Foreign Direct Investment
FII	Foreign Institutional Investors
FMC	Forward Markets Commission (India)
FSI	Financial Stability Index
FSA	Financial Services Authority (UK)
FSA	Financial Services Agency (Japan)
GIC	General Insurance Corporation (India)
GTB	Global Trust Bank
IAIS	International Association of Insurance Supervisors
ICICI	Industrial Credit and Investment Corporation of India
IDBI	Industrial Development Bank of India
IIBI	Industrial Investment Bank of India
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IRBI	Industrial Reconstruction Bank of India
IRCI	Industrial Reconstruction Corporation of India
IRDA	Insurance Regulatory and Development Authority (India)

IRDP	Integrated Rural Development Programme
ITE	Intra-group Transactions and Exposures
LIC	Life Insurance Corporation (India)
MF	Mutual Fund
MNB	Multi-National Bank
MOF	Ministry of Finance
MOU	Memorandum of Understanding
NBER	National Bureau of Economic Research (USA)
NBFC	Non-Banking Financial Company
NPA	Non-Performing Assets
OECD	Organisation for Economic Co-operation and Development
PNB	Punjab National Bank
RRB	Regional Rural Bank
RBI	Reserve Bank of India
RSI	Regulatory and Supervisory Independence
SDPI	System Deficiency Perception Index
SIPI	System Integration Perception Index
SBI	State Bank of India
SEBI	Securities Exchange Board of India
SIFI	Systemically Important Financial Intermediaries
SLR	Statutory Liquidity Ratio
SRO	Self-Regulatory Organisation
UTI	Unit Trust of India
WB	World Bank

CHAPTER – I

INTRODUCTION

Preview

This chapter is organised under two sections. Section A. has been devoted to presentation, in general, of the importance and objectives of financial markets and their regulation. It also includes a discussion of emerging trends in financial regulation, and critical issues in designing an effective regulatory model. In Section B, research design of the present study has been presented. Specifically, it includes a statement of rationale, objectives, scope and hypotheses of the study as well as description of the basic approach (dialectic analytic frame). And finally, major issues and guidelines observed in designing the questionnaire and determining size and composition of the sample, together with limitations and chapter plan of the study are also included in this section.

Section A
(Financial markets and financial regulation)

1.1 Importance of financial markets and financial regulation

Financial markets play an important role in facilitating the saving-investment process. The most outstanding advantage of the existence and growth of these markets is that these lead to greater economic efficiency in terms of opening new channels of investment that enable the individuals and institutions to direct their savings in more productive and varied uses and hedge their assets against certain risks, as well. Developed and well-regulated financial markets may be seen as the source of a substantial part of the annual increase in the gross domestic product. But at the same time, any distortion in the functioning of these markets and failure of the regulatory system as regards timely prevention of the same may spell doom for the whole economy, as well. Accordingly, the need for evolving a comprehensive and effective financial regulatory, supervisory and monitoring system is of basic importance for preserving the confidence particularly of the numerous individual investors in the functioning of these markets.[1] Banking, securities and insurance are the three major, inter-woven components of the financial system. Regulatory structure must conform to the size of, and inter-connections among, these components.

Financial markets differ from other markets of the economy in several ways. They are inherently inter-temporal. They involve lending today in the expectation of a return in the future. In this kind of transaction there is an element of risk, which is usually very large relatively to non-financial transactions. Secondly, financial markets are immensely characterized by the problem of asymmetric information[2]. This may lead to problems of adverse selection[3] and moral hazard.[4]

In recent years, financial sector in most countries around the world has undergone major changes. Deregulation, liberalization and technological and financial innovations have thrown new challenges to regulators and policy makers. The traditional frontiers between banking, securities and insurance sectors are rapidly disappearing. In order to remain competitive, financial institutions have merged with each other giving rise to *financial conglomerates.* A financial conglomerate combines businesses which are subject to different schemes of supervision and might also include financial activities which in many countries are not conducted in an entity which is subject to solo prudential supervision (e. g. leasing, consumer credit, certain financial derivatives).[5] India's financial sector has also seen major changes over the past decade. Banks have begun to move towards universal banking structure as frontiers between banking, securities and insurance sectors have become thin and blurred. Competitive pressures have resulted in a growing number of mergers, giving rise to the emergence of financial conglomerates.[6]

These changes have important implications for the players who supply financial services and products as well as for the regulators who supervise them.[7] Financial services and products stand redefined, today. As financial institutions become larger and more complex, and as they begin to operate across multiple national jurisdictions, the task of regulating them becomes more daunting. Stock market scams, the UTI story and problems with cooperative banks, GTB Bank crisis, etc. underline the importance of rethinking on the form and structure of financial regulatory system in India[8]. Moreover, the financial sector is rapidly becoming more open. The challenge facing the regulators today is more difficult than ever before. Debate on various regulatory structures has already started. The existing regulatory structures are being seen having serious loopholes.

There is yet another reason for the increased significance of financial regulation. A concomitant of growth of financial sector in India is the substantial emergence of financial institutions functioning in diverse overlapping areas. Even if the institutions and the activities are treated distinctly and risks are considered separable as far as possible, the close linkages between the constituents of financial sectors make it impossible to contain the *contagion effects* [9] in the absence of effective regulatory system. The financial crises in the East Asian and Latin American countries are glaring examples of this strong possibility. Finally, growth of multi-dimensional conglomerates in the financial sector also necessitates a more open and internationally oriented approach to financial regulation. With the internationalisation of economic activities and the growth of cross-border capital flows, the need for an internationally oriented approach to financial regulation has assumed increasing importance. It has two essential elements: (1) cross-border cooperation, which requires establishing a strong international network for the exchange of information, and cooperation on regulatory enforcement among national regulators. (2) Aligning of regulatory and supervisory processes to the best internationally accepted accounting and auditing practices and ensuring their effective enforcement. In this regard, it is necessary to mention that even if implementation of international regulatory principles and standards were universal, the benefits of these principles and standards could be defeated if financial regulators and the enforcement agencies lack the ability to take effective enforcement action, share enforcement related information and coordinate investigations.[10]

1.2 Objectives of financial regulation

The major objectives of financial regulation are curtailing and controlling monopoly, fostering competition and protecting consumer interest. In fact, the focus

of financial regulation is two-fold. At the macro level, financial regulation is concerned with maintaining systemic stability. Systemic stability refers to the maintenance of a safe, robust financial sector. For safeguarding the financial stability of the overall system, the emphasis has to be necessarily on "prudential guidelines and effective monitoring, improving institutional soundness, strengthening the regulatory and supervisory processes by aligning with international best practices and by developing the necessary technological and legal infrastructure," RBI (2005, p.9). Systemic stability is perceived to be crucial for the financial sector because the **social costs** of a financial distress are heavy. The East Asian experience and the more recent experiences in Turkey and Argentina, have amply demonstrated this.[11] At the micro level, on the other hand, the concern is about protecting the interests of consumers. A retail investor is unable to afford the cost of getting necessary information, acquiring or employing analytical expertise and learning from the experiences of others. In view of these factors as well as the complex nature of financial markets, the need for their regulation is much greater as compared to other markets.

When it comes to regulation, and especially, regulation of financial markets, academics tend to be divided into two opposite camps. On the one hand, there are the libertarians (e.g., Smith, 2003) who oppose any type of regulation. On the other hand, there are the interventionists (e.g., Stiglitz, 1989) who see pervasive market failures and advocate massive market intervention. The market failure argument is the major plank of the public interest theory of regulation. This theory justifies regulatory intervention mainly to deal with market failure, which may be due to (1) monopoly or market power, (2) asymmetric or imperfect information, and (3) the existence of externalities. Here the main emphasis is on the welfare-enhancing objective of regulation. However, there are also other objectives, which constitute the essence of the need for regulation, namely, protecting citizens from unfair treatment, enforcing

state's police power, and controlling government's power. But those who oppose regulation or caution against its socially undesirable effects do not regard presence of externalities as a sufficient ground for regulation. (Lee, 2003). In sharp contrast to the public interest theory of the interventionists, they argue that public interest may sometimes hide the group interests. In support of their contention, they put forward the theory of regulatory capture in which regulatory agencies represent special interests. For instance, it is not uncommon to observe dominant financial institutions influencing policy decisions to their advantage in order to restrain competition from their technically superior rivals.[12]

Financial regulation has assumed added importance in recent times. Looking at the behaviour of financial flows in the developing countries as depicted in Table 1.1, a rapid growth of financial sector over the last decade or so is noticeable. The volume of net financial flows (in US $) into these countries increased from 228.9 billion (in 1998) to 571 billion (in 2006) - an almost 2.5 times increase. There are two striking concomitant features of this growth. One, in the overall net financial inflows, the proportion of equity flows declined (from 76.8 percent to 73.3 percent), and of debt flows increased from 23.2 percent to 26.7 percent. Two, within equity flows, the proportion of FDI flows declined (from 97.2 percent to 77.5 percent), and of portfolio equity flows increased remarkably (from 3.3 percent to 22.5 percent) .These developments are of significant importance for the health of financial markets and for the attention of their regulators. If we view the growth of debt and equity net inflows (in relative terms) in the context of India, the picture is markedly different with still more serious implications. From Table 1.2 and Fig. 1.1, it can be observed that whereas the proportion of debt-creating inflows in total capital inflows decreased overtime from 83.3 percent (in 1990-91) to 29.9 percent (in 2005-06), the proportion of non-debt creating inflows increased from a meager 1.5 percent level to an

astonishing 81.7 percent level, over the same period. If we compare the behaviour of FDI and portfolio investment net inflows, we observe that the latter has, on the whole, tended to outpace the former especially in the recent past few years. Considering the period since 2001-02 (which is the relevant period for comparison, as per the foot note to Table 1.2), it can be seen that whereas FDI as percent of total capital inflows decreased from 71.6 percent (in 2001-02) to 31.1 percent, the proportion of portfolio investment increased from 23.6 percent to 50.6 percent, over the same period. These trends in financial inflows have huge market-destabilising potential and place an onerous responsibility on the regulators in these countries for effectively handling their adverse influences on monetary and financial market stability. Also, this is no less important for attracting and, more significantly, sustaining foreign capital, in particular FDI flows.

Table 1.1: Net capital-inflows to developing countries, 1998-2006

US $ billion

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006[e]
1	2	3	4	5	6	7	8	9	10
Current account balance	**-96.7**	**-19.1**	**34.4**	**12.1**	**60.5**	**101.9**	**113.6**	**256.4**	**348.5**
as % of GDP	-1.7	-0.3	0.6	0.2	1.0	1.5	1.4	2.7	3.1
Financial flows									
Net private and official flows	**228.9**	**209.6**	**181.1**	**191.1**	**174.2**	**262.0**	**385.9**	**480.7**	**571.0**
Net private flows (debt + equity)	**193.4**	**195.6**	**187.0**	**164.5**	**169.2**	**274.1**	**412.5**	**551.4**	**646.8**
Net equity flows	**175.8**	**189.6**	**179.9**	**176.6**	**162.9**	**184.3**	**257.7**	**347.5**	**418.8**
Net FDI inflows	170.0	178.0	166.5	171.0	157.1	160.0	217.8	280.8	324.7
Net portfolio equity inflows	5.8	11.6	13.4	5.6	5.8	24.3	39.9	66.7	94.1
Net debt flows	**53.1**	**20.0**	**1.2**	**14.5**	**11.3**	**77.7**	**128.2**	**133.2**	**152.2**
Official creditors	**35.5**	**14.0**	**-5.9**	**26.6**	**5.0**	**-12.1**	**-26.6**	**-70.7**	**-75.8**
World Bank	8.7	8.8	7.9	7.5	-0.2	-0.8	1.4	2.5	-2.4
IMF	14.1	-2.2	-10.7	19.5	14.0	2.4	-14.7	-40.2	-25.1
Others	12.7	7.4	-3.1	-0.4	-8.8	-13.7	-13.3	-33.0	-48.3
Private creditors	**17.6**	**6.0**	**7.1**	**-12.1**	**6.3**	**89.8**	**154.8**	**203.9**	**228.0**
Net medium and long-term debt flows	**82.9**	**23.3**	**13.4**	**11.6**	**5.8**	**34.8**	**86.4**	**136.2**	**156.0**
Bonds	38.8	30.1	20.9	10.3	10.4	24.7	39.8	55.1	49.3
Banks	49.4	-5.3	-3.8	7.8	2.3	14.5	50.6	86.0	112.2
Others	-5.3	-1.5	-3.7	-6.5	-6.9	-4.4	-4.0	-4.9	-5.5
Net short-term debt flows	**-65.3**	**-17.3**	**-6.3**	**-23.7**	**0.5**	**55.0**	**68.4**	**67.7**	**72.0**
Balancing item[a]	**-14.6**	**-158.1**	**-170.4**	**-122.4**	**-60.2**	**-69.1**	**-95.5**	**-345.4**	**-286.5**
Change in reserves	**-17.6**	**-32.4**	**-45.1**	**-80.8**	**-174.4**	**-294.7**	**-404.0**	**-391.7**	**-633.1**
***Memo items*:**									
Bilateral aid grants	**42.5**	**44.4**	**43.3**	**43.7**	**50.6**	**63.6**	**70.5**	**71.3**	**70.6**
of which:									
Technical cooperation grants	15.8	16.0	14.7	15.8	18.2	20.1	20.4	19.3	19.9
Others	26.7	28.4	28.6	27.9	32.4	43.5	50.1	52.0	50.7
Net official flows (aid+debt)	**78.0**	**58.4**	**37.4**	**70.3**	**55.6**	**51.5**	**43.9**	**0.6**	**-5.2**
Workers' remittances	**72.7**	**76.6**	**83.8**	**95.3**	**116.2**	**143.8**	**163.7**	**189.5**	**199.0**
Repatriated earnings on FDI	**28.7**	**27.8**	**34.6**	**43.8**	**43.2**	**53.4**	**73.8**	**107.0**	**125.0**

Note: 'e' indicates estimate

'a' indicates combination of errors and omissions and net acquisitions of foreign assets (including FDI) by developing countries.

Source: Global Development Finance, World Bank Report, 2007 (p. 37)

Table 1.2: Composition of net capital-inflows to India, 1990-91 to 2005-06

Item	1990-91	1995-96	2001-02	2002-03	2003-04	2004-05	2005-06
1	2	3	4	5	6	7	8
Total Capital Inflows (Net) US $ million	**7,056**	**4,089**	**8,551**	**10,840**	**16,736**	**31,027**	**24,693**
of which (in percent)							
1. Non-Debt Creating Inflows:	**1.5**	**117.5**	**95.2**	**55.5**	**93.7**	**46.7**	**81.7**
a)Foreign Direct Investment**	1.4	52.4	71.6	46.5	25.8	18.0	31.1
b)Portfolio Investment	0.1	65.1	23.6	9.0	67.9	28.7	50.6
2. Debt-Creating Inflows	**83.3**	**57.7**	**12.4**	**-12.3**	**-6.0**	**30.6**	**29.9**
a)External Assistance	31.3	21.6	14.1	-28.6	-16.5	6.5	6.2
b) External Commercial Borrowings #	31.9	31.2	-18.6	-15.7	-17.5	16.3	7.8
c) Short-term Credits	15.2	1.2	-9.3	8.9	8.5	12.2	6.9
d) NRI Deposits $	21.8	27.0	32.2	27.5	21.8	-3.1	11.3
e) Rupee Debt Service	-16.9	-23.3	-6.1	-4.4	-2.2	-1.3	-2.3
3. Other Capital @	**15.2**	**-75.2**	-7.6	**56.8**	**12.3**	**22.7**	**-11.6**
4.Total (1 to 3)	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Memo: **Stable Flows +**	**84.7**	**33.7**	**85.6**	**82.0**	**23.7**	**59.1**	**42.5**

R: Revised PR: Partially Revised P: Preliminary

** Data on FDI have been revised since 2000-01 with expanded coverage to approach international best practices. FDI data for previous years would not be comparable with these figures.
# Refers to medium and long term borrowings.
$ Includes NR (NR) Rupee Deposits.
@ Includes leads and lags in exports (difference between the custom and the barking channel data), Banking Capital (assets and liabilities of Banks excluding NRI deposits), loans to non-residents by residents, Indian investment abroad, India's subscription to international institutions and quota payment to IMF.
+ Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits.

Source: Reserve Bank of India, Annual Report, 2007.

Fig. 1.1 (a): Net capital-inflows to India
(1990-91 to 2005-06)

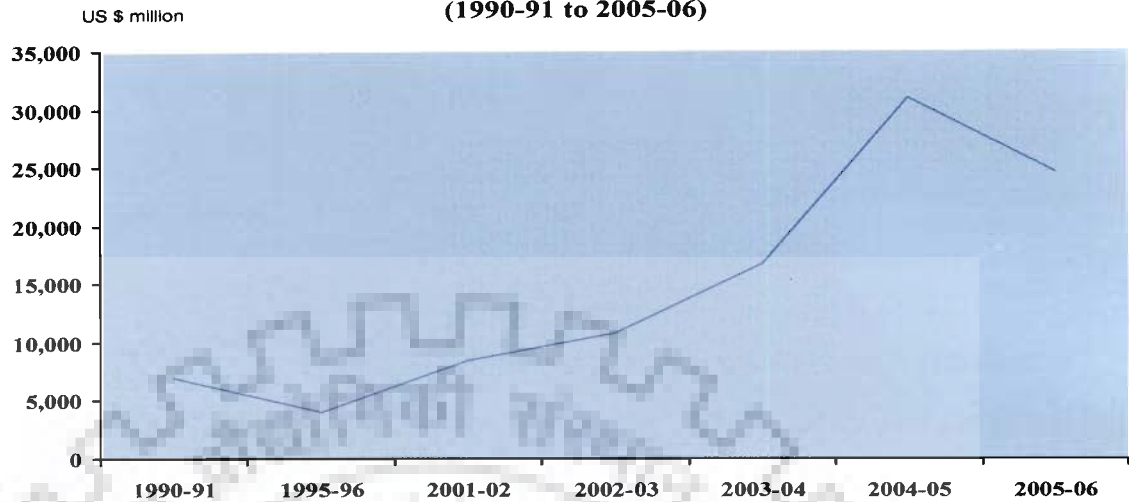
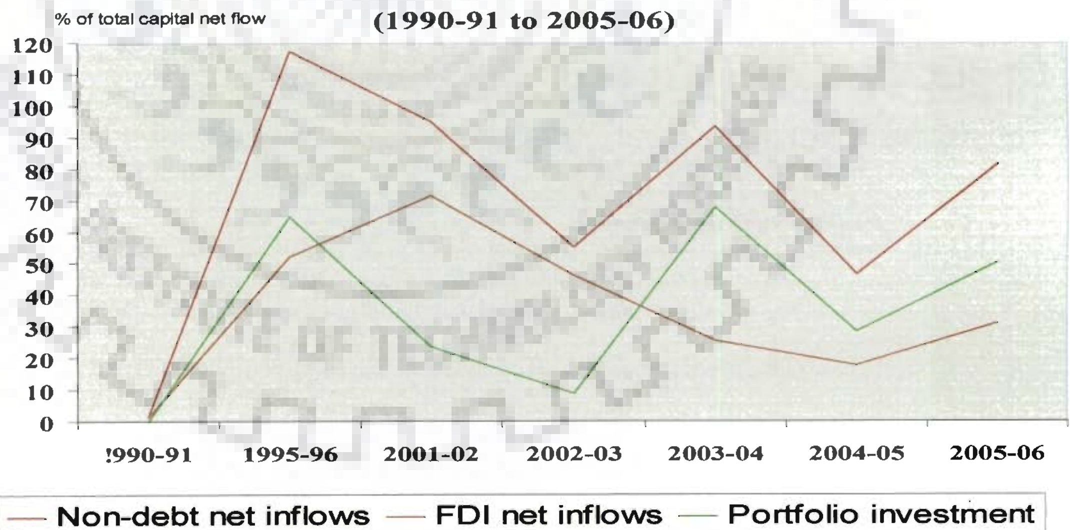


Fig. 1.1 (b): Non-debt net capital-inflows to India
(1990-91 to 2005-06)



1.3 Emerging trends

As a result of cropping up of financial institutions having business in diverse overlapping activities, recurrence of accounting and auditing scams, investor's growing mistrust in the functioning of financial institutions, and emergence of global financial institutions, the need for overhauling financial regulatory arrangements has been widely realised world over. The emerging trends in financial regulation may be specified briefly as follows:

1. *Decline of self-regulation:* A series of accounting and auditing scams that have occurred in many countries around the world and which have spelled the doom of world's two biggest companies, Enron and Arthur Anderson, have prompted a number of countries to set up statutory bodies to regulate financial transactions, a job which was previously left to self-regulation.[13] Davies (2004) has presented an insightful analysis of decline of self-regulation in terms of following two developments: (1) There has been a gradual decay of values which were cherished by credible, robust self-regulating financial bodies whose members 'recognised that their reputations stood or fell together. Doubtful dealing in one stock broking member of the stock exchange, for example, would potentially damage the interests of all others. So 'club rules' were established, with some rough and tough and ready policing of them, usually involving the ultimate sanction of removal of a member from the club in the event of persistent breaches. This was ….the 'golf club' approach to regulation." (2) The opening of financial markets in the recent times has allowed a free for all sort of game, leaving substantial scope for failures and scams.

2. *Investor's excessive reliance on financial regulators*: Financial market products are becoming more and more diversified, innovative and competitive. Investors now have access to derivatives and a range of leveraged investments like hedge funds. Investors' awareness of various aspects of new financial instruments is much less than required. They have started believing that if things go wrong the regulator will bale them out. Therefore, it is being increasingly realised that investor protection must go hand in hand with the effort to enhance public understanding of the new emerging financial system.

3. *Regulatory integration:* In view of the growth of financial institutions having diverse activities, various countries, such as, UK, Japan, South Korea, Germany, Norway, Denmark, Sweden, Singapore and Austria have started taking a rational approach to financial regulation by setting up a single regulatory body as it is difficult for regulators of various financial segments to deal with institutions which are at the same time under control of other regulatory bodies, as well. The case for this kind of extreme regulatory integration is far less strong in case of countries where divisions between these segments are by and large clear and well defined.

4. *International regulatory approach:* The growth of global financial institutions has made it imperative for a regulator in any country to realise that it is no longer adequate to focus only on domestic accounting and auditing standards. The need for ensuring compatibility of these standards with the internationally agreed codes and adopting a somewhat more open and internationally oriented approach is being increasingly recognised. After all, the interests of investors in a branch of an international financial institutions in any country are ultimately influenced by the quality of supervision of the parent organisation.[14]

1.4 Critical issues

As a result of these emerging trends in financial regulation, regulatory structures around the world are undergoing significant changes and diverse regulatory models are being developed and adopted. There cannot be a universal approach to designing an effective regulatory model. The specific circumstances of a country and its experiences with various regulatory initiatives in the past together with due consideration of all relevant critical issues play a crucial role in the designing of an effective regulatory model.[15] It is important to describe here the critical issues, which need to be considered in designing an appropriate, effective regulatory model:

1. *Conflict among regulatory objectives and cultures:* Regulatory agencies have a variety of objectives: (i) Systemic stability (with regard to monetary policy and payments system, in particular) which is of utmost importance in relation to banking regulation. (ii) Institutional safety which involves the regulatory culture of setting standards of prudential behaviour and monitoring compliance of the same so as to prevent financial failure and protect the institutions as well their customers. (iii) Market fairness which basically focuses on reducing recurrence of financial crimes by employing the regulatory culture of crime investigation and punishment. (iv) Financial efficiency which focuses on ensuring fair degree of competition among institutions.[16] Apparently, when agencies face multiple objectives, possibility of some conflict between them is always there, and no regulatory arrangement can deal with conflict resolution completely.[17] Therefore the central issue in designing a regulatory structure is whether conflict can be better handled within a single agency or between agencies having clearly defined objectives assigned to each one of them.

2. *Role of central bank*: Internationally, following the failure of some large banks and bank related entities, there has been a debate on the segregation of supervision from traditional central banking, citing the conflict between monetary policy objectives and bank supervision objectives. There are many arguments regarding the banking regulation role of central bank. It is argued that banks are critical to systemic stability because of their role in the payments systems. Since central banks universally supervise the payments system, they should also supervise banks. In support of this view it is further said that central banks cannot adequately provide the 'lender of last resort' facilities unless they also have regulatory control over them. On the opposite, those who favour the separation of banking regulation from central bank argue that objectives of monetary policy and banking regulation may, at times, generate conflicts. A central bank that supervises the banking segment might be tempted to pursue a soft monetary policy to keep banks healthy. This may or may not succeed but surely it may be expected to step up inflation. Further, central bank's credibility as a monetary regulator may also suffer as a result of its failure to regulate the banking system properly. On the whole, the issue tends to settle in favour of central bank being assigned the role of banking regulator, as well. This is particularly relevant to a developing country like India where central bank cannot be expected to play its role in the development process without the entire banking sector being put under its control.[18]

3. Co-operation between regulatory agencies: Liberalisation and globalisation of financial markets and emergence of financial conglomerates has created the need for increasing cooperation between regulatory agencies, both within the country and across the countries. No regulatory structure can survive in the absence of co-ordination and co-operation between different regulators.

4. *Size:* A consideration of the size of the country is another critical issue in designing an appropriate regulatory structure. Generally, small countries are pushed towards the large-size, more amalgamated regulatory structures so as to utilise their scarce resources in the best possible manner and prevent regulatory capture by industrial giants. Large countries tend to favour relatively small-sized and more decentralised regulatory structures so as to prevent concentration of power in a single, all pervasive regulator. What kind of regulatory structure fits best to a particular country depends on country's specific conditions. Nothing can be generalised or concluded, *a priori*, in this regard.
5. *Regulatory Arbitrage*: A fundamental requirement for efficient regulation is that the possibility of arbitrage, as far as possible, should not be there. When a financial institution is able to choose among regulators, either by altering its corporate form, or its regulatory jurisdiction, or simply its institutional label, there is an incentive to arbitrage among potential regulators so as to minimise the regulatory burden. This problem is exacerbated in conglomerate situations where a heavily regulated parent may be able to reduce its regulatory burden by shifting business to an unregulated or much less regulated subsidiary.

Section B

(Research design)

1.5 Rationale and scope of the study

In the present rapidly changing financial market scenario, one cannot overlook the new developments that are expected to have far-reaching effects on the approach and organization of financial regulatory system in the country. The internationalization of financial transactions on an increasing scale; the fast disappearance of traditional frontiers between banking, securities and insurance sectors; the growing incidences of mergers and acquisitions and, as a result thereof, the perceptible presence of financial conglomerates on the financial horizon of the economy; and lastly, the emergence of new financial products and increasing susceptibility of the gullible consumers to the same are some of the new problems and challenges that have necessitated a fresh look on the whole gamut of issues related with the financial regulatory system in the country. The structural aspect of regulation is one such issue.

A debate is currently underway as to discuss and argue which of the alternative regulatory models is most suitable for the Indian financial markets. In the recent past, many countries world over have switched to new regulatory regimes. But their experiences cannot be regarded sufficient for producing any conclusive, clinching argument for resolving the current debate. It is widely believed that there is no 'universality' of the relevance of any model. The choice of an optimal model has to be country-specific. It must be based on size, scale and composition of financial markets; experiences of various regulatory approaches and practices in the past; and societal commitments of the government, presently. Above all, it must be backed by the largest possible segments of market-players (the financial intermediaries, the

regulators and the consumers) and introduced at a proper time after duly completing all necessary preparations.

The rationale of the present study is due mainly to its relevance to the broad theme of the on-going debate as well as to the basic thrust of its approach and direction. The core issue for exploration in the present study pertains to evolving a regulatory model which , by virtue of its dialectic perception of the problem, may truly be regarded country-specific and representing a 'synthesis' of conflicting viewpoints in this regard.

Specifying **the scope of study** is not merely a matter of observing and respecting an academic tradition in research. In fact, it has a substantial merit from the point of view of confining the analysis to the basic issues and maintaining a focused approach all through the study. The following are the broad areas of investigation that constitute scope of the study:

a) To critically examine the evolution of Indian financial markets and the regulatory system.

b) To identify the basic objectives and deficiencies of the present regulatory system.

c) To analyse and synthesise diverse viewpoints regarding change or no change in the present structural form of the present regulatory set-up, and to find out whether, and how far, these views can be attributed to perceptions of system-deficiencies. Surely, the legislative, administrative and implementation-related aspects fall outside the purview of the study.

d) To determine if the importance attached to various objectives (of financial regulation) calls for choice of specific regulatory structure in any significant way. Analysis in this regard is proposed to be confined to relevance of

structure in relation only to *importance*, rather than *realisation, o*f objectives. The issue of relevance of structure to realisation of objectives is undoubtedly a debatable point of substantial importance. But it can not be adequately analysed in the absence of sufficient empirical evidence on the *objective-serving abilities of different regulatory regimes as well as in the absence of* suitable measures and criteria of objective-serving ability. This by itself is an important area for full-fledged research and it falls outside the scope of present study.

1.6 Objectives of the Study

The title of the present study is "Indian Financial Markets: Evolution of a Dialectic Regulatory Model." Apparently, the focus of the study is to be on evolving a financial regulatory model for the Indian financial sector, using the broad dialectic analytic framework. As such, it requires an understanding of the Indian financial sector in terms of its components and their features and inter-relationships, and emerging trends, on the one hand, and the present regulatory set-up and its ability to meet the challenges thrown by today's highly dynamic, complex and explosive financial sector, on the other. By implication, it also requires an understanding of the merits and demerits of alternative regulatory models adopted by different countries and their experiences with the same. It is only on the basis of a comprehensive appraisal of all aspects of the problem and the available options that an optimal regulatory model for the Indian financial sector can be identified and suggested. Accordingly, a precise statement of the objectives of the study becomes necessary and important. This is particularly important for ensuring that the focus of enquiry is not lost at any stage. The following are the broad objectives of the present study:

1) To analyse the Indian financial sector in terms of its features and emerging trends.

2) To review the evolution of Indian financial regulatory and supervisory system, discuss its functioning, and examine its relevance.

3) To analyse merits and demerits of the alternative regulatory models adopted by different countries.

4) To discuss the practical experiences of other countries which have adopted unified regulatory system.

5) To identify the regulatory options before India, and present an optimal regulatory model in terms of analysis of inputs obtained from various participatory groups and the academics in the field.

1.7 Hypotheses

In order to ascertain if there is any discernible pattern in the perceptions of different groups of the present regulatory system in terms of its objectives and deficiencies, and the need for change or no change in the same, the following hypotheses (the 'null' hypothesis: H_0, and the 'alternative' hypothesis H_1) have been employed:

System-deficiencies and the need for structural change

H_0: There *exists no relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

H_1: There *exists a relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

Regulatory objectives and the regulatory structure

H_0: There *exists no relationship* between regulatory objectives (in terms of their relative importance) and the structural form of the regulatory model.

H_1: There *exists a relationship* between regulatory objectives and the structural form of the regulatory model.

The analysis is based on the assumption that the group-specific urge for change, if any, should naturally emerge out of how the current system is perceived. If it is observed that the urge for change is not duly explained by the system-perception, one can proceed to identify the possible reasons for this. It is assumed that the various groups have sufficient knowledge about the system which they are closely associated with.

1.8 Data and research methodology

- The study has been conducted in broad dialectic tradition.
- The required data have been generated by addressing a well-designed questionnaire to a select sample group of 210 respondents who are participants in the financial markets in one way or other – regulators, financial intermediaries and investors (including academics). As such, the study is a cross-sectional perception analysis.
- The sample data have been treated to regression analysis in order to test the hypotheses. Validity and reliability of regression results have been examined in terms of ANOVA and t-test.

The important statistical tools used are as follows:

- Regression Analysis: Linear regression analyses for multiple variables have been used in the study.
- Estimates for Regression coefficient B, standard error of B, standardized coefficient beta, t- values, and significance level of't' are obtained for best values.
- Model fit tests: The variables entered and removed from the regression model are listed, and the following goodness-of-fit statistics are obtained:

  Multiple R, R^2 and adjusted R^2, standard error of the estimate, and an analysis-of-variance.
- Scenario Analysis: Scenario analysis has been used for constructing three alternative scenarios by assigning different weights to the selected variables.
- Perception Index: System Deficiency Perception Index, System Integration Perception Index, System Objectives Perception Index etc. are designed for regression analysis.
- Simple statistical tools like Mean, Standard Deviation, and Variance etc. are used extensively for survey analysis.

Regulatory dialectics

The idea that financial regulatory system is dialectic in nature was introduced by Kane (1977) who developed it further in his subsequent works.[19] Kane's model of regulatory dialectic has since been widely regarded as an insightful explanation of evolution of most regulatory practices, world over. The approach to evolving an appropriate regulatory design for India in the present study is intended to be built basically on the pillars of the dialectic methodology (A description of dialectic methodology has been presented in Annexure – I). We propose to move towards this end in the following manner.

In any country, the financial sector and the legal institutional provisions to govern its growth in accordance with the best interests of the society, at large, evolve over a pretty long period. Most features of the financial regulatory system that we observe around us today are the result of the constant interest-conflicts (action-reaction) and their resolution (synthesis), in the past. A study of the present financial regulatory system, for exploring possibilities of strengthening it and making it more effective, may be expected to be duly enriched by tracing its historical roots. Identification and analysis of the critical issues that lie at the heart of the interest-conflict at any time as well as reconciliation of the ways and means suggested by different quarters (for its resolution) on the basis of their theoretical and empirical reasoning are also important. Towards this end, we are presenting a review of relevant literature (Chapter – II), a brief description of the evolution of the Indian financial sector and its regulation, and emerging trends in the financial structure and their regulatory implications (Chapter – III).

In order to determine the areas of conflict and identify the changes that are needed to be introduced so as to make a synthesis emerge; we have elicited the views of three **sample groups** of participants in the financial regulatory system: the regulators, the regulated institutions, and the protected (consumers of financial products and services). Additionally, we have also solicited the views of academicians who are known for their insightful knowledge of the critical issues pertaining to the functioning of financial markets and their regulators. The necessary information, in this regard, has been gathered through a **questionnaire** (Annexure-II). Besides primary data collected through the questionnaire, the information requirements of the study have also been met by placing reliance on available secondary data.

Sample size

There are severe resource constraints and the practical problems in contacting a relatively large number of respondents and persuading them to spare a part of their precious time for responding to the drudgery and monotony of answering various questions. Therefore, the sample has been purposely restricted to a limited, feasible size. A relatively small sample becomes all the more unavoidable especially when a researcher is to contact the respondents most of whom are holding high positions in financial institutions, regulatory agencies and academics and who are extremely hard-pressed for time, and not easily accessible. Accordingly, the sample size for the purpose of the present study has been restricted to 210 respondents in view of these severe constraints. The sample includes Regulators (35), Financial Intermediaries (75) and Investors and others (100). Due care has been taken, as far as possible, to make the sample representative in terms of inclusion of respondents from diverse fields of financial activity and giving them representation that more or less reflects the position they hold in the financial sector.

Questionnaire

Apparently, the designing of questionnaire is of substantial significance in any study of this kind. Much of the success of the study is contingent upon the amount of care and objectivity that is put in designing the questionnaire. It is of utmost importance that the contents of the questionnaire are **relevant** to the area of enquiry. These must relate to **all aspects of the problem**, as far as possible, without compromising with the scope for analytical depth. The number and contents of the questions should be such as may be expected to induce the respondents to fully cooperate in providing the necessary inputs. And lastly, before tabulating and computing the responses, it is extremely important to ensure their **reliability and**

validity. The possibility of thoughtless, inconsistent and casual attitude of the respondents with regard to some of the issues and questions included in the questionnaire cannot be ruled out, completely. Such stray cases should be detected and dropped. In some of the filled-in questionnaires it was observed that the responses to certain questions were surprisingly mutually contradictory reflecting, perhaps, the indifferent rather contemptuous attitude of the respondents. For instance, even as the indicated response to Q. No. 3 (Do you suggest that the existing multiple sectoral regulators should be integrated to create one or two regulators with cross-sectoral jurisdiction?)implied that the respondent concerned was not inclined to suggest any change in the present sectoral regulatory model, still he/she chose to respond to Q. No. 6 (What are the reasons for your suggesting specifically this form of unification?), and also to Q. No. 7 (What are the underlying reasons or apprehensions for your not favoring the creation of an integrated regulatory body?)1 Fortunately for this researcher, this disappointing phenomenon was experienced in only less than a dozen cases.

Before finalising the size and contents of the questionnaire, it was exposed to a trial exercise. A relatively small, sub-sample group of twenty respondents was requested to react to its practical aspects and relevance to the study. The questionnaire was subsequently revised in the light of the feed -back received from this trial attempt.

Major issues

The following are the major issues, which have been included in the questionnaire for investigation[20]:

A. *Basic issues pertaining to the present state of, and the need for new approach to, financial regulation in India:*

- Features / deficiencies of the existing Indian financial regulatory system
- Objectives of financial regulation and their relative significance
- Arguments for and against the creation of an integrated regulatory body
- Choice between existing multiple-agency regulatory system and an integrated regulatory system
- Desirability of cost-benefit analysis of any proposed regulatory change, and the relevant parameters.

B. *Issues that are relevant only when adoption of an integrated regulatory set-up is regarded desirable:*

- Kind of integration, which is appropriate for the country: partial or full integration.
- Reasons for desirability of an all-pervasive single regulator.
- Form of supervision, which the integrated regulatory body should adopt: institutional supervision or functional supervision.

In case only a partial integration is desirable:

- Scope of the regulatory agency, (banks and securities companies/banks and insurance firms / insurance and securities companies).
- Reasons for partial integration.
- Form of supervision, which the partially integrated regulatory body should adopt: institutional supervision or functional supervision.

C. *Issues that are relevant only when retention of the existing regulatory set-up is considered desirable:*

- Reasons for not favouring the creation of an integrated regulatory body.
- Measures for enabling the existing regulatory agencies to perform their role more effectively.

D. General issues (common to all types of regulatory regimes):

- Basic problems of regulatory reforms – coordination, independence and accountability, quality of regulatory standards and their implementation and enforcement.
- Desirable mix of external, internal regulation and market discipline.
- RBI's place in the regulatory set-up.
- Desirability of regulatory 'bench marking' for ensuring accountability, and the relevant parameters.
- Causes/sources of, and approach to, the problem of regulatory capture.
- Consumer awareness.

Respondents Profile

Experience, maturity and understanding of financial markets fundamentals were key consideration, while identifying the respondents for the study. Due care was taken to include respondents with varied age and experience so as to make the sample group representative of the population, as far as possible. A brief profile of respondents is as follows:

Number of Respondents	:	210
India	:	200 responses (95.24%)
Others	:	10 responses (4.76%) (Foreign Institutional

Investors and Non Resident Indians)

Regulators : 35

Financial Intermediaries : 75

Investors : 100

The age – experience profile of the respondents is specified as follows:

Description	Respondents Numbers	Minimum (Years)	Maximum (Years)	Mean	Standard Deviation
Age	210	26	68	41.24	11.28
Experience	210	1	36	13.25	10.27

1.9 Limitations

A research scholar is severely exposed to certain constraints. He has limited resources in terms of finance and time. The institutional support, though highly significant, is also by and large limited. The responsibilities relating to his family domain are daunting. There are many other problems which most other people, too, encounter in their personal lives. But no problems, how so acute they may be, can deter a person from realising the goal if there is enough motivation and determination. The present study has been completed with a strong zeal to enrich its intellectual and academic content. Despite the best efforts to ensure the normally expected standards of academic accomplishment, some deficiencies are still likely to be there. Such shortcomings apart, this study is subject to the following major limitations:

First, to the extent that some of the conclusions regarding changes in the regulatory system in India are based primarily on the experiences of other countries in the recent past, they may be termed, to some extent, as premature.

Two, in view of the practical problems in including a sufficiently large number of respondents in the sample for eliciting views of the opposing groups regarding deficiencies in the present regulatory system and required changes (in the regulatory system), the study has been based on a somewhat small sample size of 210. But this has been due mainly to compulsions imposed by the nature of the study and the not-so-easy accessibility of the respondents that this study required to contact.

Lastly, the effectiveness of a regulatory system depends not just on whether it is multi-agency type or an integrated one. To a large extent, it depends on the ability of the system to implement and enforce the regulatory provisions without allowing any material scope for avoidance. As this involves issues of mainly legislative and administrative nature, this aspect has not been discussed in the study.

1.10 Plan of the study

The plan of any study in terms of sequential arrangement of its broad components and sub-components is regarded helpful for a systematic and focused analysis of the problem. It is an essential and analytically significant part of the study that needs to be carefully designed. It helps comprehend the treatment of the basic problem. The chapter plan of the present study has been designed so as to encompass the issues, which are critical to the study and relevant to the various stipulated objectives, in an orderly manner. The chapter plan is as follows:

Chapter I presents an introductory view of the various aspects of the study – significance and distinguishing features of financial markets, and the need for their regulation; objectives of financial regulation; and trends and critical issues in financial regulation. **Further, the chapter includes a comprehensive research design incorporating the rationale and scope of study, research objectives and hypothesis, sources of data and research methodology.**

Finally, the chapter concludes with limitations and chapter plan of the study.

A brief survey of literature relevant to the study has been included in **Chapter II.**

Chapter III has been assigned to the discussion of importance and objectives of financial regulation; arguments for and against integrated regulation; and experiences of various countries that have adopted integrated regulatory structures. Evolution and present status of Indian financial sector; emerging trends and their implications for financial regulation have also been presented in this chapter.

Chapter IV and Chapter V constitutes the core of the study. **Chapter IV** presents a cross-sectional perception analysis of the financial regulatory system in India. This chapter is largely based on presentation and interpretation of the feed-back received from the respondents. **Chapter V,** using the sample data, attempts to 'predict' the broad structural form of the Indian financial regulatory model which may be expected to emerge as a natural consequence of interaction of diverse forces operating in the system. The prediction is based on regression analysis of the sample data, and rationalization and reconciliation of seemingly inconsistent or contradictory perceptions of various groups.

Summary, conclusions and suggestions are presented in **Chapter VI.**

Conclusion

To summmarise, the existence and growth of financial markets is very essential for the growth of any economy. Financial markets differ from other markets in many vital respects. Distortions in the functioning of these markets, if unchecked in

time, may sooner or later spell doom for the whole economy. In recent times, the financial sector in most countries around the world has undergone major changes. Deregulation, liberalisation, technological and financial innovation, emergence of financial conglomerates, gradual disappearance of traditional frontiers separating banking, securities and insurance domains from each other, growing competitive conditions, mergers, etc. are the predominant features of financial markets in most countries, today. The need for an effective financial regulatory system is today greater than ever before, in particular, to prevent any major financial crisis of the kind which was witnessed in the East Asian and Latin American countries in the recent past. The need for restructuring in the sphere of financial regulation has been widely recognised. A debate is already under-way as regards the nature of changes that are desirable. Some countries are adopting fully integrated, single regulatory agency system while others are opting for partly integrated, or multiple regulatory agencies system. The effectiveness of these models is yet to be established. But the fact remains that no model how so elegantly it may have been designed is necessarily the right path for all countries to tread upon. The specific circumstances of a country and its experiences with various regulatory initiatives in the past together with cognizance of relevant critical issues play a crucial role in the designing of an effective regulatory model. The issue of desirability of a shift in the regulatory structure is proposed to be analysed using the broad dialectic analytic frame. The analysis is to be based on the perceptions of a sample group of regulators, financial intermediaries and investors regarding deficiencies in the present regulatory set-up and the need for a change in the same. In order to ascertain whether the desirability of change can be attributed to deficiencies in the regulatory system in any significant way, the regression analysis of the sample data is to be the major basis of research methodology.

Notes

1. Some analysts distinguish between regulation, monitoring and supervision of the financial sector. Regulation is interpreted to imply the establishment of specific rules of behaviour. Monitoring is said to mean observing whether financial institutions comply with the specified, relevant rules. And, supervision is believed to refer to the more general oversight of the behaviour of these institutions. Since these terms relate ultimately to disciplining the financial institutions to make them conform to prescribed procedures and objectives, the distinction between them actually implies various inter-related aspects of the disciplining mechanism, and it is quite important in this way. However, in the present study, the term 'regulation' has been employed usually to refer to 'regulation and supervision,' and even 'monitoring', until required otherwise by the specific context.

2. Asymmetric information refers to a situation in which one party to a financial contract has much less accurate information than the other party. For instance, borrowers who take out loans usually have much better information about the potential returns and risk associated with the investment projects they plan to undertake as compared to the lenders.

3. The problem of adverse selection occurs before the transaction actually takes place because lower quality borrowers with higher credit risk are the ones who are most likely to take out a loan or pay the highest interest rate. *Thus, the parties who are the most likely to produce an undesirable (adverse) outcome are most likely to be selected.* Since adverse selection makes it more likely that loans might be made to bad credit risks, lenders may decide not to make any loans even though there exist good credit risk possibilities in the market. This outcome is a feature of the classic "lemons problem" analysis first described by Akerlof (1970). Clearly, for minimising the adverse selection problem, the lenders must have the ability to distinguish between good and bad credit risks.

4. Moral hazard problem arises after the transaction takes place because the lender is subjected to the hazard that the borrower has incentives to engage in activities that are undesirable from the lender's point of view (For instance, these may be the high-risk activities. Apparently, in this case if the project succeeds the borrower benefits a lot. But in the opposite case, the lender bears most of the loss as a result of the failure of the project). Asymmetric information is not the only source of moral hazard problem. Moral hazard can also occur as a result of high enforcement real costs which might make it too costly for the lender to prevent moral hazard even when the lender is fully informed about borrower's activities. The borrower at one stage or the other may believe that there is no need to service the debt because the courts will procrastinate the matter.

5. Martinez and Rose (2003, p. 10).

6. According to RBI (2004, p. 4), a group may be designated as a financial conglomerate if any group entity coming under the jurisdiction of specified regulators has a significant presence in the respective financial market segment, and the group is having operations in at least one more financial market segment. In India there are only four financial conglomerates having operations in all the three segments (banking, insurance and securities), namely, SBI, ICICI, HDFC and IDBI. There are seven other financial conglomerates, which are having operations in only two segments. These are LIC, GIC, UTI, BOB, PNB, BOI and Indian Bank.

7. In the regulatory dialectic theory of Kane (1981), financial services are believed to be supplied jointly by financial institutions and their regulators. The underlying argument is as follows. The regulators attempt to impose restrictions on the financial institutions as regards what they should do and what they should not in respect of interest rate, capital requirement, product, geographical area of operation, etc. The regulatees, who tend to be driven by profit maximisation or some other motives see these restrictions as implicit taxes on their profits or cuts into their sales and market shares. Accordingly, they attempt to circumvent these restrictions by introducing innovative changes in the products and services and diverting resource to less regulated areas of business. For instance, the emergence and

growth of derivatives and card-based products, to a very large extent, is the result of the regulatory dialectic. Significantly, in this theory the customer is believed to focus his or her choice for financial services not only on the supplier of financial services but also on the cost and quality of the supervisory and safety net services provided by the regulator.

8. A number of bank scams and security market scams surfaced in the post-financial liberalization phase since the early nineties – the 1992-securities scam with Harshad Mehta at the centre-stage, the 2001-Unit Trust of India (UTI) scam and around the same time the co-operative banks scam, and lastly, the 2004- Global Trust Bank (GTB) scam, with the rogue-bull broker, Ketan Parekh ,as the main culprit in most of them. In connivance with the officials of these banks and financial institutions, the money of depositors and investors running into thousand millions of rupees was squandered by way of ensuring its diversion to the security market where these brokers had acquired the audacity of rigging security prices to unprecedented heights, at will, and exiting the market at convenience. The gullible depositors and investors were left high and dry, in the process. In this financial market mayhem, the sufferer were invariably the hapless depositors. Describing their plight subsequent to unearthing of these scams, Chanrasekhar (2004) observes, these "hapless depositors in 'new-generation' Global Trust Bank (GTB) discovered from the tickers at the bottom of their television screens that their money was no longer their own – at least for the next three months. The RBI had put a moratorium on withdrawals by depositors and on lending by a bank which in any case had no own funds to base its lending on. What followed was chaos – at the premises of the bank, at its ATMs and at the offices of those who were thought to be responsible and could offer a solution".

9. This is an important aspect of financial conglomerates. Financial difficulties in one subsidiary in a segment can have contagion or reputation effects on another subsidiary in a different segment on account of the 'holding-out' phenomenon, especially when using the same brand name. If these entities can expect support when needed, a moral hazard problem may also arise, as they could be tempted to take on more risk than they would have done, otherwise. These possible contagion effects and cross-segment moral hazards constitute a significant basis for regulatory intervention at the consolidated level of a financial conglomerate.

10. International forums, such as the Joint Forum on Financial Conglomerates (simply known as Joint Forum) and the Financial Stability Forum are playing a commendable role in promoting international cooperation and coordination in dealing with some of the basic issues of financial regulation and supervision in the present complex financial market scenario. The Joint Forum was established in 1996 under the aegis of the Basel Committee On Banking Supervision (simply known as Basel Committee), the International Organisation of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS).

11. Systemic stability has always been an integral concern of central banks, more so, since the last decade or so. When a country's banking system suffers a systemic run, or when insolvent banks are allowed to remain open without any overt run, the adverse impact on the economy may be quite disastrous. In the case of widespread bank insolvency, even without a run, the credit system typically grinds to a halt and unprofitable firms are usually able to roll over their loans resulting in paucity of funds for worthwhile investment projects and inefficient allocation of capital. In the case of widespread bank runs both the payments and credit systems collapse, with the economy turning practically to barter state. Standards of living plummet further.

12. Posner (1974) has presented empirical evidence to support the belief that regulation has socially undesirable effects which benefits groups that are in a position to influence the enactment of regulatory legislation. In order to restrict these effects of regulation, some precautions need to be observed. It should be ensured that right persons are appointed on regulatory positions that operate strictly under the specified rules and code of conduct. Firstly, in the absence of effective checks, the regulators may become a law unto themselves. This should not be allowed to happen. Haldea (2004) suggests the need for

regulating the regulators in terms of an overarching law. Secondly, in appointments, political clout plays a major role, perhaps, more than any other thing else. It is not surprising to observe merit, efficiency and integrity being pushed to the back seat even in selections for higher positions. Even where deserving persons are appointed, sooner or later they are forced into compromise either under political pressures or 'irresistible temptations.' It is a fact that the salaries and perks are disproportionately low in comparison to the onerous responsibilities and the career options in the private sector. Abuse of power, neglect of public interest and regulatory capture cannot be overruled under these conditions. Kane (2002), and Glaeser and Schleifer (2003) suggest a rise in regulators' salaries and an incentive-based deferred compensation system to attract and retain competent persons. Kane suggests the creation of a forfeitable fund together with guidelines for measuring and rewarding the performance on long-term basis. This may be expected to reduce corruptibility and enhance accountability. On various aspects of the debate relating to the justification for financial regulation, see Hantke-Domas (2003), Zingales (2004), Glaeser and Schleifer (2003), and Williamson (1988).

13. Even today, the core principles of international organisations, such as Basel Committee, International Association of Insurance Supervisors (IAIS), and International Organisation of Securities Commissioners (IOSCO) encourage the member countries to associate and make appropriate use of Self-Regulatory Organisations (SROs) in the regulatory process. The SROs are expected to exercise some direct oversight responsibility for their respective areas of competence and to the extent appropriate to the size and complexity of the markets. The SROs, in turn, are expected to be subject to the oversight of the regulator and observe standards of fairness and confidentiality when exercising powers and delegated responsibilities.

14. Sisodia (2004), and Diamond and Dybvig (1983).

15. Many alternative models exist. These can be made to work effectively and efficiently under certain preconditions. There are some important questions in the choice and design of a regulatory model. In particular, a careful examination of the current regulatory structure in relation to the country's financial system structure, size and relative significance of its segments as well as country's own experience of regulatory approach in the past is perhaps the most important factor.

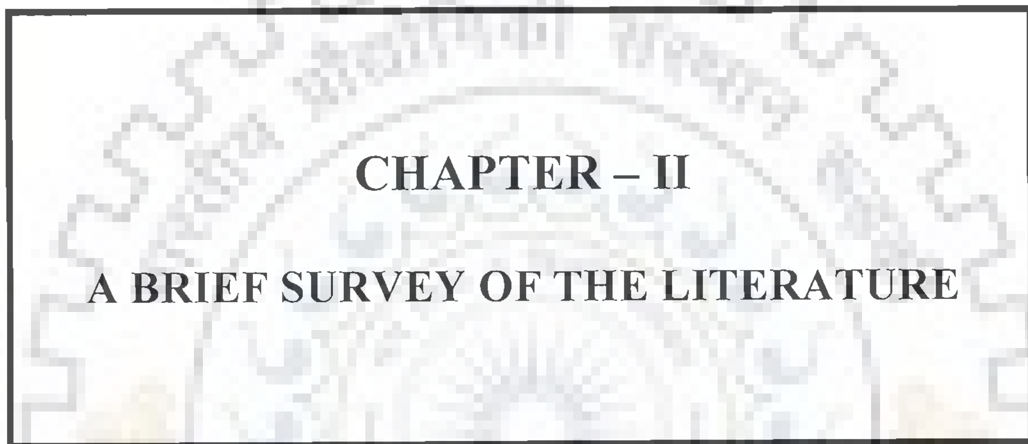
16. Developing competitive, strong and dynamic financial institutions is very important for ensuring their effective role in supporting the growth process. The liberalisation of financial markets has exposed them to competitive pressures, which has induced a switch from *ex ante* to *ex post* regulation. With the opening of financial markets there is now more scope for failures and scams. On competition in financial markets and its various aspects, see Davies (2004), and Allen and Gale (1995).

17. For instance, regulatory intervention may call for some pre-emptive actions to prevent potential financial instability even when such policy actions might not be fully justified by the current outlook for inflation and output.

18. In this regard, observation of Davies (2000) places the role of central bank in a perspective that is of substantial relevance to India: "in countries where the central bank is well established as an independent institution, and where the interplay between the banking system and the government's finances, perhaps because of state ownership, or state run programmes of lending, is close, then one can see a stronger argument for central bank involvement in banking supervision."

19. On this, see Kane (1981, 1986, 1989, and 1996).

20. Martinez and Rose (2003) in their international survey of integrated financial sector supervision have employed a questionnaire which identifies important areas of investigation for assessing the desirability of integrated supervision and the practical problems to be encountered in its implementation.



CHAPTER – II

A BRIEF SURVEY OF THE LITERATURE

Preview

This chapter presents a detailed review of literature on financial regulation and related issues. For ensuring and maintaining financial stability and facilitating steady growth of financial markets, regulatory reforms need to be initiated and implemented on a priority basis. International financial institutions are more vigorously involved today in persuading countries to adopt and implement appropriate regulatory reforms. There is a growing interest of researchers in universities and other research bodies in undertaking studies on various aspects of regulatory reforms. The thrust of research in this regard during the last decade or so, has been mainly in the direction of issues , such as, problems and regulatory challenges of financial modernisation; approaches to effective and optimal regulation; importance and main issues of prudential supervision; and role of central bank and the government in financial regulation.

Introduction

The last two decades of the twentieth century repeatedly witnessed the unsavory phenomenon of bank failures and stock market scams in some of the advanced and emerging economies. There was a wide-spread concern in these and other countries as regards the huge costs which their economies had to suffer.[1] Attention was focused on the need to determine the causes and consequences of the financial crises, mostly bank failures, and prevent their occurrence in future. Almost every where a process of financial reforms began. At the heart of these reforms was the realisation of the need for introducing changes in the existing financial regulatory structures and standards. Apparently, this was due to the fact that in all the countries ranging from the United States and Japan, to Korea and Mexico, to Chile and Thailand, to India and Russia, and to Ghana and Hungary the blame for financial crises was being attributed at least partly to deficiencies in their regulatory and supervisory systems.

It is widely believed today that in most countries there is a substantial scope for significant improvements in their financial systems. Inappropriate regulations and supervisory standards accentuate the possibility of a financial crisis and hamper the growth process. For ensuring and maintaining financial instability and facilitating the smooth conduct of growth process, regulatory reforms need to be initiated and implemented on a priority basis. International financial institutions[2] are more vigorously involved today in persuading countries to adopt and sincerely implement appropriate regulatory reforms. There is a growing interest of the researchers in universities and other research bodies in undertaking studies on various aspects of regulatory reforms. An attempt has been made in this chapter to identify the main issues which constitute the thrust of research in this area during the last decade or so,

and present a brief review of the relevant literature in this regard. The issues have been identified as follows:

- Requirements for effectiveness of financial regulation and supervision (theoretical and practical aspects of various regulatory regimes, accountability and independence of regulators, coordination and information sharing, etc.). In this category we may mention studies, for instance, by Taylor and Fleming (1999), Llewellyn (2000[b]), Vives (2001), Reddy (2001), Kahn and Santos (2001), Quintyn and Taylor (2002), Litan, et al (2002), Ferran (2002), Sharma (2003), Martinez and Rose (2003), Chami, et al (2003), Masciandaro (2004), Foot (2004), Goyal (2004) and Hupkes, et al (2005).

- Problems of financial regulation (regulatory arbitrage, principal-agent problem, regulatory forbearance, excessive reliance on external monitors, controversy regarding role assignment of central bank and the government. Among studies belonging to various aspects of these problems, one may include, for instance, Ferguson JR. (2000), La Porta, et al (2002), Chung (2002), Bhattacharya and Patel (2004), and Hoshi and Ito (2004).

- Regulatory challenges of financial modernisation (emergence of multi-national financial institutions and financial conglomerates, increasing cross-border financial interdependence, E-commerce, etc.). Herring (1994), Santomero (1996), Furlong and Kwan (2000), Currie (2002), Walter (2002), Callum (2004), IMF Study

(2004), RBI (2004), and Khan and Jain (2004) are some of the studies that may broadly be included in this category.

- Importance and main issues of prudential supervision (consumer/investor protection, systemic stability, capital structure and adequacy, information disclosure and transparency, auditor independence). Benston (2000), Mishkin (2000), Shirai (2001), Bergo (2002), Fearnley, et al (2002), Summer (2003), Jadhav (2003), Hyytinen and Takalo (2003), Borio (2003), Pandey (2004), Rochet (2004), Oosterloo and Haan (2004), Bolt and Tieman (2004), Gale (2004), and Malkonen (2004) may be regarded as belonging mainly to this area of enquiry.

- Optimal regulation (balance between external and internal monitors and market discipline; costs and benefits of regulation). Studies falling in this area include, for instance, White (1998), Herring and Santomero (1999), Llewellyn (2000[a]), Allen and Herring (2001), Guidotti, et al (2004), and Zingales (2004).

- Miscellaneous issues, such as, lessons from financial crises in the recent past, interaction between regulation and competition, implications of cross-border financial inter-dependence, financial infrastructure and economic development, asymmetric information). Among the studies more or less covering these issues may be listed Allen and Gale (1998), Boot, et al (2000), Samuel (2000), Bryant (2001), Ergungor (2003), Caprio, et al (2005), Calzolari and Loranth (2005), Stodder (2006).

2.1 Effectiveness of financial regulation and supervision

Taylor and Fleming (1999) analyse the experiences of three Scandinavian countries that have practiced integrated supervision for the past 10 years. It focuses mainly on three policy related issues associated with the integrated model: (a) Under what conditions should or should not a country consider moving towards an integrated model of financial supervision? (b) How should an integrated agency be structured, organised and managed? (c) How should the integration process be implemented? As regards the first question, the authors argue that for a small transition or developing economy, or an economy with a small financial sector, the economies of scale from establishing an integrated agency outweigh the costs of moving to such a model. A strong case can be made for an integrated approach also for an economy whose financial sector is dominated by banks, with little role for capital markets or a highly integrated financial sector. Anyway, the decision to move to an integrated agency must be carefully taken in the context of the country concerned. About the second question, the authors' view is that there is no single obviously correct organisational structure. An institutional based structure has the virtue of simplicity and can be implemented fairly quickly. But it tends to preserve the cultures and identities of the predecessor agencies more than optimal. Whatever the structure, the authors believe, integrated supervision requires active management to secure the potential benefits that this approach offers. Lastly, as regards the implementation of the integration process, the authors consider it a difficult task, which must be sensitively accomplished. Implementation should proceed as quickly as possible. A well conceived "change management" process should aim to overcome the cultural barriers associated with the previous fragmented structure.

A strong case has been built for financial Regulatory Independence by some studies, for instance, **Calomris and Litan (2000) and Hayward (2002).** These studies strongly emphasize the national regulators and supervisors to instantly respond to rapidly changing global conditions and trends and thereby, justifying the greater degree of regulatory autonomy.

Llewellyn (2000[b]) provides a perspective on the UK's experience of regulation from the insider's and outsider's viewpoints. The paper emphasises the fact that there are distinct limits to what regulation and supervision can achieve in practice. In this respect, the paper specifies some essential requirements for the effectiveness of regulation. First, external regulation and supervision by official agencies alone can not be effective. The financial institutions also have to realise their responsibility in this regard. They must ensure a robust and effective internal supervision system so as to duly complement external supervision. Second, public policy should never eliminate the incentive for consumers of financial services to exercise due care. Consumers need to be clear about the limitations of regulation. Third, good, timely, and relevant information about the business of financial institutions is necessary for enabling the other external monitors – shareholders, customers, rating agencies, other financial firms, and auditors - to complement the work of supervisory agencies.

Vives (2001) examines the present regulatory arrangements in the European Monetary Union and finds them inadequate from the point of view of fostering financial stability and integration in the region. The author suggests that the financial regulation reforms should concentrate on: (a) establishing clear procedures for crisis lending and management, with the European Central Bank at the centre; (b) preparing the ground for more centralised supervisory arrangements in banking, insurance and

securities; and (c) establishing and consolidating an active domestic and European Union wide competition policy that limits local market power and national champions that are too big to fall.

Reddy (2001) examines the issues relevant to making a choice between single and multiple regulators. It is asserted that the subject needs to be viewed as country-specific. The choice should not be determined as a matter of "doing something" to meet the pressing demands. Rather than limiting the choice between the extremes of simple and multiple regulators, the various hybrid possibilities and supplementing arrangements should also be duly considered. The issues of information-sharing are inevitable and of paramount importance, whatever the regulatory design.

Kahn and Santos (2001) discuss the problem of allocating the bank regulatory powers. They argue that bank regulation in most countries includes lender of last resort, deposit insurance and supervision, which are interrelated and therefore require coordination among the authorities responsible for them. These authorities are often established with different mandates, some of which are likely to be in conflict. The authors consider this issue by studying the optimal institutional allocation of such functions. They are of the view that a single regulator is likely to lead to insufficient bank monitoring and sub-optimal bank investment in loans. It may also lead to too much forbearance. In this regard, authors suggest alternative structures to deal with the problem effectively. Finally, the paper, examining the asymmetry of information between regulators, asserts that the regulators may have an incentive not to share gathered information.

