

CAPITAL ADEQUACY NORM AND ITS EFFECTS ON PROFITS AND OTHER PARAMETERS

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Abstract

The most important component of a competitive economy is an efficient and effective functioning financial sector. The core of the financial sector i.e. the banking system plays an important role in transmitting monetary policy impulses to the economic system. To increase the efficiency, productivity, and profitability in banks, reforms were introduced. The reforms pertaining to norms for Capital Adequacy, Asset Classification and Provisioning, norms for Income Recognition have a direct bearing on the profitability of banks and other prudential norms like deregulation of interest rates, entry of new private banks, lowering of Statutory Liquidity Ratio and Cash Reserve Ratio, phasing out of directed credit programs and so on. The main principle behind the introduction of Capital Adequacy norm is to ensure that the banks attain sound financial health and the interest of the depositors is protected. Generally, Capital refers to shareholders money. But in the case of banking, it consists of Tier I capital belonging to the shareholders and Tier II Capital consisting of both, external and internal resources that are available to the bank. Adequacy is related to the risks, a banking company undertakes in its asset creation- be it credit risk, market risk, operational risk. To study the effect of CAR on spread, profits, correlation analysis is being used.

Key Words: Capital Adequacy Ratio, Efficiency, Productivity, Profitability, Prudential Norms, Risks

Introduction

The banking system plays an important role in transmitting monetary policy impulses to the economic system. To increase the efficiency, productivity, and profitability in banks, reforms were introduced. The reforms pertaining to norms for Capital Adequacy, Asset Classification and Provisioning, norms for Income Recognition have a direct bearing on the profitability of banks and other prudential norms like deregulation of interest rates, entry of new private banks, lowering of Statutory Liquidity Ratio and Cash Reserve Ratio, phasing out of directed credit programs and so on.

The three factors having impact on the Indian banking industry are:

- The prescription of internationally accepted prudential and capital adequacy standard.
- The growth in the supply of new Financial Products and
- The New Technology.

Capital Adequacy Ratio

Capital Adequacy Ratio is a requirement imposed on banks to have a certain amount of capital in relation to their assets i.e. loan or investment as a cushion against probable loss in investments or loans. For example for every Rs. 100 of risk-weighted asset, a bank must have Rs. X in the form of capital. The main principle behind the introduction of Capital Adequacy norm is to ensure that the banks attain sound financial health and the interest of the depositors is protected. Generally, Capital refers to shareholders money. But in the case of banking, it consists of Tier I capital belonging to the shareholders and Tier II Capital consisting of both, external and internal resources that are available to the bank. Adequacy is related to the risks, a banking company undertakes in its asset creation- be it credit risk, market risk, operational risk.

The best way of reaching high capital adequacy ratio is to plough back the profits. Banks can also raise capital in the market, at a premium based on profitability, efficiency and market discipline. Strong Capital Base helps the banks in the following ways:

1. Enables the banks to structure their balance sheet in a prudent manner.
2. Encourages banks to be more risk sensitive.
3. Serves as a competitive edge of a bank.
4. Determines bank lending capacity and business.
5. Assists in pricing bank products.
6. Aids them to become internally viable and internationally competitive.
7. Enhances the robustness of the banking system.

On the Basis of CAR, banks can be divided into 3 categories which are as follows:

- ✓ Strong banks – those banks having CAR above the prescribed norm.
- ✓ Stagnant banks- banks which have just achieved the minimum CAR and are stagnated.
- ✓ Striving banks - those banks trying to achieve the prescribed CAR.

The Narasimham committee II suggested that the risk assets ratio should be raised to 9 per cent by 2000 and to 10 per cent by 2002. However, before the banks could comply with these norms, it is necessary to revalue the assets of the banks on their realizable value. In this regard, the Narasimham committee suggested, that, the banks and financial institutions follows the uniform accounting practices in relation to Income Recognition, provisions for doubtful debt and valuation of investments on the lines suggested by Ghosh Committee on final accounts of banks.

