Mergers in Indian Banking: An Analysis [*]

M Jayadev
Finance and Control Area
Indian Institute of Management
Bennarghatta Road, Bangalore- 560 076
India
jayadevm@iimb.ernet.in

&

Rudra Sensarma
Birmingham Business School
University of Birmingham
Edgbaston Park Road
Birmingham B15 2TT
UK
rsensarma@gmail.com

[*] The authors are grateful to an anonymous referee for useful comments and suggestions, which have improved the quality of the paper. This paper is part of the research study "Mergers and Acquisitions in PSU Banks" submitted to the Indian Institute of Banking and Finance (IIBF), Mumbai. Financial assistance received from IIBF is gratefully acknowledged. The authors are thankful to the various public and private sector banks for their cooperation in responding to the questionnaire.

Mergers in Indian Banking: An Analysis

Abstract

This paper analyzes some critical issues of consolidation in Indian banking with particular emphasis on the views of two important stake-holders viz. shareholders and managers. First we review the trends in consolidation in global and Indian banking. Then to ascertain the shareholders' views, we conduct an event study analysis of bank stock returns which reveals that in the case of forced mergers, neither the bidder nor the target banks' shareholders have benefited. But in the case of voluntary mergers, the bidder banks' shareholders have gained more than those of the target banks. In spite of absence of any gains to shareholders of bidder banks, a survey of bank managers strongly favours mergers and identifies the critical issues in a successful merger as the valuation of loan portfolio, integration of IT platforms, and issues of human resource management. Finally we support the view of the need for large banks by arguing that imminent challenges to banks such as those posed by full convertibility, Basel-II environment, financial inclusion, and need for large investment banks are the primary factors for driving further consolidation in the banking sector in India and other Asian economies .

JEL Classification: G 21, G34

Key words: *Bank Mergers, Market Valuation of Mergers, Event Study Analysis*

Mergers in Indian Banking: An Analysis

I. Introduction

Globally mergers and acquisitions have become a major way of corporate restructuring and the financial services industry has also experienced merger waves leading to the emergence of very large banks and financial institutions. The key driving force for merger activity is severe competition among firms of the same industry which puts focus on economies of scale, cost efficiency, and profitability. The other factor behind bank mergers is the "too big to fail" principle followed by the authorities. In some countries like Germany, weak banks were forcefully merged to avoid the problem of financial distress arising out of bad loans and erosion of capital funds. Several academic studies (see for example Berger *et.al.* (1999) for an excellent literature review) examine merger related gains in banking and these studies have adopted one of the two following competing approaches. The first approach relates to evaluation of the long term performance resulting from mergers by analyzing the accounting information such as return on assets, operating costs and efficiency ratios. A merger is expected to generate improved performance if the change in accounting-based performance is superior to the changes in the performance of comparable banks that were not involved in merger activity. An alternative approach is to analyze the merger gains in stock price performance of the bidder and the target firms around the announcement event. Here a merger is assumed to create value if the combined value of the bidder and target banks increases on the announcement of the merger and the consequent stock prices reflect potential net present value of acquiring banks.

Our objective here is to present a panoramic view of merger trends in India, to ascertain the perceptions of two important stake-holders viz. shareholders and managers and to discuss dilemmas and other issues on this contemporary topic of Indian banking. We believe that the currently available merger cases do not form a sufficient data set to analyze the performance of mergers based on corporate finance theory because almost all the mergers are through regulatory interventions and market driven mergers are very few. In this paper, the perception of shareholders is ascertained through an event study analysis that documents the impact of bank mergers on market value of equity of both bidder and target banks. The perception of bank managers is ascertained through a questionnaire based survey that brings out several critical issues on bank mergers with insights and directions for the future. Finally, we present arguments on why Indian banks should go for mergers. These arguments are also applicable to other Asian countries which have bank consolidation on their agenda. To the best of our knowledge, this paper is perhaps the first attempt at analyzing a plethora of issues on bank mergers in one place, thus providing useful inputs for researchers as well as policy makers.

This paper is organized as follows. The next section presents a brief review of empirical studies on bank mergers. Section II presents some cross country experience on bank consolidation and also discusses consolidation trends in Indian banking. Adopting standard event study methodology, the impact of both forced and voluntary mergers on shareholder's wealth is analyzed in section IV. Section V analyzes some critical issues in mergers based on the perception of banks by reviewing results from a questionnaire based survey. In section VI, we present arguments in favor of large banks and need for banking consolidation in India and other Asian economies. Finally, section VII concludes the paper.

II. Impact of Mergers: Review of Literature

The two important issues examined by several academic studies relating to bank mergers are: first, the impact of mergers on operating performance and efficiency of banks and second, analysis of the impact of mergers on market value of equity of both bidder and target banks. Berger et.al (1999) provides an excellent literature review on both these issues. Hence in what follows we restrict the discussion to reviewing some of the important studies.

The first issue identified above is the study of post merger accounting profits, operating expenses, and efficiency ratios relative to the pre-merger performance of the banks. Here the merger is assumed to improve performance in terms of profitability by reducing costs or by increasing revenues. Cornett and Tehranian (1992) and Spindit and Tarhan (1992) provided evidence for increase in post-merger operating performance. But the studies of Berger and Humphrey (1992), Piloff (1996) and Berger (1997) do not find any evidence in post-merger operating performance. Berger and Humphrey (1994) reported that most studies that examined pre-merger and post-merger financial ratios found no impact on operating cost and profit ratios. The reasons for the mixed evidence are: the lag between completion of merger process and realization of benefits of mergers, selection of sample and the methods adopted in financing the mergers. Further, financial ratios may be misleading indicators of performance because they do not control for product mix or input prices. On the other hand they may also confuse scale and scope efficiency gains with what is known as X-efficiency gains. Recent studies have explicitly employed frontier X-efficiency methods to determine the X-efficiency benefits of bank mergers. Most of the US based studies concluded that there is considerable potential for cost efficiency benefits from bank mergers (since there exists substantial X-inefficiency in the industry), “but the data show that on an average, such benefits were not realized by the US mergers of the 1980s” (Berger and Humphrey, 1994).

Some studies have also examined the potential benefits and scale economies of mergers. Landerman (2000) explores potential diversification benefits to be had from banks merging with non banking financial service firms. Simulated mergers between US banks and non-bank financial service firms show that diversification of banks into insurance business and securities brokerage are optimal for reducing the probability of bankruptcy for bank holding companies. Wheelock and Wilson (2004) find that expected merger activity in US banking is positively related to management rating, bank size, competitive position and geographical location of banks and negatively related to market concentration. Substantial gains from mergers are expected to come from cost savings owing to economies of scale and scope. In a survey of US studies, Berger and Humphrey (1994) concluded that the consensus view of the recent scale economy literature is that the average cost curve has a relatively flat U-shape with only small banks having the potential for scale efficiency gains and usually the measured economies are relatively small. Studies on scope economies found no evidence of these economies. Based on the literature, Berger and Humphrey (1994) conclude that "synergies in joint products in banking are rather small."

The second issue identified above is the analysis of merger gains in terms of stock price performance of the bidder and target banks on announcement of merger. A merger is expected to create value if the combined value of the bidder and target banks increases on the announcement of the merger. Pilloff and Santomero (1997) conducted a survey of the empirical evidence and reported that most studies fail to find a positive relationship between merger activity and gains in either performance or stockholder wealth. But studies by Baradwaj, Fraser and Furtado (1990), Cornett and Tehranian (1992), Hannan and Wolkan (1989), Hawawini and Swary (1990), Neely (1987), and Trifts and Scanlon (1987) report a positive reaction in the stock prices of target banks and a negative reaction in the stock prices of bidding banks to merger announcements. A recent study on mergers of Malaysian banks shows that, forced mergers have destroyed wealth of acquired banks (Chong *et. al.*, 2006).

Again the reasons for mixed evidence are many. A merger announcement also combines information on financing of the merger. If the merger is financed by equity offerings it may be interpreted as overvaluation of issuer. Hence, the negative announcement returns to bidding firm could be partly attributable to negative signaling unrelated to the value created by the merger (Houston *et. al.*, 2001). Returns to bidder firms' shareholders are significantly greater in bank mergers financed with cash than in mergers financed with stock (Houston and Ryngaert, 1997). The other short coming of event study analysis of abnormal returns is that if a consolidation wave is going on, mergers are largely anticipated by shareholders and stock market analysts. Potential candidates for mergers are highlighted by the financial press and analysts. In such cases event study analysis of abnormal returns may not capture positive gains associated with mergers.

In sum, the international evidence does not provide strong evidence on merger benefits in the banking industry. However it may be useful to note that these findings from the academic literature usually conflict with consultant studies which typically forecast considerable cost savings from mergers. Berger and Humphrey (1994) suggest why most academic studies do not find cost gains from mergers whereas consultants tend to advocate mergers. This is because of the following reasons:

- Consultants focus on potential cost savings which do not always materialize, whereas economists study actual cost savings,
- Consultants tend to highlight specific operations of the banks where there may be merger benefits but ignore those where there are scale diseconomies, whereas economists study overall costs,
- Consultants prescribe potential cost saving practices which are not necessarily implemented, whereas economists study data on banks that implement as well as those who do not implement the cost saving practices,
- Consultants often refer to the successful cases, but ignore the unsuccessful ones, whereas economist study all banks,
- Consultants portray merger benefits as large whereas they may be small in relative terms to the total costs of the consolidated entity. On the other hand, economists employ standard measures from academic literature that do suffer from this limitation.

