

Asset Bubbles

BY AARON STEELMAN

A “bubble,” as defined by economist Charles Kindleberger, is a “sharp rise in price of an asset or range of assets in a continuous process, with the initial rise generating expectations of further rises and attracting new buyers.” This, writes Kindleberger, is “usually followed by a reversal of expectations and a sharp decline in price often resulting in financial crisis.”

Many observers say that we witnessed such a bubble during the late 1990s, as the prices of stocks — particularly the stocks of high-tech companies — shot up dramatically, well beyond what economists refer to as their “fundamental value.” Most of those stocks’ prices dropped sharply a few years later, and investors paid the price for failing to base their decisions on sound financial analysis. Or so the story goes.

The facts of this case are undeniable, of course. Equity prices did, in fact, skyrocket and then plummet. But was this an example of a bubble? More fundamentally, can bubbles exist at all?

At least one economist has questioned whether you can ever be sure that an asset bubble has existed. One cannot distinguish between hypotheses that asset prices are driven by a “speculative bubble and that researchers have not adequately measured the future market fundamentals anticipated by market participants,” writes Peter Garber. “More generally, data will not distinguish between a claim that market participants suffer from some mania because behavior does not conform to the prediction of some researcher’s theory and a claim that the theory is flawed or misspecified. Because of this observational equivalence, economists who take a position in the debate over the existence of bubbles are making a commitment that cannot be based on the analysis of experience.”

Garber analyzes perhaps the most famous of all supposed bubbles: the “tulipmania” that gripped the Netherlands during the 17th century. The Netherlands’ well-developed markets permitted entrepreneurs to experiment and create new varieties of flowers. Those tulip bulbs that produced unique, beautifully patterned flowers commanded high prices. More common tulips were sold at much lower prices. Prices for rare tulips, such as the Semper Augustus bulb, remained high from 1634 through early 1637. But in February 1637, prices collapsed and bulbs could not be sold at 10 percent of their peak values.

“A standard pricing pattern arises for new varieties of flowers, even in modern markets. When a particularly prized

variety is developed, its original bulb sells for a high price. As the bulbs accumulate, the variety’s price falls rapidly; after less than 30 years, bulbs sell at their reproduction cost,” writes Garber. Such a pricing pattern raises two questions about the period 1634 to 1637. First, why did the price of bulbs rise so quickly? Second, did prices decline faster than should have been expected?

Garber attributes the rapid increase in price to a general appreciation of the beauty of rare tulips by the wealthier citizens of the Netherlands. They were simply willing to pay a lot to obtain the status of owning a renowned tulip. You might think this is foolish, but it is not necessarily irrational, from the point of view of the buyer.

As for the drop in prices, the average annual rate of depreciation from February 1637 to 1642 was 32 percent. This might seem like a lot. But Garber also looked at data from the early 1700s and found that the average annual rate of depreciation for flowers during this period was 28.5 percent. It is true that these latter prices fell from a much lower peak. Still, the evidence is not compelling that the drop in prices following “tulipmania” was more severe than should have been expected.

Finally, Garber writes that “there is no evidence of serious economic distress arising from the tulipmania. All histories of the period treat it as a golden age in Dutch development.”

All this leads Garber to conclude: “Fascinated with the brilliance of grand speculative events, economists have huddled in the bubble interpretation and have neglected an examination of potential market fundamentals.” In short, those who bought tulips at the peak of the market were not necessarily careless or irrational.

Garber has staked out the most extreme position on the question of when an asset bubble occurs by stating that you can never know for sure. One might consider relaxing his assumption that all traders are rational and instead look at what happens when just some groups behave rationally, as economist J. Bradford DeLong and several of his colleagues have done. Such models may be able to help explain swings in asset prices. Nevertheless, the next time someone brings up an example of a supposed asset bubble, it might be useful to think carefully about the implicit theory behind that claim before reaching a judgment.

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