> *?Here?s the argument,?* Thaler said. *?The Raiders are down, and they will be getting these [four] picks to help them rebuild their team.* ***I believe the only way to win in football is to have players who play better than their salaries.*** *Let?s stipulate that [Kahil] Mack is getting top-of-market value for his services, so it will be hard for him to play better than his salary. Let?s also stipulate Mack is worth the money. But is Mack worth all that money plus four good draft choices??*

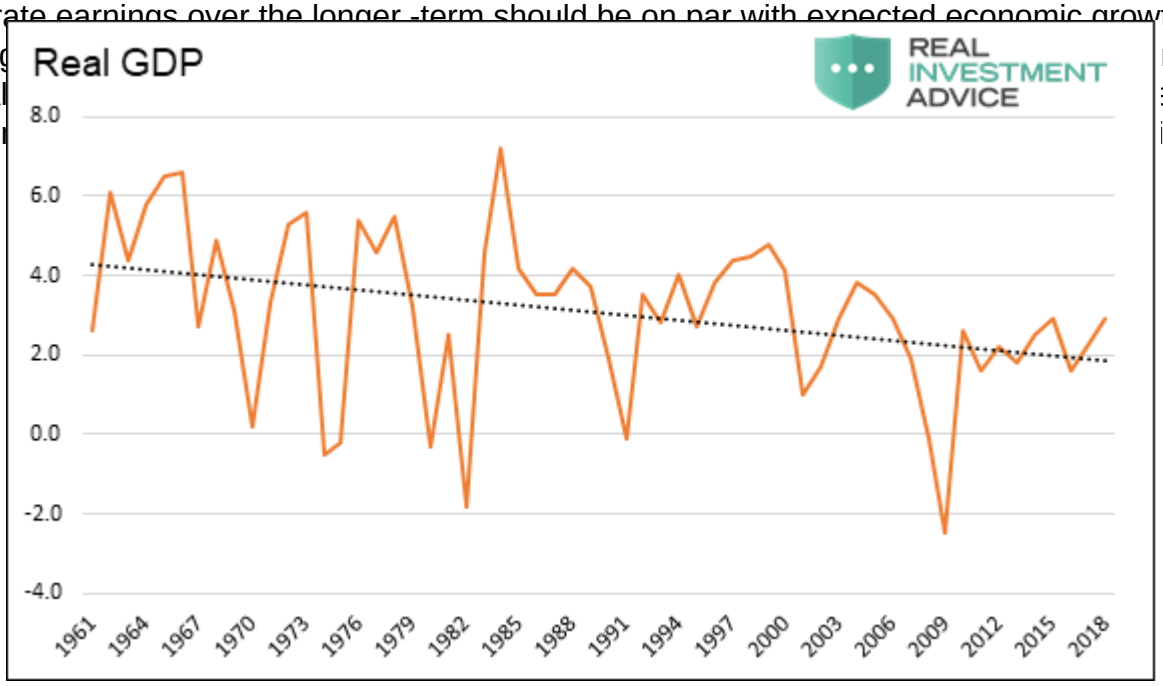
The following quote is from Richard Thaler, a Nobel Prize winner in Economic Sciences. His quote about the Oakland Raiders trading all-pro Khalil Mack to the Chicago Bears sheds knowledge well beyond the football field. Essentially Thaler argues that teams should seek undervalued players and trade (sell) players that are fully priced or overvalued. In investment terms, his quote can be translated into: buy stocks with upside and limited downside and avoid stocks with limited upside and significant downside. To help make better sense of Thaler?s wisdom, we bring equity valuations to the forefront once again with a look at the ratio of price -to- sales (P/S). As we will show you the market has plenty of Khalil Macks.

Valuing Corporate Revenue

Before presenting a current P/S ratio for a variety of indexes and S&P sectors, it is important first to consider two related concepts that frame the message the market is sending us. **Concept #1 - Investors should accept higher than normal valuation premiums when potential revenue growth is higher than normal and require lower than average premiums when potential revenue growth is lower than normal.** Consider someone who is evaluating the purchase of one of two ice cream shops (A and B). The two businesses are alike with similar sales, pricing, and locations. However, based on the buyers? analysis, store A?s future revenue is limited to its historical 2% growth rate. Conversely, the potential buyer believes that store B, despite 2% growth in the past, has a few advantages that are underutilized and might produce a revenue growth rate of 10%. If stores A and B are offered at the same price, the buyer should choose to purchase store B. It is also likely that the buyer would be willing to pay a higher price for store B versus store A. Therefore highlighting that revenue growth *potential* is a key factor when deciding how much to pay for a business. Purchasing a mutual fund, ETF or equity security is essentially buying a claim on a potential future stream of earnings cash flows, just like the ice cream business. The odds, therefore, of a rewarding investment are increased substantially when a company, or index for that matter, offering substantial market growth potential is bought at a lower than average P/S ratio. Value investors actively seek such situations.

