

Chapter 6 Week 6

Earnings and valuations, P/E ratios

Price

One of the most important and critical aspects of investing is price, and one that most investors get wrong. I most certainly do and it's not just when to buy. It's also important to know when to sell or when it's discounted and whether it's overpriced.

In my mind, this is a constant tug of war, and there are no easy solutions. One of the best methods I use to reduce errors is establishing a set of rules, and complete adherence to them. Of course this is more easily said than done because in the last six months alone, my biggest undoing was price: We will go through some examples of where pricing was the biggest mistake.

Warren Buffett has frequently emphasized that while buying high-quality companies is important, buying them at the right price is critical to long-term success. A defining tenet of his investment strategy is that even an excellent company can be a bad investment if purchased at too high a price.

Key aspects of this philosophy from Buffett include:

"It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price".

Price vs. Value: Buffett famously differentiates the two, stating "Price is what you pay. Value is what you get". He advises waiting for the market to offer a stock at a discount to its actual value, often referred to as a "margin of safety".

Avoiding Overpayment: He has warned that paying too high a price for a great company can "undo the effects of a subsequent decade of favorable business developments".

Some examples -

We talked about nuclear companies and even assuming they will do well and their plans come to fruition you're overpaying four years in advance.

Stocks always tend to be looking forward so we have to have a significant margin of safety should growth stall, slow down or decline.

That means even though the business has really performed well, the stock was priced in advance and will remain range bound till earnings catch up and outperform for the stock to resume going up.

Duolingo, Confluent - High quality companies that saw growth slow down, did not exit in time, stocks have got rerated

AppLovin - Got out in time, realizing hyper growth would not continue

SaaS companies - Rubrik, Service Now - Both have seen multiples getting re-rated, and it would have made sense to wait for a much better price.

Patience: He views market volatility as an opportunity to find the "right price," advising that investors should be patient rather than chasing trends.

Calculating the EPS

We had talked about calculating earnings per share in our first class, using Chipotle (CMG) as an example, if you recall.

EPS = Net Income/ Number of shares outstanding

Apple's EPS = Net income of \$131Bn / 15.408 Bn shares outstanding = \$8.45 per share.

The concept of P/E and the PEG ratio:

Price to earning ratio: P/E or PE as is also known.

Simply, the ratio is calculated by taking the current price divided by the forward earnings per share.

For example, if Apple is priced at \$256, and its earnings per share is \$8.45, the P/E ratio = $\$256/8.45 = 30.2$

Why is this important?

Well if you were to buy a property to rent out and you paid \$1,000,000 for it and received a net rent of \$6,000 per month after expenses or \$72,000 a year, your P/E ratio was $\$1,000,000 / 72,000 = 13.89$. When you do your due diligence you would look around the neighborhood and your broker would give you the same analysis to choose a home to buy as a rental property to earn rent income. Choosing a rental property to earn rent income would mean comparing the rent received from each property compared to the price you would pay to acquire the property. In all likelihood you would look at several different alternatives, and choose the one that gave you the biggest bang for your buck.

We use this for buying and selling stocks, because you are acquiring part ownership in a business and you must understand what you are paying as if you were acquiring the whole business.

Look at it this way, the market capitalization of Apple is \$3,960Bn, so if you divided the net income of \$131 Bn / \$3,960 you would get the same ratio of 30.2. We use per share because we cannot buy the whole company.

The PEG ratio

I use another important metric called the PEG ratio, which Peter Lynch popularized. The PEG ratio (Price/Earnings-to-Growth) is used to evaluate stocks by comparing their P/E ratio to their earnings growth rate, aiming for a ratio of 1 or less (growth is "cheap"). He argued that a company's P/E should ideally equal its growth rate, viewing a PEG under 0.5 as attractive and over 2.0 as poor. But, since we deal with a lot of high growth tech, semis and A/I companies the P/E and the PEG bands are skewed higher. The fundamental concept and thesis remains the same.

In our world a PEG would be closer to 1.5 or higher and over 2.5 a potential red alert. For most growth stocks, investors bid up prices in advance, sometimes a year or two hoping for fast or better growth to last. This can be a minefield and one should navigate this very carefully. In many cases it's simpler to walk away.

Key Aspects of using a PEG ratio:

PEG Ratio Formulation: Lynch preferred the PEG ratio over just P/E, as it helps identify if a high P/E is justified by high growth. The P/E ratio in isolation is meaningless. It also distorts the analysis if you apply it across different industries and different categories. For example, a low P/E ratio for a cyclical bank, which has been historically low is different from a high P/E ratio for a tech stock. Using a PEG ratio helps put the gap in proper perspective and context. As we're seeing in the past few months, steady growth companies are getting rewarded because their PEG ratios were low, compared to high flying growth companies that are facing slowing growth because of AI.

