Equity – Valuation

1. Holding Period Return

The return from holding stocks come in the form of dividends and the change in the price of shares

Realised capital over a period = $\frac{Dividend\ Paid\ +(End\ Of\ Period\ Share\ Value\ -\ Initial\ Share\ Value)}{Initial\ Share\ Value} * 100.$

When purchasing common stock, investors will want to calculate the expected return from a particular stock

2. Dividend Yields

These ratios are used to estimate the future flow of dividends from the stock

Dividend Yield = $\frac{D_0}{P_0}$

1. Where D is the dividend yield paid during the period 0; and
2. P is the share price of stock and at the end of period 0

These calculations may not be useful in predicting future return of stock as this is only for current state. Dividend payments can change as well as share prices.

Dividend Policy and Dividend Cover

Some firms are known to have a stable dividend policy regardless of profit. This is possible with a dividend cover.

Dividend cover = $\frac{EPS_0}{DPS_0}$

- 1. Where EPS is the earnings per share during the period 0; and
- 2. P is the dividend per share at the end of period 0

EPS = retained profit

Dividend pay-out ratio is the proportion of earnings belonging to ordinary shareholders.

A firm with a cover of 1.0 pays out all earnings in terms of dividends. In a case of loss, reserves will be paid out.

Factors affecting influencing the dividend decision by firms:

1. Companies often use the dividend as a 'signal' for confidence.
2. Company may wish to attract certain types of investors e.g. those seeking fast=growing dividends.
3. Tax influences on the payment of dividends. Taxes are paid by investors.
4. More revenue means a higher proportion of dividends. A higher access to capital markets means less need for retained earnings thus higher pay-outs.

However, dividends may not be legal if they dip into prior-year undistributed profits.

3. Dividend Discount Models & the Growth Rate of Dividend

A standard took for valuing equities of the dividend discount model.

Gordon Growth model = R = $\frac{D_1(1+g)}{P_0}$ +g

D= Represents the dividend payment in period 1

g = the constant growth rate in dividend.

This model shows the relationship between dividends, dividend growth and discount rate. This provides a useful guide to the expected return of a firm's common stock.

Calculating the growth rate of dividends

Methods to estimate g:

- Averaging past dividend growth rate and assuming this number applies into the future
- Looking at analysts and 'consensus' forecasts
- If dividends are always constant proportion of earnings, dividend growth is the same as earnings growth rate.
- Retained earnings = g = (Retained earnings/earnings) x (Return on retained earnings) | Retention ratio/ROE

4. Relative Value vs. Absolute Value models

There are two valuation processes:

Absolute value = Equity value = Present value of forecast future returns

This estimates equity at present value of future equity returns to investor.

Relative Value = Equity Value – Earnings Power x Market price multiple.

This estimates value of equity as measure of earnings power times a market price multiple. If a similar business is valued X amount, same value can be added.

5. Earnings per share (Absolute)

Current Earnings = Equity dividends + Retained Earnings.

$$EPS = \frac{Current\ Earnings}{Number\ of\ ordrinary\ shares}$$

An EPS can be attributed to each outstanding ordinary share. This is a 'profitability per share' figure which can be seen as a total pay-out potential. This is not, however, a useful comparison for inter-company comparisons. It also cannot indicate if a firm can meet it's dividend levels.

Growth in EPS from one year to the next indicates better performance. However, If more shares are issued, EPS will fall vice versa. Thus, looking at diluted EPS is helpful to understand the implication of it happening.

6. Price-Earning Ratio (Relative)

Historic PE = $\dfrac{Price\ now}{Historic\ Earnings} = \dfrac{P_0}{E_0}$

Prospective PE = $\dfrac{Price\ now}{Forcast\ Earnings} = \dfrac{P_0}{E_1}$

A high PE ratio shows that investors believe that future earnings will be high or it could mean that the company is overvalued.

Historic PE is based upon a new distribution of earnings.

The prospective PE looks at whether the share price is relatively high or low compared to forecast earnings. This is calculated by today's share price divided by forecast earnings.

Risks: Negative earnings will not produce valuation. Different accounting policies will distort PE ratio.

7. Price to Book (PB)

PB looks at book valued assets which are more stable than earnings which is what PE looks at.

PB calculated by : Book Value of equity = Book value assets– Book Value liabilities.

Market value of assets reflects earnings power and cashflow.

A higher PB means that the market as believes the company will use its assets to create value in the future.

However, accounting distortions can occur. If a company has depreciating assets with the same level of income output, it would mean a higher PB ratio. Thus, deeper analysis is required.

8. Price to Sales

PS ratios addresses both concerns of PE ratio. Sales are not negative, neither are the subject to accounting distortion.

The price of equity relative to a sales figure for the company is being looked at. However,:

1. Sales does not mean profits for shareholders. Valuation techniques are linked to return to investors.

2. Sales also include debt (ignores gearing)

PS are useful for valuing stocks where earnings are negative. It can be used in cyclical positions, spotting turnaround situations or when a company is being overvalued. It's also helpful when a company suffers losses.

A lows PS ratio is good for investors. If a company can turn around their PS ratio and make it considerable lower, investors can benefit from substantial profits.

9. Enterprise Values to Sales

EV/S looks at the value of the entire entity (debt + equity – cash) which gives enterprise value relative to the sales that the capital generates. This eliminates effect of accounting.

A high EV can be a sign that future sales will increase.

A low ratio can signal that future sales prospects are not attractive. It is useful for peer comparison. It also standardises between companies.

10. Price to Cash Flow

PCF helps create a relative valuation. Advantages:

1. Companies have much harder time to manipulate cash flow. Thus they have a far more accurate picture of a company. While earnings multiples can be difficult to compare, PCF provides a more reliable indicator.

However, Cash flows can be calculated different ways to reflect different types of cash flows. It neglects non-cash components. It Is also a very simplistic approach to comparing firms. A high PCF suggests trading price is high. Lower PCF preferred as this shows cash flow.

11. Gearing

Gearing is the level of company's debt relative to its equity. This measures the company's financial leverage.

$$\text{Debt-equity ratio} = \frac{\text{(Total long term debt)}}{\text{(Total equity)}} * 100$$

A gearing ratio higher than 50% is considered high gearing ratio. This doesn't necessarily make it bad as there can be tax advantages and the upsides can be greater but equally a huge loss if the company is unable to pay.

Larger businesses can have a higher percentage of gearing without alarming investors. The level Lof gearing depends on the size, type of company and sector. A company who has higher gearing usually have higher cash flow to stay afloat.

A higher gearing will impact the dividend valuation model which will discount future expected dividends (ROE), which in turn will imply a lower share value.

Taking on debt is a cheaper option than equity finance as the rate of return required is less.