

FINANCIAL RATIOS

MARGIN RATIOS

how much profit generated from each dollar of earned

- OPERATING PROFIT MARGIN**
= Operating Profit / Revenue
aka: EBIT
= (Revenue - COGS - Operating Expenses) / Revenue
- NET PROFIT MARGIN**
= Net Profit / Revenue
aka: Bottom line
= (Revenue - COGS - Operating Exp - Interest Exp - Tax Exp) / Revenue
- GROSS PROFIT MARGIN**
= Gross Profit / Revenue
aka:
= (Revenue - COGS) / Revenue
- CONTRIBUTION MARGIN**
= (Revenue - Variable Costs) / Revenue
aka:
% of sales available to cover fixed costs and profits

PROFITABILITY RATIOS

how much net profit generated relative to assets, equity or capital employed

2 SUBSETS:

- MARGIN RATIOS
- RETURN RATIOS

RETURN RATIOS

- RETURN ON EQUITY**
= Net Profit / Average Total Equity
aka:
= (Revenue - COGS - Operating Exp - Interest Exp - Tax Exp) / ((Equity Beginning Balance + Equity Ending Balance) / 2)
- RETURN ON ASSETS**
= Net Profit / Average Total Assets
aka: ROA
= (Revenue - COGS - Operating Exp - Interest Exp - Tax Exp) / ((Assets Beginning Balance + Assets Ending Balance) / 2)
- RETURN ON CAPITAL EMPLOYED**
= Net operating profit / Capital Employed
aka: ROCE
= (Revenue - COGS - Operating Expenses) / (total assets - current liabilities)
- RETURN ON INVESTMENT**
= (Gain from investment - cost of investment) / cost of investment
aka: ROI

SHORT TERM RATIOS

how well can business cover its short term obligations using its assets

- QUICK RATIO**
= (Current Assets - Inventory) / Current Liabilities
aka: Acid Test
= (current assets includes cash + cash equivalents + short-term investments + current receivables) - Inventory / current liabilities
- CASH RATIO**
= Cash / Current Liabilities
aka:
> greater than 1, the business is able to pay off all its short term debts with cash it has on hand
- WORKING CAPITAL**
= current assets includes cash + cash equivalents + short-term investments + current receivables
See Current Ratio for Working Capital Ratio

LONG TERM RATIOS

- TIMES INTEREST EARNED RATIO**
= EBIT / Interest Expense
aka: Interest Coverage Ratio
= (Revenue - COGS - Operating Expenses) / Interest Expense
tell how many times income is greater than annual interest expense

LIQUIDITY RATIOS

shows how easy it is for a business to raise or convert assets into cash to pay off current liabilities and long term liabilities as they become due

2 SUBSETS:

- SHORT TERM RATIOS
- LONG TERM RATIOS

4 HORSEMEN OF FINANCIAL RATIOS:

- Profitability Ratios
- Liquidity Ratios
- Efficiency Ratios
- Leverage Ratios

RECEIVABLES TURNOVER RATIO

shows how efficiently biz collects cash from customers

= Revenue / Average Receivable
aka:
= net credit sales / ((beginning receivable + ending receivable) / 2)
DO NOT include cash sales

INVENTORY TURNOVER RATIO

tells how many times the business sold/replenished its inventory in a period

= COGS / Average Inventory
aka:
= COGS / ((beginning inventory + ending inventory) / 2)

ASSET TURNOVER RATIO

measures the biz assets' ability to generate sales

= Net Sales / Average Total Asset
aka:
= (Revenue - Returns - Refunds) / ((Assets Beginning Balance + Assets Ending Balance) / 2)

ACCOUNTS RECEIVABLE / NET CREDIT SALES x 365

aka:
= (accounts receivable / revenue) x 365
sales on credit

gives the number of days it takes a biz to collect cash from customers

DEBT SERVICE COVERAGE RATIO

= Operating Income / Total Debt Service Costs
aka:
= EBIT / (interest payments + principle payments + other obligations)

shows whether the biz generated enough profit to pay both interest & principal

INTEREST COVERAGE RATIO

= EBIT / Interest Expense
aka: Times Interest Earned Ratio
= (Revenue - COGS - Operating Expenses) / Interest Expense

tell how many times income is greater than annual interest expense

DEBT TO EQUITY RATIO

= Total Debts / Total Equity
aka:
= total liabilities / total equity

a higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders).

DEBT TO ASSET RATIO

= Total Debts / Total Asset
aka:
= total liabilities / total assets

tell how much of the biz assets have been financed using debt

DEBT TO SERVICE RATIO

= Operating Income / Total Debt Service Costs
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PAYABLES TURNOVER RATIO

= Total supplier purchases / Average Accounts Payable
aka:
= (Ending Inventory + COGS - Beginning Inventory) / ((AP Beginning Balance + AP Ending Balance) / 2)

shows how many times the biz can pay off its average accounts payable balance during the year (365 days / the Ratio)
shows how reliable the biz is at paying off its suppliers

DAYS PAYABLE OUTSTANDING

= [Accounts Payable / (Cost of Sales / Number of days)]
aka:
= [Accounts Payable / (Cost of Sales / 365)]

note # of days can be per period gives the number of days it takes a biz to pay its bills

DAYS SALES OF INVENTORY

= (Ending Inventory / COGS) x 365
aka:
= (ending inventory / COGS) x 365

gives you the inventory turnover period, the # of days it takes a biz to convert its inventory into sales

DAYS SALES OUTSTANDING

= (Accounts Receivable / Net Credit Sales) x 365
aka:
= (accounts receivable / revenue) x 365
sales on credit

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TURNOVER RATIOS

EFFICIENCY RATIOS

CASH CONVERSION RATIOS

LEVERAGE RATIOS

BALANCE SHEET RATIOS

INCOME STATEMENT RATIOS