Calculation

Nvidia's P/E ratio is 23.7, and its earnings are expected to grow at 27% on average in the next 3 years. Many analysts will take 2026 earnings growth, which is 64%, I prefer to take the average growth of the next 3 years, to be conservative.

$$\text{PE/Growth Rate} = \text{PEG}$$
$$23.7/27\% = 0.9$$

The PEG ratio works very well for companies in the same industry and categories to measure if a company is fairly valued. It also works well across industries/categories unlike the P/E ratio,

Ideal Growth Rates: Lynch typically looked for growth companies with, or, "reasonable" growth rates, often in the 10%-20% range, avoiding overly hyped, excessively high-growth companies. Lynch used these metrics to find growth stocks without overpaying for them, ensuring the stock price did not exceed the company's growth potential.

The underlying concepts and fundamentals of this approach is universally applicable - everybody should avoid overly hyped companies but reasonable growth rates in the tech universe are easily above 20% and if they're not over hyped or overpriced, the PEG is an excellent way to analyze their investment worthiness.

Before we move ahead to examples and talk about the concepts and how to apply them, I do want to stress that a price earning ratio is not necessarily a measure of growth. It is also often a measure of risk. Why do I say that? Well clearly the price earning ratio of a 10 year treasury bond is 25. Why is that? The treasury bond earns you a coupon interest rate of 4%, which means you're paying \$100 for a 4% yield which translates to a price to earnings of 25 to 1. You would ask yourself why am I paying a price earning ratio of 25 when obviously the treasury does not increase - there is no growth, it's a government bond.

You are paying 25 to 1 or a price earning rate ratio of 25 because it is a risk-free asset backed by the weight of the US government, guaranteeing the 4% yield which means you're paying for safety

Similarly, why do we pay 21 to 22 times earnings for the S&P 500 with an average 10% growth? Because the S&P 500 is also safer than individual stocks because the diversity of 500 stocks cushion the drops of each individual stock. In the past months you've heard me talk about individual stocks rising, and falling much faster than the index and that's why an index will also have a high price earning ratio because of the safety and lower risk factor. The current S&P 500 is also growing at an extremely fast rate, unseen in history when it grew at an average rate of 7-8% a year. Now it is growing at over 12%

Something that we should keep in consideration when we decide to buy stocks based on price and ratio.

Shifting P/Es, PEGs, multiples and valuation:

Most times a P/E would be referred to as a multiple - (multiple as in the number of times earnings or sales or another financial metric)

One of the important aspects of P/E multiples is regular re-ratings based on declining growth. We must be on the watch out for these. A P/E of 35 for example may be justified if a stock's earnings are growing at 45%, but if that drops to 30% you want to give it a hard second look. Often analysts are in denial as is management and catching these is difficult - this is the key risk for growth stocks.

These inflection points are sometimes captured if and when sequential growth (quarter over quarter growth) begins to slow down, it becomes a warning sign and the P/E will drop by several points.

Examples -

Duolingo - High quality company but did not expect the growth to drop as dramatically, did not exit in time, the stock has got re-rated. Confluent had the same issue, but luckily it got bought out.

AppLovin - Got out in time, realizing hyper growth would not continue.

Rubrik - Should have waited for a larger drop before buying, I overpaid,

The businesses remain good but they have now been relegated to slow grower or GARP status, which will get a lower multiple, and valuation - Buffet's note on "undo the effects of a subsequent decade of favorable business developments".

SaaS companies like ServiceNow have seen multiples getting re-rated, and it would have made sense to wait for a much better price.

Why do we use the P/S ratio?

The P/S ratios and the P/S to growth ratios are important metrics, because it can give us a perspective of falling sales growth, which will affect the P/E, and PEG multiples. It also helps to

evaluate hypergrowth companies that have no earnings yet, and also cyclicals, which can have fluctuating earnings.

Calculation:

P/S ratio - Market Capitalization / Sales

P/S G ratio = P/S/Growth rate (This is similar to the PEG)

Broadcom's example

P/S = \$1,517Bn / \$97Bn = 16.2 Wow! That is high!

P/S G = 16.2 / 30.5% = 0.5 - OK that's not so bad compared to say Nvidia

I take the 3 year forward sales growth, not just the next year's growth, to be conservative.

Spreadsheet.

Notes:

M-7 Rerating - High Capex changes valuations.

Meta fall in EPS growth - Capex All hyperscalers will have that problem.

Forecasted earnings and sales growth I prefer to see 3 years' averages, because it must sustain, and the moment you see quarterly growth reductions you'll see a pattern emerge if the business itself is slowing down or if it's a blip.