

Irrational Exuberance

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Introduction

In his book, *Irrational Exuberance*, Robert Shiller argues that high stock market valuations in 2000 and 2005 were unjustified. The book starts with historic valuations based on PE ratios. Shiller shows that valuations in these two periods were well above those seen at prior peaks in 1901, 1929 and 1966. This book, however, is not about valuation. Instead, the author identifies a series of factors that brought about these speculative excesses. The meat of the book lists 12 factors that facilitated big market moves from 1995 to 2000 and from 2002 to 2005. Shiller then goes on to explain the mechanisms that amplified these factors. The book also covers cultural and psychological influences that further contribute to irrational decision making when it comes to making investments. After explaining our attempts to rationalize this irrational behavior, Shiller then offers some solutions to prevent future speculative bubbles.



Taking its title from Alan Greenspan's famous description of the stock market in 1996, *Irrational Exuberance* was first published in 2000 and coincided with the Nasdaq peak that same year. Needless to say, the timing was most prophetic. The second edition was published in 2005 with the S&P 500 up some 50% from its 2002 low. This advance continued another 30% before the financial crisis triggered a massive decline in 2008.



Ties with Technical Analysis

Many of the theories put forth in this book fall in the realm of behavioral finance or behavioral economics. Behavioral finance is considered a branch of technical analysis. In fact, *Irrational Exuberance* was required reading for the Chartered Market Technician (CMT) exam on 2011. Behavioral finance is an attempt to understand the behavior of investors and institutions when investing in stocks, bonds, real estate, tulips or other securities. What prompts individuals to buy or sell a security? How do investors handle risk or loss? Why do speculative bubbles appear and then burst? Is there such thing as the dumb money and the smart money? Shiller sheds light on the investing process by highlighting the key factors that led to Irrational Exuberance in the late 1990's.

Structural Factors

Shiller identifies 12 structural factors that contributed to the unprecedented rise in stock prices from 1995 to 2000. Even after the big decline into the 2002 lows, valuations were again at relatively high levels a few years later.

1. The capitalist explosion and the ownership society encouraged stock investing. Societies built on communism and socialism opened up to capitalistic ways. Russia and China come to mind over the last 20 years. George W. Bush promoted the ownership society by advocating property and stocks for all. Corporate downsizing and the decline of labor unions prompted people to take their destiny into their own hands and spawned the entrepreneurial spirit. Corporations tied salaries to performance with stock options.

2. Cultural and political changes favor business success. There has been a significant rise in materialistic values over the years. Shiller reports that more people viewed money as important to success in the mid-90s than in the mid-70s. Society viewed successful

businessmen more favorably than scientists or artists. The 1995 Republican Congress proposed cutting the capital gains tax and it was cut in 1997. Further cuts were proposed soon thereafter. These tax cuts, as well as the anticipation of future capital gains tax cuts, provided incentives to buy stocks.

3. New information technology suggested that new era. The first cell phones appeared in the early 1980's, which is when the great bull market started. The Internet came of age in the mid-1990's and grew rapidly the next five years. Investors viewed this Internet revolution as a game changer that justified the stock market boom.

4. Monetary policy and the Greenspan put took perceived risk out of the equation. The Fed did nothing to stop the surging stock market from 1995 to 1999. Interest rates did not increase until August 1999. In addition to letting the bubble grow, the Fed indicated that it would be there to pick up the pieces should anything go wrong, just like in 1987 and 1998. Having the Fed on standby in the event of a market crash was like owning a put option.

5. The perceived effects of the baby boomer generation. There was indeed a baby boom after World War II and this boom resulted in a large number of people aged 35-55 in 2000. However, Shiller argues with data that there is no correlation between a baby boom and a surging stock market. Instead, Shiller argues that, as with the Internet, the public perceptions of the baby boom influence help inflate the stock market.

6. The 1990's surge in business media undoubtedly contributed to interest in the stock market. Not much explanation is needed here. Newspapers created big glossy business sections to attract readers. Good stories replaced hard news. Increased media exposure led to more advertising and this simply fed the public appetite for stocks. The media continues to pour it on with Mad Money debuting in 2005.

7. Analysts' estimates were routinely over-optimistic in the late 1990's. Shiller notes that Zachs reported sell recommendations on 9.1% of stocks in 1989 and just 1% of stocks in late 1999. Analysts were hesitant to issue sell recommendations because many firms also had investment banking ties with the company. Analysts also did not want to offend the company because they might then be cut off from earnings guidance or key information.

8. Defined-Contribution Pension Plans grew and replaced many Defined-Benefit Plans. Among other things, the decline in unions and big manufacturing industries (autos) contributed to this trend. More people also wanted control over their retirement funds. Those with Defined-Benefit Plans must make their own investment choices and this increases the exposure to stocks.

9. The number of mutual funds surged. From 1982 to 1998, the number of mutual funds grew tenfold (340 to 3513). At one point, there were more mutual funds than stocks listed on the NYSE. Mutual funds became a regular part of 401K's. Money moving into these mutual funds from 401K's and individual investors found its way into the stock market to feed the bubble. Shiller also notes that widespread advertising compounded this growth and increased public awareness to new levels.

10. Benign inflation created the illusion of wealth and prosperity. After runaway inflation in the 70's, the inflation outlook steadily improved from 1982. Shiller's research found that the public associates inflation with economic prosperity and social welfare. Such perceptions promote positive expectations for the economy and the stock market.

11. The explosion of trading volume kept the bid in the bubble. Increased interest in the stock market and a dramatic decline in commissions facilitated a surge in trading volume on the exchanges. The growth in online trading also facilitated increased interest and made it easy to trade more frequently.