Issues relating to Central banks independence and accountability have been analysed and highlighted by several studies, such as, **Fischer (1994); Briault et al (1996); Eijffinger et al (2000); Lybek (1998); and Amtenbrink (1999).** These

studies provide an excellent overview of central bank's accountability as the latter assumes greater monetary and regulatory independence.

Jackson and Scott (2002) suggests that instead of the current sub-division into banking, securities, and insurance supervision within a conglomerate structure, supervisors could apply a single unified set of supervisory approaches for all conglomerates independent of the underlying corporate structure. Authors emphasize that this would limit regulatory arbitrage and risk-shifting, and ensure a more level playing field between conglomerates on an international basis.

Quintyn and Taylor (2002) address the issue of financial sector regulatory and supervisory independence (RSI) which the authors believe has received only marginal attention in literature and practice. The authors point out that improper supervisory arrangements have in practice contributed significantly to the deepening of several recent systemic banking crises. It is argued that RSI is important for financial stability for the same reasons that central bank independence is important for monetary stability. The paper lays down four key dimensions of RSI – regulatory, supervisory, institutional and budgetary – and discusses ways to achieve the same. The institutional arrangements necessary for making independence work in practice are also discussed in the paper. The key issue in this respect is that agency independence and accountability need to go hand in hand. Lastly, the paper discusses a number of accountability arrangements.

Litan, et al (2002) take a clinical approach to financial governance challenges in emerging and developed markets in each industry: capital markets, private banks, state owned banks, asset management companies, public pension funds, and mutual funds. It also explores linkages between public and private governance, and the policy implications for strengthening both sides. It emphasises the need for building

accountable and efficient financial institutions. It is a challenging task which financial sector executives and policymakers confront together.

Ferran (2002) deals with an important issue of financial regulation that has in recent years attracted attention of policymakers and academicians, namely, growing trend towards unification of regulatory responsibility. As the first major international financial centre to adopt the single regulator model, the UK changes have attracted international attention. This paper without making any claim for the superiority of the single regulator model looks at what other countries may learn from the UK's experience of adopting that structure. Unlike some other countries, which have a single regulatory agency but separate sectorily-divided legal regimes, the UK has sought to match the unitary nature of its institutional arrangements for financial regulation with an integrated legal framework. The paper examines some of the theoretical arguments about the suitability, efficiency, effectiveness and accountability of the single regulator model against the background of recent UK experience and considers the likely robustness of its ambitious tailor-made legislative framework that was designed to help secure potential benefits, and avoid potential drawbacks, presented by the single regulator model.

Kremers (2003) examines the regulatory structures, and comments critically on various regulatory models across the world. This paper draws the conclusion that there is no uniform best model of financial regulation and that each model should be viewed in context of its suitability for the particular financial market and economy. The author introduce a new framework for comparing cross border regulatory models and apply it to the functional model of the Netherlands and the integrated model of the United Kingdom.

Sharma (2003) considers arguments for and against creation of an integrated regulator for the financial sector in India. He also explores other alternatives for increasing coordination, cooperation and information sharing amongst the regulators. It is argued that in India banks are not significant players in the security markets, therefore the case for a unified regulatory structure is not much strong. Moreover, the predominance of financial conglomerates does not exist in all financial sectors. This also does not warrant the need for an integrated regulator. For ensuring coordination and cooperation amongst the regulators to promote systemic stability, he regards the lead regulator model or MOU approach as the possible alternatives, which the country may consider and opt for.

Martinez and Rose (2003) present results of an international survey of 15 countries that have adopted integrated financial sector supervision. This paper serves very well to enhance our understanding of the empirical aspects of the usefulness of integrated financial supervision and the practical problems associated with the same. Despite the intense debate on the advantages and disadvantages of adopting integrated supervision that has taken place in recent years, little is known about the experiences of countries that have adopted it and the obstacles and challenges they have faced to implement it. After a brief review of the literature on integrated supervision, this paper examines four topics: (i) The reasons why these countries have established integrated supervisory agency, (ii) the scope of regulatory and supervisory powers of these agencies, (iii) the progress of these agencies in harmonising their regulatory and supervisory practices across the financial intermediaries they supervise, and (iv) the practical problems faced by these countries in adopting integrated supervision.

Chami, et al (2003) provide an overview of the profound and rapid changes in banking brought about by technology and deregulation, and discuss the hurdles that

have to be negotiated for putting in place the three pillars – capital adequacy rules, supervision, and market discipline – of the bank regulatory framework specified by Basel II. The paper argues that, especially for developing countries, finding the right balance between regulation, supervision and market discipline is likely to be difficult. The paper suggests that considerable technical expertise as well as political discipline – which can be viewed as fourth pillar –are necessary for implementing Basel II.

Hoshi and Ito (2004) argue that combining planning with supervision had an adverse effect on quality of financial supervision. This study draws attention towards the more general issue that institutional design of regulatory institutions, including central bank design, plays an important role in the policy outcomes of government financial and monetary regulation of the economy.

Masciandaro (2004) analyses worldwide trends in financial supervision architectures. It focuses on the key issue in the debate – the single supervisor versus multi-authority model – in order to build up indices of supervision unification which facilitate studies on the causes and effects of various supervisory regimes. First, the paper introduces a Financial Authorities' Concentration (FAC) Index. A comparative analysis of 69 countries confirms an increase in the degree of concentration of supervisory powers in the developed countries, and particularly in the European Union. Secondly, the paper considers the nature of the institutions to which the control responsibilities are entrusted. In particular, the role the central bank plays in the various national institutional settings is examined. An index of the central bank's involvement in financial supervision is introduced, the Central Bank as Financial Authority (CBFA) Index. On the basis of the characteristics as implicit in these two indices national financial structures can be classified under various regulatory regimes. The author regards the following two models most frequent: a) countries

with a high level of unification of powers and weak central bank involvement (single financial authority regimes), and b) countries with a low level of unification of powers and strong central bank involvement (central bank dominated multiple supervisor regimes). A trade-off therefore emerges between the degree of financial sector unification and the role of the central bank.

Foot (2004) identifies the main external and internal challenges that the Financial Services Authority faced and explains how management sought to articulate and then deliver a new regulatory culture and language. This paper is, in fact, based on author's experiences at FSA as one of its initial managing directors. He notes the continuing consumer unhappiness with many aspects of the financial services they buy and emphasises the need for greatly improving the current woeful level of financial understanding in the UK. Public awareness and education campaigns are necessary before the large majority of consumers can sensibly fend for themselves when buying more complex financial products. There is the need for providing key information on personal investment and mortgage products at the relevant point in the sales process. 'After sales service' in respect of long-term products such as life insurance must be ensured for fair treatment of the customers. In this paper, the author also mentions the factors, which facilitated the smooth transition of eight different organisations into the new body (FSA) on one day (1st June, 1998). In the regard, he mentions the general acceptance of the irrelevance of traditional product barriers by these organisations, the proper timing of the transition, and the fund of good will that the FSA enjoyed in its initial 2-3 years by encouraging the spirit of give and take, as the crucial factors.

Goyal (2004) has examined the functioning of the reformed Indian regulatory structure in the context of the basic principles of regulation, regulatory requirements of capital markets, and the features of Indian markets.

Diplock (2005) has focused on the diversity of regulatory issues facing the global financial sector in general and securities and banking sector in particular. He has raised the concerns about the relevance of "mega regulator" for entire financial sector and "interlocking system" of regulations to tackle the complexities of prudential and market conduct regulations.

Hupkes, et al (2005) examine the accountability aspect of financial sector supervision. It is asserted that policy makers' uneasiness about granting independence to financial sector regulators is due largely to their lack of familiarity with, and elusiveness of, the concept of accountability. The paper gives operational content to accountability and argues that it is possible to do so in a way that encourages and supports agency independence. The authors first elaborate on the role and purpose of accountability and thereafter they show that the unique features of financial sector supervision point to a more complex system of accountability arrangements than, for instance, the conduct of monetary policy. Finally, the specific arrangements that can best secure the objectives of accountability and, thus, independence are discussed.

2.2 Problems of financial regulation

Ferguson JR. (2000) examines the alternative approaches to financial supervision and regulation and argues that the central bank should be involved in the prudential supervisory and regulatory process for financial organisations that contain a bank. He refers to various arguments that are often advanced for taking central banks out of the supervisory and regulatory process and contradicts each one of them.

The basic thrust of the paper is to emphasise two points. First, in the world of financial modernisation, regulation from both markets and authorities has an important role to play. It is very necessary that the significance of market-generated regulation and transparency, which is a part of that regulation, is not undermined. Together with this, continuing on-site and off-site supervision is also important. Second, in the financial modernisation scenario, the structure of the regulatory authorities is also important. Central banks have earned a place and need a place as regulators of banking-related entities that are progressing fast. If this is not ensured, there is a strong possibility of banking crises leading to macro-instability.

La Porta, et al (2002) document the continuation of a large and pervasive government ownership of banks in various countries. On the basis of their sample study of 92 countries, the authors point out that in these countries, on average, 42 percent of the equity of the 10 largest banks was owned by the government in 1995 as against 59 percent in 1970. While there has been a decline in this share due to the transition to a market economy in many countries, it still remains sizeable.

Chung (2002) analyses the role of central banks in currency crisis with special reference to Korea's experience in recovering from the currency crisis. For an effective handling of the financial crisis, the author believes, it is very important to identify accurately its causes. Once this is done, we have the upper hand and we can also derive useful lessons for preventing a crisis in future. In the case of Korea, the author observes, an earlier recognition of the structural fragility of the Korean economy would have permitted a timely correction so as to ward off the country's financial crisis, It is further argued that if appropriate macro-economic and exchange rate policies had been promptly adopted as a response to the deterioration of the current account in the mid-1990s, a currency crisis might still have been avoided. As

regards the central bank's role in currency crisis, the author observes, much depends on whether the central bank possesses the powers and functions necessary for attaining financial stability. Although the Bank of Korea greatly contributed to resolving the banking crisis through flexible monetary policy and its role as lender of last resort, it could not play a leading role because it was stripped of its supervisory powers shortly after the outbreak of the crisis.

McDonald and Keasey (2002) have emphasized the changing role of banks in the face of technological advancements, competition from non banking sector and a central European Bank and the corresponding regulatory challenge emerging as a result of these developments.

Analysing the outcomes of the reform strategies in the Indian financial sector initiated during the decade of nineties, **Bhattacharya and Patel (2004)** argue that although many improvements have taken place, the scope of many of these reforms has been narrow and predominantly mechanistic leading to outcomes that have not been as far-reaching as required. The authors observe that while the financial sector is more robust than at the beginning of reforms, it is still susceptible to inefficiencies engendered *inter alia* by the blunted incentives associated with the public sector involvement in the financial sector, institutional rigidities and regulatory forbearance[3]

Hoshi and Ito (2004) provide a review of the Financial Services Agency (FSA) of Japan since its establishment in 1998 (as the Financial Supervisory Agency). During this period, the FSA faced the challenge of addressing severe insolvency problem in banking as well as life insurance industries. The authors argue that the initial separation of the supervisory role (in the Financial Supervisory Agency and the Financial Reconstruction Commission) and the policy planning role (in the Ministry of Finance) was useful. It allowed the FSA to have a firm stance on the insolvency

problem that was partially created by the failure of the past financial regulatory policy. Even after the creation of the FSA, the Bank of Japan remained as another bank supervisor. This seems to have made the central bank reluctant in relaxing monetary policy out of the fear that such loose monetary policy would actually discourage re-organisation of the banking industry. This suggests a problem of having the central bank as a bank supervisor. For the life insurance companies, the FSA (both old and new) has not been successful in initiating timely actions for prevention of the failures. Finally, the authors also point out the important role of the leadership at the FSA that shapes the financial regulation. They also refer to the problem of appointing a politician to this role.

2.3 Regulatory challenges of financial modernisation

Herring (1994) discusses how technological advance – dramatic reductions in transportation, telecommunications and computation costs – are creating an increasingly integrated financial market that ignores national boundaries. The paper first examines the effect of these technological advances on users of financial services and their regulators and then it documents the increasing volume of international financial transactions and evaluates the extent to which financial prices are integrated across countries. Finally, the paper highlights the risks that are the consequence of increasing international financial integration and pose a challenge to the managers of financial institutions and regulators.

Santomero (1996) examines the issue of regulatory and public policy for effective financial intermediation in post-socialist economies. The author observes that the advent of market economy in these economies has led to dramatic changes in their financial sector, and the behaviour of banking institutions. These firms must

convert from de facto government agencies to credit evaluators, borrower monitors, and loan collectors. To perform these functions, substantial change has begun to transform the accounting, legal and property / bankruptcy laws in these economies. The author emphasises that an equal change needs to occur in the regulation of financial institutions. Financial system reforms must include a set of functions, procedures, and controls, which collectively are referred to as a safety net for the system as a whole.

Walker (1998) suggests lead regulator model in case of financial conglomerates with a clear and definite mandate to lead international supervisory and regulatory efforts. This in fact justifies the ground for integrated regulatory model for financial sector.

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Furlong and Kwan (2000) present an overview of the issues raised by different authors (for instance, Flannery; Kane; Hoshi; Boot, Dezelan and Milbourn; Pennacchi; and Wall and Eisenbeis) in relation to the dynamics of financial modernisation and regulation. These issues are as follows: (1) Forces behind financial modernisation, including advances in technology and information processing and product and market innovations. (2) Role of market discipline in effectively meeting the challenges posed by financial modernisation. (3) Systemic risk management strategies. (4) Nature of corporate structure for banks for carrying non-bank financial activities (whether in bank subsidiary or in bank holding company affiliates). (5) Approaches to pricing of deposit insurance. The authors present some useful conclusions. They assert that forces for financial modernisation can originate from the external environment, such as advances in information technology, or from the internal system, as a result of regulatory dialectic.[4] Regardless of the source, financial modernisation is leading to larger, more complex financial organisations that are

rendering the existing regulatory and supervisory structures inappropriate. Financial modernisation poses challenges to policy makers for striking a balance among various regulatory goals. While policy makers must update their tools to cope with the changes, the huge demand for regulatory resources and constant market innovations are quite likely to limit their responses to the rapidly changing environment. Realising this, the policy makers are already looking to close the gap by tapping the potential of market discipline as a complementary strand to financial regulation and supervision.

Currie (2002) discusses some relevant issues – technical, taxational and institutional - posed by e-commerce, and their regulatory implications, in particular. The effect of this technological innovation, is examined in the light of various theories of regulation and innovation (Silber's "linear Programming", Kane's "Hegelian Dialectic " and "Regulatory Explanation" of Greenbaum and Haywood) that postulate a struggle process between attempts to control innovation (through regulation) and circumvent the same (through further innovation) and further regulation, and so on. To understand how regulation of e-commerce may be counterproductive, the author uses a case study of the evolution of derivatives to test a hypothesis concerning social and avoidance costs. A comparative case study of regulation of e-commerce is then examined to suggest a policy approach of a private sector solution within a public policy matrix similar to private deposit insurance.

Jackson and Scott (2002) attempt to identify major considerations in, and approaches to, the supervision of financial conglomerates. The study examines the approaches to conglomerate supervision in the United States, European Union, and United Kingdom and finally draws preliminary conclusions about emerging international trends in the supervision of financial conglomerates.

Walter (2002) discusses the effect of cross border financial integration over the regulatory structures of financial market. The author argues that balancing financial efficiency against markets stability and fairness is a difficult task in the financial market reconfiguration scenario. Instances of, over regulation and under regulation of financial markets leads to problems of rising opportunity costs and systemic crisis respectively. Even an optimum dose of financial regulation is likely to produce the risks of moral hazard and adverse selection. Author examines the various linkages between structural changes in financial intermediation and regulatory functions in context of European and US financial markets and concludes that small regulatory changes can significantly alter the economics of financial intermediation and structure of financial market.

Callum (2004) has dealt with the issue of regulation of international financial conglomerates and suitable regulatory model. He emphasizes that the role of home and host country regulator assume particular significance in case of international financial companies and there is still a host of issues to be settled among various host and home country regulators regarding regulatory roles, jurisdictions and powers.

IMF Study (2004) discusses various issues such as trends in the financial system structure of various countries/regions and their implications, levels of observance of regulatory standards and ongoing work toward strengthening financial regulation. Increased conglomeration and risk transfer, significant and growing internationalisation of the financial sectors, substantial increase in the domestic use of foreign currency (mostly the US dollar) in many developing and emerging economies, weaknesses in the regulatory infrastructures and substantial government ownership not only in banking, but also in the areas of insurance, contractual savings and

investment schemes have been identified in this paper as the important trends in the financial system structures around the world.

RBI (2004) focuses on financial stability aspects of the emergence of financial conglomerates in India as well as the need for evolving a suitable regulatory framework for monitoring the identified financial conglomerates. The Report notes that in normal times the financial conglomerates are an important resource for other financial intermediaries and end-users as facilitators of financial transactions and as a channel or counter-party for mitigating risk. But there may also be occasions when through their linkages with other financial institutions and their prominent role in markets they have the potential of financial instability, as well. From a regulatory perspective, the Report mentions, the increasing tendency towards conglomeration has led to an appreciation of the limitations of the segment approach to supervision. Such approaches reflect only the traditional business activities and perspectives within each segment overlooking the increasing cross-segmental risk-transfers and cross-segmental investments. The various concerns arising out of Intra-group Transactions and Exposures (ITEs) call for consolidated supervision of financial conglomerates. The consolidated supervision as exercised at present in India is mandated for all groups where the controlling entity is a bank and it includes the following components: consolidated financial statements, consolidated prudential reports and application of certain prudential regulations like capital adequacy, large exposures / risk concentration, etc. on group basis. The Working Group proposes a new framework for monitoring the identified financial conglomerates which is in addition to the already existing regulatory structure – supervision of individual entities by respective regulators viz. RBI, SEBI, IRDA and the system of Consolidated Prudential Reporting recently introduced (in 2003) for compliance by the banks. The

basic building blocks suggested for the new framework are : (i) identifying the financial conglomerates, (ii) capturing intra-group transactions and exposures which are not being captured now, (iii) identifying a designated entity within each financial conglomerate that would collate data in respect of all other entities and furnish the same to the principal regulator of the group, and (iv) formalising a mechanism for inter-regulatory exchange of information. As regards the operational framework for inter-regulatory coordination, the Report recommends that one of the existing Technical Committees consisting of all the three regulators may function as a standing inter-regulatory forum to address all issues arising out of the proposed framework.

Khan and Jain (2004), recognise the emergence of new financial and economic environment in India in the post-liberalisation era since the early nineties. They emphasise the fact that the role of financial managers has become much more demanding today. Radical changes in the financial structure and growing complexities of foreign exchange management, business transactions and accounting, the authors observe, are the principal challenges of modern financial management.

Sharma and Bhusnur Math (2006) have studied and highlighted the issue of cross selling of financial products in Indian banking sector and its implications for different stakeholders in the system. Although study indicates growing significance of cross selling in banking sector but at the same time it also poses a regulatory challenge as cross selling of financial products involves cross sectoral movement by one financial institution.

2.4 Prudential supervision

Grabosky and Brathwaite (1986) use inter disciplinary approach to develop enforcement mode-oriented regulatory model for supervising and controlling the

financial system according to the types of prudential supervisory and protective measures. These authors identified seven different types of regulatory enforcement modes used to carry out any type of supervisory activity.

The issues relating to systemic crisis and its congenial spread from one financial system to another and finally even to the international financial system have been deeply studied and documented by several studies, for instance, **OECD (1991); OECD (1992); Karafiath et al (1991); and Kaen and Michalsen (1993).**

Benston (2000) anlyses the justification for financial regulation specifically in the context of consumer protection, with UK's Financial Services Authority in the backdrop. After presenting a brief review of regulations imposed to protect consumers, the paper delineates and discusses six regulatory goals: (1) to maintain consumer confidence in the financial system, (2) to assure that a supplier on whom consumers rely does not fail, (3) to assure that consumers receive sufficient information to make "good" decisions and are dealt with fairly, (4) to assure fair pricing of financial services, (5) to protect consumers from fraud and misrepresentations, and (6) to prevent invidious discrimination against individuals. The paper concludes that capital regulation is useful for the second goal (failure), but regulations specific to financial services are neither necessary nor desirable for the other goals.

Mishkin (2000) presents a lucid description of the importance and main issues of prudential supervision. The paper outlines the problems of adverse selection and moral hazard created by asymmetric information that have important impact on the financial system and explain the importance of banks. Asymmetric information problem is the source of trouble not only for banks but for depositors, too. The author stresses the need for prudential supervision to minimise these problems and also

discusses various forms that it takes: (1) restrictions on asset holdings and activities; (2) separation of the banking and other financial segments like securities, insurance or real estate; (3) restrictions on competition; (4) capital requirements; (5) risk-based deposit insurance premiums; (6) disclosure requirements; (7) bank chartering[5]; and (8) bank examination. In the design of prudential supervision, the following eight key issues are identified and discussed in the paper: (1) the extent to which regulatory environment needs to be restrictive; (2) limiting the too-big-to fail phenomenon[6]; (3) importance of market discipline [7] in promoting safety and soundness of the financial system; (4) tackling the principal-agent problem[8]; (5) refining capital requirements; (6) initiating action for getting the desirable regulatory reforms passed and implemented; (7) placing the responsibility for bank supervision (whether within or outside the central bank?); and (8) macroeconomic dimensions of financial supervision and regulation.

Shirai (2001) argues for a new regulatory framework for the financial structure in post-crisis Asia. The author suggests the adoption of what is termed as "intermediate financial structure". This structure lies between a bank dominated financial structure (where banks are dominant financial institution and provide mainly traditional banking services) and a full-fledged capital market-based financial structure (where numerous firms have direct access to capital markets in addition to bank loans). In the intermediate financial structure, bank loans are substitute for premature corporate bonds and yet banks play a crucial role in the corporate bond market as investors, issuers, under-writers and guarantors. Banks engaged in securities business can exploit economies of scope and enjoy diversification benefits and high profitability, thereby limiting their excessive risk-taking behaviour. It is argued that in the intermediate financial structure the regulator should make

substantial efforts to improve the soundness of the banking sector. This is particularly important today. It has been observed in the recent years that large, profitable firms are able to issue securities at low costs and thus reduce dependence on bank loans, leaving smaller, less profitable firms to the banking sector. This exposes the banks to a higher default probability. The author suggests that until prudential regulation and supervision on the banking sector is improved significantly and independence of the bank regulatory authority from government intervention is achieved to a satisfactory level, an umbrella approach based on close coordination among relevant regulators is a desirable approach for these countries.

Bergo (2002) conducts financial stability analysis for the banking sector in terms of FSIs and Stress Tests. The author on the basis of his own practical experience asserts that it is especially important to evaluate the effect of macro-economic conditions on the debt-servicing capacity of households and enterprises and thereby on the credit risk of banks. The paper specifies the form of a bankruptcy prediction model. Individual bankruptcy probabilities for various enterprises may be estimated by employing relevant information on their age, size, earnings, liquidity, and financial strength etc. as explanatory variables. Multiplying the debt of individual enterprises by their bankruptcy probabilities and adding them up provides an estimate of "risk-weighted debt" which may be taken as indicator of a bank's expected loan losses, given no collateral security. For further enhancement of the utility of financial stability analysis the author refers to the importance of stress testing which is useful for ascertaining the extent of exposure of a financial institution to macro-economic shocks such as changes in incomes and prices.

Fearnley, et al (2002), reviewing the financial reporting, auditing and corporate governance system in UK in the aftermath of Enron Collapse, contend that

it is muddled between the concepts of stewardship and decision usefulness. The authors counsel against knee-jerk reactions to the collapse and suggest that the regulators should sit back and consider fundamental issues associated with the regulatory framework for financial reporting, auditing and corporate governance. Raising the issue of auditory independence, the authors argue that incentives in the capital markets, which drive the behaviour of all participants, should be considered to ensure that the current system does not encourage dysfunctional outcomes and excessive rewards. They view the personal incentives for partners in audit firms as a potential key influence on auditor independence and suggest that the non-executive directors should be mandated to protect the interests of investors.

Summer (2003) analyses the effectiveness of banking regulation in the context of systemic risk and financial stability, which has emerged as the most discussed issue in the regulatory debate after the recent financial crises. The author observes that there is no generally accepted definition of systemic risk. Also, the effectiveness of various instruments of banking regulation that are intended to attenuate it and their economic consequences are still only partially understood both theoretically and empirically. The author attempts to discuss some of the issues raised in the regulatory debate and, on the basis of review of the recent contributions to the academic literature, comes to draw a central message. It is emphasised that financial institutions should not be viewed in isolation. It is highly necessary to understand the simultaneous reaction of different heterogeneous financial institutions to regulatory measures that are imposed on them.

Jadhav (2003) presents a comprehensive perspective on central banking in India and abroad. The author traces the genesis and evolution of central banking in the global context in response to the corresponding developments in macroeconomic

thinking in general and those relating to monetary policy. The main focus of the paper relates to three contemporary issues in central banking: (a) formulation and conduct of monetary policy, (b) strengthening financial stability, and (c) management of the changes in the payments and settlement system[9]. The author's emphasis is not only on identifying contours of contemporary debates in the international financial community but also on highlighting the challenges and policy dilemmas facing the central bankers in India and abroad today.

Hyytinen and Takalo (2003) discuss the prevention of systemic crises through bank transparency. The banking system is known to be vulnerable to self-fulfilling crises that are caused by depositors' coordination failure. The concern about the systemic crises has led to the creation of extensive safety nets. However, the existence of a safety net involves a widely recognised moral hazard problem. Safety nets in general, and depositors' insurance schemes in particular, provide incentives for excessive risk taking by banks. This paper demonstrates that certain types of systemic crises can be prevented without the safety nets by enhancing bank transparency and eliminating the possibility of depositors' coordination failure.

Borio (2003) discusses the macro-prudential framework for financial supervision and regulation. Over the last decade or so, addressing financial instability has been at the top of the financial agenda. The author argues that in order to improve the safeguards against financial instability, it may be desirable to strengthen further the macro-prudential orientation of current prudential frameworks, a process that is already underway. The author defines, compares and contrasts the macro and micro prudential dimensions that inevitably coexist in financial regulatory and supervisory arrangements. The nature of financial instability is examined against this background and conclusions about the broad outline of desirable policy initiatives are drawn.

Pandey (2004) provides an insight into relationship between market structure and capital structure of a firm. Study concludes that the capital structure and market structure have a cubic relationship due to the complex interaction of market externaliies like agency costs and bankruptcy costs.

Rochet (2004) builds a simple model of banking in the presence of macroeconomic shocks where the comparative roles of private and public monitors can be analysed. This model provides endogenous justification for prudential regulation (capital requirements) and emergency liquidity assistance by the central bank (lender of last resort). The model brings out the conclusion that market discipline can be helpful but does not solve the fundamental problem of regulatory forbearance. The paper presents some directions of reforms of the regulatory system for improving the management of banking crises. It is suggested that the main cause behind the poor management of banking crises may not be the "safety net" as argued by many economists, but instead the lack of commitment of the banking authorities, who are typically subject to political pressure. It is argued that the use of private monitors (market discipline) is a very imperfect mean of solving this commitment problem. Establishing independent and accountable banking supervisors as has been done for monetary authorities is highly important in this regard. The paper also suggests a differential regulatory treatment of banks according to their exposure to macroeconomic shocks. In particular, the banks with large exposure to macroeconomic shocks should be denied the access to emergency liquidity assistance by the central bank. By contrast, banks with low exposure should have access to the lender of last resort but must face a capital ratio and a deposit insurance premium that increase with the exposure.

Oosterloo and Haan (2004) present the results of their survey among all central banks in the OECD area. The purpose of the survey was to examine which financial stability responsibilities have been delegated to central banks, how these responsibilities are executed, and whether democratic accountability arrangements are in place. The survey bring out the following results: (1) There is no unambiguous definition of financial stability or systemic risk. (2) Generally, the responsibility for financial stability is not explicitly formulated in laws. (3) There is considerable heterogeneity in the way central banks pursue the financial stability objective. (4) The democratic accountability of the financial stability function of central banks is often poorly managed.

Bolt and Tieman (2004) present analysis of banking competition, risk and regulation in terms of a dynamic theoretical framework. Commercial banks compete for customers by setting acceptance criteria for granting loans within the regulatory requirements. By easing the acceptance criteria a bank faces a trade-off between attracting more demand for loans, thus making higher per period profits, and deterioration in the quality of its loan portfolio, thus exposing itself to greater default risk. The more stringent capital adequacy requirements lead banks to set stricter acceptance criteria, and increased competition among them induces riskier behaviour. It is beneficial for a bank to hold more equity than prescribed by the regulator, even though holding equity is more expensive than attracting deposits.

Gale (2004) presents a simple model of capital as a buffer stock, in which the optimal capital structure improves risk sharing between shareholders and depositors. In this framework, the paper illustrates a number of general properties of optimal capital structure. First, capital structure is irrelevant when markets are complete. Second, even if markets are incomplete, the privately optimal level of capital chosen

by financial institutions may be socially optimal. In that case, there is no rationale for intervention by the authorities to regulate capital structure. Third, the laissez faire equilibrium may be inefficient if there is heterogeneity among institutions and markets for sharing risk among institutions are incomplete or absent. However, even if the capital structure chosen in equilibrium is inefficient, it does not necessarily follow that minimum capital requirements will improve matters: there may be too much or too little capital in equilibrium. The author extends the basic model to allow for heterogeneity among financial institutions, characterise the impact of capital regulation in this case and consider the alternatives to capital regulation.

Malkonen (2004) discuss the issue of capital adequacy regulation in relation to financial conglomerates. In this paper, the author remarks that a typical concern in public policy debate is that the current capital adequacy regulation designed foe stand-alone financial institutions exhibits several weaknesses due to emergence of large financial institutions combining several activities under common control. This paper addresses these concerns using a theoretical framework derived from the economic literature. The paper first describes the possible causes of the emergence of financial conglomerates, proceeds to consider the theoretical background for the regulation of financial institutions, especially insurance and banking companies, and finally, examines the limitations of the current regulatory framework in controlling the risks in financial conglomerates. Author's conclusions provide little support to the view that the regulatory approach should be modified towards a more consolidated one (i.e. harmonisation). He puts forward arguments, which suggest that economic literature lacks unambiguous empirical evidence and clear theoretical predictions on the risks associated with financial conglomerates. Hence, before modifications of capital adequacy requirements take place, more rigorous economic analysis is needed to

address the potential market failures. Meanwhile, the author suggests, the focus should be on improving the transparency of the new, more complex, financial institutions and providing clear definitions of eligible capital to prevent cross-ownership of assets and enhance the market discipline.

2.5 Optimal regulation

White (1998) brings out the importance of financial stability for banking sector. The author argues that the seemingly ceaseless string of financial crises through the 1980s and 1990s, in both industrial (e. g. Scandinavia and Japan) and emerging market economies (e. g. Mexico and South Asia), indicates that the central bankers' concerns about financial stability are practical rather than theoretical. Referring to the growing volume of cross-border transactions in bonds and equities, it is further argued that global financial stability has acquired special importance today. It is suggested that any strategy for the promotion of global financial stability must begin by recognising two facts. First, the pace of change in modern financial markets is extraordinary, ongoing and irreversible. Second, financial transactions are becoming increasingly complicated, blurred and assuming changing complexion. This implies that the "system" which the policy makers want to stabilise is difficult to define as it is rapidly changing. Continuing improvements in computing and telecommunication have not only brought down the costs of even extremely complicated financial transactions but these have also contributed materially to the breakdown of sectoral and national distinctions in international financial markets, as well as to the growing participation of new players (e. g. pension funds, mutual funds and hedge funds). This has further complicated the task of formulating policies to ensure financial stability. The paper suggests a three-pronged strategy for promoting financial stability – stability measures must be comprehensive so as to include in their

ambit all major components of the financial system; regulators must rely increasingly on *market-led* discipline in terms of greater emphasis on disclosure and transparency; and market discipline must be a *complement to*, rather than a substitute for, the *traditional activities of regulators and policy makers.*

Herring and Santomero (1999) examine the issue of optimal financial regulation. They begin by noting that the objective that distinguishes financial regulation from other kind of regulation is that of safeguarding the economy against systemic risk. Traditional concerns regarding systemic risk have remained focused largely on banks in terms of provision of safety nets for preventing banking panics but at the cost distorting incentives for risk taking. With technological and conceptual advances, the authors observe, the banks are now fast losing the traditional, special status. Hastening the end of this special status is the challenge facing the regulators, today. The authors believe that once banks have lost their special status, regulation for prudential purposes may be completely unnecessary: "The optimal regulation for safety and soundness purposes may be no regulation at all." The authors mention that there are four broad rationales or objectives for financial regulation in addition to the objective of efficient allocation of resources, namely, safeguarding the financial system against systemic risk, protecting consumers from opportunistic behaviour (monopolistic pricing by financial institutions, for instance), enhancing the efficiency of the financial system, and achieving a broad range of social objectives from increasing home ownership to combating organised crime. Thereafter, the authors proceed to explain these objectives in detail. But after going through the whole paper, one wonders whether the concept of optimal financial regulation has been explicitly elaborated anywhere. Undoubtedly, any regulatory system which attempts to serve the

above-mentioned objectives, may be regarded an efficient or optimal system. This is perhaps what the authors have in mind.

In the backdrop of recent bank crises, **Llewellyn (2000[a])** draws some useful lessons for financial regulation. He argues that the recent bank crises in developed and developing countries have underlined the question of a good "regulatory regime", which is a wider concept than the set of prudential principles and business rules established by external regulatory agencies. The role of external regulation in fostering a safe and sound banking system is limited. The incentive structure for private banks and the efficiency of monitoring and supervision have to play a great role. There are limitations to what regulation and supervision can achieve. In practice, there is no viable alternative to placing the main responsibility for risk management on the shoulders of management of financial institutions. Therefore, the author emphasises the importance of effective regulation and supervision (both internal and external) for promotion of stability and robustness of the financial system. In this regard, he specifies five key criteria for evaluating the effectiveness and efficiency of a regulatory regime: (a) the extent to which it generates appropriate incentives for bank owners and managers; (b) whether it generates correct pricing of risks of bank loans; (c) whether it minimises existing and new moral hazards; (d) the extent to which sufficient differentiation is made between financial institutions on the basis of overall portfolio risks; and (e) the impact on competitive conditions and whether it is competitively neutral as between different competing firms.

Allen and Herring (2001) consider the inter-relationship between bank regulation and securities regulation in order to consider whether a move away from a bank-based financial system towards a market-based system is desirable in terms of crisis prevention. Banking regulation is primarily designed to prevent systemic crisis

while securities regulation is primarily for investor protection and efficiency enhancement. But this does not necessarily imply that a switch from banking to market finance would reduce systemic risk. Sophisticated financial markets require the participation of many intermediaries and systemic risk may be created if any of these go bankrupt and there is no contagion to the rest of the financial system. Changing regulation to prevent this may not be very effective. A better way to prevent risk, if there is a move away from bank finance and towards market finance, is to structure banking laws appropriately.

Guidotti, et al (2004) discuss a number of central issues for the future of financial markets in Latin America. The paper starts with a brief summary of the reforms undertaken and shows that the financial systems still remain fragile in a number of countries in the region. The paper makes policy recommendations to strengthen the financial systems. These recommendations relate mainly to appropriately designing of the regulatory and supervisory institutions and streamlining of the role of foreign banks. The independence of the regulatory authority and the complementary role of market discipline are considered essential ingredients of the regulatory design.

Zingales (2004) discusses the cost and benefits of financial regulation. When it comes to regulation, and especially, regulation of financial markets, academics tend to be divided into two opposite camps. On the one hand, there are the libertarians who oppose any type of regulation. On the other hand, there are the interventionists who see pervasive market failures and advocate massive market intervention. In this paper, the author advocates a skeptical middle ground. The author does not regard the presence of externalities as a sufficient ground for regulation. These can be taken care of by the market system unless transaction costs are very large. When these costs are

indeed large, there is scope for welfare enhancing regulation. The author warns that even if such scope exists, it does not necessarily imply that welfare enhancing legislation is warranted. Even when the benefits of legislation may be large, the costs of its practical incarnation might be far in excess. The author further asserts that the legislative process is heavily influenced by incumbents; no piece of regulation can be expected to be without bias. Considering all these aspects, the author strongly puts emphasis in favour of mandatory disclosure, quoting Justice Louis Brandeis, one of the leading figures of American progressive movement and intellectual father of the New Deal financial regulation: "Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman."

2.6 Miscellaneous issues

Stigler (1971) is credited for initially popularizing the concept of 'Regulatory capture' which initiated principal- agent debate. Stigler argued the regulators respond to best organized interest groups rather than to the public interest which ultimately leads to regulatory capture.

Moore (1990) examines the pension sector and effect of excess pension assets on share prices. Study concludes that the termination of an over funded pension plan significantly adds to shareholders wealth.

Hoeing(1996) has suggested an alternative regulatory approach which may contain the systemic risk by strengthening the ability of the financial system to cope with the failure of individual institutions. This approach contradicts the traditional regulatory approach of "too big to fail" as it advocates the financial system and safety nets would be better insulated from large failures if very large and complex financial

institutions get the option of reduced regulatory burden at the cost of limiting the access to the government safety nets. However, Institutions that opt to retain direct access to the safety nets, would continue to be regulated.

Fiszel and Peteros (1997) have argued how to safeguard against the significant regulatory, legal and tax risks when making private investments.

Shah and Thomas (1997) have critically analysed the early Indian capital market reforms and their relevance for better market regulation.

Allen and Gale (1998) investigate the origin of financial crises. Financial crises often follow what appear to be bubbles in asset prices As historical examples of this kind of crisis they cite the cases of Dutch Tulipmania, The South Sea bubble in England, The Mississippi bubble in France, the Great Crash of 1929 in the United States. More recent examples are Japan, Norway, Finland, Sweden, Argentina, Chile, Indonesia, Thailand and South Korea where dramatic rise in real and stock prices occurred in the 1980's and early 1990's. The authors explain that a bubble in which asset prices rise dramatically is followed by a collapse and widespread defaults. Bubbles are caused by agency relationships in the banking sector. Investors use money borrowed from the banks to invest in risky assets, which are relatively attractive because investors can avoid losses in low pay-off states by defaulting on the loans. This risk shifting leads investors to bid up the asset prices. Risk can originate in both the real and financial sectors. Financial fragility occurs when positive credit expansion is insufficient to prevent a crisis.

Boot, et al (2000) focus on the interaction between regulation and competition to ascertain how regulation affects the profitability of the financial institutions. The paper identifies the competitive distortions that regulation introduces into the financial services industry and brings out two primary results. First, when regulation, by

adjusting the capital requirements, changes the costs of funding loans, the higher-quality banks (as measured by their monitoring abilities) suffer a greater loss in profits than the lower-quality banks. This points at the importance of fine-tuning regulation. Second, a change in funding costs caused by regulation induces a greater loss in profits when regulated banks face competition from non-regulated non-banking financial institutions than when they face only equally regulated competitors or no competitors at all. That is, intrusive regulation is most costly in the absence of a level playing field. In the current environment of banking, the increase in competition goes hand in hand with greater diversity in financial service providers, which undermines the notion of a level playing field.

Giorgio, et al (2000) sketch a proposal for the reorganisation of regulatory arrangements and supervisory agencies in the European financial markets. The proposal is formulated in the light of the evolution of the role of intermediaries and aims at speeding the ongoing process of integration of financial markets in the Euro area. It is based on previous experiences at the national and international level. In this paper the authors review objectives and theoretical models for the regulation of financial systems. They then move to highlight some features of financial market regulation in Italy, which they consider somehow problematic as a consequence of the recent evolution in the financial intermediaries, instruments and markets. A proposal is then formulated for a new configuration for supervising the financial market in Italy through the assignment of different objectives or “finalities” to different authorities. Entrusting the three objectives of financial supervision – stability, transparency and proper behaviour, competition – to three distinct authorities designed to oversee the entire financial market regardless of the subjective nature of the intermediaries. The authors believe that this proposal can be applied to the case of Euro area by

establishing what they term European System of Financial Supervisors, with three distinct independent authorities (plus the European Central Bank) at the European level who will provide incentives for, and co-ordinate the work of, the three corresponding national authorities in each member country.

Samuel (2000) focuses on the evolution, theoretic aspects, performance and regulation of insurance market in India. The author stresses the fact that despite the impressive performance of the two public sector insurance companies – Life Insurance Corporation (LIC), and General Insurance Corporation (GIC) – there is low penetration and general lack of efficiency. With the entry of private players into the insurance business in the recent years, it is expected that the competition would increase and overall functioning of the insurance sector would improve. The liberalisation of the insurance sector places important responsibility on the regulator - Insurance Regulatory and Development Authority (IRDA) - towards meeting the needs and challenges of the Indian insurance market, in particular, ensuring long-term solvency of insurers and promoting competition among them.

Barth, et al (2001) draw on their new data base on bank regulation and supervision in 107 countries to evaluate different governmental approaches to bank regulation and supervision and assess the efficacy of different regulatory and supervisory policies. First, the authors assess two broad and competing theories of government regulation: the helping-hand approach, according to which governments regulate to correct market failures, and the grabbing-hand approach, according to which governments regulate to support their political constituencies. Second, they assess the effect of an extensive array of regulatory and supervisory policies on the development and fragility of the banking sector. These policies include the following: (1) Regulations on bank activities and the mixing of banking and commerce. (2)

Regulations on entry by domestic and foreign banks. (3) Regulations on capital adequacy. (4) Designing features of deposit insurance systems. (5) Regulations governing information disclosure and fostering private sector monitoring of banks. (6) Government ownership of banks. The results raise a cautionary flag with regard to reform strategies that place excessive reliance on a country's adherence to an extensive checklist of regulatory and supervisory practices that involve direct government oversight of, and restrictions on, the banks. The findings are much more consistent with the grabbing-hand view of regulation than with the helping-hand view. These suggest that the regulatory and supervisory practices that are most effective in promoting good performance and stability in the banking sector are those that force accurate information disclosure, empower private sector monitoring of banks, and foster incentives for private agents to exert corporate control.

Bryant (2001) discusses the implications of cross-border financial inter-dependence and concludes that this inter-dependence is both helpful and hazardous. As increasing volumes of capital will flow across borders in future decades, it is certain that the benefits and the risks will both grow. It is necessary that collective governance of cross-border finance, now in its infancy, must also be sufficiently strengthened. In this regard, the author suggests that the policymakers and citizens alike should reject extremist views and support pragmatic efforts to enhance international cooperation about financial standards and the prudential oversight of financial systems.

Djankov et al (2002) put forward the Grabing-hand approach of regulating banking entities which states that politicians and regulators resort to entry restrictions to benefit the local friendly banking entities so as to extract campaign support and bribes.

Freixas and Santomero (2002) examine the issue of banking regulation in an overall perspective. They review the impact of imperfect information on our understanding of why financial markets exist, how they operate, and how best to regulate them. They identify the market failures that are specific to the banking industry, and then turn to consider the justification of financial intermediaries so as to take a coherent view of the role of regulation in the financial intermediation industry. Lastly, the authors discuss the design of banking regulation as well as its impact and review the working of the main regulatory instruments – safety net, deposit insurance, capital requirements, lender of last resort, and bail-out policy and bank closure – as well as their impact on the banks' behaviour.

OECD (2002) paper based on the organisational structures for financial supervision in the OECD countries discusses the implications of financial sector convergence for the conduct of supervision and draws a distinction between consolidated supervisory agencies and consolidated supervision. The paper emphasises the fact that a thorough understanding of the financial supervisory regimes in the OECD area requires a look beyond the organisational structure of supervisory agencies to see how supervision is actually being conducted. It is observed that in most countries, there continue to be differences in the rules applied to different types of financial businesses regarding their solvency, the type of assets they manage, the management of their liabilities. Many supervisors argue that these differences are warranted by the different risks posed by various categories of service providers. Accordingly, regulatory standards for banks tend to be rather different than for insurance companies

Ergungor (2003) investigates how the structure of a financial system affects economic growth. The author claims that in contrast to the earlier research, which

indicates that financial system's structure is irrelevant for growth, this study shows that countries grow faster when they have flexible judicial system and more market-oriented financial systems.

Last three decades have witnessed economists' growing interest in analysing possible link between financial structure and economic activities. In more recent years, the horizon of enquiry has expanded to include the interrelationship between financial infrastructure and economic development.

Angadi (2003) addresses some of the theoretical issues, in this regard. In particular, the main focus of the paper is to analyse these issues in relation to a direct and symbiotic relationship between sound and efficient financial infrastructure and financial stability and economic development. Financial infrastructure of an economy is defined in this paper to include financial system, legal system, accounting standards, and payment and settlement system. Likewise, the financial system is taken to consist of financial institutions, markets and instruments. The author brings out the conclusion that in India, the concerted efforts directed towards expanding institutional set-up, developing spectrum of saving instruments, and diversified markets, reducing risk perception and uncertainty, ensuring liquidity and safety to the savers/investors and so on have contributed to the growth of household saving. The relatively low saving of both private corporate and public sectors has been contributed, among others, by low investment efficiency. The gaps and gray areas in the segments of financial infrastructure reflecting its operational inefficiency are the other possible factors in this regard. Finally, contribution of the financial liberalisation to economic growth and development has been more by way of enhancement in the quality of resource allocation rather than through augmentation of quantity of resources potentially available to the economy.

Jackman (2004) while looking at the regulatory culture in a radically different manner raises some ethical issues of substantial importance. He argues that regulation is based on ethical drivers, which if properly understood, may be expected to direct us towards a more effective and efficient system. Incoherent and excessive regulation can diminish individuals' and firms' ability to comprehend these principles and apply them in everyday judgements. A culture of dependency (on rules) can result. Increased regulation of an undirected kind could indeed make matters worse.

Caprio, et al (2005) examine and draw lessons from attempts to recover from the financial and currency crises that burst in the 1990s and rocked the world financial sector. The authors also consider some potential hazards facing the world economy in the 21st century and discuss ways to prevent them and minimise the severity of any future downturn. Some of the issues examined by the authors in this important volume relate to effectiveness of the post-crisis policies in Latin America, Eastern Europe, and East and Central Asia; present position of the international financial markets ten years after the worldwide debt crisis; safe and vigorous resumption of financial services; measures for containing systematic financial vulnerability; and appropriate approach to pension systems to deal with retirement challenges in the 21st century.

Calzolari and Loranth (2005) consider the issue of regulation of multinational banks (MNB). They show how regulatory intervention depends on the liquidity structure and insurance arrangements for non-local depositors. Shared liability among the MNB's units gives higher incentives for regulatory intervention than when units are legally separate entities. Cross-border deposit insurance provides lower incentives to intervene than when the regulator only has to compensate local depositors. Authors study the impact of shared liability and deposit insurance

arrangements on regulators' incentives to monitor and acquire information on MNB's activities.

Leeladhar (2005) analyses the contemporary and future issues in Indian banking. Under the liberalised financial scenario, mergers and acquisitions are the order of the day. We are moving from a regime of "large number of small banks" to "small number of large banks". The author asserts that in the wake of greater financial deregulation and global financial integration, the biggest challenge before the regulators is of preventing instability in the financial system.

Hasan et al (2006) have highlighted the financial markets integration and cross borders mergers with special reference to regulatory issues.

Stodder (2006) suggests that the developments of centralized barter networks of alternative or dual currencies have important implications for monetary theory in terms of its effect on macro economic stability.

Mishra et al (2006) suggest that mandatory financial disclosures by security market regulator improve investor confidence and reduce information asymmetry. Authors conclude that the impact of SEC order requiring filling of sworn statements by CEOs and CFOs has a positive effect on the market value of certifying firms.

Conclusion

The conclusions implied by the relatively more prominent issues, taken up by the researchers mostly in the recent past in relation to various aspects of financial markets and their regulation, can be summarized as follows. The main thrust of the research appears to be directed mainly at the strategies for ensuring an effective system of financial regulation that is commensurate with the regulatory objectives. The structural aspect of regulation and the role of central bank in the regulatory set-

up have been the most fascinating rallying points of a major chunk of the research. This is not surprising Financial modernisation has thrown many problems and challenges. Apparently, these issues are expected to be at the core of research in this area.

There is an almost settled opinion about the objectives and effectiveness of financial regulation. Safeguarding the financial system against systemic risk, protecting the consumer, enhancing the efficiency of the financial system, and achieving a broad range of social goals have been emphasized as more or less consensus top most objectives.

As regards effectiveness, broadly speaking, two major contentions have been made. Firstly, structural aspect of regulation does not enjoy significance in an absolute sense; it is mainly a country-specific issue. Although the on-going debate on the desirability of unified regulatory structure has not yielded any settled viewpoint so far, the single-regulator model (FSA) of UK is generally viewed as a success case. It is argued that the success is due mainly to crucial factors, such as, general acceptance of the irrelevance of traditional product barriers by the financial organisations, the proper timing of the transition, and the fund of good will that the FSA enjoyed in its initial 2-3 years by encouraging the spirit of give and take. A shift in structural paradigm must be preceded by a due consideration of all relevant factors. Some authors argue that a strong case can be made for moving to a unified model for a small transition or developing economy, or an economy with a small financial sector. In such cases, the economies of scale from establishing an integrated agency outweigh the costs of moving to such a model. The unified model may be desirable, it is contended, also for an economy whose financial sector is dominated by banks, with little role for capital markets. Secondly, for the effectiveness of regulation,

not only regulatory and supervisory independence (RSI) but also auditor independence are always most important, whatever the regulatory structure, in order to ensure financial stability and growth as well as protection of the interests of consumers and investors. It is believed that RSI is important for financial stability for the same reasons that central bank independence is important for monetary stability.

But no less important than these issues of regulatory effectiveness is the fact that there are always distinct limits to what regulation and supervision can achieve in practice. In this respect, an almost commonly shared viewpoint is that external regulation and supervision by official agencies alone can not be effective. The financial institutions also have to realise their responsibility in this regard. They must ensure a robust and effective internal supervision system so as to duly complement external supervision. Also, public policy should never eliminate the incentive for consumers of financial services to exercise due care. Consumers need to be clear about the limitations of regulation. Likewise, good, timely, and relevant information about the business of financial institutions is necessary for enabling the other external monitors – shareholders, customers, rating agencies, other financial firms, and auditors - to complement the work of supervisory agencies. Finally, it is also argued that even as regards the architectural design of regulation, the choice must not be seen as between merely the extremes of simple and multiple regulators, the various hybrid possibilities and supplementing arrangements should also be duly considered. Above all, the issues of communication and coordination remain inevitable and of paramount importance, whatever the regulatory design.

As regards the role of central bank in the regulatory set-up, there are diverse viewpoints. Some authors see the issue in the light of a trade-off between the degree of financial sector unification and the role of the central bank. Some view it in the

context of role-conflict which central banks are believed to be mostly confronted with and argue for confining the role to only monetary management and regulation. There are others who hold the opposite view and argue that central banks have earned a place and need a place as regulators of banking-related entities (financial organisations that contain a bank) that are progressing fast in the present scenario of financial modernisation. If this is not ensured, there is a strong possibility of banking crises leading to macro-instability.

Notes

1. The costs of financial crises, which occurred in the last decade or so, can be seen in terms of the substantial loss of output and employment that these countries had to suffer. It has been estimated that the GDP declined by 6 to 10 per cent during the crisis year and by about 50 per cent of annual GDP over a period of six years in these countries. Widespread financial instability undermines the role of the financial system in performing the primary functions, such as, intermediation between savers and borrowers with an efficient pricing of risks and smooth operation of the payments system. When financial instability rises to a crisis proportion, it often brings in its wake a macroeconomic crisis or a currency crisis or both. Such crises have grave implications for the most vulnerable sections of society that pay for their resolution through heavy doses of taxes. There is simultaneously reduction in public expenditure and employment. It has been estimated that the costs involved in dealing with the post-crisis situation amount to 10 to 30 per cent of the GDP. For more details in this respect, see Goldstein and Turner (2003) and NBER (2001)
2. Basel Committee on Banking Supervision, International organisation of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) are the prominent international organisations that are actively involved in persuading countries to adopt and sincerely implement appropriate regulatory reforms in the spheres of banking, securities and insurance, respectively.
3. Regulatory forbearance represents a major malady of the functioning of most regulatory systems. It is some kind of a compromising regulatory position in which the regulatory authority relaxes or suspends the enforcement of a particular regulatory requirement. For instance, the capital requirement may not be strictly adhered to in the case of large segment of state-owned financial intermediaries. Obviously, the presence of state ownership of a very large financial segment inevitably vitiates the functioning of the market discipline (see note at serial number 7 below) as a complementary strand to external supervision and regulation.
4. Kane (1981) proposes a theory in which financial modernisation, instability and changes in financial regulation and supervision are parts of an ongoing dialectic. Under this framework, financial services are supplied jointly by financial institutions and their regulators, where customer choice for financial services focuses not only on the supplier of financial services but also on the cost and quality of the supervisory and safety net services provided by the regulator. However, consumer and public interests can be subordinated to the interests of financial institutions. For instance, regulators may provide subsidies to domestic financial institutions, erect entry

barriers, and guide credit allocation. This leaves financial system susceptible to financial crises when the misallocation becomes obvious to the public. The financial crisis induces the regulators to introduce necessary changes in their system so as to meet the challenge posed by the situation

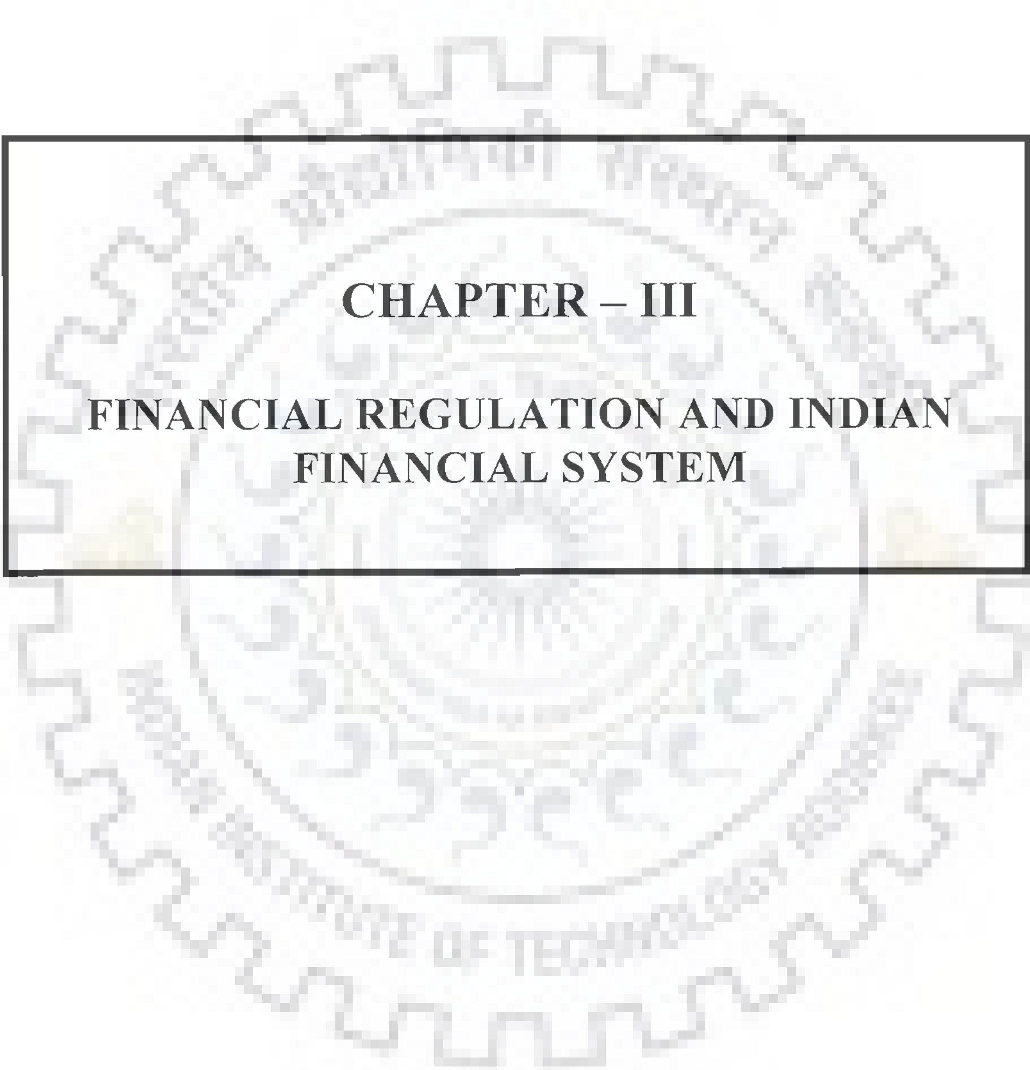
5. The primary objective of government safety net is to protect the interests of depositors who because of asymmetric information might face the problem of adverse selection (the depositors, for instance, might not be fully seized of the quality of bank assets). Therefore, it is very important for the concerned authorities to see who operates banks. Banks can be used by dishonest people or unduly ambitious entrepreneurs to engage in highly speculative activities. Chartering banks is one method for preventing this kind of adverse selection problem. Through chartering, proposals for new banks are screened to prevent such people from controlling them.

6. The failure of a very large bank makes it more likely that a major financial crisis will occur. Therefore the government is naturally reluctant to allow a big bank to fail and cause losses to the depositors and other stakeholders. Hence, the term 'too-big-to fail'.

7. The term "market discipline" has often been used quite loosely in the literature. For a proper understanding of this concept, a distinction between its "monitoring" and "influence" aspects is necessary. The monitoring aspect operates through investors' ability to accurately understand changes in a firm's condition and incorporate these assessments promptly into the firm's security prices. The influence aspect relates to the response behaviour of the firm's managers induced by said security price changes. As such, market discipline refers to the interactive, action-reaction behaviour of the firm and its investors guided by the market mechanism. More precisely, it refers to the monitoring, reflecting and inducing behaviour of the market in relation to the conduct of a firm and its investors. There is substantial evidence that markets are able to monitor and reflect a firm's financial position in security prices, but there is a very little evidence on whether market influence operates in most usual circumstances. For a more detailed discussion of these issues of market discipline, see Flannery (1998).

8. A major impediment to successful prudential supervision of the financial system is the principal-agent problem, in which the agents (regulators or supervisors) do not have the same incentives as the principals (the tax payers the regulators work for) and so act in their own interest rather than in the interest of the principals. So much so, they at times tend to do just the opposite of what they are expected to do. For instance, the regulators might hide the problem of an insolvent bank to escape the blame for poor performance of their agency. Hoping that the situation will improve soon, they might loosen the capital requirements for the bank (this is just the opposite of what they are expected to do to prevent a financial crisis in a bank). This phenomenon of interest-clash (between regulators or for that matter any public servant and the taxpayers), which is relevant to other spheres of public duty as well, is known as principal-agent problem.

9. With the advance in data processing and telecommunication, issues relating to payments and settlements system are emerging at the centre stage. Until the 1980's the term "payment system" was almost completely absent from central bank reports in most countries. Today, there are many who argue that monetary policy functions would not have developed in the way they did without the fast revolution in the payment technology (on this, for instance, see Davies, 1997). A payments system comprising a set of rules, institutions and technology for transfer of funds from one financial entity to another constitutes the core of a well functioning financial system.



CHAPTER – III

FINANCIAL REGULATION AND INDIAN FINANCIAL SYSTEM

Preview

This chapter is organized under two sections. Section A includes a detailed discussion of various aspects of financial regulation, such as, its importance and objectives; alternative regulatory regimes; nature and content of the on-going debate regarding a shift in regulatory paradigm; and experiences of, and lessons from, other countries that shifted to unified regulation in the recent past. Section B presents a detail insight into the Indian financial system. Beginning with the conceptual dialectic regulatory process, the current size and structure of Indian financial markets and their various constituents are covered in detail in this section.

Section A

(Financial Regulation)

3.1 Importance and objectives

Financial regulation[1] does not merely refer to framing of rules and their implementation under given financial sector scenario and regulatory regime. It is, in fact, a dynamic, multi-faceted institutional set up which, to be really able to play its important role for ensuring, among other things, the stability of the financial sector, must continuously keep pace with changes in financial markets at home and abroad. Its true importance lies in its ability to cope with the emerging financial markets trends around, and steer itself to achieve the set objectives effectively and efficiently.

As regards the objectives of financial regulation, there are differences across countries. But a convergence of views is visible among them in respect of common priority areas. The consensus is in favour of enhancing competition, improving efficiency of the financial sector and adherence to the internationally agreed standards. As such, the following three objectives are emphasised as the core objectives: systemic stability, prudential oversight, and conduct of business regulation:

1. *Systemic stability* underlines the need for ensuring safety of the financial system as a whole as well as protecting the reliability and integrity of the payments system. Here the focus is on safeguarding the financial system against contagious repercussions, which may be transmitted by some problem segments of the system. Maintaining systemic stability is important because the social costs of a financial crisis are enormously high

in the form of contagion effect. A giant customer, such as a corporate or large net-worth individual client should be in a better position to bear the financial distress. Firstly, he is able to make a judicious investment decision on the strength of his resource base. And secondly, if at all his calculations go hay way, he is in a position to cushion the severe impact of the distress to a large extent (say, as a result of his well planned, highly diversified investment portfolio) as compared to a retail customer.

2. *Prudential oversight* has at its centre provisions for safety net. Here the focus is, in fact, on protecting consumers and investors from the adverse consequences of an institution's insolvency.

3. *Conduct of business regulation* focuses on market misconduct, information asymmetries, and other aspects of financial institutions' business conduct in relation to their clients.

3.2 Alternative regulatory regimes

The structure of supervisory agencies for the financial sector differs across countries. There is no universally applied model. A number of countries have reduced the number of regulatory agencies. Some have set up a single agency, even. Also, it is not uncommon to have separate regulatory agencies for banks, insurance companies, pension funds and securities companies. Many alternative models exist. These can be made to work effectively and efficiently under certain preconditions. There are some important questions in the choice and design of a regulatory model. A careful examination of the current regulatory structure in relation to the country's financial system (structure and composition) is perhaps most important. Also, it is necessary to

properly assess the efficiency and effectiveness of the alternative regulatory structures – fully integrated or single regulator, semi-integrated regulator, and multiple regulators - in achieving the desired objectives.