The (Ghosh) Committee recommended that the banks investments should be divided into two parts namely permanent investments and current investments, and full provision for depreciation should be made in case of current investment while it was not necessary to provide for any diminution in the value of permanent

investments. Bank of International settlement (BIS) classified capital into three classes namely Tier I Capital or core Capital, Tier II Capital and Tier III Capital. In India RBI has not introduced Tier III Capital.

Capital Fund has three tiers –

Tier I Capital

Tier I capital that includes Paid-up capital, Statutory reserves, Other disclosed free reserves, Capital reserves representing surplus arising out of sale proceeds of assets, less (Equity investments in subsidiaries, Intangible assets and Losses in the current period and those brought forward from previous periods to work out the Tier I capital). Tier I capital is also called Core Capital. Tier I capital to risk weighted assets(CRAR) will give Core CRAR. This may be written as follows:

$$\text{Core CRAR} = \frac{\text{Tier I Capital}}{\text{Risk Weighted Assets}}$$

Greater the Core CRAR, greater the financial health and soundness of the bank is. It is better to have more of Tier I Capital, as it will be readily available to meet the unexpected losses. At no time, Tier II Capital should exceed Tier I Capital. Core CRAR should be at-least equal to 50 percent of the CRAR /CAR. This is so because; Core Capital enables a bank to face any financial emergencies.

Tier II Capital

Tier II Capital consists of Undisclosed reserves and cumulative perpetual shares, Revaluation reserves (at a discount of 55 % while determining their value for inclusion in Tier II capital) General Provisions and Loss Reserves up to a maximum of 1.25% of weighted risk assets, Investment fluctuation reserve not subject to 1.25% restriction, Hybrid debt capital instruments (say bonds), Subordinate debt (long term unsecured loans).

Tier I capital should at no point of time be less than 50 % of the total capital. This implies that Tier II cannot be more than 50% of the total capital.

Some of the options for raising subordinated debt in the domestic market as Tier 2 include Regular Income Bonds with an interest rate clause, Cumulative Interest Bonds, Tax Benefit Bonds (benefit u/s 54 EA &54 B of Income Tax Act, 1961 relating to capital gains on transfer of long term capital assets and transfer of land used for agricultural purpose), Double Benefit Bonds (bonds with detachable, tradable warrants), Tax Free Bonds etc. The cost of raising Tier II capital has increased all the more as the RBI has withdrawn the subordinated debt from the exemption of Cash Reserve Ratio and Statutory Liquidity Ratio requirements w.e.f October 2001.

Tier III Capital

Tier III Capital consists of revaluation reserve, undisclosed reserves, investment fluctuation reserve, hybrid debt capital and subordinated debt with the maturity period of at-least 2 years. Tier III capital should not exceed 250 per cent of Tier I capital and lock-in clause is applicable i.e. in case a bank

fails in its minimum capital requirement, there will be no repayment. Unused Tier I capital can be substituted for Tier III to the extent of 250 per cent limit.

Capital Adequacy Ratio is also called as Capital to Risk Asset Ratio. Tier I known as Core CRAR and Tier II together are called sustenance Ratios as they ultimately reflect upon spread and returns of a bank. Capital Adequacy Ratio of Public Sector Banks, Private and New Private Banks, Foreign Banks and Andhra Bank are given in the Table 4.1

The prescribed CAR to be achieved was 8 percent of the risk-weighted assets by 31-3-94 for foreign banks operating in India and Indian Banks with international presence. However, for the rest of all other banks 8 percent was to be achieved by 31-3-96. From the table 4.1 it is very clear, that the average Capital Adequacy Ratio for SBI, SBI Associates, Nationalised banks, Private Banks, New Private Banks and Foreign Banks was more than the prescribed norm of 8 per cent during 1996-97. In fact, Average CAR was more than 10 per cent for all the banks except for Nationalised Banks and Average of 27 Public Sector Banks. The Average CAR for Foreign Banks was the highest, which stood at 36.71 percent in 1996-97, followed by New Private Banks 15.85 per cent, SBI 12.17 percent and Andhra Bank 12.05 per cent, while Private Banks at 11.63 percent, SBI Group 10.19 percent and Nationalised Banks 8.67 per cent respectively.

