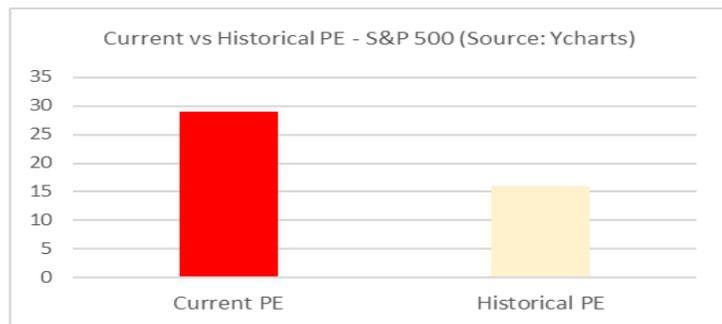


On December 21st, the S&P investment committee added Tesla to their benchmark S&P 500 Index. Shares of Tesla have risen roughly 700% year-to-date, and now represent roughly 2% of the total index. According to data from NASDAQ, Tesla trades at roughly 240 times 2021 estimated earnings. Meanwhile, the top two holdings in the S&P 500 – Apple and Microsoft – trade at roughly 30 times current earnings. The third largest holding in the index – Amazon – trades at roughly 90 times 2020 earnings estimates. Combined, the stocks mentioned above represent roughly 20% of the index's market capitalization.

The price-to-earnings ratio (PE) on the S&P 500 is roughly 29, according to Bloomberg. The historical long-run PE for the index is roughly 16. From a purely historical context, the S&P 500 is trading at roughly twice its long-run PE.



The Equity Risk Premium (ERP)

The ERP describes the excess return an investor can potentially earn from investing in equities over a risk-free investment, such as short-term Treasuries or a money market fund. In theory, as stocks become expensive, the ERP diminishes. In other words, relatively high valuations today are more difficult to support going forward, and the likelihood of achieving a return premium, if any, is diminished.

Conversely, if valuations are below historical norms, the ERP expands. Stocks are considered cheap relative to future earnings, and investors can be rewarded with a premium return over the risk-free rate. An expansion of the ERP typically occurs after a market correction, when stocks can trade at or below their long-run valuations.

As mentioned before, the current PE on the S&P 500 is almost twice its long-run average, which would suggest that the ERP has likely diminished somewhat, and that a return to more normal valuations could be in order over the intermediate term. That is, equity prices in general could likely fall more closely in line with earnings.

Historical Comparisons

When making historical comparisons to equity valuation metrics such as the PE ratio, it is important to consider the return premiums associated with other asset classes, namely bonds.

Historically, when stocks have become overvalued based on measures like the PE ratio, investors would swap the ERP for a duration or credit premium in the bond market. For example, back in the late 1990s towards the end of the dotcom bubble, when the PE on the S&P 500 hovered above 30, the yield on the 10-year U.S. Treasury bond was roughly 6.5%. Investors who were fortunate enough to rotate out of equities in 1999 earned handsome returns in bonds over the ensuing three years as equity values plummeted.

Today the 10-year yield is less than 1% - there is no meaningful duration premium offered in the bond market. As such, it is unclear where equity investors might turn if they think stocks are overvalued and the ERP is no longer attractive. Furthermore, with a zero-interest rate policy, the Federal Reserve has ensured that holding cash is not a viable option.

As a result, equity investors might be willing to hold stocks at higher valuations for a longer period. In other words, valuations could remain stretched for longer given the limited opportunities in bonds.

Domestic vs. International

It is noteworthy to mention how domestic equity markets have outperformed international developed and emerging markets. Over the past 3, 5, and 7 years, the S&P 500 Index has outperformed the MSCI EAFE Index on a cumulative basis by 47%, 59%, and 70%, respectively.

The PE ratio on the MSCI EAFE Index is 18 compared to a PE ratio of 29 for the S&P 500 Index. From a pure valuation standpoint, investors could begin to look for opportunities overseas. In other words, the ERP on international markets could begin to look more attractive compared to domestic equity markets.

It is a similar situation for emerging markets. Over the past 3, 5, and 7 years, the S&P 500 Index has outperformed the MSCI Emerging Markets Index on a cumulative basis by 27%, 57%, and 170%, respectively.

The PE ratio on the MSCI Emerging Markets is approximately 17, which is well below the corresponding PE ratio of 29 for the S&P 500. Emerging markets could provide a compelling ERP over the next five to ten years, given changing demographics and population trends.

Overall, a case could be made that equity valuations are too high, given expectations about future earnings and historical PE ratios. However, we should be cautious about making casual inferences from past market cycles. We have never had this degree of intervention in the financial markets by central banks and governments. This intervention, by design, effects valuations and, in turn, the ERP.