

The P/E Ratio - Simple and Powerful

The P/E ratio is a simple but powerful tool that should be the friend of every trader and investor. By looking at a P/E, it is possible you can get an indication if a stock's growth, valuation, volatility and level of risk.

The P/E is the Current Price divided by Earnings, and is what investors are willing to pay for a dollar of earnings.

The current price is the current value of the stock or market. For stocks, you can calculate the price by dividing the market capitalization by its shares outstanding.

Earnings are very important. It would be similar to your income minus expenses. The net income would be what creates your wealth. Earnings are basically what creates wealth for shareholders.

John Neff, who has one of the best long-term track records among all money managers, and is in the same league as Peter Lynch and Warren Buffet has stated, "It is critical to understand that a stock's price reflects two underlying variables: (1) earnings per share and (2) the multiple of earnings per share that the market attaches to it,". The multiple to which he refers to is the P/E.

The E of the P/E

Some of the confusion regarding P/Es is, which earnings do you use to calculate a P/E. Last year's earnings, the trailing twelve months (TTM), or the consensus estimate for next year.

Let's look at some examples:

	LAST YEAR 2015	TTM	EST '17	PRICE
S & P EARNINGS	106.32	86.92	125	2120
P/E	20.12792	24.62034	17.12	
APPL EARNINGS	8.16	7.82	10.07	\$ 115.00
P/E	14.09314	14.70588	11.42006	
GE EARNINGS	1.31	1.56	1.69	\$ 28.90
P/E	22.06107	18.52564	17.10059	

Let's review each P/E

Last year's P/E. Personally, I don't think using last year's earnings to calculate a P/E is very helpful. It seems to me that the financial media and some analysts use it to tell us that the market is overvalued, as it's normally the higher number.

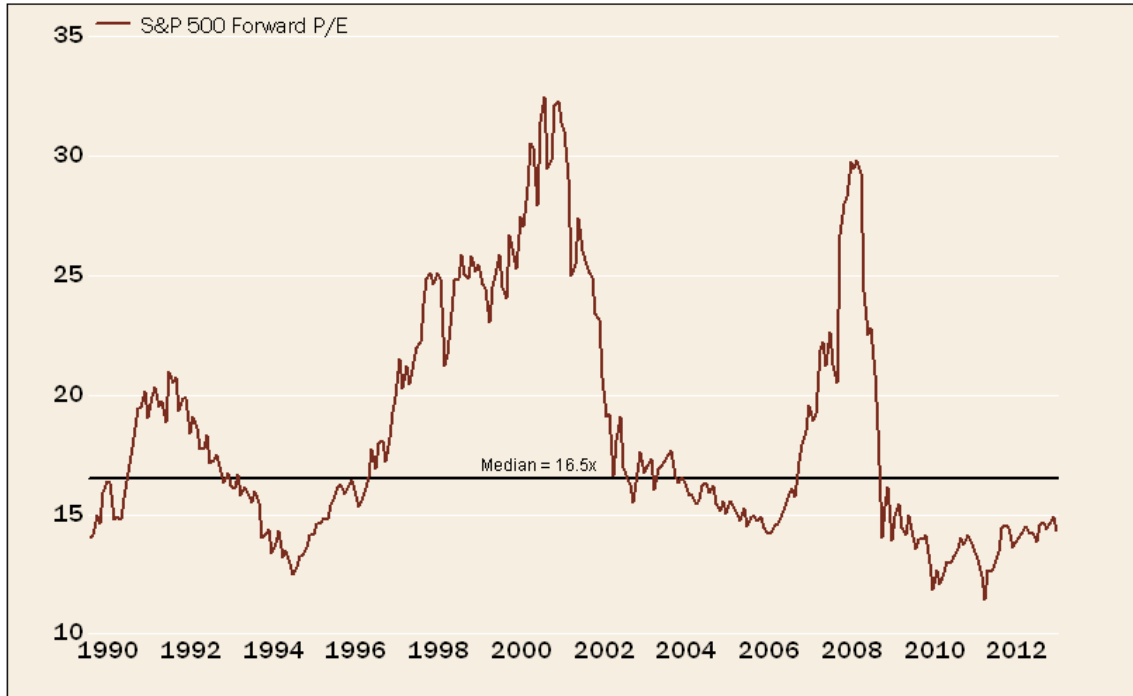
TTM (trailing twelve months). This is the P/E that is most quoted. Most quote services and research reports will probably calculate the P/E of a stock using the TTM. The last reported four quarters' earnings is the TTM. For the SPX, the P/E is 24.62; investors are willing to pay essentially \$24.62 for \$1.00 of earnings. This is expensive, see historical P/E chart below.

