

## Financial Ratios – Insurance Sector

### Background

Financial 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. 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 five categories:

- Earnings
- Liquidity Ratios
- 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	$\frac{\text{Gross Premium Written (Y1)} - \text{Gross Premium Written (Y0)}}{\text{Gross Premium Written (Y0)}} \times 100$	Indicates growth in business undertaken by the insurance entity.
Risk retention	$\frac{\text{Net premium Written}}{\text{Gross Premium written}}$	Indicates the level of risks retained by the insurer. Reinsurance plays an essential role in the risk spreading process.
Loss Ratio	$\frac{\text{Net claims Incurred}}{\text{Net Premium Earned}} \times 100$	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
Expense Ratio	$\frac{\text{Management Expenses} +/(-) \text{ Net commission paid/ (earned)}}{\text{Net Premium Earned}} \times 100$	Expense ratio reflects the efficiency of insurance operations. Expense ratio for an insurer would be analysed by class of business, along with the trend of the same
Combined ratio	Loss Ratio + Expense Ratio	Combined ratio is a reflection of the underwriting expense as well as operating expenses structure of the insurer
Investment Yield	$\frac{\text{Interest income, rents and other investment income}}{\text{Average total investments}}$	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 realised as well as unrealised capital gains are considered
Return on Network	Profit after Tax/Average Network	

## 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 vis-à-vis technical reserves	Liquid assets/Technical Reserves	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.
Current Liquidity	Liquid assets/Current Liabilities	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 Margin	As reported to IRDA	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.
Operating Leverage	$\frac{\text{Net premiums Written}}{\text{Net worth}}$	This ratio indicates current as well as potential underwriting capacity through an analysis of a firm's Operating Leverage

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