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**ECONOMIC VIEW** 

## An Echo Chamber of Boom and Bust

By ROBERT J. SHILLER

THE global signs of a recovery in economic confidence seem puzzling.

It is a large and diverse world, after all, so why should confidence have rebounded so quickly in so many places? Government stimulus and bailout packages have generally not been big enough to have such a profound effect.

What happened? Economic analysts often turn to indicators like employment, housing starts or retail sales as causes of a recovery, when in fact they are merely symptoms. For a fuller explanation, look beyond the traditional economic links and think of the world economy as driven by social epidemics, contagion of ideas and huge feedback loops that gradually change world views. These social epidemics can travel as swiftly as <a href="swiftlings">swine flu</a>: both spread from person to person and can reach every corner of the world in short order.

As George Akerlof and I argue in our book, "Animal Spirits," the business cycle is tied to feedback loops involving speculative price movements and other economic activity — and to the talk that these movements incite. A downward movement in stock prices, for example, generates chatter and media response, and reminds people of longstanding pessimistic stories and theories. These stories, newly prominent in their minds, incline them toward gloomy intuitive assessments. As a result, the downward spiral can continue: declining prices cause the stories to spread, causing still more price declines and further reinforcement of the stories.

At some point, of course, the process must end, as when the market falls so low that it becomes enticing, or when new stories emerge. Similarly, an upward movement in stock prices generates its own upward feedback.

At first, the feedback explanation may sound too simple, and may suggest that the stock market and its turning points are easy to predict. But because day-to-day noise shrouds these changes, and because the stories change in their retelling and as new evidence emerges, the process is actually very complex.

And even when feedback mechanisms are straightforward, they can produce very strange outcomes, not predictable very far into the future, as the modern mathematics of chaos theory can attest.

Still, when there is a change in the economy, it is worth seeking some sense of what actually happened. We should be able to look back at the recent swings and get some idea, after the fact, of what caused us to change our stories and mind-set.

On the downward path between the stock market peak of Oct. 9, 2007 (when the Dow reached 14,164.53), and its bottom (more than 50 percent lower) on March 9 this year, there was a proliferation of negative stories.

In news media accounts and in conversations worldwide, one theme was that something was fundamentally wrong with our economic system, and that it desperately needed to be fixed. The news media seemed full of stories of deceptive accounting and of crony boards of directors — not just because they were news, but also because they answered a public demand for culprits behind the price declines.

These stories led to popular anger, which led business people to become more cautious in their decisions, like those involving hiring and capital expenditures.

Talk of a "crisis of capitalism" was everywhere. In countries around the world, bad guys were found by the news media to personify this narrative. In the United States, the Bernie Madoff story, which broke in December, was a human-interest story that would have been a hit at any time, but it took on supernormal significance as a symbol of an increasingly negative economic perspective. It may be hard to remember now, but these views led to fears that the market might entirely collapse.

I have been collecting survey data since 1989 on public opinion about the stock market; since 2001, the surveys have been conducted under the auspices of the Yale School of Management. We compute a "Crash Confidence Index," which measures people's confidence that there will not be a stock market crash like that of Oct. 28, 1929, or Oct. 19, 1987. The index reached its all-time high in 2006, as the market was still soaring. It reached its low at the beginning of this year.

Recently, the Crash Confidence Index has been on an upswing again. Stories about market crashes are less frequent and are being crowded out by a wide variety of other, more normal narratives. The markets have repeatedly been shrugging off bad news because people have a different mind-set.

The popularity of the term "green shoots" shows the kind of social epidemic underlying our changing thinking. The phrase was propelled in Britain by Shriti Vadera, the business minister, in <u>January</u>, and mutated into a more contagious form after <u>Ben Bernanke</u>, the <u>Federal Reserve</u> chairman, used it on "60 <u>Minutes" on March 15</u>.

The news media didn't need to change the term for different cultures around the world. With nothing more than a quick translation — brotes verdes, pousses vertes, grüne Sprösslinge, etc. — it is now recognized as a symbol of a revival coming soon.

All of this suggests that a social epidemic is supporting renewed confidence. This confidence can keep growing by contagion, as a kind of self-fulfilling prophecy, and we may see the markets and the economy recover further.

But in an economy that is still unstable, the stories could also morph into different forms, the price feedback could turn downward and the dynamic could turn ugly again — just as it has in the past.

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