Price-Earnings Ratios

The price-earnings ratio (P/E) is arguably the most popular price multiple. There are numerous definitions and variations of the price-earnings ratio. In its simplest form, the price-earnings ratio relates current share price to earnings per share. The higher the ratio, the more investors are paying for each dollar of earnings. For example, if a stock has a price-earnings ratio of 25, it means that investors are paying $25 for each $1 of earnings.

Defining P/Es

Variations on price-earnings ratios are created by changing the share price used (current or average) and the earnings per share number used (trailing 12 months, expected future earnings, basic versus diluted shares, continuing, etc.).

Table 1 lists four different price-earnings ratios and the formulas used to calculate them.

Table 2 shows how to calculate each ratio using real numbers.

Trailing 12-Month P/E

AAII's fundamental stock screening and research database program, Stock Investor Pro, defines the current price-earnings ratio as current stock price divided by diluted earnings per share from continuing operations for the trailing 12 months (the sum of the last four quarters). Diluted earnings include any securities that may dilute a company's capital structure, such as stock options and warrants, convertible bonds, and convertible preferred stock.

Using the trailing 12-month earnings gives the current value of earnings to investors. However, investors should also look forward.

Forward P/E

The forward (or estimated) price-earnings ratio is based on the current stock price and the estimated earnings for future full fiscal years. Depending on how far out analysts are forecasting annual earnings (typically, for the current year and the next two fiscal years), a company can have multiple forward price-earnings ratios.

The forward P/E will change as earnings estimates are revised when new information is released and quarterly earnings become available. Also, forward price-earnings ratios are calculated using estimated earnings based on the current fundamentals. A company's fundamentals could change drastically over a short period of time and estimates may lag the changes as analysts digest the new facts and revise their outlooks.

Average P/E

The average price-earnings ratio attempts to smooth out the price-earnings ratio by reducing daily variation caused by stock price movements that may be the result of general volatility in the stock market. Different sources may calculate this figure differently.

Stock Investor Pro defines average P/E as the average of the high and low price-earnings ratios for a given year. The high P/E is calculated by dividing the high stock price for the year by the annual earnings per share fully diluted from continuing operations. The low P/E for the year is calculated using the low stock price for the year. Other sources may use average share price over a given time period.

Relative P/E

The relative price-earnings ratio helps to compare a company's price-earnings ratio to the price-earnings ratio of the overall market, both currently and historically.

Relative P/E is calculated by dividing the firm's price-earnings ratio by the market's price-earnings ratio. Typically, the S&P 500 index is used as a proxy for the market. Keep in mind that the prices and earnings used for the firm and the market should be over the same period.

Using P/E to Evaluate a Firm

The price-earnings ratio is used to gauge market expectation of future performance. Even when using historical earnings, the current price of a stock is a compilation of the market's belief in future prospects.

Broadly, a high price-earnings ratio means the market believes that the company has strong future growth prospects. A low price-earnings ratio generally means the market has low earnings growth expectations for the firm or there is high risk or uncertainty of the firm actually achieving growth.

However, looking at a price-earnings ratio alone may not be too illuminating. It will always be more useful to compare the price-earnings ratios of one company to those of other companies in the same industry and to the market in general.

Furthermore, tracking a stock's price-earnings ratio over time is useful in determining how
the current valuation compares to historical trends. Using Table 2 and Acuity Brands as an example, you can see its current P/E is 18.0, which is slightly higher than its forward P/E of 17.8 and much higher than its average P/E (13.9).

A forward P/E that is lower than the current P/E points to expectations of future growth. This is confirmed in Acuity Brands by its estimated earnings of $2.14 per share, versus its trailing 12-month earnings of $2.11 per share.

It is also important to look at trends over time. We can see at the bottom of Table 2 that the three-, five- and seven-year average P/Es are much lower than the current ratio. Looking at the five-year high and low P/E for Acuity Brands (20.3 and 11.8, respectively), we see that the current P/E is within that range, but on the high side. AYI shares are trading at a higher P/E than they have historically. A higher-than-average P/E can mean many things. The market may have higher expectations for earnings growth going forward. However, it could also point to an overpriced stock. A trend analysis using average P/Es is more useful when you have a long history of data. To bring the P/E closer to its long-term average rate, earnings per share would have to rise or the stock price would have to fall. Looking at the sector and industry P/Es, the results are mixed. Acuity’s P/E is higher than the P/E for the electronic instruments and controls industry, but lower than the P/E for the technology sector, making it hard to get a true sense of value. For such analysis, it is important to verify that a company is properly classified.

Drawbacks of P/Es

The usefulness of any price-earnings ratio is limited to firms that have positive actual and expected earnings. Depending on the data source you use, companies with negative earnings will have a “null” value for a P/E while other sources will report a P/E of zero.

In addition, earnings are subject to management assumptions and manipulation more than other income statement items such as sales, making it hard to get a true sense of value.

**Conclusion**

A company’s price-earnings ratio is a useful tool for examining a firm’s share price versus its earnings. As with most fundamental analysis, it is important to understand the elements that go into calculating the ratios. To use P/Es in a meaningful way, they must be compared to a company’s ratios over time or between industries and similar competitors.

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