The academic studies motivate the examination of two important issues relating to mergers in Indian banking. First, do mergers in Indian banking improve operational performance and efficiency of banks? But in India, guided by the central bank, most of the weak banks are being merged with healthy banks in order to avoid financial distress and to protect the interests of depositors. Hence the motivation behind the mergers may not be increase in operating efficiency of banks but to prevent financial distress of weak banks. Hence we do not examine the long term performance and efficiency gains from bank mergers. The other issue emerging from the academic literature is the analysis of abnormal returns of bidder and target banks upon merger announcement by examining the stock price data. We develop testable form of hypotheses for bank mergers in the Indian context as follows: In the case of forced mergers since target firms are given an inducement to accept an acquisition they are expected to earn abnormal returns during the announcement, regardless of the motivation of the acquisition. Hence the expected impact of forced mergers is target banks abnormal returns should be positive. This also supports the safety net motive. Forced mergers are expected to create value for target banks. In the case of voluntary mergers, merger motives are market power, scale economies and cost efficiency. Thus merger announcements are expected to yield abnormal returns to both target and bidder banks as shareholders of both the banks are perceiving benefits out of the merger. Next we conduct a questionnaire survey to ascertain the views of bank managers. Finally we present arguments for why big banks are needed for Indian and other emerging economies. Before that, in the next section we present some consolidation trends in banking.

III. Consolidation Trends

Cross country experience:

The banking systems of many emerging economies are fragmented in terms of the number and size of institutions, ownership patterns, competitiveness, use of modern technology, and other structural features. Most of the Asian banks are family owned whereas in Latin America and Central Europe, banks were historically owned by the government. Some commercial banks in emerging economies are at the cutting edge of technology and financial innovation, but many are struggling with management of credit and liquidity risks. Banking crises in many countries have weakened the financial systems. In this context, the natural alternative emerged was to improve the structure and efficiency of the banking industry through consolidation and mergers among other financial sector reforms.

The motive for consolidation in Central Europe is market driven whereas in many Latin American countries the government has taken up several initiatives to restructure inefficient banking systems. Consolidation has become a vital exercise in Korea and Southeast Asian countries due to serious banking crises. In all these countries different models have been adopted for consolidation. Several research studies have critically analyzed various issues in each consolidation case which serves as a useful lesson for the banks and policymakers who are pursuing the agenda of consolidation. Some of the important studies in this context are: The European Savings Bank Group Report on

European Banking Consolidation (2004), impact of mergers on bank lending relationship in Belgium (Degryse *et. al.*, 2004) and Italy (Sapienza, 2002), Polish banking sector (Havrylchyk, 2004), emerging market economies (Bank of International Settlements, 2001), Hungary's experience with privatization and consolidation (Abel and Sikeos 2004), emerging markets (Gelos and Roldos, 2004), Japan (Brook *et. al.*, 2000, and Tadesse, 2006), and European countries (Boot, 1999).

An ILO study reports that as a consequence of the recent merger wave in the US, the number of banking organizations decreased from 12333 to 7122 during the period 1980 to 1997 (ILO, 2001). In Europe, between 1980 and 1995, the number of banking establishments fell, particularly significantly in Denmark (by 57 per cent) and France (by 43 per cent). The European mergers have so far been mostly domestic, directed at creating domestic behemoths. However, subsequent to the formation of a single financial market under the European Union (EU), consolidation across the EU area has gained momentum and cross border mergers have taken place. The study quotes Jacques Attali, former President of the European Bank for Reconstruction and Development "in 20 years, there will be no more than four or five global firms in each sector. Alongside, there will be millions of small temporary enterprises subcontracted by the large ones". Further, David Komansky, CEO of Merrill Lynch, is cited to have contended that only six to eight global banks will soon be competing on the world's financial markets, with regional entities, notably in Europe and Asia, existing side by side with these big international players.

Indian experience:

Improvement of operational and distribution efficiency of commercial banks has always been an issue for discussion in the Indian policy milieu and Government of India in consultation with Reserve Bank of India (RBI) have, over the years, appointed several committees to suggest structural changes towards this objective. Some important committees among these are the Banking Commissions, 1972 (Chairman: R.G. Saraiya) and 1976 (Chairman: Manubhai Shah), and the Committee for the Functioning of Public Sector Banks, 1978 (Chairman: James S. Raj). All these committees have emphasised on restructuring of the Indian banking system with an aim to improve the credit delivery and also recommended in favour of having three to four large banks at the all India level and the remaining at regional level. However, the thrust on consolidation has emerged with the Narasimham committee (1991) emphasising on convergence and consolidation to make the size of Indian commercial banks comparable with those of globally active banks. Further, the second Narasimham Committee (1998) had also suggested mergers among strong banks, both in the public and private sectors and even with financial institutions and Non-Banking Finance Companies (NBFCs). In what follows, we review some recent trends of consolidation in Indian banking.

Restructuring of weak banks*:* The Government of India has adopted the route of mergers among others with a view to restructure the banking system. Many small and weak banks have been merged with other banks mainly to protect the interests of depositors. These may be classified as forced mergers. When a specific bank shows serious symptoms of sickness such as huge NPAs, erosion in net worth or substantial decline in capital adequacy ratio, RBI imposes moratorium under Section 45(1) of Banking Regulation Act, 1949 for a specific period on the activities of the sick bank. In this moratorium period RBI identifies a strong bank and asks that bank to prepare a scheme of merger. In the merger scheme, normally the acquiring bank takes up all assets and liabilities of the weak bank and ensures payment to all depositors in case they wish to withdraw their claims. Almost all the pre-reform period mergers fall in this category. In the post-reform period, out of twenty one mergers which have taken place so far, thirteen of them have been forced mergers (Table 1). The main thrust of these forced mergers has been protection of depositors' interest of the weak bank.

Insert Table-1 here

Voluntary mergers: There have been a few mergers in Indian banking with expansion, diversification, and overall growth as the primary objectives. The first of its kind in the post 1993 period was the acquisition of Times Bank by HDFC bank subsequently followed by Bank of Madura's acquisition by ICICI Bank. The latest merger of this type is the proposed merger of Lord Krishna Bank with Centurion Bank of Punjab. Of course in almost all these cases the target banks suffer from the problem of low profitability, high NPAs and lack of alternate avenues to increase capital adequacy. Hence the only available option was merger. Though there was no direct regulatory intervention the motive behind these mergers may not necessarily be scale economies and market power. A recent trend is cross border acquisitions by the Indian banks. For example, with a motive to gain an entry in Russia, ICICI Bank has acquired a bank in Russia with a single branch. Similarly, the State Bank of India (SBI) has acquired 51 per cent shareholding in a Mauritian bank, viz. Indian Ocean International Bank Ltd (IOIBL), which will be integrated in with SBI's international business as a subsidiary.

Universal Banking model and Integration of financial services*:* Over a period, several Developmental Financial Institutions (DFIs) have been part of the Indian financial system; these were established with an objective of improving allocation efficiency of resources to various segments of the economy. But due to flexibility provided to banks by the RBI in credit delivery, banks have widened their loan portfolio to project finance, long term loans and other specialized sectoral financing. This made the presence of DFIs redundant. RBI appointed Working Group (RBI, 1998) has recommended universal banking model by exploring the possibility of gainful mergers between different sets of financial entities like banks and financial institutions based on commercial considerations. Accordingly in the private sector, in 2002, ICICI merged with its subsidiary bank, ICICI Bank Limited, and the erstwhile Industrial Development Bank of India has been reincorporated as a public sector commercial bank and acquired private sector bank IDBI Bank in 2004. To provide integrated financial services and to improve efficiency and gain competitive positioning, some public sector banks have acquired their own subsidiaries; the examples in this category are Andhra Bank’s acquisition of its housing finance subsidiary i.e. Andhra Bank Housing Finance Ltd. and Bank of India (BOI)’s takeovers of BOI Finance Ltd. and BOI Asset Management Company Ltd. Similar acquisitions took place in private sector as well.

Alignment of operations of foreign banks with global trends: A few foreign banks operating in India have been restructuring themselves when their parent banks abroad have undergone restructuring process. Examples in this category are formation of Standard Chartered Grindlays Bank as a result of acquisition of ANZ Grindlays bank by Standard Chartered Bank. Similarly, due to merger between two Japanese banks *viz*., Sakura Bank and Sumitomo Bank Ltd., Indian operations of Sakura Bank have been merged with Sumitomo Bank in 2001. The second phase of WTO commitments commencing from April 2009 warrants that, *inter alia*, foreign banks may be permitted to enter into merger and acquisition transactions with any private sector bank in India subject to the overall investment limit of 74 per cent (RBI, 2005). This may lead to further consolidation in the banking sector.

