

## Ratio analysis

Ratio analysis is an accounting technique used to compare one figure with another figure. For example if the A business is twice as big as the B business we could represent the ratio of the sizes of the two business in the following way:

$$A : B = 2 : 1$$

Ratios help us to instantly check whether a business is sound, and also to compare ratios over a period in time. Ratios can be used for the following purposes:

1. Examining trends in results over a number of years.
2. Comparing the results of a business with results of other businesses.
3. Comparing the results of the business with the average results of all

businesses in that sector.

In business we also use the term ratio to apply to other measures such as calculations e.g. profit figures.

Here are some of the most important ratios used in business:

### Profit margin ratios:

$$\text{Gross profit \%} = (\text{Gross profit} / \text{Sales}) \times 100\%$$

$$\text{Operating profit \%} = (\text{Operating profit} / \text{Sales}) \times 100\%$$

### Gearing ratio:

$$\text{Gearing ratio} = (\text{Preference share debt} - \text{cash at bank}) / \text{Equity}$$

### Management ratios:

$$\text{Return on ordinary shareholders funds} = (\text{Net profit before tax} / \text{Average Equity}) \times 100\%$$

$$\text{Return on capital employed (ROCE)} = (\text{Operating profit} / \text{Average capital employed}) \times 100\%$$

### Investment ratios:

$$\text{Earnings yield} = (\text{Earnings per share} / \text{Share Price}) \times 100\%$$

$$\text{Earnings per share} = \text{Net profit (after tax and preference divi)} / \text{Number of ordinary shares}$$

$$\text{Price/earnings ratio} = \text{Market price of share} / \text{Earnings per share}$$

$$\text{Dividend yield} = (\text{Dividend per share} / \text{Market price of share}) \times 100\%$$

Dividend cover =  $\frac{\text{Net profit}}{\text{Dividends}}$

Interest cover =  $\frac{\text{Profit (before interest and tax)}}{\text{Interest payable for year}}$

Solvency ratios:

Working capital (current ratio) =  $\frac{\text{Current assets}}{\text{Current Liabilities}}$

Acid or quick test ratio =  $\frac{(\text{Current assets} - \text{stock})}{\text{Current Liabilities}}$

Debtor days and creditor days:

Debtor days =  $(\frac{\text{Average trade debtors}}{\text{Credit sales}}) \times 365 \text{ days}$

Creditor days =  $(\frac{\text{Average trade creditors}}{\text{Credit Purchases}}) \times 365 \text{ days}$