Several recent studies (most notably by the IMF and World Bank) have attempted to summarise international trends in regulatory structure[2]. Whereas previously, the focus of most studies was on regulatory integration in the UK, Japan, Canada, Austria and Scandinavia, more recent studies have turned to the growing trend towards regulatory integration in emerging-market countries as well as changes within some of the more traditional powerhouses of the EU, including Germany and some other countries. According to the most recent World Bank study, there are 6 main regulatory structures found throughout the world.[3] These models may be summarised as follows:

3.2.1 The Institutional Regulatory Model

Under this model there is a separate regulatory agency for each group of institutions, having its own distinct regulatory culture. For instance, the central bank may regulate only the banking institutions in the country. This kind of model is in operation in maximum number of countries in the world (about 30), such as, USA, Russia, France, China, India, Israel, Argentina, Brazil, Portugal, and Spain. This model best facilitates the tailoring of regulation to suit the requirements of individual groups of institutions and, at the same time, contain concentration of power in any single regulatory agency. Its shortcomings mainly include loss of scale economies; high cost due to duplication of infrastructures; potential for regulatory gaps, over-laps

and arbitrage; and little chance to extract the synergies from other regulatory mechanisms.

3.2.2 The Mexican Model

It is in operation in countries, such as, Mexico, Dominican Republic, Finland, Luxembourg, Switzerland, and Uruguay. In these countries regulation of banking and securities rests in the hands of a single regulatory body. It provides some economies of scale and better career opportunities than the institutional model and does not allow over-concentration of power. It is also less costly and deals better with conglomerates as compared to the institutional model. Possibility of culture clash between banking and securities regulatory requirements; and potential for regulatory gaps, over-laps and arbitrage are its major drawbacks.

3.2.3 The South African Model

It is in existence in countries, such as, South Africa, Bolivia, Chile, Egypt, Mauritius, Slovakia, and Ukraine. Under this model, regulation of securities and insurance sectors is entrusted to a single agency, thus leaving the regulation of banking sector to the care of the central bank. This is more appropriate arrangement considering the high priority, which needs to be assigned to banking regulation. Although, due to some similarities in the regulatory styles between insurance and securities regulation, synergies are likely to be better under this regulatory system as compared to the Mexican model, yet not as much as possibly from combining banking and insurance. Moreover, it involves not only some duplication of work but also the need for co-ordination and co-operation especially when financial conglomerates are present. And also, it leaves room for regulatory gaps, over-laps and arbitrage.

3.2.4 The Canadian Model

This model refers to the regulatory structure, under which banking and insurance, and in some cases, pensions, as well, fall under a single regulatory agency separate from central bank. This arrangement has been adopted by a number of countries, such as, Canada, Australia, Belgium, Colombia, Ecuador, El Salvador, Guatemala, Kazakhstan, Malaysia, Peru, and Venezuela It is regarded as the best-align model as it minimises conflict between regulatory objectives. It provides scale economies in resource usage and maximises synergies by combining all regulatory practices of a similar style within one agency. It is cost effective, provides for a broad career structure for the staff, reduces the potential for regulatory arbitrage and minimises regulatory culture clashes. As regards its major shortcomings, it involves some contradiction as it separates banking regulation from central bank and still requires co-ordination with, and co-operation of, the latter. Additionally, this model permits concentration of power with each regulator.

3.2.5 The UK Model

It seeks to combine regulation of all banking and non-banking financial institutions in an agency separate from central bank. Apparently, it may be expected to provide very broad career opportunities for the staff. Also, it facilitates co-ordination and co-operation within the institution, and a comprehensive framework for regulation of financial conglomerates, thus eliminating regulatory arbitrage. On the other side, it has the disadvantage of dangers associated with concentration of power in a single agency' and leaving scope for conflict between objectives of banking and insurance regulation. Potential for conflicts of regulatory cultures, and

demerits of the one-size-fits-all approach to different institutional groups are its other negative features.

3.2.6 The Singaporean Model

Its unique feature is that it entrusts the unified regulatory task, encompassing all banking and non-banking institutions, to a single agency, namely, the central bank. It armours the central bank with complete control of financial regulation thus ensuring not only greater stability in regulation but maximising synergies in regulation, as well. It also provides a very broad career structure for staff and eliminates regulatory arbitrage, as in the case of UK model. As regards its negative features, it creates a very powerful central bank endowed with multiplicity of objectives, which may conflict at times. Secondly, it involves the highly dangerous potential of central bank deviating from its main role of monetary regulation. As in most other models, conflict of regulatory cultures and risk of erosion of reputation on account of scams and failures in any financial sector are the negative features of this model.

It is important to mention that these models are not entirely exhaustive in terms of describing all possible regulatory combinations.[4] They refer to only some of the existing possibilities and references for creating still more possibilities in future. Also, there is no single regulatory structure that is ideal for all countries, or ideal even for a single country across all times and circumstances. Changing the institutional structure of regulation should not be viewed as a panacea or a substitute for effective and efficient conduct of regulation. For the success and effectiveness of any financial regulatory system it is necessary that it must enjoy independence together with accountability; it must exhibit good governance; it must have adequate regulatory powers and skills; and lastly; it must possess complete financial independence in the

sense that its resources are not put to risk by way of changes in the budgetary position of the government, or retaliation (from the government) to its certain policy measures and decisions. The regulatory structure should be viewed as a means to an end, not as an end by itself.[5]

In practice, the model of multiple regulators exists in most countries today as can be seen from Table 3.1 and Fig. 3.1. At the end of 2002, as many as 31 countries had multiple regulators, that is, institutional regulatory model. However, an increasing number of countries, during the last two decades, have been moving in the direction of adopting what is usually called model of unified or integrated supervision.

Under the fully integrated regulatory regime, a single agency is established for all the three financial sector segments (banking, insurance and securities). Both, the UK Model and the Singapore Model, belong to this broad class of regulatory regimes, with the difference that in the Singapore Model, the powers for regulation and supervision of the entire financial system concentrate in the central bank, where as in the case of the UK Model, the powers concentrate in a separate regulatory agency outside the central bank. On the other side, under the semi-integrated regulatory regime, a single agency is set up by centralising in it the powers to supervise at least two of the three main financial sector segments, for instance, a single regulatory agency for banking and insurance, or banking and securities, or securities and insurance.

By the end of 2002, as many as 22 countries had adopted the fully integrated regulatory model. As against this, the number of countries having semi-integrated model stood at 24. Among these countries, the form of integration conformed to the Mexican Model (single agency for banks and securities companies) in the case of 6 countries, to the Canadian Model (single agency for banks and insurance companies)

in the case of 11 countries, and to the South African Model (single agency for securities and insurance) in the case of 7 countries. The distribution of countries having different types of semi-integrated regulatory structures is illustrated in Fig 3.2.

Interestingly, many more countries are today having under their active consideration the adoption of integrated approach to supervision of their financial sectors. Also, some of the countries, which are already having partially unified agencies (e.g., Mexico and South Africa), are now thinking of shifting to the single regulator model. Norway was the first country to opt for the fully integrated regulatory regime in 1986, with Denmark and Sweden to follow during the next few years. The creation of the Financial Supervisory Authority (FSA) in the United Kingdom in 1997 accelerated the momentum in favour of single regulatory regime. The most recent entrants to this group are Estonia, Germany, Ireland and Malta.

Table 3.1: Countries adopting different types of regulatory structures.

Single Regulator Countries	Semi-Integrated Regulator Countries			Multiple-Regulator Countries
	Banks and Securities	Banks and Insurance	Securities and Insurance	
1. Austria 2. Bahrain 3. Bermuda 4. Cayman Islands 5. Denmark 6. Estonia 7. Germany 8. Gibraltar 9. Hungary 10. Iceland 11. Ireland 12. Japan 13. Latvia 14. Maldives 15. Malta 16. Nicaragua 17. Norway 18. Singapore 19. South Korea 20. Sweden 21. UAE 22. UK	1. Dominican Republic 2. Finland 3. Luxembourg 4. Mexico 5. Switzerland 6. Uruguay	1. Australia 2. Belgium 3. Canada 4. Colombia 5. Ecuador 6. El Salvador 7. Guatemala 8. Kazakhstan 9. Malaysia 10. Peru 11. Venezuela	1. Bolivia 2. Chile 3. Egypt 4. Mauritius 5. Slovakia 6. South Africa 7. Ukraine	1. Argentina 2. Bahamas 3. Barbados 4. Botswana 5. Brazil 6. Bulgaria 7. China 8. Cyprus 9. Egypt 10. France 11. Greece 12. Hong Kong 13. India 14. Indonesia 15. Israel 16. Italy 17. Jordan 18. Lithuania 19. Netherlands 20. New Zealand 21. Panama 22. Philippines 23. Poland 24. Portugal 25. Russia 26. Slovenia 27. Sri Lanka 28. Spain 29. Thailand 30. Turkey 31. USA

Source: How Countries Supervise Their Banks, Insurers, and Securities Markets, 2003. London, Freshfields.

Fig. 3.1: Distribution Of Countries Adopting Different Regulatory Structures

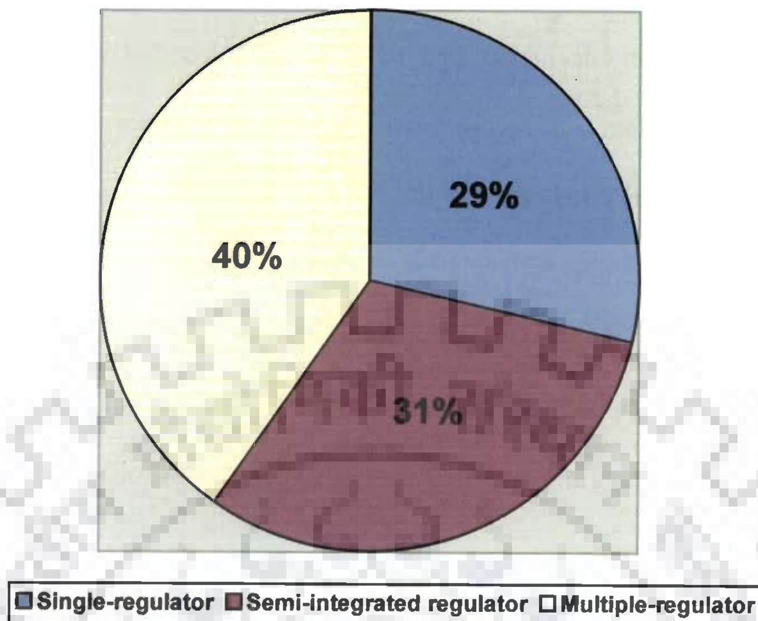
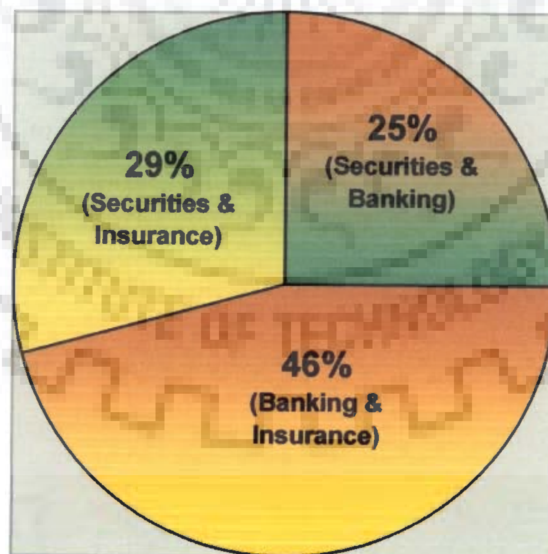


Fig. 3.2: Distribution Of Semi-Integrated-Regulator Countries Having Different Forms Of Integration



3.3 Arguments for and against integrated regulation

The debate on the merits and demerits of integrated regulation has assumed increasing importance in recent years. A growing number of countries are having under their serious consideration the issue of adoption of an appropriate regulatory regime. The creation of Financial Supervisory Authority in the United Kingdom has prompted many countries to assess the pros and cons of shifting to an integrated regulatory regime with urgency and priority. The arguments in favour of integrated or unified regulatory regime may be summarily specified as follows:

1. *Economies of scale for the regulator.* Integrated regulation may be expected to allow cost reduction as a result of sharing of infrastructure, administration and miscellaneous support services.

2. *Cost saving for the regulated entities.* The regulatory merger means fewer costs for the regulated institutions, which have diversified business, for instance, financial conglomerates. They are saved of the burden of complying with the regulatory requirements of multiple regulators.

3. *Greater accountability.* The complexity of the multi-agency regulatory system and, in some cases, blurring of the regulatory roles often lead to loss of accountability. With centralisation of regulatory roles in a single agency the regulatory responsibility is expected to be more pinpointed, and, hence, greater accountability.

4. *Check on regulatory arbitrage.* In a multi-agency regulatory system, different market segments are supervised differently, some with more stringent requirements as compared to others. This gives rise to

competitive inequalities. In order to counter this situation firms are often induced to shift their business, overtly or covertly, to unregulated or less regulated segments.

5. *More efficient use of scarce regulatory resources.* The cetralisation of regulatory responsibilities and powers in one agency opens opportunities for gainful substitution and deployment of scarce specialised regulatory resources.
6. *More effective regulatory response to innovative changes* in financial market practices, and products and services. The more focused and comprehensive approach to supervision under the unified regulatory system enables the regulator to observe, and respond to, changes and developments taking place in the market more quickly and effectively.
7. *Better international regulatory cooperation.* An integrated regulatory system facilitates the contact and dialogue between regulators from different countries at a single point, thus, enhancing the scope for mutual cooperation.

On the other side, there are several authors who believe that there are equally good reasons for keeping financial regulatory agencies separate. In support of their contention they put forward the following main arguments to highlight shortcomings and limitations of integrated regulatory regime and emphasise the positive aspects of multi-agency regulatory system:

1. *Benefit of specialisation.* Multi-agency regulatory system, endowed with specialised supervisory skills, is in a better position to properly

comprehend, and respond to, the unique characteristics of each type of financial intermediary as compared to a single centralised agency.

2. *Better accountability.* The ability to ensure better accountability is, in fact, not specific to the form of regulatory structure. If the mandate of each regulator is sharply defined and specified leaving practically no room for ambiguity as regards the responsibility of each one of them, then ensuring their accountability may, at least, be equally possible, if not easier, even under the multi-agency system.

3. *Effective regulatory and supervisory capability.* If proper, effective mechanisms are in place to ensure policy interaction and coordination among different agencies, there is no ground for expecting less effective supervision and monitoring of the financial system in one type of regulatory regime as compared to any other. On the contrary, there is a substantial possibility of the supervisory effectiveness suffering seriously if the new integrated regulatory authority is not able to evolve a consistent regulatory framework by harmonising the supervisory practices and rules in time which are in existence for different market segments.

4. *Provision for checks and balances.* The multi-agency regulatory structure, by its nature, provides for checks and balances. In a single supervisory agency system, there is likelihood of their elimination, or at least, becoming negligible due to concentration of regulatory powers and emergence of a predominant bureaucratic system on the scene, with much less ability to respond to market demands quickly and effectively.

5. *Departure and demoralisation of staff.* An important argument against integrated supervision if that if the merger of different regulatory bodies is not properly managed and effected in reasonable time, it may create many problems such as , departure of experienced personnel, and demoralisation of staff.[6]

6. *Limited scope for harmonisation of regulatory rules.* Although harmonisation of regulatory rules and practices across market segments is important so as to reduce regulatory arbitrage. But it is required to be done to only a certain limit. Each segment has its unique characteristics and it requires specific regulations. A common regulatory kit may be a highly misplaced prescription in view of the heterogeneous nature of market segments. A unified regulator may fail to provide a necessary framework for supervision of not-so-identical financial market segments, thus, allowing the overall quality of supervision to suffer.

7. *A distinction needs to be made between weakness of supervisory structure and weakness of supervision.* If supervision of financial markets is weak under multi-agency regulatory system, it may be expected to be weak even under a single regulator regime, too. For ensuring effective supervision, a mere change of regulatory structure is not sufficient. More important is to properly address the weaknesses in the regulation and supervision.

8. *Unified regulatory regime is not the only effective available option.* It is argued by the critiques of the unified approach that the main regulatory problem in most countries is lack of communication and cooperation among different agencies, which can be tackled through other available

remedial measures effectively. For improving communication and cooperation particularly in respect of information sharing, special committees with senior policy makers from different agencies can be constituted to regularly meet to share information, experiences, and issues of mutual interest. For ensuring effective collaboration among agencies necessary arrangements can be formalised through Memorandum of Understanding (MOU). Designating one of the agencies as the "lead" supervisor under country's legal framework is another solution.

9. *Scale economies is not a strong enough argument to justify unified approach.* Some empirical studies have come out with the finding that there is not much evidence to show that the operating costs of new unified agencies are lower than what they were prior to the unification. So far, only a few unified agencies have reported that their operating costs are lower[7]. Some authors believe that there may actually be diseconomies of scale in the unified regime. It is argued that the monopolistic regulatory agency has the potential of being more rigid and bureaucratic because of their largeness of size and broad-based structures[8].

10. *Pooling of sills and resources under unified regulation may not produce the expected gains of synergy.* The regulatory cultures, objectives, sources of risk, and required skills of the various regulatory agencies markedly differ from each other. For instance, whereas the sources of risks are mainly on the asset side in the banking sector, these lie on the liability side in the insurance sector. These factors may prevent the realisation of the expected synergy gains.

3.4 Experiences of countries

Despite the serious debate on the merits and demerits of integrated regulation, which is mostly theoretical and devoid of empirical content, very little is known about the experiences of the countries in respect of the real impact of the new regulatory regime and the practical problems in its enforcement. This section presents the results of a World Bank survey [9] of 15 developed and developing countries that had adopted integrated supervision by the end of 2002. The survey examined the reasons for adopting integrated regulation in these countries and assessed their progress in developing a consistent framework of regulation and supervision for the financial segments assigned to them. In addition, the survey identified the practical obstacles faced by these countries in adopting integrated regulation. The results of the survey throw valuable light on some of the regulatory issues of substantial empirical significance, in particular, various problems encountered by these countries in the course of their transition from one regulatory regime to the other, their experiences with the implementation of the new regime, and the lessons for other countries that are considering or planning to adopt integrated regulation. The major findings of the survey are as follows:

3.4.1 Reasons for adopting unified regulation

The two most important reasons for adopting unified regulation, as reported by these countries, are the need to supervise financial conglomerates effectively (14 countries) and the need to maximise economies of scale and scope (12 countries). The other less pressing reasons related to

1. the need for solving problems resulting from poor communication and lack of cooperation among existing regulatory agencies (4 countries),

2. the need to minimise the *regulatory gaps and overlaps* (3 countries), the need for operational restructuring of regulatory agencies, in particular, after a financial crisis (3 countries), and

3. the need to overcome other *weaknesses in the overall quality* of financial regulation and supervision (2 countries).

Almost all countries indicated having adopted integrated regulation in response to the growing importance of financial conglomerates[10]. Deregulation, liberalisation and rapid technological innovations in these countries have allowed the financial intermediaries to offer an increasing variety of financial products and services, which has led to the blurring of the distinctions between banking, securities and insurance products and services, making financial supervision and regulation an exceedingly difficult task under the previous regulatory regime. As regards the reason relating to the maximisation of economies of scale and scope, it is important to note that it was a strong argument for the adoption of integrated regulation in practically all small economies covered in the survey.

3.4.2 Regulatory and supervisory powers of the unified agency

Except for Singapore, which has decided to concentrate the powers for regulation and supervision of the entire financial system in the central bank, all other countries have created a separate regulatory agency outside the central bank. The survey, on the basis of analysis of the regulatory powers of the unified agencies, has revealed that the ministries of finance and central banks continue to play a key role in

issuing and amending relevant prudential regulations, authorising or revoking licenses to financial intermediaries, and enacting other important laws. The results of the survey also show that the powers of the unified agencies are basically concentrated in core supervisory functions, including the power to conduct on-site and off-site examinations, as well as the power to impose sanctions and fines for non-compliance with existing laws and regulations. Almost all the agencies covered in the survey reported having wide powers in these areas.

3.4.3 Harmonisation of regulatory and supervisory framework

In order to prevent regulatory arbitrage, and measure similar risks using consistent standards and methods irrespective of the type of financial intermediary undertaking them, harmonisation of the supervisory and regulatory practices across financial segments, as far as possible, is very necessary. This requires a shift in the regulatory approach - from institutional to functional approach. In the absence of this, a unified regulatory body may be seen mostly as an umbrella providing just a common name to all former regulatory agencies, but allowing them to function in the same usual way as before. What is really important is integration of regulatory and supervisory rules and procedures, and surely, it is not possible without achieving their harmonisation.

The survey attempted a measure of the degree of integration in terms of 'harmonisation' achieved by these countries between banking and securities firms, and between banking and insurance firms.

As regards the integration between banking and securities regulation, the results of the survey indicated an over-all high degree of integration of 73 per cent, in

a scale ranging from 0 per cent (no integration at all) to 100 per cent (full integration). Component-wise, the areas of higher integration included accounting rules and off-site monitoring and analysis, both with a degree of integration of 79 per cent each. On the opposite, the areas with less integration included minimum capital adequacy requirements and requirements for licensing, with a degree of integration of 69 percent and 63 per cent, respectively.

In contrast, the degree of integration between banking and insurance supervision has been found "to be lower than the degree of harmonisation reached between banking and securities supervision...the combined index of harmonisation between banking and insurance shows a degree of harmonisation of 56 per cent, as compared to an index of 73 per cent of harmonisation between banking and securities. The highest degree of harmonisation between banking and insurance has been achieved in the core areas of supervision, including consolidated supervision, as well as on-site and off-site supervision. In each of these areas, countries reported an average degree of integration of 72 per cent, 69 per cent and 67 per cent, respectively. With regards to requirements for licensing and accounting rules, the average degrees of harmonisation were 64 per cent and 50 per cent, respectively. The areas in which far less integration has been achieved.... Include the definition of components of capital, as well as the minimum prudential requirements that intermediaries must observe, in these two areas, the degree of harmonisation was just 42 per cent and 28 per cent, respectively."

3.5 Practical problems

The countries included in the survey have reported some major problems faced by them in the establishment and operation of their unified regulatory agencies. These problems related to

1. legal constraints,
2. departure of experienced personnel, and demoralisation of staff,
3. complications and delays in the integration of IT systems and infrastructures of the merged entities, and to some extent,
4. lack of mission and clarity in the initial years of unification, and
5. budgetary hiccups.

For the success of unification process and its effective implementation, there are some basic requirements:

1. Necessary amendments in laws must be made, and wherever required new laws must be enacted on priority basis.
2. Laws must define the objectives, powers and responsibilities of the new regulatory agency.
3. Laws must also exist to provide for legal protection to the staff, and accountability mechanism.

In this regard, the results of the survey have brought out some serious problems encountered by as many as 9 agencies. These related to

1. outdated or inadequate laws at least during the first three years of their existence,

2. good deal of ambiguity with regard to the source of funding, ownership of assets, power to endorse treaties with their foreign counterparts, power to impose sanctions, and power to issue and amend prudential regulations,
3. difficulties with regard to provision of legal protection for their staff, and
4. absence of proper accountability mechanism.

A widespread sense of confusion and uncertainty, and even a feeling of insecurity of professional career, is likely to prevail during the initial stage. This may be due mainly to the delays in completing the necessary formalities, giving a definitive shape to the envisaged regulatory structure, appointing the new heads of departments, and finalising the employment conditions. The more the delays in these matters, the greater the chances of the departure of experienced personnel of the merging entities. This is precisely what the nine of the agencies included in the survey had to face. These agencies reported the departure of many experienced key personnel as a result of the uncertainty created by various delays in the initial stage of the unification process.

An important challenging task in the merger process is its proper, well-planned management. Any laxity in this regard can push the unification process off the track. In addition to the problems of departure of experienced personnel and demoralisation of staff already mentioned, some other serious consequences were also reported in the survey. These were reportedly due mainly to the difficulties in

1. merging the agencies and integrating the IT systems,
2. downsizing the number of departments and personnel, and
3. managing the budgetary constraints.

3.6 Important lessons

The various problems experienced by the unified agencies, especially in the initial years of the transition, imply important lessons for the countries that are seriously thinking of adopting the unified model. These lessons may also be important even for countries that do not contemplate any change in their existing multi-agency regulatory structure, as some of the problems referred to above are not specific to a particular regulatory regime. For instance, these countries also face the problems posed by the financial conglomerates, and are required to ensure

1. harmonisation of regulatory rules and practices to minimise regulatory arbitrage and,
2. communication and coordination among regulatory agencies.

Integrated regulation is still a recent phenomenon. Its effectiveness, in fact, is yet to be tested. Nevertheless whatever experiences, in this regard, are available they are important. They point out to the problems likely to emerge in the integration process. They emphasise the need for ensuring necessary preparations and safeguards against various hurdles and problems. Those countries, which are presently having problems with the multi-agency regulatory system, must not believe that the real solution to their supervisory and regulatory deficiencies necessarily lies in shifting to a unified system. Unified regulation is one of the several options. Many factors play an important role in the determination of the regulatory regime, which a country needs to adopt. In this respect, Goodhart, et al (1998) have correctly observed that a regulatory regime must be such that it satisfies the environment in which it is to be implemented, taking complete cognisance of the business activities of the regulated

financial institutions and the specific circumstances of the country. Relevant country-specific factors include

1. nature and features of the financial system structure,
2. relative importance of the financial market segments,
3. political and social structures and commitments, and
4. government, industry and societal relations.

An important lesson implied by the experience of other countries is that whatever the form of unification, partial or full, certain problems would have to be duly managed to move in the right direction. A comprehensive plan as regards the various preparatory and operational aspects of the proposed system as well as a strong managerial resource base is of key importance to minimise the problems and make the unified system work. The integration of the regulatory agencies should be undertaken in an environment of financial stability and adequate appreciation of the objectives of, and the approach to, the proposed change possibly by all participatory groups of the financial system. One of the requirements for the success of the integrated regulation is that all market participants understand and appreciate the rationale underlying the proposed change. In this regard, Foot (2004) has described the successful experience of the Financial Services Authority (FSA) of the United Kingdom during first six years of its existence in these words: “We were helped in the transition period by three things. Most importantly, the continuing rapid development of the financial services industry confirmed the validity of the key underlying assumption behind the creation of the FSA – namely the permanent breakdown of the traditional product barriers.... Once you accept that banks will own insurance companies and vice versa,

it is a short step to agreeing that there should be common rules for the groups concerned. And from that, it is another step to say that all should be subject to one regulator. Secondly, we had some luck in that – despite Long Term Capital Management, the Asian Crisis and the rest, the world economy was relatively benign until the fall in the world equity markets got seriously underway in 2000. Had the FSA's first years of existence coincided with say 11th September, 2001 and all that followed, things would have been much more difficult. Thirdly, in typically British fashion, we benefited from a fund of good will, give and take, that made it possible to run these heterogeneous predecessors of the FSA as one".

The main **conclusions / lessons,** which follow from the experience of the countries included in the survey, may be summarily specified as follows:

1. It is very important to achieve harmonisation of regulatory rules and practices, as early as possible.
2. The roles and responsibilities of the unified agency, the central bank and the ministry of finance should be clearly delineated by establishing necessary framework.
3. It must be ensured that the unification does not appear to be some kind of "takeover" of small agencies by a large, dominant agency. The merged entities must act in a 'give and take' manner and behave with each other more or less as equal partners in a common mission.
4. The unification should be undertaken in a climate of financial stability and conducive market opinion.

5. The necessary formalities in respect of giving a definitive shape to the unified regulatory system such as, integration of the IT systems and infrastructures of the merged entities, appropriate budgetary provisions, appointments of new heads of departments, and finalising the employment conditions should be completed without undue delay.

6. The unified agency should be allowed a reasonable degree of independence and autonomy for performing its assigned role effectively.

7. The staff of the unified agency should enjoy legal protection so as to discharge its duties sincerely and fearlessly.

Section B

(Indian Financial System)

3.7 Evolution

Indian financial system comprises institutions and mechanisms, which affect the generation, mobilisation and distribution of savings. In broad terms, it includes money market and capital market and the various agencies responsible for their supervision and regulation. Among its components we may include the following:

(a) The banking system, the insurance companies, mutual funds and other institutions (NBFCs, merchant banks, etc.) which promote and mobilise savings and make the same available to actual investors.

(b) The investors in the economy which include individual investors, industrial and trading companies and the government.

(c) Other financial institutions, which actually act as facilitators, for instance, the New Issue Market which facilitates the flow of savings into new issue of stocks and shares, and the Stock Exchanges which facilitate the buying and selling of shares and debentures of existing companies. Basically, these institutions act more as alternative channels for investment of savings rather than actual promoters of savings.

(d) The regulatory agencies (RBI, SEBI, IRDA) which are entrusted the responsibility of ensuring fair conduct on the part of financial intermediaries engaged in different spheres of financial activity so as to promote financial stability and protect the interests of consumers of financial services. Except for some overlapping of functions, broadly

speaking, RBI is responsible for regulation and supervision of banks and NBFCs, SEBI for securities markets and mutual funds, and IRDA for the insurance business.

The evolution of Indian financial system, considering the vast network of banking institutions, insurance companies and stock exchanges and their regulatory agencies, can be said to have occurred mainly over the later half of the last century. In fact, this is also the period when the country's financial regulatory system was founded, nurtured, and given a direction and purpose and the necessary strength in a gradual way as warranted by the circumstances and contingencies, from time to time. During this period, the system played varied roles - an instrument of planned development in the initial stage; a precursor of social change a little later; and a custodian of modern complex and robust financial sector, presently.

The beginning of the process may be seen in the coming into existence of the Reserve Bank of India (RBI). The growth of financial system that has since occurred may be conceptualised, to a large extent, in dialectic terms. An understanding of the dynamics of the financial system is useful in many respects. It facilitates a correct perception of its present state for identifying the areas where policy initiatives need to be undertaken to plug the loopholes. In particular, for regulatory purposes, it is a pragmatic way of approaching problems and seeking their solutions. Viewing the growth process of the system in simple historical stages is not of much use. It is more important to see how it has been affected as a result of actions and reactions of different interest groups in course of various corrective measures initiated in the past. This approach to investigating into a problem and seeking solutions contains the *essence* of what is known as dialectic process. It is necessary to briefly describe here

how we intend to view and apply the dialectic process for comprehending the macro-dynamics of Indian financial system.

The word dialectic refers to changes occurring through a process of actions and reactions by opposite forces, overtime. It implies essentially a process of evolution of ideas, institutions and systems. Making use of its broad analytical frame, the dynamics of the behavior of Indian financial markets and their regulatory system may be rationalised in terms of development perceptions, priorities and strategies as well as the policy instruments that were employed for their implementation, under emerging circumstances and contingencies, over the last more than five decades. In this change process, policy instruments and their implementation may be seen as representing the *thesis* part of the dialectic process. Likewise, the responses (from different quarters) to, and the consequences of, these policy instruments may be taken to symbolise the *anti-thesis*. And finally, the adjustments of policy instruments as induced by these responses and consequences may be interpreted as *synthesis*.

The main features and assumptions of the dialectic process as we see it in the context of dynamics of the Indian financial system are as follows:

(1) *Existence of distinct interest groups.* Three distinct groups of individuals or institutions, namely investors, financial institutions (both public and private) and regulators, constitute the financial system. The regulatory role may be performed directly by the government or some outside agency having responsibilities and powers as decided by the government. In any case, the regulatory system operates under influence of the government, to a significant extent.[11]

(2) *Role of regulatory agencies.* The objective of financial regulation is to ensure stability and smooth functioning of the financial markets, as well as protection of the interests of investors and consumers of financial products and services, and above all, to give direction to the financial sector to align it with the mood and needs of the macroeconomic system.

(3) *Clash of group-interests.* There is generally a clash of interest between/among the various constituent groups. In particular, the financial institutions (regulated), seeking maximisation of their interest, are involved in some kind of an on-going struggle with the regulators and also among themselves. 'Avoidance' is the most common feature of this struggle. The rules that benefit a protected class are often seen by the regulated institutions as a dent into their market shares and profits. These institutions try to find out loopholes in the regulatory provisions. The struggle for a competitive edge, often, makes regulatory avoidance an end by itself.

(4) *Presence of external sector.* Both domestic economy and its regulatory set up are susceptible to influences exercised, directly or indirectly, by external forces such as foreign governments, international agencies and global markets.

(5) *Simultaneity of dialectic phases or elements.* In the dialectic process, a particular phase may set in even while its preceding phase is still continuing. In this sense, any two phases may have an overlapping stretch of duration during their existence. Dialectic phases are not watertight compartments.

(6) *Dialectic dynamics represents a sequence of several cycles occurring in continuum.* The *synthesis* phase of one cycle may also mark, after a lag, the *thesis* phase of the next cycle. As such, dialectic dynamics implies a sequence of several cycles occurring in continuum rather than in a discrete and disjointed fashion.

(7) *Dual aspects of 'avoidance' behaviour*. The 'avoidance' behaviour marks the *antithesis* phase in the dialectic process. It comes into existence as a lagged reaction to the enactment and implementation of regulatory rules (*thesis*). If the regulated institutions are found to violate the rules more often than observing their compliance then sooner or later a stage arises for amending the rules, and even the basic approach to regulation. These policy counter-moves that are intended to remove the observed shortcomings and impart effectiveness to the regulatory system constitute the *synthesis* phase. With this, one cycle in the dialectic process ends, and another begins. The revised rules induce a fresh wave of avoidance behaviour. The dialectic dynamics continues.

There is also a positive aspect of the avoidance behaviour. In some cases, the avoidance behaviour gives rise to financial innovations. Regulatory rules are often seen by the financial institutions as hurdles, which prevent them from expanding business and maximising profits or market share. A search begins to find out ways and means of exploring and expanding new business opportunities in unregulated areas, a phenomenon commonly referred to as 'regulatory arbitrage'. In this process, sometimes new financial products and processes emerge which enable these

institutions to enhance their efficiency in terms of lower transaction costs, better customer services and unregulated business. The emergence of derivatives and e-commerce, that is, card- and network- based financial products, electronic bill presenting, and payment making system, are examples of financial innovations that opened huge new business opportunities. A study of the evolution of innovative financial products would show that financial instruments were developed mostly to circumvent the existing laws.[12] This a major motive of financial innovation, although there may be other motives, too.[13]

As stated earlier, the evolution of the Indian financial system, considering the vast network of its market segments and regulatory institutions, can be said to have occurred mainly over the later half of the last century. The beginning of the process may be seen in the coming into existence of the Reserve Bank of India (RBI), which was truly speaking the first financial regulatory body in the country. The Indian financial system has since completed one full circle in the dialectic process and is now passing through the last phase (*synthesis*) of the second cycle. Our understanding of the forces pushing the system though various cyclical phases may be expected to be more focused if a brief reference is made to the state of financial scene which was in existence when the country became Independent. This pre-Independence period may justifiably be referred to as 'pre-dialectic' stage.

Pre-dialectic stage

Though the Reserve Bank of India was established in 1935 as private shareholders' bank and started functioning with effect from April 1, 1935, it became an effective banking regulatory agency only when it was nationalised about fifteen

years later. In the pre-Independence period, there was hardly any financial system in the country worth the name. Banking system was highly under-developed. It had gone through a series of crises and consequent bank failures. Its growth during the first half of the century was quite slow. At the time of Independence, there were more than four hundred commercial banks. There was no separate Act to control and regulate the establishment, organisation and functioning of commercial banks in India. In the absence of banking legislation, banking system had developed many drawbacks.

The indigenous bankers played a dominant role in the provision of credit. In the conduct of their business they employed traditional, rigid practices. Despite their significance in the Indian economic system, the indigenous bankers were generally outside the domain of organised banking. In the 1930s, the RBI suggested that they should give up their trading and commission business and adopt a professional approach by developing the deposit side of their money lending activity and using modern accounting and auditing system. But the indigenous bankers declined to accept these and other restrictions as well as the compensating benefits of securing accommodation from the RBI on favourable terms.

Another serious malice afflicting the system was the colonial exploitation of the economy in terms of siphoning-off its natural and financial resources. This was done by the British through what was known as Managing Agency System. The British rich merchants who had earlier set up trading firms acted as pioneers in several industries like jute, tea and coal. Subsequently these persons extended their business interests to some more areas like floating new concerns, providing their own funds and also arranging funds, acting as agents for the purchase of raw materials, and equipment and machinery. They also acted to manage the affairs of the business for

which they were paid heavy office allowances. Besides they were also entitled to a share in the profits of the concern. Instead of using their growing financial power for the expansion of Indian industry, they repatriated profits back home. Worse still, they resorted to constant, ruthless exploitation of Indian natural resources for export. Finance, instead of being humble servant of the industry, became its cruel master.

Apparently, during the pre-Independence period the financial system was highly disorganised, neglected and direction-less. There was no regulatory mechanism worth the name. The masters of the system became its tormentors. There was no one to stop it. Under these conditions, dialectic demarcations (*thesis, anti-thesis and synthesis*) became extremely blurred and irrelevant. It is in this context that this period may be termed as 'pre-dialectic' stage.

First cycle: the stage of foundation, expansion, and policy introspection and adjustment

It is that stage of evolution of the Indian financial system the beginning of which may be seen coinciding with nationalisation of the RBI in 1949. It extended practically over four decades - from the 1950s to the 1980s. During its initial part, that is, the 1950s and much of the 1960s, the main emphasis was on development of the necessary legislative framework for facilitating reorganisation and consolidation of the banking system. The Banking Regulation Act was passed which conferred upon the RBI wide powers to control and regulate commercial banks. The co-operative credit structure was strengthened and institutional framework for providing long-term finance to agriculture and industry was set up. A number of financial institutions came into existence during this period such as Industrial Credit and Investment Corporation

of India, Life Insurance Corporation of India, [14] the Industrial Development Bank of India and the Unit Trust of India.

A little later, from 1969 onwards, some radical policy initiatives were undertaken for expanding and invigorating the financial system so as to make it serve, in particular, the interests of priority areas as well as the social goals of development policy set out in the plan documents. Simultaneously, some specialised financial institutions (such as Industrial Reconstruction Corporation of India,[15] Regional Rural Banks and the Export and Import Bank of India) were also set up. Almost a decade later (in 1988), an important policy measure was taken on the side of the securities market which had not received due attention for a long. The Securities Exchange Board of India was established for revamping and streamlining the securities market and protecting interests of investors.[16]

Among the bold and path-breaking policy decisions, nationalisation of a number of financial institutions in the banking and the insurance segments was the most important. As many as 14 large commercial banks were nationalised in 1969, followed by nationalisation of another six banks in 1980. During this period, there was also nationalisation of general insurance business. A little over one hundred insurance companies, both Indian and foreign, were amalgamated and grouped into four companies, namely, National Insurance Company Ltd., the New India Assurance Company Ltd., the Oriental Insurance Company Ltd., and the United India Insurance Company Ltd.[17]

The nationalisation of banks and insurance companies constituted a major turning point in the Indian financial system. The main objectives behind this move were: (a) greater mobilisation of savings through bank deposits, (b) widening of

branch network of banks, especially in the rural and semi-urban areas, and (c) re-orientation of credit flows so as to benefit the hitherto neglected sectors such as agriculture, small-scale industries and small borrowers. In order to strengthen the social and human dimension of the development process, several important steps (such as priority sector lending, differential interest rate scheme, and Integrated Rural Development Programme) were taken. For the implementation of these schemes the major onus was placed on the public sector banks.

Broadly speaking, the three decades preceding 1980s represented the *thesis* phase in the first dialectic cycle. This was mainly the phase of policy action in terms of setting development goals and priorities and pressing into service necessary policy instruments such as establishment of financial institutions, and nationalisation of banks and insurance companies. The role of regulating the financial system was assumed basically by the government. The nationalised banks were assigned a tailored role, 'social banking.'

As a result of bank nationalisation, there was rapid expansion of far-reaching significance of the banking system. Major objectives of nationalisation had been mostly achieved. But these achievements inflicted a severe blow on the health of these banks. Banking efficiency deteriorated and profitability plummeted. This was due mainly to factors such as weak control system, retail lending to more risk-prone areas at concessional interest rates and higher costs, and above all, misuse of funds in utter disregard of banking ethics, and thwarting of competitive culture in banking.[18] The excessive use of public sector banks by their political bosses as an instrument of policy implementation led to accumulation of non-performing assets in their portfolios in substantial proportion. These consequences of certain policy actions

initiated during this period correspond to the second phase of the first cycle, *anti-thesis*. It may be noted that this phase of policy-reaction was witnessed at a time when some new policy initiatives for expansion of the financial system were being taken, and the first phase was still going on.

The decade of 1980s was, by and large, a period of caution and policy-introspection. In order to tone up the sagging health of public sector banks, the ambitious priority targets set out for them were brought down and necessary action was initiated for a phased rationalisation of bank deposits and lending rates and removing certain ceilings. On the whole, the thrust of the policy initiatives during this period was mainly at consolidation and, to some extent, deregulation (in the banking sector). There was emphasis on (a) slowing down the branch expansion programme significantly but not at the cost of rural areas deficient in banking facilities, (b) maintenance of adequate levels of efficiency and productivity by individual banks in terms of organisation and structure, training, house-keeping, customer service, credit management, loan recovery, staff productivity, etc., and (c) compliance (by banks) of the Health Code System introduced in 1985. As such, this decade of policy adjustment may be seen to represent the last phase of the first dialectic cycle, *synthesis*.

Second cycle: liberalisation and its after-math

By the time the decade of 1990s started, a number of problems, having their origin in the past many years, had cumulated to a level that required a total change in the basic approach to the development trajectory. Besides the problems afflicting the financial sector, there were also numerous other maladies that were weakening the macroeconomic system and threatening its stability. The situation had become

extremely grave and uncontrollable. It was approaching almost a flash point. Fiscal deficit was constantly growing. Balance-of-payment situation had become extremely critical. The country was almost on the brink of default. There were pressures from the external sector for putting the domestic economy in order. The need for initiating radical structural reforms was being greatly emphasised. The moment had arrived for duly recognising the role of market mechanism in different spheres of economic activity and integrating the domestic economy with the global economy. The stage was fully set for the enactment of next episode on the policy front heralding the beginning of another cycle.

Under structural reforms, to a large extent, the emphasis was on relaxing restrictions, which severely impeded the functioning of the market mechanism and led to inefficiency and sub-optimal resource allocation. It was a period when policy measures were directed towards liberalisation, privatisation and globalisation of the economy in a selective, phased manner. This policy shift, *inter alia*, changed the complexion of the financial sector substantially, in recent years. To day, there is an impressive, rather, surprising growth of large financial institutions, known as, financial conglomerates,[19] which present a remarkably different phenomenon distinct in scale of operation, objectives, scope and modus operandi. This phenomenon is becoming gradually more marked in the private sector, which is expanding fast in the new growth-conducive policy scenario. The scale and complexity of financial activities have created new challenges for the regulators. Looking at the nature and sequence of major events during this period, the dialectic process can be said to have almost completed the first two phases by now. It is well set to enter the third phase, may be possibly, with initiation of necessary policy measures for structural and

functional reorganization of financial regulation for aligning it with the new fast emerging financial scenario.. All so suddenly!

The *thesis* part of the process can rightly be attributed to the initiation of structural reforms in the early 1990s, the necessary 'momentum' for which came mainly from the external sector. Financial sector reforms constituted an important component of structural reforms. The basic objective of these reforms was to promote a diversified, efficient and competitive financial sector for achieving improved allocative efficiency of available savings, greater investment profitability and accelerated growth of the real sector of the economy. A three-pronged strategy was adopted under these reforms: (a) improving the overall monetary policy framework, (b) strengthening the financial institutions, and (c) integrating the domestic financial system with the global economy, in a phased manner. One of the most important policy initiatives of this phase was the acceptance and implementation of many recommendations of far-reaching implications for the financial sector, made by the Narsimham Committee. Simultaneously, for revamping and strengthening the securities market, Securities Exchange Board of India was made a statutory body and given sufficient powers to deal with various fraudulent practices and scams effectively.[20] A few years later, Insurance Regulatory and Development Authority was set up to regulate and promote the insurance business on competitive lines.

In order to improve the financial strength and the profitability of the public sector banks and tone up the over all Indian financial system by examining all aspects relating to its structure, organisation, functions and procedures, the Government of India set up two high-level committees with M. Narsimham, a former Governor of the Reserve Bank of India, as their Chairman. The first committee submitted its Report in

1991, and the second committee, which was set up a few years later, submitted Report in 1998.[21]

These Reports made certain recommendations for introducing radical measures. The major thrust of the recommendations was to make banks competitive and strong and conducive to the stability of the financial system. The Government was advised to make a policy declaration that there would be no more nationalistion of banks. Foreign banks would be allowed to open offices in India either as branches or as subsidiaries. In order to promote competitive culture in banking, it was suggested that there should be no difference in the treatment between public sector banks and private sector banks. It was emphasised that banks should be encouraged to give up their conservative and traditional system of banking and take to new progressive functions such as merchant banking and underwriting, retail banking, mutual funds, etc. The Committee recommended that foreign banks and Indian banks should be permitted to set up joint ventures in these and other newer forms of financial services.

The Narsimham recommendations came perhaps at the most opportune time when waves of liberalisation and delicensing had, in fact, already started the financial cleansing of the economy. Besides some important reforms in the spheres of money market and capital market were already underway. With initiative-conducive scenario around, the Government of India accepted all major recommendations of the Narsimham Reports and started implementing them straightaway, despite stiff opposition from bank unions and political parties in the country. In a way, these negative reactions of bank unions and political parties motivated by their vested

interests constituted what may be called the 'still' birth of the second phase, *anti-thesis*.

An overview

An overview of the change process since Independence shows that the evolution of Indian financial system, from almost a non-existent state into a modern globalised, vibrant, complex system, is a story of constant struggle to improve, expand and gain strength under diverse, sometimes even inimical, circumstances. It has played important roles both as an instrument of state development policy and a precursor of market economy that is emerging fast as a force to be reckoned with on the international economic scene. On its growth path, it has passed through two important events, which may be regarded as milestones in its evolution. These events were, in fact, the products of diametrically opposite phenomena – nationalisation of financial institutions, and financial sector reforms. Whereas, the former tended to restrict competition in the financial sector, the other meant to boost the same.

After having a long stint with heavy dose of regulation, which led to the stifling of market mechanism, the need for deregulation was widely appreciated to usher in a liberalised financial regime. But it threw new problems and challenges. The phenomenon of financial conglomerates has necessitated serious consideration of a shift in regulatory paradigm (This aspect has been discussed in the last section of this chapter. However, a more detailed discussion appears in the next chapter). New ground is now emerging for a fresh wave of what we may call re-regulation. A fundamental requirement for efficient regulation is that the possibility of arbitrage, as far as possible, should not be there. When a financial institution is able to choose

among regulators, either by altering its corporate form, or its regulatory jurisdiction, or simply its institutional label, there is an incentive to arbitrage among potential regulators so as to minimise the regulatory burden. This problem is exacerbated in conglomerate situations where a heavily regulated parent may be able to reduce its regulatory burden by shifting business to an unregulated or much less regulated subsidiary. Since regulatory arbitrage constitutes a major form of 'avoidance,' its presence may be interpreted as a sign of activation of the second phase, *anti-thesis*, in the dialectic process. Regulation, de-regulation and re-regulation! Indeed, this only reveals the dialectic nature of the financial system, in general and regulatory system, in particular.

3.8 Present status and emerging trends

The financial systems across the world face a host of problems, which vary in nature and magnitude. Despite inherent weaknesses, they show ample signs, which reflect their desire to continuously evolve and grow stronger. The Indian financial system is a representative case, in this regard. It is primarily because of the financial sector reforms initiated during the last two decades or so that the Indian financial system is acquiring fast the shades of a vibrant, dynamic, globalised, complex system. It has created new opportunities and posed new challenges. An analysis of its present status as well as emerging trends is presented subsequently. Relevant statistical information has been specified in Table 3.2 through Table 3.5 Use of appropriate graphical illustrations based on these tables has also been made. An inspection of these tables and figures would reveal the following prominent features and emerging trends of various financial market segments:

(a) In the banking segment, dominant position of public sector banks and most efficient performance of foreign and 'new' private sector banks.

If we look at the percent shares of different bank-groups in total assets, total deposits, total investments, and total loans and advances (Table 3.2, and Fig. 3.3(a) through Fig. 3.3.(f)), we find that the public sector banks alone constitute a little more than 70 percent of each of them, followed by private sector banks (about 20 percent), foreign banks (7 percent) and 'old' private sector banks (about 6 percent). As regards the efficiency performance of these bank-groups, net profit as a percent of total assets is the highest in case of foreign banks (1.52 percent), followed by private sector banks (0.87 percent), public sector banks (0.82 percent).

Table 3.2 - Indian Financial Sector: A Profile of Banking Segment (As at end March, 2006)

(Amount in Rs. billion)

Bank-Group	Number of Banks	Total Assets	Deposits	Investments	Loans and Advances	**Net Profit** (2005-06)	
						Amount	**Return** (% of total assets)
Public Sector Banks	28	**20148.98 (72.3)**	**16224.81 (75.0)**	**6337.41 (73.1)**	**11 061.28 (72.9)**	**165.39 (67.2)**	0.82
Nationalised Banks	19	12344.62 (44.3)	10540.71 (48.7)	3834.45 (44.2)	6818.69 (45.0)	100.21 (40.7)	0.81
State Bank and its Associates	8	6918.71 (24.8)	5424.09 (25.1)	2249.45 (25.9)	3715.20 (24.5)	59.57 (24.2)	0.86
Other Public Sector Banks	01	885.65 (3.2)	260.01 (1.2)	253.51 (2.9)	527.39 (3.4)	5.61 (2.3)	0.63
Private Sector Banks	27	**5714.08 (20.5)**	**4282.52 (19.8)**	**1804.87 (20.8)**	**3128.74 (20.7)**	**49.85 (20.3)**	0.87
Old Private Sector Banks	19	1497.49 (5.4)	1302.52 (6.0)	451.88 (5.2)	828.68 (5.5)	8.76 (3.6)	0.58
New Private sector banks	8	4216.59 (15.1)	2,980.00 (13.8)	1352.99 (15.6)	2300.05 (15.2)	41.09 (16.7)	0.97
Foreign Banks	29	**2015.86 (7.2)**	**1137.45 (5.3)**	**535.62 (6.2)**	975.45 (6.4)	**30.69 (12.5)**	1.52
All Banks	84	**27878.92 (100)**	**21644.78 (100)**	8677.90 (100)	**15165.47 (100)**	**245.92 (100)**	0.88

Note: 1. Figures do not include the impact of conversion of a non-banking entity into a banking entity.

2. Figures in parentheses refer to percentages.

Source: RBI's Report on Trend and Progress of Banking in India, 2005-06.

Fig. 3.3(a): Group-Wise Assets o Scheduled Commercial Banks
(as per cent of the total assets)

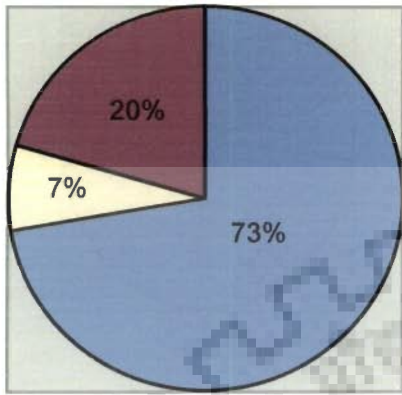


Fig. 3.3(b): Group-Wise Deposits Of Scheduled Commercial Banks
(as per cent of the total deposits)

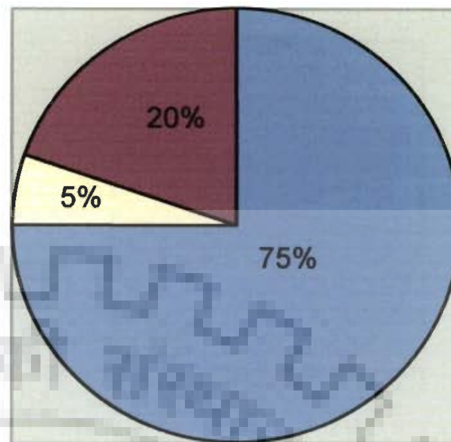


Fig. 3.3(c): Group-Wise Average Assets Of Commercial Banks (Rs. billion)

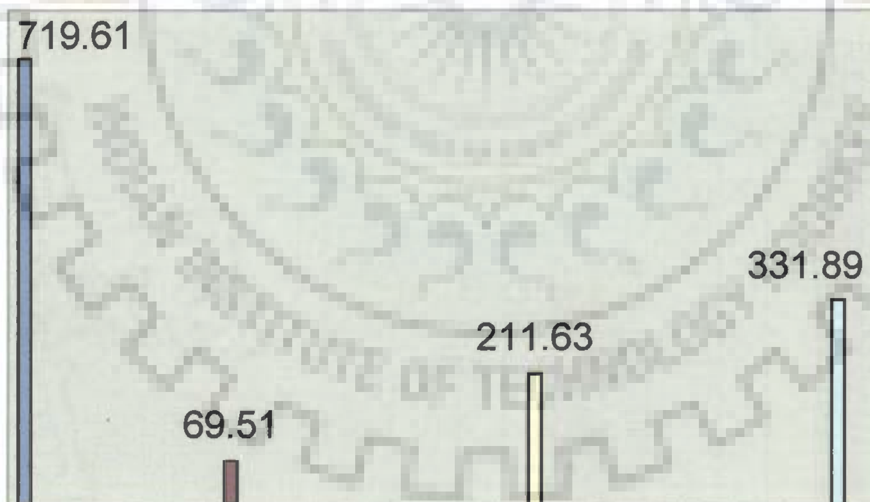


Fig. 3.3(d): Group-Wise Loans & Advance Of Commercial Banks

(as per cent of the total investments)

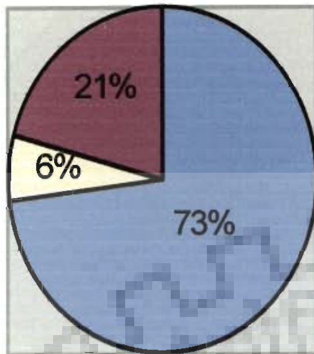


Fig. 3.3(e): Group-Wise Investments Of Commercial Banks

(as per cent of the total investments)

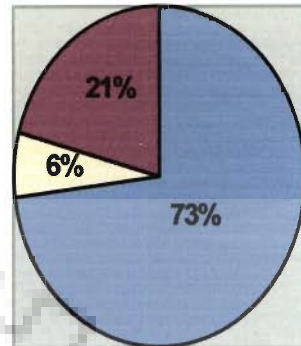
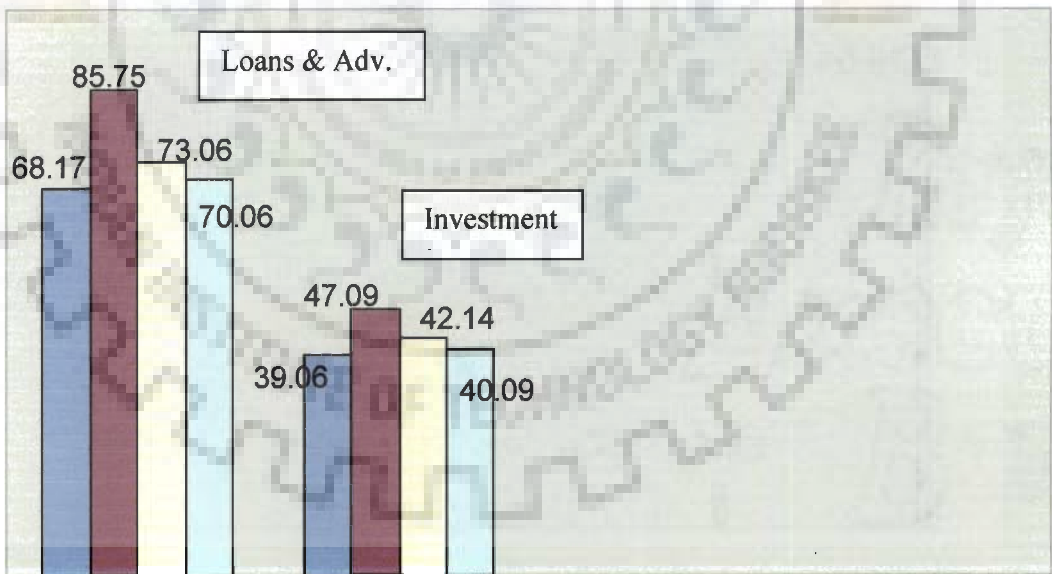
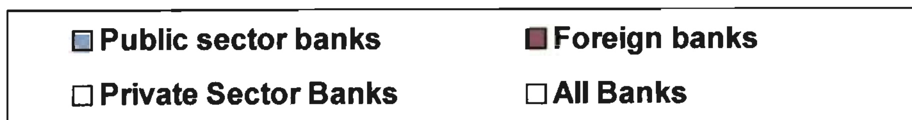


Fig. 3.3(f): Group-Wise Loans & Advances, and investments Of Commercial Banks

(as per cent of their total deposits)





(b) In the insurance segment, dominant position of public sector insurance companies and rapid growth of business of private sector companies.

As in the banking segment, in the insurance segment also, a major chunk of both life and non-life insurance business is controlled by the public sector companies. Of the total life insurance business (measured by *gross premium income* earned during a year), not less than 85 percent of it is accounted by Life Insurance Corporation of India alone, which is the sole public sector company in the field, whereas the remaining 14 per cent share is accounted by a number of private sector companies. More or less the same holds when we consider the position in terms of first-*year premium* income earned by different companies, which is a more realistic and appropriate yardstick for the purpose of comparison. The public sector commands a little less than 75 percent share as against the little more than 25 percent share of the private sector. However, an interesting fact in this regard is the rapid growth of business of the private sector companies which increased almost forty times, in the recent years. In comparison, the business of the public sector companies failed to even double over the same period (Various aspects of life insurance business in India are specified in Table 3.3; and Fig. 3.4(a) through Fig. 3.4(c)).

By and large, the same conclusions emerge when we consider the non-life insurance business (Table 3.4, and Fig. 3.5(a) through Fig. 3.5 (c). Even though the public sector companies hold a major part of it, over the last four years or so, the market share of public sector companies has been declining continuously. It stood at 96 percent in 2001-02 and declined to 75 percent in 2005-06. As against it, the market share of private sector companies, which was less than even 4 percent in 2001-02, increased appreciably to 25 percent in 2005-06. Looking at it differently, we observe that whereas the business of public sector companies over this period grew by only 34 percent, the business of private sector companies increased by more than a thousand percent, that is, more than eleven times.

Table 3.3 – Indian Financial Sector: A Profile of Life Insurance Segment

(in Rs. billion)

	Total	Public Sector Companies	Private Sector Companies
Gross premium income			
2001-02	500.94 (100)	498.22 (99.46)	2.72 (0.54)
2002-03	557.48 (100)	546.29 (97.99)	11.19 (2.01)
2003-04	666.54 (100)	635.34 (95.32)	31.20 (4.68)
2004-05	828.55 (100)	751.27 (90.67)	77.28 (9.33)
2005-06	1058.76 (100)	907.92 (85.75)	150.84 (14.25)
First-year premium income (Including single premium)			
2001-02	198.57 (100)	195.89 (98.65)	2.68 (1.35)
2002-03	169.42 (100)	159.76 (94.30)	9.66 (5.70)
2003-04	197.88 (100)	173.47 (87.66)	24.41(12.34)
2004-05	262.18 (100)	206.53 (78.77)	55.65 (21.23)
2005-06	387.86 (100)	285.16 (73.52)	102.70 (26.48)
Growth-index of business (in terms of first-year premium income)			
2001-02	100	100	100
2002-03	85.32	81.55	360.45
2003-04	99.65	88.55	910.82
2004-05	132.03	105.43	2076.49
2005-06	195.32	145.57	3832.09

Source: Annual Report 2005-06, Insurance Regulatory and Development Authority of India.

Fig. 3.4(a): Business of life insurance companies in terms of first-year premium income (Rs. billion)

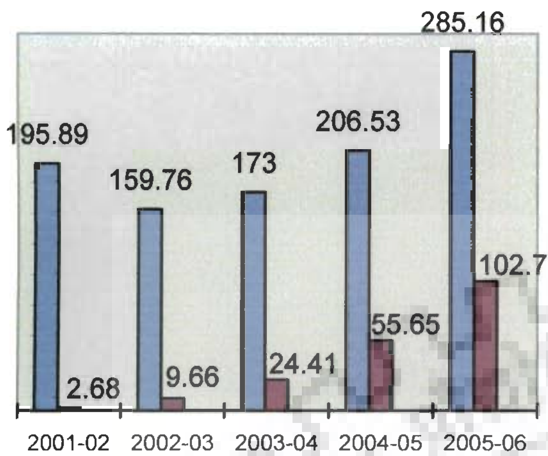


Fig. 3.4(b): Index of growth of life insurance business
(Base:2001-02)

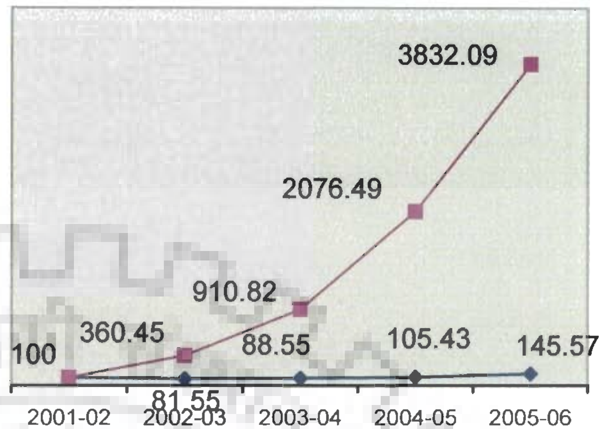


Fig. 3.4 (c): Market shares of life insurance companies
(measured by first-year premium income as % of total)

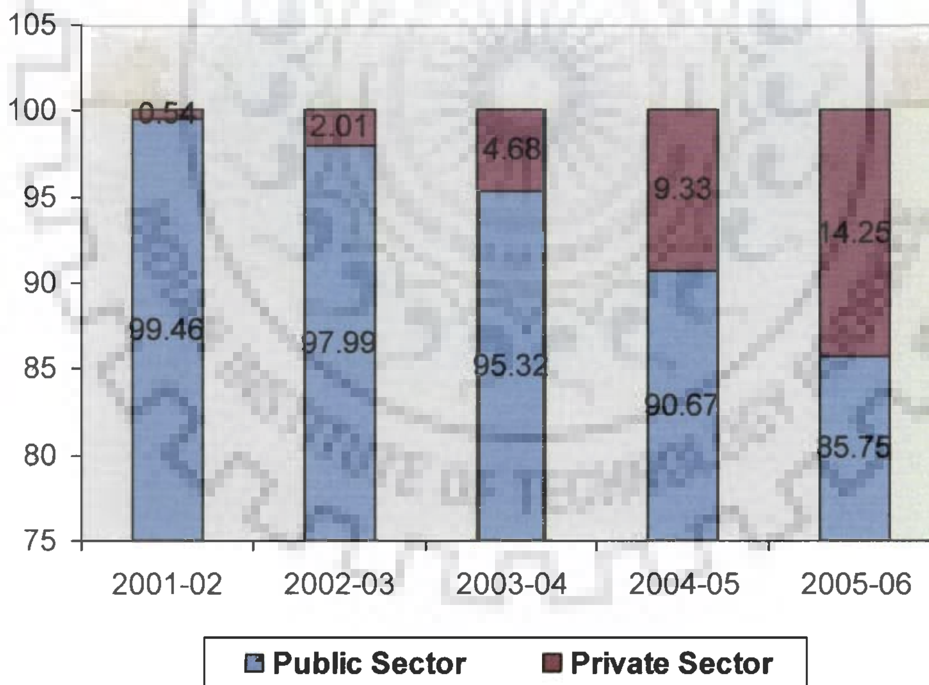


Table 3.4 – Indian Financial Sector: A Profile of Non-Life Insurance Segment

(in Rs. billion)

	Total	Public Sector Companies	Private Sector Companies
Gross direct premium income (within and outside India)			
2001-02	123.85	119.17	4.68
2002-03	148.70	135.20	13.50
2003-04	165.42	142.85	22.57
2004-05	184.56	149.49	35.07
2005-06	213.38	159.76	53.62
Market shares			
2001-02	100	96.22	3.78
2002-03	100	90.92	9.08
2003-04	100	86.36	13.64
2004-05	100	81.00	19.00
2005-06	100	74.87	25.13
Growth-index of business			
2001-02	100	100	100
2002-03	120.06	113.45	288.46
2003-04	133.56	119.87	482.26
2004-05	149.02	125.44	749.36
2005-06	172.29	134.06	1145.73

Note: 1. Figures refer to premium income from business in India.