Merger of Cooperatives, RRBs, and UCBs*:* The other small banks present in Indian banking system are co-operative banks, Regional Rural Banks (RRBs)[1] and Urban Cooperative Banks (UCBs). These are meeting the credit requirements of agriculture, small traders and other rural economic activities. Almost all these institutions are crippled with lot of inefficiencies, bad loans and poor recovery of loans. This became barrier for further credit delivery and financial intermediation. The Jagdish Capoor committee recommended, *inter alia*, voluntary amalgamation or mergers of co-operatives based on economies of scale, particularly in areas where they are unviable and are not in a position to ensure uninterrupted credit flow to agriculture (RBI, 2000). Accordingly, in September 2005, 28 RRBs were consolidated into nine new RRBs. Similarly, the High Powered Committee on Urban Co-operative Banks (UCBs) (1999) recommended that the sick UCBs should be liquidated in a time bound manner because continued functioning of a large number of financially weak banks is detrimental to both the growth of UCBs and the interests of the depositors.

[1] RRBs were established in 1975 to widen banking services to rural sector and to intensify finance to agriculture.

Continuing with this trend, more banking mergers are likely to take place in the future, and RBI has taken several new initiatives for bank restructuring including issue of a comprehensive set of guidelines in May 2005.

IV. Mergers: Shareholder's perception

As mentioned before, Indian banking sector has witnessed two types of mergers-forced and voluntary mergers. In the first type i.e. forced mergers initiated by the RBI, the main objective is to protect the interest of depositors of the weak bank. When a bank has shown symptoms of sickness such as huge NPAs, and substantial erosion of net worth, RBI has intervened and merged the weak bank with a strong bank (Table 2). Thus our hypothesis is that in case of forced mergers target bank shareholders would gain abnormal returns on announcement of merger. The second type of mergers is voluntary mergers with the motivation of market dynamics such as increasing size, diversification of portfolio, and exposure to new geographical markets. In all these cases the acquirer banks have gained the advantage of branch network and customer clientele of the acquired banks. As these mergers are voluntary in nature, both bidder and target banks must have perceived benefit out of the mergers. There are twenty one cases of bank mergers during the period 1993 to 2006. Out of this, five mergers are voluntary mergers. These are merger/ amalgamation of a private sector bank with another private sector bank. Another two cases are convergence of financial institutions in to a commercial bank. The objective here is to form a universal bank model which offers a wide range of financial services. We categorize these two mergers also under forced mergers category for the purpose of event study analysis. In the case of forced mergers almost all the target banks here are small private sector banks suffering with problems of capital adequacy, high NPA, and low profitability. We have selected over all six cases of forced mergers for the purpose of event study analysis. In remaining cases the target banks are unlisted banks and the size of target banks are substantially lower than bidder banks hence these cases carry less merit for further analysis of mergers from the shareholder's point of view.

Insert Table-2 here

Event Study Analysis

Numerous academic studies are available on merger announcements and their impact on market valuation of equity or shareholder's wealth but there is hardly any documented evidence for Indian banks. In this study we have analyzed the wealth effects of almost all banking mergers during the period 1999-2006. Only those cases could not be analyzed when the target banks and also the bidder banks are unlisted, hence stock price data was not available. The event study methodology used in our analysis is quite straight forward and conventional (Mackinlay, 1997). To ensure that any information leakage is being captured, the identified merger period includes four days before and four days after the event. The reason for considering such a window is that our objective is to evaluate the impact of the merger on shareholders' wealth around the day of the official announcement. A similar window period has been adopted by Chong *et. al.* (2006). Daily adjusted closing prices of stocks and the market index (Sensex) are obtained from *CMIE Prowess.*

Abnormal returns, that indicate the *additional* impact on stock returns due to an event over and above normal market movements, are computed as follows:

$$AR_{it} = R_{it} - \lfloor \alpha_i + \beta R_{mt} \rfloor - - - - - (1)$$

Where, R_{it} is the daily return on firm 'i' on day't' and R_{mt} is the return on the bench mark index, α and β are OLS regression parameters that are estimated using the market model over the previous period of 150 days. The abnormal returns are computed for both bidder and target banks and the significance of abnormal returns is tested by calculating the Standard Error (SE) and t- values as follows:

$$SE = \frac{\sum_{i=1}^{n} \left(R_{it} - \alpha - \beta R_{mt} \right)^2}{n-2} \qquad and \quad t = \frac{AR_{it}}{\sqrt{SE}}$$

Analysis of Results

In case of forced mergers the shareholders of target banks have not gained any significant abnormal returns on announcement of merger (Table 3). In the case of Nedungadi Bank, the shareholders have gained significantly on the second day of merger announcement but thereafter no abnormal returns were found. Interestingly GTB shareholders have deeply discounted the merger. As the GTB episode was a serious crisis of bank failure the merger has given confidence to depositors but the merger announcement does not appear to have provided relief to shareholders. United Bank shareholders have marginally gained on announcement of merger with IDBI bank but the abnormal returns are not statistically significant. Thus we reject our hypothesis that target bank shareholders welcome mergers and perceive mergers as enhancement of safety net. As expected the shareholders of bidder banks have lost their market value of equity (Table 4). While in the case of acquisition of ICICI Limited by ICICI bank, it has been signaled as emergence of a large size private bank and ICICI Bank shareholder's expectations have gone up with significant increase in abnormal returns. Similarly the acquisition of United Western Bank by IDBI has given the positive signal with abnormal gains to the bidder bank but the gains are statistically significant only third and fourth day following the merger announcement. In all other cases the bidder banks have lost on merger with the weak banks. Especially in the case of acquisition of Global Trust Bank (GTB) by the Oriental Bank of Commerce, the shareholder's wealth of bidder bank has been declined from 8.34 percent to 16.77 percent in the window period following the merger announcement. Thus in all the forced mergers neither the bidder banks nor the target banks have gained on announcement of merger. Further the shareholders of bidder banks have lost their wealth as the merger announcement is perceived as a negative signal. We argue that merger of weak banks with the strong banks are essential for restructuring of banking system and a desirable step in consolidation of financial sector. However in almost all the forced mergers the target banks are identified for merger almost at the collapse of the bank. The acquirer bank at the instruction of RBI has left with no option but to accept the merger proposal. Instead of that we suggest that RBI should activate the Prompt Corrective Action system (PCA) and should identify the weak banks on the basis of certain symptoms. This helps the bidder banks to choose target banks based on strategic issues which may benefit all the parties.

Insert Table 3 and Table 4 here

In the case of voluntary mergers, the gains of target banks are higher than bidder banks (Tables 3 and 4). Both target and bidder bank shareholders benefited on announcement of mergers. Thus the stock markets welcomed the merger which would lead to enhanced growth prospects for the merged entity and therefore shareholders of both banks benefited out of it. In the case of acquisition of Times Bank by HDFC bank both the bank shareholders have viewed it as a positive signal. At the time of merger, Times Bank was suffering with low profitability and high NPAs, the acquisition by HDFC bank has given relief to both shareholders and depositors of the bank. Similarly HDFC bank has gained out of retail portfolio of the Times Bank and subsequently emerged as largest private sector bank in India in 1999. In the case of acquisition of Bank of Madura (BOM) by ICICI bank, BOM gained the opportunity of providing various services like treasury management solutions, cash management services to all of its customers. ICICI Bank increased its size by acquiring BOM and reached the position of a large size bank among the private sector banks way back in 1999. The analysis shows that upon the announcement of this merger, there was a significant rise in abnormal returns leading to increase in value for shareholders of BOM, but the shareholders of ICICI bank did not achieve any gains. This is not surprising because shareholders of a troubled bank stand to gain from a merger with a strong bank whereas the same may not be good news from the perspective of the strong acquiring bank. In the case of amalgamation of Bank of Punjab with Centurion Bank, the amalgamation was an inevitable restructuring for both the banks as both intended to grow but experienced dismal performance. Both the banks came forward to build a growth oriented bank on the basis of each other's strengths. Centurion Bank had activity in western part of India where as Bank of Punjab has activity in northern part of the country. The combined entity's deposits have shown a growth of 20 percent, its advances increased by 41.7 percent and the ROA increased to 0.89 percent[2]. However the event study analysis of stock returns revealed that neither of the banks' shareholders considered the merger as a positive event and the announcement led

[2] The Annual Report 2005-06 of the Bank

to deterioration in shareholders' wealth. It appears that shareholders of both banks would have preferred a merger with a stronger bank and the news of amalgamation with another troubled bank may not have been welcomed by the stock markets.

In sum, results from the event study analysis suggest that neither target bank nor bidder bank share holders have perceived any potential gains on announcement of mergers. Thus shareholders who are an important stakeholder of a banking firm have not considered mergers as a signal of improving health, scale economies and market power of banks.

