

PROFITABILITY RATIOS

(1) Return on Capital Employed

$$\text{R.O.C.E.} = \frac{\text{Profit before interest and tax}}{\text{Total assets less current liabilities}}$$

(2) Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Profit before interest and tax}}{\text{Turnover}}$$

(3) Gross Profit Margin

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Turnover}}$$

(4) Asset Turnover

$$\text{Asset Turnover} = \frac{\text{Turnover}}{\text{Total assets less current liabilities}}$$

LIQUIDITY RATIOS

(1) Current Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$

(2) Quick (Acid Test) Ratio

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Stock}}{\text{Current Liabilities}}$$

(3) Stock Turnover

$$\text{Stock Turnover} = \frac{\text{Stocks}}{\text{Cost of Sales}} \times 365$$

(4) Debtor Days

$$\text{Debtor Days} = \frac{\text{Trade Debtors}}{\text{Turnover}} \times 365$$

(5) Creditor Days

$$\text{Creditor Days} = \frac{\text{Trade Creditors}}{\text{Purchases}} \times 365$$

GEARING RATIOS

(1) Gearing Ratio

$$\text{Gearing Ratio} = \frac{\text{Long Term Loans}}{\text{Total assets less current liabilities}}$$

(2) Interest Cover

$$\text{Interest Cover} = \frac{\text{Profit Before Interest and Tax}}{\text{Interest payable}}$$

INTERPRETATION OF RATIOS

(A) PROFITABILITY

Return on Capital Employed = Net Profit margin x Asset Turnover

(1) Return on Capital Employed

- ROCE shows us how effectively the business is using the capital invested in it
- In order to examine the fluctuations in ROCE , we need to look in more detail at the 2 other main profitability ratios

(2) Net Profit Margin

- The net profit margin shows us the net profit made on each item sold (after taking into account all the expenses / overheads of the business)

A low margin indicates low selling prices or high costs or both

(3) Asset Turnover

- The asset turnover shows us how fully a company is utilising its assets to generate turnover

Reasons for a decrease in asset turnover might include the existence of under-performing assets

e.g. old assets which need repairing . If the assets are under-performing because they need constant maintenance , then they will not be as efficient in generating turnover as , say , newly - acquired assets .

- The above equation also helps to demonstrate how management can influence the ROCE figure :

N . B. Bear in mind that different companies operating in different industries will adopt different policies :

(4) *Gross Profit Margin*

(B) LIQUIDITY

(1) *Current Ratio*

i.e. it shows whether the business is able to generate enough cash from its stock and debtors balances (plus cash already held) to be able to pay off its short term creditors when they fall due)

- For most healthy companies it will tend to be in the region of 1.5 to 2.0
- If the current ratio falls towards 1.0 , then the situation should be looked at carefully as the short-term solvency of the company is looking more risky
- If the ratio falls below 1.0 , then alarm bells should ring as this indicates a very poor solvency position

N . B . Companies in different industries will operate on different current ratios . The current ratio for a company with slow-moving stocks and generous credit terms such as a heavy engineering firm will be higher than for a company with fast-moving stocks and restricted credit terms such as a supermarket
(Sainsburys operate on a current ratio of approx. 0.4)

(2) *Acid-Test / Quick Ratio*

- This is similar to the current ratio but stocks are excluded from current assets . This is due to the length of time necessary to convert stocks into cash
- For a healthy company this ratio is normally in the region 1.0 to 1.5

(3) *Stock Turnover*

- This indicates whether a business's stocks are justified in relation to its sales. It tells us how often a year the business turns over its stock on average.
- If the ratio falls this may indicate excess stocks , sluggish sales or maybe problems with obsolete stock

(4) *Debtor Days*

- This tells us the credit period allowed to customers
- Most businesses operate with a collection period of approx 35-40 days
- If the collection period is above this , it may be a reason for a poor solvency position as cash is not being collected efficiently . Also , one would check for any increase in bad or doubtful debts

(5) *Creditor Days*

- This is the credit period allowed to us by our suppliers . It does not give us as much information as the other ratios as it is not within our control (apart from changing suppliers)

(C) *GEARING*

(1) *Gearing Ratio*

- This is concerned with establishing the relationship between the proportion of capital employed by the business that is borrowed (i.e. debt) and the proportion that is provided via the capital introduced and the retention of profits

i.e. It is concerned with how the business raises its long-term finance

- A highly geared company is said to be a greater risk as borrowed money must be remunerated with interest payments regardless of the level of profits
- A lower geared company is a lower risk as with the withdrawal of funds by the owner in the form of drawings , there is an element of "choice" as if profits are low then the owner can take out less funds than if profits were high .