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## Swedroe: This Metric In Dire Need Of Context

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### [Larry Swedroe](#)

With the [Shiller CAPE 10](#) near 30 (29.7 as I write this), it's likely you have been reading articles that quote gurus who claim the market is on its last legs/breath due to excessive valuations. And the amount of calls I'm getting from concerned investors (especially, it seems, [those who hold a certain set of political beliefs](#)) has increased, along with the alarm bells.

But these concerned calls are nothing new. For example, back in February 2013, in his quarterly newsletter, Jeremy Grantham, a respected market strategist at GMO, [wrote](#) that "all global assets are once again becoming overpriced" and that some securities were "brutally overpriced." At the time, the CAPE 10 stood at about 22.

Grantham was far from alone. Here's another example. John Hussman runs the Hussman family of mutual funds. He's also a former professor of economics and international finance at the University of Michigan, and has a Ph.D.

Here's what [he had to say in January 2013](#): "Present overvalued, overbought, overbullish, rising-yield conditions fall within a tiny percentage of market history that is associated with dismal market outcomes, on average. It's true that we've observed extreme conditions since about March 2012 with little resolution aside from short-term declines. But the S&P 500 remains only a few percent from its March 2012 high, and if history is any guide, the extension of these unfavorable conditions is not likely to reduce the depth of the market loss that can be expected to resolve them."

Ignoring Grantham, Hussman, Marc Faber (Dr. Doom) and many other naysayers, from 2013 through 2016, the S&P 500 Index provided a 14.3% annualized return, well above its historical return since 1926 of 10%. And in the first half of this year, it returned a further 9.3%, bringing its total return since Jan. 1, 2013 to 80%.

## Is The Market Overvalued?

Of course, forecasts predicting a bear market will eventually be proven right. As the saying goes, even broken clocks are right twice a day. In fact, bear markets are about as inevitable as the bull markets that precede and follow them.

This brings us to the question of whether the markets are really overvalued. To answer it, we'll examine current valuations provided by J.P. Morgan Asset Management in its Third Quarter (2017) Guide to the Markets.

	Forward-looking P/E	25-Year Average	Price-to-Book Ratio	25-Year Average	Dividend Yield	20-Year Average
S&P 500	17.5x	16.0x	2.9	2.9	2.1%	2.0%

While the forward-looking price-to-earnings (P/E) ratio is higher than the 25-year average, it's not that much higher (9.4% relatively higher). And it's only "overvalued" by 0.5 of a standard deviation. The dividend yield is actually a bit higher than the 20-year average, while the price-to-book (P/B) ratio is identical with its long-term average.

However, though not shown in the table, the index's price-to-cash flow ratio was 12.2 versus the 25-year average of 10.6, putting it 0.8 of a standard deviation "overvalued."

In addition, we can look at a metric that considers the competition with corporate bonds. The current earnings yield/price minus the yield on Baa corporate bonds is 1.3%, while the 25-year average is -0.3%. Using this metric, stocks look cheap relative to corporate bonds, and are 0.8 of a standard deviation undervalued. There just doesn't seem to be a compelling case that the U.S. market is overvalued.

This brings us to the next question: How did the S&P 500 perform over this 25-year period when valuations were not too dissimilar from their current level? From June 1992 through May 2017, on an annualized basis, the S&P 500 returned 9.5% before inflation and 7.2% after inflation. That's right in line with the long-term data.

### Quirks In The CAPE 10

However, we still need to address the issue with the current level of the CAPE 10, which historically has been as good a predictor of future returns as current valuations (and those are the two best predictors we have). Before you make a decision, it's important to understand there are several issues with the CAPE 10 you must be aware of when considering whether it's signaling overvaluation.

As noted earlier, the current level of the CAPE 10 is close to 30. This compares to a long-term (137-year) average of 16.7. This wide gap is what has led many observers to conclude that the market is overvalued and headed for a sharp decline.

In finance, it's generally best to look at the longest data series available, thereby minimizing the risk of data mining. But there are several reasons using a 137-year average for the CAPE 10 could lead to a false conclusion.

We'll begin by noting that the data set for the Shiller CAPE 10 goes all the way back to 1880. The data includes economic eras in which the world looked very different to investors than it does today.

Consider just two examples. For a significant part of the period, there was neither a Federal Reserve to dampen economic volatility nor an SEC to protect investor interests. Both of these organizations have helped to make the world a safer place for investors, justifying a lower equity risk premium and thus rising valuations.

Additionally, we have not experienced another Great Depression, and there haven't been any worldwide wars since 1945. While those rising valuations forecast lower future returns, they aren't necessarily signaling overvaluation.

Another reason for the CAPE 10 rising over time is that the U.S. has become a much wealthier country since 1880. This matters because, as wealth increases, capital becomes less scarce. All else equal, less scarce assets should become less expensive.

### **Changes In Accounting Rules**

Another reason the Shiller CAPE 10's full-period mean may be an inappropriate benchmark is because accounting rules have changed, impacting how earnings (and thus P/E ratios) are determined. In 2001, the Financial Accounting Standards Board changed the rules regarding how goodwill is written off.