V. Mergers: Manager's Perception

To ascertain the views and perceptions of Indian banks on mergers and acquisitions we conducted a questionnaire-based survey. The questionnaire was sent to all the public and private sector banks (excluding foreign banks and RRBs) which were in operation as on 31 December 2005, out of 56 banks 28 are public sector banks and the remaining are private sector banks. Eleven banks have responded promptly to the questionnaire and the overall response rate is 20 percent the respondent banks are representing 28 percent of advances and 31 percent of deposits of Indian commercial banks (i.e. excluding foreign banks and RRBs). One third of the public sector banks responded to the questionnaire but the response rate from the private sector banks was only 7 percent. Respondent banks hold 31 percent of bank deposits of India (Figure 1). Merger being a strategic decision, any type of information relating to mergers may have serious implication on valuation and other decisions of banks. This may be the explanation for the poor response rate from private sector banks. The questionnaire was addressed to the Chairman and Managing Director of the banks, but the response is received from the senior executive of Corporate Planning Departments of the respective banks. We summarize here the main findings from the survey.

Merger agenda of Indian banks: Out of the respondent banks, 55 percent are in favour of bank mergers and among the public sector banks, 44 percent reported that they are in favour of mergers. We further identified five possible types of mergers, the first three of which are, merger of two public sector banks, merger of public and private sector banks and merger between two private sector banks. The remaining two types were to ascertain the intentions of commercial banks in providing integrated financial solutions; thus these types are, merging a commercial bank with an NBFC and with any other financial services company. Out of the respondent banks 70 percent have assigned highest priority for merger of two public sector banks, which demonstrates the banking sector's view on the need for consolidation of public sector banks. On the other hand, 40 percent of banks have favoured merger among private sector banks and merger between public and private sector banks as the second most preferred type of merger. Respondent banks have assigned low importance for merger between banks and NBFCs or financial services entities. Thus, low rankings were assigned by majority of respondents for these types of mergers. Here, it may be noted that many public sector banks have already consolidated their financial services by merging their own subsidiaries with parent banks[3].

Our survey raised several questions on important issues at pre and post merger stage (see Table 5, Figures 2 and 3). These are summarised as follows:

Valuation of target bank's loan portfolio*:* More than 70 percent of the respondent banks stated that valuation of loan portfolio of target bank is the main factor to be considered at the time of merger. In credit portfolio management, the exposure and accounting norms suggested by the RBI are the same for all banks which helps in finding out the book value of loans. But, Indian banks have been adopting divergent practices in rating the borrowers, pricing the loans and maintenance of collateral securities. Hence, detailed audit of loan portfolio on the basis of rating, cash flows generated, and collaterals is essential to get an opinion on value of target bank's loan portfolio. Similarly, to find out intrinsic value of loans, estimating the cash flows of loan portfolio is difficult as most of the loans are pegged to PLR and cash flow estimation on a floating rate loan is subject to several assumptions. The other difficulty is selection of an appropriate discount rate. Ideally a discount rate is the risk free rate plus credit risk premium for a specific rating category for a given maturity. Risk free rates are available

[3] For instance, Bank of Baroda and Andhra Bank have absorbed their housing and credit card subsidiaries. Punjab National Bank has absorbed its capital market services subsidiary.

from market prices of the Government securities but there is no standard data on credit risk premiums of loans of various rating categories. Banks may use external credit ratings and corresponding credit spreads announced by FIMMDA[4]. But mapping of external ratings with internal credit ratings is a very complicated task. In India still some loans such as educational loans, loans to exporters and loans to under privileged groups are priced at regulator determined rates so the social cost of this subsidy is to be estimated while valuing the loan portfolio.

Insert Table -5

Valuation of Intangible Assets*:* Valuation of assets of the target bank is a critical factor for the success of consolidation. A bank’s tangible assets are mainly loans and investments apart from other fixed assets like buildings, ATMs, and IT infrastructure. A commercial bank holds a lot of intangible assets such as; core deposit base clientele, safety vault contracts, proprietary computer software, knowledgeable human resources, brands and good will. Deciding the inherent strength of the target bank on the basis of intangible assets is equally important for successful consolidation.

Determination of value of equity*:* Valuation of the target bank’s assets and liabilities and determination of its equity value is an essential aspect of a merger process. Standard text books on valuation (e.g. Damodaran, 1994) discuss three approaches for valuation of any firm, viz. dividend discount model, cash-flow to equity model, and excess return model. However, banking firms are different from other manufacturing firms mainly on three grounds: banks are highly leveraged institutions where more than 90 percent of resources are borrowed funds or debt, capital budgeting or investment decisions in banks are a routine function and vary with high frequency, and banks are highly regulated institutions and regulatory instructions have implications on asset creation and other main operations of a bank. Interest rate volatility, regulatory capital adequacy ratios and

[4] FIMMDA is a self regulatory organization announces Yield curve and credit spreads across various ratings and maturities.

regulatory restrictions on dividend payout ratios have strong influence on projection of earnings growth rate and in turn on valuation of equity of a bank.

Another standard methodology followed in valuation of equity is usage of P-E ratio. Price-earning ratio is the relationship between price per share and earnings per share. P-E ratio is a function of expected growth rate in earnings, payout ratio and cost of equity. But variables like provisions for bad loans which differ from bank to bank due to differences in credit risk will have impact on profits and P-E ratios. Since banks are dealing with a variety of financial services, the asset portfolios are differing from one bank to the other. For example, one bank may be focusing more on retail lending and another may be exposed to corporate lending. The risk-return characteristics of portfolios of these two banks are different and it is difficult to compare earnings and price-multiples of these two banks. Ideally, banks have to consider business wise P-E ratio and multiply it with earnings of each portfolio to arrive at the value of equity. But availability of data on business portfolio wise P-E ratio is difficult as far as Indian market is concerned.

Human Resource Issues*:* Out of the respondent banks, 90 percent of banks have rated that human resource function is the most complicated Organisational issue in mergers. Human resource (HR) management issues like reward strategy, service conditions, employee relations, compensation and benefit plans, pension provisions, law suits and trade union actions are critical to the viability for the deal and merger plan. Training and development initiatives can play an important role during the period between announcement, closure, and at the post amalgamation stage. Organisations have to create such open spaces, where employees have the opportunity to discuss their personal concerns and to work out how they might need to adjust. Change management sessions also help employees in understanding how individuals and organisations typically react to change. People become committed to a merger when they believe it is built on a sound strategy and it offers personal benefits in terms of financial incentives and in cornering opportunities. It should meet their emotional needs as well. It is always advisable to attend to the human resource decisions very quickly, say within 100 days of merger announcement in order to avoid uncertainty which would lead to employee morale erosion and the exit of key talent. All the HR issues such as selection, retention, and promotion opportunities are need to be effectively communicated to staff, emphasizing the degree of transparency and fairness in order to establish credibility. In the cases of voluntary mergers like ‘Times bank’ and ‘Bank of Madura’, the acquired banks have guaranteed employment to all the employees and minimized the scope for conflicts.

Cultural Issues*:* Another critical issue in pre and post merger period is culture. Culture is central to the institutional environment in which people have to work. Cultural friction is a difficult condition to analyze because it is ‘Poly-symptomatic’, revealing itself in diverse problems such as poor productivity, wrangles among the top team, high turnover rates, delays in integration and an overall failure to realize the synergies of the deal (Devine, 2003). Cultural issues are crucial in any merger or acquisition that depends on collaboration for its success, which they increasingly do in any economy. Both parties have to commit for cultural audit as a component of due diligence process. This can help both businesses understand each other’s cultures and gain a sense of the cultural traits that they hope to either preserve on or after the merger. Cultural Integration is an essential pre-requisite for a successful merger, where two banks aim to take the “Best of Both” and create a new culture. (Devine, 2003).

Integration of Information Technology*:* Modern commercial banking is highly Information Technology dependent (IT). IT is not a process driven necessity alone but a key strategic issue. According to McKinsey as quoted in Walter (2004) , 30 to 50 percent of all bank merger synergies depend directly on Information Technology In India, around 65 percent of branches are fully automated and only 12 percent of branches are offering core banking solutions (RBI, 2005). Divergent IT platforms and software systems have proven to be important constraints in consolidation. IT people tend to take proprietary interest in their systems created over the years and they tend to be emotionally as well intellectually attached to their past achievements. Often conflicts may arise about superiority of one IT infrastructure over the other. Successful IT integration is essential to generate a wide range of positive outcomes that support the underlying merger rationale. The main issues are alignment of existing IT configuration to support the business strategy of the combined entity, and robustness of IT systems to digest a new transformation process. The other issues are making the systems user friendly, system reliability and free from operational risk.

Customer retention*:* Though customers are important stakeholders of a bank, they are always out of discussions on merger issues. Customers should be communicated properly about the merger and customers of acquired bank should be attended more carefully. This is also important in the context of relationship lending of the acquired bank especially in the case of small and medium enterprises (SMEs). The empirical evidence shows that firms borrowing from target banks are likely to loose their lending relationships on the event of merger (Degryse *et. al.*, 2004).

Perceived benefits of mergers*:* Theoretically, mergers provide multiple advantages to banks in addition to some identified benefits for customers. The size and nature of markets in which banks are operating are the prime determinants of benefits of mergers. Divergent views emerged on merger benefits perceived by Indian banks (Table 6). 45 percent of banks have assigned top priority to the belief that mergers will bring reduction in operating costs and 27 percent indicated improvement in shareholder wealth as the most important benefit. Research studies on mergers conducted in other countries also documented little evidence on improvement in shareholder's wealth through mergers.

