

Understanding Asset Bubbles and How to React to Them

An Interview With Robert Shiller

Article Highlights

- A bubble is a period of feedback where price increases generate enthusiasm that leads to investors bidding up prices—a process that continues until prices get too high.
- It is hard to quantify general patterns among past bubbles because they depend on stories, and the stories have always changed.
- Diversify across countries (putting more in countries with a low CAPE ratio than those with a high CAPE ratio) and diversify across asset classes, including commodities.

Robert Shiller is a Nobel laureate and the Sterling Professor of Economics at Yale University who studies market fluctuations and investor behavior. We spoke recently about stock and bond bubbles and the current market.

—Charles Rotblut

Charles Rotblut (CR): *The term “bubble” gets used a lot, as you know, but I don’t think many investors could accurately define it. Could you explain what a bubble actually is?*

Robert Shiller (RS): This is a long story.

I would go back to 1636 and the Tulip Bubble for the origin of the word. The price of tulip bulbs got very exaggerated. At that time, the Dutch referred to it as a “windhandel,” which, when translated directly, means “wind trade.” What they meant was that the prices of those tulips were like the wind; there was nothing to them. So, it’s just air.

Then, I believe the term “bubble” came up in French as “*bulle*” in 1720 with the Mississippi Bubble, as the name of the crisis was translated into English. The description referred to a huge stock market boom and bust as a bubble and its bursting. If you want to know why they called it that, you have to ask those who were around 300 years ago, but it had something to do with the prices being unsustainable.

The metaphor had tightened between 1636 and 1720 because when you say bubble, it’s different than the wind. The wind picks up and drops off. But when you say bubble, it suggests something that bursts catastrophically. And that’s what happened in 1720. There was a huge, international stock market crash, and it did look like a catastrophic bursting of a bubble.



The term caught on from there. It gained in popularity and it’s been around for almost 300 years. But, I think that, as I read the use of the term, it has come to mean something a little bit more specific.

Dictionaries will give as one of the meanings of bubble ‘an unsustainable price increase,’ but I think it has taken on a more precise meaning. It refers to a period of enthusiastic bidding up of prices by a growing group of enthusiastic investors that goes on too long and is carried away by its own momentum. In a bubble,

eventually people start saying, “Wait a minute...these prices are way too high! What is anyone buying anymore? What could they possibly be thinking?” And then there’s a correction and a bursting.

In my book “*Irrational Exuberance*” (Princeton University Press, third edition, 2015), I defined it more expansively. I said a bubble is a kind of social epidemic—a period of feedback, where price increases generate enthusiasm among investors, who then bid up prices more, and then it feeds back again and again until prices get too high. During that period, people are motivated by envy of others who made money doing it, regret in not having participated and the gambler’s excitement. Stories develop that justify the bubble, they become current and then people think they’re right because everyone’s confirming the stories. So, that happens. Eventually prices get too high and the bubble bursts.

One more thing. At the Nobel Prize ceremony—I was awarded the Nobel Prize in economics jointly with Eugene Fama and Lars Hansen in 2013—Eugene Fama was notable because he was the extreme opposite of me. And in his Nobel

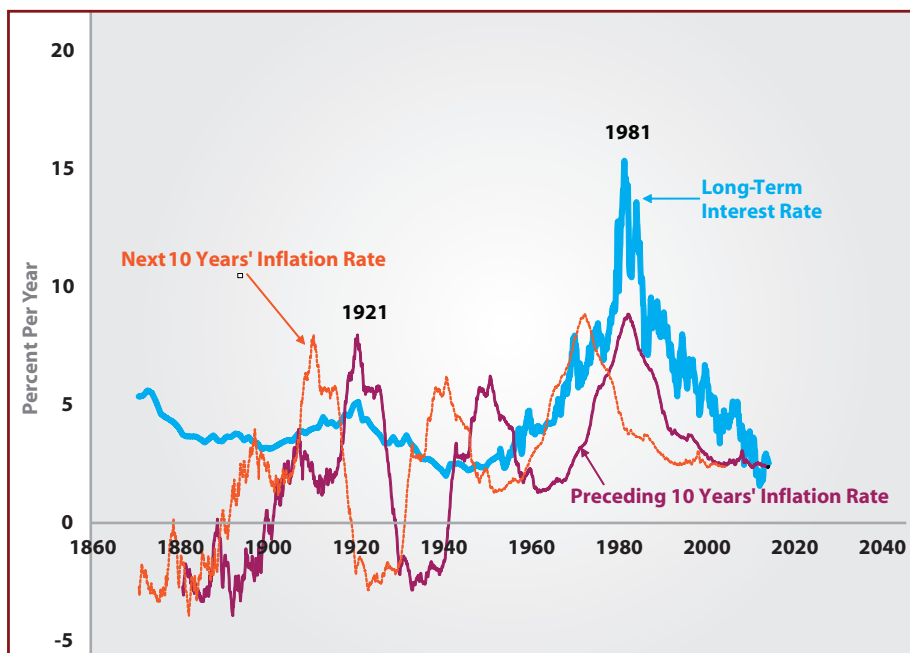
address, he denied that bubbles exist. He essentially said that ‘either I don’t know what it means’ or that ‘it doesn’t exist.’ I was listening to him and trying to think what is his definition of a bubble? I was inferring, reading between the lines, that he thought it was something like this: a period of price increases every day, going on and on for a long time until the smart people all know that it’s going to turn very soon, and then they give warnings that are unheeded, and prices crash as they predicted. So, he argues that bubbles don’t exist. Well, if that’s his definition of a bubble, he’s right. Because prices don’t go up every day and no expert can predict when they are going to turn, with any accuracy, so he’s right. If you take that as the definition of a bubble, they don’t exist. If you take my definition of a bubble, they happen all the time.