As a post on the blog Philosophical Economics [explained](#): "In the old days, GAAP required goodwill amounts to be amortized—deducted from earnings as an incremental non-cash expense—over a forty-year period. But in 2001, the standard changed. FAS 142 was introduced, which eliminated the amortization of goodwill entirely. Instead of amortizing the goodwill on their balance sheets over a multi-decade period, companies are now required to annually test it for impairment. In plain English, this means that they have to examine, on an annual basis, any corporate assets that they've acquired, and make sure that those assets are still reasonably worth the prices paid. If they conclude that the assets are not worth the prices paid, then they have to write down their goodwill. The requirement for annual impairment testing doesn't just apply to goodwill, it applies to all intangible assets, and, per FAS 144 (issued a couple months later), all long-lived assets."

While FAS 142 may have introduced a more accurate accounting method, it also created an inconsistency in earnings measurements. Present values end up looking much more expensive relative to past values than they actually are. And the difference is quite dramatic. Adjusting for the accounting change would put the CAPE 10 about 4 points lower.

### **Difference In Dividends**

Still another reason not to rely on the Shiller CAPE 10's long-term historical mean as a yardstick is that far fewer companies pay dividends now than in the past. For example, in their 2001 study, "[Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?](#)", Eugene Fama and Kenneth French found that the firms paying cash dividends fell from 67% in 1978 to 21% in 1999. This has resulted in the dividend payout ratio on the S&P 500 dropping from an average of 52% from 1954 through 1995 to just 34% from 1995 through 2015.

In theory, higher retention of earnings should result in faster growth of earnings as firms reinvest that retained capital. That has been the case for this particular period; from 1954 to 1995, the growth rate in real earnings per share averaged 1.72%, and from 1995 to 2015, it averaged 4.9%.

As the post on Philosophical Economics explained, to make comparisons between present and past values of the Shiller CAPE 10, any differences in payout ratios must be normalized. The adjustment between the 52% payout ratio (the average from 1954 through 1995) and the 34% payout ratio (the average from 1995 through 2015) corresponds to approximately a one-point difference on the Shiller CAPE 10.

There's yet another reason the long-term mean of the CAPE 10 might be misleading. Investors demand a premium for taking liquidity risk (less-liquid investments tend to outperform more liquid investments). All else equal, investors prefer greater liquidity. Thus, they demand a risk premium to hold less-liquid assets. Over time, the cost of liquidity, in the form of bid/offer spreads, has decreased. There are several reasons for this, including the decimalization of stock prices and the provision of additional liquidity by high-frequency traders.

Additionally, the cost of commissions has collapsed. Furthermore, other implementation costs—in the form of much lower expense ratios of index mutual funds and ETFs—have fallen, meaning investors are capturing more of the gross return to stocks, justifying higher valuations.

Again, the important point to remember is that if higher valuations are justified by systematic changes that make equity investing less risky/less costly, while they may be forecasting lower future returns, they aren't necessarily signaling overvaluation.

Once we account for these issues, and the appropriate adjustments are considered, there's a case to be made that the U.S. stock market no longer looks so overvalued. Perhaps it doesn't look overvalued at all.

### **International Valuations**

There's further good news for investors who don't suffer from home country bias: Internationally, valuations are much lower and, thus, forward-looking return expectations are higher.

For example, while the forward-looking P/E in the U.S. currently is 17.6, the equivalent figure for the MSCI All Country World ex-US Index is just 14.1, below its 20-year average of 14.7, and the dividend yield is 3.2%, below its 20-year average of 2.9%. While, domestically, the CAPE 10 is about 30, based on data provided by AQR, at the end of June 2017, it was 18.5 in non-U.S. developed markets and 14.3 in emerging markets.

We have just one more point to cover. While the research, such as Clifford Asness' November 2012 paper, "[An Old Friend: The Stock Market's Shiller PE](#)," has shown that 10-year forward average real returns fall nearly monotonically as starting CAPE 10 P/E ratios increase, and as the starting Shiller CAPE 10 increases, worst cases get worse and best cases get weaker (the entire distribution of returns shifted to the left), there were still very wide dispersions of returns.

For example, even when the CAPE 10 P/E ratio was above 25, the best 10-year real return was 6.3%, less than 1 percentage point below the historical average. Such wide dispersions explain why the Shiller CAPE 10, while providing information on future returns, should not be used as a tool to time the markets.

**Javier Estrada** came to the same conclusion in his study, "[Multiples, Forecasting, and Asset Allocation](#)," which was published in the Summer 2015 issue of the Journal of Applied Corporate Finance.

He examined the benefits of using valuations as a tactical asset allocation tool and found that "the evidence does not support the superiority of valuation-based strategies; if anything, it points moderately in the opposite direction."

### **Summary**

I hope the lessons you take away are: There are logical reasons for valuations to have drifted up; accounting changes and the fall in the propensity to pay dividends make valuations today appear higher than they would otherwise be relative to the long-term historical data; and because there's so much variation over time in the equity risk premium, there isn't any methodology that will produce highly accurate forecasts of stock returns—stocks are risky investments no matter the horizon.

That said, we do know that starting valuations clearly matter—and they matter a lot, not just in terms of forward-looking return expectations, but in the dispersion of potential outcomes. Thus, investors should not make the mistake of simply projecting historical returns into the future. And finally, I hope you come away believing that investors are best served by ignoring market forecasts based on opinions and sticking to their well-developed plans, rebalancing along the way.

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