Insert Table- 6 here

The second most perceived benefit of merger is access to new markets. This is more evident from voluntary mergers such as merger between Centurion Bank and New Bank of Punjab. Significant number of banks have assigned modest ranking to benefits like reduction in cost of funds, diversification of loan portfolio and expansion of range of services available to the public. Majority of the banks have assigned lowest priority to the fact that mergers may bring improvement in employee incentives and extension of career opportunities. This pessimism regarding benefits to employees once again highlights the importance of managing human resources during mergers as discussed before.

VI. Why Banks in India and Other Asian Countries should go for Mergers?

Mergers are driven by a complex set of motives and no single reason may offer full explanation. Following Brealey and Myers (2000), the reasons for mergers may be categorized into those that enhance shareholder value ('sensible reasons') and those that do not ('dubious reasons'). Shareholder value may be enhanced through expansion of operations leading to increased market share and cost savings through economies of scale or by cross selling of products and utilizing complementary resources i.e. economies of scope or synergy. The substantial portion of extant empirical literature both on scale economies and share holder's wealth is not in favor of mergers. However in the context of India and for other Asian economies large size banks are desirable to meet several current and forthcoming challenges of the economy. We discuss some of these here.

High Competitive Pressure: With the entry of new private and foreign banks in Indian banking, the domestic banks have been facing the pressure of competition. The evidence of competitive pressure is well supported with the declining trend of the Herfindahl Index. The value of the Index has reduced from 7.00 to 6.30 over the last ten-year period (Table 7). Reduction in the Index suggests that Indian banks have been encountering high competitive pressure and this may hamper their profitability and operational efficiency. This is one reason why consolidation could be an imperative for Indian banks.

Insert Table-7 here

Capital Account Convertibility: In the state of full convertibility of rupee, flow of short term capital funds increases and a strong domestic financial system resilient enough to cope with inflows and outflows is needed. Huge inflow of funds may lead to funding of high risk projects and in the absence of effective risk management and credit monitoring, banks' asset portfolios would become risky and lead to excessive risk taking. Only those banks with large size may have the capacity to absorb eventualities that are likely to arise out of excessive risk taking. Moreover, foreign banks may enjoy greater competitive advantage in borrowing more short term funds from off-shore markets. This may give greater disadvantage to domestic banks. Excessive borrowing by domestic banks from off-shore markets will expose these banks to additional risks of price volatility and maturity mismatches. Only stronger banks would be in a position to mitigate these risks and weak banks may be left out of the benefits of inflows. A possible long term solution is evolvement of large and strong banks through consolidation.

Capital Adequacy Norms*:* As per the prudential capital adequacy norms every asset in the balance sheet is funded by both deposits and capital funds. Hence higher capital adequacy ratio of a bank indicates its potential for growth, financial solvency, and ensures confidence for depositors. Capital deficient banks are constrained from growing unless they augment the capital resources; the available alternative is to go for a merger with a bank of stronger capital base. In the case of forced mergers (e.g. the cases of Global Trust Bank and United Western Bank) the capital funds of the merged banks had been substantially eroded before the merger. Several old private sector and a few public sector banks have been showing the symptom of deficiency in capital funds and these could be the right candidates for mergers.

Common Asian Currency: There has been resurgence in the debate over the formation of an Asian Monetary Fund and the adoption of an Asian Currency Unit similar to Euro in the European Monetary Union (Reddy, 2005). The emergence of a common currency leads to elimination of geographical fragmentation associated with the existence of separate national currencies. A common Asian currency would create a single market for financial services and eliminate exchange rate risk within the Asian zone. In the state of single currency zone, markets may grow in size. Size produces a competitive advantage for banking industry and Investment banks will have the advantage of access to opportunities from those growing markets, and large size banks would be needed to exploit potential advantages from expansion and consolidation of Asian markets.

Basel II and Relative Advantage: The agenda before banks across the globe is implementation of Basel II norms for estimation of capital requirements. The new Basel Accord emphasizes on adoption of Internal Ratings Based Approach (IRB) for estimation of capital requirements against the current practice of standardized approach. Banks that follow IRB approach to estimate their capital requirements get the benefit of risk sensitive capital requirements which may be lower than capital requirements estimated by the standardized approach. Large banks which have robust risk management systems may prefer to go for IRB approach considering its benefits, and the other banks may settle with standardized approach. In such a scenario, banks which are enjoying the benefit of having excess capital may acquire the smaller banks. Thus to achieve the benefit of low capital requirements, small size banks would be required to consolidate themselves to become large. In line with this, RBI (2001) observed that, the new Basel Accord, when implemented, is expected to have far-reaching implications such as further consolidation through mergers and acquisitions.

Financial Inclusion: Financial inclusion implies bringing the low income and disadvantaged groups under the coverage of banking by providing them access to banking services at affordable cost. According to Leeladhar (2005), as banking services are in the nature of public good, public policy should aim towards providing banking and payment services to the entire population without discrimination. Keeping vast sections of the population outside the ambit of banking services construes financial exclusion whose consequences vary depending on the nature and extent of services denied. In India, the branches of commercial banks have shown significant increase in the last thirty years, however, the ratio of deposit accounts to the total adult population was only 59 percent (Leeladhar, 2005). In fact, there is a wide variation across states within India. For instance, this ratio is as high as 89 percent for Kerala while it is quite low at 33 percent for Bihar. This is even lower in the North Eastern States like Nagaland and Manipur, where the ratio was only 21 percent and 27 percent respectively. As indicated by these ratios, the coverage of Indian financial services is quite low as compared with the developed world. The objective of financial inclusion can be achieved if banks are directed to focus on unexplored markets instead of competing only in the existing markets. Consolidation may facilitate geographical diversification and penetration towards new markets.

One of the arguments cited against consolidation is that it may result in rationalization of branch network and retrenchment of staff. However, rationalization may lead to closure of branches in over banked centers and opening of new branches in under banked centers where staff can be repositioned. Dymski (2005) notes that mergers lead to the creation of big banks which are usually expected to create standardized, mass-market financial products. The merging banks would also try to extend their marketing reach and enhance their customer-base. However one must take note of the pitfalls. Not all new customers may be treated in the same way even by the big banks. Indeed, Dymski (1999) showed that one consequence of the merger wave in US banking has been that loan approvals for racial minorities and low income applicants have fallen and the extent of this decline is more severe for large banks. This led Dymski to offer the following policy prescriptions; that mergers should be approved conditional upon the less disadvantaged population being unaffected by the process and that approvals should be linked to specific plans offered by acquirers to mitigate the extent of financial exclusion. Thus if the regulatory policies are framed judiciously, consolidation may be able to address the broader objective of financial inclusion that is most severe in a developing country such as India.

Penetration to SME sector lending*:* The common criticism against consolidation is that consolidation will have an adverse effect on supply of credit to small businesses particularly those depend on bank credit. But it is perceived that the transaction costs and risks associated with financing of these sectors are very high for small banks to manage such high risk loan portfolio. Large and consolidated banks can mitigate the costs better and penetrate through lending into these sectors.

Shift towards Investment banking activity: India and other emerging markets are targeting a double digit macroeconomic growth in the coming years and this may boost capital market activity. Many companies will depend on domestic and off shore capital markets both for their short term and long term fund requirements. This may increase the role of investment banking against the current trend of retail and commercial banking. Investment banking activity is based on huge investment of fixed cost (or sunk cost), whereas retail banking is associated with competition based on variable costs. Gual

(1999), using concepts introduced by Sutton (1991), distinguishes between competition based on variable costs and competition based on sunk costs. In terms of the variable costs model, financial institutions compete in areas such as price and service. In this case, a bigger volume of activity results in an increase in variable costs. On the contrary, the model based on sunk costs assumes that banks compete with fixed investments and sunk costs in order to penetrate a market. If competition is based on variable costs, the scale of banks is not decisive for their efficiency once a certain minimum scale has been reached. But under the model based on sunk costs, scale can become decisive. Hence to explore investment banking activity (i.e. based on sunk costs), large size banks would be required.

Monetary Policy Transmission: The credit view of monetary policy assures that there are imperfections in financial markets which increase the price of bank loans and lower the availability of bank credit (Bernanke and Gertler, 1995; Taylor, 2000). The credit view considers two channels through which monetary policy affects the real economy. First is the 'balance sheet channel', which works through the balance sheets of potential borrowers. A monetary policy tightening by increasing the interest rate deteriorates the net worth position and credit worthiness of the private sector, prompting banks to raise the price of bank loans. The second is the 'bank lending channel' that focuses on the asset side of the balance sheet of banks, especially on the supply of bank credit. Monetary tightening by draining the liquidity position of banks forces some banks to diminish their supply of credit. Empirical research (see Kishan and Opiela, 2000; Pandit *et. al.*, 2006) shows that large size banks are more capable than others to offset shocks arising out of monetary policy induced decrease in deposits or increase in cost of funds, because they can fund borrowings (other than deposits) more easily. These findings highlight the need for forming large banks through consolidation.