Table 1
CAPITAL ADEQUACY RATIO (in percentages)

Banks	1996-97	1998-99	2002-03	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
SBI	12.17	12.51	13.50	12.5	11.9	12.3	12.64	14.25	13.39
SBI Associates	10.09	11.80	13.40	12.4	12.0	12.3	13.21	12.7	13.46
Nationalised Banks	8.67	9.95	12.20	13.2	12.3	12.4	12.13	13.24	13.25
Private Sector Bank	11.63	12.14	12.80	12.5	11.7	12.1	14.08	14.3	15.21
New Pvt Banks	15.85	12.01	11.30	12.1	12.6	12.0	14.39	15.33	15.21
Foreign Banks	36.71	45.10	15.20	14.0	13.0	12.4	13.08	15.1	17.25
Andhra Bank	12.05	12.37	13.62	12.1	14.0	11.3	11.61	13.2	13.93

Source : Report on Trend and Progress of Banking in India –RBI- various issues.

The Capital Adequacy Ratio increased from 12.17 per cent to 13.39 per cent for SBI, 10.09 per cent to 13.46 per cent for SBI associates, 8.67 percent to 13.25 percent for Nationalised Banks, 11.63 percent to 15.21 percent for old private banks and 15.85 percent to 15.21 percent for Andhra Bank during 1996-97 to 2009-10. Foreign Banks CAR decreased from 36.71 percent to 17.25 percent during the same period.

For all the bank groups except Foreign Banks it is showing an increasing trend. This shows that, the banks are taking the necessary precautionary measures to protect their depositor interest and advances free from contamination.

The New Accord known as Basel II on Capital Adequacy norm, aims at reflecting all types of risks embedded in the balance sheet to arrive at what is known as “Economic Capital “ different from the Regulated Capital which

reflects the risk embedded in the balance sheet. Supervisory oversight is to ensure, appropriate risk management system and best practices are followed. Under the new capital framework, banks have to provide not only for credit risk but also market and operational risk. The second phase of reforms aims not only at consolidating the benefits made in the I phase, but at gearing up banks to meet the challenges that are to be confronted in the new millennium.

The RBI has stated that Indian banks must have a CRAR of minimum 9%, effective March 31, 2009. All private sector banks are already in compliance with the Basel II guidelines as regards their CRAR as well as Tier I capital. Further, the Government of India has stated that public sector banks must have a capital cushion with a CRAR of at least 12 per cent, higher than the threshold of 9 per cent prescribed by the RBI.

The New Capital Adequacy Ratio = $\frac{\text{Tier I} + \text{Tier II} + \text{Tier III}}{\text{Credit Risk} + \text{Market Risk} + \text{Operation Risk}}$

Correlation Analysis

Correlation analysis assists in determining the degree of relationship between two or more variables without indicating about cause and effect relationship. The high correlation between two variables can be due to pure chance, in case of a small sample even though there may not be any relationship between them.

Hypothesis

The null hypothesis is that the Capital Adequacy Ratio and net profits, and CAR and RoE are not correlated. Similarly CAR does not have any impact on advances and investments, which in turn affects spread, the chief contributor to net profits and ROE.

In other words the null hypothesis is $p(\rho)$ the correlation between the variables, is zero.

Methodology

For the study purpose, 19 Nationalised Banks have been taken into consideration for two reasons. Firstly, the period of the study is 15 years i.e. 1995-96 to 2009-2010. Secondly, the group average of Capital Adequacy Ratio of SBH, SBH Associates, Old Private Banks, New Private Banks and Foreign Banks may not be appropriate to reflect the impact of CAR for a longer period. Hence, all Nationalised Banks including Andhra Bank is examined.

The technique applied is Karl Pearson method called Coefficient of Correlation(r) and the test is two tailed probability (p) at 0.01 level significance and 0.05 level significance as shown in Table 4.13

Analysis and interpretation

Correlation is calculated basically to establish a relationship between two or more variables. The above table reveals the relationship between six variables, such as CAR to CAR, CAR to Advances, CAR to Investments, CAR to Net profits, CAR to Return on Equity and CAR to Spread for Nationalised banks and Andhra Bank. If the

probability value is less than 0.05, r should be taken as significant and if it is less than 0.005 r is highly significant. The analysis shows the correlation for nationalized banks put together and Andhra Bank separately.

