An explanation of some basic concepts for Ratios and Analysis for Shares

NPAT or Net Profits After Tax

Net Profit after Tax (NPAT) is one of the more important figures that a company makes public. NPAT is one of the figures that a fundamental analyst or value investor would consider before making an investment decision.

The NPAT is calculated from taking the operating profit after income tax, before the significant (or abnormal) and extraordinary items, and without deducting the Outside Equity Interest. When you have outside investors who own part of one of the company’s subsidiaries, they are classed as outside equity interests and are included in the NPAT amount.

The NPAT can sometimes be found in the statement of financial performance or the Profit and Loss Statement. Many companies will just list one figure for profit after tax and this will include significant items.

The most contentious issue surrounding company’s calculation and subsequent documenting of NPAT is the manner in which tax has been accounted for with the significant items. Significant items are one-off occurrences that must be accounted for but will most likely never happen again. Often they have a substantial effect on the company’s bottom line with earnings and profit, and the tax effect can also have a significant impact on the final figures. Under recent changes, companies do not have to disclose the tax effect on the significant items in their statement of financial performance.

EPS or Earnings Per Share

Earnings per share is an indicator of a company’s profitability and is the portion of a company’s profit allocated to each outstanding share of common stock.

It is usually calculated as:

\[
\text{EPS} = \frac{\text{Net Income} - \text{Dividends on Preferred Stock}}{\text{Average Outstanding Shares}}
\]

When calculating, it is more accurate to use a weighted average number of shares outstanding over the reporting term, because the number of shares outstanding can change over time and in fact changes every business day! Hence, it is usually common to simplify the calculation by using the number of shares outstanding at the end of the period.
Earnings per share is generally considered to be the single most important variable in determining a share’s price. It is also a major component used to calculate the price-to-earnings valuation ratio.

An important aspect of EPS that’s often ignored is the capital that is required to generate the earnings (net income) in the calculation. Two companies could generate the same EPS number, but one could do so with less equity (investment) - that company would be more efficient at using its capital to generate income and, all other things being equal, would be a "better" company. Investors also need to be aware of earnings manipulation that will affect the quality of the earnings number.

**PE or Price to Earnings Ratio**

The PE ratio of a company is the ratio of its current share price compared to its per-share earnings.

Calculated as:

\[
\frac{\text{Market Value per Share}}{\text{Earnings per Share (EPS)}}
\]

For example, if a company is currently trading at $43 a share and earnings over the last 12 months were $1.95 per share, the P/E ratio for the stock would be 22.05 ($43/$1.95).

EPS is usually from the last four quarters (trailing P/E), but sometimes it can be taken from the estimates of earnings expected in the next four quarters (projected or forward P/E). A third variation uses the sum of the last two actual quarters and the estimates of the next two quarters.

The PE ratio is also sometimes known as "price multiple" or "earnings multiple".

In general, a high PE suggests that investors are expecting higher earnings growth in the future compared to companies with a lower PE. However, the PE ratio doesn't tell us the whole story by itself. It's usually more useful to compare the PE ratios of one company to other companies in the same industry, to the market in general or against the company's own historical PE. It would not be useful for investors using the P/E ratio as a basis for their investment to compare the PE of a technology company (high PE) to a utility company (low PE) as each industry has much different growth prospects.

The PE is sometimes referred to as the "multiple", because it shows how much investors are willing to pay per dollar of earnings. If a company were currently trading at a multiple (PE) of 20, the interpretation is that an investor is willing to pay $20 for $1 of current earnings.

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It is important that investors note an important problem that arises with the PE measure, and to avoid basing a decision on this measure alone. The denominator (earnings) is based on an accounting measure of earnings that is susceptible to forms of manipulation, making the quality of the PE only as good as the quality of the underlying earnings number.

**DPS or Dividends Per Share**

Dividend per share (DPS) is the total dividends paid out over an entire year (including interim dividends but not including special dividends) divided by the number of outstanding ordinary shares issued.

