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The Beauty Contest That's Shaking Wall St.

By ROBERT J. SHILLER

THE extraordinary surge of stock market volatility during the last month can't be explained by conventional means. Yes, hundreds of scholarly papers have tried to predict the size of such swings, and whole markets — like those for futures and options — thrive on these movements. Yet we still don't have a clear, mathematical understanding of volatility's source.

Last month, market watchers might have thought they were witnessing a gamma ray burst from outer space, with waves of sudden, crazy noise: On Thursday, Aug. 4, the market, as measured by the Standard & Poor's 500-stock index, fell by almost 5 percent. The next day was quiet, but the following Monday, the index dropped almost 7 percent. In successive days, it rose 4.7 percent, fell 4.4 percent and rose 4.3 percent. Bigger-than normal changes have persisted since, though they haven't been quite as drastic.

Let's put this into context. Since 1928, the daily change in the market has usually been no more than half of a percent. The kind of volatility we have just seen comes along only every five years or so, though there was an even more extreme episode at the peak of the financial crisis of 2008.

To be sure, at least some of the latest volatility has been linked to news events. Much of it came after S.& P., unsatisfied with the last-minute budget deal in Congress, downgraded the nation's long-term debt after the close of the market on Friday, Aug. 5. In effect, this unprecedented move connected the United States to the debt crisis already under way in relatively small European countries. Four days later, in a significant commitment, the Federal Reserve promised to keep short-term interest rates near zero for two more years.

It's tempting to think that the market has been responding rationally to these developments. But that isn't an adequate answer. Why did investors react so strongly to the rating change, which, after all, was merely the opinion of a few analysts on a committee? And why did the market swing so much day to day, even when there was no significant news?

John Maynard Keynes supplied the answer in 1936, in "The General Theory of Employment Interest and Money," by comparing the stock market to a beauty contest. He described a

newspaper contest in which 100 photographs of faces were displayed. Readers were asked to choose the six prettiest. The winner would be the reader whose list of six came closest to the most popular of the combined lists of all readers.

The best strategy, Keynes noted, isn't to pick the faces that are your personal favorites. It is to select those that you think others will think prettiest. Better yet, he said, move to the "third degree" and pick the faces you think that others think that still others think are prettiest. Similarly in speculative markets, he said, you win not by picking the soundest investment, but by picking the investment that others, who are playing the same game, will soon bid up higher. Keynes didn't say where and when he saw this beauty contest. The New York Times ran one very much like it in 1913. It was called the "Girl of To-Day Contest," and readers were asked to submit a photograph of a young woman that they deemed "most typical of the American girl." A panel of artists was asked to select a winner from these pictures.

The Times reported the "dismay" of the panel at the difficulty of its job. Snippets of the conversation were recorded: "We are not here to select the prettiest girl of the lot," one judge said. "Here's a face women would like," said another. "They would not consider her dangerous."

We see such dismay among stock market investors today. People are trying to guess whether other investors are thinking that yet others are thinking that the stock market is "dangerous," or whether it is instead a great time to invest. And investors are making that decision with little more information than the "Girl of To-Day" judges had.

When you hear a conversation among professional investors — including those who manage money for big institutions like university endowments and pension funds — it often sounds as if they are engaged in just this kind of guesswork. You wonder how many people are actually basing their decisions on what is taught in business school: calculating an optimal portfolio based on a rational statistical analysis of fundamental economic data. If you believe in efficient markets, you have to conclude that some other investors are doing those calculations today, because they don't seem the main activity of the people I'm hearing.

In fact, the best explanation for the market's back-and-forth swings is that each day we are conducting a Keynesian beauty contest, and reassessing what others think that still others are thinking. On days without much news, the market is simply reacting to itself. And because anxiety is running high, investors make quick, sometimes impulsive, responses to relatively minor events.

Alan Greenspan, the former Fed chairman, typified the concerns about other investors on "Meet the Press" on Aug. 7, the Sunday before the market's big drop of almost 7 percent. "What I think the S.& P. thing did was to hit a nerve that there's something basically bad going on, and it's hit the self-esteem of the United States, the psyche," he said. "And it's having a much profounder effect

than I conceived could happen." He was talking about what other investors were thinking, not about the substance of the S.& P. downgrade.

Over that weekend, there was widespread speculation that the downgrade would push interest rates way up. But on Aug. 8, even before the Fed issued its statement, 10-year Treasury yields began to drop, not rise, and many people started to reassess what other people were thinking — and what other people were thinking about other people, and so on.

This process creates uncertainty not only for the stock market, but also for the overall economy. The only thing to fear is fear itself, Franklin D. Roosevelt said of the Great Depression, and he was right. We are constantly trying to reassess the fear of others, and others' fear that others are also afraid.

This may sound like a crazy game, but if others are playing it, we must, too. The outlook for the economy depends on how this convoluted beauty contest plays out.

Robert J. Shiller is professor of economics and finance at Yale.

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