An Overview of the Banking Sector Consolidation in India: A Conceptual Framework

Biswajit Kumar a,*

* Research Scholar, MONAD University

ABSTRACT

This paper aims to take a look at the literature available on the bank consolidation with a special stress on Indian scenario. It appears that that until and unless the true motive of consolidation is properly understood at this point of time proper conclusion cannot be drawn. Evidence of collusion, corruption, crony capitalism which may have given rise to the high level of NPA complicate the matter. Greater transparency is required before any research can be designed to suggest the most appropriate measure in this regard.
1. Introduction

“Size, we are told, is not a crime but size may, at least, become noxious by reason of the means through which it is attained or the uses to which it is put.” - LD Brandeis.

The Indian government plans to carry out consolidation of the nationalized banks in phases. In the first phase State Bank of India (SBI) will be merged with its five associate banks and Bhartiya Mahila Bank. In next phase the remaining banks will be consolidated by merger of small banks with the bigger ones. In face of the various megaprojects in the pipeline, it has been felt that giant financial institutions are required to finance the projects which can supply financial products to big corporates and are globally competitive. This move towards the oligopoly may give rise to the firms which will be ‘Too big to fail’ at the cost of public exchequer. There are evidences that collusive oligopoly comes into play sooner or later. Even at this stage it cannot be declared that banks are perfectly competitive players in the market. A few economists and financial experts, Paul Krugman among them, support the view that the status of “too-big-to-fail” is acceptable to an extent given that the economies of scale under which these large banks operate far outweighs the danger of the financial costs that might be incurred by the government (at the cost of public fund) should there arise a possibility of their failure. But then the question arises that how big the cost? The Indian banks remain almost unaffected during the recent financial crises, suggesting the strong fundamentals. With the increasing economic clout of Indian banks across the world, need for large sized banks cannot be overemphasized. The risk that the small banks are subject to are much higher as they lack the resource to take corrective or precautionary steps. The large scale merger and acquisition carried out between 1990 and 2004 in the Japanese banks resulted in huge gains. It has been concluded that the bankruptcy risk of the merged entity is substantially reduced if merger and acquisitions are allowed in a ‘controlled manner’ (Hannan & Pilloff, 2009). The global crisis of 2007-08 could not affect the Australian banks and the reason is attributed to the ‘Four pillar policy’ adopted. At the same time, the step is also seen as a ploy to dip into the funds of the subsidiaries to cover up the NPA of bigger banks with a huge debt burden. The final results of public sector banks for fiscal year 2015-16 shows a loss of 18,000 crore. Lack of due diligence and the fact that the funds that are being borrowed are being diverted to unrelated business than what they were approved of points towards the presence of crony capitalism. 29 state-owned banks have written off a total of ₹1.14 lakh crore of bad debts (technically called non-performing assets or NPAs) between financial years 2013 and 2015. Recently 13 out of 20 nationalized banks were reported to
incur losses. To tackle the situation the ability of the banks to recover bad loans need to be improved along with the increase in capital efficiency. Mergers seem to be considered a way in that direction. Financial experts have stressed on the need for huge capital requirement to maintain the current growth and more importantly, to conform to new Basel norms. Industry consolidation would help in bringing down the requirement by a considerable amount. Given the fact that fragmentation lowers the efficiency and increases the intermediation cost combined with need of compliance of Basel norms necessitates the restructuring. This will also help in raising further funds from the market (Kakani & Mehta, 2006). There are voices in some quarters that Indian government wants to evade recapitalization of banks, even though only one percent of the GDP is required in contrast with almost seven percent needed to capitalize banks in European Union. Whether this increase in NPA is an outcome of crony capitalism is a subject matter of debate among the researchers. The recent directive by the Reserve Bank of India to clean up their balance sheet has brought in open even more bad loans than were earlier reported. The government has pledged capital infusion of Rs.700 billion till 2019 but this seems to be insufficient. Alternative financial institutions have also been recommended to finance infrastructure projects of large scale.

