



INSURANCE RATIOS



1. *Background: Issues in FS*
2. *Ratios based on income and expenditure. (Revenue Account)*
3. *Ratios based on balance sheet.*
4. *Miscellaneous Ratios.*

The word "RATIOS" is written in a large, bold, black, stylized font with a 3D effect. The letters are set against a light yellow, glowing oval background. A thick blue horizontal line is drawn underneath the word.

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Background

You cannot simply comment on the health of a life/general insurance companies by having look at their revenue account and/or balance sheet due to the nature of their business carried out.

Two major issues associated with insurance companies FS are as follows which makes it difficult to comment on health/profitability:

1. Unlike any other normal trading/manufacturing business – of which trading account shows sales, purchases and direct expenses made during the year, revenue account of an insurance companies shows premium income collected during the year and claims paid out during the year which were underwritten/sold against policies in previous years.
2. Insurance companies are required to make reserve for the policies in the force (prudence concept). This is also know as “actuarial reserving” as this process of reserve creation is carried out by insurance companies appointed actuary. Now this reserve created is always way more then required. Thus, in a year where new policies sold are more the profits might be lower due to greater amount set aside as reserve to meet out future probable obligations.

As we all know to obtain an understanding of business/profitability how important ratios are, and again due to different nature of business there are some dedicated ratios developed to obtain an understanding of insurance business health.

These ratios have been explained in subsequent pages along with reference to the concerned schedule just in case you want to calculate them for a life insurance company. Also note that these ratios are necessarily required to be reported in *Annexure 5* to yearly financials statements issued by life insurance companies.



Insurance Ratios: Revenue Account

Name	Formula	Explanation	Where can you find concerned figure in FS
New business premium income growth	$\frac{\text{Change in new business premium income}}{\text{Previous year new business premium income}}$	<p>New business premium income – Premium income earned from selling/underwriting new policies for a particular year.</p> <p>The ratio helps in assessing how well the company was able to sell/underwrite new policies in the given year.</p>	Schedule 1 : Premium earned
Net retention ratio	$\frac{\text{Net premium}}{\text{Gross premium}}$	<p>This measurement reflects insurance policies that remain in affect after deducting cancelled, lapsed or ceded to a re-insurer. Helpful in comparing the number of policies that are active against total policies sold.</p>	
Conservation ratio	$\frac{\text{Renewal premium of current year}}{\text{Total premium of previous year}}$	<p>This ratio is helpful in determining the percentage of customers retained in current year, to whom policies were sold in previous year.</p>	
Loss ratio	$\frac{\text{Net claims incurred}}{\text{Net premium earned}}$	<p>Represents the ratio of losses to premium. A high ratio can be an indicator of financial distress. If loss ratio associated with your policy becomes excessive, an insurance provider may raise premiums or choose not to renew a policy.</p>	Revenue Account (policyholders account)
Expense ratio	$\frac{\text{Operating expenses of insurance + commission}}{\text{Net premium earned}}$	<p>This ratio is a measure of profitability calculated by dividing the expenses associated with acquiring and servicing policies with net premium.</p>	
Combined ratio	Loss ratio + Expense ratio	<p>This indicates insurance company's total outflow in terms of operating expenses, commission paid and claims incurred against its net earned premium.</p>	
Commission ratio	$\frac{\text{Gross Commission paid}}{\text{Gross premium}}$	<p>Helps us to assess what is the outflow towards commissions from the policies sold during a particular year.</p>	Schedule 1 : Premium earned Schedule 2 : Commission

Insurance Ratios: Balance Sheet

Name	Formula	Explanation	Where can you find concerned figure in FS
Policyholder's Fund to Shareholders Fund	$\frac{\text{Policyholder's Fund}}{\text{Shareholders Fund}}$	Measurement of by what multiple the amount is owed to policyholders by shareholders of insurance companies.	Balance sheet
Growth rate of shareholder's fund	$\frac{\text{Change in shareholder's fund}}{\text{Current Years shareholder's fund}}$	Measure the growth in shareholders fund on account of change in following variables : <ol style="list-style-type: none"> 1. Net profit/Loss 2. Share capital 3. Fair Value changes (shareholders investments) 	
Investments to capital & Reserves	$\frac{\text{Total Investments}}{\text{Capital + Surplus}}$ Total investments : Shareholders investments + Policy holders investments + Assets held to cover linked liabilities	Helps us to understand by what multiple of net worth of business is the amounts invested outside. Investments and investment income is an important consideration while commenting upon liquidity of insurance company.	Schedule 8 : Policyholders investments Schedule 8A : Shareholders investments Schedule 8B : Assets held to cover linked liabilities Schedule 5 : Share capital Schedule 6 : Reserves and surplus
Affiliated investments to Capital & Reserves	$\frac{\text{Total Affiliated investments}}{\text{Capital + Surplus}}$	Affiliated investments : Investments made in related party as defined by AS 18 Helps us to understand by what multiple of net worth of business is the amounts stands invested in related parties as on balance date.	
Investment Yield	$\frac{\text{Net investment income}}{\text{Cash & Invested Assets}}$	Measures the average return on a company's invested assets. Investment income is sum of investment income appearing in revenue account and p&l account.	

Insurance Ratios: Miscellaneous

Name	Formula	Explanation
Persistency ratio	Based on Actuary data and analytics	Persistency ratio looks at the number of customer that choose to renew their policies at the end of year. This ratio takes into account both the number of policies as well as the premium collected by them.
NPA ratio		It is used to measure the overall quality of loans & advances made by the insurance companies, Just like banks.
Solvency Ratio		Used to measure a companies ability to meet its debt obligations. IRDA has stipulated a minimum of 150% of solvency ratio to life insurance companies.
Claims settlement ratio (CSR)		CSR indicates how many claims a company has settled against the number of claims received. Higher the CSR, greater are the chances of settling the claim.

Source: Investopedia & Other relevant websites, IRDA orders/Regulations.

Thank you