

CAPITAL STRUCTURE – GEARING AND THE USE OF DEBT:

Capital Gearing, or just “Gearing”, is a measure of the extent that a company avails of Debt finance (i.e. term loans and similar borrowing) relative to the Shareholders’ “Equity” or interest in the assets viz. Share Capital and Retained Profits.

The total of long term sources invested in the company is known as “Capital Employed” and is the sum of Debt and Equity.

Consider the following 2 companies. Both companies trade in the same sector and enjoy a rate of return on “capital employed” of 20% per annum.

| BALANCE SHEETS | | |
|-------------------------------|-----------|-----------|
| | Company A | Company B |
| Net Assets | 6000 | 6000 |
| Financed By: | | |
| SHARE CAPITAL: | | |
| Ordinary Shares of €1.00 each | 5000 | 1000 |
| DEBT: | | |
| 10% Term Loans | 1000 | 5000 |
| | 6000 | 6000 |

| PROFIT AND LOSS ACCOUNTS | | |
|--------------------------------|-----------|-----------|
| | Company A | Company B |
| Profit before Interest and Tax | 1200 | 1200 |
| Interest on Loans at 10% | -100 | -500 |
| Profit before tax | 1100 | 700 |
| Taxation at 20% | -220 | -140 |
| Profit after tax | 880 | 560 |

Each company has Capital Employed of €6,000, but with differing mixes of debt and equity. The return on the funds invested at 20% yields a profit before interest of €1,200.

There are 5 ratios to consider:

GEARING RATIO:

This measures the extent that debt is used to fund operations. It is the ratio of Debt to Total Long Term Sources (Debt + Equity).

| Formula | Company A | Company B |
|---|-----------------------------------|-----------------------------------|
| $\frac{\text{Debt}}{\text{Debt}+\text{Equity}} \times 100 = \%$ | $\frac{1000}{6000} = .167$ or 17% | $\frac{5000}{6000} = .833$ or 83% |

One company is quite lowly geared at 17% and the other is highly geared at 83%. The impact of gearing is determined by the next two ratios:

OVERALL RETURN ON LONG TERM FUNDS:

This is also known as *Return on Capital Employed or ROCE*.

| Formula | Company A | Company B |
|---|----------------------------------|----------------------------------|
| $\frac{\text{Profit before interest and tax (PBIT)}}{\text{Debt + Equity}}$ | $\frac{1200}{6000} = .20$ or 20% | $\frac{1200}{6000} = .20$ or 20% |

So both companies are using long term funds to earn a return of 20%.

AVERAGE COST OF DEBT:

This is simply the interest charges as a percentage of borrowings:

| Formula | Company A | Company B |
|--|---------------------------------|---------------------------------|
| $\frac{\text{Interest Cost}}{\text{Debt}}$ | $\frac{100}{1000} = .10$ or 10% | $\frac{500}{5000} = .10$ or 10% |

TIMES INTEREST COVERED:

In the event that a company avails of debt rather than equity to fund its assets, then the amount of interest that will need to be paid will be much higher than for the lowly geared company. Therefore, much of the pre tax profit will be used to cover this higher cost. A measure of this is called the “interest cover” and is calculated as follows:

| Formula | Company A | Company B |
|---|-------------------------------|--------------------------------|
| $\frac{\text{Profit before interest \& tax (PBIT)}}{\text{Interest Cost}} = \text{No. times}$ | $\frac{1200}{100} = 12$ times | $\frac{1200}{500} = 2.4$ times |

So, although Company B has a higher gearing ratio than Company A and its interest cost is significantly higher, it can still cover its interest cost 2.4 times which is quite acceptable. Effectively, the return on the funds borrowed of 20% significantly exceeds the rate of interest of 10% and therefore interest cost is well covered. Company A is lowly geared, has little debt and therefore the interest cost is covered 12 times.

EARNINGS PER SHARE:

This is a key investor’s statistic on financial performance. There are very exact rules on calculating this figure to ensure comparability one company with another.

Earnings Per Share is the Profit After Tax (i.e. profit available to distribute to the shareholders) divided by the Number of Shares in issue.

| Formula | Company A | Company B |
|---|--|-------------------------------------|
| $\frac{\text{Profit after tax}}{\text{Number of shares}}$ | $\frac{880}{5000} = .176$ or 17.6 cent | $\frac{560}{1000} = .56$ or 56 cent |

So, although Company B has less profit in total to distribute, the EPS is higher because there are less shares in issue seeking a dividend. Therefore, shares in Company B are more attractive to investors. Why?

Because Company B has used the borrowed funds, which were borrowed at a cost of 10% interest, to earn a return 20%. In this event, there is a significant RETURN to the fewer shareholders.

So what about the RISK associated with the use of debt rather than equity.

Suppose that the Profit and Loss Account was as follows:

| PROFIT AND LOSS ACCOUNTS | | |
|--------------------------------|-----------|-----------|
| | Company A | Company B |
| Profit before Interest and Tax | 480 | 480 |
| Interest on Loans at 10% | -100 | -500 |
| Profit Loss before tax | 380 | -20 |
| Taxation at 20% | -76 | 4 |
| Profit / Loss after tax | 304 | -16 |

(Note – where a company incurs a loss, it can avail of loss relief to recover corporation tax, but don't be concerned with this).

At €480 Profit (before interest and tax), each company has earned a return on funds invested of 8% (viz 6000 @ 8%). But the cost of borrowings exceeds this at 10%. Therefore, Company B is unable to generate sufficient return to cover interest costs and this is the risk attached to high gearing (which was prevalent enough in the residential rental market in Ireland in 2009 when there has been downward pressure on rental returns and upward pressure on Interest Rates).

The adverse affects of high gearing will now be reflected in the Interest Cover and EPS computations as follows:

| INTEREST COVER: Formula | Company A | Company B |
|--|---------------------------------------|---------------------------------------|
| $\frac{\text{Profit before interest \& tax}}{\text{Interest Cost of Debt}} = \text{No. times}$ | $\frac{480}{100} = 4.8 \text{ times}$ | $\frac{480}{500} = .96 \text{ times}$ |

| EPS: Formula | Company A | Company B |
|---|---|---|
| $\frac{\text{Profit after tax}}{\text{Number of shares}}$ | $\frac{304}{5000} = .06 \text{ or } 6 \text{ cent per share}$ | $\frac{-16}{1000} = \text{-0.016 or -1.6 cent}$ |

Company A can still cover its interest cost many times and deliver a small Earnings Per Share (EPS) to shareholders. Company B, the highly geared company, is unable to cover the cost of borrowings and, as a consequence, the shareholders suffer negative EPS return.

The above computations summarise the RISK RETURN FACTOR associated with high gearing.

SUMMARY:

The return from high gearing arises where the funds borrowed are used to earn a return well in excess of the interest cost. There will be adequate interest cover and higher EPS as profit is shared among fewer shareholders.

The risk arises where the rate of return significantly falls and / or the rate of interest increases so that there is little or no interest cover and little or negative EPS as any profit earned is absorbed by the higher interest charges.

END.