VI. Conclusions

This paper attempted to provide an analysis of on going merger trends in Indian banking from the view point of two important stakeholders of a banking firm- stock holders and managers. The trend of consolidation in Indian banking industry has so far been limited mainly to restructuring of weak banks and harmonization of banks and financial institutions. Voluntary mergers demonstrating market dynamics are very few. We strongly support the view that Indian financial system requires very large banks to absorb various risks emanating from operating in domestic and global environments. We argue that the challenges of free convertibility, Basel-II environment, widening of financial services activity, and need for large investment banks are the prime drivers of future consolidation. More voluntary mergers are possible provided the benefits of mergers are derived by all the stakeholders of the banks. Currently the forced mergers may be protecting the interests of depositors but shareholders of both bidder and target banks are not perceived the benefits of merger. The event study analysis results show that both bidder and target banks' market value of equity has been reduced on the immediate announcement of mergers. In the case of voluntary mergers the results are mixed. Our survey shows that bank managements are strongly in favour mergers. However they opine that there are several critical issues which are to be handled carefully to make a merger successful. These are valuation of target bank loan portfolio, valuation of equity, integration of IT platforms, and issues of human resource management. Banks are optimistic about realizing the merger gains such as exploration of new markets and reduction in operating expenses.

Based on these results, on the policy side we suggest that RBI should activate the Prompt Corrective Mechanism which helps in identifying the sick banks and the timing of the merger may be advanced to avoid total collapse of the bank. This will also help the bidder banks to formulate appropriate strategies which may mitigate the dilution in market value of equity consequent upon merger. To ensure the availability of financial services to all segments of the population, RBI should approve voluntary mergers conditional upon the disadvantaged segments being unaffected by the process and approval should be linked to specific plans offered by the acquirers to mitigate the extent of financial exclusion. The ongoing consolidation trends in Indian banking raise some important questions. Is it fair and desirable on the part of RBI to merge the weak banks with well performing banks which destroys the wealth of bidder banks? Being a majority shareholder, the Government of India appears to be ignoring the interest of minority shareholders. This is a serious concern of corporate governance. In the case of two forced mergers, *viz.* GTB with OBC and Bharat Overseas Bank with Indian Overseas Bank, the share prices of these two acquired banks have not shown any significant increase even after a substantial time gap from the merger.

In the post reform period almost all the public sector banks have improved their performance in terms profitability, low NPAs and raised fresh equity from the capital markets at a good premium. Forced mergers may be detrimental to the further growth of these banks. Dilution of Government ownership may be a prerequisite to improve operational freedom and to devise performance linked incentives for public sector employees, which are essential to tackle the post- merger problems arising out of forced mergers. Another issue which is completely ignored is impact of consolidation on customers, especially small borrowers who are dependent on the banking channel. The other consolidation model which is simultaneously in progress is operational consolidation among banks. The largest public sector bank State Bank of India is being operationally integrated with its subsidiaries in providing various banking services. Above all we firmly believe that certain corporate governance issues are to be solved on a priority basis before implementation of merger agenda.

References:

1. Abel Istvan and Siklos Pierre L.(2004) Secrets to the Successful Hungarian Bank Privatization: The Benefits of Foreign Ownership through Strategic Partnerships, *Economic Systems*, 28(2): 111 – 123.
2. Bank for International Settlements. (2001) The Banking Industry in the Emerging Market Economies: Competition, Consolidation, and Systematic Stability, *BIS Papers* No. 4.
3. Baradwaj B, Fraser D, and Furtado E. (1990) Hostile Bank Takeover Offers: Analysis and Implications, *Journal of Banking and Finance*, 14(6): 1229-1242.
4. Berger AN and Humphrey D(1994) Bank Scale Economics, Mergers, Concentration, and Efficiency: The U. S. Experience, Center for Financial institutions *Working Papers* 94 – 25, Wharton School Center for Financial Institutions, University of Pennsylvania.
5. Berger AN, Demetz RS, Strahan PE (1999) The Consolidation of the Financial Services Industry: Causes, Consequences and Implications for the Future, *Journal of Banking and Finance,* 23: 135-194.
6. Berger, AN and Humphrey D. (1992) Mega Mergers in Banking and the Use of Cost Efficiency as an Anti Trust Defense" *The Anti Trust Bulletin*, 37: 541-600.
7. Berger, AN. (1997) The Efficiency Effects of Bank Mergers and Acquisitions: A Preliminary Look at the 1990's data. In Arnihud Y, Miller G (Eds), Mergers of Financial Institutions. Business One-Irwin, Homewood, IL.
8. Bernanke, B. and Gertler, M. (1995) Inside the Black Box: The Credit Channel of Monetary Policy Transmission, *Journal of Economic Perspectives,* 9(4): 27– 48.
9. Boot, Arnoud W. A. (1999) European Lessons on Consolidation in Banking *Journal of Banking and Finance,* 23: 609 – 663.
10. Brealey, R.A and Myers SC. (2000) *Principles of Corporate Finance,* 6th Edition, New Delhi: Tata McGraw-Hill.
11. Brook, Y. Hendershott, Robert J. and Lee, Darrell. (2000) Corporate Governance and Recent Consolidation in the Banking Industry, J*ournal of Corporate Finance*, 6: 141– 164.

12. Chong, Beng-Soon, Ming-Hua Liu and Kok-Huai Tan. (2006) The Wealth Effect of Forced Bank Mergers and Cronyism, *Journal of Banking and Finance*, 30: 3215-3233.
13. Cornett MM Teharnian H. (1992) Changes in Corporate Performance Associated with Bank Acquisitions, *Journal of Financial Economics*, 31: 211-234
14. Damodaran A. (1994) *Damodaran on Valuation: Security Analysis for Investment and Corporate Finance*, New York: John Wiley and Sons
15. Degryse Hans, Nancy Masschelein and Janet Mitchell. (2004) SMEs and Bank Lending Relationships: The Impact of Mergers, National Bank of Belgium, *Working Papers* No. 46.
16. Devine, Marion (2003) *Successful Mergers: Getting the People Issues Right*, London: The Economist.
17. Dymski, G. A. (1999) *The Bank Merger Wave: The Economic Causes and Social Consequences of Financial Consolidation* .Armonk, NY: M.E. Sharpe.
18. Dymski, G. A. (2005) Financial Globalization, Social Exclusion and Financial Crisis, *International Review of Applied Economics*, 19(4): 439-457.
19. European Savings Banks Group (2004) European Banking Consolidation: A Condensed Analysis of the Retail Banking Market and the position of the European Savings Banks Group, December.
20. Gelos R. G. and Roldos J. (2004) Consolidation and Market Structure in Emerging Market Banking Systems, *Emerging Markets Review*, 5(1), 39 – 59.
21. Gual J. (1999) Deregulation, Integration and Market Structure in European Banking, CEPR, Discussion Paper No. 2288, (CEPR, London).
22. Hannan, T and Wolken, J (1989) Returns to Bidders and Targets in Acquisition Process: Evidence from the Banking Industry, *Journal of Financial Services Research*, 8: 145-156.
23. Havrylchyk, O. (2004) Consolidation of the Polish Banking Sector: Consequences for the Banking Institutions and the Public, *Economic Systems* 28(2): 125 – 140.
24. Hawawani G, Swary I. (1990) *Merger and Acquisitions in the US Banking Industry, Evidence from the Capital Markets*, Amsterdam: North-Holland.

25. Houston J F and Ryngaert M.D.(1997) Equity Issuance and Adverse Selection: A directed Test using Condition Stock Offers, *The Journal of Finance*, 52(1): 197-219.
26. Houston JF and James CM and Ryngaert M.D. (2001) Where do Merger Gains Come from? Bank Mergers from the perspective of insiders and outsiders, *Journal of Financial Economics*, 60, 285-293.
27. International Labour Organization. (2001). The Employment Impact of Mergers and Acquisitions in the Banking and Financial Services Sector. Report for discussion at the Tripartite Meeting on the Employment Impact of Mergers and Acquisitions in the Banking and Financial Services Sector, Geneva, 5-9 February.
28. Kishan R.P. and Opiela TP.(2000) Bank Size, Bank Capital, and the Bank Lending Channel, *Journal of Money, Credit and Banking*, 32(1): 121 – 41.
29. Landerman, E. S. (2000) The potential diversification and failure reduction benefits of bank expansion into non-banking activities, *Working Papers in Applied Economic Theory* 2000-01, Federal Reserve Bank of San Francisco.
30. Leeladhar, V. (2005) Taking Banking Services to the Common Man- Financial Inclusion, Lecture Delivered at Fed bank Hormis Memorial Foundation, December 2.
31. Mackinlay Craig A. (1997) Event Studies in Economics and Finance, *Journal of Economic Literature*, 35 (1): 13-39.
32. Mohan, Rakesh. (2005) Reforms, Productivity, and Efficiency in Banking: The Indian Experience, Speech Delivered at 21st Annual General Meeting and Conference of Pakistan Society of Development Economists, Islamabad.
33. Narasimham, M. (1991) Report of the Committee on the Financial System, Government of India.
34. Narasimham, M. (1998) Report of the Committee on Banking Sector Reforms, Government of India.
35. Neely W. (1987) Banking Acquisitions: Acquirer and Target Shareholder Returns, *Financial Management*, 16:66-73