Concept #2 ? Corporate Earnings Growth = Economic Growth

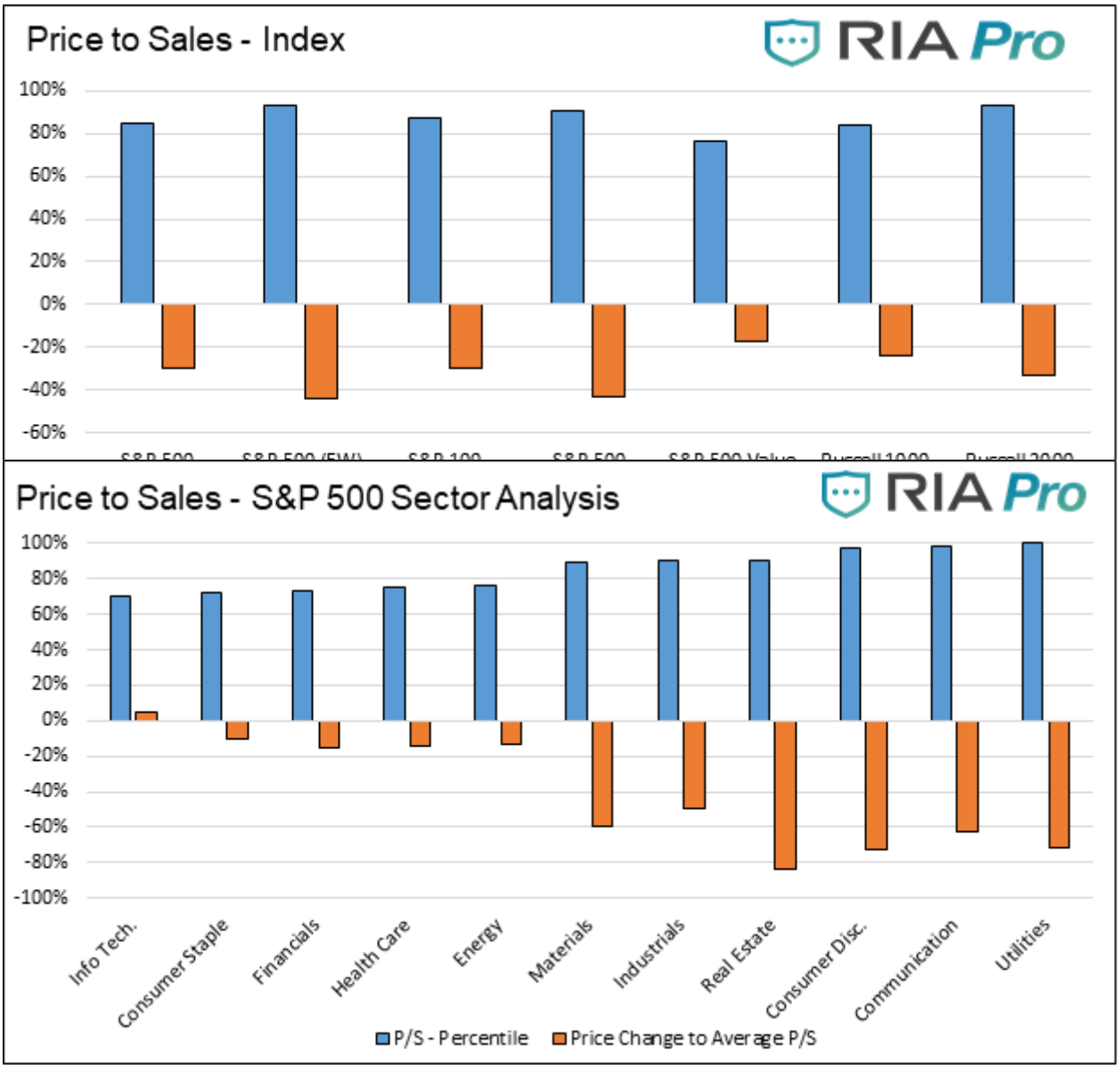
Corporate earnings growth rates and economic growth rates are nearly identical over long periods. While many investors may argue that corporate earnings growth varies from the level of domestic economic activity due to the globalization of the economy, productivity enhancements that lower expenses for corporations, interest rates and a host of other factors, history proves otherwise. Since 1947, real GDP has grown at an annualized rate of 6.43%. Over the same period, corporate

earnings grew at a nearly identical annualized rate of 6.46%. Thus, expectations for future corporate earnings over the longer -term should be on par with expected economic growth, although r annual ebbs and flows i ine is lower. 

Data Courtesy: St. Louis Federal Reserve As we have shared before, the combination of negligible productivity growth, heavy debt loads, and negative demographic factors will continue to produce headwinds that extract a heavy price on economic growth in the years ahead. Barring major changes in the way the economy is managed or a globally transformative breakthrough, there is little reason to expect a more optimistic outcome. Given this expectation, the outlook for corporate earnings is equally dismal and likely to produce similar growth rates.

Reality

The following graphs are constructed using data from 1995 to the present. The blue bars represent the percentage of historical P/S data that are less than the current ratio. For instance, the first bar representing the S&P 500 has a P/S ratio which is in the 85th percentile of prior instances. The orange bar next to the blue bar shows how much price would need to fall for the P/S ratio to normalize. It is important to stress this analysis assumes no decline in sales which is a poor assumption if a recession were to occur.



Data

Courtesy: Zacks As shown above, the broad stock indexes and major S&P sectors all stand in the upper third and fourth quartiles of valuations dating back to 1995. Interestingly note that utilities, a sector investors tend to flock to during market downturns as a safe haven, currently trades at its highest valuation in at least 25 years. We also discussed this anomaly in Defense is Good, Good Defense is Better. The other two sectors mentioned in that report, consumer staples and healthcare, are trading at less egregious valuations.

Summary

Based on the fact that many of the index and sector P/S ratios are at or near those of prior peaks, we are left to select from one of two conclusions as mentioned:

1. *investors are extremely optimistic about the potential for revenue growth, or*
2. *investors are complacent, caught in the grasp of bubble mentality and willing to pay historically large premiums to avoid missing out on further gains*

After further deliberation, however, there is a third possibility. Perhaps the lack of viable options for investors to generate acceptable returns, have them ignoring the risks. Khalil Mack may be a great linebacker for the Bears and return the value they paid, but as Thaler put it, they should not expect

much more. On the flip side, professional sports and stock market history has proven time and time again that overpaying is more often met with disastrous underperformance.