

FINANCIAL RATIOS EXPLANATION

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1. INTRODUCTION

Financial ratios are useful indicators to measure a company's performance and financial situation.

They can be also used to analyze trends and to compare a firm's financial figures to those of competitors or those of the business sector in which it belongs to.

Financial ratios can be classified according to the information they provide.

ICAP has included in its products the majority of the most commonly used ratios in order to support companies' directors and executives during decision-making.

The present document describes the calculation of ratios applied either in companies or in sectoral business reports.



2. FINANCIAL RATIOS FOR COMPANIES (INDUSTRY - COMMERCE - SERVICES)

2.1 Profitability Ratios

Profitability ratios are designed to evaluate the firm's ability to generate earnings.

Analysis of profit is of vital concern to stockholders since they derive revenue in the form of dividends.

Profits are also important to creditors because profits are one source of funds for debt coverage. Furthermore Management uses profit as a performance measure.

Description	Calculation
Return on Equity (Before Income Tax) (%)	[(Net Income for the Year Before Tax) / (Average of Owners Equity)] *100
Return on Equity (Before Interest and Income Tax) (%)	[(Net Income for the Year Before Interest and Income Tax) / (Average of Owners Equity)] *100
Return on Capital Employed (Before Income Tax) (%)	[(Net Income for the Year Before Tax) / (Average of Total Owners Equity and Liabilities)] *100
Return on Capital Employed (Before Interest and Income Tax) (%)	[(Net Income for the Year Before Interest and Income Tax) / (Average of Total Owners Equity and Liabilities)] *100
Gross Profit Margin (%)	(Total Gross Trading Results Account / Net Turnover)*100
Operating Profitability (%)	(Operating Results Before Financial Transactions / Net Turnover) * 100
Net Profit Margin (Before Income Tax) (%)	(Net Income for the Year Before Tax / Net Turnover)*100
Net Profit Margin (Before Interest and Income Tax) (%)	[(Net Income for the Year Before Interest and Income Tax) / (Net Turnover)]*100
Net Profit Margin (before Interest, Income Tax, Depreciation and Non Operating Income) (%)	(Net Income for the Year Before Interest, Income Tax, Depreciation and Non Operating Income / Net Turnover)*100
Efficiency of Financial Leverage (X)	Percentage change of Net Income for the Year Before Tax / Percentage change of Net Turnover
Personnel Productivity (EURO)	Net Turnover / Personnel
Personnel Profitability (EURO)	Net Income for the Year Before Tax / Personnel



2.2 Viability and Capital Structure Ratios

Viability and capital structure ratios measure a company's ability to meet its obligations and how much of the company's assets are financed with debt. They reveal the equity cushion that is available to absorb any losses that may occur.

Description	Calculation
Financial Leverage (: 1)	(Liabilities + Transit Credit Balances + Provisions for Contingencies and Expenses) / Total Owners Equity and Liabilities
Total Debt Equity Ratio (: 1)	(Liabilities + Transit Credit Balances + Provisions for Contingencies and Expenses) / Owners Equity
Banks Short Term Obligations to Owners Equity (%)	(Banks Short Term Obligations / Owners Equity) *100
Capital Structure (X)	Return on Equity (Before Income Tax) / Return on Capital Employed (Before Income Tax)
Basic Period of Viability (DAYS)	(Cash + Securities + Receivables) / [(Total Cost of Net Sales+ Selling Expenses) / 365]
Equity to Fixed Assets (X)	Owners Equity / Fixed Assets (Net Value)
Fixed Assets to Long Term Liabilities (X)	Fixed Assets (Net Value) / Long Term Liabilities
Fixed Assets to Total Owners Equity and Liabilities (%)	[(Fixed Assets (Net Value) / (Total Owners Equity and Liabilities)] *100
Interest Coverage (Before Interest and Income Tax) (X)	Net Income for the Year Before Interest and Income Tax / Interest Charges and Related Expenses



2.3 Liquidity Ratios

Liquidity ratios measure the ability of a firm to meet its short-term obligations.