CR: Regarding Fama...with the efficient market theory, the argument holds that if people are adjusting prices based off of feedback, then assets are efficiently priced. If you factor in sentiment, then would the argument still hold up?

RS: Well, that’s another thing. I had the sense that Fama and I differed more in rhetoric and emphasis than on fundamental beliefs. There’s an interpretation you can give to everything he does to make it consistent, because he’s respectful of evidence, quantitative evidence. Plus, he’s a successful money manager, so he has a sense of reality. So, you could say that bubbles, as I define them, are part of an efficient market, I suppose. But, I’m not going to go there. One could find some way to say that. Fama talks about risk factors. He says that you can predict asset prices somewhat, but all you’re doing is discovering a risk factor. And what is a risk factor? It’s something that people are concerned about—who knows whether they’re right or wrong. So, maybe he can define it all as rational.

CR: Regarding feedback loops, in your book, you wrote about how rising stock prices leads to greater wealth, which leads to more spending, which leads to higher corporate profits, which in turn leads to higher stock prices.

Figure 1. U.S. Long-Term Interest Rates and Inflation, 1871-2014



RS: Right. That’s it. And that’s something that’s hard to quantify, because we don’t have quantifications of some of its elements; it depends on people and stories. The kind of stories that develop and become part of our culture. Most economists are not sociologists, so it’s not in their normal toolkit to think about how culture is changing.

In “Irrational Exuberance,” I discussed the culture of the various bubbles. I named the 1990s bubble the Millennium Bubble, because I think it was affected by the sense of an impending new millennium. It was kind of a futuristic excitement about the birth of the Internet, and thinking that “wow, it’s going to be really something that is coming!” Then, the 2007 bubble was different. I call it the Ownership Society Bubble. That was a smaller one. But the current one, taking form from 2009 to the present, is different. The stories change with each new bubble. I call this the New Normal Bubble. Or boom. Bubble or boom; I don’t know with confidence which to call it, because it hasn’t burst yet. It’s less starry-eyed and it’s more fear-driven, so it’s a different story. Still, it’s a story where people think that there’s a good chance that prices will keep going up.

CR: That leads to the bond market. As we talk, there has been a lot of chatter about the bond market being in a bubble, but you have a chart in your book (reproduced here in Figure 1) showing how hard it is to forecast future yields. If everyone thinks that interest rates are going to go higher, but they’re still buying fixed-income securities, does that imply that we are seeing a bubble in bonds?

RS: Yes, it is something like a bubble, but I don’t think that it has all of the characteristics. I think there’s more fear this time. One of the things I believe is part of it is people buying assets, in general long-term assets, to protect themselves, because they feel anxious about their future. I think this is more of a driving factor this time.

CR: Has there been any case in history where we’ve seen a fear-driven bubble, as opposed to a greed-based bubble, for lack of a better description?

RS: Well, history gives different kinds of examples. World War I was an interesting case, because it generated immense fear, but it wasn’t really predicted. It was in June 1914 when Franz Ferdinand was assassinated, and within two months we had World War I. That caused a crash in the stock market because, I think, people were trying to

liquidate their assets in a panic.

When World War II started, the U.S. stock market went up. Maybe that's an example of it always being the story. The story in World War I was—in Europe, particularly—armies are going to be marching through here, it's going to be chaos, you're going to have to run for your lives. That was the fear story and it made people want to be liquid. They wanted gold, so they could run with it. Maybe I'm exaggerating—I don't know how to put myself in the mind of someone in 1914—but in 1939, when World War II really started, the U.S. stock market soared.

