
#### Abstract

The ratio of a stock's price to its company's earnings is so vital that most major newspapers allocate precious space on their crowded financial pages to publish the figure, right next to the day's high, low and closing prices. As important as the number is considered to be, it's apparent that few people have been paying much attention to it of late, even if they know why they should. But then, why should they? Let's talk about it.


The concept of the price/earnings ratio (P/E or "multiple") is worth exploring in some depth because it can tell you a lot about the reasonableness of a stock's price. While meaningful enough by itself, it's even more revealing when considered in context with other data. It's a measure of investor confidence, a measure of time, a measure of value, and arguably the most meaningful way to express a stock's price. To the long-term, growth investor, it offers a way to watch the all-important relationship between a company's earnings, the underlying driver of a company's stock's true value, and the price investors are willing to pay for its stock - a sometimes extremely volatile measure of its perceived value. Tying an elusive stock price to a firm figure like earnings is like trying to anchor a cloud to a rock, but it can be done -and understood!

## What's the Value of the Business You're Buying?

Anyone interested in buying a business measures its value by its ability to generate income and will pay a fairly predictable multiple of that income to own that business. For a small business, this multiple is generally the equivalent of the length of time it will take to recover the investment and begin to produce unencumbered income for the purchaser. Thus, a fair price for one kind of a business might be about five times the annual income, implying that the purchaser could expect to recover the investment in as many years.

For obvious reasons, a company that is capable of increasing its income - usually because it can effectively put its surplus to work to generate additional income - can command a higher multiple because it can recover the larger investment in the same reasonable time.

Buying shares of stock in a company is no different, of course, since the $P / E$ is calculated using the per-share data derived from dividing both sides of the equation by the number of shares outstanding. It stands to reason, however, that higher multiples are common with the
established, successful and growing businesses you'll invest in. With successful companies whose revenues already exceed $\$ 50$ million, you'll have few of the risks and responsibilities that go with buying a small business you'd have to run yourself. Therefore, it's reasonable to pay a premium - from 10 to 20 times earnings and sometimes more - for such companies. The higher the rate of growth, the higher the multiple that can be justified because, again, the time it will take to recover your investment is shorter.

> If the $P / E$ is to be a helpful measure of value, how can one determine what is reasonable?

The notion of the $P / E$ as a measure of time should be helpful in contemplating the $\mathrm{P} / \mathrm{E}$ as more of an absolute rather than a relative measure of value. Viewed from this perspective, it should be obvious that multiples of 100 or more mean that you'd have to emulate Methuselah to ever recover your investment. Quite obviously, then, making money on a company whose stock you purchase for an excessive P/E requires reliance on the "Greater Fool Theory" which states, "I may be a fool to buy this stock at this price; but I'll find a greater fool to take it off my hands!" As many unhappy investors have already found, it's all too easy to wind up being the "fool" that's the last to buy in this scenario.

If the $\mathrm{P} / \mathrm{E}$ is to be a helpful measure of value, how can one determine what is reasonable? This is particularly poignant when we look at recent history. For nearly half a decade, investors - many having been professionals who should have known better - have fallen prey to the "irrational exuberance" that Fed Chairman Alan Greenspan referred to, and have paid exorbitant multiples. How can we make an intelligent assessment in view of this? To come up with a rational answer to this question, we'll need to look still deeper into the dynamics of the P/E.

## Price Follows Earnings

What makes the P/E the most useful way to express the price of a stock is the fact that it acknowledges the verity that earnings is the actual driver of a stock's price, disre-
garding all of the short-term ups and downs. Therefore, in a perfect world, as a company's earnings grow, so should the price. And, that being the case, the relationship between the two should be fairly constant. At any time, one should therefore be able to express a reasonable price using approximately the same P/E. What should that P/E be?

It depends, of course, upon the industry the company is in and the niche that the company occupies within that industry. Such intangibles as franchise value - the premium that investors are willing to pay for market leaders with long success records and healthy corporate cultures - will help to determine that valuation. And, of course, the final arbiter is the collective market. However, a sound and successful growth company will establish a reasonable "signature P/E or multiple" that is the expression of all of those intangibles. And the company, over the course of its life, can be expected to see only a modest decline in that multiple.

Indeed, a bit of a paradox lies in the fact that the more successful the company is, the lower that signature P/E will go. This is because the company's ability to continue to grow its revenues at the same percent each year lessens with the magnitude of the revenues that such growth generates. It's a lot easier for a million dollar company to increase its revenues by 20 percent than for a billion dollar company to do so. However, for all practical purposes, you should be able to expect a company's stock to sell at its signature multiple, or close to it, for at least a five-year time horizon - long enough to forecast for your purposes.