36. Pandit B.L., Mittal A, Roy M and Ghosh S, (2006) Transmission of Monetary Policy and the Bank Lending Channel: Analysis and Evidence for India, DRG Study No. 25, RBI, Mumbai.
37. Pilloff Steven J. (1996) Performance Changes and Shareholder Wealth Creation Assocaited with Mergers of Publicly Traded Banking Institutions", *Journal of Money Credit and Banking*, 28(2), 294-310.
38. Pilloff, S.J. and A.M. Santomero. (1997) The Value Effect of Bank Mergers and Acquisitions, *Working Paper*, No. 97 (7), The Wharton Financial Institutions Centre, October.
39. Reddy, Y.V. (2005) Monetary Co-operation in Asia, Speech by Governor, Reserve Bank of India at the IMF – MAS High-Level Seminar on Asian Integration held on September 3, 2005 at Singapore.
40. Reserve Bank of India. (1999) Report of the High Powered Committee on Urban Cooperative Banks
41. Reserve Bank of India. (1999) Report of the Working Group for Harmonizing the Role and Operations DFIs and Banks, Mumbai.
42. Reserve Bank of India. (2000) Report on Trend and Progress of Banking in India, 1999-2000.
43. Reserve Bank of India. (2001) Report on Trend and Progress of Banking in India, 2000-01.
44. Reserve Bank of India. (2005) Report on Trend and Progress of Banking in India, 2004–05.
45. Sapienza Paola. (2002) The Effects of Banking Mergers on Loan Contracts, The Journal of Finance, 57 (1): 329 – 367.
46. Spindt PA and Tarhan V (1992) Are there Synergies in Bank Mergers?, Tulane University Working Paper
47. Sutton, J. (1991) *Sunk Costs and Market Structure*, Cambridge MA: MIT Press.
48. Tadesse Solomon. (2006) Consolidation, Scale Economics and Technical change in Japanese Banking, *International Financial Markets, Institutions and Money*, 16(5): 425-445

49. Taylor, John B., (2000) Alternative Views of the Monetary Transmission Mechanism: What Difference Do They Make for Monetary Policy? *Oxford Review of Economic Policy*, 16(4): 60-73.
50. Walter, I. (2004). *Mergers and Acquisitions in Banking and Finance: What Works, What Fails, and Why*. London: Oxford University Press.
51. Wheelock, David C, Wilson, Paul W. (2004) Consolidation in US Banking: Which Banks Engage in Mergers? *Review of Financial Economics*, 13(1-2): 7-39.

Table 1: Bank Mergers in India

Period	Number of Mergers
Pre-nationalization of banks (1961-1968)	46
Nationalization period (1969-1992)	13
Post-reform period (1993-2006) • Forced Mergers 13 • Voluntary Mergers 5 • Convergence of Financial Institutions in to Banks 2 • Other Regulatory Compulsions 1	21
Total number of mergers	**80**

(Source: Compiled from various publications of RBI)

Table 2: Bank Mergers in the post-reform period

Merger year	Target bank	Acquirer (or bidders)	Motive
1993	New Bank of India	Punjab National Bank	Restructuring of weak bank- forced merger
1994	Bank of Karad Ltd	Bank of India	Restructuring of weak bank- forced merger
1995	Kashinath Seth Bank	State Bank of India	Restructuring of weak bank- forced merger
1996	Punjab Co-op Bank Ltd	Oriental Bank of Commerce	Restructuring of weak bank- forced merger
1997	Bari Doab Bank Ltd	Oriental Bank of Commerce	Restructuring of weak bank- forced merger
1999	Bareilly Corp Bank Ltd	Bank of Baroda	Restructuring of weak bank- forced merger
1999	Sikkim Bank Ltd	Union Bank of India	Restructuring of weak bank- forced merger
2000	Times Bank Ltd	HDFC Bank Ltd	Voluntary merger
2001	Bank of Madura	ICICI Bank	Voluntary merger
2002	ICICI Limited	ICICI Bank	Universal banking objective, merger of financial institution with bank
2002	Benaras State Bank Ltd	Bank of Baroda	Restructuring of weak bank- forced merger
2003	Nedungadi Bank Ltd	Punjab National Bank	Restructuring of weak bank- forced merger
2004	IDBI Bank Limited	Industrial Development Bank of India	Universal banking objective, merger of bank with another bank(erstwhile FI)
2004	South Gujarat Local Area Bank	Bank of Baroda	Restructuring of weak bank- forced merger
2004	Global Trust Bank Ltd	Oriental Bank of Commerce	Restructuring of weak bank- forced merger
2005	Centurion Bank	Bank of Punjab	Voluntary merger
2006	Ganesh Bank of Kurandwad	Federal Bank	Restructuring of weak bank- forced merger
2006	United Western Bank	Industrial Development Bank of India	Restructuring of weak bank- forced merger
2006	Lord Krishna Bank	Centurion Bank of Punjab	Expansion of size-voluntary merger
2006	Sangli bank	ICICI Bank	Voluntary merger
2007	Bharat Overseas Bank	Indian Overseas Bank	Regulatory Intervention

Table 3: Abnormal Returns of Target Banks

This table depicts the abnormal returns of target banks during the window period (-4,4) and line below the abnormal returns indicates t values corresponding to abnormal returns. t-value greater than 1.96 is significant at 5% level and grater than 2.58 is significant at 1% level

	-4	-3	-2	-1	0	1	2	3	4
Voluntary Mergers									
Times Bank	-1.41%	1.16%	0.89%	-3.43%	21.09%	-1.18%	-1.42%	9.14%	-0.11%
	-0.44	*0.36*	*0.28*	*-1.07*	*6.59*	*-0.37*	*-0.44*	*2.86*	*-0.03*
Bank of Madura	7.97%	7.79%	7.74%	7.76%	7.91%	7.88%	7.90%	8.02%	8.05%
	1.98	1.93	1.92	1.92	1.96	1.95	1.96	1.99	1.99
Bank of Punjab	-0.67%	7.01%	0.00%	-0.40%	-8.85%	0.00%	-1.39%	0.15%	1.50%
	-0.18	1.87	0.00	-0.11	-2.36	0.00	-0.37	0.04	0.40
Forced Mergers									
ICICI Limited	-0.54%	5.78%	8.74%	4.95%	-9.20%	2.26%	-3.09%	1.47%	-0.98%
	-0.18	1.87	2.83	1.60	-2.98	0.73	-1.00	0.48	-0.32
Nedugundi Bank	-4.83%	-11.04%	0.88%	0.49%	-1.09%	3.43%	14.79%	-22.67%	-22.56%
	-1.24	-2.82	0.22	0.13	-0.28	0.88	3.78	-5.79	-5.77
IDBI Bank	1.54%	-3.37%	-1.08%	-5.08%	0.07%	0.75%	1.58%	-2.25%	-0.44%
	0.52	-1.13	-0.36	-1.70	0.02	0.25	0.53	-0.76	-0.15
Global Trust Bank	-3.19%	1.91%	-0.64%	-23.07%	-112.79%	-32.26%	-1.35%	1.95%	12.05%
	-0.67	0.40	-0.13	-4.81	-23.51	-6.72	-0.28	0.41	2.51
United Western Bank	3.11%	0.82%	-1.00%	0.08%	2.69%	0.46%	-0.05%	0.39%	0.14%
	0.72	0.19	-0.23	0.02	0.63	0.11	-0.01	0.09	0.03

Table 4 : Abnormal Returns of Bidder Banks

This table depicts the abnormal returns of bidder banks during the window period (-4,4) and line below the abnormal returns indicates t values corresponding to abnormal returns. t-value greater than 1.96 is significant at 5% level and grater than 2.58 is significant at 1% level