The ability to pay short-term debt is of concern to anyone who interacts with the company. If a company cannot maintain a short-term debt-paying ability, it will not be able to maintain a long-term debt-paying ability, nor will it be able to satisfy its stockholders.

The liquidity ratios look at aspects of the company's assets and their relationship to current liabilities.

Description	Calculation
Current Ratio (X)	(Average of: Current Assets + Transit Debit Balances) / (Average of: Short Term Liabilities + Transit Credit Balances)
Quick Ratio (Acid Test) (X	(Average of: Current Assets + Transit Debit Balances - Stocks) / (Average of: Short Term Liabilities + Transit Credit Balances)
Cash Ratio (X)	(Average of: Cash + Securities) / (Average of Short Term Liabilities)
Working Capital (EURO)	(Current Assets + Transit Debit Balances) - (Short Term Liabilities + Transit Credit Balances)
Short Term Liabilities to Working Capital (X)	Short Term Liabilities / [(Current Assets + Transit Debit Balances) – (Short Term Liabilities + Transit Credit Balances)]



2.4 Activity Ratios

Activity ratios measure the quality of a business' receivables and how efficiently it uses and controls its assets, how effectively the firm is paying suppliers, and whether the business is overtrading or under trading on its equity (using borrowed funds).

Description	Calculation
Collection Period (DAYS)	[(Average of: Customers + Long Term Bills and Cheques + Doubtful Receivables) / (Net Turnover)] *365
Payable Period (DAYS)	[(Average of: Suppliers + Bills and Promissory Notes Payable + Outstanding Cheques) / (Total Cost of Net Sales)] *365
Inventory Turnover (DAYS)	[(Average of Stocks) / (Total Cost of Net Sales)] *365
Operating Cycle (DAYS)	Days of Collection Period + Days of Inventory Turnover
Commercial Cycle (DAYS)	(Days of Collection Period + Days of Inventory Turnover – Days of Payable Period)
Equity Turnover (X)	Net Turnover / (Average of Owners Equity)
Turnover of Capital Employed (X)	Net Turnover / (Average of Total Owners Equity and Liabilities)
Fixed Assets Turnover (X)	Net Turnover / Average of Fixed Assets (Net Value)
Significance of Selling Expenses (%)	(Selling Expenses / Net Turnover) *100



2.5 Investor Ratios

Investors to appraise potential investment opportunities commonly use these Ratios.

Investor ratios connect the number of shares of the company and their Stock Exchange price, with the profits, the dividends and other assets.

They measures the overall profit generated for each share in existence over a particular period, the proportion of earnings that are being retained by the business rather than distributed as dividends and provide a guide as to the ability of a business to maintain a dividend payment.

Description	Calculation
Share Internal Value (EURO)	Owners Equity / Number of Outstanding Shares
Earnings per Share (EURO)	Net Income for the Year Before Tax / Number of Outstanding Shares
Dividend per Share (EURO)	Dividend / Number of Outstanding Shares
Dividend to Net Income (Before Tax) (%)	(Dividend / Net Income for the Year Before Tax) *100



3. FINANCIAL RATIOS FOR BANKS

3.1 Profitability and Efficiency Ratios

Profitability and efficiency ratios are designed to evaluate the firm's ability to generate earnings.

Analysis of profit is of vital concern to stockholders since they derive revenue in the form of dividends.

Profits are also important to creditors because profits are one source of funds for debt coverage. Furthermore Management uses profit as a performance measure.

