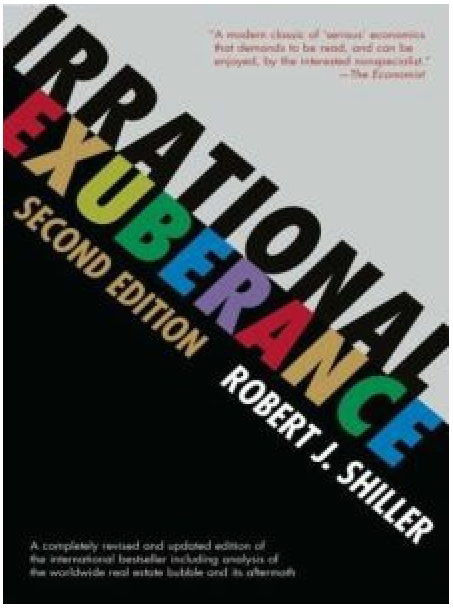

Book Irrational Exuberance

Robert J. Shiller
Princeton UP, 2005
First Edition:2000
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Recommendation

Shortly after a 1996 briefing by author Robert Shiller, Alan Greenspan, chairman of the U.S. Federal Reserve Board, warned the country about the mood of "irrational exuberance" that was pushing up stock prices. In hindsight, it's clear that the bull was just beginning. Anyone who heeded that warning would have missed nearly unprecedented gains. But Shiller proved prophetic when the market peaked and crashed in 2000, the year he published this book's first edition. Shiller isn't teaching market timing; he's debunking cherished investing axioms, such as the belief that stocks or real estate are necessarily great long-term investments. He discredits financial reporting, notes the psychological and emotional factors that make investors behave irrationally, and sounds a note of caution as timely now as it was at the turn of the millennium. This book vaccinates you against the virus of credulity. *BooksInShort* suggests a copy for every investor - dog-eared from frequent rereading. It's a wise investment.

Take-Aways

- Markets that go up invariably come down. The higher they rise, the farther they fall.
- Investors and homebuyers can and do behave irrationally.
- Stock markets can be overvalued or undervalued for years or even decades.
- When people think they are learning crucial new facts - i.e., stocks are the best long-term investment or real estate prices always rise - speculative bubbles increase.
- Claims that stocks are the best long-term investment are based on a selective reading of financial history.
- No evidence shows that stocks will outperform bonds over time or that real estate is an excellent investment.
- The media assists the progress of bubbles. Because the press is virtually global, a bubble in one country often inspires bubbles

elsewhere.

- Financial journalists and market commentators are unreliable investment guides because their job is to sell stories, not to offer dispassionate, considered analysis.
- Bubbles feed on themselves. Price rises stoke expectations, inspiring more price rises.
- True diversification means investing in a wide, varied basket of assets.

Summary

Remembering the Fundamentals

Orthodox financial theory assumes that people approach economic decisions rationally. Investors presumably look at financial reports, calculate returns, compare investments, consider fundamental economic values, note the alternatives, measure returns against risk and only then buy or sell. Because everyone from your neighborhood stock broker to the economists on the U.S. Federal Reserve Board uses models derived from that theory, the concept that people are rational has an immense impact on the economic system and the management of wealth. But impressive evidence suggests that individual investment decisions are not rational.

> "At present there is a whiff of extravagant expectation, if not irrational exuberance, in the air."

Most notably, during the late 1990s, millions of adults put money in the highly overvalued stock market based on the irrational conviction that it would continue to rise. Even when the market was higher than ever, even when stock prices were totally out of line with traditional relationships to earnings, profits and fundamental values, investors kept buying.

> "People are optimistic about the stock market. There is a lack of sobriety about its downside and the consequences that would ensue as a result."

After the 2000 crash, investors seemed to focus their speculative irrationality on real estate. Although real estate prices began to rise in 1997, they really took off after 2000. One reason was that unhappy buyers lost confidence in stocks, but did not learn the lessons they should have learned.

> "The ascent in home prices after 1997 was much faster than the increase in incomes, and this raises concerns about the long-run stability of home prices, especially in the most volatile states."

Instead of learning to be cautious and conservative, they transferred their almost superstitious belief in an unfailing market ascent from stocks to real estate. This is not how a rational investor would act, but it is how investors as a whole are behaving.

Average real prices for U.S. homes rocketed up 52% from 1997 through 2004. This is historically unprecedented. Although this seems like a minor increase compared with the tripling of stock prices from 1995 to 2000, the real estate bull market breaks with traditional measures of real estate prices and value. In 1985, the median home price equaled 4.9 years of per capita income. By 2002, in volatile markets, the median price equaled 7.7 years of per capita income. The rise is so pronounced that even newspapers, which were cheerleaders for the stock market bubble, have begun to call it a "bubble."