2. Effect of Size

Dr Nicholls of the Centre for International Finance and Regulation argues that competition and contestability arise when there are reasonably low barriers to entry and exit barriers remain high. Many financial experts have proposed downsizing of banks in the wake of the global financial crisis of 2007-08. They are in favor of a cap on the bank size and argue for breaking down of the banks into smaller entities. Numerous cases of scams and frauds including those involving likes of Harshad Mehta, Ketan Parekh and more recently Vijay Mallya of Kingfisher Airlines points towards the fact of bank being prone to falling prey to the manipulators. Management of many public sector banks, notable among which are Bank of Baroda, Indian Bank, State Bank of India, UTI, Syndicate bank, Global Trust Bank etc. have been found to indulge in financial irregularities or mismanagement at some point of time or the other. What is shocking is Ramesh Jolly, the chairman of the high-profile Global Trust Bank be awarded the Banker of the Year award one year and the very next year it should post a loss of Rs. 1,100 crore. The magnitude of the loss would only increase if the bank size are increased with extra fund at their disposal. The horizontal institutional shareholders have shown to make the banks act like monopoly. The dangers of crony capitalism and corporatocracy is not unfounded in many countries, including the U.S. At the
same time, smaller banks give rise to shadow banking system, considered one of the major factors for the financial crisis of 2007-08. As per one argument, the Indian banks are not prone to the same risk as its US counterpart as the size of the biggest banks of the two countries are not comparable. The largest U.S. bank, JPMorgan Chase, has assets that amount to 15 percent of U.S. GDP. According to Joydeb Dasgupta, Secretary, Bank Employees Federation of India (BEFI), “Even if all the banks in India are merged, it will lack the necessary capital to compete in the global market.” Friedman (1970) in a seminal article titled ‘The social responsibility of business is to increase its profits’ has proposed that the ultimate social responsibility of business is to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud. The same principle cannot be applied to Public Sector Banks as one of the predominant philosophies with which they were set up was social and welfare issues. Larger banking holding companies are better diversified than small banking holding companies but that does not translate into reductions in overall risk (Demsetz & Strahan, 1997).

After a comprehensive survey of literature a study came to the conclusion that larger banks are more prone to individual and systemic risk than smaller banks (Laeven, Ratnovski, & Tong, 2014). Larger banks to an extent due to the prevalence of the availability of too-big-to-fail subsidies and empire-building incentives, have grown too large from a social perspective. They also found evidence of economies of scale playing a part in the efficiency once the size increases but it is only in moderate amount. These factors make it difficult to arrive at an “optimal” bank size by policy makers.

EVT was used to analyse the effect of size on banks’ univariate and systemic risk across ten countries as well as across the EU (Pais & Stork, 2013). Their findings show that size has little impact on banks’ univariate risk (as measured by VaR), but that large banks have significantly higher systemic risk. Furthermore, systemic risk has significantly increased for banks of all sizes since the beginning of the crisis.

In India a study on the effect of effectiveness with respect to size of the public sector banks for a period of five years (1997-2001) using the Data Envelopment Analysis (DEA) was conducted by Sanjeev (2006) and no significant relationship could be established. In 2011, Varma & Saini used ‘Conjectural Variations’ to measure the competitive behavior by computing the mark up overcharged by them. The study finds that mark-up charged by the larger banks in case of India is always lower than that compared with medium sized banks.
They attributed it to the reason that the larger banks might be more interested in gaining volumes by offering lower prices and maintain their market status in terms of size rather than charging higher price to gain greater profitability. A potential reduction in number of banks in Indian market through consolidation, may not result in greater abuse of market power by banks in wake of increase in size gained through the process of consolidation.

It is argued that since mergers and acquisitions are driven by different factors, they should be examined separately (Focarelli, Panetta, & Salleo, 2002). Bank consolidation will have its advantages but the level to which the size can be increased needs to be debated. The move for consolidation was a word-wide phenomena in the recent past with more than 8000 bank consolidations taking place between 1990 and 2001 (Amel & Hannan, 2002). These consolidations were market driven as against the guided mergers, which started as a result of the Asian financial crisis on 1997, pushed by the government on the basis of assumption that this would bring about stabilization in the banking system of the region (Berger, Demsetz, & Strahan, 1999). DeYoung (1997) studied X-efficiency changes after the merger in 348 cases approved by OCC in 1987/1988. The improvement in efficiency was observed only in a few cases in the sample and these gains were a result of ‘experience effect’ rather than the acquiring bank’s advantage over its target. Sathye (2001) using DEA determined efficiency scores of Australian banks to empirically investigates the x-efficiency (technical and allocative). The low level of overall efficiency as compared to banks in the European countries and the US may point towards the wastage of inputs (technical efficiency) rather than choosing the incorrect inputs combination (allocative inefficiency). Domestic banks were found to be performing more efficiently than foreign owned banks. Such a study was very helpful in government policy formation regarding deregulation and mergers since it pinpoints the sources of inefficiency. Later Wu (2008) studied the technical efficiency of banks using similar DEA analysis for Australian banks over the period from 1983 to 2001. He arrived at the conclusion that a much poorer efficiency will be seen in the merging banks and the banking sector should the merger take place among the four major banks in defiance of the four pillars policy. Taiwanese banking industry was studied encompassing the time period from 1997 to 1999, the period of bank merger wave in Taiwan, adopting stochastic frontier analysis (Peng & Wang, 2004). After the study of banks involved in mergers, which were generally small and established after the banking sector was deregulated, they gave evidence in support of the thinking that cost efficiency was affected by the merger activity positively. Their study was not comprehensive and in their own words how the size and
organizational types affect cost efficiency remains unsolved. An analysis of the reasons behind failures of mergers found that a negative impact was shown by the mergers which happened under the influence of a merger wave (Sonenshine & others, 2011). A study examining the non-conglomerate type of merger proved that the total as well as the unsystematic risk is substantially reduced due to these types of mergers but systematic risk remains unaffected (S. Mishra, Prakash, Karels, & Peterson, 2005). Even in Indian context the results of research suggest that the mergers did not seem to enhance the productive efficiency of the banks as they do not indicate any significant difference when their performance is measured using CRAMEL–type variables (Ravichandran, Nor, & Said, 2010). Merging loss making banks with more profitable ones may hamper the prospects of the latter. There are arguments that privatization of banks which are performing poorly may be an apt decision. This way the burden on public exchequer may be minimized and productivity of the loss making banks can be improved. But as the loss making factor may be a result of social banking or accumulation of NPA due to government policy itself such a step is opposed by many. Government is thinking of reducing the government stake to 49 per cent in IDBI Bank. Finance Minister Arun Jetli has stressed the need of forming a public opinion to facilitate the privatization in the financial sector.