## Assessing a "Fair Price"

Probably the closest you can come to assessing that signature multiple or "fair price" is to look at the average P/E over some period of time. For normal companies a five-year period will probably suffice because that will take into account both the top
and bottom of a normal business cycle. But, for companies like the "hot" tech stocks and some of the others that went along for the ride or those that were forsaken - during the last half of the 1990s, one would have to look further into the past because there was no "normal" business cycle during that period. During the dot.com bubble of the 1990s, the Greater Fool Theory kept multiples irrationally pumped up beyond reason. For such companies, it would be best to look 10 years into the past. That way you might balance the high P/Es with the low ones and come up with a more reasonable average. And, for the glamorous companies without that much history, it would be best to wait until they have established such a track record - or at least have taken one or two "hits" to season their managements.
> "Why," you should ask, "is this stock selling for a price that's so far below what was previously considered a fair price?"

We said above that in a perfect world the P/E would remain reasonably constant over the life of a company while its revenues and resultant earnings continue to grow. However, the P/E is also a measure of the investor confidence which ebbs and flows with things other than the basic driver, earnings. The world is by no means perfect.

This is helpful to us, too. With two other bits of information, we can learn more from the $\mathrm{P} / \mathrm{E}$, specifically, the signature $\mathrm{P} / \mathrm{E}$ and the earnings growth rate. The ratio of the P/E to the former signature P/E produces an historical value ratio (HVR) or rela-
tive value (RV). The ratio of the P/E to the latter projected earnings growth produces the "PEG" ratio the $\mathrm{P} / \mathrm{E}$ to growth rate.

## The Importance of Relative Value

Let's look at the relative value or RV. The RV is calculated by dividing the current P/E by the historical average P/E. Again, we must be sure to use a relevant historical average and not an average that includes either the "pumped-up," inflated P/Es of recent years or distorted multiples derived from years when dismal earnings were reported after the high prices for the year were recorded.

A relative value of 100 percent would mean that the current $\mathrm{P} / \mathrm{E}$ is the same as the historical average P/E, implying that the stock is selling for a "fair" price - a multiple that investors had considered to be fair and reasonable in the past.

If the RV is much below 100 percent - say below 90 or 85 percent - that would be a good reason to be skeptical. "Why," you should ask, "is this stock selling for a price that's so far below what was previously considered a fair price?' To consider such a stock a bargain and not explore the reasons for its falling out of favor would be foolhardy. It might be that the investing public knows something that you don't know. But you should be able to find out the reason without too much difficulty - from the company's Web site, from the financial news (perhaps from Yahoo's site or another that conveniently provides a chronicle of news releases), or from the company's investor relations department.

Of course, it might also be that there is no good reason for the low price and you can act the "rational contrarian" (as opposed to one that swims against the tide just to be contrary). Such a case occurred early in the Clinton administration when health care stocks took such a beating. But you'd better be sure. And if you're not, you should look elsewhere for a place to put your money.

If the RV is too high, say above 110 percent, it indicates that investors are paying above what has been considered a fair price. In those circumstances, it's best to make sure that the return you expect from your investment is sufficient - and that the risk you must take to obtain it is reasonable. Otherwise, it may be best to wait until the price once again comes back down to earth before you take the plunge.

The PEG ratio goes one step beyond the $P / E$ as a means of measuring investor confidence. The faster a company's earnings grow, the more confidence investors are going to express by paying a higher price. Hence the P/E will typically be higher for a high-growth company than for one whose growth is more sluggish. The PEG ratio is calculated by dividing the $\mathrm{P} / \mathrm{E}$ by the forecast earnings growth rate.

Few use this as a predictive measure; but many like to limit their estimate of a reasonable multiple to one to one-and-a-half times the earnings
growth rate. Thus, if earnings are expected to grow at a rate of 10 percent, they would consider a multiple of 15 to be as much as they would want to pay.

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This, incidentally, is consistent with the limit that many NAIC investors observe for forecasting earnings growth. Many limit their growth estimates to 20 percent and their P/E to 30 times earnings for a P/E - which equates to a one-and-a-half PEG ratio. To summarize: The P/E is one of the most useful pieces of information for evaluating the price of a stock. Despite short-term price fluctuations,

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which can vary as much as 50 percent during the course of a year, the long-term value of a stock is based upon the company's earning ability.

The P/E alone can be a rough but important gauge of value when considered in the context of the time it might take to recover your investment. Many are not willing to depend upon investors paying more than 30 times earnings for them to make money on the stocks they buy. When compared with the historical average multiple - the signature $\mathrm{P} / \mathrm{E}$ - a low historical value ratio or relative value can be an alarm to caution you that the stock is selling at a price lower than that at which history has valued it. You ought to find out what, if anything, today's investors know that you don't that would cause it to fall out of favor. If too high, the relative value cautions you to wait until the price comes down to within reason.

The PEG ratio offers another reality check that ties together both components of a stock's price: the growth of the underlying company's earnings and the multiple of those earnings investors might be willing to pay. Using a reasonable PEG ratio to limit your forecast of either number can prevent you from being overly optimistic and relying upon either unsustainable performance or investor overconfidence to produce your gains.


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