Historical Perspective

In 1994, the Dow Jones Industrial Average was about 3,600. By early 2000, it more than tripled to 11,700. During that period, U.S. personal income and the Gross Domestic Product rose less than 30%; half of that was merely inflation. Corporate profits rose less than 60%. Average home prices in major cities increased only 9%. Given these figures, the stock price increase was unwarranted. In fact, the 1982-2000 increase in stock prices was the most dramatic U.S. bull market ever. Earnings, which did not grow at a comparable rate, oscillated around the same slow, steady path they have followed for more than a century. The earnings growth rate accelerated temporarily in the early 1990s, and bubble investors who bought at unsustainable prices might have naïvely extrapolated that higher growth rate into the future. However, the economy offered many reasons to refrain from such extrapolation. The only precedent that even resembles the '90s bubble is the Roaring '20s, which ended in the 1929 market crash. And, even the 1920s bubble pales in comparison to the millennium bubble.

> "The increasingly large role of speculative markets for homes, as well as of other markets, has fundamentally changed our lives."

What about real estate? Nationwide, real estate prices rose at an unprecedented rate from the late 1990s through 2004. The only similar increase came just after WWII. That rise had some fundamental support, as returning soldiers married, parented the baby boom and bought homes with government subsidies. That was not a speculative boom, but the recent rise in real estate prices is largely speculative, with no relationship to population growth, interest rates or construction costs. People seem to be buying homes like they bought stocks in the '90s - convinced that prices can only go up. Financial history does not support this conviction. From 1890 through 2004, house prices increased only some 0.4% per year compounded. It is rational to expect home prices to have a low ceiling. More than 97% of the land in the U.S. is empty. It is easy to find a place to live outside costly metro areas.

The Price-Earnings Ratio

Historically, as a rule and on average, high returns follow years with low price-earnings ratios, and low or negative returns follow years with high price-earnings ratios. In January 2000, the price-earnings ratio hit 44.3. Precedents for high price-earnings ratios fall far short of that. In 1901, the ratio hit a then-unprecedented 25.2, with no immediate reversal. Prices bounced near that level for about a decade and fell. By 1920, the market lost 67% of its real dollar value. The second instance of a high price-earnings ratio (32.6) occurred in September 1929, when the market crashed. By 1932, the S&P Index lost more than 80% of its real value. The S&P Composite Index did not return to its September 1929 value until December 1958. The average real return in the market, including dividends, was -13.1% for the five years following September 1929; -1.4% a year for the next 10 years; -0.5% a year for the next 15 years and 0.4% a year for the next 20 years. The third instance of a high price-earnings ratio came in January 1966, when it hit 24.1. By 1975, real prices were down 56%. The drop was not sudden. Prices bounced around the 1966 level for a few years before falling.

> "There are times when an audience is highly receptive to optimistic statements, and times when it is not."

Similar data does not exist for the home price market, in part because until very recently, Americans did not think of their homes as speculative investments. They bought houses to live in, not to sell and make a killing. Housing booms may have occurred in isolated areas, usually due to some transportation innovation, such as a new canal, railway or highway. A nationwide speculative market in owner-occupied homes is utterly new.

Twelve Critical Factors

If the unprecedented rise in stock prices after 1982 and the unprecedented rise in real estate prices after 1997 had no basis in fundamentals, why did they happen? The causes are difficult to define with certainty, but these 12 factors probably helped inflate the bubbles:

1. **The ownership society** - Worldwide political events (the collapse of the Berlin Wall, China's shift to a market economy) fed a conviction that the capitalist ideal is unquestionably good for everyone. U.S. stock portfolios grew steadily through the late '90s and home prices increased steadily. So now people speculate and don't save.
2. **Cultural changes** - Materialistic values gained influence during the bull market. A 1975 Roper-Starch survey found that only 38% of respondents identified "a lot of money" as an important part of the good life. When the survey was repeated in 1994, fully 68% did so. Since the stock and real estate markets offer the hope of striking it rich, people may well bid up prices. Price increases create expectations of further price increases and reinforce the conviction that an appreciated asset is a "can't lose" investment. Downsizing and the erosion of solidarity and loyalty among workers may lead people to be more individualistic, self-reliant and, perhaps, likelier to view stock and real estate speculation as feasible entrepreneurial opportunities.
3. **New technologies** - The Internet and cell phones offer powerful new channels for entertainment, education, communication, investing and more. These critical technologies will have a large, but unpredictable, impact in the future. In a market boom, popular perception of such an impact matters more than economic reality. During the 1990s speculative bubble, the public perceived a great future in new technology. That confidence may be muted now, but stock prices remain much higher than traditional metrics indicate they should be.

