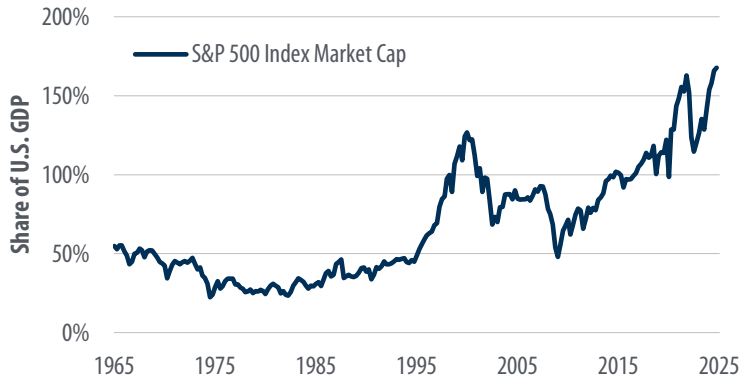


Four Valuation Models Flash Caution for the S&P 500 Index

With the market volatile, we thought it would be a good time to take a look at alternative valuation models. Every major valuation metric of the S&P 500 Index is flashing warning signs. In this week's "Three on Thursday," we look at three key different valuation models, each offering a unique perspective on just how stretched equity prices may be. As a bonus, we've included our own in-house model and what it shows. Explore the four charts below for a clearer picture of where valuations stand for the S&P 500 Index.

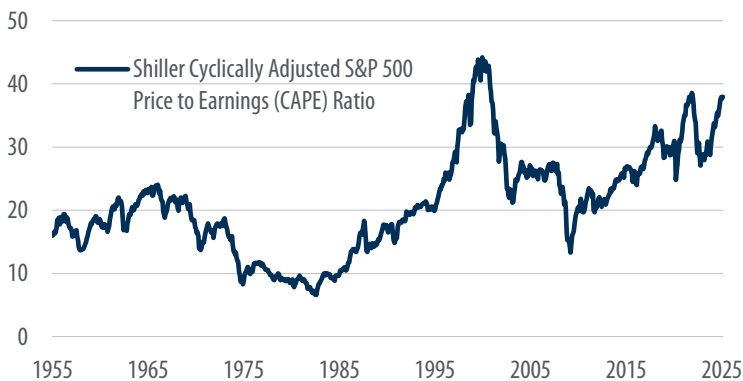
Buffett Indicator



Source: Standard & Poor's, Bureau of Economic Analysis, First Trust Advisors. Quarterly data Q1 1964 – Q4 2024.

One popular valuation metric, known as the "Buffett Indicator", compares the total market cap of the stock market to GDP. Buffett first mentioned this in 2001 to explain how the unprecedented stock market levels of the late 1990s should have served as a warning sign for the Dot Com bubble. Currently, this indicator is at an all-time high of 167% of GDP as of Q4 2024. No wonder Buffett has high levels of cash these days. Yes, rising foreign earnings and corporate tax rate reductions could explain some of this, but the model is considered a warning sign.

Shiller P/E Ratio



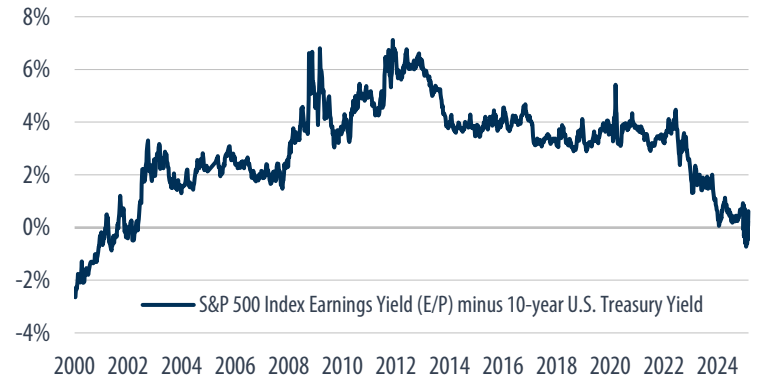
Source: Robert Shiller, First Trust Advisors. Monthly data 1/1955 – 2/2025.

The Shiller P/E Ratio, or Cyclically Adjusted S&P 500 Price to Earnings Ratio (CAPE), created by Robert Shiller, measures stock market valuation by averaging inflation-adjusted earnings over 10 years to smooth out short-term swings. Its historical median is 17, it peaked at 44 in 1999 and dropped to 5 in the 1920s. At the end of February 2025 it stood at 38, suggesting stocks are expensive.

The **S&P 500 Index** is an unmanaged index of 500 companies used to measure large-cap U.S. stock market performance. **Past performance is no guarantee of future results.** Index data is for illustrative purposes only and not indicative of any actual investment. Indices are unmanaged and investors cannot invest directly in an index. Index returns do not reflect any fees, expenses, or sales charges. These returns were the result of certain market factors and events which may not be repeated in the future. There is no guarantee that past trends will continue, or projections will be realized.

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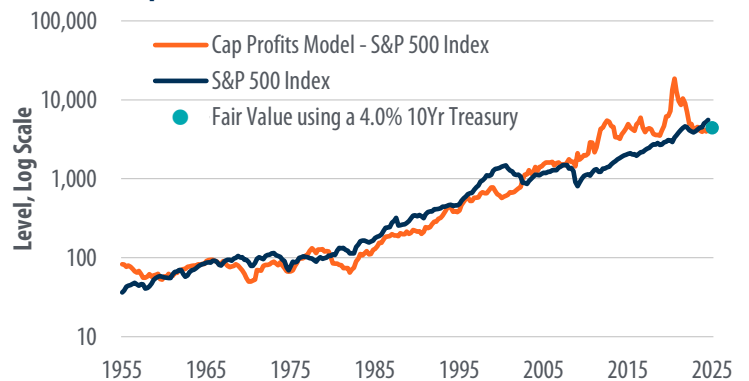
The Fed Model



Source: Bloomberg, First Trust Advisors. Weekly data 1/7/2000 – 2/28/25.

The Fed Model, popularized during Alan Greenspan's tenure as Federal Reserve Chair, compares the difference between the S&P 500 Index's earnings yield (inverse of the P/E ratio, so E/P) and the 10-year U.S. Treasury yield to gauge stock market valuation. The higher the earnings yield on stocks versus the yield on bonds, the stronger the case that future returns on stocks will exceed the yield on bonds. This week's selloff has pushed it back out of negative territory, but the metric still sits close to levels not seen since the Dot Com bubble.

First Trust Capitalized Profits Model



Source: Standard & Poor's, Bureau of Economic Analysis, Federal Reserve Board, First Trust Advisors. Quarterly Q1 1955 – Q3 2024.

At First Trust, we use a Capitalized Profits Model to estimate fair value for the S&P 500 Index. This model analyzes the historical relationship between economy-wide pre-tax corporate profits (excluding those earned at the Federal Reserve) and the 10-year Treasury yield. For each quarter since 1953, it calculates a profits-to-yield multiple and scales past market values to today's multiple to determine historical fair values. Applying this through the latest profits data we have available (Q3 2024) and using today's 10-year yield of ~4.0%, our models says that the S&P 500 index is substantially overvalued. None of these models suggest an imminent crash... but the market is priced for perfection, so volatility should be expected.