Ratios – Financial Sector

[In supersession of "Ratios – Financial Sector" issued in December 2016]

Background

Ratios are used to make a holistic assessment of financial performance of the entity, and also help evaluating the entity's performance vis-à-vis its peers within the industry. Ratios are not an 'end' by themselves but a 'means' to understanding the fundamentals of an entity. CARE follows a standard set of ratios for evaluating entities in the financial sector. These can be divided into 4 categories:

- Growth Ratios
- Capital Adequacy and leverage ratios
- Asset Quality Ratios
- Profitability Ratios

These are given in detail below:

A. Growth ratios

Trends in the growth rates of an entity vis-à-vis the industry reflect the entity's ability to sustain its market share, profitability and operating efficiency. In this regard, focus is drawn to growth in net interest income, Profit After tax (PAT) and loan portfolio (Assets under management -AUM). The growth ratios considered by CARE include the following ('t' refers to the current period while 't-1' refers to the same period of previous year):

Ratio	Formula
Growth in Net Interest Income	$\frac{[\text{Net Interest Income}_t - \text{Net Interest Income}_{t-1}] \times 100}{\text{Net Interest Income}_{t-1}}$
Growth in PAT	$\frac{[PAT_t - PAT_{t-1}] \times 100}{PAT_{t-1}}$
Growth in AUM	$\frac{[AUM_t - AUM_{t-1}] \times 100}{AUM_{t-1}}$

❖ **<u>Net Interest Income (NII)-</u>** In computing the Net Interest Income (NII), CARE subtracts total interest expenditure from total interest income. Interest income includes interest from loans given, interest from investments including fixed deposits. It does not include dividend or profit / (loss) accrued / received from any form of investments. Interest expenditure includes interest on borrowings.

❖ **<u>PAT-</u>** PAT is arrived at by deducting (-) /adding (+) the following from the NII:

(+) Other operating income - This includes all other operating income like guarantee commission, processing fees, income from securitization / assignment, income from business correspondence, income received from distribution of other products etc.

(+/-) Other non-operating income/expense (including profit/loss on sale of assets and investments)

(-) Operating expenditure

(-) Provision & write-off

(-) Depreciation/amortization on assets

(+/-) Prior period items

(-) Tax expense

- **<u>Asset Under Management (AUM)–</u>** AUM includes on-balance sheet loan portfolio and off-balance sheet portfolio. Off-balance sheet portfolio includes securitized / assigned portfolio and portfolio originated under business correspondence operations.

B. Capital Adequacy and Leverage Ratios

Capital Adequacy Ratio (CAR) is a measure of the degree to which the company's capital is available to absorb unexpected losses; High CAR indicates the ability of the company to undertake additional business. Debt equity ratio also measures the extent of leveraging of the institution. CARE examines the conformity of the entity to the regulatory guidelines on capital adequacy norms and further examines the capital adequacy on the basis of expected erosion of capital arising as a result of additional provisioning for NPAs etc.

These ratios are further detailed in the subsequent pages.

Ratio	Formula	Significance in analysis
Overall CAR	As Reported to Regulator (RBI and NHB) - (Tier I Capital + Tier II Capital) / Total Risk Weighted Assets	• High CAR indicates the ability of the company to undertake additional business. It may also indicate nascent operations. Lower CAR indicates lower loss absorption capabilities and CAR is always viewed from the standpoint of regulatory norms for each line of business in the financial services space.
Tier I - CAR	As Reported to Regulator (RBI and NHB) Tier I Capital / Total Risk Weighted Assets	
Overall Gearing Ratio	$\frac{\text{Total Debt}}{\text{Tangible Net-worth}}$	• Overall Gearing ratio indicates the extent of financial leverage in an entity and is a measure of financial risk. Though higher leverage would indicate higher returns to equity shareholders, the degree of risk increases for debt holders in case of uncertainty or

Ratio	Formula	Significance in analysis
		volatility of earnings. • While calculating the overall gearing ratio, long-term debt (including the current portion of the long term debt) and short term debt is considered. It also includes redeemable preference shares, optionally convertible preference shares, perpetual debt and any other hybrid instruments which have debt characteristics.
Interest Coverage	$\frac{\text{Profit Before Interest and Tax}}{\text{Interest \& Finance Charges}}$	• It indicates extent of cover available to meet interest payments. It is a simple indicator of profitability and extent of indebtedness.