4. **Monetary policy** - Notwithstanding Greenspan's 1996 "irrational exuberance" warning, the Federal Reserve did not invoke monetary policy to choke the supply of air to the bubble. In fact, in the same speech, Greenspan suggested that the Fed did not care about bubbles. Moreover, the 2001 rate cut (which reached negative levels in inflation-corrected terms) probably fueled speculation in housing.
5. **Demographics, especially the baby boom** - Simple arguments that attribute the bull market to the baby boom are seriously flawed. Still, the baby boom's impact is one of the most talked-about market issues; that buzz can affect stock and housing markets.
6. **Business news** - Business reporting has changed. Newspapers have turned staid old "Business" sections into colorful new "Money" sections that offer investing tips. Articles about corporations now often include analysts' comments on what the news means for investors. This kind of reporting keeps investments in the public mind. Since a big part of advertising's purpose is to gain mind-share, the news media is focusing public attention on investing and speculating. When more people pay attention to speculative opportunities, more speculation occurs. The media covers markets because price changes make news. To attract audiences, the media likes to present extreme, defined debate and conflict. Thus, experts get TV time because they engage attention, not because of their knowledge, insight and vision. The media's business is to attract and hold an audience, not to educate it. Yet the media enormously influences market prices.
7. **Analyst optimism** - A 1999 survey of analyst opinions on 6,000 companies found that only 1% recommended "sells" - a decade earlier, the ratio of "sell" recommendations was nine times higher. During the bubble, investment bank analysts gave much more favorable opinions on stocks underwritten by their employers than unaffiliated analysts did - even though their earnings estimates weren't always higher. After the 2000 crash, prosecutors and regulators took long overdue action to curb analyst malfeasance. But "sell" recommendations still outnumber "buy" recommendations, and it's too early to say that analysts have changed their stock-touting ways.
8. **Defined contribution pension plans** - Prior to 1981, most employer pension plans merely promised a fixed pension upon retirement. Those "defined benefit" plans are history, replaced by defined-contribution plans, which tend to guide retirement savings into stocks and, thus, encourage speculation.
9. **Growth of mutual funds** - Mutual funds proliferated from 350 in 1982 to 3,513 in 1998, in part because defined-contribution pension plans use them and because of extensive advertising and publicity. Mutual funds draw naive investors by leading them to think that expert managers will increase their money. The idea that mutual fund investing is convenient, safe and profitable attracts many investors, putting upward pressure on prices.
10. **Decline of inflation** - The public sees inflation as a shorthand measure of economic health: high inflation is bad; low inflation is good and leads to unjustified public confidence. The public does not really understand inflation. Because the media gives long-run market returns from years ago without correcting for inflation over time, the reported upward movement unduly impresses people.
11. **Expansion of trading opportunities** - Discount brokers and SEC regulations made it cheaper and easier for the financial laity to enter the markets and trade actively. Online trading systems make more stock price information available to amateur investors and expand their trading hours. Thus, the turnover rate (the total shares sold in a year divided by the total number of shares) has been soaring.
12. **Gambling** - The U.S. has more gambling now than anytime since the 1870's, when states outlawed most gambling and lotteries. Gambling's spread may encourage other forms of risk taking.

New Era Economics

When price increases encourage investors' confidence and expectations, they bid up prices further, thereby enticing more investors to do the same. The cycle repeats again and again, reducing perceptions of future risk. Stories of big wins make people eager to join the game.

> “As prices continue to rise, the level of exuberance is enhanced by the price rise itself.”

For many people, investment decisions are not analytical and quantitative. They have as much of an emotional component as a decision on where to vacation.

A chorus predicting a "new era" accompanied every major twentieth century bull market. In 1901, the chorus said investment trusts and big business combinations would create a "community of interest" ending the previous decade's ruinous price-cutting.

"Irrational exuberance is the psychological basis of a speculative bubble."

In early 1929, "new era" prophets saw continued prosperity thanks to industrialization. In the early '60s, optimism and Johnson's Great Society underpinned the "new era."

In the 1990s, the Internet created the "new era." These prophets were all wrong. Now something akin to "new era" thinking pervades the real estate market. This should be a warning.

About the Author

Robert J. Shiller is a professor of economics at Yale University. His previous books include *The New Financial Order*, *Market Volatility* and *Macro Markets*.