
In early March, we reprinted an article I wrote for Citywire on bubbles. That article focused on an academic paper called ?Bubbles for Fama? by Robin Greenwood, Andrei Shleifer, and Yang You on spotting bubbles. It tried to provide a definition that would satisfy proponents of the efficient markets hypothesis who doubt that bubbles exist.. The authors noted that 100% run-ups of asset prices in a two-year period resulted in a heightened probability of a subsequent crash. Early this week, Research Affiliates weighed in on which assets might be in a bubble today, citing another research paper by Greenwood and Shleifer discussing how investors behave with strong ?extrapolative tendencies.? In other words, investors anticipate strong returns after strong return periods, when future returns are likely to be lower, and also anticipate weak returns after weak returns periods, when future returns are likely to be higher.

## What?s A Bubble?

But before we get to that argument, Research Affiliates founder, Robert Arnott, and his colleagues, Shane Shepherd and Bradford Cornell try to keep the definition of a bubble simple. They argue a bubble is a ?circumstance in which asset prices 1) offer little chance of any positive risk premium relative to bonds or cash, using any reasonable projection of expected cash flows, and 2) are sustained because investors believe they can sell the asset to someone else for a higher price tomorrow, with little regard for the underlying fundamentals.? (Can you say Bitcoin?) There are bubbles now in technology stocks and cryptocurrencies, according to Research Affiliates. Overall, the U.S. stock market is very expensive too. The authors are aware that modern academic finance would find their definition lacking. Adherents of the efficient markets hypothesis think ?[t]he market?s willingness to bear these risks {of high prices relative to reasonable projections of cash flows] varies over time. . . . .high valuation levels don?t represent mispricing; the risk premia just happen to be sufficiently low so as to justify the prices.? Of course, if risk premia or required returns can vary so widely, what?s the difference between and efficient market and an inefficient one? More realistic observations come from behavioral finance which shows that investors bring their own psychological baggage to markets even when they know and understand formula-based valuation models. Moreover, Greenwood and Shleifer show that investors are so tied to recent price trends that they anticipate higher expected returns after big price runs when valuation models anticipate subpar returns, and lower expected returns when valuation models anticipate robust returns. Moreover, investors bet accordingly, putting more money into stocks after they have gone up, and withholding it after they?ve gone down.

## What Can Investors Do?

If you?ve spotted a bubble, the temptation is to short it. But that turns out to be very difficult, despite the success of the hedge funds depicted in Michael Lewis?s *The Big Short*.• Arnott et. al. recount the story of Zimbabwe at around the time of the financial crisis. At first, when Zimbabwe?s currency crashed, the stock market soared. Then the stock market crashed as the currency continued to crash more. And finally, when the currency collapsed, so did the stock market for good. The problem with having shorted stocks in this case is that their initial run up might have bankrupted you. And even when asset prices don?t react to a currency failure the way Zimbabwe stocks did in 2008 by shooting up initially and then cratering, bubbles can keep getting bigger and bigger. Not everyone facing a bubble has the advantage that the hedge funds doing "the big short" had -- knowledge of when most of the adjustable rate mortgages issued would reset at higher rates, causing most borrowers saddled with them to default. A bubble might be easy to spot, but it?s hard to trade. Instead of shorting, the easiest thing to do when you spot a bubble is to avoid it. Nobody needs to own Bitcoin or cryptocurrency. Also, nobody needs to own any technology stocks right now. Moreover, there are many stock markets around the world cheaper than the U.S. market. The cheapest stock markets around the world are the emerging markets, according to both Research Affiliates and Grantham, Mayo, van Oterloo (GMO) in Boston. It?s true EM stocks often come with an extra dose of volatility, but their valuations are lower than that of the U.S stock market. Also, none of this means those are the only stocks you should own though. There are ways to mitigate overvaluation of U.S. stocks such as with an ETF that owns more of the cheapest ones

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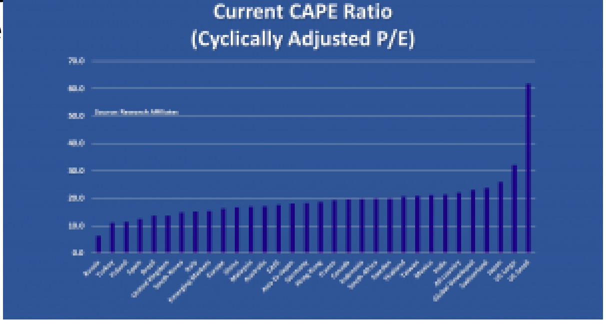


Even being

relatively conservative by overweighting emerging markets stocks rather than shorting U.S. stocks entails some "maverick risk," as Research Affiliates calls it. This is sometimes called "career risk," because clients will fire and advisor or asset manager who deviates too much from a benchmark or his peers for too long a period of time. Investors must be honest with themselves about how much maverick risk they can tolerate, and advisors must be careful not to exceed their clients' tolerance for maverick risk. Most of all, when contemplating asset prices and prospective returns, remember that your mind may be playing tricks on you when you expect unusually large or unusually small returns. Don?t extrapolate recent return history into the future. The future might hold the opposite scenario from the recent past.