P/E using next year's consensus estimated earnings. Using the estimated earnings to calculate a P/E can give an indication of how the stock/index is valued going forward. What the P/E is basically saying is, if the earnings projections are correct, here is what the P/E could be. For GE and SPX, the P/E does come down, but both would still be expensive when compared to historical P/Es, and the slower growth does not justify a higher P/E. For Apple, the P/E multiple does seem reasonable, but when other valuation metrics are used (market capitalization, Price/Sales, sum of the parts, slowing growth rate) makes the valuation less compelling.

A simple (but not the best, especially late in an economic and market cycle) way to calculate a price target would be to use the TTM P/E times the consensus earnings estimate. What investors are basically saying is that if *investors* are willing to pay 24.62 this year, they may be willing to pay that next year. Using this logic, the SPX could reach 3077.50 (24.62 x \$125 Est. EPS '17). This would be a very optimistic view.

The historical median P/E is about 16.5, so using a reasonable P/E, the market target would be about 2062.5 (16.5 P/E times \$125 Est. EPS '17). Using this calculation, the market is overvalued, if earnings projections are met.

Below is a chart that shows the highs and lows of P/Es since 1990:



Source: FactSet, Standard & Poor's, as of June 28, 2013.

Again the median P/E during this period, 1990 to 2012, is 16.5.

It is important to point out that the growth rate of earnings was stronger for much of this period versus the last two years. This means the P/E is too high and has the potential to contract because earnings growth is too slow.

Variables that determine the P/E

According to the essential book for fundamental analysis, *Security Analysis*, by Graham and Dodd, here are the key variables that influence the P/E: **inflation, growth, profitability, consistency, stability, leverage, industry, future prospects and the factor of management.**

Low to High P/Es

Below is a table with generalizations about P/Es

	LOW P/E	AVG. P/E	HIGH P/E
	BELOW 16	17 TO 20	ABOVE 20
REVENUE	Above 40 Billion	Below 40 Billion	Small Cap
GROWTH	Slow, Mature	Average	High
VOLATILITY	Low	Average	High
RISK	Conservative	Average	Aggressive
INDUSTRY EXAMPLE	Financials, Materials, Telecom, Integrated Oil	Consumer Staples, Big Pharma	Biotech, IT, Social Media
COMPANY EXAMPLE	JP Morgan, AT & T	General Mills, Archer Daniels,	Regeneron, Google, Facebook
VALUATION	Under Valued	Fairly Valued	Over Valued

Let's review the table:

Revenue and Growth. Normally larger companies are slow growers with lower P/Es. Smaller companies normally have the potential to grow faster and have higher P/Es.

Volatility and Risk. Larger companies normally have longer operating histories, stronger financials, experienced management but slower growth. Because they are larger, slower growth companies with low P/Es are normally less volatile and are considered conservative investments.

Smaller companies tend to have higher growth. If it's a young company they may not have a long operating history, access to capital may be difficult and expensive; nor might management have the depth and experience of larger companies. Smaller companies, therefore, with high growth and P/Es normally have higher volatility, and are considered aggressive investments.

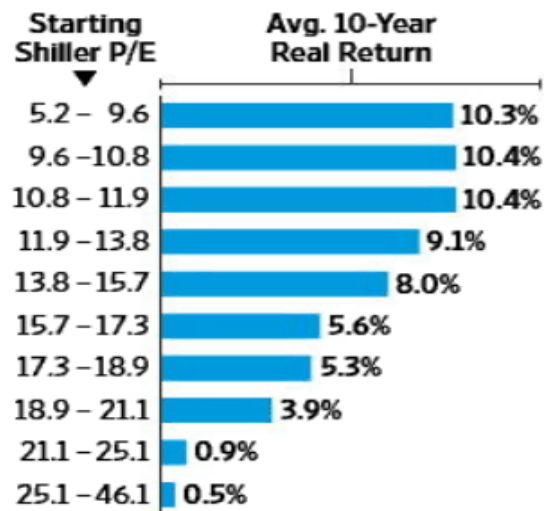
Valuation

Valuation is where the P/E is the most valuable. From a value perspective, very high p/e stocks/markets are likely to be overvalued, and very low p/e stocks are likely to be

undervalued. There are many academic studies that indicate that over the long-run, low P/E stocks outperform high P/E stocks.

