

5 Stages of A Bubble

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What Is a Bubble?

A basic characteristic of financial bubbles is the suspension of disbelief by most participants when the speculative price surge is occurring: It's only in retrospect, after the bubble has burst, that they're recognized (to many an investor's chagrin). Nevertheless, some economists have identified five stages of a bubble—a pattern to its rise and fall—that could prevent the unwary from getting caught in its deceptive clutches.

key takeaways

- Bubble, in an economic context, generally refers to a situation where the price for something—an individual stock, a financial asset, or even an entire sector, market, or asset class—exceeds its fundamental value by a large margin.
- Financial bubbles, aka asset bubbles or economic bubbles, fit into four basic categories: stock market bubbles, market bubbles, credit bubbles, and commodity bubbles.
- Bubbles are deceptive and unpredictable, but understanding the five stages they characteristically go through can help investors prepare for them.
- The five steps in the lifecycle of a bubble are displacement, boom, euphoria, profit-taking, and panic.
- The damage caused by the bursting of a bubble depends on the economic sector(s) involved, whether the extent of participation is widespread or localized, and to what extent debt fueled the investments that inflated the bubble.

The term "bubble," in an economic context, generally refers to a situation where the price for something—an individual stock, a financial asset, or even an entire sector, market, or asset class—

exceeds its fundamental value by a large margin. Because speculative demand, rather than intrinsic worth, fuels the inflated prices, the bubble eventually but inevitably pops, and massive sell-offs cause prices to decline, often quite dramatically. In most cases, in fact, a speculative bubble is followed by a spectacular crash in the securities in question.

The damage caused by the bursting of a bubble depends on the economic sector(s) involved, and also whether the extent of participation is widespread or localized. For example, the bursting of the equity and real estate bubbles in Japan in 1989–1992 led to a prolonged period of stagnation for the Japanese economy — so long that the 1990s are referred to as the Lost Decade. In the U.S., the burst of the dotcom bubble in 2000 and the residential real estate bubble in 2008 led to severe recessions.

5 Steps of a Bubble

Types of Asset Bubbles

Theoretically, there is an infinite number of asset bubbles—after all, a speculative frenzy can arise over anything, from Bitcoin to tulip bulbs (just to cite a couple of real-life examples). But in general, asset bubbles can be broken down into four basic categories:

- **Stock market bubbles** involve equities—shares of stocks that rise rapidly in price, often out of proportion to their companies' fundamental value (their earnings, assets, etc.). These bubbles can include the overall stock market, exchange-traded funds (ETFs), or equities in a particular field or market sector—like Internet-based businesses, which fueled the dotcom bubble of the late 1990s.
- **Market bubbles** involve other industries or sections of the economy, outside of the equities market. Real estate is a classic example. Run-ups in currencies, either traditional ones like the US dollar or euro or cryptocurrencies like Bitcoin or Litecoin, could also fall into this bubble category.

- **Credit bubbles** involve a sudden surge in consumer or business loans, debt instruments, and other forms of credit. Specific examples of assets include corporate bonds or government bonds (like US Treasuries), student loans, or mortgages.
- **Commodity bubbles** involve an increase in the price of traded commodities, "hard"—that is, tangible—materials and resources, such as gold, oil, industrial metals, or agricultural crops.

Stock market and market bubbles, in particular, can lead to a more general economic bubble, in which a regional or national economy overall inflates at a dangerously fast clip. Many historians feel the U.S. was overheating in this way in the 1920s, aka "The Roaring Twenties"—leading to the meltdown of the Crash of 1929 and the subsequent Great Depression.

Five Stages of a Bubble

Economist Hyman P. Minsky was one of the first to explain the development of financial instability and the relationship it has with the economy. In his pioneering book *Stabilizing an Unstable Economy* (1986), he identified five stages in a typical credit cycle, one of several recurrent economic cycles.

These stages also outline the basic pattern of a bubble.

1. Displacement

A displacement occurs when investors get enamored by a new paradigm, such as an innovative new technology or interest rates that are historically low. A classic example of displacement is the decline in the federal funds rate from 6.5% in July 2000, to 1.2% in June 2003. Over this three-year period, the interest rate on 30-year fixed-rate mortgages fell by 2.5 percentage points to a then-historic low of 5.23%, sowing the seeds for the subsequent housing bubble.

2. Boom

Prices rise slowly at first, following a displacement, but then gain momentum as more and more participants enter the market, setting the stage for the boom phase. During this phase, the asset in question attracts widespread media coverage. Fear of missing out on what could be a once-in-a-lifetime opportunity spurs more speculation, drawing an increasing number of investors and traders into the fold.

