We’re 10X Too Fearful of a Crash: Shiller

By Kerry Pechter *Thu, Apr 21, 2016*

The actual likelihood of an extreme crash occurring in the next six months, Yale economist Robert Shiller and colleagues found, is only about 1.7%.

Humans are notorious for exaggerating the risk of catastrophic but rare events. A well-known Nobel Prize-winning economist calculates that, on average, investors worry about big stock market crashes about 10 times more than their actual frequency would warrant. He blames the news media and evolutionary biology.

Since 1989, that economist, Robert Shiller of Yale, has overseen the distribution of regular surveys to 300 high net worth individuals and institutional investors chosen scientifically by a market survey firm.

Among other things, respondents are asked to estimate the probability that a 10% to 20% drop in equity prices will occur during the next six months. Shiller uses the responses to calculate his Stock Market Confidence Indices.

Shiller, who wrote the books “Irrational Exuberance” and “Animal Spirits,” about market mania, also used the data in a new working paper, “Crash Beliefs from Investor Surveys,” where he and co-authors William N. Goetzmann and Dasol Kim explore possible reasons why the stock market is always “climbing a wall of worry.”

At a six-month time horizon, the actual likelihood of an extreme crash like the one that ended the Roaring Twenties or that interrupted the cocaine- and junk bond-fueled 1980s, Shiller found, is only about 1.7%. That’s if you look at the trading days between October 23, 1929 and December 31, 1988. If you look at the entire history of the Dow Jones Industrial Average, the probability drops to about one percent. A far cry from the 10% to 20% estimates in the Shiller surveys.

“We find evidence that the average, subjective probability of an extreme, one-day crash on the scale of 1987 or 1929 [i.e. greater than 12.82%] to be an order of magnitude larger than would be implied by the historical frequency of such events in the U.S. market. Over the 1989-2015 period, the mean and median probability assessments of a one-day crash were 19% and 10%, respectively,” the paper says. (An “order of magnitude” is a factor of ten. Two orders of magnitude would be a factor of one hundred.)

Shiller, like other researchers before him, suspected the media might be to blame, because of the way it trumpets bad financial news and treats good financial news with relative indifference. So he searched for correlations between bad market news and his survey results.

It turned out that when the market had a bad day, the press tended to emphasize it, and the negative press was correlated with pessimism expressed in Shiller's surveys among by individual investors. "We find evidence that investors use recent market performance to estimate probabilities about a crash," the paper said. "We also find that the press makes negative market returns relatively more salient and this is associated with individual investor probability assessments of a crash." Institutional investors, not surprisingly, the data showed, were less moved by the news that individual investors.

Consistent with the triage standard ("if-it-bleeds-it-leads") in news placement, the researchers found that negative financial news was more likely than positive financial news to get front-page treatment. "It is also consistent with negative news being potentially more relevant to investors than positive news. There is considerable evidence that negative news garners more attention and reflection," the researchers wrote.

From the perspective of evolutionary biology, that made sense. Danger demands immediate attention. "Both animals and humans are conditioned to give stronger weight to negative things, experiences and events. Negative experiences engage greater cognitive effort, have greater influence in evaluations, are more likely to be taken as valid, increase arousal, and enhance the memory and comprehension of the event," the paper said.

The researchers believed that their results had important implications for investors. Normal market volatility, coupled with the media's tendency to catastrophize, might discourage people from investing in equities and hurting their returns, drive up the demand for insurance against market downturns, and help raise the "equity premium"—the higher average annual returns that equities have historically offered relative to bonds. Without expectations of that higher return, investors would have no reason to take the risks associated with investing in stocks.

It's a slightly ironic finding, especially if you consider that one of the supposed lessons of the 2008 financial crisis was that risk tails are "fatter," and so-called black swan events much more common, than our historically-driven economic models are able to predict.