	-4	-3	-2	-1	0	1	2	3	4
Voluntary Mergers									
HDFC Bank	0.02%	3.14%	-4.21%	-1.08%	8.34%	8.89%	7.97%	5.33%	6.17%
	0.01	*1.23*	*-1.65*	*-0.42*	***3.27***	***3.49***	***3.13***	*2.09*	*2.42*
ICICI Bank acquired Bank of Madura	-0.02%	3.22%	0.84%	11.40%	-3.28%	-3.08%	-0.95%	-0.49%	1.60%
	0.00	*0.83*	*0.22*	***2.93***	*-0.84*	*-0.79*	*-0.24*	*-0.13*	*0.41*
Centurion Bank	-0.85%	-0.26%	0.84%	0.92%	-6.48%	-2.24%	1.67%	-0.15%	1.06%
	-0.27	*-0.08*	*0.27*	*0.29*	*-2.06*	*-0.71*	*0.53*	*-0.05*	*0.34*
Forced Mergers									
ICICI Bank acquired ICICI	2.15%	6.37%	6.45%	3.54%	8.45%	0.13%	-4.98%	1.50%	1.19%
	0.57	*1.70*	*1.72*	*0.94*	*2.25*	*0.03*	*-1.33*	*0.40*	*0.32*
Oriental Bank of Commerce	0.50%	-0.59%	-1.63%	-0.16%	-6.46%	-1.88%	-2.23%	-2.95%	-1.38%
	0.18	*-0.21*	*-0.58*	*-0.06*	*-2.30*	*-0.67*	*-0.79*	*-1.05*	*-0.49*
Federal Bank	-1.03%	3.44%	-1.80%	0.36%	-0.30%	-0.61%	-0.88%	-0.32%	2.37%
	-0.48	*1.59*	*-0.83*	*0.17*	*-0.14*	*-0.28*	*-0.41*	*-0.15*	*1.10*
PNB	0.38%	-0.55%	-1.33%	-2.05%	-0.17%	0.08%	-2.25%	-0.90%	-1.59%
	0.18	*-0.25*	*-0.61*	*-0.94*	*-0.08*	*0.04*	*-1.04*	*-0.41*	*-0.73*
IDBI acquired IDBI Bank	2.22%	4.98%	-1.68%	-3.62%	-3.69%	-1.72%	0.38%	1.42%	-2.69%
	0.40	*0.89*	*-0.30*	*-0.64*	*-0.66*	*-0.31*	*0.07*	*0.25*	*-0.48*
IDBI acquired United Western Bank	2.60%	-1.17%	5.90%	3.84%	-2.95%	0.09%	2.16%	8.56%	4.26%
	1.03	*-0.46*	*2.33*	*1.51*	*-1.16*	*0.03*	*0.85*	*3.38*	*1.68*

Table 5: Important Post-Merger Issues (Figures in %)

	Ranking Order				
	1	**2**	**3**	**4**	**5**
Organisational culture	20	20	10	50	0
Managing human resources	50	40	10	0	0
Customer relationship	0	30	10	40	20
Integration of branches and IT network	20	0	70	0	0

Table 6: Perceived Benefits of Mergers (Figures number of banks)

	Ranking Order								
Perceived Benefits	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Minimization of operating costs	5	1	1	2	1	0	1	0	11
Access to new markets	2	6	1	2	0	0	0	0	11
Access to better sites for branch offices	0	1	1	2	0	2	3	2	11
Reduction in cost of funds	0	0	3	2	2	3	0	1	11
Diversification of loan portfolio	0	1	2	1	5	1	1	0	11
An expansion in the range of services made available to the public	1		3	1	3	2	1	0	11
Improvement in shareholders' wealth	3	2		1		3	1	1	11
Better pay, incentives and wider career opportunities for employees	0	0	0	0	0	0	4	7	11

Table 7: Herfindhal Index of Indian Banks

Year	Deposits	Credit
1992	8.10	10.40
1993	7.60	10.10
1994	7.40	8.60
1995	7.00	7.90
1996	6.90	7.80
1997	6.70	7.30
1998	6.60	7.40
1999	7.10	7.20
2000	6.90	6.90
2001	7.30	6.70
2002	7.10	6.00
2003	6.90	6.00
2004	6.30	5.80

(Source: Mohan, 2005)

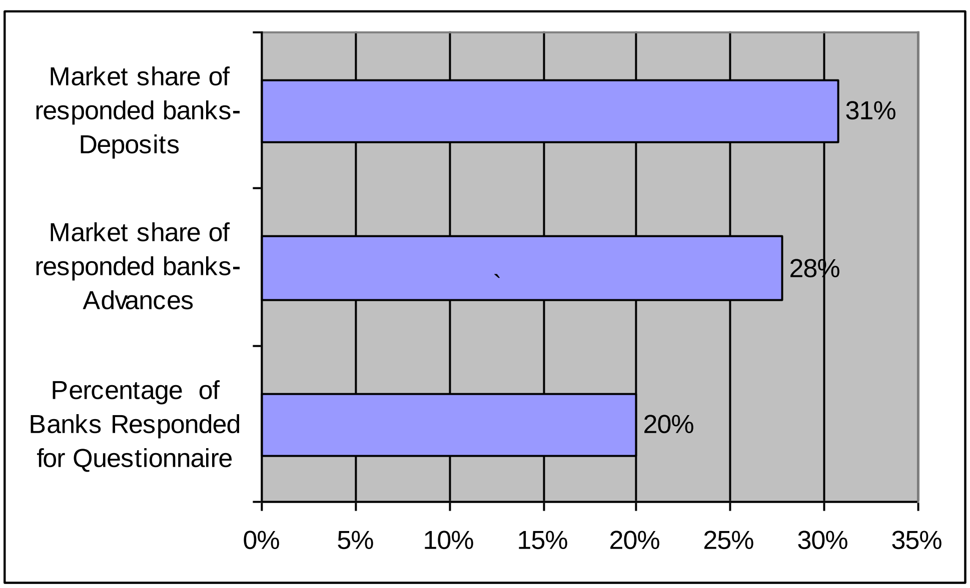

Figure 1: Banks participated in the survey

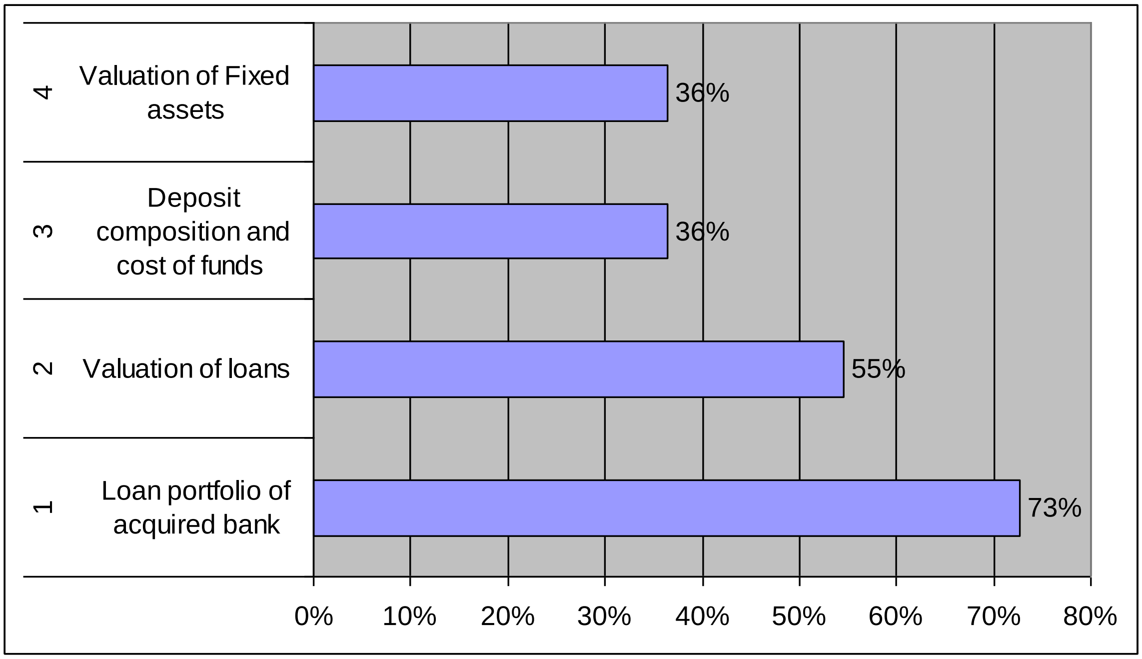

Figure 2: Important pre-merger issues

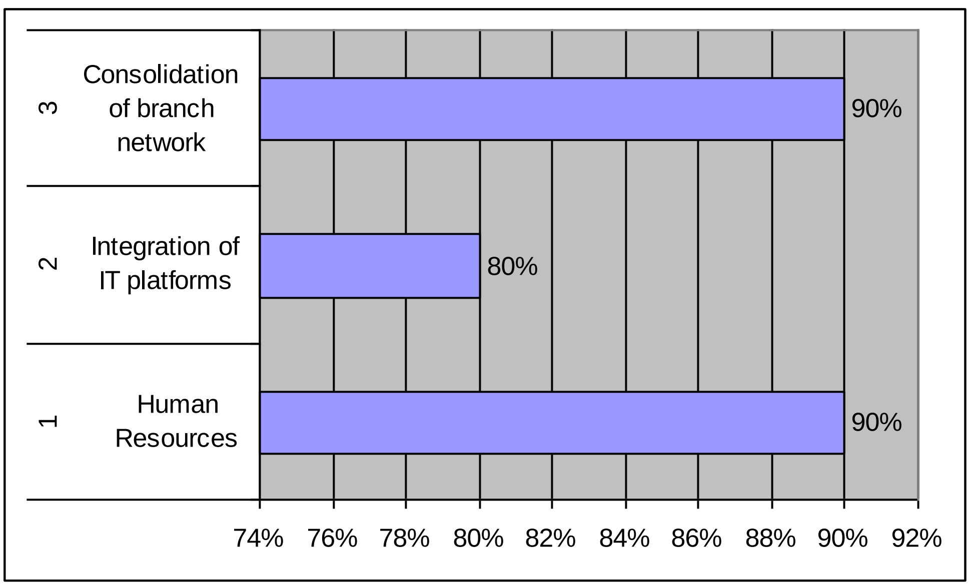

Figure 3: Important post-merger issues