3. Euphoria

During this phase, caution is thrown to the wind, as asset prices skyrocket. Valuations reach extreme levels during this phase as new valuation measures and metrics are touted to justify the relentless rise, and the "greater fool" theory—the idea that no matter how prices go, there will always be a market of buyers willing to pay more—plays out everywhere.

For example, at the peak of the Japanese real estate bubble in 1989, prime office space in Tokyo sold for as much as \$139,000 per square foot. Similarly, at the height of the Internet bubble in March 2000, the combined value of all technology stocks on the Nasdaq was higher than the GDP of most nations.

4. Profit-Taking

In this phase, the smart money—heeding the warning signs that the bubble is about at its bursting point—starts selling positions and taking profits. But estimating the exact time when a bubble is due to collapse can be a difficult exercise because, as economist John Maynard Keynes put it, "the markets can stay irrational longer than you can stay solvent."

In Aug. 2007, for example, French bank BNP Paribas halted withdrawals from three investment funds with substantial exposure to U.S. subprime mortgages because it could not value their holdings. While this development initially rattled financial markets, it was brushed aside over the next couple of months, as global equity

markets reached new highs. In retrospect, Paribas had the right idea, and this relatively minor event was indeed a warning sign of the turbulent times to come.

5. Panic

It only takes a relatively minor event to prick a bubble, but once it is pricked, the bubble cannot inflate again. In the panic stage, asset prices reverse course and descend as rapidly as they had ascended. Investors and speculators, faced with margin calls and plunging values of their holdings, now want to liquidate at any price. As supply overwhelms demand, asset prices slide sharply.

One of the most vivid examples of global panic in financial markets occurred in Oct. 2008, weeks after Lehman Brothers declared bankruptcy and Fannie Mae, Freddie Mac, and AIG almost collapsed. The S&P 500 plunged almost 17% that month, its ninth-worst monthly performance.

Tulipmania describes the first major financial bubble, which took place in 17th-century Holland: Prices for tulips soared beyond reason, then fell as fast as the flower's petals.

Example of a Stock Bubble: eToys

The Internet bubble around the turn of the 21st century was an especially dramatic one. Numerous Internet-related companies made their public debut in spectacular fashion in the late 1990s before disappearing into oblivion by 2002. The story of eToys illustrates how the stages of a stock bubble typically play out.

A Rosy Start

In May 1999, with the Internet revolution in full swing, eToys had a very successful initial public offering (IPO), where shares at \$20 each escalated to \$78 on their first trading day. The company was less than three years old at that point and had grown sales to \$30 million for the year ended March 31, 1999, from \$0.7 million in the

preceding year. Investors were very enthusiastic about the stock's prospects, with the general thinking being that most toy buyers would buy toys online rather than at retail stores such as Toys "R" Us. This was the displacement phase of the bubble.

As the 8.3 million shares soared in its first day of trading on the Nasdaq, giving it a market value of \$6.5 billion, investors were eager to buy the stock. While eToys had posted a net loss of \$28.6 million on revenues of \$30 million in its most recent fiscal year, investors were expecting the financial situation of the firm to take a turn for the best. By the time markets closed on May 20, eToys sported a price/sales valuation that was largely exceeding that of rival Toys "R" Us, which had a stronger balance sheet. This marked the boom and euphoria stages of the bubble.

Shortly afterward, eToys fell 9% on concern that potential sales by company insiders could drag down the stock price, following the expiry of lockup agreements that placed restrictions on insider sales. Trading volume was exceptionally heavy that day, at nine times the three-month daily average. The day's drop marked a 40% decline in the stock, from its record high of \$86, identifying this as the profit-taking phase of the bubble.

Decline and Fall

By March 2000, the panic stage had arrived: eToys had tumbled 81% from its October peak to about \$16 on concerns about its spending. The company was spending an extraordinary \$2.27 on advertising costs for every dollar of revenue generated. Although the investors were saying that such expenditures were characteristic in the new economy, such a business model simply is not sustainable.

In July 2000, eToys reported its fiscal first-quarter loss widened to \$59.5 million from \$20.8 million a year earlier, even as sales tripled over this period to \$24.9 million. It added 219,000 new customers

during the quarter, but the company was not able to show bottom-line profits. By this time, with the ongoing correction in technology shares, the stock was trading around \$5.

Towards the end of the year, with losses continuing to mount, eToys would not meet its fiscal third-quarter sales forecast and had just four months of cash left. The stock, which had already been caught up in the panic selling of Internet-related stocks since March and was trading around at slightly over \$1, fell 73% to 28 cents by Feb. 2001. Since the company failed to retain a stable stock price of at least \$1, it was delisted from the Nasdaq.