- **Total debt-** In total debt, CARE considers all forms of short-term and long-term debt, including redeemable preference share capital, optionally convertible debentures, foreign currency loans, fixed deposits, unsecured loans, commercial paper, inter-corporate borrowings, borrowings from promoters, associates and other group companies. Any guarantee extended by the entity (including corporate guarantee given for securitizations) are also added in debt of the company. The interest expense on the subordinated debt is treated as a normal interest expenditure of the entity.

  - **Treatment of Hybrid instruments-** Hybrid instruments are those which have the characteristics of both debt and equity. Examples include Preference Shares, Compulsorily Convertible instruments, Optionally Convertible instruments, including), Perpetual Debt, subordinated debt, Additional Tier I (AT1) bonds, Upper Tier II and Lower tier II bonds - these instruments are eligible to be treated part of Tier I and Tier II capital as per RBI/NHB guidelines. These instruments normally carry a fixed rate of coupon/ dividend. At times the coupon/ dividend may be deferrable, thus giving the issuer the flexibility to conserve cash in times of stress. However, CARE treats all these hybrid instruments except for compulsorily convertible instruments as debt.

    - **Preference Shares-** Preference shares have a fixed tenure at the end of which they have to be redeemed by the issuer. Further, they also carry a fixed rate of dividend. Hence, preference share capital has the characteristics of debt and is treated as such by CARE in its analysis.

- **Compulsorily Convertible Instruments-** Sometimes the instrument could be compulsorily convertible into equity at the end of a long time frame, say 5-7 years. Hence, the company does not have to redeem the instrument at the end of the tenure and as such there is no credit risk. In all such cases where the terms of the preference shares/ debentures give it equity like characteristics, CARE treats the Compulsorily Convertible Preference Share Capital (CCPS) as quasi equity and considers it as a part of the networth of the company.

- **Optionally Convertible Instruments-** At times companies also issue optionally convertible instruments (typically Optionally Convertible Preference Shares (OCPS)/ Optionally Convertible Debentures (OCDs)). Here the investor has the option to convert the instrument into equity shares at the end of a certain time frame at a pre-determined price. In this case, the alternative of redemption of the instrument cannot be ruled out till it is actually converted into equity. The instrument thus has debt like characteristics till the time it is actually converted into equity. Thus, CARE generally treats the optionally convertible instruments as debt in its analysis.

- **Tier II Bonds-** Banks/HFC/NBFC's all issue Tier II Bonds which are considered as part of Tier II capital. CARE considers them as part of debt. In case of Bank's as per Basel III guidelines, Tier II bonds also have a clause wherein, upon declaration of Point of Non Viability by RBI it can be written down. However, the same is a remote possibility in a going concern and hence they are treated at par with Lower Tier II bonds under Basel II which did not have any such clauses.

- **Basel III AT1 Bonds-** Under the Basel III, banks can issue additional tier I bonds which are perpetual in nature and are part of Tier I capital. These bonds carry loss absorbing features and key features of the instrument include coupon discretion at all times, non-payment of coupon in the event of breach of CAR requirement, and principal write-down. Further, in case of losses reported by a bank in any financial year, coupon can be paid out only in the event of availability of credit balance in P&L/ revenue reserve. CARE rates these instruments taking into account these riskier features. Again these are treated as debt from analytical perspective.

Upper Tier II Bonds/Innovative Perpetual Debt Instrument under Basel II issued by Banks- These instruments were issued under the Basel II guidelines by the banks, while these are part of capital adequacy of a bank, CARE treats the same as debt.

- **Tangible Networth** of the entity includes the equity share capital, all reserves and surplus (excluding revaluation reserve),equity share warrants, share application money, ESOPs outstanding, minority interest (in case of consolidated financials) and Compulsorily convertible Preference Shares.

  - **Miscellaneous expenditure not written off and Accumulated Losses-** Both Miscellaneous expenditure not written off and Accumulated Losses are deducted from the above to arrive at the tangible networth.

  - **Revaluation Reserves-** Revaluation reserves arise out of revaluation of fixed assets and are not treated as a part of the tangible networth of the entity.

  - **Treatment of intangible assets-** An intangible asset is an asset which is not physical in nature. Examples of intangible assets include computer software, patents, copyrights, licenses, intellectual property, trademark, goodwill etc.