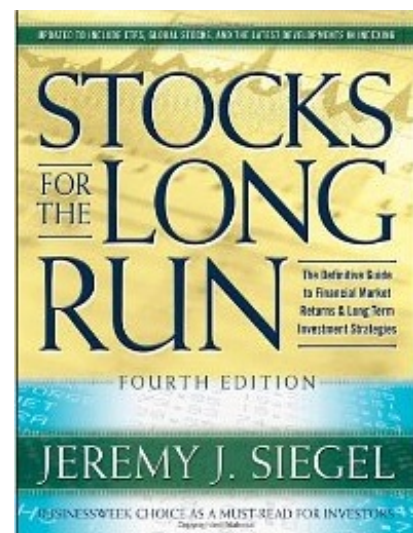
12. There was an increase in gambling over the years. Government sanctioned gambling (lotteries) and commercial gambling grew in popularity over the years. Poker players became stars. Lottery jackpots were heavily promoted. Slick adverts portrayed gambling as sophisticated and increased one's propensity to take risks. Online gambling facilitated growth as well.

Amplification Mechanisms

As if the structural factors listed above were not enough, Shiller argues that amplification mechanisms intensified the effects. First, there was a change in investor attitudes toward stocks. By the late 1990's stocks were considered a long-term investment that could not go wrong. Jeremy Siegel first published *Stocks for the Long Run* in 1994. Subsequent editions have appeared in 1998, 2002 and 2007. Stocks indeed performed well from 1995 until 2000, when the S&P 500 peaked around 1550. The S&P 500 then went on a 10-year stretch of underperformance. In fact, the S&P 500 was trading below its 2000 level in early 2011. This means 11 years of negative returns for buy-and-hold investors that bought in 2000.

Second, as inferred above, Shiller asserts that public attention to the stock market hit new levels in the 1990's. This heightened awareness made more money available for stocks. The media fed this infatuation with increased coverage. Dinner party conversations invariably turned to the stock market. Stock tips and advice were also readily shared among acquaintances.

Third, the consistent rise in stock prices provided a feedback loop that kept public attention on stocks. As the media reported the rise in the stock market, new money found its way into the stock market and pushed prices even higher. Higher prices led to more news and more news led to more investment money. A feedback loop evolved where price increases were feeding more price increases. Shiller calls these mechanisms naturally occurring Ponzi schemes because they feed on the perception of prior success.



Cultural Factors

The news media and new era thinking are among the cultural factors cited by Shiller. Yes, the media seems to keep popping up in the book. Maybe that is why technical analysts only look at price charts!

The speculative bubble was clearly aided and abetted by the news media. Newspapers, television, radio and Internet media compete for public attention. Sensational stories with sound bites are more likely to attract attention than drab analysis with numbers and facts. Despite an inattention to detail, the news media was always there with specific reasons for a stock market move. The media always found the perfect excuse or news event to justify the move - after the fact. It is kind of like a solution in search of a problem.



Shiller asserts that there is a human tendency towards “overconfidence in one's beliefs”. Moreover, people often rely on intuition when making investment decisions. The decision process is not based on carefully considered facts backed by numbers and evidence. Instead, investors make investment decisions based on the opinion of others. This stems from the need to conform. Investors make decisions based on “good stories” or stories that seem logical. Because people get their information from the same sources, there is little or no evidence of independent behavior. Instead, individuals getting the same information react the same way to produce a herd mentality.



International Herald Tribune, October 27, 1989.
Kal, Cartoonists and Writers Syndicate, 1989.

Conclusion and Critiques

Shiller identified several credible factors that influenced investment decisions during the bubble years. Many of these factors exist today and his analysis provides food for thought when considering behavioral finance. Not all factors or influences are listed in this article. Shiller offers more factors and detailed evidence in the book. After examining efficient markets, random walks, bubbles and investor attitudes, Shiller also offers several remedies to contain “*speculative volatility in a free society*”.

Behavior finance can help us understand what is happening, but understanding may not help with making money in the stock market. While the first edition coincided with the stock market peak in 2000, the stock market rose another 30% after the second edition was published in February 2005. There is an argument to be made for historical valuations, but markets can remain irrational a lot longer than traders can remain solvent. In other words,

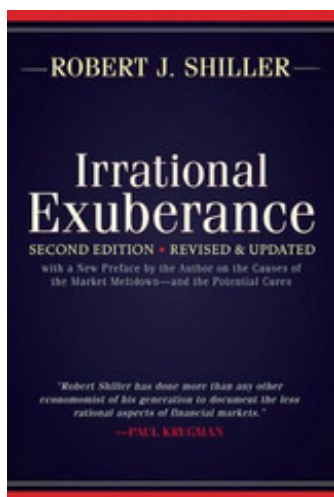
one would have left a lot of money on the table by selling in early 2005 or one would have gone broke shorting stocks in early 2005. To his credit, Shiller does provide evidence of past mispricing in the stock market. It can and does happen.

Furthermore, who is to say how much a stock is actually worth? The value of any asset is only what someone is willing to pay for it. Valuations are set every day as stocks change hands on Wall Street. Just as prices trend, valuations also trend from overvaluation to undervaluation. Sometimes these trends get extreme on both sides. Stocks were severely overvalued in early 2000 and severely undervalued in March 2009. It would appear that some sort of timing mechanism is needed to avoid the big declines and participate in the big advances. Hmm ... sounds like **technical analysis!**

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Further Study

Irrational Exuberance Robert Shiller



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