It's hard to find any general patterns. I think that's because the story is always changing. So, maybe we're in a unique period in history. This "new normal" idea is kind of unique in history. I mean, I don't know of another example when people began to fear so much that they were really being replaced by technology and that globalization made them feel insignificant in a world economy. It's kind of a new thing.

CR: *The other question then is, if somebody thinks a bubble is occurring, what should they do about it? Over the last few years, there have been some people who've sat out of the stock market, expecting prices to drop when the exact opposite has occurred.*

RS: I know. That's why I've been very careful not to advise people to pull out. Even now, with a much higher CAPE ratio [cyclically adjusted price-earnings ratio], which is a ratio that I emphasize, my model still predicts a positive return in the stock market. The thing is that we don't know where this CAPE ratio is going—it could double from here. That's why I'm hesitant. And the alternative—if you do pull out of the stock market—what do you have? You have long-term bonds, which are not promising much return at all. So I think that one has to think about diversification and not make any dramatic moves.

CR: *Since the CAPE ratio is currently—as we talk—at levels that it only has been at during two other periods (as shown in Figure 2), how does an investor determine if valuations*

are getting to be too high and if they should be concerned? Is there a level to watch out for?

RS: Well, I think one should be concerned, especially for the United States, and India, which also has a high CAPE ratio. So, I think one shouldn't put too much in those countries; put something in them, but not too much. As long as you're diversified around the world, you're doing about the best you can. I think Europe, Asia, Latin America—spread it around.

CR: *I've seen some practitioners and studies suggest using the CAPE ratio for allocations, either trying to determine how much to have in stocks or to determine which markets they go into. I know asset manager GMO does something similar with forecasts based on long-term valuation measures. Is that something that you suggest people consider?*

RS: I've been dabbling in that, but I haven't come up with any concrete advice yet. The problem I've faced is that you have the exchange rate to worry about when you invest internationally. I just haven't come to a clear conclusion yet.

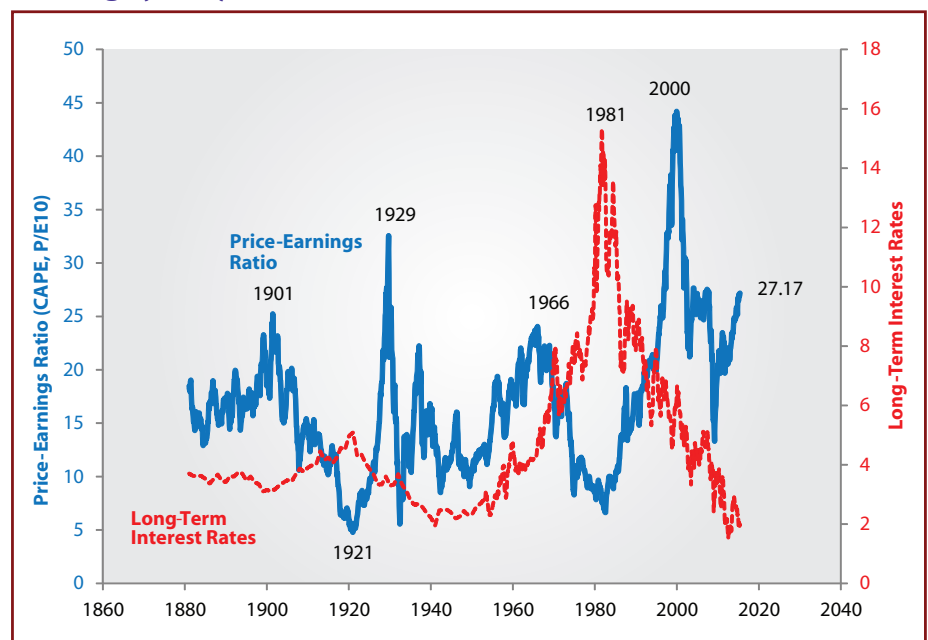
I think that it's common sense to lean away from current high-CAPE countries like the United States and lean toward low-CAPE regions like Europe.

I just don't have a precise formula for doing that. Recently, the dollar/euro exchange rate, if you just considered the U. S. and Europe, has been so volatile that it dominates. Investing in Europe becomes substantially an exchange rate play and not just a stock market play. Still, common sense dictates that right now it would be wise to put more in Europe and less in the United States. But I don't say that with extreme enthusiasm, either, because I don't know what the future will bring, and the problem with history is that it's always changing. We're seeing the Russian invasion of Ukraine, for example, which is on Europe's border. That's a little bit alarming. The rise of European nationalism might derail plans for making Europe stronger economically. So, there are always stories. Still, I would put more in Europe than in the U.S., but I don't have a formula for doing that.