2. Figures in parentheses indicate percentages.

Source: Annual Report 2005-06, Insurance Regulatory and Development Authority of India.

Fig. 3.5(a): Business of Non-Life Insurance Companies in terms of first-year premium income
(Rs. billion)

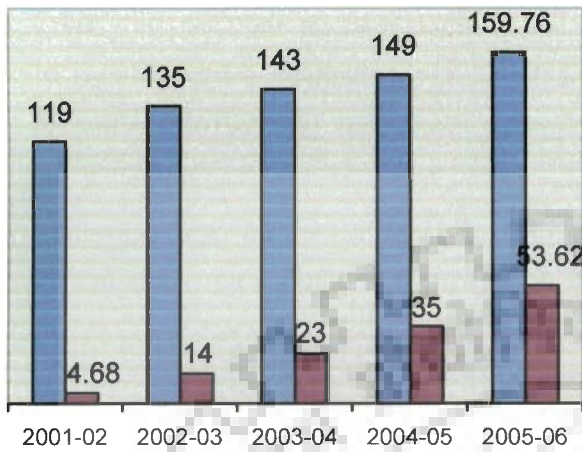


Fig. 3.5(b): Market Shares of Non-Life Insurance companies

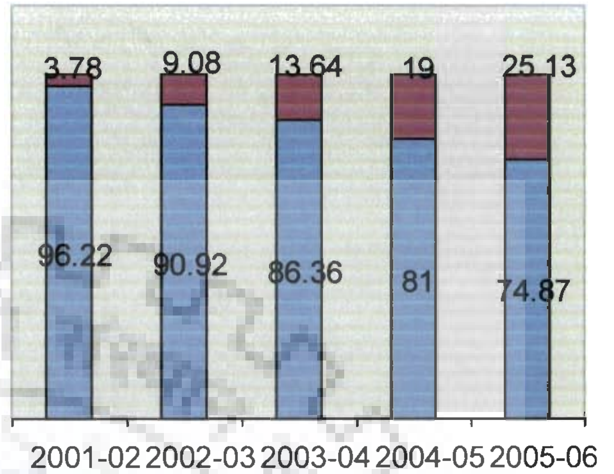
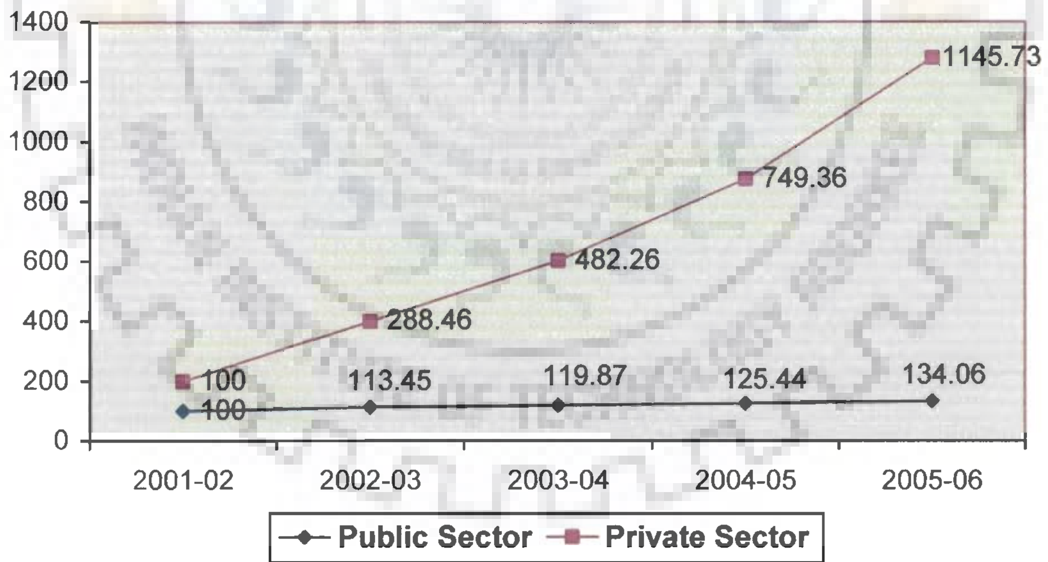


Fig. 3.5 (c): Index of growth of non-life insurance business
(Base: 2001-02)



(c) *In the securities segment, emergence of private sector mutual funds as dominant market players, increasing proportion of portfolio investment in foreign investment inflows, and greater reliance of corporate sector on private placement of debt issues.*

The securities segment comprises 22 stock exchanges on the cash side and 2 stock exchanges on the derivative side of the market. It includes a large number of brokers (9335 in cash segment, and 1120 in deivatives), sub-brokers (23,475 in cash segment) and foreign institutional investors (882). In the recent past, following the introduction of demat trading in securities, 2 depositories and 526 depository participants have marked their presence on the market. Among the other market participants, a noteworthy feature is the emergence of mutual funds (38) and their growing importance as market players (Table 3.5 (a)).Overtime, the securities segment has grown substantially, particularly in the recent years. Also, important changes have occurred in the composition of its transactions and nature of activities. In 1995-96, the corporate sector raised resources to the extent of Rs.341.65 billion. This amount increased to Rs. 1237 billion in 2005-06, that is, a more than three-times increase. Similarly, over the same period, bonds issued by the public sector undertakings increased from Rs. 22.91 billion to Rs. 276.3 billion (about a twelve times increase). Likewise, the foreign investment inflows went up from US $ 4.892 billion to US $ 20.243 billion (about four times increase), and net FII investment, from US $ 2.036 billion to US $ 9.332 billion (again, about four times increase). Most importantly, the gross resources raised by mutual funds increased phenomenally from just Rs. 6.508 billion to Rs. 1098.149 billion (Table 3.5 (b)).

A disaggregated view of the behaviour of various securities market transactions would bring out some important changes that have characterised this segment in the recent years. One, among mutual funds the private sector funds have acquired an extremely dominant position in mobilising resources vis-à-vis the other funds, particularly the UTI Mutual Fund (Fig. 3.6 (a)). In 1995-96, the UTI Mutual Fund accounted for 91 percent of the gross resource mobilisation as against an exceedingly small contribution of about 5 percent by the private sector mutual funds. In 2005-06 there was a total reversal of this position with private sector mutual funds accounting for 83 percent and the UTI Mutual Fund just 7

Table 3.5(a): Indian Financial Sector: A Profile of Securities Market Segment (SEBI Registered Market Intermediaries)

SEBI Registered Market Intermediaries	Number as on March, 2006
Stock Exchanges (Cash Market)	22
Stock Exchanges (Derivative Market)	2
Brokers (Cash Segment)	9,335
Corporate Brokers (Cash Segment)	3,961
Sub-Brokers (Cash Segment)	23,479
Brokers (Derivatives)	1120
Foreign Institutional Investors	882
Custodians	11
Depositories	2
Depository Participants	526
Merchant Bankers	130
Bankers to an issue	60
Underwriters	57
Debenture Trustees	32
Credit Rating Agencies	4
Venture Capital Funds	80
Foreign Venture Capital Investors	39
Registrars to an issue & Share Transfer Agents	83
Portfolio Managers	132
Mutual Funds	38

Source: Handbook of Statistics on the Indian Securities Market, Securities and Exchange Board of India, 2006

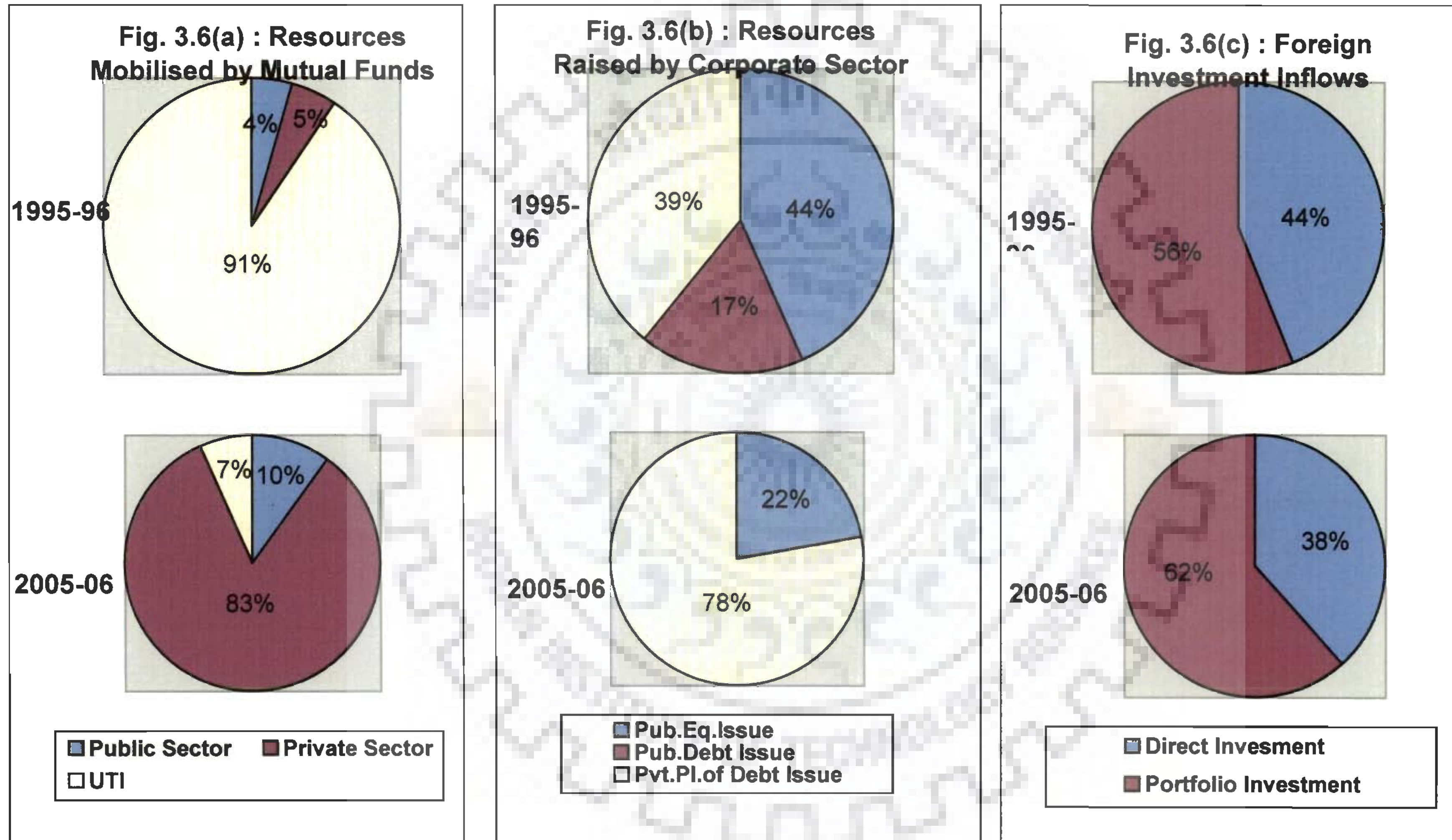
Table 3.5 (b): Indian Financial Sector: A Profile of Securities Market Segment (Volume Indicators)

Securities Market Volume Indicators	1995-96	2005-06
Resources raised by Corporate Sector (in Rs. billion)	341.65	1237.50
Public Equity Issues	148.30	273.82
Public Debt Issues	59.74	0
Private Placements of Debt Issues	133.61	963.68
Bonds Issued by Public Sector Undertakings (in Rs.billion)	22.91	276.36(P)
Market Capitalisation (BSE) (in Rs.billion)	5637.48	30221.90
Foreign Investment Inflows (US $ billion)	4.892	20.243
Direct Investment	2.144	7.751
Portfolio Investment	2.748	12.492
Net FII Investment (US $ billion)	2.036	9.332
Cumulative Net FII Investment (US$ billion)	5.202	45.259
Gross Resource Mobilisation by Mutual Funds (in Rs. billion)	6.508	1098.149
Private Sector	0.312	914.703
Public Sector	0.296	110.319
UTI	5.900	73.127

Source : Handbook of Statistics on the Indian Securities Market, Securities and Exchange Board of India, 2006

P: Provisional

Fig. 3.6: Securities Market : Some Trend Indicators (1995-96 to 2005-06)



percent of the gross resource mobilization. Two, as a source of fund raising, the reliance of corporate sector on private placement of debt issues has increased vis-à-vis public issues of both equity and debt due largely to the prevailing low interest-rate phenomenon and individual investors' stock market aversion created by various scams in the past. In 1995-96, of the total resources raised by the corporate sector, 39 percent were raised through private placement of debt, and 44 per cent and 17 per cent through public issues of equity and debt, respectively. In 2005-06, the proportion of resources raised through private placement of debt issues increased to 78 percent, and the proportion raised through public issues of equity and debt declined to 22 percent. It is only a recent phenomenon that the investors have started reposing their confidence in the stock market, and equity floating has begun to be considered as a good potential area for fund raising. (Table 3.6(b)). Lastly, as regards the foreign investment inflows, the proportion contributed by direct investment has declined from 44 per cent in 1995-96 to 38 per cent in 2005-06 and the proportion contributed by portfolio investment has increased from 56 percent to 62 per cent, over the same period (Fig.3.6(c)).

Besides the segment-specific features and emerging trends as mentioned in the previous paragraphs, there are also some other important, general aspects of the present financial system which need to be briefly pointed out here.

(d) Increased conglomeration and risk transfer

The growing linkages among different segments of the financial system – banks, insurance companies, pension funds, securities companies – are the key trend in the financial sector, today. These complex linkages are due to emergence of financial conglomerates[22] as a result of introduction of financial reforms as well as innovative instruments of risk transfer (for instance, derivatives), in the recent past.

(e) Significant and growing internationalisation.

The increasing internationalisation of financial sectors has augmented the regulatory challenges of conglomeration. As foreign ownership of financial institutions increases, the need for proper cross-border coordination among financial regulators assumes increasing importance, more so, when financial market shocks are more easily transmitted across borders and sectors. Under these circumstances, the need for introduction of necessary changes in the regulatory structure and laws, and deposit insurance systems cannot be overlooked. Undoubtedly, internationalisation allows economies of scale and favours geographical diversification of financial institutions, thereby reducing their risk profile. But at the same time, there is also the possibility of capture of the highest quality customers by the foreign institutions. As a result, most domestic institutions may be left to serve mainly the high-risk customers, thereby worsening their risk profiles. These apprehensions are well founded and need to be addressed properly[23].

(f) Inadequate regulatory infrastructure

Regulation is, no doubt, an important, rather, indispensable requirement for ensuring proper functioning and stability of the financial system.[24] In this regard, some preconditions assume enormous significance.[25] Appropriate accounting, auditing, tax, legal and judicial systems[26]; sound and sustainable macroeconomic policies; effective market discipline; appropriate mechanisms for provision of consumer protection; efficient and well developed financial markets[27], and adequate level of awareness of the large majority of consumers of financial services as regards responsibilities of the service providers as well as their own responsibilities so as to fend for themselves while buying complex financial products[28] are important

preconditions for developing an effective regulatory infrastructure. When we view these requirements in the context of Indian regulatory infrastructure, we observe that whereas some of them practically do not exist, much needs to be done in respect of most others.

(g) Continuation of significant government ownership of financial institutions

Even after privatisation, the state ownership of the financial institutions continues to occupy a dominant position in the market. While the phenomenon of state ownership is more common in the banking industry, it is also seen in insurance, securities and contractual savings[29]. In this regard, it is important to note that the need for regulation and supervision is no less in the case of state-owned financial institutions than the privately owned financial institutions. Rather, the state ownership creates some additional regulatory problems. Inefficient corporate governance structure and management; political interference; conflicts of interest (e.g., preferential lending to state-owned undertakings), and absence of market discipline due primarily to influential public investors or the presumption of the counter-parties that the government will bail them out if they default, are some of the problems in this regard.

3.9 Implications for regulation

In India, capital markets and insurance activities were regulated by the Ministry of Finance till the Securities Exchange Board of India and Insurance Regulatory and Development Authority were set up. The various development financial institutions have recently begun to be regulated and supervised by the Reserve Bank of India. While most banks are regulated by the RBI, some are under dual control of the government and the RBI. The Department of Company Affairs regulates the deposit taking activities of corporates other than banks and non-banking

financial companies registered under Companies Act, but not those which are under separate statutes. A major issue in regulatory debate today is whether banks should be necessarily treated as a separate and special group to be regulated and supervised by the RBI exclusively irrespective of changes that are considered necessary for regulation and supervision of other financial market segments.

From a regulatory perspective, the recent developments in the financial sector, in particular, the emergence of financial conglomerates, have led to an appreciation of the limitations of the present segmental approach to financial regulation. The need for addressing the risks associated with conglomeration[30] is being widely appreciated. A debate is going around as regards the ways and means of ensuring an effective regulatory system, which has the qualities of neutrality,[31] cost-effectiveness,[32] transparency and accountability, and moreover, which suits the political and social structures and commitments as well as the government, industry and societal inter-relations.[33] In particular, there is a need for developing an appropriate framework for supervision of financial conglomerates which provides for (i) measurement techniques and principles to assess their capital adequacy on a group-wide basis, (ii) mechanism for information sharing among regulators, and (iii) principles for ensuring prudent management and control of intra-group transactions and exposures. In fact, these are the essential components of what is known as consolidated supervision.

In the on-going debate, there is, more or less, a consensus on adopting a consolidated, holistic supervisory approach to financial regulation and supervision, irrespective of its structural design. This is, in fact, the thrust of the approach advocated and recommended by the Joint Forum[34] to deal with the regulatory problems posed by the emergence and growth of financial conglomerates. The RBI, recognising the relevance and effectiveness of this approach, took the first step towards consolidated supervision of banking entities by issuing guidelines to the

Banks in February 2003 on the basis of Working Group Report (2004). But this is an initiative of just peripheral nature; much more remains to be done on this front.

Conclusion

The evolution of Indian financial system can be said to have occurred mainly over the later half of the last century. During this period, the system played varied roles - an instrument of planned development in the initial stage; a precursor of social change a little later; and a custodian of modern, complex and robust financial sector, presently. The beginning of the process may be seen in the coming into existence of the Reserve Bank of India (RBI), which was truly speaking the first financial regulatory body in the country. During the initial period, the main emphasis was on establishment of new financial institutions and development of the necessary legislative framework for facilitating reorganisation and consolidation of the banking system which was lying in shambles. This was mainly the period of policy action in terms of setting development goals and priorities and pressing into service necessary policy instruments, such as, establishment of financial institutions, and nationalisation of banks and insurance companies. The role of regulating the financial system was assumed basically by the government. The nationalised banks were assigned a tailored role, 'social banking.'

These measures did achieve positive results but not without a heavy cost. A serious fall-out was substantial deterioration in banking efficiency and profitability. By the time the decade of 1990s started, a number of problems at both internal and external fronts, having their origin in the past many years, had cumulated to almost a flash point that required a total change in the basic approach to the development trajectory. Under growing pressures from the external sector, and in fact, to meet the

demands of the realties at home, radical structural reforms were initiated for putting the domestic economy in order.

Under structural reforms, to a large extent, the emphasis was on relaxing restrictions, which severely impeded the functioning of the market mechanism and led to inefficiency and sub-optimal resource allocation. This policy shift, inter alia, changed the complexion of the financial sector substantially. To day, there is an impressive, rather, surprising growth of large financial institutions, known as, financial conglomerates, which present a remarkably different phenomenon distinct in scale of operation, objectives, scope and modus operandi. The scale and complexity of financial activities have created new challenges for the regulators, today. A debate is under way as regards the desirability of shifting to some alternative regulatory regime. The available options are viewed controvertible, in one way or the other, by the contestants in this debate. But a point of much satisfaction is that there is, by and large, a consensus view regarding importance of an integrated approach to regulation and supervision by ensuring due communication and coordination between the regulators, irrespective of regulatory structure.

Notes

1. Reddy (2001) defines regulation in its broadest sense as "establishing specific rules of behaviour, or regulatory aspect per se, monitoring or tracking observance of behaviour; and supervision or oversight of the compliance with specific rules in the overall behaviour along with disincentives and penal provisions for non-compliance" In this regard, he also makes a reference to the different views as regards the distinction between regulation and supervision: "There are some arguments in favour of formally separating the regulatory aspects from supervisory aspects but the current international practice favours the two functions being viewed together." Further, as regards his own position in this respect, he observes: "In this presentation, the functions are not viewed differently, and the terms regulation and supervision are used interchangeably to cover all three functions, unless otherwise indicated...In operational terms, however, supervision is an integral part of the regulatory framework."
2. For a comprehensive analysis of the international trends in regulatory structures, see Llewyellyn (2004).
3. Martinez and Rose (2003) document the various regulatory structures operating in different countries.

4. Carmichael and Pomerleano (2002).
5. On effectiveness of a regulatory structure, see Taylor (1996), Rosengren and Jordan (2000), and Pernia (2004).
6. Goodhart (2001).
7. Bryant (2001).
8. Reddy (2001).
9. The results of this survey have been presented in Martinez and Rose (2003). It may be mentioned that prior to this a survey was conducted in 1999, as well, but it included only the developed countries and kept some critical issues such as, financial conglomerates, out of its purview. The results of the 1999 survey are available at: http://www.apra.gov.au/Policy/loader.cfm?url=/commonspot/security/getfile.cfm&PageID= 1114
10. The growing importance of financial conglomerates in these countries can be seen in terms of the substantial increase in the average market share of financial conglomerates operating in the banking, securities and insurance sectors, in the last 12 years. According to the findings of the survey, in the banking sector, the market share of conglomerates (market share as measured in terms of assets of financial conglomerates, in a given segment, as percentage of the total assets of all financial intermediaries in that segment) increased from 53 percent in 1990 to 71 percent at the end of 2001. During the same period, the market share of conglomerates increased from 54 percent to 63 percent in the securities segment, and from 41 percent to 70 percent in the insurance sector.
11. Martinez and Rose (2003) present the results of a survey conducted in a group of 15 countries that have adopted integrated supervision. An important conclusion emerging from analysis of the regulatory powers of the regulatory agencies in these countries is that the ministries of finance continue to play a key role in issuing and amending relevant prudential regulations, authorising or revoking licenses to financial intermediaries, and enacting other important laws. These results show that the powers of the unified agencies have wide powers mostly in core supervisory functions, including the power to conduct on-site and off-site examinations, as well as the power to impose sanctions and fines for non-compliance with existing laws and regulations.
12. In this context there exist a number of instance such as coming into existence of bank deposits and bills of exchange in the thirteenth century in the UK, and in the sixteenth century, bonds in France. In the same tradition, equity came into existence as a result of the ventures of merchants – the Muscovy Company in 1553, and the East India Company in 1600. Preference shares came to prominence in 1845 in the UK, while the first issue of commercial paper occurred around the same time in the USA. Other major changes occurred more than a century later: the first certificate of deposit in 1966, the first floating rate note in 1970, and the first financial futures contract in 1972, and so on. Interestingly, it was only about two decades back that there was a spurt in financial innovations. Today all of us are familiar with the emergence of e-commerce, which includes both product and process innovations, and the wide range of financial products made available by it in the recent past. In e-commerce, process innovations refer to products that enable the consumers to use electronic means of communication to access otherwise conventional payment services, for instance, the use of the internet to make a credit card payment or for general "online banking." Product innovations refer to stored value or prepaid products in which a record of the funds or value available to the consumer is stored on a device in the consumer's possession, such as, prepaid cards and prepaid software products that use computer networks such as the internet.
13. For a description of the evolution of innovative financial products, and the motives underlying these innovations, see Walmsley (1988) and Currie (2002). The motives behind financial innovations have been described as follows: (a) aggressive motive, that is, introduction of a new product in response to a perceived demand or to enhance market

share. (b) Defensive motive, that is, innovation of a financial product or process in response to a changed environment or transaction costs. E-commerce is due both to aggressive and defensive motives. It is aggressive in the sense that it has been used for tapping new markets extensively. It is defensive, too, as it enabled the business firms to circumvent regulatory requirements that were intended to control the payments systems and monitor transactions so as to detect tax evasion or any unlawful financial transaction. The same holds about derivatives, too, that came to be evolved as a response both to regulatory requirements and the desire for accessing new markets. (c) Risk transfer motive, that is, innovating in order to transfer the price or credit risks in financial positions (for instance, interest rate and foreign exchange futures and options, and interest rate swaps). (d) Liquidity enhancing motive, that is, the desire to improve the negotiability. Emergence of secondary markets for trading securities, and more recently, setting up of mutual funds, and selling securities with put options, fall in this category. (e) Credit-generating motive, that is, innovating new ways of broadening the supply of credit either by mobilising dormant assets to back borrowings or tapping hitherto untouched market segments, for instance, advancing credit against securities backed by specific buildings. (f) Equity-generating motive, that is, innovating financial instruments which enable access to entirely new pockets of investors, for instance, floating rate debt instruments, or variable-rate preference shares.

14. Prior to the establishment of LIC, as many as 145 Indian insurers, and 16 non-Indian insurers were operating as private, small entities in the country. The insurance business of these entities was brought together under the monopolistic control of the LIC. Looking at the life insurance scenario in the country in the distant past, we observe that the life insurance business was first introduced in 1818 by a British firm, which charged higher premiums for insuring Indian lives as against non-Indian lives. The Bombay Mutual Life Assurance Society, which was set up in 1871, was the first Indian insurer to charge same premium from both Indians and non-Indians. In order to regulate the insurance business, the Indian Life Assurance Companies Act was enacted in 1912. Much later, following the nationalisation of the life insurance business in 1956 and coming into existence of the LIC, the life insurance business has expanded vastly and contributed substantially to the growth of the Indian financial sector.

15. It was converted first into Industrial Reconstruction Bank of India (IRBI) in 1985, and thereafter, into Industrial Investment Bank of India (IIBI) in 1997.

16. Prior to the setting up of Securities and Exchange Board of India (SEBI), the Capital Issues (Control) Act of 1947, administered by the Controller of Capital Issues (CCI), governed capital issues in India. As part of liberalisation programme, CCI was abolished and SEBI was set. Its objectives are to protect the interests of investors, ensure the fairness, integrity and transparency of the securities market and attain best international regulatory practices. SEBI's responsibilities and authority have vastly increased since its coming into existence. Recently, under the (Amendment) Act (2002), its powers have been expanded to cover all securities-market transactions. In 2003 it was given powers to impose enhanced penalties for non-compliance of certain regulatory provisions. Today, SEBI as a member of International Organisations of Securities Commissions (IOSCO) is committed to attaining international accounting standards, and disclosure and capital adequacy norms. Its vision statement put up on the website reads: "Sebi to be the most dynamic and respected regulator globally." SEBI has been making constant efforts to improve regulatory practices and contribute significantly to the ongoing capital market reforms.

17. The first general insurance company, namely, Triton Insurance Company Ltd. was established in Calcutta in 1850. Its shareholders were mainly British. The first Indian company to enter the general insurance business was the Indian Mercantile Insurance Company Ltd., which was set up in 1907 in Mumbai. For a description of the evolution, theoretic aspects, performance and regulation of insurance market in India, the interested reader may refer to Samuel (2001).

18. Boot, et al (2000) have presented a useful analysis of the interaction between profitability of financial institutions and the absence of an effective competitive system.

19. Internationally, a financial conglomerate is broadly defined as a group whose regulated entities engage to a significant extent in at least two of the main financial market segments. However, differences exist from country to country as regards the quantification of this limit. For instance, in the USA, a multiple set of criteria are applied for identifying a group as financial conglomerate. These criteria relate to size of the group, the extent of international operations, participation in large-value payment and settlement systems, and the extent of custodian operations, fiduciary activities, and the trading activities. In UK, the FSA, on the other hand, identifies a group as financial conglomerate if at least 40 percent of the group business is financial and at least 10 percent or Euro 6 billion of its financial business is in each of the insurance and the combined banking/investment segments. However, in the Indian context, according to RBI Working Group Report (2004, p. 18), a set of quantifiable 'blanket' criteria for identifying a financial conglomerate cannot be adopted at the present stage since most of the financial groups still have a significant presence in only a single segment, mostly banking. Moreover, certain segments, especially insurance, are heavily overshadowed by giant public sector companies. Further, it is argued that the emergence of financial conglomerates, in true sense, is yet to be seen. In view of these considerations, the RBI Report suggests that a group may be designated as a financial conglomerate if any group entity coming under the jurisdiction of specified regulators has a significant presence in the respective financial market segment, and the group is having operations in at least one more financial market segment. In India there are only four financial conglomerates having operations in all the three segments (banking, insurance and securities), namely, SBI, ICICI, HDFC and IDBI. There are seven other financial conglomerates, which are having operations in only two segments. These are LIC, GIC, UTI, BOB, PNB, BOI and Indian Bank.

20. In the early years of 1990s, serious irregularities and frauds were witnessed in the securities market. There was an upward rend in the stock market, from 1988-89 spearheaded by excellent performance by market leaders, industry-friendly policies of the successive governments, such as, liberalisation of licensing procedures, liberal fiscal measures, liberal and positive export-import policy, greater scope for the private sector, etc. The successive budgets of 1991-92 and 1992-93, which included a number of market-friendly policy measures, gave unprecedented boost to the upward trend of the stock market. The stock market boomed into a "frenzy." But it was, in fact, a mostly manipulated deceptive exercise enacted by the collusion between some unscrupulous stockbrokers and bank officials. The established banking rules and guidelines were overlooked and huge bank funds were siphoned off for speculative transactions in the stock market. At the heart of these irregularities and frauds, "securities scam" as these are popularly known, was alleged to be a big broker, Harshad Mehta. A few years later, another serious banking fraud of similar nature came to light. This time the manipulators were Ketan Parekh, C.M. Agarwal and some other stock brokers. These "securities scams" caused huge losses to some public sector banks (Indian Bank, Bank of India, for instance), many urban cooperative banks (a prominent bank in this category being the Medhavpura Urban Cooperative Bank), and even some foreign banks.

21. These committees were, in fact, intended for two distinct purposes. The First Committee was set up to suggest financial sector reforms. It submitted the Report in 1991. The Second Committee was appointed to "review the progress of the banking sector reforms to date and chart a programme on financial sector reforms necessary to strengthen India's financial system and make it internationally competitive." As regards the setting up of the Second Committee, it was believed in certain quarters that there was really no need for it especially when not a decade had elapsed for the full implementation of the Report submitted in 1991. Some critiques went even to the extent of labeling the Second Report as "an action replay of the earlier report."

22. De Nicolo et al. (2003) have documented the trend in conglomeration as a global phenomenon. They have used the firm-level data for the largest financial institutions worldwide for the years 1995 and 2000. An important conclusion of the study is that the increase in conglomeration has been recorded, over this period, in all subgroups, from the top 50 to the top 500 financial institutions world over, with the level of conglomeration being the highest among the largest institutions.

23. Herring (1994) discusses how technological advance – dramatic reductions in transportation, telecommunications and computation costs – are creating an increasingly integrated financial market that ignores national boundaries. The paper examines the effect of these technological advances on users of financial services and their regulators. It documents the increasing volume of international financial transactions and evaluates the extent to which financial prices are integrated across countries. Finally, the paper highlights the risks that are the consequence of increasing international financial integration and pose a challenge to the managers of financial institutions and regulators. Bryant (2001) discusses the implications of cross-border financial inter-dependence and concludes that this inter-dependence is both helpful and hazardous. It is argued that an increasing volumes of capital will flow across borders in future decades, but the benefits and the risks will both grow. It is necessary that collective governance of cross-border finance, now in its infancy, must also be sufficiently strengthened. In this regard, the author suggests that the policymakers and citizens alike should reject extremist views and support pragmatic efforts to enhance international cooperation about financial standards and the prudential oversight of financial systems.

24. Justification for, and effectiveness of, financial regulation constitute important areas that have been widely debated and discussed in the financial literature in varied contexts, in the recent years. For instance, Benston (2000) analyses the justification for financial regulation specifically in the context of consumer protection with UK's Financial Services Authority in the backdrop. Summer (2003) discusses the issue of effectiveness of financial regulation specifically in the context of banking regulation to deal with the problem of systemic risk. Llewllyn (2000) emphasises the fact that there are distinct limits to what regulation and supervision can achieve in practice. He specifies some essential requirements for the effectiveness of regulation with UK's experience in mind. Likewise, various aspects of the debate relating to the justification for financial regulation have been discussed and argued, for instance, by see Hantke-Domas (2003), Zingales (2004), Glaeser and Schleifer(2003), and Williamson (1988).

25. An IMF Study (2004) has brought out a positive correlation between the fulfillment of these preconditions and effective implementation of the regulatory standards using preconditions indices compiled by Kaufmann et al. (2003) .

26. These are essential requirements for the development of a sound financial infrastructure. On this, the interested reader may refer to Angadi (2003).

27. Developing competitive, strong and dynamic financial institutions is very important for the growth and stability of the financial system. The liberalisation of financial markets has exposed them to competitive pressures, which has induced a switch from *ex ante* to *ex post* regulation. With the opening of financial markets there is now more scope for failures and scams. On competition in financial markets and its various aspects, see Davies (2004), and Allen and Gale (1995).

28. On significance of consumer awareness in facilitating an effective financial regulatory system, see Foot (2004).

29. La Porta, et al (2002) document the continuation of a large and pervasive government ownership of banks in various countries. On the basis of their sample study of 92 countries, the authors point out that in these countries, on average, 42 percent of the equity of the 10 largest banks was owned by the government in 1995 as against 59 percent in 1970. While there has been a decline in this share due to the transition to a market economy in many countries, it still remains sizeable.

30. There are two major potential risks, which are mostly associated with conglomeration. One, t*he moral hazard* due to the 'Too-Big-TO-Fall' phenomenon which implies that due to sheer size and complexity of the conglomerates, it becomes more difficult to manage the functioning of the system. Two, the c*ontagion or reputation effects* on account of the 'holding out' phenomenon. The financial difficulties in one subsidiary in a particular segment are likely to produce contagion or reputation effects on another subsidiary in some other segment, especially when using the same trade name. The problem posed by an entity facing a financial difficulty is likely to be compounded if such entities are made to believe that the necessary support would be available to them when needed. In this case, they are susceptible to take unduly more risk.
31. Regulatory neutrality implies that regulation should be service or product based irrespective of the financial institution, which provides the service. In the typology of Goodhart et al (1998), there are three broad approaches to the structure of regulatory regimes: (1) institutional or sectoral (i.e., supervision is focused on the type of financial institution), (2) functional (i.e., supervision is directed at the underlying business activities, irrespective of the service provider), and (3) objectives-based (i.e., supervision is organised according to the objectives of supervision). As such, regulatory neutrality corresponds to the functional approach to regulatory regime.
32. Cost effectiveness of the regulatory system means that the regulatory burden should be minimum. Regulation is often seen as a free good free of cost. But it is not so. There are costs of administering regulation and ensuring its compliance, and there are structural costs, too. Excessive regulatory burden leads to loss of efficiency. Over regulated entities may think of even shifting to unregulated or less regulated areas. (On various aspects of regulatory costs, see Reddy, 2001).
33. According to Goodhart, et al (1998), a regulatory regime must be such that it satisfies the environment in which it is to be implemented, taking complete cognisance of the business activities of the regulated financial institutions and the specific socio-political circumstances of the country.
34. The Basel Committee on Banking Supervision (BCBS), together with International Association of Insurance Supervisors (IAIS) and International Organization of Securities Commissions (IOSCO) formed the Joint Forum on Financial Conglomerates in 1996. The Joint Forum has come out with a number of research papers covering various important issues relevant to the supervision of financial conglomerates. The basic emphasis of the BCBS initiative is on a shift from the sectoral supervisory paradigm to the consolidated, holistic supervisory paradigm. It implies a group-wide approach to supervision of conglomerates whereby all risks run by a group are taken into account, wherever they may have been booked. As such, both accounting consolidation and consolidated supervision are recognised as key elements in the supervision of financial conglomerates.

CHAPTER – IV

FINANCIAL REGULATION IN INDIA: A CROSS-SECTIONAL PERCEPTION ANALYSIS

Preview

The present chapter is based on cross-sectional perception analysis of sample groups that are prominent participants in the Indian financial markets and closely concerned with the financial regulatory system. The issues included for exposing to the respondents for ascertaining their views and suggestions mainly relate to (a) objectives of financial regulation and relevance of regulatory structure to the same; (b) deficiencies of the existing financial regulatory system and their significance as determinants and explicators of change in the system; (c) arguments for and against a structural change in the present regulatory system; and (d) determinants of effectiveness of financial regulation.

Protecting the economy against systemic risk, creating and sustaining fair markets, and prevention of financial crimes have been viewed as 'highly important' objectives of financial regulation by an impressive majority of respondents, in each category. They mostly believe that the dominant position of the Ministry of Finance and RBI, lack of communication and co-ordination, and overlapping areas of jurisdiction of various regulators constitute the most predominant grey areas in the existing regulatory system.

A substantial majority of respondents belonging to the categories of Financial Intermediaries and Investors is in favour of unified regulation. In sharp contrast to this, among the Regulators only a few of them are in favour of integration of existing multiple sectoral regulators. But 'lead' model has been revealed to be the rallying point for most of the respondents holding extreme positions in this regard.

Respondents mostly share the view that the RBI's domain of role needs to be seriously reviewed. The RBI is believed to be over-burdened due to its twin roles of acting as monetary authority and government's banker which may not only dilute latter's banking sector supervisory role but also have the potential of conflicting with each other. Lastly, for the effectiveness of regulation, the respondents suggest proper mechanism for ensuring communication and coordination among regulators, optimal-mix of externally imposed regulation and the market-generated regulation, cost-benefit analysis of new regulatory initiatives, and regulatory bench-marking,.

For a comprehensive view of the financial regulatory system as it stands of now and as it may gradually transcend into a new shape in due course, it is important to know how it is being perceived at the moment by the various participatory groups in terms of their assessment of what it is and what it ought to be. Accordingly, the Respondents drawn from three categories, namely, **Regulators, Financial Intermediaries and Investors** (under the category of Investors, we have also included such academicians as are believed to be knowledgeable about various aspects of the financial system), were exposed to a carefully designed **questionnaire** which is appended at the end of the present study. The choice of questions was made keeping in mind the distinguishing features, objectives and trends of the Indian financial markets and their regulation, as well as the main issues that are often seen in circulation in debates and deliberations on the functioning: and direction of the financial system, in general, and regulatory structure, in particular:

1. Banking, insurance and securities and their corresponding regulatory agencies are the main pillars of the Indian financial system, today. Overtime, it has assumed an enormous size. There is a noticeable emergence and growth of financial conglomerates. Financial markets are moving fast in the direction of globalization. In the operations of financial institutions, the traditional boundaries have become blurred. The Ministry of Finance as well as the Reserve Bank of India is widely believed to be in a commanding, dominant position in the matter of financial regulation. The market mechanism is being allowed an increasing role in the functioning of financial institutions and disciplining their conduct. Financial markets, within India and the neighbouring Asian countries, have in the recent past experienced some intermittent bouts of financial scams and irregularities of varying magnitudes.

The need for 'bench marking' for the regulators is being debated. A spurt of policy measures are being initiated for streamlining of financial markets. Protecting the economy against systemic risk and ensuring adequate protection for the gullible investors, in particular, the individual investors, are assuming greater importance today (as objectives of financial regulation) than ever before. The recently introduced (but highly controversial) mandatory requirement of IPO grading is one instance in this respect.

2. Given this scenario, the relevance and effectiveness of the present multi-agency regulatory structure with regard to the pressures and requirements of the new emerging financial system is being widely debated by financial practitioners, administrators and academicians. In this debate, issues pertaining to merits and demerits of different regulatory structures and their relevance to the Indian case as well as issues concerning the basic objectives of financial regulation and the ability of various regulatory models to meet the same effectively are being discussed.
3. Regulators, regulated and investors are the three distinct groups which are directly affected by the form of the regulatory structure that is adopted in the country. As such, it is important to analyse how these groups perceive the present regulatory multi-agency model in terms of its features and deficiencies and capacity to address itself adequately to the main objectives of financial regulation, and what arguments they put forward in defense of their views.

The information generated by the responses of Respondents was compiled and quantified, wherever necessary and possible, so as to seek somewhat precise answers to the following questions:

1. How do the Respondents perceive the existing regulatory system in terms of its objectives, features and deficiencies?
2. Do the Respondents suggest shifting from the present multi-agency regulatory structure to a unified structure? If they do, why, and what is the proposed degree of unification? If they do not, what are the possible reasons?
3. Is there any discernible, systematic pattern in the perceptions of different categories of Respondents as regards their assessment of the existing regulatory system and suggestions about structural and other changes made by them?
4. How far the need for proposed 'shift', if any, can be explained in terms of deficiencies in the existing structure?
5. What are the factors other than the structure that are considered important for the effectiveness of the regulatory system?
6. How do the Respondents perceive the desirability of cost-benefit analysis of any proposed regulatory change, and what are the important parameters in the cost-benefit exercise?
7. How do the Respondents look at the concept of regulatory 'bench marking', and which parameters they regard important for its effectiveness?
8. What are the views of Respondents about various issues and controversies relating to the present regulatory system such as, alternatives to integrated regulation, adequacy of powers enjoyed by the regulators, RBI's role-conflict as monetary authority and banking regulator, and role of market-discipline based regulation.

4.1 Objectives of financial regulation

In order to generate information on how the Respondents view the various objectives of financial regulation, they were asked to specify the importance levels of various objectives suggested to them. After due compilation of the responses, the relevant information in this regard is presented in Table 4.1. Even on a casual inspection of the table, it would appear that the following three objectives have been viewed as 'highly important' by an impressive majority of Respondents in each category:

- protecting the economy against systemic risk,
- creating and sustaining fair markets, and
- Prevention of financial crimes

In order to give a precise shape to the Respondent perceptions of relative importance of various objectives, these perceptions have been converted into numerical values for purposes of ranking the objectives in terms of their relative significance. The ranks are based on the aggregate of corresponding weighted individual significance responses (specified in Table 6.1). The weights have been assigned as follows : marginally important (0.4), moderately important (0.8), and highly important (2). Ranks assigned to various objectives of financial regulation have been specified in Table 4.2 (This weight assignment scheme has been adopted for purposes of ranking in subsequent similar cases, too). From a comparative view of the ranks assigned to each of the objectives under different categories, it stands confirmed that there exists more or less an agreement among Respondents regarding the rank position of the three above mentioned objectives. The only exception in this regard is the category of Investors which views 'consumer protection' as the second most important objective of financial regulation - an objective which no where figures in

the top most ranking slots of other categories. A precise account of the three top-ranking objectives under each category is summarily specified as follows:

Respondent category	**Objectives of financial regulation**		
	I	**II**	**III**
Regulators	Protecting against systemic risk	Creating & sustaining fair markets	Preventing financial crimes
Financial Intermediaries	- do -	Preventing financial crimes	Creating & sustaining fair markets
Investors	- do -	Consumer protection	Preventing financial crimes
All Respondents	- do -	Preventing financial crimes	Creating & sustaining fair markets

Apparently, 'protecting against systemic risk' is found to be the undisputed top most objective. However for the second position there is somewhat disagreement. In this respect, the regulators argue in favour of 'creating and sustaining fair markets', the financial intermediaries, in favour of 'preventing financial crimes', and the investors, in favour of 'consumer protection'. This variance in the perception pattern is not difficult to rationalise. The concern of the Financial Intermediaries for prevention of financial crimes is to be seen in the context of credibility and reputation which is extremely important for their functioning and growth. Incidences of financial crimes arouse mistrust, suspicion and apprehension. Given the priority of the financial regulatory system in respect of the objectives of 'protecting against systemic risk', 'creating and sustaining of fair markets', and lastly, 'preventing financial crimes', the objective of consumer protection automatically receives the due attention it deserves. In no way it implies relegation of the importance of this objective by any of the sections.

4.1 Objectives of financial regulation: A cross-sectional perception

Objectives	No. of Respondents holding different views regarding *significance* of objectives of ...											
	Regulators (35)			*Financial Intermediaries (75)*			*Investors (100)*			***All Respondents(210)***		
	Margi. Imp.t	*Mod. Imp.*	*Highly Imp.*	*Marg. Imp.*	*Mod. Imp.*	*Highly Imp.*	*Marg. Imp.*	*Mod. Imp.*	*Highly Imp.*	*Marg. Imp.*	*Mod. Imp.*	*Highly Imp.*
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
1. Protecting the economy against systemic risk	1	-	34 (97.1)	2	9	64 (85.3)	-	10	90 (90)	**3**	**19**	**188 (89.5)**
2.Consumer protection	-	23	12 (34.3)	3	21	51 (68)	-	15	85 (85)	**3**	**59**	**148 (70.5)**
3. Prevention of financial crimes	2	7	26 (74.3)	2	18	55 (73.3)	-	21	79 (79)	**4**	**46**	**160 (76.2)**
4. Creating and sustaining fair markets	1	5	29 (82.8)	5	16	54 (72)	-	34	66 (66)	**6**	**55**	**149 (70.9)**
5. Promoting public understanding of the financial system and its associated benefits and risks	3	25	7 (20)	6	34	35 (46.7)	10	81	9 (9)	**19**	**140**	**51 (24.3)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

4.2 Ranking of objectives of financial regulation

Features/deficiencies	Ranks			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
1. Protecting the economy against systemic risk	**I (68.4)**	**I (136)**	**I (188)**	**I (392.4)**
2.Consumer protection	IV (42.48)	IV (120)	**II (182)**	IV (344.2)
3. Prevention of financial crimes	**III (58.4)**	**II (125.2)**	**III (174.8)**	**II (358.4)**
4. Creating and sustaining fair markets	**II (62.4)**	**III (122.8)**	IV (159.2)	**III (344.4)**
5. Promoting public understanding of the financial system and its associated benefits and risks	V (35.2)	V (99.6)	V (86.8)	V (221.6)

N0te: The figures in parentheses indicate the aggregate weighted value of individual significance- responses corresponding to a given objective.
In cases where the aggregate values are equal , the rank is assigned on the basis of only 'high' significance responses.

4.2 Features and deficiencies of the existing regulatory system

The Respondents were asked to indicate their views regarding *relevance* / level of *significance* of different features and deficiencies of Indian financial regulatory system. The information generated by their responses to various aspects of the system is presented in Table 4.3 and Table 4.4. An inspection of this information would bring out the presence of sharp differences in the perception patterns of different categories of Respondents as regards the various features/deficiencies of the system with 'dominant position of the Ministry of Finance and RBI' being the only deficiency an exception in this regard (In practice, the dominance of MOF and RBI in the regulatory set-up is viewed as an encroachment on the autonomous functioning of the financial regulation, and hence, a negative feature of the regulatory system). A very small, rather negligible, proportion of the Regulators regard the presence of most of these deficiencies as 'highly important'. A vast majority of them is of the view that these deficiencies are 'moderately important'. In sharp contrast to this, among both Financial Intermediaries as well as Investors, there exist a sizeable proportion of them which considers many of these aspects of the present regulatory system as 'highly important'. Interestingly, there is a near unanimity of views among all categories as regards the presence of 'dominant position of the Ministry of Finance and RBI' in the regulatory set-up. Lastly, considering the views of all Respondents taken together about the three most predominant deficiencies, we find that whereas the presence of 'dominant position of the Ministry of Finance and RBI' is viewed as 'highly important' by as many as 57 per cent of them, 'lack of communication and co-ordination' and 'overlapping areas of jurisdictions of various regulators' are regarded as 'highly important' by 41 per cent of them. The percentage figures are much less in respect of other deficiencies.

These perceptions have been converted into numerical values for purposes of ranking them in order of their relative importance. The ranks are based on the aggregate of corresponding weighted individual relevance/significance responses (specified in Table 4.3). Ranks assigned to various aspects of the regulatory system have been specified in Table 4.4. From a comparative view of the ranks assigned under different categories, it can be concluded that there exists, by and large, an agreement among different categories of Respondents as regards the following deficiencies which have been ranked as the most predominant grey areas in the existing system: 'dominant position of the Ministry of Finance and RBI', 'lack of communication and co-ordination', and 'overlapping areas of jurisdiction of various regulators'.

4.3 Features and deficiencies of Indian financial regulatory system: A cross-sectional perception

Feature / deficiency	No. of Respondents holding different views regarding *relevance*, and level of *significance*									
	Regulators (35)					*Financial Intermediaries (75)*				
	Relevant	**Not relevant**	**If relevant, level of significance**			**Relevant**	**Not relevant**	**If relevant, level of significance**		
			Marginally Important	*Moderately Important*	*Highly Important*			*Marg. Imp.*	*Mod. Imp.*	*Highly Imp.*
1	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5
1. Gaps in supervision and regulation	3	5	8	20	2 (5.7)	70	5	4	37	29 (38.7)
2. Lack of communication and co-ordination	35	-	7	21	7 (20)	73	2	5	29	39 (52)
3. Inability to handle major crisis	34	1	12	20	2 (5.7)	68	7	9	38	21 (28)
4. Failure to provide adequate consumer protection	34	1	10	23	1 (2.8)	73	2	14	34	25 (33.3)
5. Inadequate dissemination of necessary information for the users of financial services	34	1	19	10	5 (14.3)	67	8	11	27	29 (38.7)
6. Overlapping areas of jurisdiction of various regulators	34	1	8	21	5 (14.3)	72	3	12	26	34 (45.3)
7. Dominant position of the Ministry of Finance and RBI	35	-	1	14	20 (57.1)	74	1	5	23	46 (61.3)

Continued

Continued

4.3 Features and deficiencies of Indian financial regulatory system: A cross-sectional perception

Feature / deficiency	No. of Respondents holding different views regarding *relevance*, and level of *significance*									
	Investors (100)					***All Respondents (210)***				
	Relevant	Not relevant	If relevant, level of significance			Relevant	Not relevant	If relevant, level of significance		
			Marginally Important	*Moderately Important*	*Highly Important*			*Marg. Imp.*	*Mod. Imp.*	*Highly Imp.*
1	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5
1. Gaps in supervision and regulation	95	5	37	29	29 (29)	**195**	**15**	**49**	**86**	**60 (28.6)**
2. Lack of communication and co-ordination	100	-	23	36	41 (41)	**208**	**2**	**35**	**86**	**87 (41.2)**
3. Inability to handle major crisis	96	4	12	74	10 (10)	**198**	**12**	**33**	**132**	**33 (15.7)**
4. Failure to provide adequate consumer protection	100	-	5	73	22 (22)	**207**	**3**	**29**	**130**	**48 (22.9)**
5. Inadequate dissemination of necessary information for the users of financial services	100	-	51	38	11 (11)	**201**	**9**	**81**	**75**	**45 (21.4)**
6. Overlapping areas of jurisdiction of various regulators	100	-	31	22	47 (47)	**206**	**4**	**51**	**69**	**86 (40.9)**
7. Dominant position of the Ministry of Finance and RBI	100	-	10	36	54 (54)	**209**	**1**	**16**	**73**	**120 (57.1)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

4.4 Ranking of Features and deficiencies of Indian financial regulatory system

Features/deficiencies	Ranks			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
1. Gaps in supervision and regulation	VII (23.2)	IV (89.2)	V (96)	V (208.4)
2. Lack of communication and co-ordination	**II (33.6)**	**II (103.2)**	**III (120)**	**II (256.8)**
3. Inability to handle major crisis	V (24.8)	VII (76)	VI (84)	VI (184.8)
4. Failure to provide adequate consumer protection	VI (24.4)	VI (82.8)	IV (104.4)	IV (211.6)
5. Inadequate dissemination of necessary information for the users of financial services	IV (25.6)	V (84)	VII (72.8)	VII (182.4)
6. Overlapping areas of jurisdiction of various regulators	**III (30)**	**III (93.6)**	**II (124)**	**III (247.6)**
7. Dominant position of the Ministry of Finance and RBI	**I (51.6)**	**I (112.4)**	**I (140.8)**	**I (304.8)**

N0te: The figures in parentheses indicate the aggregate weighted value of individual significance- responses corresponding to a given Feature/ deficiency. In cases where the aggregate values are equal, the rank is assigned on the basis of only 'high' significance responses.

4.3 Integrated financial regulation

The following questions were addressed to the respondents to find out whether they favour a shift from the present multi-agency regulatory model to an integrated one, and if they do so, what kind of integrated model they propose (*fully integrated model* with RBI / agency other than RBI acting as the only regulator; or a *partially regulated model* with the same agency acting as regulator for a particular sectoral combination ,e.g., banking & insurance, or Insurance & securities, or banking & securities):

1. **Do you suggest that the existing multiple sectoral regulators should be integrated to create one or two regulators with cross-sectoral jurisdiction?**

   YES / NO

2. **Do you favor the idea of creating a single regulator for the entire financial sector somewhat on the lines of Financial Supervisory Authority (FSA) of UK?**

   YES / NO

   If yes, then where should the single regulator reside?

   (a) Within RBI (b) Outside RBI

3. In case you propose unification of existing regulators then please rank, in order of desirability, the following combinations. (*Rank 1 for the most desirable and 4 for the least desirable option)*

   (a) Common regulator for Banking & Securities; separate regulator for insurance

   (b) Common regulator for Banking & Insurance, separate regulator for securities

   (c) Common regulator for Securities &Insurance, separate regulator for banking

   (d) Single regulator for Banking, Securities & Insurance

The views of Respondents in relation to these questions have been presented in Table 6.5 and Table 4.6. It can be seen from Table 4.5 that a substantial majority of Respondents belonging to the categories of Financial Intermediaries (60 percent) and Investors (62 percent) is in favour of integrated regulation. In sharp contrast to this, among the Regulators only a few of them (just 37 percent) are in favour of

integration of existing multiple sectoral regulators, and interestingly, a little less than two-thirds of them favour the retention of the present system. If we take a composite view of the perceptions of Respondents about the present regulatory system (Table 4.3) as well as about the desirability of integrated financial regulation (Table 4.5), it is not difficult to see that there is some element of 'intrigue' in the positions (on these two issues) which is noticeable in the perceptions of Regulators only. Even as not less than two-thirds of them regard the present system at least moderately deficient on almost all parameters of efficiency, but still an almost equal number of them favours its retention!

Table 4.5: Integration of existing multiple sectoral regulators: A cross-sectional perception

Respondent category	No. of Respondents	In favour of integration	
		Yes	*No*
1	2	3.1	3.2
1. Regulators	**35** **(100)**	13 (37.1)	22 (62.9)
2. Financial Intermediaries	75 (100)	45 (60)	30 (40)
3. Investors	**100** **(100)**	62 (62)	38 (38)
All Respondents	**210** **(100)**	**120** **(57.1)**	**90** **(42.9)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

The second question concerning the creation of a single regulator for the entire financial sector was addressed to only such Respondents as were found in favour of integrated regulation. It can be seen from Table 4.6 that a majority of Respondents (more than 70 percent) in the categories of Financial Intermediaries and Investors is

in favour of creation of a single regulatory body. Among the regulators the position is just the opposite. Here, not less than 60 percent of them are opposed to the creation of a single regulatory body.

Table 4.6: Desirability of creating a single regulatory body: A cross-sectional perception

Respondent category	No. of Respondents	Yes, it is desirable		No, is not desirable
		Within RBI	*Outside RBI*	
1	2	3.1	3.2	4
1. Regulators	13 (100)	1 (7.7)	4 (30.8)	8 (61.5)
2. Financial Intermediaries	45 (100)	11 (24.4)	26 (57.8)	8 (17.8)
3. Investors	62 (100)	11 (17.7)	35 (56.5)	16 (25.8)
All Respondents	**120 (100)**	**23 (19.2)**	**65 (54.2)**	**32 (26.6)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

The same set of Respondents (as were found in favour of integrated regulation was also asked to mention their priority order of different alternative regulatory arrangements. The relevant information in this regard has been compiled in the form of Table 4.7. It may be noticed from the table that whereas a predominant majority of Respondents belonging to the categories of Financial Intermediaries (82.2 percent) and Investors (74.2 percent) are in favour of full integration, only a relatively small proportion of the Respondents in the category of Regulators (38.5 percent) favours this particular arrangement, most of them favour only a partially integrated model. Comparing the relative preferences of Respondents (across categories) for different possible partially integrated arrangements, it can be seen that 'Securities & Insurance' is the least acceptable sectoral combination, under all categories of Respondents, for

being placed under the control of a single regulatory body. As regards the other combinations, 'Banking & Insurance' with the Regulators, and 'Banking & Securities' with the Financial Intermediaries are the relatively more preferred options. Interestingly, the Investors are more or less equally split as between 'Banking & Securities' and 'Banking & Insurance'.

Table 4.7: Desirability of different forms of regulatory integration: A cross-sectional perception

Nature / extent of integration	**No. of Respondents**			
	Regulators	*Financial Intermediaries*	*Investors*	*All Respondents*
1	2.1	2.2	2.3	2.4
1.Partial integration:	**8** (61.5)	**8** (17.8)	**16** (25.8)	**32** (26.7)
(a).Banking & Securities	3	6	8	**17**
(b). Banking & Insurance	4	1	7	**12**
[illegible]	1	1	1	**3**
1. Full integration *(Banking,*	**5** (38.5)	**37** (82.2)	**46** (74.2)	**88** (73.3)
Total	**13** (100)	**45** (100)	**62** (100)	**120** (100)

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

4.4 Arguments in support of integrated financial regulation

The Respondents favouring integrated financial regulation were asked to mention the arguments they considered relatively more important (in terms of ranks) for substantiating their position in this regard. They were suggested arguments that are often put forward in the on-going debate on this issue. Relevant

information regarding their responses has been presented in Table 4.8 and Table 4.9. Table 4.8 shows, against each of the arguments, the number of Respondents assigning it different ranks. In order to ascertain the composite or over-all rank of each argument, weights have been assigned as follows: Rank I (5), Rank II (4), Rank III (3), Rank IV (2) and Rank V (1). On the basis of aggregate of corresponding weighted individual rank-responses, a composite rank, as shown in Table 6.9, has been determined. In the table, the figures in parentheses indicate the aggregate weighted value of the corresponding individual rank-responses.

There is more or less unanimity of views among different categories of Respondents regarding the three most powerful arguments. The Respondents, in general, believe that the best case for integrated financial regulation rests on the possibility that it will ensure better supervision and regulation of financial conglomerates and minimise the incidence of regulatory arbitrage. The second most important argument, they believe, is about the ability of integrated financial regulation to minimize the problems that often arise in the multiple agency system such as, lack of policy communication and coordination, gaps in supervision and regulation, and information duplication. A case for integrated financial regulation can also be made out on another argument which, the Respondents believe, is of somewhat lesser weight. On the strength of this third most important argument, the advocates of integrated financial regulation contend that it is a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of banking, securities and insurance. And lastly, it is important to note that the arguments such as, greater accountability of regulators under the integrated structure, and the cost-efficiency in regulation on account of economies of scale have been put forward by only a relatively much smaller proportion of

Respondents. Taking an overview of the main arguments suggested by the various Respondents, a point of substantial policy significance emerges. In the present liberalized financial scenario, the relevance of regulatory structure needs to be assessed in relation to the changing complexion and complexities of financial institutions and their transactions. At the present stage, the perceptible growth of financial conglomerates and its concomitant problems and pressures are a reality, not a myth. In financial regulation, the sooner it is recognized the better it is. The need for ensuring greater communication and co-ordination in regulation can not be disputed whatever the structural form. The advocates of integrated financial regulation believe that it can be achieved more effectively under this system.

Table 4.8: Arguments in support of integrated financial regulation: A cross-sectional perception

Arguments	No. of Respondents assigning different ranks to a given argument									
	Regulators (13)					*Financial Intermediaries (45)*				
	Ranks					Ranks				
	I	II	III	IV	V	I	II	III	IV	V
1	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5
1. It makes accountability more focused.	3	1	1	3	5	5	3	7	22	8
2. It ensures better supervision and regulation of financial conglomerates and minimises regulatory arbitrage	6	2	3	2	-	13	22	9	1	-
3. It is a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of banking, securities and insurance.	1	8	3	1	-	7	13	15	10	-
4. It minimises the problems that often arise in the multiple agency system (lack of policy communication and coordination, gaps in supervision and regulation, information duplication).	3	2	6	2	-	20	7	14	3	1
5. It implies cost-efficiency (economies of scale)	-	-	-	5	8	-	-	-	9	36

Continued

Continued

Table 4.8: Arguments in support of integrated financial regulation: A cross-sectional perception

Arguments	No. of Respondents individually assigning different ranks to a given argument									
	Investors (62) Ranks					***All Respondents (120)*** Ranks				
	I	II	III	IV	V	I	II	III	IV	V
1	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5
1. It makes accountability more focused.	6	11	20	18	7	**14**	**15**	**28**	**43**	**20**
2. It ensures better supervision and regulation of financial conglomerates and minimises regulatory arbitrage	7	34	16	5	-	**26**	**58**	**28**	**8**	-
3. It is a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of banking, securities and insurance.	4	11	20	24	3	**12**	**32**	**38**	**35**	**3**
4. It minimises the problems that often arise in the multiple agency system (lack of policy communication and coordination, gaps in supervision and regulation, information duplication).	45	6	5	5	1	**68**	**15**	**25**	**10**	**2**
5. It implies cost-efficiency (economies of scale)	-	1	-	9	52	-	**1**	-	**23**	**96**

Table 4.9: Ranking of arguments in support of integrated regulation

Arguments	**Ranks* assigned by the Respondent-Group as a whole**			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
1. It makes accountability more focused.	IV (33)	IV (110)	**III (177)**	IV (320)
2. It ensures better supervision and regulation of financial conglomerates and minimises regulatory arbitrage	**I (51)**	**I (182)**	**II (229)**	**II (462)**
3. It is a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of banking, securities and insurance.	**II (48)**	**III (152)**	IV (175)	**III (375)**
4. It minimizes the problems that often arise in the multiple agency system (lack of policy communication and coordination, gaps in supervision and regulation, information duplication).	**III (45)**	**II (177)**	**I (275)**	**I (497)**
5. It implies cost-efficiency (economies of scale)	V (18)	V (54)	V (74)	V (146)

4.5 Arguments against integrated financial regulation

From Table 4.5 one can see that a sizeable proportion of Respondents, which is about 43 per cent, does not support the integration of existing multiple sectoral regulators. Apparently, it is important and instructive to know the reasons or apprehensions that may be the basis of their aversion / opposition to integrated regulation. The Respondents were suggested some arguments that are quite often referred to in the relevant literature and debates on this controversial issue. They were asked to specify their views regarding relative importance of these arguments. The response pattern is specified in Table 4.10, and the ranking of arguments, based on the aggregate of corresponding weighted individual rank-responses, is indicated in Table 4.11.