Description	Calculation
Return on Equity (Before Income Tax) (%)	[(Net Income for the Year Before Tax) / (Average of Owners Equity)] *100
Return on Assets (%)	[(Net Income for the Year Before Tax) / (Average of Total Fixed Assets)] *100
Return on Earning Assets (%)	[(Interest Income and Similar Income) / (Average of: Cash and Balances with the Central Bank + Treasury Bills and Other Bills + Loans and Advances to Credit Institutions + Receivables from Customers + Debts Securities Including Fixed Income Securities)] *100
Interest Expense of Interest Bearing on Owners Equity and Liabilities (%)	[(Interest Expense and Similar Changes) / (Average of: Due to Credit Institutions + Liabilities to Customers + Liabilities from Credit Titles + Subordinated Debts + Debt Loan Compulsory Convertible to shares)] *100
Return on Earning Assets Less Interest Expense of Interest Owners Equity and Liabilities (X)	(Return on Earning Assets – Interest Expense of Interest Bearing on Owners Equity and Liabilities)
Net Return on Earning Assets (%)	[(Interest Income and Similar Income Minus Expense) / (Average of: Cash and Balances with the Central Bank + Treasury Bills and Other Bills + Loans and Advances to Credit Institutions + Receivables from Customers + Debts Securities Including Fixed Income Securities)] *100
Net Interest Margin (%)	[(Interest Income and Similar Income Minus Expense) / (Average of Total Fixed Assets)] *100
Efficiency Ratio (%)	(Operating Expenses / Operating Income) *100
Efficiency Ratio (Except Net Profit on Financial Operations) (%)	[(Operating Expenses) / (Operating Income – Net Profit on Financial Operations)] *100



Description	Calculation
Operating Income (Except Net Interest Income) To Total Assets (%)	[Operating Income (Except Net Interest Income) / (Average of Total Assets)] *100
Operating Expenses To Assets (%)	[Operating Expenses / (Average of Total Assets)] *100
General Administrative Expenses To Operating Expenses (%)	General Administrative Expenses / Operating Income

3.2 Productivity Ratios

Productivity is the quantitative relationship between what a company produces and the resources that uses.

Productivity ratios show the participation of company's employees in its financial figures such as Profit or Assets etc.

Description	Calculation
Personnel Productivity (EURO)	Gross Margin (From Services) / Number of Personnel
Personnel Profitability (EURO)	Net Income for the Year Before Tax / Number of Personnel
Assets to Number of Personnel (EURO)	Assets / Number of Personnel
Granting to Number of Personnel (EURO)	Receivables from Customers (Granting) / Number of Personnel
Deposits to Number of Personnel (EURO)	Liabilities to Customers (Deposits) / Number of Personnel



3.3 Balance Sheet Structure Ratios

These ratios show the participation of company's financial figures in its balance sheet structure.

Description	Calculation
Interest Earning Assets to Total Assets (%)	[(Cash and Balances with the Central Bank + Treasury Bills and Other Bills + Loans and Advances to Credit Institutions + Receivables from Customers + Debts Securities Including Fixed Income Securities) / Total Assets] *100
Granting to Total Assets (%)	[Receivables from Customers (Granting) / Total Assets] *100
Provisions for Granting to Granting (%)	[Provisions for Granting / Receivables from Customers (Granting)] *100
Debts Securities Including Fixed Income Securities to Total Assets (%)	(Debts Securities Including Fixed Income Securities / Total Assets) *100
Interest Liabilities to Total Owners Equity and Liabilities (%)	[(Due to Credit Institutions + Liabilities to Customers + Liabilities from Credit Titles + Subordinated Debts + Debt Loan Compulsory Convertible to shares) / Total Owners Equity and Liabilities] *100
Shareholders Equity to Total Owners Equity and Liabilities (%)	(Shareholders Equity / Total Owners Equity and Liabilities) *100
Deposits to Total Owners Equity and Liabilities (%)	(Liabilities to Customers (Deposits) / Total Owners Equity and Liabilities) *100
Granting to Deposits (%)	[Receivables from Customers (Granting)) / Liabilities to Customers (Deposits)] *100
Interest Expenses and Similar Charges to Other Interest Income and Similar Income (%)	(Interest Expenses and Similar Charges / Interest Income and Similar Income) *100

3.4 Income Structure Ratios

These ratios show the structure of company's profit and loss accounts.

Description	Calculation
Net Interest Income to Operating Income (%)	(Interest Income and Similar Income Minus Expense / Operating Income) *100
Dividend Income to Operating Income (%)	(Dividend Income / Operating Income) *100
Net Income on Financial Operations to Operating Income (%))	(Net Income on Financial Operations / Operating Income) *100
Staff Cost to Operating Income (%)	Staff Cost / Operating Income



3.5 Investor Ratios

Investors to appraise potential investment opportunities commonly use these Ratios.