CR: *It sounds like the general advice is just to try and go where something is relatively cheap and underweight what seems relatively expensive.*

RS: Right, and diversify. That's what people don't do. And diversify across asset classes. One thing that a lot of people never do is invest in commodi-

Figure 2. A Historical Perspective of the Cyclically Adjusted Price-Earnings (CAPE) Ratio



ties. But that's another asset class that's relatively independent, so it's a good diversification tool.

CR: *Bonds have yields we can look at and stocks have earnings ratios, but what about commodities? Is there any way someone can look at those and tell when they're cheap or when they seem like they are in a bubble?*

RS: Well, right now, oil prices are in a negative bubble. They're extremely low. People pretty much know that oil prices are low and so the futures market predicts increases. Now, there's a problem when the futures market is in contango with predicting big increases. You can't profit from the commodity unless it increases more than the futures market predicts it will. So, then, the question is "Can I forecast oil prices better than the futures market does?" And I don't have any confidence in my ability to do that. So, when I think of investing in oil, for example right now, I would say it should be considered a diversification play. It hedges you against the risk of another oil crisis. If there is an oil crisis, it might turn the whole world economy down, so you'll be compensated for that by your holdings of oil. So, it's simple hedging strategy, and diversification.

[Editor's Note: Contango is when the future (forward) price of a commodity is higher than its expected spot price—the price it is expected to sell for.]

CR: *Also, I want to ask you about bonds. As you may have noticed when you spoke at our 2013 Investor Conference, a lot of our members are either near or in retirement age. One of the questions I routinely get is about yields being so low. What should people do when they're seeing yields staying low? Should they just diversify and wait it out?*

RS: This is why I call it the New Normal Boom. The "new normal" idea is that yields are going to stay low for a long time. The model is Japan, which had bubbles in the stock market and the

real estate market in the 1980s, with both peaking in the beginning of the 1990s. They've been down ever since. Both of them. It's just amazing what happened there with interest rates being close to zero, or even negative, for decades. This is a model that scares people.

Now, I'm thinking, maybe we shouldn't overstress Japan, that's only one example. It's an extreme example, and so maybe unlikely. But, so far, we've already had the financial crisis and low interest rates for much of the time since. People are starting to think it's the new normal. And this talk of secular stagnation is becoming more and more prominent. It's a thought virus, which is a sign of our times. So, it does suggest that yields may stay low, which might mean that bonds are not a horrible investment. If yields are going to go up, long-term bonds will be a horrible investment, but yields may stay low.

Another investment category to consider right now is inflation-indexed bonds. Last time I looked, 30-year TIPS were paying less than one percent. Not very inspiring at all, but at least they are guaranteed by the government and are inflation-proof. But they are not very inspiring, I have to admit.

CR: *Yes, it's pretty tough. Is there any general advice you can suggest to people who perceive a bubble about what they should do, regardless of the asset class or time period?*

RS: Well, this is a little difficult. The problem with a bubble is that it tends to be supported by what John Kenneth Galbraith called conventional wisdom. There are usually arguments as to why it will continue. Often, it's still supported by a lot of smart people. On the other hand, as a bubble progresses, it tends to get more and more critics and—especially before the efficient markets theory became popular—more and more business people who make a moral case against the overpricing in

the stock market. So, you see those and you don't know what sense to make of them. I think that you could see signs of the ends of the bubbles in the news media, in the kind of writing and talking that people were doing.

The question is, should an individual try to judge these things? That's iffy. It's a little bit like, if you're not going to be smarter than average, why try? And, you're not going to put as much into figuring it out as the experts. On the other hand, I think that there is some kind of individual common sense that saves people and may cause them to question some of these experts. It causes them to say to themselves, "It just doesn't sound right to me, or at least it sounds like it might be wrong, so I'm going to hold back a little bit." I think people should respect their common sense a little bit more and try to figure things out for themselves.

But I know there's a problem that a lot of individual investors pull out at the wrong time. Look at 2009: A lot of individual investors pulled out of the market when it was at its cheapest. So, it's a difficult thing. A lot of professional investors give advice to people, telling them "don't try to time the market, because you'll fail at it." My inclination is to say "don't have overconfidence in your ability to time the market," but I think people should invest with their common sense and people who have a sense of what's going too far are well advised to keep holding back a little.

Right now, the stock market is looking very pricey in the United States. I think it is not as good of an investment, but I don't know what the good alternative is. I just think that one shouldn't plunge into that; one shouldn't put everything into the stock market. Maybe that's obvious, because there is a potential for a crash in the stock market. I can't forecast it, but there is really a potential for that. ▲

Robert Shiller is a Nobel laureate and the Sterling Professor of Economics at Yale University. Find out more at www.aaii.com/authors/robert-shiller. Charles Rotblut is a vice president at AAI and editor of the AAI Journal. Find out more at www.aaii.com/authors/charles-rotblut and follow him on Twitter at twitter.com/CharlesRAAI.