

ACCOUNTING RATIOS: FORMULAS



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Lifeline for Learning

Ratio analysis is the technique of interpreting the final accounts of businesses in order to assess strengths and weaknesses. A business needs to be performing well in areas of:

- profitability
- liquidity
- capital structure

The formulas for these ratios are set out on these two sheets. Note that the word 'ratio' can be misleading because the performance indicators produced by these formulas may also be percentages or measurements such as days.

PROFITABILITY RATIOS

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Revenue}} \times 100$$

$$\text{Gross profit mark-up} = \frac{\text{Gross profit}}{\text{Cost of sales}} \times 100$$

$$\text{Overheads in relation to revenue} = \frac{\text{Overheads (expenses)}}{\text{Revenue}} \times 100$$

$$\text{Net profit margin}^* = \frac{\text{Net profit}^{**}}{\text{Revenue}} \times 100$$

* also known as profit in relation to revenue

** use operating profit (ie profit from operations) if the figure is available

$$\text{Return on capital employed} = \frac{\text{Net profit}^*}{\text{Capital employed}^\dagger} \times 100$$

* use operating profit (ie profit from operations) if the figure is available

† for limited companies: this is ordinary share capital + reserves + preference share capital + loan capital;

for sole traders, capital employed is the owner's capital in the business

LIQUIDITY RATIOS

$$\text{Net current asset ratio}^* = \frac{\text{Current assets}}{\text{Current liabilities}}$$

* also known as the current ratio, or working capital ratio

$$\text{Liquid capital ratio}^* = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}$$

* also known as the acid test or quick ratio

$$\text{Rate of inventory turnover (days)} = \frac{\text{Average inventory}^*}{\text{Cost of sales}} \times 365 \text{ days}$$

* usually taken as: (opening inventories + closing inventories) ÷ 2; alternatively, if opening inventories figure not available, use closing inventories from the balance sheet in the calculation

$$\text{Trade receivables days} = \frac{\text{Trade receivables}}{\text{Revenue}} \times 365 \text{ days}$$

$$\text{Trade payables days} = \frac{\text{Trade payables}}{\text{Credit purchases or cost of sales}} \times 365 \text{ days}$$

CAPITAL STRUCTURE RATIO

$$\text{Gearing ratio}^* = \frac{\text{Debt (loan capital + preference shares, if any)}}{\text{Equity (ordinary shares + reserves)}}$$

* also known as capital gearing ratio, or debt/equity ratio; for a percentage multiply the ratio by 100

Note

The gearing ratio set out above relates to the financial statements of a limited company; the ratio for sole traders and partnerships is:

$$\frac{\text{Non-current liabilities}}{\text{Capital}}$$