One point is quite distinctly clear from Table 4.10 as well as from the ranking order of arguments specified in Table 4.11 that the most commonly popular argument with the Respondents and particularly with the Regulators is that specialised agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions. The second most important argument against integrated regulation highlights the significance of communication and co-ordination, rather than of merely the regulatory structure, as the basic requirement for regulatory effectiveness. The implication is that for the effectiveness of the over-all regulatory system, what is actually important is to ensure policy communication and coordination among various agencies. A unified regulatory system does not by itself imply effectiveness. And lastly, it is important to note that the arguments against integrated regulation are not viewed by all of the Respondents as the final irreversible opinion. It is recognised by some of them that the various regulatory structures that are in operation in various countries are still a recent phenomenon and they continue to be in experimental stage. Since their effectiveness is yet to be empirically established, it is too early to abandon the present system. This point, which in fact is of no less merit than most others, has been viewed by the Respondents as the third

important argument against integrated regulation. Among the other arguments that have been considered important by only few of the Respondents, and which stand relegated to the bottom ranking positions, the following contentions are made: (a) accountability is better under the multiple regulatory agency system, (b) a single regulator may become increasingly bureaucratic in its approach and slow to respond to exigencies as they emerge in the financial sector, and (c) economies of scale are not a good enough ground for justifying integration of regulatory agencies.

Taking a comprehensive view of the arguments employed by most of the Respondents in support of their contention against integrated regulation, some important conclusions of practical significance can be drawn:

(a) One point that is most obviously clear is that the Respondents make a distinction between weakness of supervisory structure and weakness of supervision. If supervision of financial markets is weak under multi-agency regulatory system, it may be expected to be weak even under a single regulator regime, too. For ensuring effective supervision, a mere change of regulatory structure is not sufficient. More important is to properly address the weaknesses in regulation and supervision.

(b) It is argued by the critiques of the unified approach that the main regulatory problem in most countries is lack of communication and cooperation among different agencies, which can be tackled through other available remedial measures effectively. If proper, effective mechanisms are in place to ensure policy interaction and coordination among different agencies, there is no ground for expecting less effective supervision and monitoring of the financial system in one type of regulatory regime as compared to any other.

(c) Significantly, the choice of a suitable regulatory structure is seen by the respondents, on both sides of the controversy, mainly from the operational efficiency viewpoint, rather than just from the economic viewpoint of achieving cost efficiency. Realising the goals of financial regulation more effectively has

been viewed more important than minimising the cost of regulation. Apparently, there is no ambiguity in the minds of Respondents about what may be called 'regulatory efficiency'. A regulatory structure should have its first and foremost concern for regulatory efficiency rather than cost-efficiency. Moreover, even on the ground of cost-efficiency a strong case for integrated regulation is difficult to make out in view of the fact that there is not much, settled empirical evidence in this regard.

Table 4.10 : Arguments against integrated financial regulation: A cross-sectional perception

Arguments	No. of Respondents holding different views regarding relative importance											
	Regulators (22)			*Financial Intermediaries (30)*			*Investors (38)*			***All Respondents (90)***		
	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
1.Integrated regulation is still a recent phenomenon and its effectiveness remains yet to be established.	1	2	19 (86.4)	3	13	14 (46.7)	-	14	24 (63.2)	**4**	**29**	**57 (63.3)**
2.Specialized agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions	-	1	21 (95.5)	-	6	24 (80)	-	3	35 (92.1)	**-**	**10**	**80 (88.9)**
3.Accountability is better under the multiple regulatory agency system	1	14	7 (31.8)	3	15	12 (40)	9	11	18 (47.4)	**13**	**40**	**37 (41.1)**
4.For the effectiveness of the over-all regulatory system, what is basically important is to ensure policy communication and coordination among various agencies. As such, a unified regulatory system does not by itself imply effectiveness.	-	7	15 (68.2)	-	10	20 (66.7)	-	16	22 (57.9)	**-**	**33**	**57 (63.3)**

Continued

Continued

Table 4.10 : Arguments against integrated financial regulation: A cross-sectional perception

Arguments	No. of Respondents holding different views regarding relative importance											
	Regulators (22)			*Financial Intermediaries (30)*			*Investors 38(4)*			***All Respondents (90)***		
	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
5. A single regulator may become increasingly bureaucratic in its approach and slow to respond to exigencies as they emerge in the financial sector.	2	15	5 (22.7)	3	16	11 (36.7)	9	26	3 (7.9)	**14**	**57**	**19 (21.1)**
6.Economies of scale are not a good enough ground for justifying integration of regulatory agencies.	2	16	4 (18.2)	9	18	3 (10)	6	30	2 (5.3)	**17**	**64**	**9 (10)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.11: Ranking of arguments against integrated regulation

Arguments	Ranks			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
1.Integrated regulation is still a recent phenomenon and its effectiveness remains yet to be established.	**II (40)**	**III (39.6)**	**II (59.2)**	**III (138.8)**
2.Specialized agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions	**I (42.8)**	**I (52.8)**	**I (72.4)**	**I (168)**
3.Accountability is better under the multiple regulatory agency system	IV (25.6)	IV (37.2)	IV (48.4)	IV (111.2)
4.For the effectiveness of the over-all regulatory system, what is basically important is to ensure policy communication and coordination among various agencies. As such, a unified regulatory system does not by itself imply effectiveness.	**III (35.6)**	**II (48)**	**III (56.8)**	**II (140.4)**
5. A single regulator may become increasingly bureaucratic in its approach and slow to respond to exigencies as they emerge in the financial sector.	V (22.8)	V (36)	V (30.4)	V (89.2)
6.Economies of scale are not a good enough ground for justifying integration of regulatory agencies.	VI (21.6)	VI (24)	VI (30.4)	VI (76)

4.6 Importance of communication and co-ordination and other factors in financial regulation

On a closer scrutiny of the responses of the respondents, an interesting point relating to the importance of communication and co-ordination has been noticed. A question was posed to all respondents asking them if they agreed with the view that it would be better to ensure appropriate communication and co-ordination among the existing regulators (instead of integrating them). It was found that those answering 'yes' to this question included not only a predominant majority of such Respondents as were actually not in favour of integrated regulation, significantly, they also included a noticeable proportion of even such Respondents, particularly in the category of Regulators, as were actually in favour of integrated regulation. It can be seen from Table 4.12 that among Regulators who are supporters of integrated regulation as many as 61.5 percent are those who are inclined to relent their position in favour of retention of the present system provided an effective mechanism is in place to ensure appropriate communication and co-ordination. The other figures specified in the table can be interpreted and analysed similarly. The willingness of these Respondents to relent their position conditionally in favour of retention of the present system highlights **the importance of communication and co-ordination in financial regulation irrespective of regulatory structure that is adopted**.

To push the point in question a little further, the Respondents were asked if they regarded placing the existing multiple regulators under the unified command of a single regulator ('lead' model) as a way to better regulation, and if so, where the single regulator should reside - within or outside the RBI. The views of the Respondents are presented in Table 4.13. A close inspection of the responses would show that the majority of Respondents, who were otherwise in favour of integrated

regulation, recognise the 'lead' model as an alternative to integrated regulation. Among advocates of integrated regulation, the Respondents holding this position constitute 61.5 percent in case of Regulators, 71.1 percent in case of Financial Intermediaries, 71 percent in case of Investors, and finally, 70 percent in case of all categories, in general. As regards the second part of the question, generally more than two-thirds of the Respondents, under each category, who were not averse to the 'lead' model, suggested entrusting the unified command to some agency outside the RBI. These results may be interpreted to imply that there exists a greater possibility of ensuring appropriate communication and co-ordination under the 'lead' model.

From the foregoing analysis an important conclusion follows. In the scheme of effective regulation, the architectural aspect of regulation is not all important. There are other factors, too which may not be less important. In this respect, the importance of an appropriate mechanism for ensuring communication and co-ordination among the regulators we have already seen. The Respondents were asked whether they agreed with the view that **if the supervision of financial markets is weak under separate regulators, it may continue to be weak even under a unified regulatory regime or any other arrangement, until and unless some basic requirements are ensured.** The Respondents were asked if they agreed with this view, and what according to them is necessarily required for the effectiveness of any regulatory body. Significantly, the merit of this point has been acknowledged by an impressive majority of Respondents (mostly not less than 80 percent, in any case), irrespective of their positions with respect to integrated regulation, as can be seen from Table 4.14.

As regards the requirements necessary for ensuring effective financial regulation, the Respondents were suggested some important measures of statutory nature. They were asked to specify the relative importance of each of these measures.

The information pertaining to various responses on this issue has been presented in Table 4.15, and the same, after due processing, has been given in Table 4.16 in the form of ranking of these measures in order of their importance. It can be seen from Table 4.16 that among the important requirements necessary for the effectiveness of any regulatory system, the most important requirement (Rank I) is that the **objectives, jurisdiction and powers of the regulators should be clearly defined leaving practically no room for any omission or transgression.** An inspection of Table 4.15 would show that as many as 93.3 percent of the Respondents, in general, with Regulators (82.9 percent), Financial Intermediaries (98.7 percent) and Investors (93 percent) regard this requirement as 'highly important'. As regards the second most requirement (Rank II) , **autonomy of the regulators in true sense** has been viewed as 'highly important' by as many as 90.9 percent of the Respondents, in general, with Regulators (97.1 percent), Financial Intermediaries (93.3 percent) and Investors (87 percent). And lastly, 78.1 percent of the Respondents, with Regulators (77.1 percent), Financial Intermediaries (64 percent) and Investors (74 percent) regard **vesting the regulators with adequate powers commensurate with their responsibilities** as 'highly important' and the third most (Rank III) requirement. About adequacy of powers a separate question was addressed to the Respondents to ascertain their views in this respect. From the information given in Table 4.17 it can be seen that as many as 87.6 percent of the Respondents, in general, are of the view that the powers presently granted to the regulators are adequate. Interestingly, this view is shared more by Regulators and Investors as compared to the Financial Intermediaries.

These statutory- type of requirements apart, an attempt was made to directly assess how regulatory structure, as a pre-condition for efficiency in regulation, compares with some of the requirements of facilitative nature, namely, government's

commitment to the regulator, commitment and competence of regulatory staff, and lastly, education of the public regarding role and limitations of regulators. For reasons of objectivity, only Respondents belonging to the category of Financial Intermediaries were asked to mention the relative importance of these measures. Their responses are indicated in Table 4.18 and Table 4.19. It is significant to observe that regulatory structure is regarded 'highly important' by 56 percent of the Respondents and it occupies the third place. In comparison, commitment and competence of the regulatory staff, with as many as 86.7 percent of the Respondents holding it 'highly important', is ranked at the first place. Lastly, government's commitment to the regulators, with 66.7 percent of the Respondents considering it 'highly important', is ranked at the second place. This only reiterates the fact that the mere existence of a particular type of regulatory structure can not be construed to imply regulatory effectiveness. Other factors are at least no less important.

Sadly, these responses do not duly reflect the importance of education and awareness of the public about the role and limitations of regulators. Public awareness acts as a watch dog of the functioning of regulators and regulated. It is necessary that there should be adequate arrangements for creating public awareness about responsibilities of financial institutions (towards consumers of their financial services and products), as well as, the responsibilities of consumers themselves. To day there is excessive reliance of investors on financial regulators. Financial market products have become more and more diversified, innovative and competitive. Investors now have access to derivatives and a range of leveraged investments like hedge funds. Investors' have a very little awareness of various aspects of new financial instruments. They mostly believe that if things go wrong the regulator will bale them out. Therefore, it is being increasingly realised that investor protection must go hand

in hand with the effort to enhance public understanding of the new emerging financial markets.

A question was posed to the Investors to ascertain whether they considered the existing arrangements in this regard adequate, and what they would like to suggest to improve the same. Significantly, all of them were of the view that the arrangements are inadequate. As many as 88 percent were of them were of the view that public awareness can be improved in a significantly high way by widely publicizing the relevant information through mass media. And, 68 percent of the respondents believed that dissemination of relevant information at the point of supply of the service in an effective and prominent manner can also be a 'highly important' way of improving public awareness. (Table 4.20 through Table 4.22).

Taking an over-view of the reactions of Respondents to the different questions addressed to them, it may be concluded that the following are important factors for the effectiveness of financial regulation, irrespective of the nature of regulatory structure in existence:

- Communication and co-ordination among regulators
- Truly autonomous functioning of the regulatory body
- Clarity in defining objectives, jurisdiction and powers of the regulators
- Provision of adequate powers commensurate with the responsibilities of regulators
- Commitment and competence of the regulatory staff
- Commitment of the government to the regulators to let them function independently
- Public awareness about responsibilities of financial institutions (towards consumers of their financial services and products), as well as, the responsibilities of consumers themselves

Table 4.12 : Importance of communication and co-ordination irrespective of regulatory structure: A cross-sectional perception

Respondent category	Total No. of Respondents	Respondents who favour / do not favour retention of the present regulatory system with a proper mechanism in place to ensure appropriate communication and co-ordination	
		Yes, in favour	*No, not in favour*
1	2	3.1	3.2
Regulators	35 (100)	29 (82.9)	6 (17.1)
Those favouring Integrated regulation	13 (100)	8 (61.5)	5 (38.5)
Those not favouring Integrated regulation	22 (100)	21 (95.5)	1 (4.5)
Financial Intermediaries	75 (100)	36 (48)	39 (52)
Those favouring Integrated regulation	45 (100)	6 (13.3)	39 (86.7)
Those not favouring Integrated regulation	30 (100)	30 (100)	0
Investors	100 (100)	52 (52)	48 (48)
Those favouring Integrated regulation	62 (100)	14 (22.6)	48 (77.4)
Those not favouring Integrated regulation	38 (100)	38 (100)	0
All Respondents	**210 (100)**	**117 (55.7)**	**93 (44.3)**
Those favouring Integrated regulation	**120 (100)**	**28 (23.3)**	**92 (76.7)**
Those not favouring Integrated regulation	**90 (100)**	**89 (98.9)**	**1 (1.1)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.13 : Desirability of 'umbrella' or 'lead' type regulatory model,: A cross-sectional perception

Respondent category	**Total No. of Respondents**	**No. of Respondents who favour / do not favour the "umbrella' type model**			
		Yes, in favour	*No, not in favour*	If, in favour	
				Within RBI	*Out-side RBI*
1	2	3	4	5	6
Regulators	35 (100)	16 (45.7) (100)	19 (54.3)	3 (18.8)	13 (81.2)
Those favouring Integrated regulation	13 (100)	8 (61.5)	5 (38.5)		
Those not favouring Integrated regulation	22 (100)	8 (36.4)	14 (63.6)		
Financial Intermediaries	75 (100)	48 (64) (100)	27 (36)	18 (37.5)	30 (62.5)
Those favouring Integrated regulation	45 (100)	32 (71.1)	13 (28.9)		
Those not favouring Integrated regulation	30 (100)	16 (53.3)	14 (46.7)		
Investors	100 (100)	55 (55) (100)	45 (45)	10 (18.2)	45 (81.8)
Those favouring Integrated regulation	62 (100)	44 (71)	18 (29)		
Those not favouring Integrated regulation	38 (100)	11 (28.9)	27 (71.1)		
All Respondents	**210 (100)**	**119 (56.7) (100)**	**91 (43.3)**	**31 (26.1)**	**88 (73.9)**
Those favouring Integrated regulation	**120 (100)**	**84 (70)**	**36 (30)**		
Those not favouring Integrated regulation	**90 (100)**	**35 (38.9)**	**55 (61.1)**		

Note: Figures in parentheses refer to percentages (of the corresponding total figures).

Table 4.14 : If supervision is poor under separate regulators, it may continue to be weak even under a unified regulatory regime until and unless some basic requirements are ensured: A cross-sectional perception

Respondent category	Total No. of Respondents	No. of Respondents who are / are not in favour of the view that if...	
		Yes, in favour	*No, not in favour*
1	2	3	4
Regulators	35 (100)	31 (88.6)	4 (11.4)
Those favouring Integrated regulation	13 (100)	10 (76.9)	3 (23.1)
Those not favouring Integrated regulation	22 (100)	21 (95.5)	1 (4.5)
Financial Intermediaries	75 (100)	60 (80)	15 (20)
Those favouring Integrated regulation	45 (100)	32 (71.1)	13 (28.9)
Those not favouring Integrated regulation	30 (100)	28 (93.3)	2 (6.7)
Investors	100 (100)	95 (95)	5 (5)
Those favouring Integrated regulation	62 (100)	57 (91.9)	5 (8.1)
Those not favouring Integrated regulation	38 (100)	38 (100)	0
All Respondents	**210 (100)**	**186 (88.6)**	**24 (11.4)**
Those favouring Integrated regulation	**120 (100)**	**99 (82.5)**	**21 (17.5)**
Those not favouring Integrated regulation	**90 (100)**	**87 (96.7)**	**3 (3.3)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.15: Requirements for the effectiveness of any regulatory system, irrespective of its regulatory structure: A cross-sectional perception

Requirements	No. of Respondents holding different views regarding relative importance of various requirements											
	Regulators (35)			*Financial Intermediaries (75)*			*Investors (100)*			***All Respondents (210)***		
	Marg. Imp.	Mod. Imp..	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
1. It must enjoy autonomy in the true sense.	-	1	34 (97.1)	1	4	70 (93.3)	2	11	87 (87)	**3**	**16**	**191 (90.9)**
2. It must be headed by an experienced person of widely known integrity.	-	21	14 (40)	-	26	49 (65.3)	3	62	35 (35)	**3**	**109**	**98 (46.7)**
3. It must be vested with adequate powers commensurate with its responsibilities.	-	8	27 (77.1)	-	12	63 (84)	1	25	74 (74)	**1**	**45**	**164 (78.1)**
4. The head as well as members of its governing body should not be exposed to insecurity of tenure and the mercy of their political or other bosses.	-	28	7 (20)	1	39	35 (46.7)	2	84	14 (14)	**3**	**151**	**56 (26.7)**
5. It must conform to the structure, complexion and general health of the financial sector as the latter evolves, over time.	-	25	10 (28.6)	1	35	39 (52)	1	42	57 (57)	**2**	**102**	**106 (50.5)**
6. Its objective, jurisdiction and powers should be clearly defined leaving practically no room for any omission or transgression.	1	5	29 (82.9)	-	1	74 (98.7)	1	6	93 (93)	**2**	**12**	**196 (93.3)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.16: Ranking of requirements which are important for the effectiveness of any regulatory system, irrespective of its regulatory structure

Requirements	Ranking based on views of Respondents			
	Regulators (35)	*Financial Intermediaries (75)*	*Investors (100)*	***All Respondents (210)***
1	2.1	2.2	2.3	2.4
1. It must enjoy autonomy in the true sense.	**I (68.8)**	**II (143.6)**	**II (183.6)**	**II (396)**
2. It must be headed by an experienced person of widely known integrity.	IV (44.8)	IV (118.8)	V (120.8)	V (284.4)
3. It must be vested with adequate powers commensurate with its responsibilities. It must be vested with adequate powers commensurate with its responsibilities.	**III (60.4)**	**III (135.6)**	**III (168.4)**	**III (364.4)**
4. The head as well as members of its governing body should not be exposed to insecurity of tenure and the mercy of their political or other bosses.	VI (36.4)	VI (101.6)	VI (96)	VI (234)
5. It must conform to the structure, complexion and general health of the financial sector as the latter evolves, over time.	V (40)	V (106.4)	IV (148)	IV (294.4)
6. Its objective, jurisdiction and powers should be clearly defined leaving practically no room for any omission or transgression.	**II (62.4)**	**I (148.8)**	**I (191.2)**	**I (402.4)**

Table 4.17: Adequacy of powers granted to various regulatory bodies: A cross-sectional perception

Respondent category	Total No. of Respondents	No. of Respondents holding different views about adequacy	
		Yes, adequate	*No, not adequate*
1	2	3.1	3.2
Regulators	35 (100)	32 (91.4)	3 (8.6)
Financial Intermediaries	75 (100)	58 (77.3)	17 (22.7)
Investors	100 (100)	94 (94)	6 (6)
All Respondents	**210 (100)**	**184 (87.6)**	**26 (12.4)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.18: Factors that are important for the over-all regulatory success: A cross-sectional perception

Factors	No. of Respondents* holding different views regarding different factors		
	Marginally Important	*Moderately Important*	*Highly Important*
1	2.1	2.2	2.3
1. Regulatory structure	-	33	42 (56)
2. Government's commitment to the regulator	2	23	50 (66.7)
3. Commitment and competence of the regulatory staff	-	10	65 (86.7)
4. Education of the public regarding role and limitations of regulation	10	44	21 (28)

* Total No. of Respondents : 75
Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.19: Ranking of factors which are necessary for the over-all regulatory success

Factors	Rank
1	2
Regulatory structure	**III (110.4)**
Government's commitment to the regulator	**II (119.2)**
Commitment and competence of the regulatory staff	**I (138)**
Education of the public regarding role and limitations of regulation	IV (81.2)

Table 4.20: Adequacy of arrangements made by the government, regulators and other bodies: A cross-sectional perception

Level of adequacy	No. of Respondents having different views on adequacy of arrangements
1	2
1. Arrangements are adequate	-
2. Arrangements are inadequate	91
3. Arrangements are highly inadequate	9
Total No. of Respondents	**100**

Table 4.21: Measures that are necessary for creating adequate public awareness: A cross-sectional perception

Measures	No. of Respondents holding different views regarding the relative importance of various measures		
	Marginally Important	*Moderately Important*	*Highly Important*
1	2.1	2.2	2.3
1. Dissemination of relevant information at the point of supply of the service in an effective and prominent manner	9	23	68
2. Wide publicity of information through electronic media	1	11	88
3. Publicity through print media	3	63	34
4. Adequate incentives for greater participation of NGOs in this regard	44	51	5

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.22: Ranking of measures that are necessary for creating adequate public awareness

Measures	Rank
1	2
1. Dissemination of relevant information at the point of supply of the service in an effective and prominent manner	**II (158)**
2. Wide publicity of information through electronic media	**I (185.2)**
3. Publicity through print media	**III (119.6)**
4.Adequate incentives for greater participation of NGOs in this regard	IV (68.4)

4.7 Miscellaneous issues in financial regulation

4.7.1 RBI's domain of operation

Internationally, following the failure of some large banks and bank related entities, there has been a debate on the segregation of supervision from traditional central banking, citing the conflict between monetary policy objectives and bank supervision objectives. There are many arguments regarding the role of central bank. It is argued that banks are critical to systemic stability because of their role in the payments system. In support of this view it is further said that central banks cannot adequately provide the 'lender of last resort' facilities unless they also have regulatory control over them. On the opposite, those who favour the separation of banking regulation from central bank argue that objectives of monetary policy and banking regulation may, at times, generate conflicts. A central bank that supervises the banking segment might be tempted to pursue a soft monetary policy to keep banks healthy. This may or may not succeed but surely it may be expected to step up inflation. Further, central bank's credibility as a monetary regulator may also suffer as a result of its failure to regulate the banking system properly.

In the sphere of financial regulation, the Reserve Bank of India (RBI) and the Ministry of Finance enjoy a distinctly dominant position. RBI is playing many roles. It is acting as monetary authority, government's banker and banking sector supervisor. In professional and academic circles, the preoccupation of RBI with these diverse highly demanding responsibilities has become a debatable point. It is commonly believed that RBI is over-burdened, and as such, it may not be in a position to discharge its responsibilities efficiently, particularly in relation to banking sector supervision. Also it is argued that the objectives of monetary policy and banking regulation may conflict with each other and in that case, it may achieve one

at the cost of other. Questions relating to these issues were addressed to the Respondents and their viewpoints have been specified in Table 4.23 and Table 4.24.

The Respondents were asked to react to the view that the RBI is over-burdened due to its twin roles of acting as monetary authority and government's banker which may dilute its banking sector supervisory role. As many as 63.3 percent of them agreed with this view (Table 4.23). As regards the second question, the Respondents were asked to specify their opinions on the often argued contention that the objectives of monetary policy and banking regulation may run into mutual conflict and RBI may not be able to reconcile the same. Their responses are indicated in Table 4.24. It is important to note that a majority of the Respondents (59 percent), in general appears apprehensive about RBI's ability to reconcile its role-conflict.

Table 4.23: RBI's role as monetary authority and banker of the government dilutes its banking sector supervisory role: A cross-sectional perception

Respondent category	**Total No. of Respondents**	**N0. of Respondents subscribing to the view that it may dilute RBI's role of banking supervisor**	
		Yes, it may	*No, it may not*
1	2	3.1	3.2
Regulators	35 (100)	19 (54.3)	16 (45.7)
Financial	75 (100)	39 (52)	36 (48)
Investors	100	75	25
All Respondents	**210 (100)**	**133 (63.3)**	**77 (36.7)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.24: Conflict between RBI's objectives of monetary policy and banking regulation: A cross-sectional perception

Respondent category	Total No. of Respondents	No. of Respondents subscribing to the view that the RBI is capable of reconciling these objectives	
		Yes, it is	*No, it is not*
1	2	3.1	3.2
Regulators	35 (100)	14 (40)	21 (60)
Financial Intermediaries	75 (100)	40 (53.3)	35 (46.7)
Investors	100	70	30
All Respondents	**210 (100)**	**124 (59)**	**86 (41)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

4.7.2 Regulatory capture

In India, there are many examples of the presence of regulator's nominee on the boards of the regulated financial institutions, and of the government, on the boards of financial regulators. Significantly, the government has a substantial ownership in some of the financial market segments, as well. It is estimated that about 80 percent of the banking sector and 90 percent of the insurance sector are dominated by government ownership. These aspects of government's involvement in the financial system have created a potential area of what is called , 'regulatory capture' - the regulated practically regulating itself! It is a highly debatable issue. It has serious implications for regulatory efficiency. In these apparent 'role-conflict' situations, the possibility of 'role-compromise' looms large. It was thought necessary

to ascertain the reactions of different sets of Respondents on this important point. On this issue, the views of Financial Intermediaries were not sought due mainly to the consideration of minimizing the element of bias or exaggerated reaction in the responses. Their reactions and the suggestions for containing the adverse effects of this phenomenon have been presented in Table 4.25 through Table 4.29.

A predominant majority of Respondents to the extent of 89.5 percent believes that the dominant position held by the government in banking and insurance is a potential source of regulatory capture (Table 4.25). Practically all of these Respondents (98.3 percent) suggest dilution of government holding in these financial institutions to minimize the possibility of regulatory capture (Table 4.26). As regards the presence of government's nominees on the boards of financial regulators, and of the regulators, in turn, on the boards of the regulated financial institutions in some of which the government itself has a substantial ownership, the widely held view of more than 80 percent of the Respondents is that it may lead to regulatory capture (Table 4.27). Lastly, about measures necessary for curbing the incidence of regulatory capture effectively, Respondents emphasise prescribing a strict code of conduct for the regulators , in particular, restraining the regulator's head and board members from holding shares or any other financial stakes and accepting any job/consultancy in regulated firms (at least for some specified time period) after the end of the office term, as most important (Table 4.29).

Table 4.25: Dominant position of the government in banking and insurance as a potent source of regulatory capture: A cross-sectional perception

Respondent categories	Total No. of Respondents	No. of Respondents holding different views on the issue (government's dominant position	
		Yes, it is true	*No, it is not true*
1	2	3.1	3.2
Regulators	**35 (100)**	33 (94.3)	2 (5.7)
Financial Intermediaries	**75 (100)**	63 (84)	12 (16)
Investors & Academicians	**100**	92	8
All Respondents	**210 (100)**	**188 (89.5)**	**22 (10.5)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.26: Need for dilution of government holding in various financial institutions to minimise the possibility of regulatory capture: A cross-sectional perception

Respondent categories	Total No. of Respondents	No. of Respondents who hold different	
		Yes, there is the need	*No, there is no need*
1	2	3.1	3.2
Regulators	**33 (100)**	33 (100)	-
Financial Intermediaries	**63 (100)**	61 (96.8)	2 (3.2)
Investors	**92 (100)**	92 (100)	-
All Respondents	**188 (100)**	**186 (98.9)**	**2 (1.1)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.27: Regulatory capture of financial institutions (by the regulators and the government): A cross-sectional perception

Respondent categories	Total No. of Respondents	No. of Respondents holding different views about the possibility of regulatory capture ...	
		Yes, it is possible	*No, it is not possible*
1	2	3.1	3.2
Regulators	**35 (100**	29 (82.9)	6 (17.1)
Investors	**100**	96	4

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.28: Measures necessary for effectively curbing incidence of regulatory capture by the government: A cross-sectional perception

Parameters	No. of Respondents holding different views regarding the significance of various measures								
	Regulators (35)			*Investors (100)*			***All Respondents (135)***		
	Marg. Imp.	Mod. Imp..	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	4.1	4.2	4.3	5.1	5.2	5.3
1. Regulator's head and board members may not hold shares or any other financial stakes in regulated firms.	13	12	10 (28.6)	26	55	19 (19)	**39**	**67**	**29 (21.5)**
2.Regulator's head and staff members may never (or for some specified time period) take any job/consultancy in regulated firms after the end of the office term.	14	16	5 (14.3)	53	26	21 (21)	**67**	**42**	**26 (19.3)**
3. Necessary guidelines for restraining regulators from frequent consultations with the representatives of the regulated firms, and prescribing for them a strict code of conduct	7	9	19 (54.3)	21	19	60 (60)	**28**	**28**	**79 (58.5)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.29: Ranking of measures that are necessary for effectively curbing incidence of regulatory capture by the government

Parameters	**Ranking**		
	Regulators	*Investors*	***All Respondents***
1	2.1		2.3
1. Regulator's head and board members may not hold shares or any other financial stakes in regulated firms.	**II (34.8)**	**II (92.4)**	**II (127.2)**
2.Regulator's head and staff members may never (or for some specified time period) take any job/consultancy in regulated firms after the end of the office term.	III (28.4)	III (84)	III (112.4)
3. Necessary guidelines for restraining regulators from frequent consultations with the representatives of the regulated firms, and prescribing for them a strict code of conduct	**I (48)**	**I (143.6)**	**I (191.6)**

4.7.3 Optimal-mix of 'internal' and 'external' regulation

In the world of financial modernisation, regulation from both markets and authorities has an important role to play. It is very necessary that the significance of market-generated regulation and transparency, which is a part of that regulation, is not undermined. External regulation and supervision by official agencies alone can not be effective. The financial institutions also have to realise their responsibility in this regard. They must ensure a robust and effective internal supervision system so as to duly complement external supervision. Capital adequacy rules, supervision, and market discipline are the three pillars of the regulatory framework specified by Basel II. Efforts have to be made to put them in place. Undoubtedly, finding the right balance between regulation, supervision and market discipline is not an easy task. This is not possible without political discipline which has now come to be viewed as the fourth pillar.

Table 4.30: Optimal-mix of regulation (regulation externally imposed by the regulators and regulation based on the market mechanism): A cross-sectional perception

Respondent category	**Total No. of Respondents**	**No. of Respondents holding different views about the optimal-mix**	
		More of externally imposed, and less of market discipline based regulation	*Less of externally imposed, and more of market discipline based regulation*
1	2	3.1	3.2
Regulators	35 (100)	12 (34.3)	23 (65.7)
Financial Intermediaries	75 (100)	8 (10.7)	67 (89.3)
All Respondents	**110 (100)**	**20 (18.2)**	**90 (81.8)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

The respondents, which included both regulators and regulated, were asked as to what kind of optimal-mix of the regulatory practices – externally imposed regulation (by the regulators) and the market-generated regulation – they consider desirable. Their views, as specified in Table 4.30, emphasise the importance and relevance of the market-generated discipline relatively to that of externally imposed regulation, in the present liberalised, competitive and fast expanding financial scenario. A overwhelming majority of Respondents, in general, and regulated , in particular, has been observed to highlight the significance of relying less on externally imposed, and more on market discipline based regulation. As can be seen from the table, this kind of optimal regulation-mix is advocated by 65.7 percent of Regulators, and 89. 3 percent of Financial Intermediaries.

4.7.4 Cost-benefit analysis of new regulation

There may be some serious implications for growth and smooth functioning of the financial system if new regulatory initiatives are pushed through without due examination of their pros and cons. It is very necessary to have a comprehensive assessment of all possible ramifications of such proposals. It is only after they appear to stand sound and workable propositions in the over-all interest of the system that they should be adopted for implementation. Questions were addressed to the respondents to find out as to how they view the desirability of exposing new regulatory initiatives to the rigours of cost-benefit analysis, a practice which is relatively quite common in the advanced countries. Also, some usually accepted parameters of cost-benefit analysis were suggested to them for seeking their opinions on their relative importance. The relevant information in this regard has been specified in Table 4.31 through Table 4.33. It is significant that a predominant segment of respondents in each category – about 70 percent - appreciates the

usefulness of this approach (Table 4.31). As for the relative importance of the parameters, it may be observed from Table 4.32 that as many as 79.6 percent of respondents (which includes 92 percent of Regulators, 60.4 percent of Financial Intermediaries and 89.9 percent of Investors) regard the effect on competition as 'highly important' (Table 4.32). Accordingly, this parameter is Ranked I (Table 4.33) which means that in the cost-benefit analysis of utmost importance should be to examine whether the new regulation is expected to intensify or dilute competition. This view is quite understandable in the context of the present largely market-oriented financial system. The second parameter, in order of importance, refers to the effect on quality (significantly, not quantity!) and variety of the financial products sold. It can be seen from Table 4.32 that 73.5 percent of the respondents (which includes 64 percent of Regulators, 66 percent of Financial Intermediaries and 82.6 percent of Investors) consider this parameter as 'highly important'. And lastly, the compliance costs (Ranked III) have been mentioned as 'highly important' parameter by 44.9 percent of the Respondents (which includes 64 percent of Regulators, 49.1 percent of Financial Intermediaries and 34.8 percent of Investors).

Table 4.31: Desirability of cost-benefit analysis before introducing any new regulation: A cross-sectional perception

Respondent category	Total No. of Respondents	No. of Respondents holding different views about the desirability of cost-benefit analysis	
		Yes, it is desirable	*No, it is not desirable*
1	2	3.1	3.2
Regulators	35 (100)	25 (71.4)	10 (28.6)
Financial Intermediaries	75 (100)	53 (70.7)	22 (29.3)
Investors	100	69	31
All Respondents	**210 (100)**	**147 (70)**	**63 (30)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.32: Parameters for cost-benefit analysis of new regulatory initiative: A cross-sectional perception

Parameters	No. of Respondents holding different views regarding relative importance of the parameters											
	Regulators (25)			*Financial Intermediaries (53)*			*Investors (69)*			***All Respondents (147)***		
	Marg. Imp.	Mod. Imp..	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
1. Direct Costs (Cost of designing, monitoring and enforcing regulations in terms of additional resources required)	1	16	8 (32)	2	35	16 (30.2)	9	50	10 (14.5)	**12**	**101**	**34 (23.1)**
2. Compliance Costs (Cost of additional resources, including time, that would be used by firms and/or individuals to comply with a new regulation)	-	9	16 (64)	1	26	26 (49.1)	2	43	24 (34.8)	**3**	**78**	**66 (44.9)**
3. Quantity of the financial products sold (New regulation can affect the costs of launching a new financial product and hence it's sales, as well)	3	21	1 (4)	13	27	13 (24.5)	13	53	3 (4.3)	**29**	**101**	**17 (11.6)**
4. Quality and variety of the financial products sold (Cost of a regulation in terms of quality standards and variety of a financial products)	1	8	16 (64)	1	17	35 (66)	1	11	57 (82.6)	**3**	**36**	**108 (73.5)**
5. Effect on competition (New regulation can intensify or dilute competition)	1	1	23 (92)	5	16	32 (60.4)	-	7	62 (89.9)	**6**	**24**	**117 (79.6)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.33: Ranking of parameters for cost-benefit analysis of new regulatory initiative

Parameters	Ranking			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
Direct Costs	29.2 (IV)	60.8 (IV)	63.6 (IV)	153.6 (IV)
Compliance Costs	**39.2 (II)**	**73.2 (III)**	**83.2 (III)**	**195.6 (III)**
Quantity of the financial products sold	20 (V)	52.8 (V)	53.6 (V)	126.4 (V)
Quality and variety of the financial products sold	**38.8 (III)**	**84 (I)**	**123.2 (II)**	**246 (II)**
Effect on competition	**47.2 (I)**	**78.8 (II)**	**129.6 (I)**	**255.6 (I)**

4.7.5 Regulatory bench-marking

Regulatory agencies have a variety of objectives which clearly delineate their responsibilities. These objectives are: (i) *Systemic stability* (with regard to monetary policy and payments system, in particular) which is of utmost importance in relation to banking regulation. Systemic stability is perceived to be crucial for the financial sector because the social costs of a financial distress are heavy. The East Asian experience and the more recent experiences in Turkey and Argentina, have amply demonstrated this. (ii) *Institutional safety* which involves the regulatory culture of setting standards of prudential behaviour and monitoring compliance of the same so as to prevent financial failure and protect the institutions as well their customers. A retail investor is unable to afford the cost of getting necessary information, acquiring or employing analytical expertise and learning from the experiences of others. (iii)_*Market fairness*, which basically focuses on reducing recurrence of financial crimes by employing the regulatory culture of crime investigation and punishment. (iv) *Financial efficiency* which focuses on ensuring fair degree of competition among institutions. The last two objectives are viewed very important for, and conducive to, the growth of a vibrant, robust financial system. In fact, these objectives complement, rather than supplant, each other. Taking a composite view of these objectives the regulatory guiding principle should be *'allowed until prohibited'* rather than *'prohibited until allowed'*. And this is merely an appreciation of the importance of fair market system as well as market-based conduct.

In view of these factors as well as the complex nature of financial markets, the responsibilities of regulators are much greater today than ever before. If the regulators fail to sincerely discharge their assigned roles, the consequences may only be disastrous. It is now believed that a proper mechanism should be in place to evaluate their

functioning. Regulatory bench-marking is a relatively new concept the purpose of which is to ensure accountability of the regulators. It is a yardstick or standard-setting system employed for assessing their performance against some stated basic objectives. In order to know the views of respondents about the desirability of this concept, they were asked whether they favoured prescribing regulatory bench-marking, and if so, how they look at the relative importance of various parameters which may serve as criteria for the effectiveness of this concept. After due compilation, these views are illustrated in Table 4.34 through Table 4.36. About 83 percent of the respondents (which includes 65.7 percent of Regulators, 89.3 percent of Financial Intermediaries and 85 percent of Investors) consider prescribing regulatory bench-marking desirable (Table 4.34). Most importantly, 85.7 percent of respondents (which includes 91.3 percent of Regulators, 92.5 percent of Financial Intermediaries and 78.8 percent of Investors) believe that maintaining market discipline to ensure safety and efficiency of financial markets, is 'highly important', and it should be the top-most criterion for performance evaluation. Ability to reduce financial crimes, and ability to ensure consumer protection are regarded as 'highly important' and next in importance (to maintaining market discipline) by as many as 85.1 percent and 61.7 percent of the respondents, respectively (Table 4.35 and Table 4.36.). In ultimate analysis, all of these three criteria may be seen to be based primarily on maintaining public confidence in the financial system.

Table 4.34: Desirability of introducing the concept of regulatory 'bench marking': A cross-sectional perception

Respondent category	**Total No. of Respondents**	**No. of Respondents holding different views on the desirability of regulatory 'bench marking'**	
		Yes, it is desirable	*No, it is not*
1	2	3.1	3.2
Regulators	35 (100)	23 (65.7)	12 (34.3)
Financial Intermediaries	75 (100)	67 (89.3)	8 (10.7)
Investors	100	85	15
All Respondents	**210 (100)**	**175 (83.3)**	**35 (16.7)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.35: Parameters for effective regulatory bench marking: A cross-sectional perception

Parameters	No. of Respondents holding different views regarding the relative importance of the parameters											
	Regulators (23)			*Financial Intermediaries (67)*			*Investors (85)*			***All Respondents (175)***		
	Marg. Imp.	Mod. Imp..	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.	Marg. Imp.	Mod. Imp.	Highly Imp.
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3	5.1	5.2	5.3
1..Market Discipline In terms of safety and efficiency of financial markets to maintain confidence in the financial system.	-	2	21 (91.3)	-	5	62 (92.5)	-	18	67 (78.8)	**-**	**25**	**150 (85.7)**
2.Consumers Awareness Promotion of consumers (Especially small investors and households) understanding of financial services, awareness of the risks and benefits of different kinds of investment and providing appropriate information and advice.	2	14	7 (30.4)	8	39	20 (29.9)	13	54	18 (21.2)	**23**	**107**	**45 (25.7)**
3.Consumers Protection To achieve appropriate protection for consumers from potentially risky financial transactions and investments.	-	12	11 (47.8)	-	34	33 (49.3)	2	19	64 (75.3)	**2**	**65**	**108 (61.7)**
4.Reduction of financial crime To reduce the incidence of financial crimes, taking appropriate measures and devoting adequate resources for preventing, detecting and monitoring financial crime.	-	2	21 (91.3)	-	15	52 (77.6)	1	8	76 (89.4)	**1**	**25**	**149 (85.1)**

Note: Figures in parentheses refer to percentages (of the corresponding category total figures).

Table 4.36: Ranking of parameters for the effectiveness of regulatory bench marking

Parameters	**Ranking**			
	Regulators	*Financial Intermediaries*	*Investors*	***All Respondents***
1	2.1	2.2	2.3	2.4
1..Market Discipline	**I (43.6)**	**I (128)**	**II (148.4)**	**I (320)**
2.Consumers Awareness	III (26)	IV (74.4)	IV (84.4)	IV (184.8)
3.Consumers Protection	**II (31.6)**	**III (93.2)**	**III (144)**	**III (268.8)**
4.Reduction of financial crime	**I (43.6)**	**II (116)**	**I (158.8)**	**II (318.4)**

Conclusions

Protecting the economy against systemic risk, creating and sustaining fair markets and prevention of financial crimes have been viewed as 'highly important' objectives of financial regulation by an impressive majority of respondents, in each category. The respondents mostly believe that the dominant position of the Ministry of Finance and RBI, lack of communication and co-ordination, and overlapping areas of jurisdiction of various regulators constitute the most predominant grey areas in the existing regulatory system.

A substantial majority of respondents belonging to the categories of Financial Intermediaries and Investors is in favour of unified regulation. In sharp contrast to this, among the Regulators only a few of them are in favour of integration of existing multiple sectoral regulators, and interestingly, a little less than two-thirds of them favour the retention of the present system.

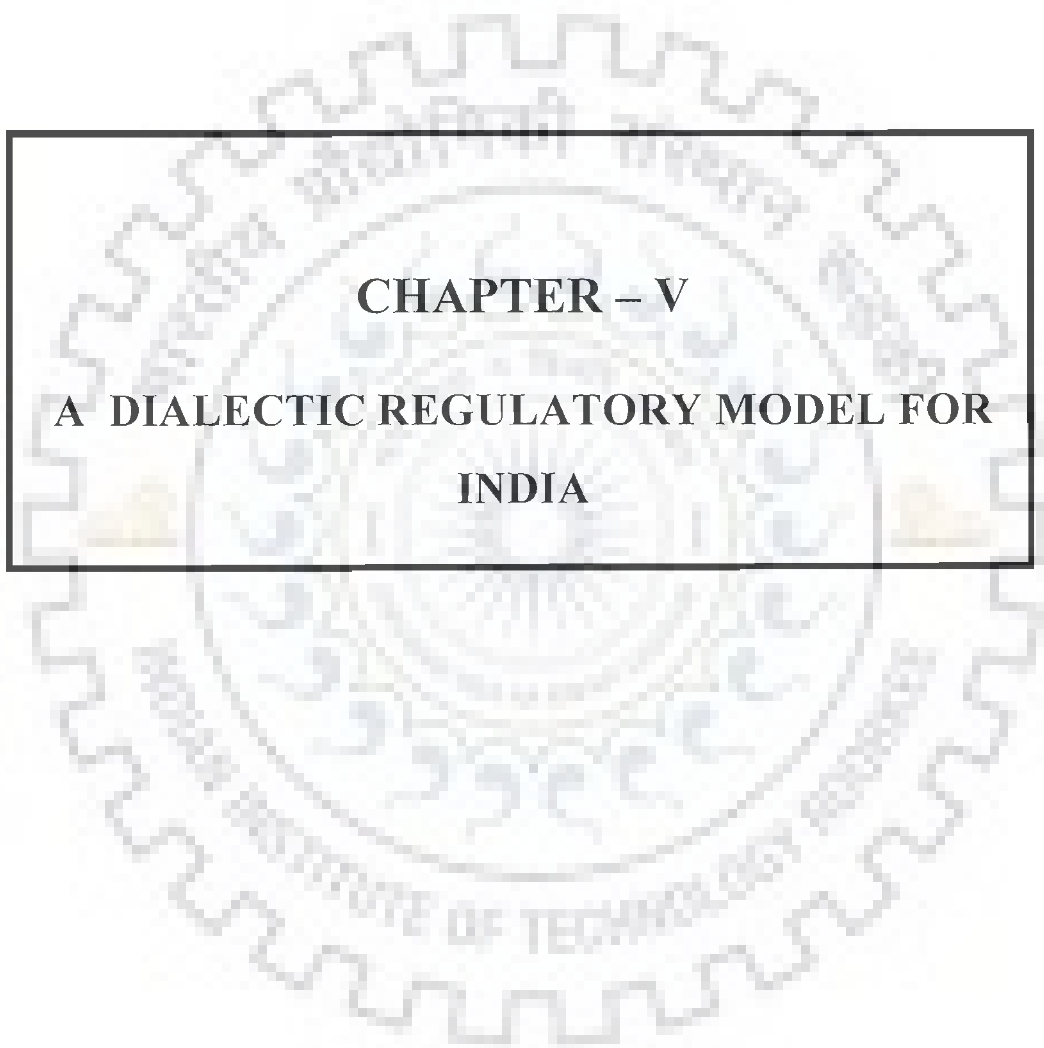
Among those who are in favour of integrated regulation, a majority of respondents in the categories of Financial Intermediaries and Investors is in favour of creation of a single regulatory body. But the position is just the opposite in the case of Regulators. Not less than 60 percent of them are opposed to the creation of a single regulatory body. Those who are in favour of unified regulation mostly put forward the contentions that it will ensure better supervision and regulation of financial conglomerates and minimise the incidence of regulatory arbitrage and the problems that often arise in the multiple agency system.

Those who are opposed to unified regulation mostly argue that specialised agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions. They also contend that for the effectiveness of the over-all regulatory system, what is actually important is to ensure

policy communication and coordination among various agencies. In fact, assigning due place to communication and co-ordination in regulation, whatever the structural design, has been found to be the rallying point among respondents, both supporting and opposing unified regulation. Among supporters of integrated regulation a sizeable proportion of them are inclined to even relent their position in favour of retention of the present system provided an effective mechanism is in place to ensure appropriate communication and co-ordination. A majority of them recognises 'lead' model as an alternative to integrated regulation suggesting that the 'lead' model may be expected to provide for better communication and co-ordination in regulation.

Respondents mostly share the view that the RBI's domain of role needs to be reviewed. The RBI is believed to be over-burdened due to its twin roles of acting as monetary authority and government's banker which may dilute latter's banking sector supervisory role. It is also believed that the objectives of monetary policy and banking regulation may run into mutual conflict and RBI may not be able to reconcile the same.

A vast majority of respondents believes that the dominant position held by the government in banking and insurance is a potential source of regulatory capture and it needs to be diluted. Lastly, they also suggest optimal-mix of externally imposed regulation and the market-generated regulation. Cost-benefit analysis of new regulatory initiatives, and regulatory bench-marking, for ensuring accountability, have also been considered desirable by a majority of them.



CHAPTER – V

A DIALECTIC REGULATORY MODEL FOR INDIA

Preview

The regulatory model that is evolved in this chapter has its genesis in the views and motives of respondents representing three distinct interest-groups, namely, regulators, regulated (financial institutions) and investors. Its broad parameters are based on regression analysis as well as critical appraisal of views and suggestions of these groups regarding various aspects of the existing regulatory model in the country, particularly its structural aspect. Regression analysis includes ANOVA *in terms of exposing the results to F-test so as to ascertain their* ***overall*** *statistical significance (extent of validity and reliability) of the explanatory variables. Reliability in the decomposed sense has been tested in terms of significance values of the explanatory variables individually, using t-test and noting the fact that as the number of observations becomes large, as in the present case, the T-statistic approaches the standard normal variate, Z. As an alternative way of ascertaining the relevance / redundancy of each of the explanatory variables, we have examined the effect on the explanatory power of the model of exclusion (one by one) of these variables.*

The regression results point out to a regulatory model which structurally lies somewhere between a partly unified / 'lead' model, at the one extreme, and a fully unified model (outside the RBI), on the other extreme. One may see this model as the consensus model which may be expected to meet the challenges thrown by the rapidly growing and complex modern financial markets. For a large, fast growing economy having a vibrant, huge financial market structure distinctly characterized by the perceptible emergence of financial conglomerates on its horizons, the decision to shift to an alternative regulatory regime must be influenced largely, rather wholly, by considerations of 'effectiveness' rather than political expediency or pressures generated by vested interests. The model highlights the need for ensuring communication and coordination among regulators as the most important requirement for effectiveness of regulation. Views may differ whether this is achievable within the present regulatory set-up or an alternative one. The converging view-point on this issue rallies around the need for departure from the existing model in favour of a unified model, and at least the 'lead' model, immediately.

5.1 Approach

Financial regulatory system in any country is supposed to be the promoter and custodian of financial markets and a watch dog of their functioning. Its form and philosophy is dictated mainly by the stipulated macro- economic policy goals in the light of prevailing socio-economic conditions as well as on the onus assumed by the state to change these conditions, directly or indirectly. We have seen the Indian regulatory system performing its role both as an instrument of state development policy and a precursor of market economy. As new pressures, opportunities and challenges emerge as a result of changes within and/or outside the country, the regulatory set-up and practices have also to change accordingly, though with a time lag. The old model gradually becomes obsolete, and a new one evolves. The process of evolution, passing through a sequence of interest-conflicts and policy initiatives for their reconciliation, is basically dialectic in nature. Interests of distinct, organized and identifiable groups often get deeply embedded into their perceptions and aspirations. These become a major driving force of their behaviour, mostly irrespective of other attributes and characteristics of their identity or personality (such as, age, education and experience).

The present stage of the system may be seen as a 'still' view of the system evolving overtime. It is important to examine how different participatory groups perceive the current policy initiatives (in terms of objectives, deficiencies and necessary remedial measures) and what are the possible implications of the same for shaping the future. This analytical approach to visualisation of the shape which the system may assume in future represents the 'a priory' view of its evolution. As such, the analysis assumes an element of 'prediction'. Prediction has a history of occupying

an important position in dialectic analysis, though of questionable empirical relevance, sometimes (for instance, Marxian prophesy of doom of capitalism!).

5.2 Methodology (Regression analysis)

Today an intense debate is going on in the country as regards the desirability of shifting to some suitable form of regulatory architecture. What form the regulatory structure should assume is not a matter of suggesting some thing that is not 'internal' to the system. In the dialectic perspective, the suggested regulatory model should emerge as a natural phenomenon out of reconciliation and rationalization of perceptions of different participatory groups (A detailed cross-section analysis of the perceptions of different participatory groups has been included in Chapter IV). How the objectives and deficiencies of the system are seen by these groups? What do they think needs to be done to make it more effective? Is there any clash between their perception of the deficiencies of the system and the need they emphasise for change or no change in the same? How the clash, if any, be rationalised? These questions have been addressed in the previous chapter in terms of analysis of views of different participatory groups ascertained through a questionnaire which is specified in Annexure-II. In this chapter an attempt has been made to 'predict' the broad structural form of the Indian financial regulatory model which may be expected to emerge as a natural consequence of interaction of diverse forces operating in the system. Our approach in this regard is based on regression analysis and rationalisation and reconciliation of conflicting perceptions of various groups.

The main **objective of regression analysis** is to ascertain if there is any discernible pattern in the perceptions of different groups of the present regulatory system in terms of its objectives and deficiencies, and the need for change or no

change in the same. We have employed the following hypotheses, 'null' hypothesis (H_0) and the 'alternative' hypothesis (H_1), with regard to these two issues:

1. **System-deficiencies and the need for change**

   H_0: There *exists no relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

   H_1: There *exists a relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

2. **Regulatory objectives and the regulatory system**

   H_0: There *exists no relationship* between regulatory objectives (in terms of their relative importance) and the structural form of the regulatory model.

   H_1: There *exists a relationship* between regulatory objectives and the structural form of the regulatory model.

The analysis is based on the assumption that the group-specific urge for change, if any, should naturally emerge out of how the current system is perceived. If it is observed that the urge for change is not duly explained by the system-perception, one can proceed to identify the possible reasons for this. It is assumed that the various groups have sufficient knowledge about the system which they are closely associated with. Further, they are in a position to appreciate the implications of various changes that occur (in the system) or are likely to occur, and form their opinions accordingly. It is important to mention that for an objective analysis of the issue of regulatory architectural design, we need to address ourselves to the following main questions:

1. How the different participatory groups in the system see the relative importance of basic objectives of financial regulation? Are there any group-specific perception differences in this regard?
2. How do these groups evaluate the existing system in terms of its deficiencies and ability to meet the objectives?
3. How do these groups look at the need for change in the architectural design?
4. How the change-perception is related to the perception of the system's objectives and deficiencies?
5. How can the perception-conflicts (as regards assessment of the system deficiency and appreciation of the need for change), if any, be reconciled?

1. Basic objectives of financial regulation

Broadly speaking, the focus of financial regulation is two-fold. At the macro level, financial regulation is concerned with maintaining systemic stability. Systemic stability refers to the maintenance of a safe and robust financial sector. For safeguarding the financial stability of the overall system, the emphasis has to be necessarily on "prudential guidelines and effective monitoring, improving institutional soundness, strengthening the regulatory and supervisory processes by aligning with international best practices and by developing the necessary technological and legal infrastructure," RBI (2005, p.9). Systemic stability is perceived to be crucial for the financial sector because the social costs of a financial distress are heavy. At the micro level, on the other hand, the concern is about protecting the interests of consumers. A retail investor is unable to afford the cost of getting necessary information, acquiring or employing analytical expertise and learning from the experiences of others. In view of these factors as well as the

complex nature of financial markets, the need for their regulation is much greater as compared to other markets.

While analysing responses of respondents with respect to their perceptions of the importance of various objectives of financial regulation in the previous chapter, we have noted that protecting the financial sector against systemic risk is the undisputed top most objective. However for the second position there appeared to be some disagreement. The regulators have been found to favour the objective of creating and sustaining fair markets, the financial intermediaries, to favour preventing financial crimes, and the investors, to favour consumer protection. This apparent variation in the perception pattern is not difficult to rationalise. The concern of the Financial Intermediaries for prevention of financial crimes is to be seen in the context of credibility and reputation which is extremely important for their functioning and growth. Incidences of financial crimes arouse mistrust, suspicion and apprehension. Given the priority of the financial regulatory system in respect of the objectives of 'protecting against systemic risk', 'creating and sustaining of fair markets', and lastly, 'preventing financial crimes', the objective of consumer protection automatically receives the due attention it deserves. In no way it implies relegation of the importance of this objective.

2. *Deficiencies in the regulatory system*

The ability of the regulatory system to realise its stipulated objectives depends on how much comprehensive, farsighted and focused its approach is. A deficient system cannot be expected to accomplish its assigned tasks fully. In practice, no system may be free from any deficiency. Deficiencies may not be fully preventable, either. But these must be restricted to the minimum possible level. In the previous chapter, an attempt was made to identify the main deficiencies of the Indian

regulatory system and assess their gravity. It was noted that that there exists, by and large, a unanimous view among various categories of respondents about the three most obvious deficiencies in the existing regulatory system. Dominant position of the Ministry of Finance and RBI, lack of communication and co-ordination among the regulators, and presence of overlapping areas in the jurisdictions of various regulators have been revealed as the most predominant grey areas in the present system. However as regards the seriousness level of most of these deficiencies, sharp differences in the perception patterns of different categories of respondents have been noted. A very small, rather negligible, proportion of Regulators regards most of these deficiencies as highly serious. A vast majority of them is of the view that these are just moderate. In sharp contrast to this, among both Financial Intermediaries as well as Investors, there exists a sizeable proportion of them which considers the same as highly serious. Interestingly, there is a near unanimity of views among all categories as regards the substantial presence of dominant position of the Ministry of Finance and RBI in the regulatory set-up. Considering the views of all respondents, taken together, about the three most predominant deficiencies, we find that whereas the presence of 'dominant position of the Ministry of Finance and RBI' is viewed as 'highly important' by as many as 57 per cent of them, 'lack of communication and co-ordination' and 'overlapping areas of jurisdictions of various regulators' are regarded as 'highly important' by 41 per cent of them. The percentage figures are much less in respect of other deficiencies.

On a comparative view of the mean values of deficiencies perceived by different categories of respondents, as shown in Table 5.1, it can be seen that the deficiency perception (on a two-point scale) is invariably the lowest of all in the case of Regulators, and the highest of all in the case of Financial Intermediaries (These deficiency areas appear as x_1, x_2, and so on (independent variables) in the regression

analysis, subsequently. Description of these notations, is given in Table 5.6). The same conclusion follows when we have a composite view of system-deficiency in terms of what may be called 'System Deficiency Perception Index' or SDPI (This concept is explained in detail in the subsequent discussion). The mean values of SDPIs specified in Table 5.2 show that the deficiency perception (on a hundred-point scale) is the lowest in the case of Regulators, and the highest in the case of Financial Intermediaries (The mean values of SDPIs have been denoted as X_1, X_2, and so on. For a description of these notations, refer to Table 5.7). An intuitive, explanation of this perception behaviour can probably be in terms of distorted objectivity in the perception of the system for whose health both of these groups are more or less equally responsible for.

There is yet another point that needs to be mentioned about the deficiency perception behaviour of respondents. The variation in perception behaviour is observed not only *between categories* but also *within each category.* This fact is revealed when we look at the mean values of deficiencies as perceived by respondents, in each category, who favour / do not favour shifting to unified regulatory structure. The deficiency perception is invariably lower in the case of respondents who are opposed to unification as compared to those who are in favour of the same (Table 5.3).

Table 5.1: Mean values of system-deficiency components as perceived by different respondent categories

Respondent category	Deficiency components (Independent variables)						
	x_1	x_2	x_3	x_4	x_5	x_6	x_7
1	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Regulators	0.663	0.960	0.857	1.714	1.474	2.949	0.971
Financial Intermediaries	1.195	1.376	1.259	2.517	1.499	2.997	1.413
Investors	0.960	1.200	1.240	2.480	1.408	2.816	1.350
All Respondents	0.994	1.223	1.183	2.366	1.451	2.903	1.309

Note: A description of the notations employed in the table is given in sub-section 5.2.1

Table 5.2 : Mean values of over-all system-deficiency (SDPI) as perceived by different respondent categories

Respondent category	System Deficiency Perception Index (SDPI) *with / without* 'inappropriateness' of the existing regulatory structure as one of its components (Independent variables)						System Integration Perception Index (SIPI) (Dependent variable)
	Without			*With*			
	X_1	X_2	X_3	X_4	X_5	X_6	Y
1	2.1	2.2	2.3	3.1	3.2	3.3	4
Regulators	49.143	47.886	53.486	49.029	48.000	53.143	31.904
Financial Intermediaries	67.000	65.867	68.400	67.413	66.667	68.778	56.665
Investors	60.100	60.420	62.160	61.580	61.650	63.051	52.165
All Respondents	60.738	60.276	62.943	61.571	61.167	63.444	50.395

Note: A description of the notations employed in the table is given in sub-section 5.2.2

Table 5.3: Mean values of system-deficiencies as perceived by respondents who favour / do not favour unified regulatory structure

Respondent category	**Mean value** (deficiency areas)						
	x_1	x_2	x_3	x_5	x_7	*Overall deficiency without / with inappro. of regulatory structure(x_7) as…*	
						Without	*With*
Regulators (35)	0.663	0.960	0.857	1.474	0.971	3.954	4.925
In favour of unified structure(13)	.923	1.262	1.077	1.723	2	4.985	6.985
Not in favour of unified structure (22)	0.509	0.782	0.727	1.327	0.364	3.345	3.709
Financial Intermediaries (75)	1.195	1.376	1.259	1.498	1.413	5.328	6.741
In favour of unified structure (45)	1.476	1.662	1.556	1.724	2	6.418	8.418
Not in favour of unified structure (30)	.773	.947	.813	1.160	.533	3.693	4.226
Investors (100)	0.960	1.200	1.240	1.408	1.350	4.808	6.158
In favour of unified structure (62)	1.258	1.509	1.658	1.761	2	6.186	8.186
Not in favour of unified structure (38)	.474	.695	.558	.832	.289	2.559	2.848

contd.

contd.

Table 5.3: Mean values of system-deficiencies as perceived by respondents who favour / do not favour unified regulatory structure

Respondent category	**Mean value** (deficiency areas)						
	x_1	x_2	x_3	x_5	x_7	*Overall deficiency without / with inappro. of regulatory structure(x_7) as...*	
						Without	*With*
All Respondents (210)	0.994	1.223	1.183	1.451	1.309	4.851	6.160
In favour of unified structure (120)	1.303	1.540	1.557	1.743	2	6.143	8.1.43
Not in favour of unified structure (90)	.582	.800	.684	1.062	.389	3.128	3.517

3. *Need for change in the architectural design and its link with system-deficiencies and system-objectives*

An important question for investigation is the relevance and importance of architectural design of financial regulatory system. A debate is going on in this regard at various levels - professional, academic and government - in the country. Both, supporters and opponents of change in the present structure, have their own arguments to defend their respective positions. Practically, no settled empirical evidence is available to argue in favour or against the alternatives being debated. The size and complexion of the financial markets have changed substantially in recent times. This process is expected to even accelerate in future. Sooner or later, a still greater pressure for change in the system may be expected as a result of growing size and complexities of the markets. An interesting rather curious question is to ascertain how different participatory groups in the system look at the need for change, and why? In the previous chapter, this issue was discussed broadly and the conclusions in this respect are specified in Table 5.4.

