MCLEAN CAPITAL

S&P 500 Memo

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It's no secret that exchange-traded funds (ETFs) that track the S&P 500 have performed well over the past 10 years. There is an understandable appetite for these investment vehicles. Is it still a good idea to invest in the broad market via the S&P 500 index today?

According to large financial data providers, the S&P 500 index forward price to earnings (P/E) ratio is 21.3 using an adjusted earnings measure that excludes certain expenses such as stock-based compensation and corporate level expenses for M&A for example. The trailing twelve months (TTM) price to reported earnings is 29.9.

How do we make light of these figures? Is the S&P 500 expensive or reasonably priced?

Growth expectations

In a report published by FactSet, the S&P 500 adjusted earnings are expected to grow at a strong pace in the coming quarters, which requires a good macroeconomic environment (lower cost of capital, higher consumption, higher money supply, etc.):

- 11 % earnings per share (EPS) growth from 2023 CY to 2024 CY
- 16 % EPS growth from 2024 CY to 2025 CY

Historically speaking, growth isn't normally this strong with an average EPS growth of 6.4% since 1988. With a lot of uncertainties in the economy, the soft or hard landing, the changes in interest rates, the inversion of the yield curve, the increasing size of the wars, the elections it could be wise to have lower expectations of growth.

An article published on MarketWatch states that since 1954, "the S&P 500's sales per share have grown 0.6 of an annualized percentage point more slowly than U.S. GDP". The next decade nominal GDP is projected to grow at 3.9 % according to the Congressional Budget Office, which would imply a 3.3 % sales growth rate. If the historically low tax rate and the historically high net profit margins stay the same, profits will rise at the same pace as sales, i.e. at 3.3 %.

Profits expectations

In the same FactSet report, analysts are expecting a calendar year (CY) 2024 revenue growth of 5.1 % and 5.9 % in CY 2025 all the while expecting a 10 % and 15.1 % earnings growth for the same respective calendar years. This implies a net profit expansion of 4.7 % (1.10 / 1.051 – 1) in CY 2024 and 8.7 % (1.151 / 1.059 – 1) in CY 2025.

The average net profit margins since 1993 is 7.61 %. The TTM net profit margins is 10.45 % or 37 % higher (10.45 / 7.61 – 1) than the historical average. Using the data in the previous paragraph, assuming constant tax rates, the operating margin is expected to expand to ±14 % (1.047 x 1.087 - 1)). Is the profit margin expansion trend sustainable?

Adjustment to the P/E multiple

The goal of the analysis of the S&P 500 data is to try to normalize the earnings per share to get a better grasp for the future S&P 500 performance.

Normalization of the operating profit margins

The average adjusted profit margin between 2014 and 2019 was 8.90 %, which could arguably be a better comparative than the long-term average of 7.61 % going back to 1993. To mean revert the profit margins to the level before Covid and after the great financial crisis, the adjustment to the operating margins is 8.90 / 10.45 = **0.8517**.

Normalization of the effective tax rate

The average effective tax rate going back to 1993 is ±30%. In the TTM, it stands at a much lower 17.7%. To mean revert the effective tax rate to the average one, major regulation changes are required. Even though it would not be justifiable to expect the corporate tax rate to almost double, it should be more likely that an increase in the rate happens than a decrease, considering that the actual rate is much lower than the long-term average.

Kamala Harris' campaign has a plan to increase the corporate income tax rate from 21% to 28%. Let's say Harris is elected and the effective tax rate increases by 7%, implying an average of 25 % (18 % + 7 %) for the S&P 500 in the next few years. To take this into account, net incomes should be multiplied by the new tax burden and divided by the prior tax burden: (1 – 0,25) / (1 – 0,18) = **0,915**. Higher future taxes under the Harris leadership or just a reversion to the mean under any leadership could make this adjustment a reality. After all, the United State government is heavily burdened by a growing national debt and it might, at some point in time, be forced to change its ways.

Normalized earnings

TTM adjusted EPS is $195.93 for the S&P 500. Using the adjustments calculated in this memo, the normalized TTM EPS is:

$$\$195.93 \times 0.915 \text{ (tax adj.)} \times 0.8517 \text{ (normalized profit margin)} = \$152,69$$

Using this figure, the TTM S&P 500 P/E ratio is: 5862 / 152.69 = 38.4. The long-term average unadjusted P/E between 1988 and today is 18.9. The normalized price of the S&P 500 index is 18.9 x $152,69 = $2886, implying a drop of almost 50% from the current price.

Marketing the S&P 500

The huge companies that sponsor the ETF market for the S&P 500 index, the likes of BlackRock, Vanguard and State Street, all want investors to continue to plow their hard-earned savings into their ETFs. How do you manage to continue to market the expectations of high future returns for the S&P 500? The choice of the earnings figure and the choice of the timeline for these earnings might explain how.

Earnings figure

The P/E ratio is a well known and understood measure that helps to quickly assess the valuation of an investment. How can you manipulate such a simple ratio? You cannot change the price, as it is an easily identified figure; you manage the earnings figure instead.

The P/E ratio is far from being a perfect financial measure to value businesses, as the earnings figure does not always paint a good picture of the real earnings power of a business. However, the generally accepted accounting principles (GAAP) earnings figure is well understood and used at large in the investing community. No matter, financial data companies choose to use the operating earnings defined as "Income from product (goods and services), which excludes corporate (M&A, financing, layoffs…), unusual items", and excludes stock-based compensation expenses. These earnings are, on average, **14 %** higher than GAAP earnings, yielding a P/E ratio that is, on average, 14% lower.

Why should we use this manufactured earnings figure to comparatively value the S&P 500?

Earnings timeline

The marketed P/E ratio of the S&P 500 is usually the forward P/E using the next twelve months (NTM) earnings in the denominator. The NTM is itself misleading, because the financial data companies start the NTM after the end of the current quarter, even if the results from the past quarter have not been published yet. As of right now, the marketed

S&P 500 P/E ratio of 21.3 is calculated using the expected operating earnings for the calendar year of 2025 as we entered the fourth quarter of 2024 2 weeks ago. Note that most of the earnings reports for the quarter ended on September 30th have not been published yet.

The actual TTM P/E ratio using adjusted operating earnings as defined earlier is 26.8.

Conclusion

The price of the S&P 500 index is supported by expectations of strong earnings growth, by the expansion of the historically high net profit margin, and low effective tax rates. Are these expectations fair and sustainable?

The marketed P/E ratio of the S&P 500 paints a misleading picture.

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