  - **Treatment of Deferred Tax Liability (DTL) / Deferred Tax Assets (DTA) (Net)-** DTL / DTA (net) is the timing difference between the accounting profit and profit as per income tax act. CARE subtracts DTA from the net-worth of the company while calculating tangible net-worth and excludes DTL from the computation of the tangible networth of the entity.

C. Asset Quality Ratios

Asset quality of a bank/NBFC is the cornerstone of its operational efficiency and a direct reflection of its risk management practices and credit appraisal mechanism. Further, asset quality of a bank/NBFC is also impacted by the state of the economy as a whole. Evaluating asset quality is a significant aspect in analyzing banks/NBFCs, as deterioration in the credit quality of the asset book has dual impact on the profitability of the entity on account of (i) weakening of the income profile and (ii) increase in the credit costs. Considerable weakening of the asset quality would also result in higher capital requirements for the entity to support growth and provide stability. CARE examines following key ratios to determine the asset quality.

Ratio	Formula	Significance in analysis
Gross NPA %	Gross NPA/Gross Advances (as per RBI Classification)	• Gross NPA % denotes the percentage of advances which have turned into NPA as against the total outstanding loan book
Net NPA%	Net NPA/Net Advances (as per RBI Classification)	• Net NPA% denotes the proportion of advances which turned into NPA after adjusting for the provisions already made by the bank/financial institution
Net NPA/ Networth%	$\frac{\text{Net NPA}}{\text{Tangible Networth}}$	• The ratio denotes the coverage available as % Networth against the NPAs net of Provision. Assuming there is no recovery against NPAs, the ratio denotes how much proportion of networth would be eroded.
Provision Coverage Ratio	$\frac{\text{Provision for NPA}}{\text{Gross NPA}}$	• It indicates extent of provisioning already done on the existing NPAs, thereby indicating the future provisioning requirement in the event of no recovery from the stock of NPAs.

D. Earnings Ratios

A bank's/Financial Institution's income profile can broadly be divided into two categories: interest income and non-interest income. Interest income is generated by lending funds while fee based income (guarantee commission, loan processing fees, dividend income) and gains from trading/sale of assets form a part of non-interest income. The biggest expense for any bank/financial institution is the interest expended on deposits and borrowings. Operating expenses of a bank/FI primarily comprise employee cost and administration expenses. Other major charges to the profit and loss account include provision for non-performing assets and provision for diminution in fair value of investments. While analyzing the earnings profile of a bank, following are the key ratios seen:

Ratio	Formula	Significance in analysis
Return on Total Assets (%)	PAT/Average assets	ROTA is a single, ultimate indicator of the ***overall*** profitability of the bank/financial institution. Impact of non- interest income, asset quality, fixed cost like employee cost etc. are all factored into this ratio.
Interest Spread	(Interest inc./Avg int. earning assets) - (Int. exp/Avg Int bearing liabilities)	Good indicator of profitability of the bank/ financial institution without taking into account any operational cost. It shows the spread between the yield on entity's assets (mainly advances + investments) and cost of funds (deposits). It also takes into account yield on investments which affects the profitability of the entity and forms a significant percentage of the assets. It is the spread the entity has to primarily depend on to cover its employee cost, provisions, tax etc.
Net Interest Margin (NIM)	Net Interest Income/ Average assets	This ratio is very similar to the Interest Spread and would tend to move in similar lines. The focus here is the overall spread earned on the total assets of the entity
Cost to Income (%)	Operating expenses / [Total Income – interest paid]	The adequacy of banks/financial institution's total income net of interest expenses in covering the operational expenses is indicated by this ratio. Alternatively can be looked at as the cost involved in generating a unit of revenue.

Ratio	Formula	Significance in analysis
Operating cost/ Average Total assets	[Employee cost + Admn exp]/Avg Total assets	This ratio shows the level of operating expenses, mainly comprising employee and administrative cost, in relation to the assets
Yield on advances	Interest income/Average advances	The ratio gives the average lending rate of the portfolio. High yield on advances is an indication that the entity is into financing riskier assets and may see asset quality issues. It also indicates whether the pricing of the loan is in line with underlying risk.
Cost of deposits/Borrowings	Interest paid on dep./ Average Deposits(or borrowings)	It highlights cost of borrowed funds for the entity Cost of funds gives a competitive advantage to the financial institution in terms of its ability to grow, apart from profitability, asset quality, customer base etc.

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