It can be seen from the table that on the whole, 57 percent of the respondents are in favour of shifting from the existing sectoral model to a unified model, whereas the rest, 43 percent do not want agree with this. The demand for retaining the present sectoral model is favoured most by Regulators. As many as 40 percent of the Regulators do not favour any structural change in the present system. In comparison to this, the corresponding figures are 19 percent in the case of Financial Intermediaries, and 27 percent in the case of Investors. On the other side, the shift is favoured most by investors (62 percent), closely followed by Financial Intermediaries (60 percent).

Significantly, a sizeable proportion of respondents who are primarily in favour of retaining the present sectoral model, and of even those who are in favour of shifting to a unified model, are not averse to adoption of the 'lead' model broadly within the existing structural arrangement. These 'lead' supporters constitute 46 percent in the category of Regulators, 64 percent in the category of Financial Intermediaries, and 55 percent in the category of Investors. This fact brings out an important conclusion of substantial policy implication: the 'lead' model is seen as a rallying point (for the present, at least) by respondents holding extreme positions regarding shifting to an alternative regulatory model. And lastly, among lead-supporters, the number of those who suggest 'lead outside RBI' is far in excess of the number of respondents who suggest 'lead within RBI'.

Table 5.4: Choice-perceptions of respondents regarding alternative regulatory structures

Respondents	Respondents basically in favour of..						Respondents in favour of Lead Model..		
	Unified Model			Sectoral Model			Lead within RBI	Lead outside RBI	Total
	Unified Model only	Lead Model	Total	Sectoral Model only	Lead Model	Total			
1	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2	4.3
Regulators (35)	5 (14%)	8 (23%)	13 (37%)	14 (40%)	8 (23%)	22 (63%)	3 (18.75)	13 (81.25)	16 (100)
Financial Intermediaries (75)	13 (17%)	32 (43%)	45 (60%)	14 (19%)	16 (21%)	30 (40%)	18 (37.5)	30 (62.5)	48 (100)
Investors (100)	18 (18%)	44 (44%)	62 ((62%)	27 (27%)	11 (11%)	38 (38%)	10 (18.18)	45 (81.82)	55 (100)
All Respondents (210)	36 (17%)	84 (40%)	120 (57%)	55 (26%)	35 (17%)	90 (43%)	31 (26.05)	88 (73.95)	119 (100)

Apparently, given the fact that the demand for no change in the existing regulatory structure is favoured most by Regulators, one would tend to expect the average level of unification suggested by them to be the lowest of all, as well. From Table 5.5 (col. 2 and col. 3) it can be seen that the average level of structural unification suggested by Regulators is the lowest. In contrast, the level of unification suggested by Financial Intermediaries is the highest (The mean values have been denoted as y and Y under col. 2 and 3, respectively. The figures under these columns represent mean values measured on a three-point scale (y) and a hundred-point scale (Y). For a description of these notations, which have been employed as dependent variables in regression analysis, refer to Table 5.6 and Table 5.7).

Table 5.5: Mean values of desirable level of structural unification as perceived by different respondent categories

Respondent category	y			Y
	Unification level suggested by			
	Supporters of Unified model	Supporters of Lead model	All respondents	All respondents
1	2.1	2.2	2.3	3
Regulators	1.923	1.5	0.957	31.904
Financial Intermediaries	2.444	1.979	1.700	56.665
Investors	2.339	2.127	1.565	52.165
All Respondents	2.333	1.983	1.512	50.395

From the foregoing analysis it is obvious that the perception of structural change in each category of respondents is, in general, systematically related to the perception of system-deficiency, whether deficiency is viewed in 'disaggregated'

sense (that is, in terms of deficiency components) or in 'aggregated' sense (that is, in terms of deficiency index). This conclusion follows in a much more convincing way when we examine subsequently the relationship between structural unification (suggested by respondents) and (their perception of) system deficiency in terms of regression analysis. We will observe that deficiency is a *positive and significant* causal factor of unification (which implies rejection of the null hypothesis, stated earlier). And, as regards the relationship between unification and system objectives, it will be noticed that relationship is just negligible (acceptance of null hypothesis). Both of these issues – unification in relation to system-deficiency and system-objectives – have been analysed in detail in the subsequent sections.

5.2.1 System-deficiency and regulatory structure : Variables and regression equations (disaggregate approach)

Regression analysis is based on two distinct approaches to the use of data generated as a result of inputs received from the respondents. The approach, in which disaggregated data has been used, is referred to as 'disaggregate' approach , and the approach, in which data compressed into an aggregated form, is referred to as 'aggregate' approach. The disaggregated data pertains to quantified responses of respondents regarding relevance / importance level of certain deficiency areas of the present sectoral regulatory system. For quantification, each response has been assigned a weight depending upon the indicated relevance/ importance level of the deficiency. The quantified deficiency-related responses have been employed as independent variables, and the response regarding the suggested degree of unification of regulatory structure has been employed as dependent variable for estimating regression equations. Two of the deficiency areas in the existing regulatory structure, which are believed to be relatively more relevant in the context of shifting to

integrated regulatory structure (namely, presence of overlapping areas in the jurisdictions of regulators, and dominant position of MOF and RBI in the regulatory set-up), have been treated to varying weight assignment schemes under three distinct scenarios. Secondly, analysis has also been conducted by including regulatory structure as additional independent variable / SDPI component in order to determine its effect on the explanatory power of the model.

Here it needs to be mentioned that the issue of appropriateness was not directly addressed to the respondents. The major underlying consideration was the apprehension that explicit inclusion of this issue might not bias responses of respondents to other questions, in particular, to question relating to their perceptions of nature and extent of deficiencies in the existing sectoral model. To prevent this possibility, the issue of appropriateness was tackled in terms of their responses to questions at Sr. No. 3 to 5 in the Questionnaire. If the indicated responses to these questions suggested that the respondent was in favour of unified model, it was taken to imply that the existing model was regarded 'inappropriate'. The greater the suggested degree of unification, the greater was assumed to be the implied extent of inappropriateness. Thus structural aspect of deficiency has been treated in an implicit rather than explicit way.

In order to ascertain the views of respondents whether they favoured a structural change or not, and if they did, whether they favoured shifting to unified regulatory structure or adopting 'lead' model, they were exposed to some questions (see the questions specified against Sr. No. 3, 4 and 9 in the Questionnaire in Annexure–II). Depending on the type of suggested unified model (fully or partially unified), a maximum weight equal to 3 was assigned to each response in this regard. Assuming that 'lead' model falls in between the two extreme positions, sectoral model and fully unified model, a response in favour of 'lead' model was assigned a maximum weight equal to 1.5. Lastly, regarding the response in relation to the extent of inappropriateness of the existing regulatory structure, it was assigned a maximum weight equal to 2 depending on whether the suggested view pertained to a shift in favour of unified model (weight = 2) or adopting 'lead' model (weight = 1), or no change in the existing structure (weight = 0). Here the underlying assumption is that the need for change in structure implies inappropriateness of the present structure: the more drastic the required change, the more the perceived inappropriateness.

The independent and dependent variables, and the weight assignment scheme as well as the regression equations under each of the three scenarios have been specified in Table 5.6. The relevant data that have been employed in regression analysis have been specified in Annexure–III.

Table 5.6: System–deficiency and regulatory structure : variables and forms of regression equations (disaggregate approach)

Variables	Description	Scenario	Weight assignment scheme under corresponding scenario			
			Not relevant	*If relevant, level of importance*		
				Marginal important	Moderately important	Highly important
x_1	Gaps in supervision	I, II, III	0	0.4	0.8	2
x_2	Lack of communication and co-ordination	I, II, III	0	0.4	0.8	2
x_3	Overlapping jurisdictions	I, III	0	0.4	0.8	2
x_4	Overlapping jurisdictions	II	0	0.8	1.6	4
x_5	Dominant position of MOF and RBI	I, II	0	0.4	0.8	2
x_6	Dominant position of MOF and RBI	III	0	0.8	1.6	4

Variables	Description	Scenario	Weight		
			Yes, it is inappropriate and it needs to be replaced by		*No, it is not inappropriate and there is no need for any change*
			Unified regulatory model	Lead model	
x_7	Inappropriateness of the present sectoral regulatory structure	I, II, III	2	1	0
e_i	Random, catch-all variable				

Variables	Description	*Response*	*Weight*
y	Suggested degree of unification of the regulatory structure	1. Fully integrated model with:	
		(a) RBI acting as the only regulator	3
		(b) An agency other than RBI acting as the only regulator	2.5
		2. Partially integrated model	1.5
		3. Lead model:	
		(a) Lead with RBI	1.5
		(b) Lead with other than RBI	1
		4. No change in the existing model	0

Note: Under each of the 3 scenarios, only 5 independent variables (out of the 7 mentioned above) appear.

Contd.

Form of regression equations under alternative scenarios (*with / without* regulatory structure as one of the independent variables)		
Scenario	*Without*	*With*
I	$y_1 = a_1 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_5 x_5 + e_1$	$y_4 = a_4 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_5 x_5 + b_7 x_7 + e_4$
II	$y_2 = a_2 + b_1 x_1 + b_2 x_2 + b_4 x_4 + b_5 x_5 + e_2$	$y_5 = a_5 + b_1 x_1 + b_2 x_2 + b_4 x_4 + b_5 x_5 + b_7 x_7 + e_5$
III	$y_3 = a_3 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_6 x_6 + e_3$	$y_6 = a_6 + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_6 x_6 + b_7 x_7 + e_6$

The following questions were addressed to the respondents to find out whether they favoured a shift from the present sectoral regulatory structure to a unified one, and if they did, what kind of unified structure they proposed (*fully integrated model* with RBI / agency other than RBI acting as the only regulator; or a *partially regulated model* with the same agency acting as regulator for a particular sectoral combination ,e.g., banking & insurance, or Insurance & securities, or banking & securities):

1. Do you suggest that the existing multiple sectoral regulators should be integrated to create one or two regulators with cross-sectoral jurisdictions?

   YES / NO

2. Do you favor the idea of creating a single regulator for the entire financial sector somewhat on the lines of Financial Supervisory Authority (FSA) of UK?

   YES / NO

   If yes, then where should the single regulator reside?

   (a) Within RBI (b) Outside RBI

In order to know how the respondents favouring practically no change in the existing structure view the desirability of 'lead' model within the existing broad regulatory frame, the following question was addressed to them:

3. One way of achieving better regulation under the existing multiple regulators system is to place it under the unified command of a single regulator. Do you agree?

YES / NO

If yes, then who do you think will be the suitable choice for entrusting the unified command?

(a) Central bank (RBI) (b) Agency out side the central bank

5.2.2 System-deficiency and regulatory structure: Variables and regression equations (aggregate approach)

The aggregated data presents a composite view of the overall system deficiency as perceived by each respondent in terms of his / her responses regarding relevance / importance level of various deficiencies in the existing regulatory system. This composite view is represented by what has already been referred to as System Deficiency Perception Index (SDPI), with deficiency-responses as its components. For each respondent, SDPI has been computed, conceiving three alternative scenarios. The SDPI has been employed as independent variable in the regression equations. As regards the degree of regulatory unification suggested by a respondent, it has been converted into what may be termed as System integration perception Index (SIPI) so as to use it as dependent variable. Analysis under each of the three scenarios has been conducted with / without 'inappropriateness' of the present regulatory structure as one of the SDPI components.

The independent and dependent variables and the expressions employed for their computation as well as the regression equations corresponding to each of the three scenarios have been specified in Table 5.7. The relevant data that have been employed in regression analysis have been specified in Annexure–IV.

Table 5.7: System–deficiency and regulatory structure: variables and forms of regression equations (aggregate approach)

Variable	Description	
X_1	$SDPI = \frac{x_1 + x_2 + x_3 + x_5}{8} \times 100$	
X_2	$SDPI = \frac{x_1 + x_2 + x_4 + x_5}{10} \times 100$	
X_3	$SDPI = \frac{x_1 + x_2 + x_3 + x_6}{10} \times 100$	
X_4	$SDPI = \frac{x_1 + x_2 + x_3 + x_5 + x_7}{10} \times 100$	
X_5	$SDPI = \frac{x_1 + x_2 + x_4 + x_5 + x_7}{12} \times 100$	
X_6	$SDPI = \frac{x_1 + x_2 + x_3 + x_6 + x_7}{12} \times 100$	
E_j	Random, catch-all variable	
Y	$SIPI = \frac{y}{3} \times 100$	
Form of regression equations under alternative scenarios (with / without regulatory structure as one of the variables)		
Scenario	*Without*	*With*
I	$Y_1 = A_1 + B_1 X_1 + E_1$	$Y_4 = A_4 + B_4 X_4 + E_4$
II	$Y_2 = A_2 + B_2 X_2 + E_2$	$Y_5 = A_5 + B_5 X_5 + E_5$
III	$Y_3 = A_3 + B_3 X_3 + E_3$	$Y_6 = A_6 + B_6 X_6 + E_6$

5.2.3 System-objectives and regulatory structure : Variables and regression equations

We have seen in the previous chapter that the following have been ranked as the three most important objectives of financial regulation on the basis of relevant inputs received from the Respondents:

- Protecting the economy against systemic risk
- Creating and sustaining fair markets
- Prevention of financial crimes

Respondents have been found to hold different opinions about the relative importance of some of these objectives. Significantly, 'protecting against systemic risk' has been found to be the undisputed top most objective. However for the second position there is some disagreement. The regulators argue in favour of 'creating and sustaining fair markets'. The financial intermediaries argue in favour of 'preventing financial crimes', and the investors emphasise 'consumer protection'. Variations are also noticeable in the mean values (of the importance) of these objectives which have been evaluated on a two-point scale. This can be seen from Table 5.8 (In the table, these objectives are denoted as w_1, w_2 and w_3 as they are used as independent variables in the regression analysis subsequently. For a description of these notations, refer to Table 5.9): 'Protecting against systemic risk' and 'creating and sustaining fair markets' enjoy the highest mean values with Regulators (1.954 and 1.783, respectively), and 'preventing financial crimes', with Investors (1.748). The over-all mean value (on a hundred-point scale) of these objectives, represented by what has been termed as 'System Objectives Perception Index' or SOPI (denoted as W_1 in col. 2.1), is also the highest in the case of Regulators (90.095).

It may be of substantial analytical interest to examine if the perception variations in this regard bear any systematic relationship with the structural change suggested by the Respondents. The causal relationship between system objectives and unified regulatory structure has been examined in terms of regression analysis from 'disaggregate' and 'aggregate' approach perspectives.

In the 'disaggregate' regression analysis, the above mentioned three objectives, quantified in accordance with their stated importance by the respondents, have been employed as independent variables, and the degree of unification suggested by them, as dependent variable. In the 'aggregate' analysis, these objectives have been compressed into what may be called 'System Objectives Perception Index' (SOPI) which has been employed as independent variable (SIPI being the dependent variable). For each Respondent, SOPI has been constructed which is supposed to represent a respondent's overall assessment of the importance of these objectives (on a hundred-point scale).

The independent and dependent variables, together with the weight assignment scheme, computation expressions and the regression equations are specified in Table 5.9 (disaggregated data) and Table 5.10 (aggregated data). The relevant data have been presented in Annexure III and IV.

Table 5.8: Mean values of system-objectives as perceived by different respondent categories

Respondent category	**System Objectives Perception Index SOPI** (Independent variables)	**System objectives** (Independent variables)		
	W_1	w_1	w_2	w_3
1	2.1	3.1	3.2	3.3
Regulators	90.095	1.954	1.783	1.669
Financial Intermediaries	85.333	1.813	1.637	1.669
Investors	87.000	1.880	1.592	1.748
All Respondents	86.921	1.869	1.640	1.707

Table 5.9: System-objectives and regulatory structure: Variables and forms of regression equations (disaggregate approach)

Varia-bles	**Description**	**Weight assignment scheme under alternative scenarios**		
		If relevant, level of importance		
		Marginal important	Moderately important	Highly important
w_1	Protecting the economy against systemic risk	0.4	0.8	2
w_2	Creating and sustaining fair markets	0.4	0.8	2
w_3	Prevention of financial crimes	0.4	0.8	2
e	Random, catch-all variable			
z	Suggested degree of unification of the regulatory structure	As specified in Table 7.6 against variable y		
Form of regression equation				
$z = g + h_1 w_1 + h_2 w_2 + h_3 w_3 + e$				

Table 5.10: System-objectives and regulatory structure ; Variables and forms of regression equations (aggregate approach)

Variable	Description (computation expression)
W	$SOPI = \frac{w_1 + w_2 + w_3}{6} \times 100$
E	Random, catch-all variable
Z	$SIPI = \frac{z}{3} \times 100$
Form of regression equation	
Z = G + H W + E	

5.3 Regression results

System deficiency and structural unification (disaggregate approach)

On comparing the results , in particular, corresponding to the three weight-assignment scenarios under both cases (that is, with and without inclusion of 'inappropriateness' of the existing regulatory structure as an additional independent variable), two major outcomes were observed:

1. The explanatory power of the model as represented by R^2 substantially was observed to improve as a result of inclusion of 'inappropriateness' as an additional independent variable (x_7). In the absence of this inclusion, the value of R^2 ranged between 0.292 and 0.796 for various categories of respondents. For all respondents, taken together, it was found to be equal to 0.551. But on inclusion, it was not less than 0.865 for any of the categories. This conclusion clearly brought out an important fact that respondents' perception of structural unification cannot be explained adequately merely in terms of their system-deficiency perceptions; it is no less important to consider simultaneously whether the existing structure is regarded by them appropriate or inappropriate (presumably to contain deficiencies to a minimum possible level and facilitate realisation of the objectives of financial regulation). In other words, structure itself is also an important aspect of system-deficiency and it can not be overlooked; it needs to be incorporated explicitly.
2. As a result of adopting different weight assignment schemes in respect of variables, x_3 and x_5, under different scenarios, practically no effect was noticed on the significance, that is, validity and reliability of the estimated regression values. Changes in weights led to changes only in the values of corresponding b coefficients which diminished in the same proportion in

which weights increased. There was no other change, at all. The constant term, the rest of the b coefficients, the F-value, the coefficients of correlation (R) and determination (R^2) – these all remained unaffected.

In view of 1 and 2 above, we present in Table 5.11 (a) the regression results relevant only to Scenario I in which 'inappropriateness' is included as one of the explanatory variables. The other results (under scenarios II and III) being of no consequence have been dropped from further reference and analysis. The explanatory power of the model (R^2) can be regarded as fairly good. It is maximum (R^2 = 0.9) in the case of Investors, and minimum (R^2 = 0.865) in the case of Financial Intermediaries. This conclusion may be interpreted to imply that in the case of Financial Intermediaries the residual factors, that is, factors other than those included in the model, are slightly more powerful (as compared to other categories) in explaining observed variances in the desirability- perceptions of structural unification. For instance, inability of the present system to cope with growing complexities of financial transactions, advent of innovative financial products and services, challenges posed by increasing globalization of financial markets and regulatory arbitrage are the factors which are of much more direct concern for the financial intermediaries than any other segment. Moreover, it is also largely true, that in order to deal with these problems and difficulties a change merely in the regulatory structure is not adequate. Changes in regulatory approach, in accordance with the growing size and complexity of the financial markets, as well as changes in accounting practices are no less significant.

3. The estimated F-values show that the regression results are on the whole statistically valid and significant. These make a strong case for rejection of the

null hypothesis that there is no relationship between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model. The alternative hypothesis is upheld as a valid proposition substantiating the fact that deficiencies in the existing sectoral regulatory model are a sufficiently good reason for replacing it with a unified model.

4. A decomposed view of validity and significance of the model is implied by the t-values of the individual explanatory variables. The estimated t-values and the significance levels show that the regression coefficients of the corresponding explanatory variables (deficiency factors) are statistically significant in case of only some of the variables. However, a noticeable point emerging from the analysis is that 'inappropriateness' (x_7) has come out to be the most important, and also, statistically significant variable, in case of all categories of respondents. As regards other deficiency factors, 'gaps in supervision and regulation' (x_1) is the only statistically significant variable in the case of Regulators. But in the case of Investors, the statistically significant variables include 'lack of communication and co-ordination' (x_2), 'presence of overlapping areas in the jurisdictions of various regulators' (x_3), and to a lesser extent, 'gaps in supervision and regulation' (x_1). It is intriguing that in the case of Financial Intermediaries no variable other than 'inappropriateness' has turned out to be significant. And, it is also in their case only that 'inappropriateness' induces demand for structural unification more as compared to any other category, as can be seen from a comparison of the values of regression coefficients (b_7) corresponding to these categories. This is largely a measure of their disgust with the present sectoral model and belief in the relevance and usefulness of the unified model.

Table 5.11 (a): System-deficiency and unified regulatory structure: Regression estimates (*Disaggregate approach*)

Categories	Constant term	Regression coefficients					R	R^2	ANOVA #
	a	b_1	b_2	b_3	b_5	b_7			F-value
Regulators	-.250 (-1.430) .164*	.352 (2.185) .037*	.063 (.486) .630*	.048 (.373) .712*	.033 (.327) .746*	.848 (10.359) ..000*	.942	.887	45.701 .000*
Fin.Inter.	-.109 (-.794) .430*	-.087 (-.900) .371*	.006 (.073) .942*	.064 (.738) .463*	.049 (.591) .557*	1.238 (17.088) .000*	.930	.865	88.149 .000*
Investors	-.376 (-3.816) .000*	.109 (1.629) .107*	.225 (3.383) .001*	.311 (4.125) .000*	.078 (.953) .343*	.793 (9.921) .000*	.949	.900	169.628 .000*
All Respon.	-.214 (-2.884) .004*	.090 (1.688) .093*	.106 (2.063) .040*	.132 (2.530) .012*	.007 (.137) .891*	1.025 (22.582) .000*	.934	.872	277.026 .000*

Note: As variables x_4 and x_6 were relevant under the scenarios II and III, respectively, these have been omitted here.

Figures in parentheses refer to t values.
* Significance level.
\# Analysis of variance (ANOVA) is a traditional method of dealing with qualitative classifications. This method has also been used to develop tests of regression equations.

5. The variable representing 'dominant position of MOF and RBI in the regulatory set-up' has tuned out to be statistically insignificant, in case of all categories of respondents. It may imply many things. A relatively more plausible and likely implication appears to suggest that the respondents hold more or less similar views on this issue, and therefore, their desirability-perceptions regarding structural unification cannot be attributed to their views on the roles of RBI and MOF in the present regulatory set-up.
6. It is interesting to note the results of variable-exclusion scenario analysis specified in Table 5.11(b). These results reinforce the conclusions already mentioned in 5 above. The various independent variables have been evaluated in terms of their contributions to the explanatory power of the model. This is an alternative way to ascertain their relevance and significance as explicators of observed variances in the desirability-perceptions of respondents regarding shifting to a unified regulatory model. These results show that besides 'appropriateness', which is the most prominent contributor in case of all categories of respondents, the other relevant and significant variables are 'gaps in supervision and regulation' (x_1) in the case of Regulators; 'lack of communication and co-ordination' (x_2), and 'presence of overlapping areas in the jurisdictions of various regulators' (x_3) in the case of Investors; and lastly, none in the case of Financial Intermediaries.
7. The negative value of the constant term, a, which has been found to be statistically significant (in case of categories of Investors, and All Respondents), implies that deficiency in the existing regulatory system is not viewed as a serious phenomenon as long as it does not exceed some maximum acceptable limit. No system may normally be expected to be free from deficiencies. Deficiencies are quite likely to be there, in some measure, in any system. We have to cope with them. Though it is a different thing what tolerance-limits the different groups set for themselves before raising a voice for an all-out change in the system. This is an issue which we shall address, a little later.

Table 5.11 (b): Explanatory power of Regression Model under alternative variable-exclusion scenarios

Categories	Explanatory power (as measured by coefficient of determination: R^2)					
	No variable excluded*	When excluded variable is…				
		x_1	x_2	x_3	x_5	x_7
Regulators	0.887	0.869* *	0.886	0.887	0.887	0.471* *
Financial Intermediaries	0.865	0.863	0.865	0.864	0.864	0.292* *
Investors	0.900	0.897	0.888* *	0.882* *	0.899	0.796* *
All Respondents	0.872	0.870	0.869* *	0.868**	0.872	0.551* *

* The R^2 values correspond to the initial case which includes all of the independent variables, namely, x_1, x_2, x_3, x_5 and x_7.

* * These results conform to the significance levels of the corresponding estimated regression coefficients specified in Table 6.11 (b). Apparently, the other R^2 values imply that the corresponding independent variables are 'redundant' as these make negligible or no contribution at all to the explanatory power of the model.

Note: As variables x_4 and x_6 were relevant under the scenarios II and III, respectively, these have been omitted here.

System deficiency and structural unification (aggregate approach)

In this approach as well, practically no effect was noticed on the validity and significance, of the estimated regression values of adopting different weight assignment schemes under different scenarios. Therefore the regression results relevant only to Scenario I in which 'inappropriateness' is included as one of the explanatory variables have been presented in Table 5.12.The following main conclusions emerge from an inspection of the table:

1. The explanatory power of the model (R^2) is, on the whole, fairly good, except in the case of Financial Intermediaries. On comparison of R^2 values under the two approaches, one can see that the value is invariably lower under the aggregate approach. Anyway, it is to be notedfrom Table 5.12 that it is maximum (R^2 = 0.850) in the case of Investors, and minimum (R^2 = 0.497) in the case of Financial Intermediaries. This phenomenon was observed in the disaggregate approach, as well. This reinforces the conclusion that in the case of Financial Intermediaries the residual factors are more powerful (as compared to other categories) in explaining observed variances in the desirability- perceptions of structural unification.
2. The estimated F-values show that the regression results are on the whole statistically valid and significant making a strong case for rejection of the null hypothesis. This conclusion is confirmed by the significance values of the corresponding t-statistics, as well.
3. The value of constant term, a, is negative for all categories of respondents.

Table 5.12: System-deficiency and unified regulatory structure: Regression estimates (*Aggregate approach*)

Category	Constant terms	Regression coefficients	R	R^2	ANOVA
	A_4	B_4			F-value
Regulators	-27.591 (-3.957) .000*	1.213 (9.307) .000*	.851	.724	86.626 .000*
Fin. Inter.	-6.937 (-.864) .390*	.943 (8.500) .000*	.705	.497	72.242 .000*
Investors	-19.785 (-5.847) .000*	1.168 (23.541) .000*	.922	.850	554.166 .000*
All	-17.962 (-5.489) .000*	1.110 (22.904) .000*	.846	.716	524.606 .000*

Figures in parentheses refer to t values
* Significance level

Predicted values of 'no-change' deficiency levels (tolerance limits)

A reference was made to the fact that no system may normally be expected to be free from deficiencies. Deficiencies are quite likely to be there in any system and we have to cope with them. Though it is a different thing what tolerance-limits the different groups set for themselves before raising a voice for an all-out change in the system. Making use of the estimated regression equations under the aggregate approach, we have computed, for each respondent category, the 'critical' value of the deficiency level at which the desired level of structural unification may be expected to be equal to zero. This value represents the maximum acceptable level of deficiency in the existing structure, representing a 'no-change' (in the structure) situation. The 'no-change' deficiency levels, together with the average deficiency levels actually perceived by the respondents as well as the levels of structural unification suggested by them, are specified in Table 5.13. The 'no-change' deficiency levels, corresponding to various categories of respondents, can also be represented in terms of graphical specifications of the estimated regression equations already indicated in table 5.12. The point of intersection of the regression line with the x-axis represents the 'no-change' deficiency level of the corresponding respondent category as shown in Figure 5.1. It can be seen that the 'no-change' level of deficiency is invariably the *highest*, 22.75 (on a 100-point scale), in the case of Regulators, and the *lowest*, 7.36 in the case of Financial Intermediaries. Quite an opposite situation is observed when we compare the 'no-change' deficiency levels with the corresponding actually perceived deficiency levels as well as the suggested unification levels. The perceived deficiency level and the suggested level of unification are the *minimum* in the case of Regulators. The perceived deficiency level is 49.03, and the suggested unification level is 31.90. In sharp contrast, these are the *maximum* in the case of Financial Intermediaries. The perceived deficiency level is 67.41, and the suggested unification level is equal to

56.67. This only brings out the fact that the demand for structural unification is supported most by Financial Intermediaries, and least, by Regulators.

Fig. 5.1: System deficiency and structural unification
(Estimated Regression Equations)

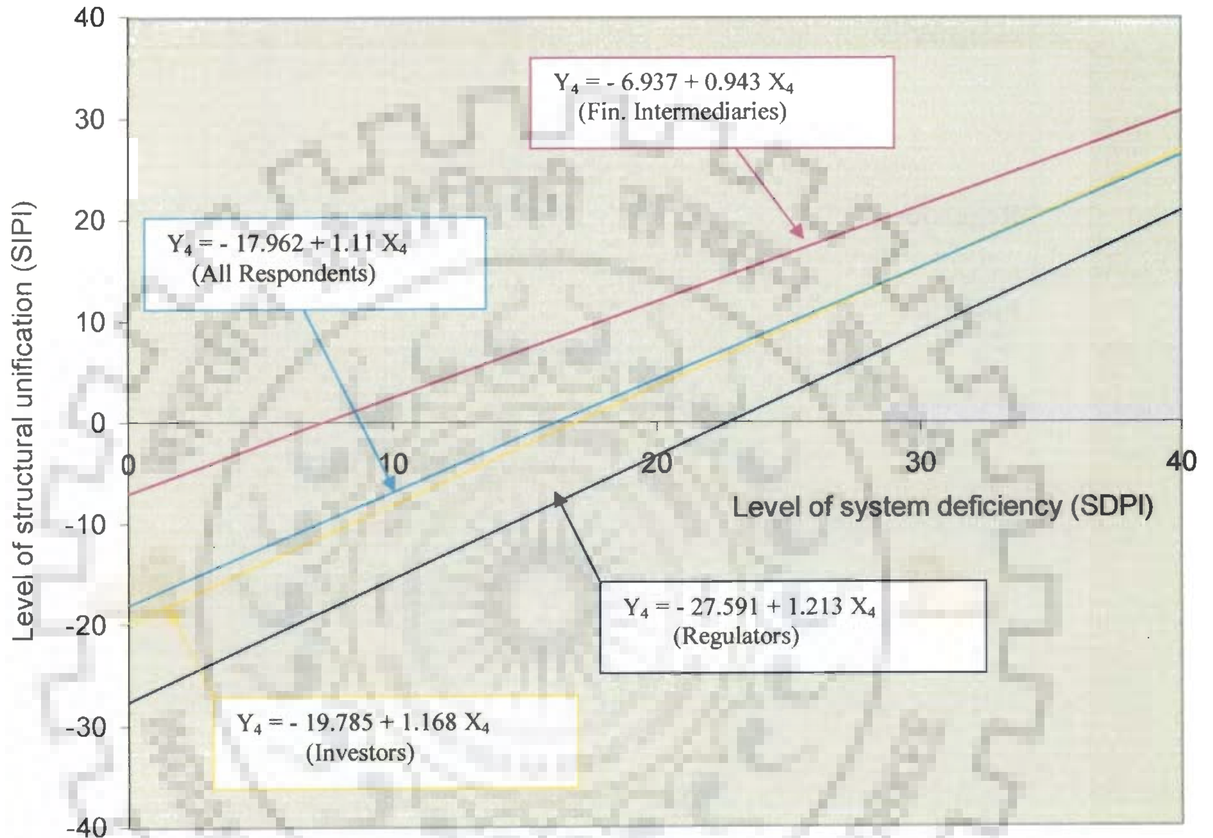


Table 5.13 : Predicted values of 'no-change' deficiency levels in the existing regulatory structure

Respondent category	**Predicted 'no-change' deficiency levels, and deficiency levels as actually perceived by the respondents**		**System Integration perception Index (SIPI)**
	'No-change' level	Actually perceived level	
1	2.1	2.2	3
Regulators	22.75	49.03	31.90
Fin.Inter.	7.36	67.41	56.67
Investors	16.94	61.58	52.17
All Respondents	16.18	61.57	50.40

For figures indicated under column, 'actually perceived' level, and column 3 refer to Table 5.2

Disaggregate and aggregate approaches to regression analysis : A comparative view

On comparing the results obtained under these approaches, three main points clearly emerge in favour of superiority of the disaggregate approach. *One*, in the aggregate approach the various deficiency factors get compressed into a single quantity as a result of which we are unable to examine the effect of different deficiency factors separately on the suggested level of structural unification. *Two*, in the aggregate approach, there is a computed value of SDPI for each respondent. It is quite possible that a number of respondents may have identical values of their corresponding SDPIs despite the fact that there may be wide differences in their perceptions of relative intensities of the various deficiency factors. This injects an element of distortion in regression results obtained under the aggregate approach. *Three*, in view of the above, the explanatory power of the regression model may not be expected to be as good in the aggregate approach as in the disaggregate approach. A comparative description of the model's explanatory power, summarily specified below, clearly brings out superiority of the disaggregate approach:

Respondent category	**Explanatory power of the model (R^2)**	
	Disaggregate approach	Aggregate approach
Regulators	0.887	0.724
Financial Intermediaries	0.865	0.497
Investors	0.900	0.850
All Respondents	0.872	0.716

System-objectives and structural unification

The causal relationship between system objectives and unified regulatory structure has also been examined in terms of regression analysis using 'disaggregate' and 'aggregate' approaches. The main purpose of this exercise is to analyse importance-perceptions of respondents regarding some of the basic objectives of financial regulation as a cause of their desirability-perceptions of structural unification. The regression results are specified in Table 5.14 and Table 5.15.

In the 'disaggregate' regression analysis, the three most basic objectives (namely, 'protecting against systemic risk', 'creating and sustaining of fair markets', and lastly, 'preventing financial crimes') quantified in accordance with their stated importance by the respondents, have been employed as independent variables, and the degree of unification suggested by them, as dependent variable. In the 'aggregate' analysis, these objectives have been compressed into a single quantity, 'System Objectives Perception Index' (SOPI), which has been employed as independent variable, 'System Integration Perception Index', SIPI, being the dependent variable. For each Respondent, SOPI has been constructed which is supposed to represent a respondent's overall assessment of the importance of these objectives (on a hundred-point scale). From an inspection of the results specified in the two tables (Table 5.14 and Table 5.15), some important conclusions emerge:

1. The explanatory power of the model is extremely negligible under both disaggregate and aggregate approaches. It can be seen that the value of R^2 is no more than 0.085 for any of the categories.

2. The significance values of the estimated coefficients suggest that the results, on the whole, have very little validity and reliability. Specifically, this markedly applies to the categories of Regulators and Financial Intermediaries.

It implies an important conclusion. The responses of respondents with regard to their perceptions of the importance of various objectives of financial regulation, on the one side, and the desirability of structural unification, on the other, do not reveal any coherent, valid and reliable relationship between the two. The importance-perceptions of respondents regarding objectives of financial regulation can not be regarded as the *cause o*f unification-desirability perceptions. As such, there is very little evidence for acceptance of alternative hypothesis and rejection of null hypothesis.

The over-all conclusion and implications that follow from the foregoing analysis may be stated as follows. The case for structural unification can not be linked (in any specific and significant manner) with the importance of objectives. While analysing desirability of unification in the context of objectives of financial regulation, one has to make a distinction between desirability in relation to *realisation o*f objectives, and desirability in relation to *importance* of objectives. Above analysis addresses only the latter issue. The resulting finding can not be construed to settle the former issue which undoubtedly is a debatable point of substantial importance. In fact, it can not be adequately analysed in the absence of sufficient empirical evidence on the *objective-serving abilities of different regulatory regimes.* And surely, this is not possible without evolving suitable measures and criteria of objective-serving ability which by itself is an important area for full-fledged research. However, intuitively it appears that structure-specificity is not a necessary condition for serving objectives adequately. Ralisation of objectives is not necessarily contingent upon existence of some specific structural design. Mere existence of a particular type of structure is not adequate for the realisation of objectives; there are many other requirements, as well which also need to be satisfied. Views may vary as regards the possibility of satisfying those requirements within a given structure.

Table 5.14 : System-objectives and unified regulatory structure: Regression estimates *(Disaggregate approach)*

Categories	Constant term	Regression coefficients			R	R^2	ANOVA
	g	H_1	h_2	h_3			F-value
Regulators	1.616 (1.381) .177*	-.564 (-.774) .445*	-.134 (-.354) .726*	.409 (1.361) .183*	.266	.071	.790 .509*
Fin. Inter.	.949 (1.751) .084*	-.188 (-.652) .517*	.283 (1.207) .232*	.377 (1.458) .149*	.285	.081	2.087 .110*
Investors	.207 (.275) .784*	.257 (.847) .399*	.538 (2.750) .007	.011 (.047) .962	.291	.085	2.962 .036*
All Respon.	.804 (1.918) .056*	-.077 (-.389) .698*	.303 (2.177) .031*	.208 (1.399) .163*	.205	.042	3.026 .031*

Figures in parentheses refer to t values.
* Significance level.

Table 5.15 System-objectives and unified regulatory structure: Regression estimates *(aggregate approach)*

Categories	Constant term (G)	Regression coefficient (H)	R	R^2	ANOVA F-value
Regulators	28.079 (.943) .353*	.042 (.130) .897*	.023	.001	.017 .897*
Financial Intermediaries	22.797 (1.347) .182*	.397 (2.058) .043*	.234	.055	4.236 .043*
Investors	-1.398 (-.065) .949*	.616 (2.509) .014*	.246	.060	6.293 .014*
All Respondents	17.945 (1.423) .156*	.373 (2.623) .009*	.179	.032	6.883 .009*

Figures in parentheses refer to t values.
* Significance level.

Conclusions

The results of regression analysis presented in this chapter imply some significant conclusions. Desirability of structural unification cannot be explained adequately merely in terms of system-deficiency; it is no less important to consider simultaneously whether the existing structure is appropriate or inappropriate (presumably to contain deficiencies to a minimum possible level and facilitate realisation of the objectives of financial regulation). In other words, structure itself is also an important aspect of system-deficiency and it can not be overlooked; it needs to be explicitly incorporated.

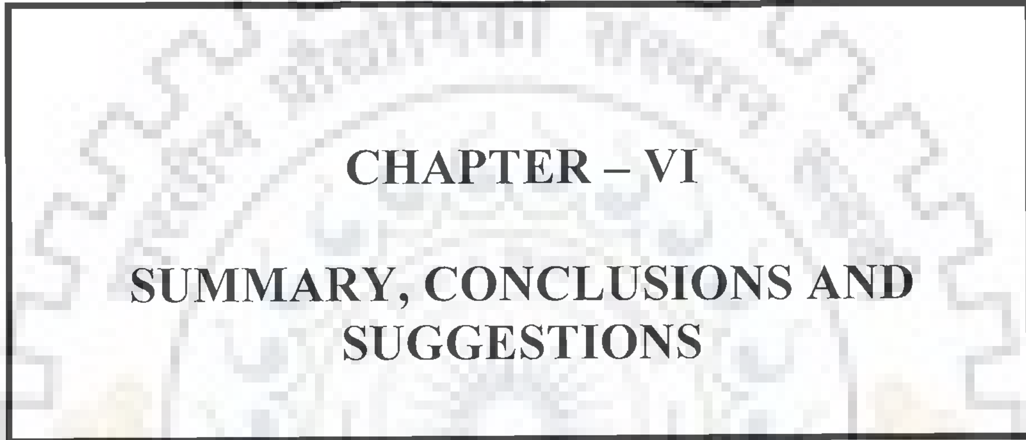
A majority of respondents in each category are in favour of adopting either a unified structure, or shifting to 'lead' model broadly within the existing structural arrangement (Table 5.4). The mean value of unification (on a three-point scale), suggested by supporters of unified model is 2.333; it is equal to 1.983 in the case of those who stand in favour of 'lead' model (significantly, quite many of them are primarily in favour of the unified model); and 1.512 in the case of all respondents, taken together (Table 5.5). As per the analytical scheme adopted in the present study for quantification of responses, these numeric values epitomize a regulatory set-up that lies somewhere between a partially unified structure or 'lead' model, at the one extreme, and a single-regulator model with some agency other than RBI holding the regulatory command, on the other extreme.

Among deficiency factors, 'inappropriateness' of the regulatory structure (x_7) is the most important, and also, statistically significant explanatory variable in case of all categories of respondents. Among other deficiency factors gaps in supervision and regulation is the only statistically significant variable in the case of Regulators. But in the case of Investors, the statistically significant variables include lack of

communication and co-ordination, presence of overlapping areas in the jurisdictions of various regulators, and to a lesser extent, gaps in supervision and regulation. In the case of Financial Intermediaries no variable other than 'inappropriateness' has turned out to be significant (Table 5.11).

Deficiency in the existing regulatory system is not viewed as a serious phenomenon as long as it does not exceed some maximum acceptable limit. Until this limit is reached, no structural change is considered desirable. On a 100-point scale, this 'no-change' level of deficiency has been found to be the highest (22.75) in the case of Regulators, and the lowest (7.36) in the case of Financial Intermediaries. Just the opposite situation is observed when we compare the 'no-change' deficiency level with the corresponding actually perceived deficiency level as well as the suggested unification level. The perceived deficiency level as well as the suggested level of unification are minimum in the case of Regulators (the perceived deficiency level is 49.03, and the suggested unification level is equal to 31.90), and these are maximum in the case of Financial Intermediaries (the perceived deficiency level is 67.41, and the suggested unification level is equal to 56.67) (Table 5.13). This only brings out the fact that the demand for structural unification is supported most by Financial Intermediaries, and least, by Regulators.

The responses of respondents with regard to their perceptions of the importance of various objectives of financial regulation, on the one side, and the desirability of structural unification, on the other, do not reveal any coherent, valid and reliable relationship between the two. The importance-perceptions of respondents regarding objectives of financial regulation can not be regarded as the cause of unification-desirability perceptions.



CHAPTER – VI

SUMMARY, CONCLUSIONS AND SUGGESTIONS

Preview

This chapter provides summary, conclusions and suggestions of the study. Also in this chapter, the issue of desirability of a change or no change in the existing regulatory structure in India has been approached within the broad dialectic analytic frame. The thrust of the findings of the present study is in favour of adoption of at least the 'lead' model (with lead outside the RBI) presently, and a shift in the direction of structural unification, ultimately. The main underlying reason in this regard is the growing presence of financial conglomerates. Also, it has been suggested by a majority of respondents that the role of RBI should be restricted mainly to monetary regulation. For promotion of efficiency and accountability in financial regulation, the weight of opinions is in favour of introduction of regulatory bench-marking and cost-benefit analysis (for appraisal of new regulatory initiatives).

(As table-references in this chapter pertain to tables included in the previous chapters, no table has been reproduced; only graphical illustrations based on relevant tables have been given)

6.1 Objectives and Scope of the Study

The title of the present study is "Indian Financial Markets: Evolution of a Dialectic Regulatory Model". Accordingly, the focus of study is mainly on evolving a financial regulatory model for the Indian financial sector, using the broad dialectic analytic framework. Among other things, it includes an understanding of the Indian financial sector in terms of its components, features, inter-relationships and emerging trends, on the one hand, and the present regulatory set-up and its ability to meet the challenges thrown by today's highly dynamic, complex and explosive financial sector, on the other. It also includes an appraisal of the merits and demerits of alternative regulatory models adopted by different countries and their experiences with the same. It is on the basis of a comprehensive analysis of various aspects of the problem as well as available options as revealed by the feed-back received from the respondents that an attempt has been made to evolve a regulatory model for the Indian financial sector.

Following are the broad objectives of the present study:

1) To analyse Indian financial sector in terms of its features and emerging trends.
2) To review and analyse evolution of Indian financial regulatory and supervisory system as well as its functioning and relevance.
3) To analyse merits and demerits of the alternative regulatory models adopted by different countries.

4) To discuss the practical experiences of other countries which have adopted unified regulatory system.

5) To identify regulatory options before India, and suggest broad architectural contours of a desirable regulatory model, making use of the inputs obtained from various sample groups (belonging to financial markets and academics) who are closely involved in, or acquainted with, the functioning of these markets.

6.2 Research Design

- The study is conducted in the broad dialectic tradition.
- The required data have been generated by addressing a well-designed questionnaire to a select sample group of 210 respondents who are participants in the financial markets in one way or other – regulators, financial intermediaries and investors (including academics). As such, the study is a cross-sectional perception analysis.
- In order to ascertain if there are any discernible patterns in the perceptions of different groups of the present regulatory system in terms of its objectives and deficiencies, and the need for change or no change in the same, the 'null' hypothesis (H_0) and the 'alternative' hypothesis (H_1), with regard to these two issues, have been specified as follows:

System-deficiencies and the need for change

H_0: There *exists no relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

H_1: There *exists a relationship* between deficiencies in the existing sectoral regulatory model and the need for replacing it with a unified model.

Regulatory objectives and the regulatory system

H_0: There *exists no relationship* between regulatory objectives (in terms of their relative importance) and the structural form of the regulatory model.

H_1: There *exists a relationship* between regulatory objectives and the structural form of the regulatory model.

- The sample data have been treated to regression analysis in order to address these two major issues. Validity and reliability of regression results have been examined in terms of ANOVA and t-test.

Regulatory dialectics

The financial regulatory system that is in existence at anytime may be seen as the result of a chain sequence of actions and reactions of regulators, regulated institutions and the consumers (of financial services and products). For a correct perception of the regulatory system and ascertaining the areas, in which necessary corrective measures need to be initiated, it is desirable to not only view it in its historical context but also assess its weaknesses and strengths in the light of comprehensive feed-back received from various quarters that are closely involved in its functioning especially with regard to its ability to duly serve the objectives for which it is intended. This approach to investigating into a problem and seeking solutions contains the *essence* of what is known as the **dialectic** process. The word dialectic refers to changes occurring through a process of actions and reactions by opposite forces, overtime. It is essentially a dynamic, evolutionary process. In his classic presentation, the philosopher Hegel described the dialectic process as constituted by three critical elements or stages: (1) an initial set of arguments or rules, the **thesis**, (2) a contradicting or repudiatory set of arguments, the **antithesis**, and (3)

a change or adjustment, the **synthesis**, which emerges from an exchange or interaction between opposite forces.

The relationship between regulators and regulated institutions is one of an on-going struggle. The rules that benefit a protected class are often seen by the regulated institutions as a dent into their market share and profits. These institutions try to find out loopholes in the regulatory provisions. The struggle for a competitive edge, often, makes regulatory avoidance an end in itself. Circumvention of regulatory restrictions so as to maximise market share and/or profits becomes a major goal of these institutions. This 'avoidance' behaviour is the antithesis stage in the dialectic process, which comes into existence as a reaction to the enactment and implementation of the regulatory rules (thesis). If the regulated institutions are found to violate the rules more often than observing their compliance, then sooner or later, a stage arises for incorporating necessary changes in the rules, and even in the structural organization of the regulatory set-up, so as to plug the loopholes and impart effectiveness to the regulatory system (synthesis). Though with this, one cycle in the dialectic process ends, but in due course, a new cycle begins. The revised rules induce a fresh wave of avoidance behaviour. The dialectic dynamics continues.

In the dialectic dynamics, it is not only the avoidance behaviour that acts as the driving force for the change process, the market forces too may play their role in this regard. Competitive forces in the market induce changes in the size and scale of operation of the financial institutions as well as changes in the range and complexity of their products. The existing regulatory framework loses much of its relevance in the changed financial business scenario. There is an increasing realisation of the need for rethinking on the whole gamut of regulatory set-up.

After having a long stint with a heavy dose of regulation, the relevance of deregulation was widely appreciated in India so as to usher a liberalised financial regime. But it threw new problems and challenges. The emergence of financial conglomerates in today's financial scenario illustrates this point. A new ground is now emerging for a fresh wave of what we may call re-regulation. Regulation, de-regulation and re-regulation! Indeed, this only reveals the nature of regulatory dialectic. The approach to evolving an appropriate regulatory model for India in the present study is built basically on the pillars of dialectic methodology, in this sense.

Sample design and size, and questionnaire

Today an intense debate is going on in the country as regards the desirability of shifting to some suitable form of regulatory architecture. What form the regulatory structure should assume is not a matter of suggesting some thing that is not 'internal' to the system. In the dialectic perspective, the suggested regulatory model should emerge as a natural phenomenon out of reconciliation and rationalization of system-perceptions of different participatory groups. A study of the present financial regulatory system, for exploring possibilities of strengthening it and making it more effective, may be expected to be duly enriched by tracing its historical roots. Identification and analysis of the critical issues that lie at the heart of the interest-conflicts at any time as well as reconciliation of the ways and means suggested by different quarters (for their resolution) on the basis of their theoretical and empirical reasoning are also important. In order to determine the areas of conflict and identify the changes that are needed to be introduced so as to make a synthesis emerge, we have elicited views of three **sample groups** that are participants in the financial regulatory system: the regulators, the regulated institutions, and the protected (consumers of financial products and services). Additionally, we have also solicited

views of academics, known for their insightful knowledge of the critical issues pertaining to the functioning of financial markets and their regulators. The necessary information, in this regard, has been gathered through a well-designed questionnaire.

Apparently, the designing of questionnaire is of substantial significance in any study of this kind. Much of the success of the study is contingent upon the amount of care and objectivity put in the designing of the questionnaire. It is of utmost importance that the contents of the questionnaire are relevant to the area of enquiry. These must relate to all aspects of the problem, as far as possible, without compromising with the scope for analytical depth. The number, contents and format of the questions should be such as induce the respondents to fully cooperate in providing necessary inputs. And lastly, before tabulating and computing the responses, it is extremely important to ensure their reliability and validity. The possibility of thoughtless, inconsistent and casual attitude of respondents with regard to some of the issues and questions included in the questionnaire cannot be ruled out. Such stray cases should be detected and dropped. For instance, in some of the filled-in questionnaires it was observed that the responses to certain questions were surprisingly mutually contradictory reflecting, perhaps, the indifferent rather contemptuous attitude of the respondents in such cases. Fortunately for this researcher, this disappointing phenomenon was experienced in only less than a dozen cases.

For an objective analysis of the issue of regulatory architectural design, care was taken to focus the basic thrust of the study on the following main questions:

1. How different participatory groups in the system see relative importance of basic objectives of financial regulation? Are there any group-specific perception differences in this regard?

2. How do these groups evaluate existing system in terms of its deficiencies and ability to meet the objectives?
3. How do these groups look at the need for change in the architectural design?
4. How is the respondent's change-perception related to his/her perception of system's objectives and deficiencies?
5. How can perception-conflicts (as regards assessment of system-deficiency and appreciation of need for change) be reconciled?

Before finalising the size and contents of the questionnaire, it was exposed to a trial exercise. A relatively small, sub-sample group of twenty respondents was requested to react to its practical aspects and relevance to the study. The questionnaire was subsequently revised in the light of feed -back received from the trial attempt.

There are severe constraints and practical problems in contacting a relatively large number of respondents and persuading them to spare a part of their precious time for responding to the drudgery and monotony of answering various questions. Therefore, the sample had to be restricted to a manageable size of 210 respondents - Regulators (35), Financial Intermediaries (75) and Investors and Academics (100).

Regression analysis

Making use of inputs received from respondents and employing the analytic frame of linear regression, an attempt has been made to 'predict' the broad structural form of a financial regulatory model which may be expected to emerge, in due course, as a natural consequence of interaction of diverse forces presently operating in the system. The main objective of regression analysis is to ascertain if there is any discernible and significant pattern in the perceptions of different groups of present regulatory system in terms of its objectives and deficiencies, and the need for change

or no change in the same. The need for change, if any, should naturally emerge out of how the current system is perceived. It is assumed that the various groups have sufficient knowledge about the system, which they are closely associated with. It is also assumed that they are in a position to appreciate the implications of various changes that occur (in the system) or are likely to occur, and form opinions accordingly. The analysis, being based on plausible premises, is believed to lead to conclusions that may be expected to be largely credible.

The analytic frame adopted for regression analysis in the present study is as follows:

- The responses indicating respondent-perceptions regarding objectives (of financial regulation) and deficiencies of the existing regulatory structure, as well as suggestions regarding alternative regulatory structures have been transformed into quantities which have been used as variables in the regression equations.
- Regression analysis is based on two distinct approaches to the use of sample data. The approach, in which disaggregated data (individual responses) have been used, is referred to as 'disaggregate' approach (Table 5.6). The approach, in which data have been compressed into an aggregated form so as to construct certain indices (on the basis of respondent-perceptions regarding system deficiency, system objectives and suggested degree of regulatory integration) is referred to as 'aggregate' approach (Table 5.7). The disaggregated data pertains to quantified responses of respondents regarding relevance / importance level of certain deficiency areas of the present sectoral regulatory system.

- For quantification, each response has been assigned a weight depending upon the indicated relevance/ importance level of the system deficiencies and objectives, and the suggested degree of unification.

- Two of the deficiency areas in the existing regulatory structure, which are believed to be relatively more relevant in the context of shifting to integrated regulatory structure (namely, presence of overlapping areas in the jurisdictions of regulators, and dominant position of MOF and RBI in the regulatory set-up), have been treated to varying weight-assignment schemes under three distinct scenarios.

- Lastly, the analysis has been conducted by including regulatory structure as one of the independent variables (disaggregate approach), and alternatively, as an additional element in the System Deficiency Perception Index (aggregate approach). Here the implicit assumption is that the demand for change in regulatory structure may be related not only to the perception of system deficiencies but also to the perception of appropriateness of the regulatory structure for tackling the same.

6.3 Limitations

The present study has been completed with a strong zeal to enhance researcher's intellectual and academic capabilities and contribute to the existing stock of knowledge in this area. Despite best efforts to ensure the normally expected standards of academic accomplishment in completing the present study, some deficiencies are likely to be there. This study is subject to the following major limitations:

a) The perceptions (of individuals or of institutions they represent) are susceptible to so many influences and it is not possible to include all of them for investigation. This is likely to inject some element of distortion in the results.

b) To the extent that some of the conclusions implied by the views of respondents regarding changes in the regulatory structure in India may be based primarily on the experiences of other countries in the recent past, they may be termed, to some extent, as premature.

c) In view of the practical problems in contacting a sufficiently large number of respondents belonging to different groups for ascertaining their views regarding deficiencies in the present regulatory system and the changes they deem necessary in the same, the study has been based on a not so large sample size.

d) The effectiveness of a regulatory system depends not just on whether it is multi-agency type or a unified one. To a large extent, it depends on the ability of the system to implement and enforce the regulatory provisions without allowing any material scope for avoidance. As this involves issues of mainly legislative and administrative nature, this aspect has not been included in the study.

e) Lastly, ideally a study of this kind should be based on cross-country analysis of the relevant information pertaining to the size and composition of their financial markets, regulatory structures and effectiveness. As relevant data, particularly relating to different aspects of regulatory success (such as, containing financial crimes and scams, preventing regulatory avoidance and arbitrage, minimizing incidence of regulatory capture, and maintaining

satisfactory standards of consumer satisfaction) are mostly not available in a manner that should duly serve the requirement of a researcher, this option remained practically closed. This is more so due also to the fact that the experiences of different countries of alternative regulatory structures are a relatively recent phenomenon, and as such, conclusions based on their success or failure in this regard are likely to be devoid of necessary credibility, as mentioned earlier. Further the dialectic process of financial sector growth and regulation in different economies remains entirely different, this is another reason for not conducting a cross country comparison in the present study.

6.4 Plan of the Study

The plan of any study in terms of sequential arrangement of its broad components and sub-components is regarded helpful for a systematic and focused analysis of the problem. It is an essential and analytically significant part of the study that needs to be carefully designed. It helps comprehend treatment of the basic problem. The chapter plan of present study has been designed so as to encompass the issues, which are critical to the study and relevant to the various stipulated objectives, in an orderly manner. The chapter plan is as follows:

Chapter I presents an introductory view of the various aspects of the study. It also includes a description of the research methodology in terms of objectives, basic approach, limitations and chapter plan of the study.

Chapter II has been devoted to a brief survey of the relevant literature.

Chapter III describes the evolution and present status of Indian financial sector; emerging trends in financial sector and their implications for financial regulation; importance and objectives of financial regulation, particularly in relation to India;

arguments for and against integrated regulation; and experiences of various countries that have adopted integrated regulatory structures.

Chapter IV through Chapter VI constitute core of the study. **Chapter IV** presents a cross-sectional perception analysis of the financial regulatory system in India. This chapter is largely based on presentation and interpretation of the feed-back received from the respondents. **Chapter V,** using the sample data, attempts to 'predict' the broad structural form of an Indian financial regulatory model which may be expected to emerge as a natural consequence of interaction of diverse forces operating in the system. The prediction is based on regression analysis of the sample data, and rationalization and reconciliation of seemingly inconsistent or contradictory perceptions of various groups. **Chapter VI** includes summary, conclusions and suggestions of the study.

Bibliography and **Annexure** figure at the end.

6.5 Conclusions and Suggestions

Perceptions, motives and interests of individuals or the institutions they represent gradually get imbedded into their thinking process and become an integral part of their mind-set. This is particularly true of individuals belonging to more or less organised groups whose interests are mostly mutually conflicting. A systematic analysis of the behaviour pattern of these groups may be expected to bring out significant and largely plausible conclusions as regards the future course of events that may follow as a sequel to their on-going struggle and interest-conflicts. The present study, based on cross-sectional perception analysis of sample groups that are prominent participants in the Indian financial markets and closely concerned with the financial regulatory system, is an attempt in this regard. The main findings, conclusions and suggestions together with a graphical illustration of the evolution of a Dialectic Regulatory Model are presented here under the following sub-sections:

6.5.1 Objectives of financial regulation and relevance of regulatory structure to the same;

6.5.2 Deficiencies of the existing financial regulatory system and their significance as determinants and explicators of change in the system;

6.5.3 Arguments for and against a structural change in the present regulatory system; and

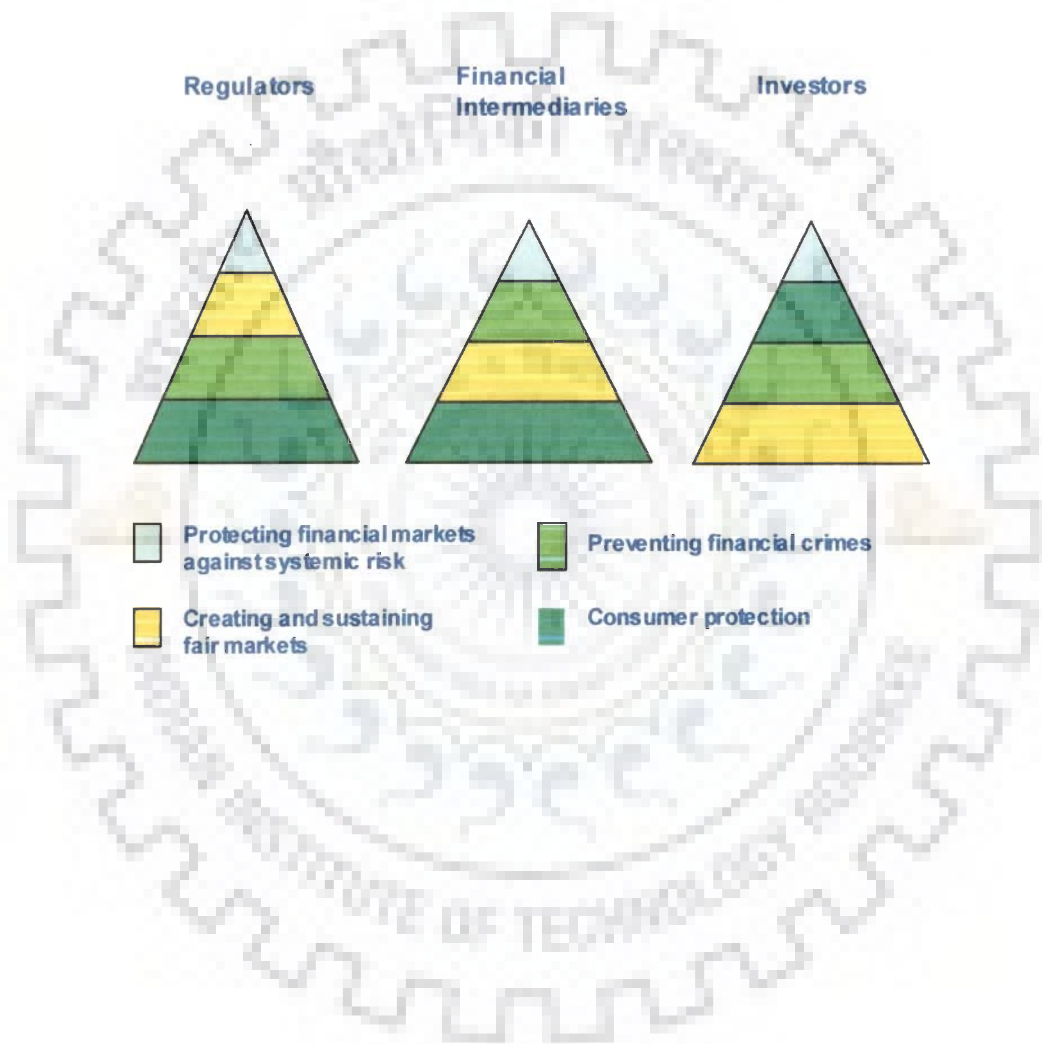
6.5.4 Broad contours of a desirable regulatory structure (emergence / evolution of a dialectic regulatory model for India).

6.5.1 Objectives of Financial Regulation and Relevance of Regulatory Structure to the Same

(a) Protecting against systemic risk is the incontrovertible top most objective

The respondents have unanimously viewed protecting financial markets against systemic risk as the most important objective of financial regulation. However for the second position there is somewhat disagreement. In this respect, the regulators argue in favour of 'creating and sustaining fair markets', the financial intermediaries, in favour of 'preventing financial crimes', and the investors, in favour of 'consumer protection'. (See Fig. 6.1 which is based on Table 4.2). This variance in the perception pattern is not difficult to rationalize. The concern of the Financial Intermediaries for prevention of financial crimes is to be seen in the context of credibility and reputation, which is extremely important for their functioning and growth. Incidences of financial crimes arouse mistrust, suspicion and apprehension. Given the priority of the financial regulatory system in respect of the objectives of 'protecting against systemic risk', 'creating and sustaining of fair markets', and lastly, 'preventing financial crimes', the objective of consumer protection automatically receives the due attention it deserves. In no way it implies relegation of importance of this objective by any of the sections.