A month after it had reduced its workforce by 70%, eToys fired its remaining 300 workers and was forced to declare bankruptcy. By this time, eToys had lost \$493 million over the previous three years and had \$274 million in outstanding debt.

Asset Bubble FAQs

What Causes Asset Bubbles?

Asset bubbles can begin in any number of ways, and often for sound reasons. Major incubators of bubbles, which often interact or occur in tandem, include:

- Interest rates might be low, which tends to encourage borrowing for spending, expansion, and investment.
- Low-interest rates and other favorable conditions in a nation encourage an influx of foreign investment and purchases.
- New products or technologies spur demand and, whenever something's in demand, its price naturally rises (what the economists dub demand-pull inflation).
- There are shortages of an asset, causing the cost of it to climb—again, classic supply-and-demand principles.

So far, so good: These are all solid factors for appreciation. However, a problem arises when an asset bubble begins, snowball-like, to feed on itself—and to swell out of proportion to the fundamentals, or intrinsic worth, of the assets involved. Opportunistic investors and speculators are plunging in and pushing prices up even more.

Why are they doing this? It has to do not with fundamentals but with human foibles—psychological and often irrational thinking and actions about money, known as behavioral financial biases. These behaviors include things like:

- **Herd mentality:** doing something because everyone else is
- **Short-term thinking:** just looking at the immediate returns, or thinking you can "beat the market" and time a quick exit
- **Cognitive dissonance:** only accepting information that confirms an already-held belief, and ignoring anything that doesn't

"Irrational exuberance is the psychological basis of a speculative bubble," wrote economist Robert Shiller in his 2000 book, *Irrational Exuberance*. He defined a bubble "as a situation in which news of price increases spurs investor enthusiasm, which spreads by psychological contagion from person to person, in the process amplifying stories that might justify the price increases, and bringing in a larger and larger class of investors who, despite doubts about the real value of an investment, are drawn to it partly by envy of others' successes and partly through a gamblers' excitement."

What Happens When an Asset Bubble Bursts?

A range of things can happen when an asset bubble finally bursts, as it always does, eventually. Sometimes the effect can be small, causing losses to only a few, and/or short-lived.

At other times, it can trigger a stock market crash, and a general economic recession, or even depression.

Much depends on how big the bubble is—whether it involves a relatively small or specialized asset class, vs. a significant sector like, say, tech stocks or residential real estate. And, of course, how much investment money is involved.

Another factor: to what degree debt is involved in inflating the bubble. A major 2015 research study, "Leveraged Bubbles," examined asset bubbles in 17 countries, dating back to the 1870s. It categorized them into four types, but along two basic lines, based on credit—that is, how funded investments were by financing and borrowing.

The study found that the more credit involved, the more damaging the bubble's pop. Debt-fueled equity bubbles led to longer-lived recessions. Even worse were leveraged housing bubbles, like the one that popped in 2006-07, leading to the subprime mortgage crisis that kicked off the Great Recession.

What Is an Example of an Economic Bubble?

One of the tricky things about bubbles is that they're hard to spot while you're in one. Only in hindsight, after they burst, do they become clear.

One such was the dotcom bubble that occurred around the turn of the 21st century. It was a rapid rise in U.S. technology stocks, especially those in then-novel Internet-based companies, that helped lift the stock markets in general. The tech-dominated Nasdaq index quintupled in value, from under 1,000 to more than 5,000 between 1995 and 2000.

Unfortunately, when many of the new, hot tech companies failed to turn a profit or perform up to expectations, investors soured on them. In 2001-02, the bubble popped. In the ensuing crash, the Nasdaq index fell over 75%. Stocks in general entered a bear market.

What Is a Bubble in Finance?

A financial bubble, also known as an economic bubble or an asset bubble, is characterized by a fast, large climb in the market price of different assets. This rapid growth, though, is relatively short-lived—like the bursting of a bubble—and it abruptly reverses course, dragging asset prices down with it, sometimes even lower than their original levels.

Typically, a bubble is created out of sound fundamentals, but eventually exuberant, irrational behavior takes over, and the surge is caused by speculation—buying for the sake of buying, in the hopes prices continue to rise.

The Bottom Line

"A rapid price rise, high trading volume, and word-of-mouth spread are the hallmarks of typical bubbles," says Timothy R. Burch, an Associate Professor of Finance at the Miami Herbert Business School. "If you learn of an investment opportunity with dreams of unusually high profits from social media or friends, be particularly wary—in most cases, you'll need uncanny timing to come out ahead."

As Minsky and a number of other experts opine, speculative bubbles in some asset or the other are inevitable in a free-market economy. However, becoming familiar with the steps involved in bubble formation may help you to spot the next one and avoid becoming an unwitting participant in it.