DPS can be calculated by using the following formula:

\[ \text{DPS} = \frac{D - SD}{S} \]

- **D** - Sum of dividends over a period (usually 1 year)
- **SD** - Special, one time dividends
- **S** - Shares outstanding for the period

Dividends per share are usually easily found on quote pages as the dividend paid in the most recent quarter which is then used to calculate the dividend yield. Dividends over the entire year (not including any special dividends) must be added together for a proper calculation of DPS, including interim dividends. Special dividends are dividends which are only expected to be issued once so are not included. The total number of ordinary shares outstanding is sometimes calculated using the weighted average over the reporting period.

Dividends are a form of profit distribution to the shareholder. Having a growing dividend per share can be a sign that the company’s management believes that the growth can be sustained.

**Dividend Yield**

This is a financial ratio that shows how much a company pays out in dividends each year relative to its share price. In the absence of any capital gains, the dividend yield is the return on investment for a stock. As a financial planner you should be aware that over the long term, dividends could constitute more than 50% of overall returns from good quality shares!
Dividend yield is calculated as follows:

\[
\text{Dividend yield} = \frac{\text{Annual Dividends Per Share}}{\text{Price Per Share}}
\]

Dividend yield is a way to measure how much cash flow you are getting for each dollar invested in the shares of a particular company - in other words, how much "bang for your buck" you are getting from dividends. Investors who require a minimum stream of cash flow from their investment portfolio can secure this cash flow by investing in stocks paying relatively high, stable dividend yields.

To better explain the concept, refer to this dividend yield example: If two companies both pay annual dividends of $1 per share, but DEF company's stock is trading at $20 while XYZ company's stock is trading at $40, then DEF has a dividend yield of 5% while XYZ is only yielding 2.5%. Thus, assuming all other factors are equivalent, an investor looking to supplement his or her income would likely prefer DEF's stock over that of XYZ.

**Based on the ratios, let's consider two companies ABC and CBA**

**Company 1: ABC**

100,000 shares on Issue

$20,000 NPAT

Has a dividend payout policy of 75% of earnings (NPAT)

Current share price is $2.50

\[
\begin{align*}
\text{EPS} & = \frac{\text{NPAT}}{\text{Shares On Issue}} \\
& = \frac{20,000}{100,000} \\
& = 20 \text{ cents per share}
\end{align*}
\]

\[
\begin{align*}
\text{PE} & = \frac{\text{Price per share}}{\text{Earnings Per share}} \\
& = \frac{2.50}{20 \text{ cents}} \\
& = 12.5
\end{align*}
\]

\[
\begin{align*}
\text{DPS} & = \frac{\text{Return to shareholders}}{\text{How many shares on issue}} \\
& = \frac{15,000*}{100,000} \\
& = 15 \text{ cents per share}
\end{align*}
\]
Dividend yield = 15 cents per share

*Note 75% pay out from NPAT, not 100% of EPS this may vary depending on the company policy.

Div Yield = DPS / Current Share Price
= 15 cents / $2.5
= 6%

Now, let's consider the second company CBA.

**Company 2: ABC**

175,000 shares on issue

$25,000 NPAT

Dividend payout ratio of 95% of all NPAT

Current Share price of 2.30

Calculate

- EPS = 14.2 cents per share
- PE = 16.4
- DPS = 13.5 cents per share
- Div Yield = 5.8%

If both companies were within the same industry and very similar in business -

1. You are to comparison the two companies. Comment briefly on the issues regarding making a comparison in regards to the above information.

2. If the company “CBA” has said it is to reduce its earnings next year to 10 cents per share -
   a. What would be the PE be based on forecast Profit and current share price

      \[
      \frac{2.30}{10 \text{ cents}} = 23
      \]

   b. If the company usually trades with a PE of 12 what would the share price drop to with the new earnings forecast of 10 cents per share?

      \[
      \text{PE} = \frac{\text{Price}}{\text{Earnings}}
      \]
12 = x / 10 cents

12/ 10 cents = 1.20

**Final Note:** It should be apparent to you that when making a recommendation for a particular investment or share, it is important that you do not rely on any one financial measure or ratio. Instead, you should use it in conjunction with other quantitate measures and also incorporate qualitative and risk benefit analysis into the overall picture!!