Fig. 6.1: Respondents' significance-perceptions of objectives of financial regulation (in descending order from top to bottom)



(b) There is no coherent, valid and reliable relationship between importance of various objectives of financial regulation and the desirability of structural unification.

The regression results have revealed that the importance-perceptions of respondents regarding objectives of financial regulation can not be regarded as the *cause* of their unification-desirability perceptions (Table. 5.14 & Table 5.15). It is important that while analysing desirability of unification in the context of objectives of financial regulation, a distinction is made between desirability of unification in relation to *realisation of* objectives, and desirability in relation to *importance* of objectives. Above analysis addresses only the latter issue. The resulting findings can not be construed to settle the former issue which undoubtedly is a debatable point of substantial importance. In fact, it cannot be adequately analysed in the absence of sufficient empirical evidence on the *objective-serving abilities of different regulatory regimes.* And surely, this is not possible without evolving suitable measures and criteria of objective-serving ability which by itself is an important area for full-fledged research. However, intuitively it appears that structure-specificity is not a necessary condition for serving objectives adequately. Ralisation of objectives is not necessarily contingent upon existence of some specific structural design. Mere existence of a particular type of structure is not adequate for the realisation of objectives; there are many other requirements, as well which also need to be satisfied. Views may vary as regards the possibility of satisfying those requirements within a given structure.

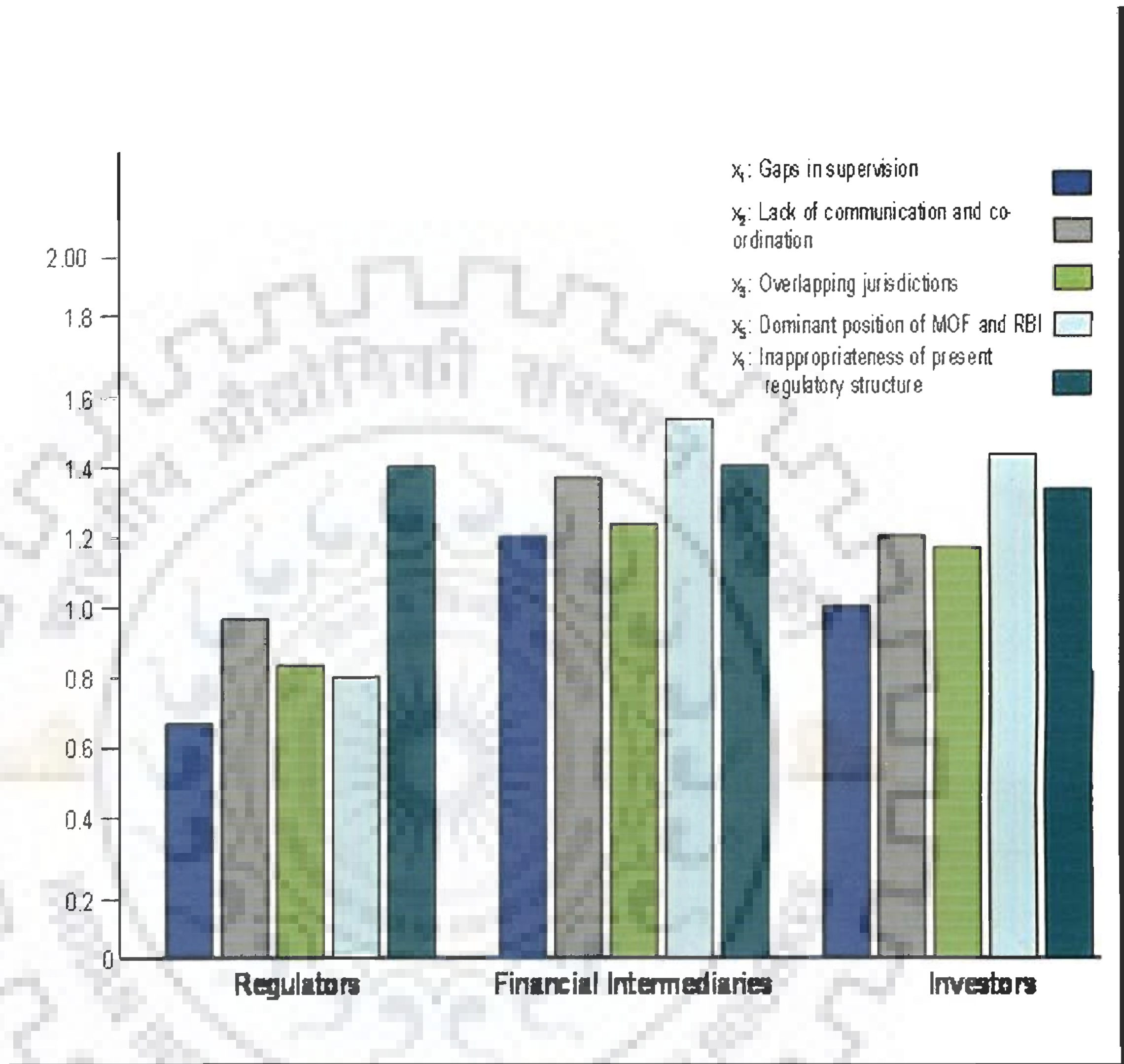
6.5.2 Deficiencies of the Existing Financial Regulatory System and Their Significance as Determinants or Explicators of Change in the System

(a) Deficiencies in the existing regulatory system

There are three noticeable aspects of the deficiency perception behaviour of respondents:

One, deficiency perception is almost invariably the lowest of all in the case of Regulators, and the highest of all in the case of Financial Intermediaries (See Fig. 6.2 which is based on Table 5.1). An instant, rather intuitive, explanation of this perception behaviour can probably be in terms of distorted objectivity in the evaluation of the system for whose health these groups are more or less equally responsible for.

Fig. 6.2: Mean perception values of deficiency components (on a 2-point scale) in case of different categories of respondents



Two, variations in perception behaviour are seen not only between categories but also within category. This fact is revealed when we look at the mean values of deficiencies as perceived by respondents, in each category, who favour / do not favour shifting to unified regulatory structure. The deficiency perception is mostly lower in the case of respondents who are opposed to unification as compared to those who are in favour of the same [See Fig. 6.3 (a) through Fig. 6.3 (c) which are based on Table 5.3].

Three, different categories of respondents hold, by and large, unanimous views regarding deficiencies which have been ranked as the most predominant grey areas in the existing system, namely, dominant position of the Ministry of Finance and RBI, lack of communication and co-ordination, and overlapping areas of jurisdiction of various regulators (See Table 4.4).

Fig. 6.3(a): Mean perception values of deficiency components (on a 2-point scale) in case of *Regulators* who favour and who do not favour unification

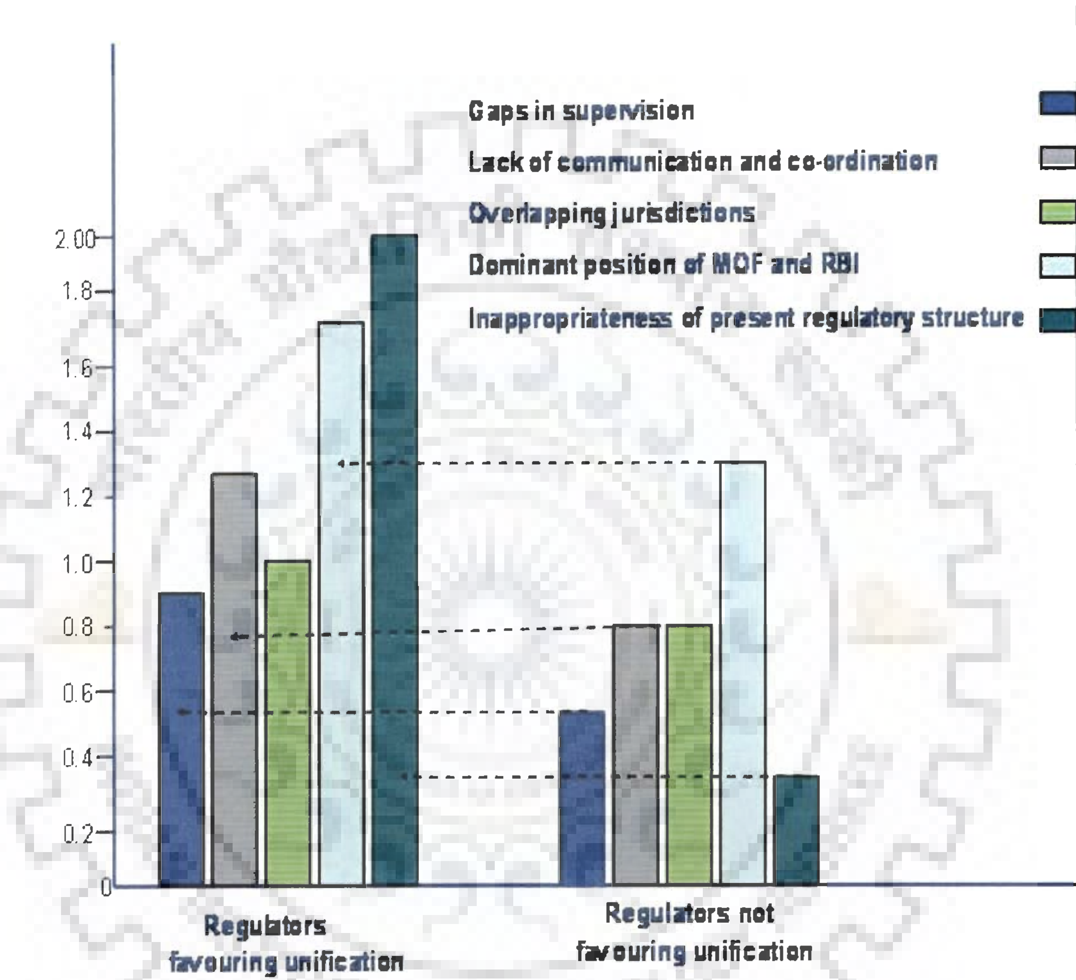


Fig. 6. 3(b): Mean perception values of deficiency components (on a 2-point scale) in case of *Financial Intermediaries* who favour and who do not favour unification

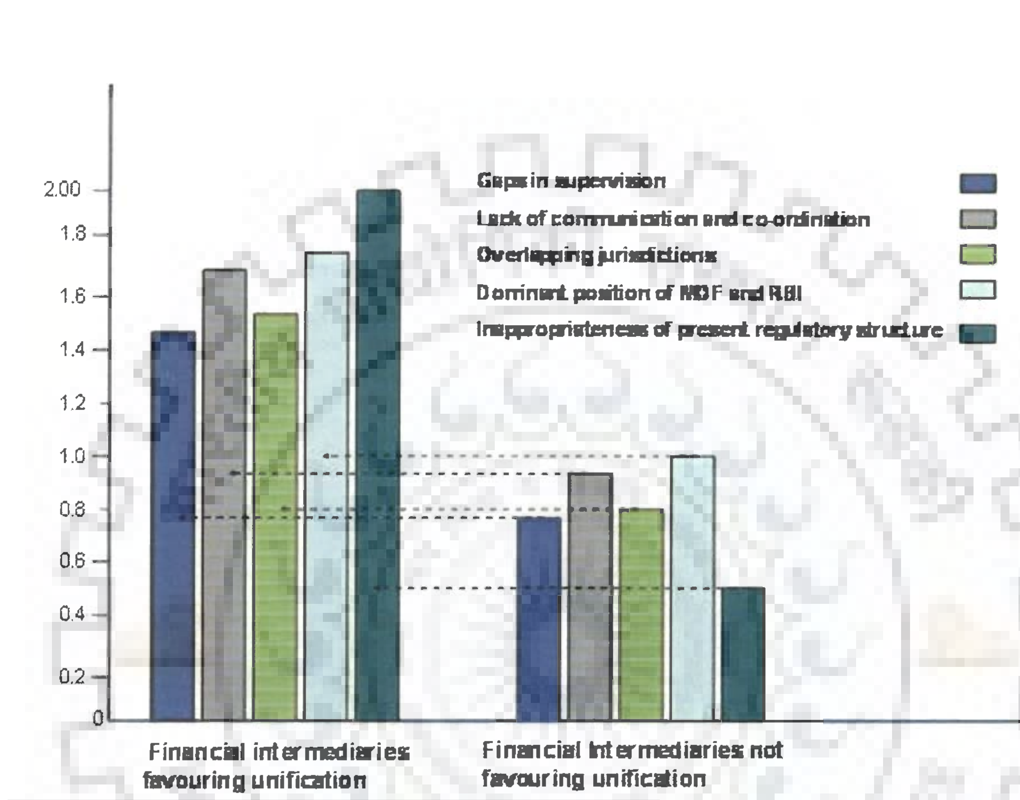
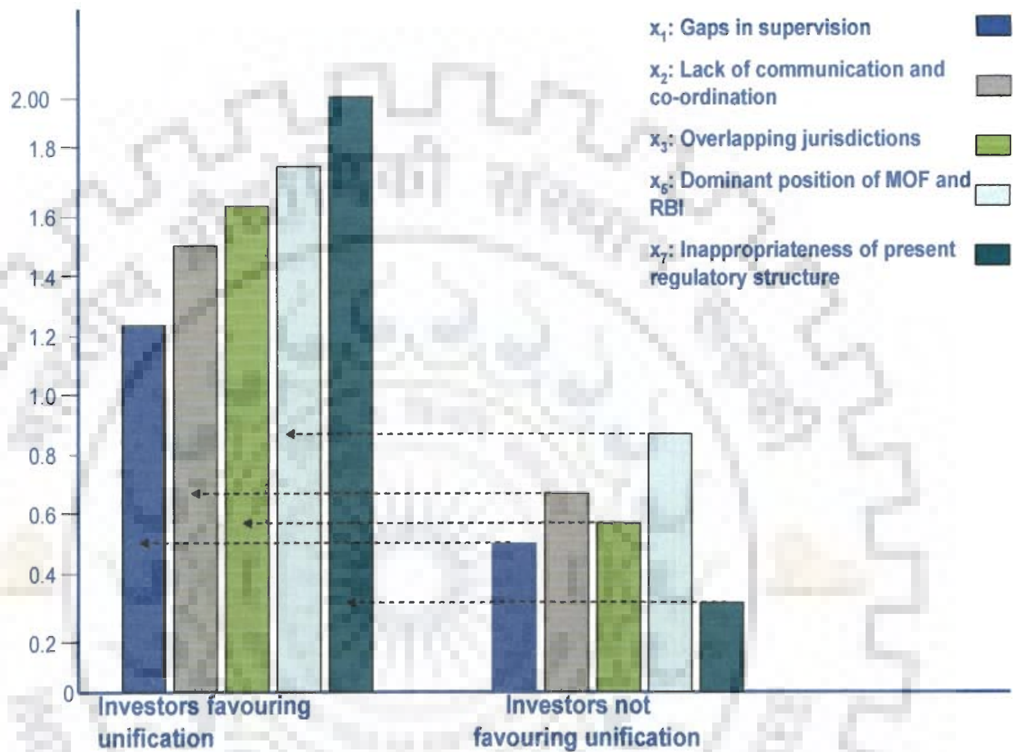


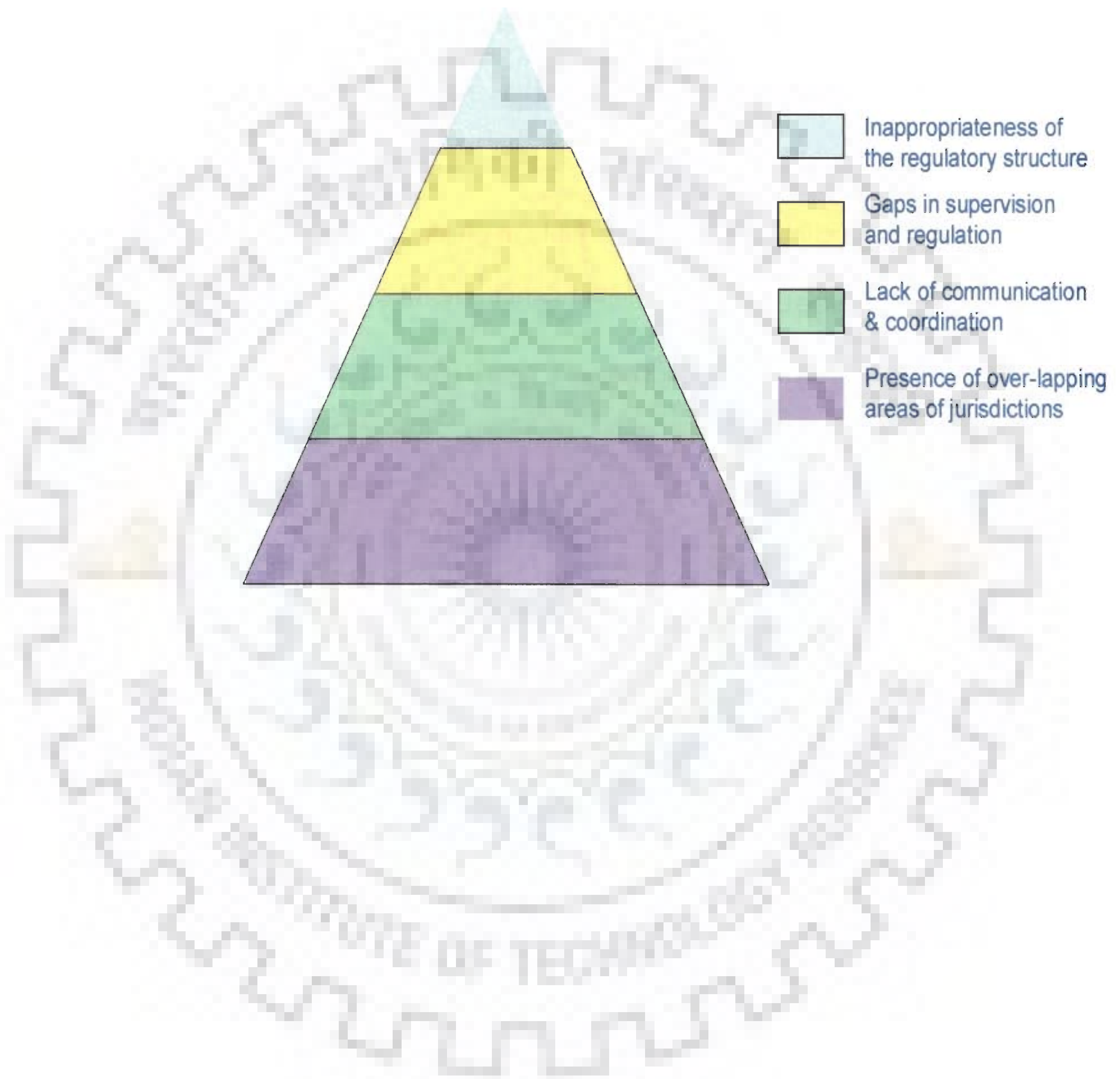
Fig. 6. 3(c): Mean perception values of deficiency components (on a 2-point scale) in case of *Investors* who favour and who do not favour unification



(b) Among deficiency factors, 'inappropriateness' of the regulatory structure is statistically the most significant explanatory variable in case of all categories of respondents

The results of regression analysis suggest that 'inappropriateness' of the regulatory structure has been found to be the most important, and also, statistically significant explanatory variable. The inclusion of this variable substantially improves the explanatory power of the model as reflected in the value of the coefficient of determination. As regards other variables, 'gaps in supervision and regulation' is the only statistically significant explanatory variable in the case of Regulators. But in the case of Investors, the statistically significant variables include 'lack of communication and co-ordination', 'presence of overlapping areas in the jurisdictions of various regulators', and to a lesser extent, 'gaps in supervision and regulation'. (See Fig. 6.4 which is based on Table 5.11). Interestingly, the variable representing 'dominant position of MOF and RBI in the regulatory set-up' has tuned out to be statistically insignificant in case of all categories of respondents. The main implication of these findings is that variations in the desirability perception of a unified regulatory structure are due mostly to respondents' views on the adequacy of the existing regulatory structure and some other deficiency-related factors. But these cannot be attributed to their views regarding the position of MOF and RBI in the regulatory set-up, in any significant way. This may be due largely to the fact that the respondents hold more or less identical views on this issue despite apparent differences in their assessment of the desirability of structural unification. This fact is reflected in the corresponding regression coefficient as well as the results of variable-exclusion scenario analysis (Table 5.11). The exclusion of it as an independent variable from the regression equation, *ceteris paribus,* has shown almost no effect on the explanatory power of the model.

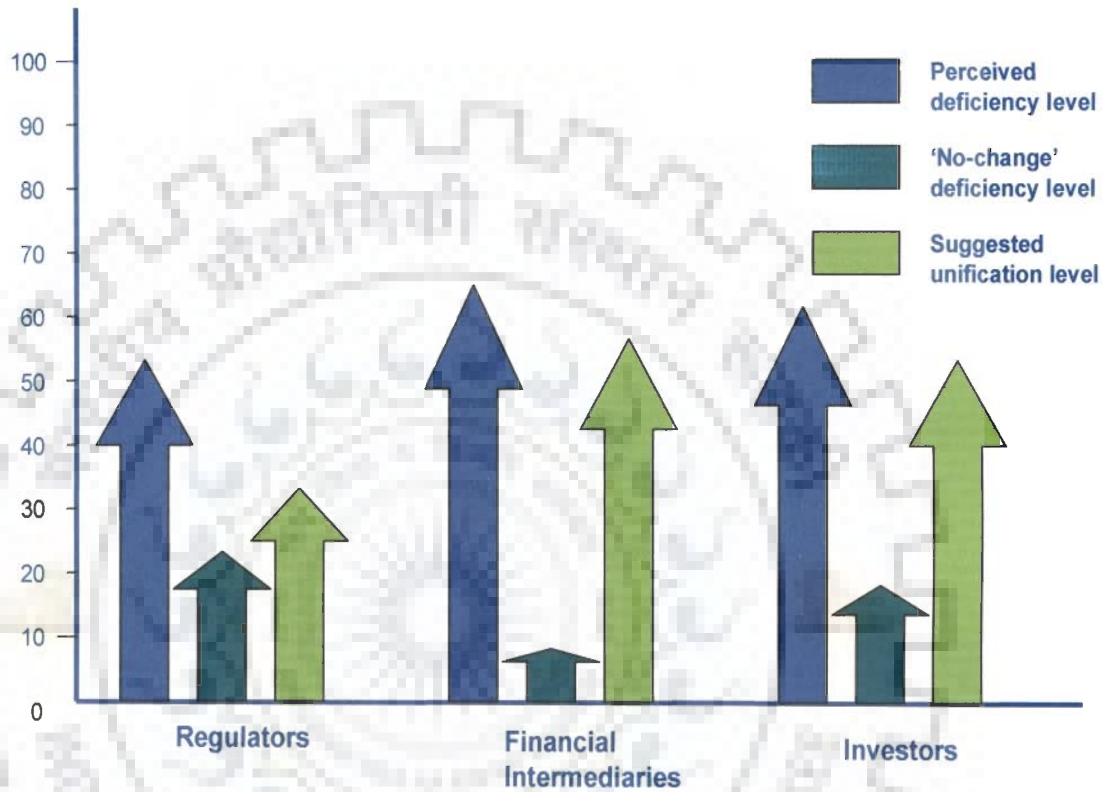
Fig. 6.4: Statistically significant explanatory variables of need for structural unification (in descending order from top to bottom



(c) Deficiency in the existing regulatory system is not viewed as a serious phenomenon as long as it does not exceed some maximum acceptable limit

This is implied by the negative value of the constant term in the estimated regression equation. Until this limit is reached, no structural change is considered desirable. This 'no-change' level of deficiency (on a 100-point scale) has been found to be the highest (not less than 21.62) in the case of Regulators, and the lowest (not more than 7.87) in the case of Financial Intermediaries. Just the opposite situation is observed when we compare the 'no-change' deficiency level with the corresponding actually perceived deficiency level as well as the suggested unification level. The perceived deficiency level and the suggested level of unification are minimum in the case of Regulators (the perceived deficiency level is not more than 53.14, and the suggested unification level is equal to 31.90), and these are maximum in the case of Financial Intermediaries (the perceived deficiency level is not less than 66.67, and the suggested unification level is equal to 56.67). (Fig. 6.5 which is based on Table 5.13 illustrates these conclusions. In Fig. 6.5 both perceived deficiency values and suggested unification values have been specified on a 100-point scale so as to make them comparable with the predicted 'no-change' deficiency levels).These findings highlight the fact that the demand for structural unification is supported most by Financial Intermediaries, and least, by Regulators. The asymmetric perception behaviour of these two groups, regulators and regulated, may be due to a number of factors. One may see a lack of objectivity in the regulators' evaluation of the relevance and utility of the system the success and effectiveness of which hinges largely upon their own efficiency and commitment level (The lack of objectivity may equally be there even on the part of financial intermediaries who generally tend to look at regulators as tormentors and attribute most of their problems to latter's apathy and whims). Also, the Regulators may have some vested interests in perpetuating the system, which others want to change.

Fig. 6.5: Mean values (on a 100-point scale) of perceived deficiency level, 'no-change' deficiency level and suggested unification level in case of different respondent categories



6.5.3 Arguments for and against a structural change in the present regulatory system

(a) The need for a shifting to a unified regulatory structure is justified best in view of its ability to handle most of the problems associated with multiple-agency system as well as meet the requirements of modern highly complex financial markets

The Respondents, in general, believe that the best case for unified regulatory structure rests on the possibility that it will minimise the problems that often arise in the multiple agency system such as, lack of policy communication and coordination, gaps in supervision and regulation, and information duplication. The second most important argument, they put forward is that it may be expected to ensure better supervision and regulation of financial conglomerates and minimise the incidence of regulatory arbitrage. A case for unified regulatory structure is also made out on another argument, which, the respondents believe, is of somewhat lesser weight. On the strength of this third most important argument, it is contended that unified regulatory set-up facilitates a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of banking, securities and insurance. And lastly, it is important to note that the arguments such as, greater accountability of regulators under the integrated structure, and the cost-efficiency in regulation on account of economies of scale have been put forward by only a relatively much smaller proportion of respondents (Table 4.9).

(b) The most common argument with opponents of structural unification, in particular with the Regulators , is that specialized agencies are better equipped to appreciate and address the regulatory requirements of various financial institutions

Those who are opposed to structural unification mostly argue their case on the premise that specialized agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions. The second most important argument against integrated regulation highlights the significance of communication and co-ordination, rather than of merely the regulatory structure, as the basic requirement for regulatory effectiveness. The implication is that for the effectiveness of the over-all regulatory system, what is actually important is to ensure policy communication and coordination among various agencies. A unified regulatory system does not by itself imply effectiveness. And lastly, it is important to note that the arguments against integrated regulation are not viewed by all of the respondents as final and irreversible. It is recognized by some of them that the various regulatory structures that are in operation in various countries are still a recent phenomenon and they continue to be in experimental stage. Since their effectiveness is yet to be empirically established, it is too early to abandon the present system. This point, which in fact is of no less merit than most others, has been viewed by respondents as the third important argument against integrated regulation. Among other arguments that have been considered important not by many of the respondents, and which stand relegated to the bottom ranking positions, the following contentions are made: (a) accountability is better under multiple regulatory agency system, (b) A single regulator may become increasingly bureaucratic in its approach and slow to respond to exigencies as they emerge in the financial sector, and (c) economies of scale are not a good enough ground for justifying integration of regulatory agencies (Table 4.11).

6.5.4 Broad features of the Dialectic Regulatory Model for Indian Financial Markets

The optimal choice of a regulatory model must rest on a careful study of the policy measures initiated in the past for expansion and regulation of financial markets. It must also duly consider the nature, size and relative importance of present financial market segments as well as the views, interests and expectations of various groups (investors, financial intermediaries and regulators) that are closely concerned with the functioning of these markets. Based on due inclusion and consideration of these parameters, a financial regulatory model has emerged out of the present study. Despite apparent differences in the views of different categories of respondents regarding change in the existing regulatory structure, a broad

Fig. 6.6(a): Evolution of Dialectic Regulatory Model (Pre-Dialectic Stage)

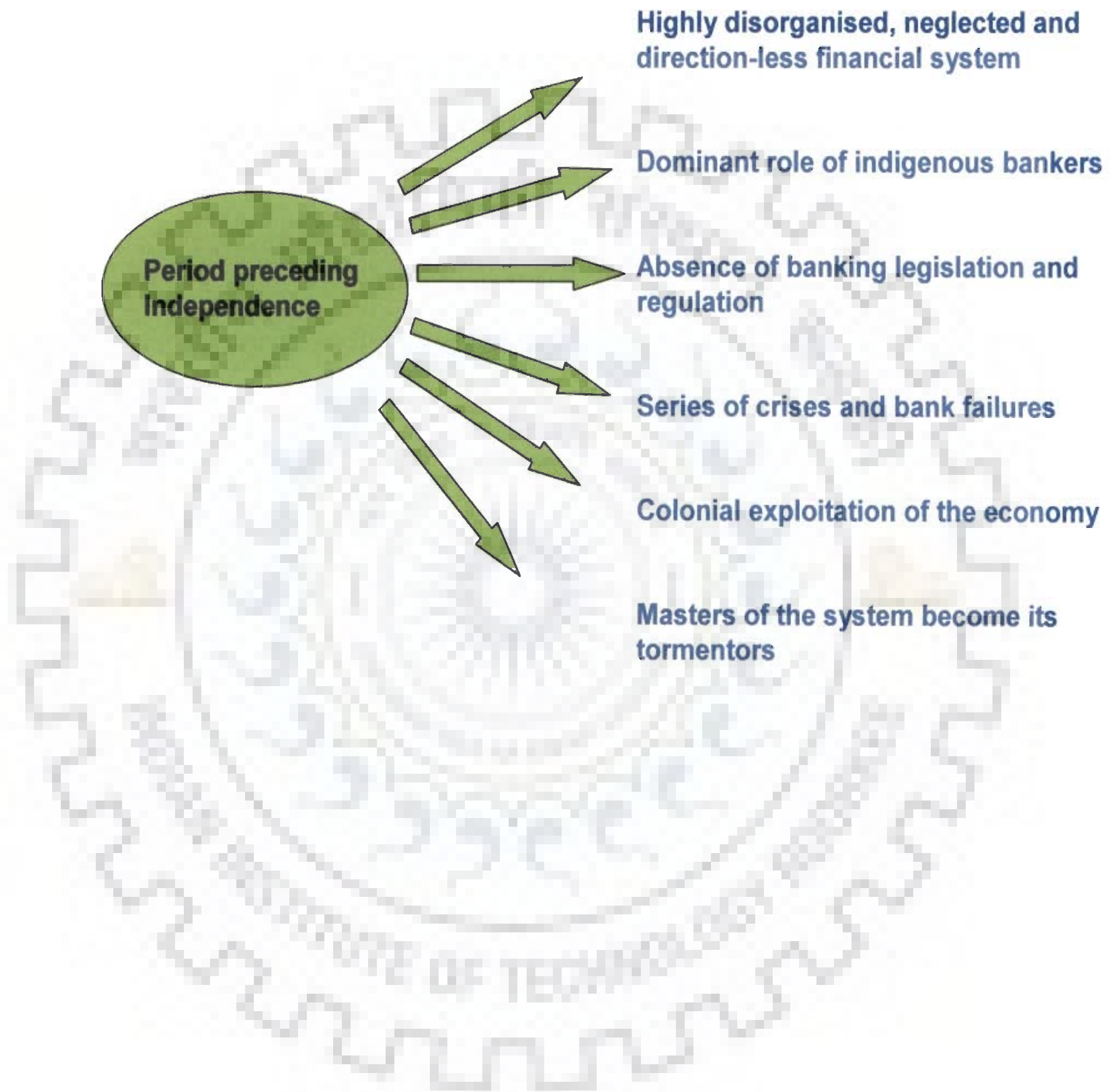
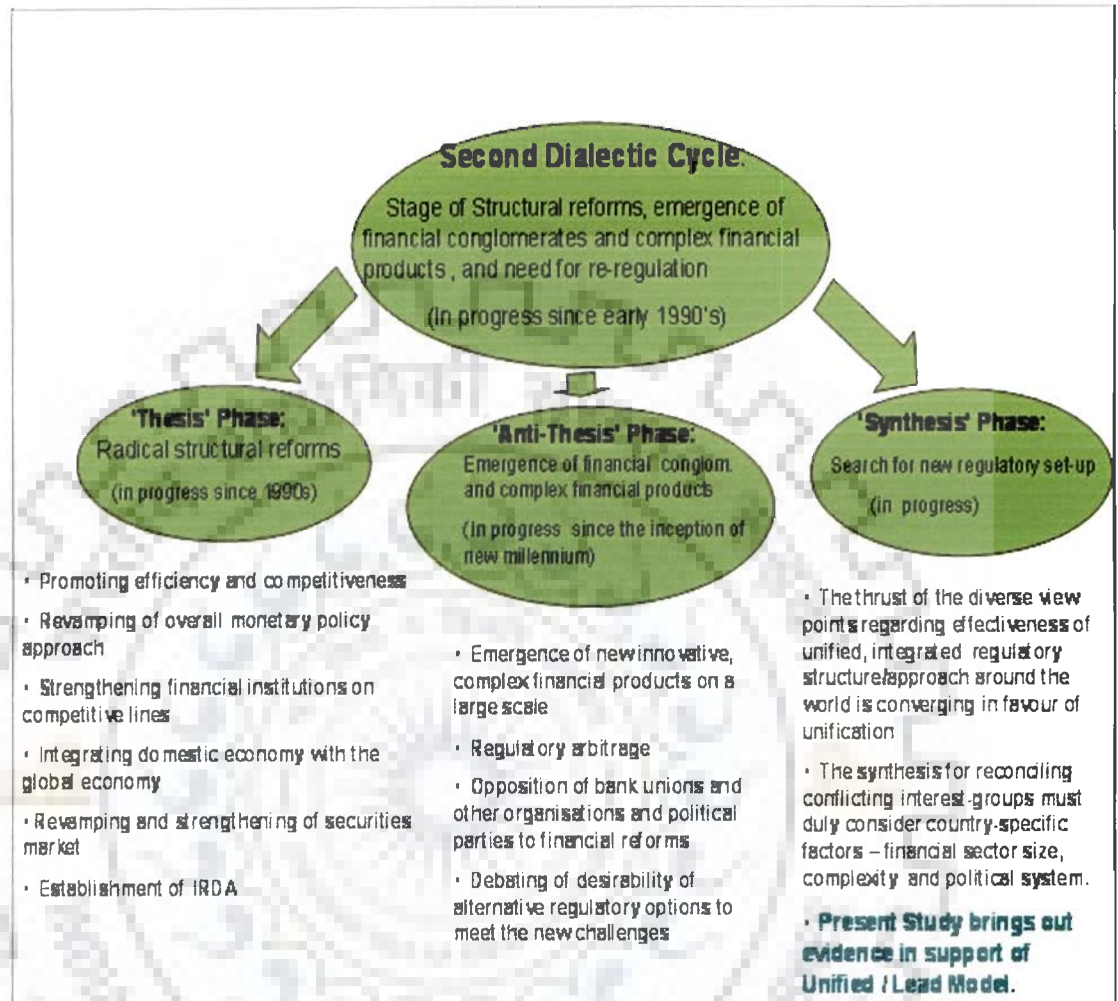


Fig. 6.6(b): Evolution of a Dialectic Regulatory Model (First Dialectic Cycle)

Fig. 6.6 (c): Evolution of a Dialectic Regulatory Model (Second Dialectic Cycle)



Note: Dialectic stages are not water-tight compartments. One stage can set-in before its predecessor stage completes itself , thus the two, and even all of the three, can run concurrently over some stretch of their duration (see the property of ' simultaneity' of dialectic stages in section 3.1 of Chapter III) .

consensus has been noticed in favour of this model. The emergence of this consensus model may be seen as representing the synthesis stage in dialectic process. A stage-view of its evolution is graphically illustrated in Fig. 6.6 (a) through Fig. 6.6 (c) including Fig. 6.9. The salient features of the model have their origin in the following main findings and conclusions of the present study:

(i) In view of the growing volume and complexity of financial transactions, there is a need for adopting at least the 'lead' model (outside RBI) until structural unification is achieved ultimately

Quite a sizeable proportion of respondents in each category are in favour of a change in the present sectoral regulatory structure. They want to replace it with a unified structure. As many as 81 per cent of the Financial Intermediaries, 73 percent of the Investors, and 60 percent of the regulators have revealed their opinion for a 'change' in the regulatory structure in one way or the other. These respondents suggest adopting either a unified structure, or shifting to a 'lead' model broadly within the existing structural arrangement (See Fig. 6.7 which is based on Table 5.4). The mean value of unification (on a three-point scale), as suggested by the respondents, is 2.333 in the case of those who support adoption of the unified model, 1.983 in the case of those who stand in favour of 'lead' model (significantly, quite many of them are primarily in favour of unified model) and 1.512 in the case of all respondents, taken together (See Fig. 6.8 which is based on Table 5.5). As per the analytical scheme adopted in the present study for quantification of responses, these numeric values epitomise a regulatory set-up that lies somewhere between partially unified structure or 'lead' model, and a single-regulator model with some agency other than RBI holding the regulatory command. The message signaled by the response pattern of the respondents is clear. There is a need for realigning the present regulatory set-up particularly in view of the growing size and complexity of the financial institutions and transactions, today.

Fig. 6.7: Choice-perceptions of respondents regarding alternative regulatory models

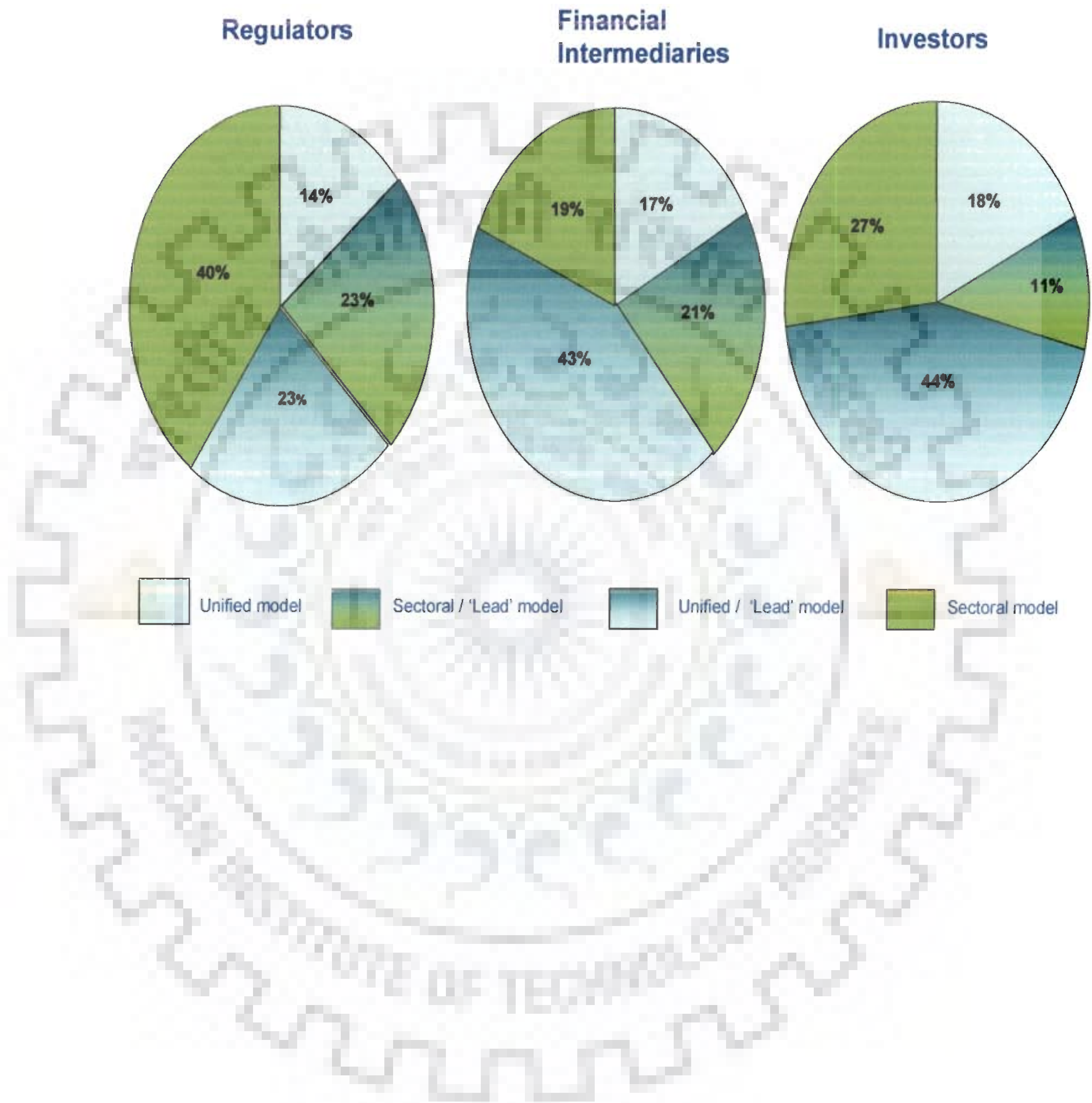
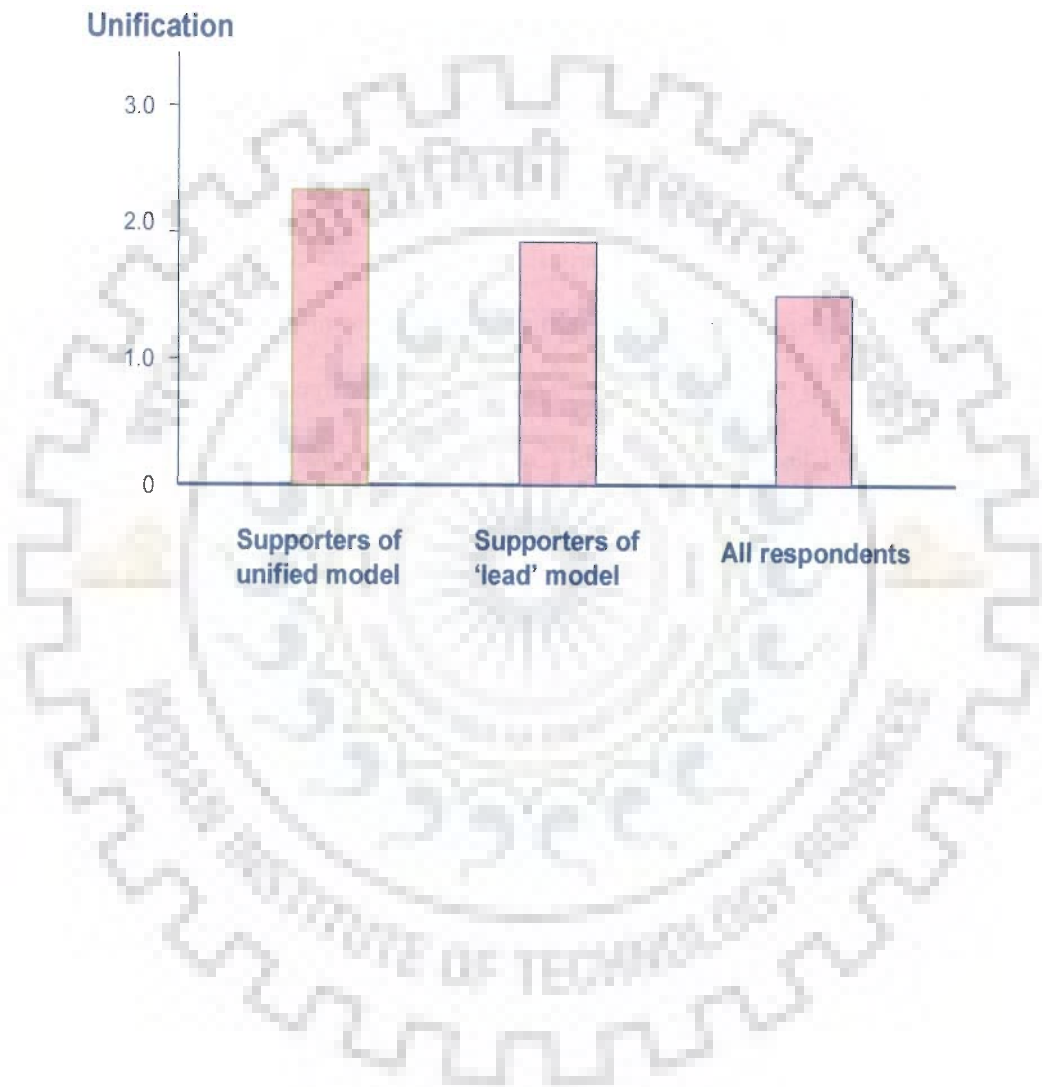


Fig. 6.8: Unification mean values (on a 3-point scale) suggested by the respondents

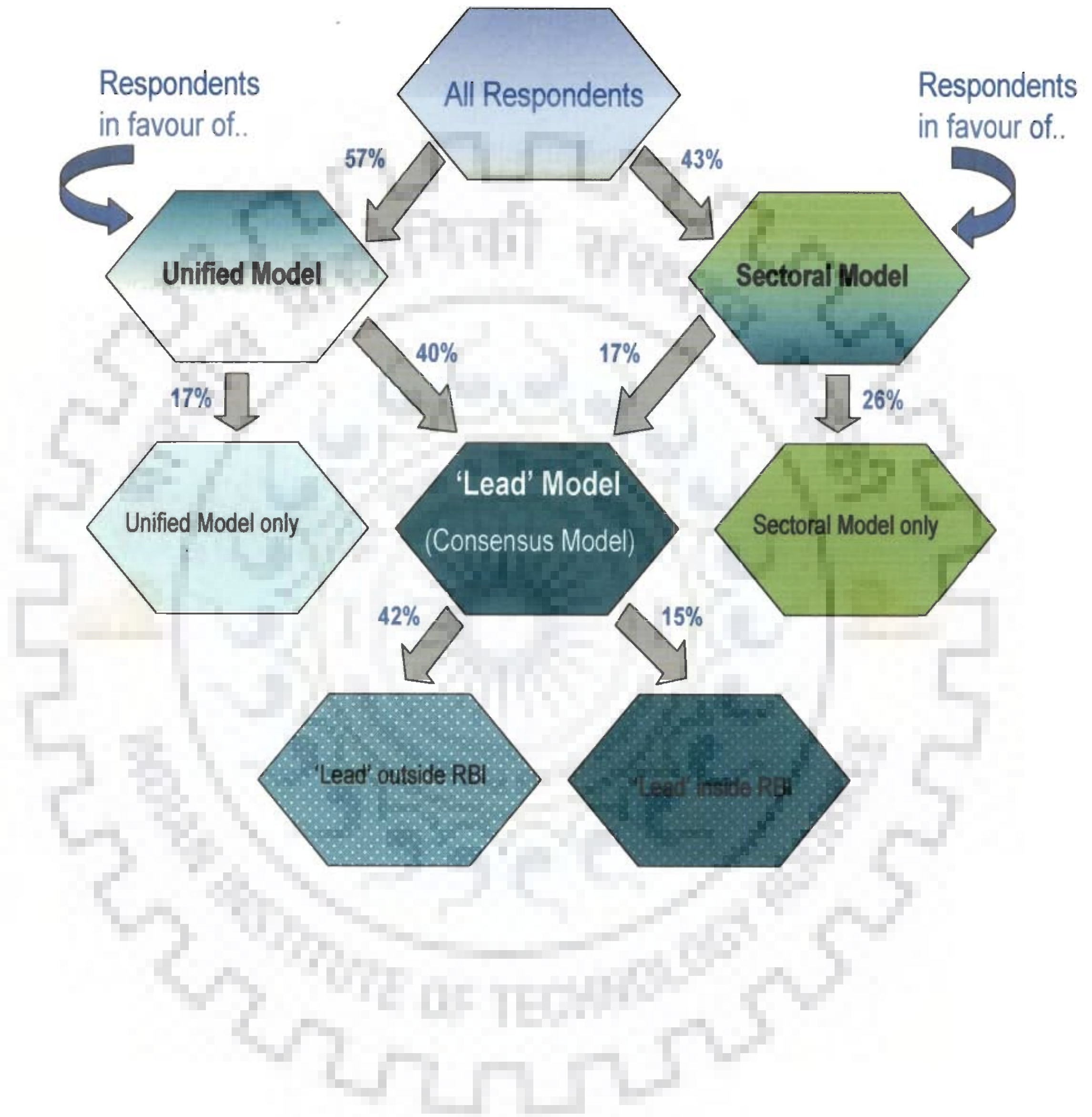


An important point in this regard is that the thrust of the response pattern (that is, need for shifting to an alternative regulatory structure that is unified or integrated, in some way or the other) needs to be viewed in its proper perspective. *It has been most obviously accepted even by advocates of structural unification that for ensuring effective supervision, a mere change of regulatory structure is not sufficient.* Since there is a distinction between weakness of *supervisory structure* and weakness of *supervision*, it is more important to properly address the weaknesses in regulation and supervision than merely focusing on the structural aspect of regulation. *Surely, if supervision of financial markets is weak under multi-agency regulatory system, it may be expected to be weak even under a single regulator regime, too.* This view is shared by a predominant majority of not only those respondents who are opposed to structural unification but even by those who are in favour of it – among the 'opponents' not less than 90 per cent, and among the 'supporters' not less than 70 percent (from any of the three categories of respondents) subscribe to this view (Table 4.14).

The main regulatory problem in most countries is believed to be lack of communication and cooperation among different agencies. The importance of communication and co-ordination for effectiveness of financial regulation is always there irrespective of the type of regulatory structure. This fact is recognized by a vast majority of respondents, on both sides.

It can be seen from Fig. 6.9 which is based on Table 5.4 that on the whole, 57 percent of the respondents favour a shift from the existing sectoral model to unified model, whereas the rest, 43 percent do not agree with this. The demand for retaining the present sectoral model is favoured most by Regulators. As many as 40 percent of them do not favour any structural change. In comparison to this, the corresponding figures for Financial Intermediaries and Investors are 19 and 27 percent, respectively. On the other side, the shift is favoured most by investors (62 percent), closely followed by Financial Intermediaries (60 percent).

Fig. 6.9: Alternative Regulatory Models and the Emerging Consensus Model for India



Significantly, a sizeable proportion of respondents who are primarily in favour of retaining the present sectoral model, and so much so, of even those who are basically in favour of shifting to unified model, are not averse to adoption of the 'lead' model broadly within the existing structural arrangement. The 'lead' supporters constitute 46 percent in the category of Regulators, 64 percent in the category of Financial Intermediaries, and 55 percent in the category of Investors. This fact brings out an important conclusion of substantial policy implication. The 'lead' model (with lead outside the RBI) is seen as a rallying point (for the present, at least) by respondents holding extreme positions regarding shifting to an alternative regulatory model. The willingness of these respondents to relent their position in favour of 'lead' model highlights the importance of communication and co-ordination in financial regulation, irrespective of regulatory structure that is adopted. Those who are not inclined to relent their position perhaps do not see much hope under the present set-up. They believe that the problem may be tackled more effectively under a unified regulatory structure. Anyway, the consensus of opinion in favour of adoption of 'lead' model, at least presently, may reasonably be viewed as a prima facie evidence in support of shifting to a unified model, ultimately.

The tilt in favour of 'lead' model, which mainly highlights the importance of communication and co-ordination in financial regulation, is not surprising. The complexion and volume of the financial sector is changing fast. New regulatory challenges are cropping-up. The need for communication and co-ordination in financial regulation is greater today than ever before. But in no way this tilt implies negation of need for adopting unified structure. So much so, even the position of opponents of unification against integrated regulation, it is important to note, is not final and irreversible. Quite a few of them hold the view that their apprehensions about adoption of unified model are due mainly to the fact that the various regulatory

structures that are in operation in various countries are still a recent phenomenon and they continue to be in an experimental stage. Since their effectiveness is yet to be empirically established, they argue, it is too early to abandon the present system.

Ultimately, what really matters is the effectiveness of regulation, rather than the form of regulatory structure. Unified regulation is one of the several options. Many factors play an important role in the determination of the regulatory regime, which a country needs to adopt. A regulatory regime must be such that it satisfies the environment in which it is to be implemented; it must take complete cognizance of the business activities of the regulated financial institutions and the specific circumstances of the country.

It may be mentioned that the overall outcome of the synthesis and rationalization of views of respondents in the present study is in line with the general tendency of various countries to shift to unified regulatory structures. Although a number of countries still have sectoral regulatory model, quite an increasing number of them have been observed moving in the direction of unified model since the last over two decades. By the end of 2002, as many as 22 countries had adopted the fully integrated regulatory model. As against this, the number of countries having semi-integrated model stood at 24. Many more countries are today having under their active consideration adoption of alternative regulatory structures. Also, some of the countries, which are already having partially unified agencies (e.g., Mexico, and South Africa), are now contemplating of shifting to single regulator model. Norway was the first country to opt for the fully integrated regulatory regime in 1986, with Denmark and Sweden to follow during the next few years. The creation of the Financial Supervisory Authority (FSA) in the United Kingdom in 1997 accelerated the momentum in favour of single regulatory regime. The most recent entrants to this

group are Estonia, Germany, Ireland and Malta. The various regulatory models are graphically illustrated in Fig. 6.10 (a) through Fig. 6.10 (g).

The two most important reasons for adopting unified regulation as reported by most of the countries (as per an IMF study already referred to) are the *need to supervise financial conglomerates effectively and to maximise economies of scale*. Significantly, 'economies of scale' has been reported as a strong argument for adoption of integrated regulation practically by all small economies covered in the survey. The other less pressing reasons related to lack of communication and cooperation, and regulatory gaps and overlaps among existing regulatory agencies.

The results of the present study indicate that in India there are plenty of reasons that make out a strong case for adoption of a new regulatory structure/ arrangement which may expected to minimise the various problems that are often experienced in the present sectoral model. Not surprisingly, among these reasons the fast growing size and complexity of financial transactions; lack of communication and coordination among existing regulators; and gaps in supervision and regulation are serious problems for the regulatory system. Deregulation, liberalisation and rapid technological innovations have allowed financial intermediaries to offer an increasing variety of financial products and services. This has led to the blurring of the distinctions between banking, securities and insurance products and services making conventional regulatory approaches irrelevant and obsolete. Incidence of regulatory arbitrage has become a menace for the regulators. Accordingly, financial supervision and regulation is widely believed to be an exceedingly difficult task under the present regulatory regime.

Figure 6.10 (a): Institutional / Sectoral Model (Multiple Regulators)

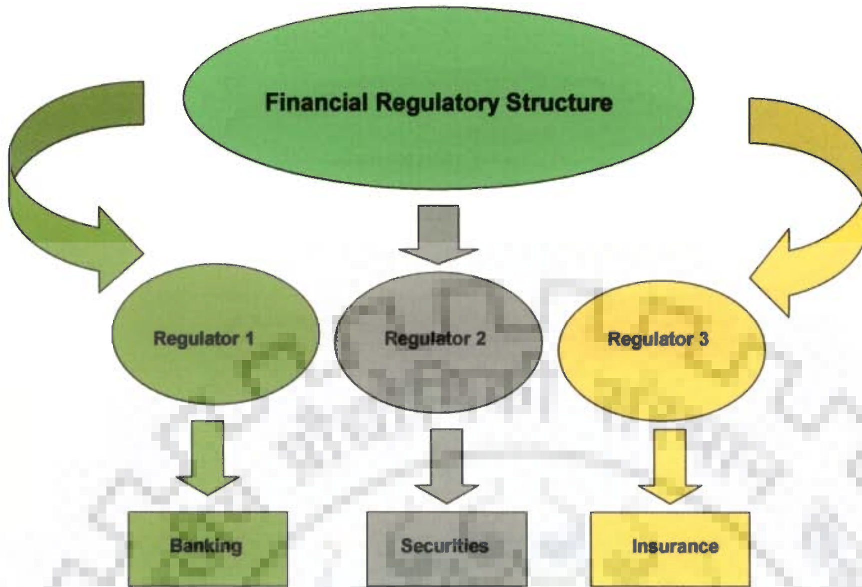


Figure 6.10(b): UK Model (Fully Unified Regulator Model)

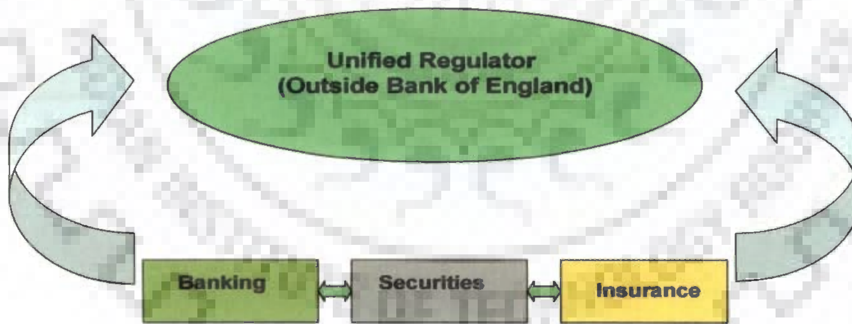


Figure 6.10(c): Singapore Model (Extremely Unified Regulatory Model)

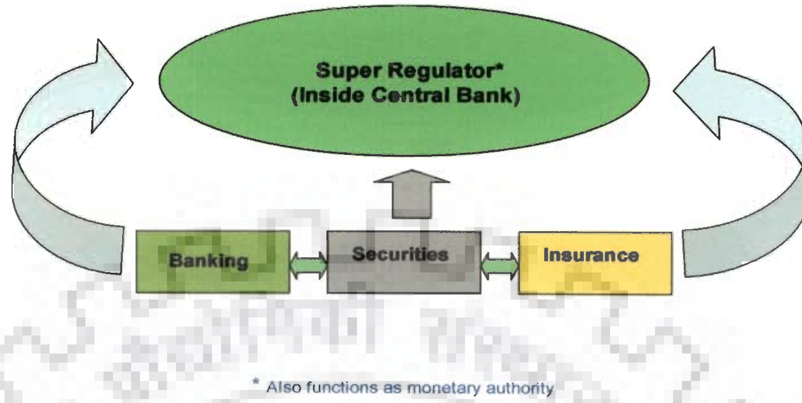


Figure 6.10(d): Mexican Model (Unified Regulator for Banking & Securities sectors)

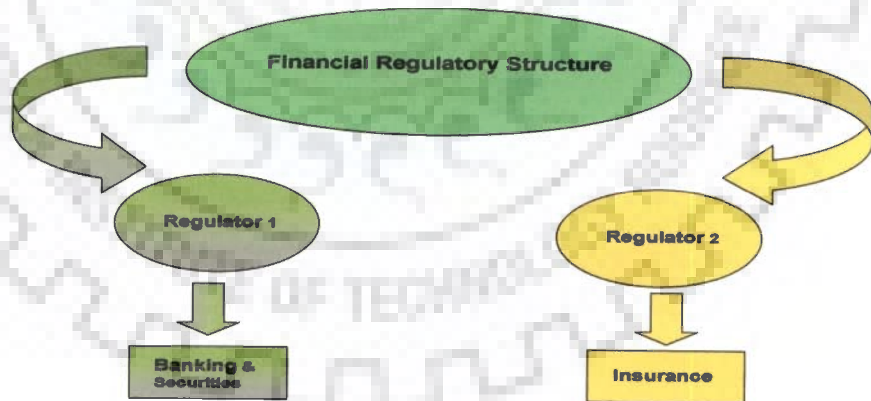


Figure 6.10(e): South African Model (Unified Regulator for Securities & Insurance sectors)

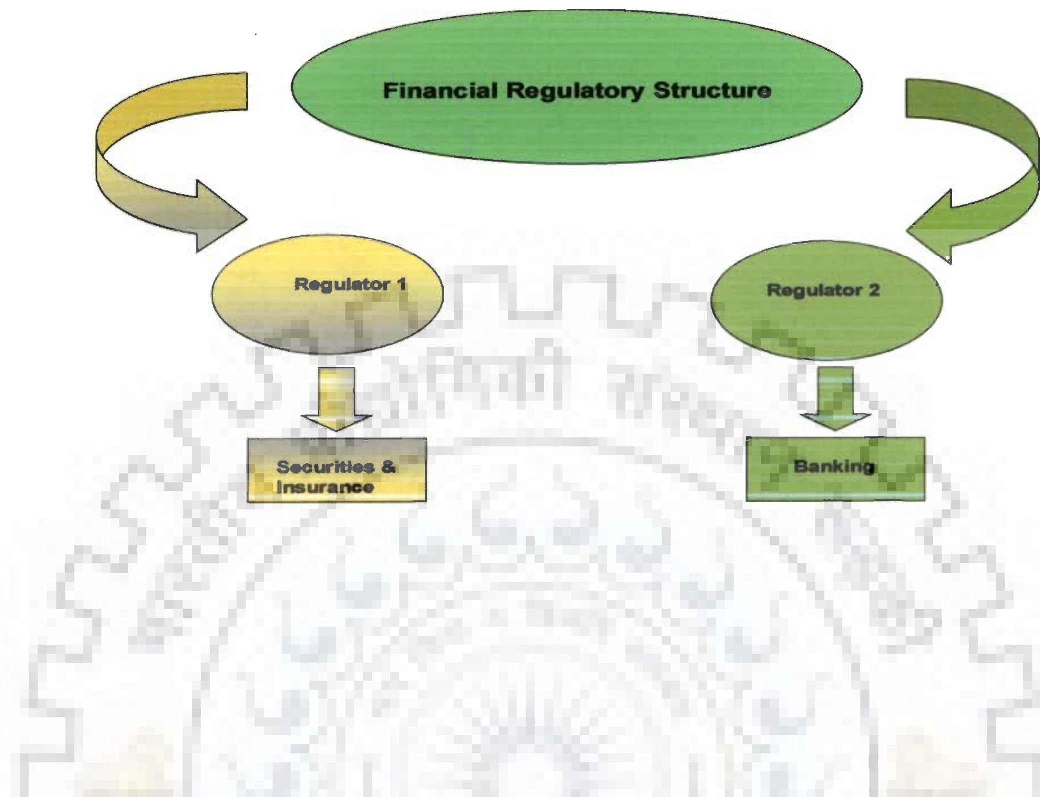


Figure 6.10(f): Canadian Model (Unified Regulator for Banking & Insurance sectors)

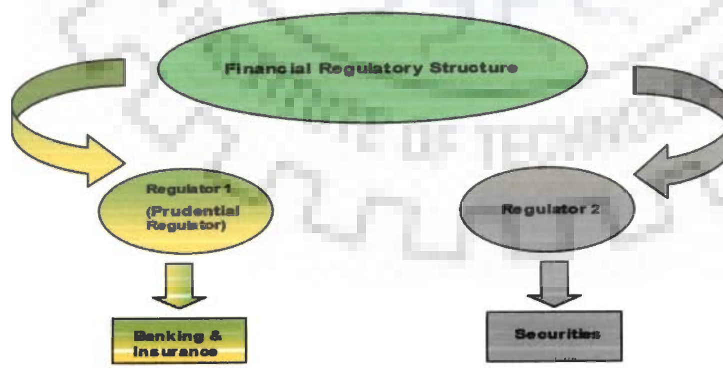
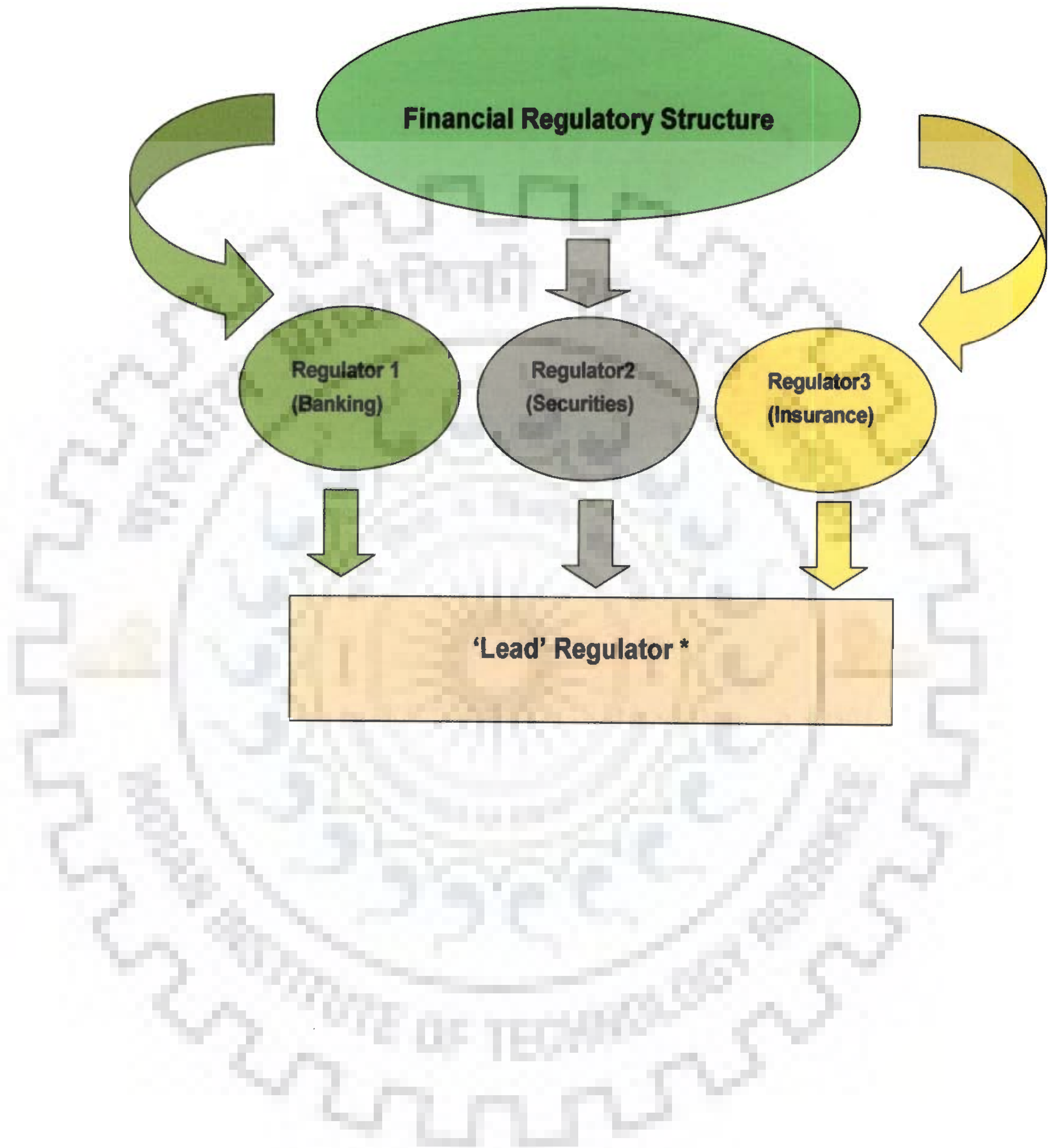


Figure 6.10(g): 'Lead' Model (Multiple Regulators Coordinated by an Agency within / outside the Central Bank)



Sooner or later, while shifting ultimately to the unified regulatory structure, care should be taken to ensure the fulfillment of certain conditions which are as follows:

1. It is very important to achieve harmonisation of regulatory rules and practices, as early as possible.
2. The roles and responsibilities of the unified agency, the central bank and the ministry of finance should be clearly delineated by establishing necessary framework.
3. It must be ensured that the unification does not appear to be some kind of 'takeover' of small agencies by a large, dominant agency. The merged entities must act in a 'give and take' manner and behave with each other more or less as equal partners in a common mission.
4. The unification should be undertaken in a climate of financial stability and conducive market opinion.
5. The necessary formalities in respect of giving a definitive shape to the unified regulatory system such as, integration of the IT systems and infrastructures of the merged entities, appropriate budgetary provisions, appointments of new heads of departments, and finalising the employment conditions should be completed without undue delay.
6. The unified agency should be allowed a reasonable degree of independence and autonomy for performing its assigned role effectively.
7. The staff of the unified agency should enjoy legal protection so as to discharge its duties sincerely and fearlessly.

