Financial Ratios – Insurance Sector

[In supersession of "Financial Ratios – Insurance Sector" issued in June 2017]

Background

Financial ratios are used to make a holistic assessment of financial performance of the entity. They also help evaluating the entity's performance vis-à-vis its peers within the industry. Financial 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 Insurance companies. These can be divided into three categories:

- Earnings
- Liquidity
- Solvency

These are given in detail below:

A. Earnings Ratios

Profitable operations are necessary for insurance companies to operate as a going concern. CARE's measurement of earnings focuses on an insurers' ability to efficiently translate its strategies and competitive strengths into growth opportunities and sustainable profit margins. CARE analyses the profitability of the underwriting and investment functions separately:

Ratio	Formula	Significance in Analysis
Premium Growth	$\frac{GPW_T - GPW_{T-1}}{GPW_{T-1}} * 100$ *GPW: Gross Premium Written* *T: Current year* *T-1: Previous year*	Indicates growth in business undertaken by the insurance entity.
Risk Retention	$\frac{\text{Net Premium Written}_T}{\text{Gross Premium Written}_T}$	Indicates the level of risks retained by the insurer vis-à-vis that ceded to reinsurers. Reinsurance plays an essential role in the risk spreading process.
Loss Ratio	$\frac{\text{Net Claims Incurred}_T}{\text{Net Premium Earned}_T} * 100$	The ratio measures the company's loss experience as a proportion of premium income earned during the year. The loss ratio is a reflection on the nature of risk underwritten and the adequacy or inadequacy of pricing of risks.

Ratio	Formula	Significance in Analysis
Expense Ratio	$\frac{\textbf{Management Expense}_T \textbf{ +/(-) Net Commission Paid/(Earned)}_T}{\textbf{Net Premium Earned}_T} * 100$	Expense ratio reflects the efficiency of insurance operations. Expense ratio for an insurer is analyzed by class of business, along with the trend of the same.
Combined Ratio	**Loss Ratio + Expense Ratio**	Combined ratio is a measure of underwriting profitability of an insurance company after factoring claims expenses and operating expenses of the insurer.
Investment Yield	$\frac{\textbf{Total Investment Income}_T}{\textbf{Average Total Investments}_{(T,\ T-1)}}$	This ratio measures the average return on the company's invested assets before and after capital gains and losses. While calculating the investment yield including capital gains, both realized as well as unrealized capital gains are considered.
Net Earnings Ratio	$\frac{\textbf{Profit After Tax}_T}{\textbf{Net Premium Written}_T}$	This ratio measures the overall profitability of an insurer after factoring underwriting result, operating expenses as well as investment income and tax.
Return on Networth	$\frac{\textbf{Profit After Tax}_T}{\textbf{Average Networth}_{(T,\ T-1)}}$	This ratio reflects the post-tax return generated on networth of an insurer. It's a measure of overall return on the equity deployed in the business.

B. Liquidity Ratios

Good liquidity helps an insurance company to meet policyholder's obligations promptly. An insurer's liquidity depends upon the degree to which it can satisfy its financial obligations by holding cash and investments that are sound, diversified and liquid or through operating cash flows. A high degree of liquidity enables an insurer to meet the unexpected cash requirements without untimely sale of investments, which may result in substantial realized losses due to temporary market conditions and/or tax consequences.

The liquidity ratios considered by CARE are:

Ratio	Formula	Significance in Analysis
Liquid Assets to Technical Reserves	$\frac{\textbf{Liquid Assets}_T}{\textbf{Technical Reserves}_T}$	Technical reserves are reserves created to take care of 'expected' claims that may arise. While an insurer may not be expected to maintain liquid assets equal to technical reserves, a higher proportion of liquid assets would help the insurer in taking care of these 'expected' claims.

Ratio	Formula	Significance in Analysis
Liquid Assets to Current Liabilities	$\dfrac{\textbf{Liquid Assets}_T}{\textbf{Current Liabilities}_T}$	This ratio indicates an insurer's ability to settle its current liabilities without prematurely selling long term investments or to borrow money. If this ratio is less than one, then the insurer's liquidity becomes sensitive to the cash flow from premium collections

C. Solvency Parameters

Adequacy of solvency margin forms the basic foundation for meeting policyholder obligations. All insurance companies are required to comply with solvency margin requirements of the regulator as prescribed from time to time. Currently, IRDA has prescribed 1.5 times 'Solvency Margin' for insurance companies in India. 'Solvency Margin' for insurance companies is akin to 'Capital Adequacy Ratio' of Banks.

Ratio	Formula	Significance in Analysis
Solvency Ratio	$\dfrac{\textbf{Available Solvency Margin}}{\textbf{Required Solvency Margin}}$ ***(As reported to IRDA)***	Compliance with minimum requirement of 1.5 times as well as cushion available above the regulatory minimum is examined.
Operating Leverage	$\dfrac{\textbf{Net Premium Written}_T}{\textbf{Networth}_T}$	This ratio indicates current as well as potential underwriting capacity of an insurer.

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