Table 4.13
Correlation Analysis

	CAR		ADV		INV		NP		ROE		SPRD	
	NB	AB	NB	AB	NB	AB	NB	AB	NB	AB	NB	AB
CAR	1.00	1.00	.40	.34	.52	.52	.42	.37	.36	.26	.50	.29
ADV	.40	.34	1.00	1.00	.93	.88	.98	.94	.60	-.19	.98	.95
INV	.52	.52	.93	.88	1.00	1.00	.95	.94	.68	-.10	.96	.93
NP	.42	.37	.98	.94	.95	.94	1.00	1.00	.72	-.03	.99	.98
ROE	.36	.26	.60	-.19	.68	-.10	.72	-.03	1.00	1.00	.68	-.10
SPRD	.50	.29	.98	.95	.96	.93	.99	.98	.68	-.10	1.00	1.00

Source:

computed from data published by RBI, using spss software.

CAR- capital Adequacy Ratio, ADV- advances, INV- investments, NP- net profit, ROE- returns on equity, SPRD- spread, NB – Nationalised Banks, AB –Andhra Bank

Findings

The first variable that is being correlated with other five variables is CAR. The correlation coefficient of CAR is significant with amount of investments made. The average of all Nationalised Banks(NB) and Andhra Bank (AB) is same(i.e.0.52). As the CAR comprises of reserves and surpluses, this surely contributed towards the investments of NBs and AB. These investments consist of market securities and private securities. The NBs average and AB's correlation coefficient for CAR with remaining four variables(i.e. advances , net profit, ROE and Spread) does not show any significant relationship.

When it comes to examining the correlation of advances with other variables, it is seen that advances has high degree of correlation with net profit(NB's coefficient is 0.98 and AB's correlation coefficient is 0.94) as advances are a direct source of income hence, the net profit is significantly correlated with advances. The table 4.14 also reveals that advances is significantly correlated with investments(NB's coefficient is 0.93 and AB's correlation coefficient is 0.88), if the banks spend their money/income on investments, their advances will come down and vice versa. Therefore, investments and advances are inversely correlated. There is also a high correlation between advances and spread(NB's correlation of coefficient is 0.95 and AB's 0.96). Spread is excess of interest earned over interest expended and interest earned is the result of advances given by the banks. Net Profit also shows positive significant correlation with spread. Net Profit is excess of operating profit over provisions, dividends and operating expenses and spread is also excess of interest earned over interest expended, hence a positive significant correlation.(NB's correlation coefficient is 0.99 and AB's correlation coefficient is 0.98). A striking observation is that net profit and ROE are significantly correlated for NB's (0.72 coefficient) but the coefficient correlation for AB is -0.03 which means net profit and ROE are negatively insignificantly correlated, the main reason could be low profits or high operating expenses of AB. Roe and spread are also negatively correlated with an insignificant correlation of coefficient of -0.10 and this could be due to low profits and also due to underutilization of CAR.

Conclusions

As the Government share holding in the nationalized banks are to be reduced to 33 percent, capital cannot be raised at a low cost easily, since the market conditions are not conducive. Hence, the banks may be constrained to go to capital markets for improving CAR, already there is a shift from equity to debt capital i.e. subordinated debt or hybrid debt. Any increase in the risk weights will increase the ratio, providing Surplus funds to invest in profitable avenues.

Profitability and capital adequacy are closely related and inter related because higher profitability leads to an improvement in capital adequacy as profits get added to capital funds. But, higher capital adequacy may not lead to higher profits. In fact profitability is depended on the profile of asset portfolio. Banks must plan to limit their risk-weighted assets, which do not earn any returns. Banks must aim at achieving optimum mix of maturities in the assets profile so that smooth management of capital adequacy is facilitated. Hence, banks have to increase their profitability, so that they can attract capital in the market by paying higher dividends to shareholders, which will have a positive impact on the valuation of shares. As such proper risk management, enables the banks to hold less capital and invest more in risky and illiquid loans and advances. Hence, every year banks must undertake to review the appropriation of the risk weights keeping in view the changes in the socio economic scenario.

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