To understand the impact of forced bank mergers on the shareholders’ wealth an event study analysis was conducted for almost all banking mergers during the period 1999-2006. In the analysis it was found that the hypothesis that target bank shareholders welcome mergers is not true. In almost all cases the bidder bank have lost on merger with the weak banks. Thus neither the bidder bank nor the target bank stand to gain on announcement of merger. On the other hand, in the case of voluntary mergers, both the parties gained, the gains of target banks being higher than bidder banks. The gains were not statistically significant and meant that shareholders are not convinced of the success of the merger in terms of improved financial health, scale economies and market power of the bank (Jayadev & Sensarma, 2007).

The competition level prevailing in the market needs to be analysed to facilitate the policy makers to decide the liberalization methods, come up with innovative financial products and novel business models. Though it is considered to be theoretically true that threat of entry by other firms is capable of restricting the effect of abuse of dominant position in monopoly and oligopoly markets (Dixit, 1980), yet in practice fair competitive market is considered essential for the consumer welfare (Kovacic & Shapiro, 2000). At the same time, the big size of the bank itself act as a deterrent for entry of the new firms. The lack of competition may
affect the whole economy especially if some banks become too big to fail. The risk is magnified if the managers are prone to have a ‘quiet life’ and start to engage in ‘managerial empire building’. Less profitability is not always caused as a result of cost or profit inefficiency or an inability to exploit profit opportunities fully and so does not indicate a quiet life being enjoyed by the managers as an outcome of the market power they enjoy. This may mean that the bank is involved in unprofitable or less profitable business to fulfill their public duty, e.g., charge lower interest rate than appropriate based on the risk involved or provide current accounts to the poor (Koetter & Vins, 2008). How difficult or easy the entry and exit process of the banks are, can be tested as a part of the test to assess the contestability among the banks. This will necessitate a look into the licensing procedure and other regulations formulated. An analysis of bank prices and spreads on the basis of product type and market segment has been proposed.

A study was undertaken to examine the degree of competition prevailing in Indian banking sector (Tandon & Malhotra, 2014). Their sample period was from 1996-97 to 2004-05. They arrived at a conclusion that on-going liberalization period has seen strengthening of competition. But in recent times evidences indicate several symptoms of unwillingness to compete. There have been allegation about major Indian banks acting as cartel. Muthoot Mercantile Limited had formally filed a complaint against twelve banks alleging cartelization. It is another matter that Competition Commission of India (CCI) rejected the charges. Still, at regular frequency reports of signals indicating banks colluding for vested interests keep coming in the media. The works conducted by some researchers in this area include are discussed in the following few paragraphs.

3. Measuring Market Concentration

The various indices and matrices used to measure market concentration include Herfindahl Index (HH index) (Herfindahl, 1950; Hirschman, 1945), Concentration ratio, Hannah-Kay index (Hannah & Kay, 1977), K-Concentration ratio, stochastic dominance, Entropy, Gini index (Gini, 1912), Absolute concentration index, The Rosenbluth index (Rosenbluth, 1961), the Pareto slope (Ijiri & Simon, 1971), Comprehensive concentration index (Horvath, 1970), the Linda index (Linda, 1976), The U Index (Davies, 1980), Panzar rosse statistic (Panzar & Rosse, 1987), the Lerner index (Lerner, 1995), the conjectural variation model and SCP paradigm (Bain, 1968; Chamberlin & others, 1933; Robinson, 1933) and Boone Indicator(Boone, Griffith, & Harrison, 2004) among others. In Indian context efforts have been made to determine the market structure in which banks operate. The two strands of
studies that are conducted for the assessment are structural or non-formal and non-structural or formal. The Structure- Conduct- Performance (SCP) paradigm is an example of structural approach while the econometric models for the purpose (Concentration, Lerner index, Panzar-Rosse model, being the most popular) come under the non-structural measures.