(ii) RBI's role should be confined to acting as monetary, rather than banking, regulator

RBI is playing many roles. It is acting as monetary authority, government's banker and banking sector supervisor. In professional and academic circles, the preoccupation of RBI with these diverse and highly demanding responsibilities has become a debatable point. It is commonly believed that RBI is over-burdened, and as such, it may not be in a position to discharge its responsibilities efficiently, particularly in relation to banking sector supervision. Also it is argued that the objectives of monetary policy and banking regulation may conflict with each other and in that case, it may achieve one at the cost of other. Questions relating to these issues were addressed to the respondents. They were asked to react to the view that the RBI is over-burdened due to its twin roles of acting as monetary authority and government's banker which may dilute its banking sector supervisory role. As many as 63.3 percent of them agreed with this view (Table 4.23). The respondents were also asked to specify their opinions on the often-argued contention that objectives of monetary policy and banking regulation may run into mutual conflict and RBI may not be able to reconcile the same. A majority of respondents (59 percent), in general, appears apprehensive about RBI's ability to reconcile its role-conflict (Table 4.24).

(iii) There must be a strict code of conduct for regulators. In particular, the regulators' head and board members must be restrained from holding shares or any other financial stakes as well as job/consultancy in regulated firms (for at least some specified time period) after the end of their office term.

In India, there are many examples of the presence of regulator's nominee on the boards of regulated financial institutions, and of government, on the boards of financial regulators. Significantly, government has a substantial ownership in some of

the financial market segments, as well. It is estimated that about 80 percent of the banking sector and 90 percent of the insurance sector are dominated by government ownership. These aspects of government's involvement in the financial system have created a potential area of what is called, 'regulatory capture' - the regulated practically regulating itself! It is a highly debatable issue. It has serious implications for regulatory efficiency. In these apparent 'role-conflict' situations, the possibility of 'role-compromise' looms large. It was thought necessary to ascertain the reactions of different sets of respondents on this important point. A predominant majority of respondents to the extent of 89.5 percent believes that the dominant position held by government in banking and insurance is a potential source of regulatory capture (Table 4.25). Practically all of them (98.9 percent) suggest dilution of government holding in these financial institutions to minimize possibility of regulatory capture (Table 4.26). As regards the presence of government's nominees on the boards of financial regulators, and of the regulators, in turn, on the boards of the regulated financial institutions in some of which the government itself has a substantial ownership, the widely held view of more than 80 percent of the respondents is that it may lead to regulatory capture (Table 4.27). Lastly, about measures necessary for curbing the incidence of regulatory capture effectively, it has been pointed out that there must be a strict code of conduct for regulators, in particular, restraining the regulators' head and board members from holding shares or any other financial stakes and accepting any job/consultancy in regulated firms (at least for some specified time period) after the end of their office term (Table 4.29).

(iv) There is a greater importance and relevance of market-generated discipline relatively to that of externally imposed regulation, in the present liberalized, competitive and fast expanding financial scenario than ever before

In the world of financial modernisation, regulation through both markets and authorities has an important role to play. It is very necessary that the significance of market-generated regulation and transparency, which is a part of that regulation, be not undermined. External regulation and supervision by official agencies alone cannot be effective. The financial institutions also have to realise their responsibility in this regard. They must ensure a robust and effective internal supervision system so as to duly complement external supervision. Capital adequacy rules, supervision, and market discipline are the three pillars of the regulatory framework as specified by Basel II. Efforts have to be made to put them in place. Undoubtedly, finding the right balance between regulation, supervision and market discipline is not an easy task. This is not possible without political discipline, which has now come to be viewed as the fourth pillar.

The respondents, which included both regulators and regulated, were asked as to what kind of optimal-mix of the regulatory practices – externally imposed regulation (by the regulators) and the market-generated regulation – they consider desirable. A overwhelming majority of respondents, in general, and regulated, in particular, has been observed to highlight the significance of relying less on externally imposed, and more on market discipline based regulation. This kind of optimal regulation-mix has been advocated by 65.7 percent of Regulators, and 89. 3 percent of Financial Intermediaries (Table 4.30). The implication is that the regulatory guiding principle should be *'allowed until prohibited'* rather than *'prohibited until allowed'*. And this is merely an appreciation of the importance of fair market system as well as market-based conduct.

(v) Cost-benefit analysis of new regulation is a highly desirable proposition. In this exercise, evaluation of the effects (of new regulation) on competition, quality and variety of financial products should be the main parameters

There may be some serious implications for growth and smooth functioning of the financial system if new regulatory initiatives are pushed through without due examination of their pros and cons. It is very necessary to have a comprehensive assessment of all possible ramifications of such proposals. It is only after they appear to stand sound and workable propositions in the over-all interest of the system that they should be adopted for implementation. A predominant segment of respondents in each category – about 70 percent - appreciated the usefulness of this approach (Table 4.31). As for the relative importance of the parameters to be employed for cost-benefit analysis, as many as 79.6 percent of respondents (which includes 92 percent of Regulators, 60.4 percent of Financial Intermediaries and 89.9 percent of Investors) regard effect on competition as 'highly important'. In the cost-benefit analysis of utmost importance should be to examine whether the new regulation is expected to intensify or dilute competition. This view is quite understandable in the context of present largely market-oriented financial system. The other parameters, namely, effect on quality (significantly, not quantity!) and variety of the financial products sold and the compliance costs have been mentioned as next in importance (Table 4.32).

(vi) Regulatory benchmarking is necessary for ensuring that the regulators discharge their assigned roles, otherwise the consequences for the financial sector may be disastrous

Regulatory agencies have a variety of objectives, which clearly delineate their responsibilities. These objectives relate to ensuring (i) *systemic stability,* (ii) *institutional safety,* (iii) *market fairness*, and (iv) *financial efficiency.* In view of

highly dynamic and complex nature of financial markets, the responsibilities of regulators are much greater today than ever before. If the regulators fail to sincerely discharge their assigned roles, the consequences may only be disastrous. There should be a proper mechanism in place to evaluate their functioning. Regulatory benchmarking is a relatively new concept the purpose of which is to ensure accountability of the regulators. It is a yardstick or standard-setting system employed for assessing their performance against some stated basic objectives. In order to know the views of respondents about the desirability of this concept, they were asked whether they favoured prescribing regulatory bench-marking, and if so, how they look at the relative importance of various parameters which may serve as criteria for the effectiveness of this concept. About 83 percent of the respondents (which include 65.7 percent of Regulators, 89.3 percent of Financial Intermediaries and 85 percent of Investors) consider prescribing regulatory benchmarking desirable (Table 4.34). Most importantly, 85.7 percent of respondents (which include 91.3 percent of Regulators, 92.5 percent of Financial Intermediaries and 78.8 percent of Investors) believe that maintaining market discipline to ensure safety and efficiency of financial markets, is 'highly important', and it should be the top-most criterion for performance evaluation. Ability to reduce financial crimes, and ability to ensure consumer protection are regarded as 'highly important' and next in importance (to maintaining market discipline) by as many as 85.1 percent and 61.7 percent of the respondents, respectively (Table 4.35). In ultimate analysis, all of these three criteria may be seen to be based primarily on maintaining public confidence in the financial system.

Conclusion

To sum up, some deficiencies are always likely to be there whatever the regulatory structure. It is important to ascertain whether the objectives of financial regulation can be achieved by removing these deficiencies broadly within the existing set-up or there is a need for shifting to some other form of regulatory architecture. It is no less important to ensure other conditions, in particular, a sound, comprehensive mechanism for communication and co-ordination among regulators. Various countries have started experimenting with alternative regulatory structures more or less only recently. It is still premature to draw any conclusive results from their experiences. Heterogeneity of conditions as regards size and complexity of financial markets prevailing in these countries renders these experience of still more limited relevance for other countries. But the fact that more and more countries today are contemplating of shifting to structural unification may be interpreted to imply that the results of the experiment are not discouraging either. The issue of desirability of a change or no change in the existing regulatory structure in India has been approached within the broad dialectic analytic frame. The thrust of the findings of the present study is in favour of adoption of at least the 'lead' model (with lead outside the RBI) presently, and a shift in the direction of structural unification, ultimately. The main underlying reason in this regard is the growing presence of financial conglomerates.

Secondly, the evidence from the study does not substantiate the presence of any coherent, valid and reliable relationship between the importance of various objectives of financial regulation, on the one side, and the desirability of structural unification, on the other. While analysing desirability of unification in the context of objectives of financial regulation, the distinction between desirability in relation to

realisation *of objectives, and desirability in relation to* ***importance*** *of objectives is analytically important. The present study addresses only the latter issue. The resulting finding can not be construed to settle the former issue which undoubtedly is a debatable point of substantial importance. In fact, it can not be adequately analysed in the absence of sufficient empirical evidence on the objective-serving abilities of different regulatory regimes. And surely, this is not possible without evolving suitable measures and criteria of objective-serving ability which by itself is an important area for research. However, intuitively it appears that structure-specificity is not a necessary condition for serving objectives adequately.*

Thirdly, it has been suggested by a majority of respondents that the role of RBI should be restricted mainly to monetary regulation.

Lastly, for the success and effectiveness of financial regulation there is the need for new initiatives such as, introduction of cost-benefit analysis for evaluation of major regulatory changes, and adoption of regulatory benchmarking for ensuring accountability of regulators and making their functioning more efficient and focused.

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ANNEXURE-I

DIALECTIC METHODOLOGY

The financial regulatory organism and its substance that is in existence at anytime may be seen as the result of a continuous process of interactive exchange, and chain sequence of actions and reactions between regulators, regulated institutions and the consumers (of financial services and products). For a correct perception of the regulatory system and ascertaining the areas, in which necessary corrective measures need to be initiated, it is desirable to not only view it in its historical context but also assess its weaknesses and strengths in the light of comprehensive feed back from the quarters that are closely involved in its functioning as regards its ability to duly serve the objectives for which it is intended. This approach to investigating into a problem and seeking solutions contains the *essence* of what is known as **dialectic** process. The word dialectic refers to changes occurring through a process of actions and reactions by opposite forces, overtime. It is essentially a dynamic, evolutionary process. In his classic presentation, the philosopher Hagel[1] described the dialectic process as constituted by three critical elements or stages: (1) an initial set of arguments or rules, the **thesis**, (2) a contradicting or repudiatory set of arguments, the **antithesis**, and (3) a change or adjustment, the **synthesis**, which emerges from an exchange or interaction between opposite forces.

The relationship between regulators and regulated institutions can be seen as one of an on-going struggle. The rules that benefit a protected class are often seen by the regulated institutions as a dent into their market share and profits. These institutions try to find out loopholes in the regulatory provisions. The struggle for a competitive edge, often, makes regulatory avoidance an end in itself. Circumvention

of the regulatory restrictions so as to maximise market share and/or profits becomes a major goal of these institutions. This 'avoidance' behaviour is the antithesis stage in the dialectic process, which comes into existence as a reaction to the enactment and implementation of the regulatory rules (thesis). If the regulated institutions are found to violate the rules more often than observing their compliance, then sooner or later, a stage arises for effecting necessary changes in the rules, and even in the basic approach to regulation, so as to plug the loopholes and impart effectiveness to the regulatory system (synthesis). Though with this, one cycle in the dialectic process ends, but in due course, a new cycle begins. The revised rules induce a fresh wave of avoidance behaviour. And the dialectic dynamics continues. The process of evolution, passing through a sequence of interest-conflicts and policy initiatives for their reconciliation, is essentially dialectic in nature. Interests of distinct, organized and identifiable groups often get deeply embedded into their perceptions and aspirations. These become a major driving force of their behaviour, and to a large extent, of also the changes in future, mostly irrespective of other attributes and characteristics of their identity or personality (such as, age, education and experience).

There is a positive aspect of the avoidance behaviour, as well. In some cases, the avoidance behaviour gives rise to financial innovations. Since regulatory rules are often seen by the financial institutions as hurdles which prevent them from expanding their business and earn maximum possible profits, a search begins to find out ways and means whereby these institutions may have new business opportunities in unregulated areas. In this process, sometimes new financial products and processes emerge which enable these institutions to enhance their efficiency in terms of lower transaction costs, better customer services and unregulated business. The emergence of derivatives and e-commerce, that is, card- and network- based financial products

and electronic bill presenting and payment making system, are examples of financial innovations that opened huge new business opportunities.

Historical analysis of the evolution of innovative financial products would show that financial instruments were developed mostly to circumvent the existing laws (This is a major motive of financial innovation, although there may be other motives, too[2]). This is true of bank deposits and bills of exchange that were developed in the thirteenth century in the UK, and, later on, bonds that were developed in France in the sixteenth century. In the same tradition, equity came into existence as a result of the ventures of merchants – the Muscovy Company in 1553, and the East India Company in 1600. Preference shares came to prominence in 1845 in the UK, while the first issue of commercial paper occurred around the same time in the USA. Other major changes occurred more than a century later: the first certificate of deposit in 1966, the first floating rate note in 1970, and the first financial futures contract in 1972, and so on. Interestingly, it was only about two decades back that there was a spurt in financial innovations. Today all of us are familiar with the emergence of e-commerce, which includes both product and process innovations[3], and the wide range of financial products made available by it in the recent past.

And lastly, it must be mentioned that in the dialectic dynamics, it is not only the avoidance behaviour which acts as the driving force for the change process, the market forces too may play their role in this regard. Competitive forces in the market induce changes in the size and scale of operation of the financial institutions as well as changes in the range and complexity of their products. The existing regulatory framework may not be of much relevance in the changed financial business scenario and there may arise a need for rethinking on the whole gamut of regulatory set-up. After having a long stint with a heavy dose of regulation, the need for deregulation was widely appreciated in India so as to usher a liberalised financial regime. But it has

thrown new problems and challenges. The emergence of financial conglomerates in today's financial scenario illustrates this point. A new ground is now emerging for a fresh wave of what we may call re-regulation. Regulation, de-regulation and re-regulation: indeed, this only reveals the nature of regulatory dialectic.

Foot Notes:

1. Georg Wilhelm Friedrich Hegel (1770-1831) was a 19th century German philosopher and theologist who wrote the Science of Logic in 1812. For many historians, Hagel is perhaps the greatest of the German idealist philosophers.

2. For a description of the evolution of innovative financial products, and the motives underlying these innovations, see Walmsley (1988) and Currie (2002). The motives behind financial innovations have been described as follows: (a) Aggressive motive, that is, introduction of a new product in response to a perceived demand or to enhance market share. (b) Defensive motive, that is, innovation of a financial product or process in response to a changed environment or transaction costs. E-commerce is due both to aggressive and defensive motives. It is aggressive in the sense that it has been used for tapping new markets extensively. It is defensive, too, as it enabled the business firms to circumvent regulatory requirements that were intended to control the payments systems and monitor transactions so as to detect tax evasion or any unlawful financial transaction. The same holds about derivatives, too, that came to be evolved as a response both to regulatory requirements and the desire for accessing new markets. (c) Risk transfer motive, that is, innovating in order to transfer the price or credit risks in financial positions (for instance, interest rate and foreign exchange futures and options, and interest rate swaps). (d) Liquidity enhancing motive, that is, the desire to improve the negotiability. Emergence of secondary markets for trading securities, and more recently, setting up of mutual funds, and selling securities with put options, fall in this category. (e) Credit-generating motive, that is, innovating new ways of broadening the supply of credit either by mobilising dormant assets to back borrowings or tapping hitherto untouched

market segments, for instance, advancing credit against securities backed by specific buildings. (f) Equity-generating motive, that is, innovating financial instruments which enable access to entirely new pockets of investors, for instance, floating rate debt instruments, or variable-rate preference shares.

3. In e-commerce, process innovations refer to products that enable the consumers to use electronic means of communication to access otherwise conventional payment services, for instance, the use of the internet to make a credit card payment or for general "online banking." Product innovations refer to stored value or prepaid products in which a record of the funds or value available to the consumer is stored on a device in the consumer's possession, such as, prepaid cards and prepaid software products that use computer networks such as the internet.

ANNEXURE-II

QUESTIONNAIRE

1. **Please rank the following objectives of financial sector regulation as per their relative significance.** (T*ick the relevant column)*

Objectives	Marginally important	Moderately important	Highly important
1. Protecting the economy against systemic risk. This means ensuring the safety of the financial system as a whole including the reliability and integrity of payment systems			
2.Consumer protection (to protect individual depositors, investors and insurance policy holders against loss from the failure of their intermediary)			
3.Preventing financial crimes			
4. Creating and sustaining fair markets.			
5.Promoting public understanding of the financial system, including the awareness of the benefits and risks associated with different kinds of investment or other financial dealing;			
5.Any other(Please specify)			

2. **Please mention which of the following features/deficiencies characterise the existing Indian financial regulatory system, and to what extent?**
 (*Indicate your opinion by ticking the relevant column*)

Features / deficiencies	Relevant and			Not relevant
	Marginally important	Moderately important	Highly important	
1.Gaps in the supervision and regulation of financial institutions				
2.Lack of communication and coordination among different regulatory agencies				
3. Inability of the regulatory bodies to handle any major crisis				
4. Failure to provide adequate consumer protection				
5. Inadequate dissemination of necessary information (by the regulatory agencies) for the benefit of users of products and services of different financial institutions				
6. Overlapping areas of jurisdiction of various regulators				
7.Dominant position of Ministry of Finance and the RBI in financial regulation				

3. **Do you suggest that the existing multiple sectoral regulators (RBI, SEBI, PFRDA etc.) should be integrated to create one or two regulators with cross-sectoral jurisdiction?**

YES / NO

(If your answer is 'No', then you may proceed straight to question number 7. If your answer is 'Yes', then please respond to question number 4 and the subsequent questions).

4. Do you favor the idea of creating a single regulator for the entire financial sector of India somewhat on the lines of Financial Supervisory Authority (FSA) of UK?

YES / NO

If yes, then where should the single regulator reside?

(a) Within RBI

5. **In case you propose unification of existing regulators then please rank, in order of desirability, the following combinations.**
(Rank 1 for the most desirable and 4 for the least desirable option)

(a) Common regulator for Banking & Securities; separate regulator for insurance

(b) Common regulator for Banking & Insurance, separate regulator for securities

(c) Common regulator for Securities &Insurance, separate regulator for banking

(d) Single regulator for Banking, Securities & Insurance

6. **What are the reasons for your suggesting specifically this form of unification?**
(Please rank the following suggested reasons in order of their importance, using digit '1' for the most important and '5' for the least important reason)

(a) It makes accountability more focused.

(b).It ensures better supervision and regulation of financial conglomerates and minimizes regulatory arbitrage.

(c) It is a better-suited form of regulation in view of the difficulties in classifying some of the new financial products under the traditional categories of

banking, securities and insurance.

(d) It minimizes the problems that often arise in the multiple agency system (For instance, lack of policy communication and coordination, gaps in supervision

and regulation, information duplication).

(e) It implies cost-efficiency in view of its concomitant economies of scale.

7. **What are the underlying reasons or apprehensions for your not favoring the creation of an integrated regulatory body?** *(Please, tick the appropriate column)*

Reasons	Marginally important	Moderately important	Highly important
1. Integrated regulation is still a recent phenomenon and its effectiveness remains yet to be established.			
2. Specialized agencies are better equipped to properly appreciate and address the regulatory requirements of various financial institutions as compared to a single unified regulatory agency.			
3. Accountability is better under the multiple regulatory agency system			
4. For the effectiveness of the over-all regulatory system, what is basically important is to ensure policy communication and coordination among various agencies. As such, a unified regulatory system does not by itself imply effectiveness.			
5. A single regulator may become increasingly bureaucratic in its approach and slow to respond to exigencies as they emerge in the financial sector.			
6. Economies of scale are not a good enough ground for justifying integration of regulatory agencies.			
7.Any other (Please, specify)			

8. **Do you think that instead of integrating the existing regulators it would be better to ensure appropriate coordination among the existing regulators?**

YES / NO

9. One way of achieving better regulation under the existing multiple regulators system is to place it under the unified command of a single regulator. Do you agree?

YES / NO

If yes, then who do you think will be the suitable choice for entrusting with the unified command?

(a) Central bank (RBI) (b) Agency out side the central bank

10. Do you agree that if the supervision of financial markets is poor under separate regulators, it may continue to be weak even under a unified regulatory regime or any other arrangement, as well, until and unless some basic requirements are ensured?

YES / NO

If yes, then please mention some of these requirements.

1.
2.
3.
4.

11. **What do you think is necessarily required for the effectiveness of any regulatory body?**
(Please, tick under the appropriate column)

Requirement	Marginally important	Moderately important	Highly important
1. It must enjoy autonomy in the true sense.			
2. It must be headed by an experienced person of widely known integrity.			
3. It must be vested with adequate powers commensurate with the task entrusted to it.			

4. The head as well as the members of its governing body should not be exposed to insecurity of tenure. In particular, they should not be at the mercy of their political or other bosses.			
5. It must conform to the structure, complexion and general health of the financial sector as the latter evolves, over time.			
6. Its objective, jurisdiction and powers should be clearly defined leaving practically no room for any omission or transgression.			
7. Any other (Please, describe).			

12. Do you think that your agency has sufficient powers to perform its role effectively?

YES / NO

If not, then please specify which of the following powers the agency should additionally have.
(Please, specify your opinion by ticking the 'Yes' column)

Powers	Yes
1. Imposing sanctions and fines for non-compliance with rules and regulations.	
2. Fixing general licensing requirements.	
3. Approving / revoking the licenses.	
4. Resolving issues related to consumer protection.	
5.Making and amending rules, regulations	
6 Legal protection of the staff for carrying out their duties effectively	
7.Budgetary autonomy	

8.On site/off site supervision	
9.The power to remove directors and auditors	
10.The power to suspend operations	
11.The power to appoint an administrator	
12.Any other(Please mention)	

13. RBI is playing many roles of monetary authority, Government's banker and banking sector supervisor. Do you think it is over burdened and may dilute its role of banking supervisor?

YES / NO

14. It is often argued that the objectives of monetary policy and banking regulation may run into mutual conflict and RBI may achieve one at the cost of another. Do you agree?

YES / NO

15. How much of regulation, do you think, should be externally imposed by the regulator and how much should be left to market discipline so as to make the behaviour of the regulated unit consistent with the regulators objectives?

(a) More reliance on externally imposed and less on market discipline based regulation

(b) Less reliance on externally imposed and more on market discipline based regulation

16. Many advanced countries are using the practice of cost-benefit analysis before introducing the new regulation. Do you advocate the same practice for India also?

YES / NO

If yes, then please mention the importance level of the following suggested parameters for cost-benefit) analysis which may be employed in the Indian context.

(Indicate your opinion by ticking the relevant column)

Factors	Marginally important	Moderately important	Highly important
1. Direct Costs Cost of designing, monitoring and enforcing regulations in terms of additional resources required.			
2. Compliance Costs The cost of the additional resources (including time) that would be used by firms and/or individuals to comply with a new or modified regulation.			
3. Quantity of the financial products sold New regulation can affect the costs of launching a new financial product and hence it's sale as well.			
4. Quality and variety of the financial products sold Cost of a regulation in terms of quality standards and variety of a financial products			
5. Effect on competition A new regulation can intensify or dilute the competition			
6.Any other(Please specify)			

17. Do you prescribe the concept of regulatory 'bench marking' for ensuring accountability of financial regulators?

YES / NO

If yes, then please mention the importance level of the following parameters which may serve as criteria for effective regulatory benchmarking.
(Please, tick the relevant column)

Parameters	Marginally important	Moderately important	Highly important
1.Market Discipline In terms of safety and efficiency of financial markets to maintain confidence in the financial system.			
2.Consumers Awareness Promotion of consumers (Especially small investors and households) understanding of financial services, awareness of the risks and benefits of different kinds of investment and providing appropriate information and advice.			
3.Consumers Protection To achieve appropriate protection for consumers from potentially risky financial transactions and investments.			
4.Reduction of financial crime To reduce the incidence of financial crimes, taking appropriate measures and devoting adequate resources for preventing, detecting and monitoring financial crime.			
5.Any other(Please specify)			

18. In India there are many examples where regulator's nominee is present on the board of the regulated financial institution. Also government has a dominant presence on the board of the financial regulator who in turn are accountable to government. Do you think that it is a 'role conflict' and a compromising situation, which may lead to 'regulatory capture'?

YES / NO

19. More than 80 percent banking and 90 percent insurance sector in India are dominated by government ownership. Do you think it is another potential area of 'regulatory capture'?

YES / NO

If yes, then do you suggest that for minimizing regulatory bias (regulatory capture), the government holding in various financial institutions be reduced?

YES / NO

20. **Please rank the following measures to curb 'regulatory capture' as per their effectiveness.**
(Please use digit 1 for most and 3 for least effective measure)

(a) Regulator's head and board members may not hold shares or any other financial stakes in regulated firms.

(b) Regulator's head and staff members may never (or for some specified time period) take any job/consultancy in regulated firms after the end of the office term.

(c) Necessary guidelines for restraining regulators from frequent consultations with the representatives of the regulated firms, and prescribing for them a strict code of conduct.

21. **How do you evaluate the existing arrangements made by the government, regulators or other bodies for creating public awareness of the responsibilities of financial institutions towards consumers of their services and products, and responsibilities of the consumers themselves?**

(a) The arrangements are adequate.

(b) The arrangements are inadequate.

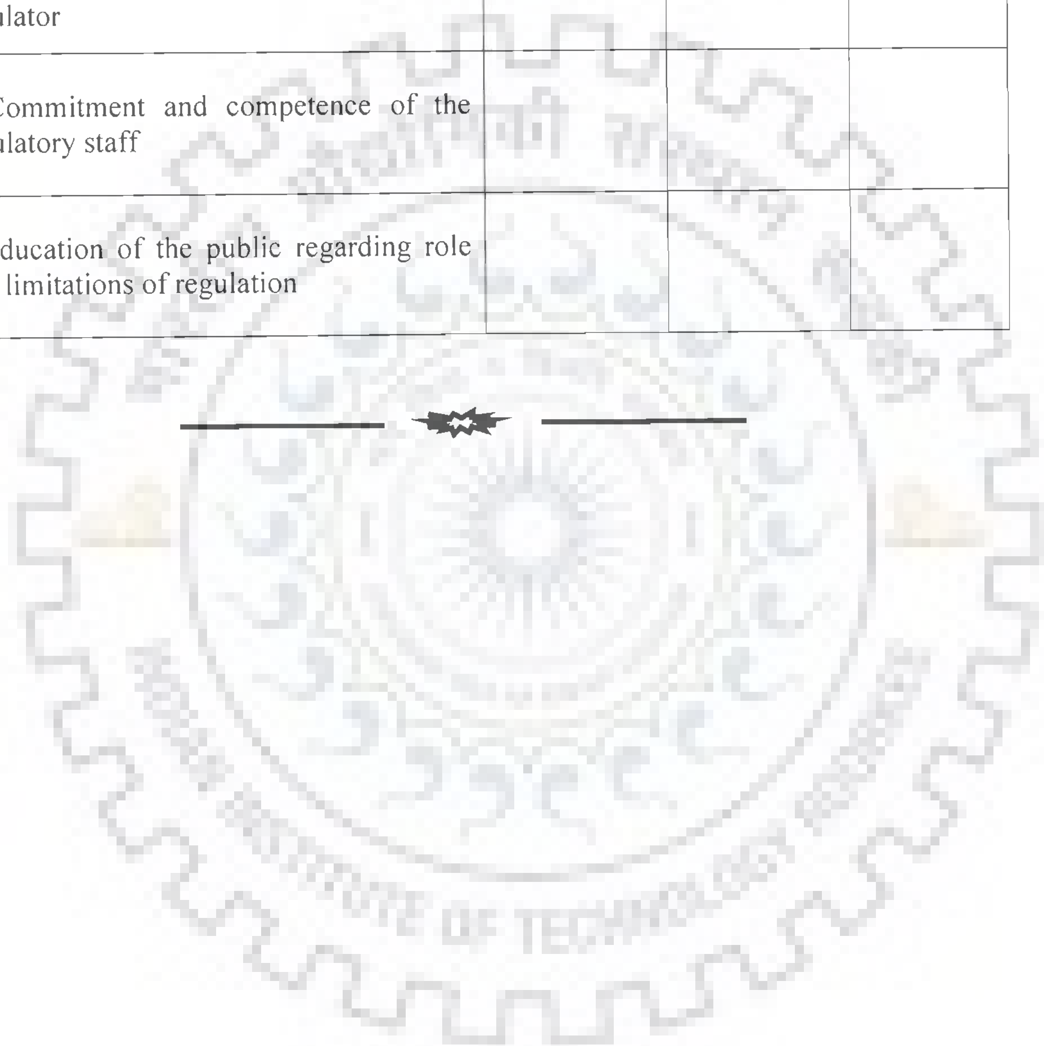
(c) The arrangements are highly inadequate.

If you consider that the said arrangements are not adequate, please rank the following suggested measure as per their importance.
(Tick the relevant column against each measure)

Measures	Marginally Important	Moderately important	Highly important
1. Dissemination of the relevant information at the point of supply of the service in an effective prominent manner.			
2. Wide publicity of the information through electronic media.			
3. Publicity through print media.			
4.Adequate incentives for greater participation of NGOs in this regard			

22. Please rank the following measures, as per their importance, in the context of overall regulatory success.

Measures	Marginally Important	Moderately important	Highly important
1. Regulatory structure			
2. Government's commitment to the regulator			
3. Commitment and competence of the regulatory staff			
4. Education of the public regarding role and limitations of regulation			



ANNEXURE III

Disaggregated data relating to system deficiency, objectives and integration

Regulators

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	$y = z$	w_1	w_2	w_3	w_4
1	.40	.80	.80	1.60	2.00	4.00	1.00	1.50	2.00	2.00	2.00	1.00
2	.40	.80	.80	1.60	2.00	4.00	.00	.00	2.00	2.00	.40	2.00
3	.80	2.00	.80	1.60	2.00	4.00	2.00	1.50	.40	.40	.40	.00
4	.80	.80	2.00	4.00	.80	1.60	2.00	1.50	2.00	2.00	2.00	.00
5	.80	.80	.00	.00	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
6	.80	.80	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
7	.40	.40	.80	1.60	.80	1.60	.00	.00	2.00	2.00	.80	2.00
8	.40	.80	.80	1.60	.80	1.60	2.00	1.50	2.00	2.00	2.00	.00
9	.80	.80	2.00	4.00	2.00	4.00	1.00	1.00	2.00	.80	.80	1.00
10	.80	2.00	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
11	.00	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	.80	2.00	1.00
12	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
13	.80	.80	.80	1.60	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
14	.80	2.00	2.00	4.00	2.00	4.00	1.00	1.00	2.00	2.00	2.00	1.00
15	.80	.40	.80	1.60	.40	.80	.00	.00	2.00	2.00	.80	2.00
16	.80	.80	.80	1.60	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
17	2.00	2.00	.80	1.60	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
18	.80	.80	.40	.80	2.00	4.00	1.00	1.00	2.00	2.00	.80	1.00
19	.00	.80	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
20	.80	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	.80	.00
21	.80	.40	.80	1.60	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
22	.80	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
23	.80	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
24	.80	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	.80	2.00	1.00
25	.00	.40	.80	1.60	2.00	4.00	1.00	1.00	2.00	2.00	.80	1.00
26	.00	.80	.80	1.60	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
27	.80	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
28	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
29	.80	.80	.80	1.60	.80	1.60	.00	.00	2.00	.80	2.00	2.00
30	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
31	.80	.80	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
32	.40	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
33	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
34	.00	.40	.40	.80	2.00	4.00	.00	.00	2.00	2.00	.80	2.00
35	.40	2.00	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	$y = z$	w_1	w_2	w_3	w_4
1	2.00	.80	2.00	4.00	2.00	4.00	.00	.00	.80	.80	2.00	2.00
2	.80	.80	.40	.80	.80	1.60	.00	.00	.80	2.00	.80	2.00
3	.00	.00	.40	.80	.40	.80	.00	.00	2.00	2.00	2.00	2.00
4	2.00	2.00	2.00	4.00	2.00	4.00	2.00	1.50	.80	2.00	.40	.00
5	.80	2.00	.80	1.60	.80	1.60	.00	.00	2.00	2.00	.80	2.00
6	.80	2.00	2.00	4.00	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
7	.80	.80	2.00	4.00	2.00	4.00	.00	.00	2.00	.80	2.00	2.00
8	.80	2.00	.80	1.60	.80	1.60	2.00	2.50	2.00	.40	2.00	.00
9	.00	.00	.00	.00	.40	.80	.00	.00	2.00	2.00	2.00	2.00
10	2.00	2.00	.80	1.60	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
11	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	.80	.00
12	.80	2.00	.40	.80	2.00	4.00	2.00	2.50	.80	.40	.40	.00
13	.80	2.00	2.00	4.00	.80	1.60	2.00	2.50	.80	2.00	2.00	.00
14	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
15	.40	.80	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
16	.00	.40	.80	1.60	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
17	.80	.80	.00	.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
18	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
19	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
20	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	.80	.00
21	.80	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
22	.00	2.00	.40	.80	.40	.80	.00	.00	2.00	.80	2.00	2.00
23	2.00	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
24	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
25	.80	2.00	2.00	4.00	2.00	4.00	.00	.00	2.00	2.00	2.00	2.00
26	2.00	.80	.40	.80	2.00	4.00	1.00	1.50	2.00	2.00	2.00	1.00
27	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
28	.80	.80	.80	1.60	2.00	4.00	1.00	1.00	2.00	2.00	2.00	1.00
29	2.00	2.00	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
30	.80	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
31	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
32	.80	.80	.40	.80	.80	1.60	.00	.00	2.00	.80	.80	2.00
33	2.00	2.00	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
34	.80	.80	.40	.80	.80	1.60	1.00	1.00	2.00	.80	.80	1.00
35	2.00	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
36	2.00	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
37	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
38	.80	.80	.80	1.60	2.00	4.00	1.00	1.00	2.00	2.00	2.00	1.00
39	2.00	2.00	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
40	.80	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00

Financial Intermediaries (contd)

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	$y = z$	w_1	w_2	w_3	w_4
41	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
42	.80	.80	.40	.80	.80	1.60	1.00	1.00	2.00	.80	.80	1.00
43	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
44	.80	.80	.40	.80	2.00	4.00	1.00	1.00	2.00	.80	.80	1.00
45	2.00	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
46	2.00	.80	.80	1.60	.80	1.60	2.00	1.50	2.00	.80	.80	.00
47	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
48	.80	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
49	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
50	.80	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
51	2.00	2.00	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
52	.80	.80	.40	.80	.80	1.60	1.00	1.00	2.00	.80	.80	1.00
53	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
54	.80	.80	.40	.80	2.00	4.00	1.00	1.00	2.00	.80	.80	1.00
55	.80	.40	.00	.00	2.00	4.00	2.00	2.50	.80	2.00	2.00	.00
56	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
57	.40	.80	.80	1.60	.40	.80	2.00	1.50	.80	2.00	2.00	.00
58	.80	.80	.80	1.60	.40	.80	1.00	1.50	2.00	2.00	2.00	1.00
59	.80	.80	2.00	4.00	.00	.00	1.00	1.00	2.00	2.00	.80	1.00
60	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
61	.80	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
62	.80	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
63	.80	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
64	.80	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
65	2.00	2.00	.80	1.60	.80	1.60	2.00	3.00	.80	.80	.80	.00
66	.80	2.00	.80	1.60	.80	1.60	.00	.00	.40	.80	.80	2.00
67	.80	.40	.80	1.60	.80	1.60	1.00	1.50	.40	.40	.80	1.00
68	.80	.40	.80	1.60	2.00	4.00	2.00	3.00	.80	.40	.80	.00
69	2.00	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
70	.00	.40	.40	.80	.80	1.60	.00	.00	2.00	.40	2.00	2.00
71	.80	2.00	.80	1.60	2.00	4.00	.00	.00	2.00	.80	.80	2.00
72	.40	.80	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	.80	1.00
73	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
74	2.00	2.00	2.00	4.00	.80	1.60	2.00	3.00	2.00	2.00	2.00	.00
75	.80	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	.80	2.00	.00

Investors

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	y = z	w_1	w_2	w_3	w_4
1	.40	2.00	.80	1.60	.40	.80	2.00	1.50	2.00	2.00	2.00	.00
2	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	.80	.00
3	.00	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	.80	2.00	1.00
4	.40	.80	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
5	.40	.80	.80	1.60	.80	1.60	1.00	1.00	2.00	.80	.80	1.00
6	.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
7	2.00	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	.80	.80	.00
8	2.00	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	.80	.00
9	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
10	2.00	2.00	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	.80	.00
11	2.00	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
12	.80	2.00	2.00	4.00	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
13	.80	.80	.80	1.60	2.00	4.00	1.00	1.00	2.00	2.00	.80	1.00
14	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
15	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
16	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
17	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
18	.80	.80	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
19	2.00	2.00	2.00	4.00	.80	1.60	2.00	2.50	.80	2.00	.80	.00
20	.40	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
21	.40	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
22	.80	.40	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
23	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	.80	2.00	.00
24	.80	.80	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
25	2.00	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
26	.00	.40	.40	.80	.40	.80	.00	.00	2.00	.80	.80	2.00
27	.80	.80	.80	1.60	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
28	.40	.80	.40	.80	.80	1.60	1.00	1.00	.80	.80	2.00	1.00
29	.80	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
30	.80	.80	.40	.80	.40	.80	.00	.00	.80	.80	2.00	2.00
31	.00	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
32	2.00	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
33	.80	.80	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
34	2.00	2.00	2.00	4.00	2.00	4.00	1.00	1.50	2.00	2.00	2.00	1.00
35	.80	2.00	.80	1.60	2.00	4.00	2.00	1.50	2.00	.80	2.00	.00
36	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
37	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
38	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
39	.40	.40	.40	.80	2.00	4.00	1.00	1.00	2.00	2.00	2.00	1.00
40	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	.80	2.00	2.00	.00

Investors (Contd)

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	$y = z$	w_1	w_2	w_3	w_4
41	.40	2.00	2.00	4.00	.80	1.60	2.00	1.50	2.00	2.00	2.00	.00
42	.80	.80	.80	1.60	.80	1.60	.00	.00	2.00	2.00	.80	2.00
43	.40	.80	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	2.00	1.00
44	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
45	.40	.40	.40	.80	.80	1.60	1.00	1.00	2.00	2.00	.80	1.00
46	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
47	.00	.80	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
48	.40	.80	.80	1.60	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
49	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
50	.40	.80	.80	1.60	.80	1.60	.00	.00	.80	2.00	2.00	2.00
51	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
52	.80	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
53	.80	.40	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
54	.40	.40	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
55	.40	.80	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
56	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
57	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
58	.80	2.00	.40	.80	2.00	4.00	2.00	1.50	2.00	.80	.80	.00
59	2.00	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
60	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	2.00	2.00
61	.40	.40	.40	.80	.40	.80	.00	.00	2.00	.80	2.00	2.00
62	.40	.80	.40	.80	.80	1.60	.00	.00	2.00	.80	.80	2.00
63	.80	.40	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
64	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	.80	.80	.00
65	2.00	2.00	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	.80	.00
66	2.00	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	.80	.00
67	.40	.40	.80	1.60	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
68	.40	.80	.40	.80	.40	.80	.00	.00	2.00	2.00	2.00	2.00
69	.40	.40	.40	.80	.40	.80	.00	.00	2.00	.80	2.00	2.00
70	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
71	.40	.80	2.00	4.00	.80	1.60	2.00	2.50	.80	.80	2.00	.00
72	.40	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
73	.40	.80	.40	.80	.40	.80	.00	.00	2.00	.80	2.00	2.00
74	.40	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
75	.40	.40	.40	.80	.80	1.60	.00	.00	2.00	2.00	2.00	2.00
76	.40	.80	.80	1.60	2.00	4.00	.00	.00	2.00	.80	2.00	2.00
77	.40	.80	.40	.80	.80	1.60	.00	.00	.80	2.00	2.00	2.00
78	.80	.40	.40	.80	.80	1.60	.00	.00	2.00	.80	.80	2.00
79	2.00	.80	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
80	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	.80	.00

Investors (Contd)

Sr. No.	x_1	x_2	x_3	x_4	x_5	x_6	x_7	$y = z$	w_1	w_2	w_3	w_4
81	.40	.40	.40	.80	.80	1.60	.00	.00	.80	2.00	2.00	2.00
82	.40	.40	.40	.80	.40	.80	.00	.00	2.00	2.00	2.00	2.00
83	.40	.80	.40	.80	.80	1.60	.00	.00	2.00	.80	.80	2.00
84	.40	.80	2.00	4.00	.80	1.60	2.00	1.50	.80	2.00	2.00	.00
85	.40	.40	.40	.80	.40	.80	.00	.00	2.00	2.00	2.00	2.00
86	2.00	.40	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
87	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
88	2.00	.40	2.00	4.00	.80	1.60	2.00	2.50	2.00	2.00	2.00	.00
89	.40	.80	.40	.80	.40	.80	.00	.00	2.00	2.00	2.00	2.00
90	.40	.80	.40	.80	.80	1.60	.00	.00	2.00	.80	.80	2.00
91	.80	2.00	.80	1.60	2.00	4.00	2.00	2.50	2.00	.80	2.00	.00
92	2.00	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
93	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	.80	.00
94	2.00	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
95	2.00	.80	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00
96	2.00	.40	2.00	4.00	2.00	4.00	2.00	1.50	2.00	2.00	2.00	.00
97	.80	2.00	.40	.80	2.00	4.00	2.00	1.50	2.00	.80	.80	.00
98	.80	2.00	2.00	4.00	2.00	4.00	2.00	2.50	2.00	2.00	2.00	.00
99	.80	.80	2.00	4.00	.80	1.60	2.00	2.50	.80	.80	2.00	.00
100	.80	2.00	2.00	4.00	2.00	4.00	2.00	3.00	2.00	2.00	2.00	.00

ANNEXURE-IV

Aggregate data (Indices: SDPI, SOPI, SIPI)

Regulators

Sr. No. 1	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			***Without***				
	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	$Y = Z$
1	50.00	48.33	58.33	50.00	48.00	60.00	100.00	50.00
2	40.00	40.00	50.00	50.00	48.00	60.00	73.33	0.00
3	76.00	70.00	80.00	70.00	64.00	76.00	20.00	50.00
4	64.00	70.00	60.00	55.00	64.00	52.00	100.00	50.00
5	36.00	30.00	46.67	45.00	36.00	56.00	100.00	0.00
6	38.00	35.00	38.33	35.00	32.00	36.00	100.00	33.33
7	24.00	26.67	26.67	30.00	32.00	32.00	80.00	0.00
8	48.00	46.67	46.67	35.00	36.00	36.00	100.00	50.00
9	66.00	71.66	71.66	70.00	76.00	76.00	60.00	33.33
10	76.00	70.00	80.00	70.00	64.00	76.00	100.00	50.00
11	34.00	35.00	35.00	30.00	32.00	32.00	80.00	33.33
12	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
13	32.00	33.33	33.33	40.00	40.00	40.00	100.00	0.00
14	78.00	81.67	81.67	85.00	88.00	88.00	100.00	33.33
15	24.00	26.67	23.33	30.00	32.00	28.00	80.00	0.00
16	52.00	50.00	50.00	40.00	40.00	40.00	100.00	83.33
17	88.00	80.00	90.00	85.00	76.00	88.00	100.00	100.00
18	50.00	45.00	58.33	50.00	44.00	60.00	80.00	33.33
19	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
20	64.00	60.00	70.00	55.00	52.00	64.00	80.00	50.00
21	40.00	40.00	50.00	50.00	48.00	60.00	100.00	0.00
22	76.00	80.00	80.00	70.00	76.00	76.00	100.00	83.33
23	64.00	60.00	70.00	55.00	52.00	64.00	100.00	50.00
24	42.00	41.67	41.67	40.00	40.00	20.00	80.00	33.33
25	42.00	41.67	51.67	40.00	40.00	52.00	80.00	33.33
26	36.00	36.67	46.67	45.00	44.00	56.00	100.00	0.00
27	64.00	60.00	70.00	55.00	52.00	64.00	100.00	50.00
28	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
29	32.00	33.33	33.33	40.00	40.00	40.00	80.00	0.00
30	76.00	70.00	80.00	70.00	64.00	76.00	80.00	83.33
31	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
32	60.00	56.67	66.67	50.00	48.00	60.00	100.00	50.00
33	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
34	28.00	26.67	40.00	35.00	32.00	48.00	80.00	0.00
35	36.00	33.33	36.67	45.00	40.00	44.00	100.00	0.00

Sr. No.	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			*Without*				
1	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	Y = Z
1	68.00	73.33	73.33	85.00	88.00	88.00	60.00	0.00
2	28.00	26.67	30.00	35.00	32.00	36.00	60.00	0.00
3	8.00	10.00	10.00	10.00	12.00	12.00	100.00	0.00
4	100.00	100.00	100.00	100.00	100.00	100.00	53.33	50.00
5	44.00	43.33	43.33	55.00	52.00	52.00	80.00	0.00
6	68.00	73.33	73.33	85.00	88.00	88.00	100.00	0.00
7	56.00	63.33	63.33	70.00	76.00	76.00	80.00	0.00
8	64.00	60.00	60.00	55.00	52.00	52.00	73.33	83.33
9	4.00	3.33	6.67	5.00	4.00	8.00	100.00	0.00
10	88.00	80.00	90.00	85.00	76.00	88.00	100.00	100.00
11	76.00	70.00	80.00	70.00	64.00	76.00	80.00	83.33
12	72.00	63.33	76.67	65.00	56.00	72.00	26.66	83.33
13	76.00	80.00	70.00	70.00	76.00	64.00	80.00	83.33
14	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
15	60.00	56.67	66.67	50.00	48.00	60.00	100.00	83.33
16	32.00	33.33	43.33	40.00	40.00	52.00	100.00	0.00
17	44.00	36.67	43.33	30.00	24.00	32.00	100.00	83.33
18	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
19	76.00	70.00	80.00	70.00	64.00	76.00	100.00	83.33
20	100.00	100.00	100.00	100.00	100.00	100.00	80.00	83.33
21	76.00	80.00	80.00	100.00	76.00	76.00	100.00	83.33
22	28.00	26.67	26.67	35.00	32.00	32.00	80.00	0.00
23	88.00	80.00	90.00	85.00	76.00	88.00	100.00	83.33
24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
25	68.00	73.33	73.33	85.00	88.00	88.00	100.00	0.00
26	62.00	55.00	68.33	65.00	56.00	72.00	100.00	50.00
27	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
28	54.00	51.67	61.67	55.00	52.00	64.00	100.00	33.33
29	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00
30	64.00	60.00	70.00	55.00	52.00	64.00	100.00	50.00
31	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
32	28.00	26.67	30.00	35.00	32.00	36.00	60.00	0.00
33	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00
34	38.00	35.00	38.33	35.00	32.00	36.00	60.00	33.33
35	88.00	90.00	80.00	85.00	88.00	76.00	100.00	83.33
36	54.00	51.67	51.67	55.00	52.00	52.00	100.00	33.33
37	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
38	54.00	51.67	61.67	55.00	52.00	64.00	100.00	33.33

Financial Intermediaries (contd)

Sr. No. 1	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			Without				
	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	Y = Z
39	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00
40	42.00	41.67	41.67	40.00	40.00	40.00	100.00	33.33
41	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
42	38.00	35.00	38.33	35.00	32.00	36.00	60.00	33.33
43	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
44	50.00	45.00	58.33	50.00	44.00	60.00	60.00	33.33
45	88.00	90.00	80.00	85.00	88.00	76.00	100.00	83.33
46	64.00	60.00	60.00	55.00	52.00	52.00	60.00	50.00
47	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
48	42.00	41.67	41.67	40.00	40.00	40.00	100.00	33.33
49	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
50	42.00	41.67	41.67	40.00	40.00	40.00	100.00	33.33
51	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00
52	38.00	35.00	38.33	35.00	32.00	36.00	60.00	33.33
53	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
54	50.00	45.00	58.33	50.00	44.00	60.00	60.00	33.33
55	52.00	43.33	60.00	40.00	32.00	52.00	80.00	83.33
56	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
57	44.00	43.33	40.00	30.00	32.00	28.00	80.00	50.00
58	38.00	38.33	35.00	35.00	36.00	32.00	100.00	50.00
59	46.00	55.00	38.33	45.00	56.00	36.00	80.00	33.33
60	100.00	100.00	100.00	100.00	100.00	100.00	80.00	83.33
61	88.00	90.00	90.00	85.00	88.00	88.00	100.00	100.00
62	76.00	80.00	80.00	70.00	76.00	76.00	100.00	100.00
63	76.00	80.00	80.00	70.00	76.00	76.00	100.00	100.00
64	76.00	80.00	80.00	70.00	76.00	76.00	100.00	100.00
65	76.00	70.00	70.00	70.00	64.00	64.00	40.00	100.00
66	44.00	43.33	43.33	55.00	52.00	52.00	33.33	0.00
67	38.00	38.33	38.33	35.00	36.00	36.00	26.66	50.00
68	60.00	56.67	66.67	50.00	48.00	60.00	33.33	100.00
69	88.00	90.00	90.00	85.00	88.00	88.00	100.00	100.00
70	16.00	16.67	28.33	20.00	20.00	34.00	73.33	0.00
71	56.00	53.33	63.33	70.00	64.00	76.00	60.00	0.00
72	34.00	31.67	35.00	30.00	28.00	32.00	80.00	33.33
73	76.00	70.00	80.00	70.00	64.00	76.00	80.00	83.33
74	88.00	90.00	80.00	85.00	88.00	76.00	100.00	100.00
75	76.00	80.00	70.00	70.00	76.00	64.00	80.00	83.33

Investors

Sr. No. 1	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			Without				
	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	Y = Z
1	56.00	53.33	50.00	45.00	44.00	40.00	100.00	50.00
2	88.00	90.00	90.00	85.00	88.00	88.00	60.00	83.33
3	34.00	35.00	35.00	30.00	32.00	32.00	80.00	33.33
4	72.00	76.67	76.67	65.00	72.00	72.00	100.00	50.00
5	38.00	38.33	38.33	35.00	36.00	36.00	60.00	33.33
6	80.00	83.33	83.33	75.00	80.00	80.00	80.00	83.33
7	88.00	80.00	90.00	85.00	64.00	88.00	60.00	83.33
8	76.00	70.00	80.00	70.00	70.00	76.00	80.00	50.00
9	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	88.00	80.00	90.00	85.00	76.00	88.00	80.00	50.00
11	76.00	70.00	80.00	70.00	64.00	76.00	100.00	50.00
12	66.00	71.67	61.67	70.00	76.00	64.00	100.00	33.33
13	54.00	51.67	61.67	55.00	52.00	64.00	80.00	33.33
14	76.00	70.00	80.00	70.00	64.00	76.00	100.00	83.33
15	100.00	100.00	100.00	100.00	100.00	100.00	80.00	83.33
16	100.00	100.00	100.00	100.00	100.00	100.00	80.00	83.33
17	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
18	64.00	70.00	60.00	55.00	64.00	52.00	100.00	83.33
19	88.00	90.00	80.00	85.00	88.00	76.00	60.00	83.33
20	72.00	76.67	66.67	65.00	72.00	60.00	100.00	83.33
21	72.00	76.67	66.67	65.00	72.00	60.00	100.00	83.33
22	34.00	31.67	35.00	30.00	28.00	32.00	100.00	33.33
23	100.00	100.00	100.00	100.00	100.00	100.00	80.00	100.00
24	38.00	35.00	38.33	35.00	32.00	36.00	100.00	33.33
25	88.00	90.00	80.00	85.00	88.00	76.00	100.00	83.33
26	12.00	13.33	13.33	15.00	16.00	16.00	60.00	0.00
27	64.00	60.00	70.00	55.00	52.00	64.00	100.00	100.00
28	34.00	31.67	35.00	30.00	28.00	32.00	60.00	33.33
29	76.00	80.00	80.00	70.00	76.00	76.00	100.00	83.33
30	24.00	23.33	23.33	30.00	28.00	28.00	60.00	0.00
31	16.00	16.67	20.00	20.00	20.00	24.00	80.00	0.00
32	88.00	80.00	90.00	85.00	76.00	88.00	80.00	83.33
33	64.00	60.00	70.00	55.00	52.00	64.00	100.00	50.00
34	90.00	91.67	91.67	100.00	100.00	100.00	100.00	50.00
35	76.00	70.00	80.00	70.00	64.00	76.00	80.00	50.00
36	20.00	20.00	23.33	25.00	24.00	28.00	80.00	0.00
37	76.00	70.00	80.00	70.00	64.00	76.00	100.00	83.33
38	20.00	20.00	23.33	25.00	24.00	28.00	80.00	0.00

Investors (contd)

Sr. No. 1	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			*Without*				
	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	Y = Z
39	42.00	38.33	51.67	40.00	36.00	52.00	100.00	33.33
40	76.00	70.00	80.00	70.00	64.00	76.00	80.00	83.33
41	72.00	76.67	66.67	65.00	72.00	60.00	100.00	50.00
42	32.00	33.33	33.33	40.00	40.00	40.00	80.00	0.00
43	34.00	31.67	35.00	30.00	28.00	32.00	100.00	33.33
44	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
45	30.00	28.33	31.67	25.00	24.00	28.00	80.00	33.33
46	76.00	70.00	80.00	70.00	64.00	76.00	100.00	83.33
47	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
48	28.00	30.00	30.00	35.00	36.00	36.00	100.00	0.00
49	88.00	90.00	90.00	85.00	88.00	88.00	80.00	83.33
50	28.00	30.00	30.00	35.00	36.00	36.00	80.00	0.00
51	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
52	88.00	90.00	90.00	85.00	88.00	88.00	100.00	100.00
53	72.00	76.67	76.67	65.00	72.00	72.00	100.00	50.00
54	68.00	73.33	73.33	60.00	68.00	68.00	100.00	50.00
55	24.00	23.33	26.67	30.00	28.00	32.00	80.00	0.00
56	20.00	20.00	23.33	25.00	24.00	28.00	80.00	0.00
57	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
58	72.00	63.33	76.67	65.00	56.00	72.00	60.00	50.00
59	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
60	20.00	20.00	23.33	25.00	24.00	28.00	80.00	0.00
61	16.00	16.67	16.67	20.00	20.00	20.00	80.00	0.00
62	24.00	23.33	26.67	30.00	28.00	32.00	60.00	0.00
63	72.00	76.67	76.67	65.00	72.00	72.00	100.00	83.33
64	100.00	100.00	100.00	100.00	100.00	100.00	60.00	100.00
65	88.00	90.00	80.00	85.00	88.00	76.00	80.00	83.33
66	88.00	90.00	90.00	85.00	88.00	88.00	80.00	100.00
67	56.00	53.33	63.33	45.00	44.00	56.00	100.00	50.00
68	20.00	20.00	20.00	25.00	24.00	24.00	100.00	0.00
69	16.00	16.67	16.67	20.00	20.00	20.00	80.00	0.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
71	60.00	66.67	56.67	50.00	60.00	48.00	60.00	83.33
72	72.00	76.67	76.67	65.00	72.00	72.00	100.00	83.33
73	20.00	20.00	20.00	25.00	24.00	24.00	80.00	0.00
74	72.00	76.67	76.67	65.00	72.00	72.00	100.00	83.33
75	20.00	20.00	23.33	25.00	24.00	28.00	100.00	0.00
76	40.00	40.00	50.00	50.00	48.00	60.00	80.00	0.00
77	24.00	23.33	26.67	30.00	28.00	32.00	80.00	0.00

Investors (contd)

Sr. No. 1	SDPI (with / without regulatory structure as one of the components)						SOPI	SIPI
	With			Without				
	I	II	III	I	II	III		
	X_4	X_5	X_6	X_1	X_2	X_3	W_1	Y = Z
78	24.00	23.33	26.67	30.00	28.00	32.00	60.00	0.00
79	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
80	100.00	100.00	100.00	100.00	100.00	100.00	80.00	83.33
81	20.00	20.00	23.33	25.00	24.00	28.00	80.00	0.00
82	16.00	16.67	16.67	20.00	20.00	20.00	100.00	0.00
83	24.00	23.33	26.67	30.00	28.00	32.00	60.00	0.00
84	60.00	66.67	56.67	50.00	60.00	48.00	80.00	50.00
85	16.00	16.67	16.67	20.00	20.00	20.00	100.00	0.00
86	84.00	86.67	86.67	80.00	84.00	84.00	100.00	50.00
87	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
88	72.00	76.67	66.67	65.00	72.00	60.00	100.00	83.33
89	20.00	20.00	20.00	25.00	24.00	24.00	100.00	0.00
90	24.00	23.33	26.67	30.00	28.00	32.00	60.00	0.00
91	76.00	70.00	80.00	70.00	64.00	76.00	80.00	83.33
92	100.00	100.00	100.00	100.00	100.00	100.00	100.00	83.33
93	100.00	100.00	100.00	100.00	100.00	100.00	80.00	100.00
94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
95	88.00	90.00	90.00	85.00	88.00	88.00	100.00	100.00
96	84.00	86.67	86.67	80.00	84.00	84.00	100.00	50.00
97	72.00	63.33	76.67	65.00	56.00	72.00	60.00	50.00
98	88.00	90.00	90.00	85.00	88.00	88.00	100.00	83.33
99	64.00	70.00	60.00	55.00	64.00	52.00	60.00	83.33
100	88.00	90.00	90.00	85.00	88.00	88.00	100.00	100.00