Investor ratios connect the number of shares of the company and their Stock Exchange price, with the profits, the dividends and other assets.

They measures the overall profit generated for each share in existence over a particular period, the proportion of earnings that are being retained by the business rather than distributed as dividends and provide a guide as to the ability of a business to maintain a dividend payment.

Description	Calculation
Share Internal Value (EURO)	Owners Equity / Number of Outstanding Shares
Earnings per Share (EURO)	Net Income for the Year Before Tax / Number of Outstanding Shares
Dividend per Share (EURO)	Dividend / Number of Outstanding Shares
Dividend to Net Income (Before Tax) (%)	Dividend / Net Income (Before Tax) *100
Net Income (After Tax) to Dividend (x)	Net Income (After Tax) / Dividend



4. FINANCIAL RATIOS FOR INSURANCES - INSURANCE BROKERS & AGENTS

4.1 Profitability Ratios

Profitability ratios are designed to evaluate the firm's ability to generate earnings.

Analysis of profit is of vital concern to stockholders since they derive revenue in the form of dividends.

Profits are also important to creditors because profits are one source of funds for debt coverage. Furthermore Management uses profit as a performance measure.

Description	Calculation
Return on Equity (Before Income Tax) (%)	[(Net Income for the Year Before Tax) / (Average of Owners Equity)] *100
Return on Capital Employed (Before Income Tax) (%)	[(Net Income for the Year Before Tax) / (Average of Total Owners Equity and Liabilities)] *100
Return on Capital Employed (Before Interest and Income Tax) (%)	[(Net Income for the Year Before Interest and Income Tax) / (Average of Total Owners Equity and Liabilities)] *100
Gross Profit Margin (%)	[(Total Gross Trading Results Account / Net Turnover)]*100
Operating Profitability (%)	[(Operating Results Before Financial Transactions / Net Turnover)] * 100
Net Profit Margin (Before Income Tax) (%)	(Net Income for the Year Before Tax / Net Turnover)*100
Personnel Productivity (EURO)	Grand Total Income / Number of Personnel



4.2 Activity and Liquidity Ratios

Activity ratios measure the quality of a business' receivables and how efficiently it uses and controls its assets, how effectively the firm is paying suppliers, and whether the business is overtrading or under trading on its equity (using borrowed funds).

Liquidity ratios measure the ability of a firm to meet its short-term obligations.

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The liquidity ratios look at aspects of the company's assets and their relationship to current liabilities.

Description	Calculation
Collection Period (DAYS)	[(Average of Receivables) / Grand Total Income] *365
Equity Turnover (X)	Grand Total Income / (Average of Equity Capital)
Turnover of Capital Employed (X)	Grand Total Income / Average of Total Owners Equity and Liabilities)
Current Ratio (X)	(Average of: Current Assets + Transit Debit Balances) / (Average of : Short Term Liabilities + Transit Credit Balances)

4.3 Capital Structure Ratios

Capital structure ratios measure a company's ability to meet its obligations and how much of the company's assets are financed with debt. They reveal the equity cushion that is available to absorb any losses that may occur.

Description	Calculation
Total Debt Equity Ratio (: 1)	Total Liabilities + Total Insurance (Technical) Provisions / Equity Capital
Insurance Provisions to Total Owners Equity and Liabilities (%)	(Insurance Provisions / Total Owners Equity and Liabilities) *100
Shareholders Equity to Total Owners Equity and Liabilities (%)	(Equity Capital Total Owners Equity and Liabilities) *100
Intangible Assets Ratio (%)	(Establishment Costs and Intangibles (Net Value) / Total Fixed Assets) *100
Interest Coverage (Before Interest and Income Tax) (X)	(Net Income for the Year Before Interest and Income Tax / Interest Charges and Related Expenses



4.4 Investor Ratios

Investors to appraise potential investment opportunities commonly use these Ratios.

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Dividend per Share (EURO)	Dividend / Number of Outstanding Shares
Dividend to Net Income (Before Tax) (%)	Dividend / Net Income (Before Tax) *100
Net Income (After Tax) to Dividend (x)	Net Income (After Tax) / Dividend