The Structure–conduct–performance paradigm (SCP) in industrial organization economics was proposed by Chamberlin and Robinson (Chamberlin & others, 1933; Robinson, 1933) as a model of market analysis. Bain (1968) popularly considered as father of modern industrial organization theory contribute towards developing it as a tool for analytical framework. Mishra and Sahoo (2012) has studied the changes in Indian market structure of Indian banking sector applying the framework. Using a panel dataset of 59 banks operating in India during 1999-2000 to 2008-2009 they reached the conclusion that as compared to the nationalized banks, market share of the private banks (both domestic and foreign) was lower. But private banks made greater selling efforts and had better financial performance vis-à-vis their public sector counterparts. It has been argued that increasing the size of the bank will result in increase of the banks and help Indian banks to compete with these foreign banks. In 1991 the need for large-sized banks was advocated by the Narasimhan Committee report. But critics dispute the assumption as they feel with increase in size, efficiency suffers. In a study on the effect of effectiveness with respect to size of the public sector banks for a period of five years (1997-2001) using the Data Envelopment Analysis (DEA) no significant relationship could be established (Sanjeev, 2006).

Some studies have been undertaken in Indian context using the Panzar-Rosse H-statistics. The nature of competition was tried to be assessed in the Indian banking market in a study (Prasad & Ghosh, 2005). The period of the study covered the years 1996 to 2004 divided into two sub periods, 1996-1999 and 2000-2004. The validation of monopolistic competition during the second sub-period suggests that the recent trends toward consolidation led to more rather than less competition in the banking sector. They also suggest that further consolidation can be enacted without any loss to the competitive atmosphere. In another study, which covered a period from 1998-99 to 2008-09 a similar conclusion was arrived that the various concentration rations have seen a declining trend, thus indicating an increase in the competition in the sector (Sharma & Bal, 2010). A study of panel data of 36 banks for the period of 1994-2009 concluded that after the advent of the private banks the competition has improved. The equity capital was found to play an influencing role to determine the level of competition (Arrawatia & Misra, 2012).
Figure 1
Bank Concentration in India

Note: Assets of three largest commercial banks as a share of total commercial banking assets. Total assets include total earning assets, cash and due from banks, foreclosed real estate, fixed assets, goodwill, other intangibles, current tax assets, deferred tax, discontinued operations and other assets.

World Bank, Bank Concentration for India [DDOI01INA156NWDB], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DDOI01INA156NWDB, August 28, 2016.

Figure 2
Lerner Index in Banking Market in India

Note: A measure of market power in the banking market. It compares output pricing and marginal costs (that is, markup). An increase in the Lerner index indicates a deterioration of the competitive conduct of financial intermediaries. A measure of market power in the banking market. It is defined as the difference between output prices and marginal costs (relative to prices). Prices are calculated as total bank revenue over assets, whereas marginal costs are obtained from an estimated translog cost function with respect to output. Higher values of the Lerner index indicate less bank competition. Lerner Index estimations follow the methodology described in Demirgüç-Kunt and Martínez Pería (2010).

(Calculated from underlying bank-by-bank data from Bankscope)

World Bank, Lerner Index in Banking Market for India [DDOI04INA066NWDB], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DDOI04INA066NWDB, September 1, 2016.
4. Conclusion

The literature available on the topic of bank consolidation regarding overall scenario in general, and Indian context in particular is to be studied on a case-to-case basis for each bank. Almost all works advice to view their research design with caution as the models used by them are subject to various limitations and constraints. Justice Louis Brandies (1916-1939) wrote in *Other People’s Money* that “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.” The Reserve Bank of India (RBI) is of the view that presence of at least four-or five-large banks are required to stop monopolistic market power. The committee set up by the UPA to suggest reforms in public sector bank, the Nayak Committee, as expected had recommended privatization of PSBs. NDA government seems to be in agreement with the UPA government’s view of implementing the recommendations. The formation of the Banking Boards Bureau which is to be eventually converted into Banking Investment Company is a step in that direction. The weak position of the banks are to an extent making of the government over decades. The mega-banks formed after the proposed consolidation if fail to live up to the expectation, privatization would seem be the only option. Only when the true motive behind the proposed consolidation, in view of managers as well as the government is brought to light can the most appropriate econometric model can be applied and a conclusion can be drawn for policy decisions.

5. References


Robinson, J. (1933). The Economics of Imperfect Competition. JSTOR.


**Annexure**

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**Sl.no** | **BANK NAME** | **BANK TO BE MERGED** | **BRANCH** | **STAFF** | **ASSETS** |
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