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The Relationship between Risk and Capital: Evidence from Indian Commercial Banks

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Abstract : Capital ratio is one of the major indicators of the stability of the commercial banks. Pertinent to its pervasive importance, over the years the regulators, policy makers focus on the maintenance of the particular level of capital ratio to minimize the solvency and liquidation risk. In this context, it is very much important to identify the relationship between capital and risk and find out the factors which determine the capital ratios of commercial banks. The study examines the relationship between capital and risk of the commercial banks operating in India. Other bank specific variables like bank size, deposit, profitability, non-performing assets, bank liquidity, net interest margin, loan loss reserves, deposits variability and regulatory pressure are also considered for the analysis. The period of study is 1997-2015 i.e. the period of post liberalization. To identify the impact of financial crisis and implementation of Basel II on capital ratio, we have divided the whole period into two sub-periods i.e. 1997-2008 and 2008-2015. This study considers all the three types of commercial banks, i.e. public sector, the private sector and foreign banks, which have continuous data for the whole period. The main sources of data are Prowess data base maintained by centre for monitoring Indian economy (CMIE) and Reserve Bank of India publications. We use simultaneous equation model and more specifically Two Stage Least Square method to find out the relationship between capital and risk. From the econometric analysis, we find that capital and risk affect each other simultaneously, and this is consistent across the time period and across the type of banks. Moreover, regulation has a positive significant impact on the ratio of capital to risk-weighted assets, but no significant impact on the banks risk taking behaviour. Our empirical findings also suggest that size has a negative impact on capital and risk, indicating that larger banks increase their capital less than the other banks supported by the too-big-to-fail hypothesis. This study contributes to the existing body of literature by predicting a strong relationship between capital and risk in an emerging economy, where banking sector plays a majority role for financial development. Further this study may be considered as a primary study to find out the macro economic factors which affecting risk and capital in India.

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