Below is a study that proves the point (I explain the Shiller P/E at the end of this report):

Investment returns are better when the market has a lower Shiller P/E (cyclically adjusted price/earnings ratio).



Source: Clifford Asness/AQR Capital Management
THE WALL STREET JOURNAL.

The Reciprocal of the P/E is the E/P (earnings yield) and should be the best long-term guide to the real return that the market provides stockholders. The reason is that earnings are derived from real assets that in the long run will appreciate with inflation. Overtime, the earnings yield of the S&P has also tracked the treasury long-bond rate. The question investors should ask is, “Why invest in a stock if the government will pay more and the rate and principal are guaranteed?”

The earnings yield was made popular by former Federal Reserve Chairman, Alan Greenspan. Mr. Greenspan used the earnings yield to determine the valuation of the market. He compared the 10-year Treasury note to the Earnings/Price of the SPX based on estimated earnings.

Today’s earning yield would be about 5.8% (\$125 2017 S & P earnings est. divided by 2120 S & P price). The 10-year is now at 1.87%. According to the earnings yield stock market valuation model, the market is undervalued. Any new money in the market should gravitate to the higher yielding stock market.

Central banks around the world are keeping interest rates very low. Historically, the 10-year Treasury is at least inflation plus a 2% to 4% premium. Inflation averaged about 1.90% for the last five years, and if we use a 3% premium, the 10-Year should be about 4.9%. Using this more appropriate comparison (4.9% 10- year Treasury versus 5.8% for the E/P) the choice is not as obvious. If we add the rising risks, the trend that earnings

estimates have been falling, cash would probably be the best decision for investors, not the stock market or the 10-year treasury. It is better to wait for better valuations, and buy low with the cash you raised.

P/E and Price Targets

Using an appropriate P/E can give you potential price targets for the markets and your holdings when multiplied by consensus estimated earnings. Prices normally gravitate towards these price targets, valuations. Investors also adjust these P/Es upward or downward depending on inflation (higher inflation will reduce P/Es because investors don't want to pay for inflated earnings) and growth.

Briefly, investors also use other P/Es to determine the potential price target of stocks: P/E based on growth, the industry P/E, its historical P/E.

There are other ways that are better to calculate the value of a company, but using the various P/Es to come up with a target price is simple and fast. Knowing how much to pay for earnings is a good start on learning how to value a company.

Using a discounted cash flow model is a better way to value a company.

If a company has valuable assets on its balance sheet, a sum of the parts or valuing its assets is another way to value a company.

Robert Shiller P/E

A fairly new P/E calculation has been pioneered by Robert Shiller Ph.D. (Nobel Prize winning economist). The calculation was developed with Harvard economist John Campbell in the 1990s. The measure is called the "cyclically adjusted price-earnings," or CAPE ratio. The ratio is based on 10 years, a smoothing to correct for good and bad earnings.

For this cycle, the P/E has caused the Shiller P/E to suggest the markets are overvalued because of the aberrations caused by the Great Recession. Once we get past 2008, 2009, the ratio may be a better ratio to use.

Summary

The P/E is simple and powerful. It can suggest:

- Over or undervaluation of a stock/market
- The growth of the stock/market
- What industry a stock might be in

- Risk

There are many types of P/E ratios:

- Market
- Industry
- Past year
- TTM
- Forward
- Historical
- Growth
- Shiller

Investors can use a market, industry, growth, historical or TTM times forecasted earnings to estimate the potential price target of stocks you own or are considering investing in.

Investors also adjust P/E ratios to inflation and risk.

Experience can help an investor determine the appropriate P/E to use to help with ones investing.