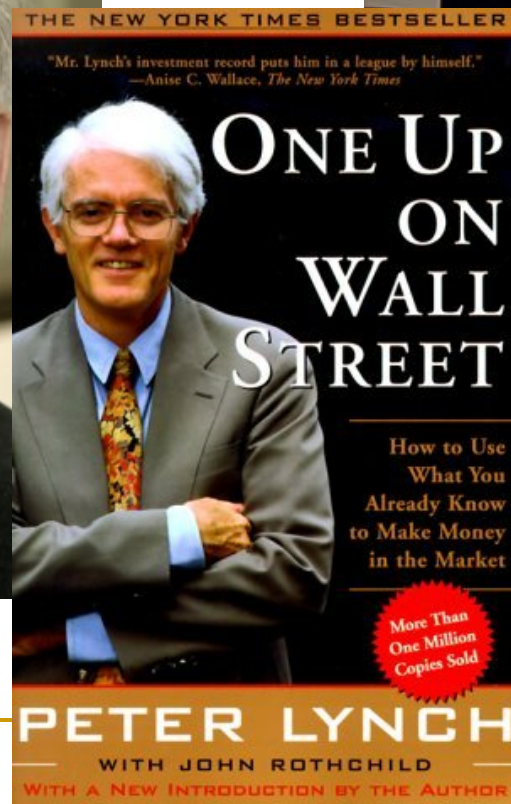
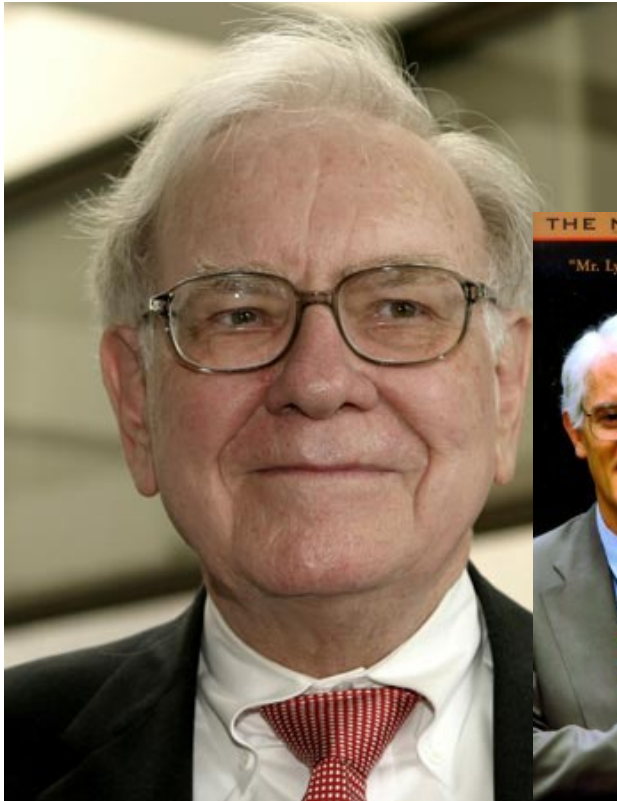

Behavioral Finance

http://www.investopedia.com/university/behavioral_finance/

Shiller (2003)

Interesting Observations!



Warren Buffett



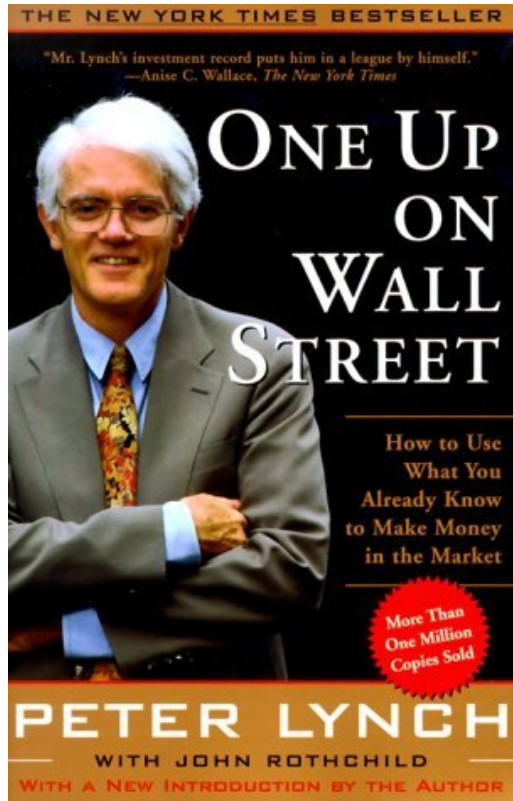
Referred to as the "Sage" or "Oracle" of Omaha, Warren Buffett is widely viewed as one of the most successful investors in history.

Following the principles set out by Benjamin Graham, he has amassed a personal multibillion dollar fortune mainly through investing in stocks and buying companies through Berkshire Hathaway. ***Shareholders in Berkshire Hathaway who invested \$10,000 in the company in 1965 are above the \$50 million mark today.***

Source:

<http://www.investopedia.com/university/greatestwarrenbuffett.asp>

Peter Lynch



Peter Lynch managed the Fidelity Magellan Fund from 1977 to 1990, **during which time the fund's assets grew from \$20 million to \$14 billion**. More importantly, Lynch reportedly beat the S&P 500 Index benchmark in 11 of those 13 years, achieving an annual average return of 29%.

Source:

<http://www.investopedia.com/university/greatest/peterlynch.asp>

John Neff



COURTESY: VANGUARD WINDSOR FUND

John Neff's average annual total return from Vanguard's Windsor Fund during his 31-year tenure (1964-1995) as portfolio manager was 13.7%, against a similar return from the S&P 500 Index of 10.6%. He showed a great consistency in topping the market's return by beating the broad market index 22 times during his tenure and was regularly in the top percent of money managers.

Source:

<http://www.investopedia.com/university/greatest/johnneff.asp>

Benjamin Graham



His two seminal books, "Security Analysis" (1934), written with David Dodd, and "The Intelligent Investor" (1949) are considered by many investment professionals to be the best books ever written for stock investors. Both of these books have never been out of print and are still used as texts for university-level courses on investing.

He is also famous for being a teacher and mentor for Warren Buffet as well as for other well-known investors.

Source:

<http://www.investopedia.com/university/greatest/benjaminraham.asp>

Behavioral Economics

- A relatively new field that uses sociological and psychological factors in explaining economic decisions of individuals and institutions

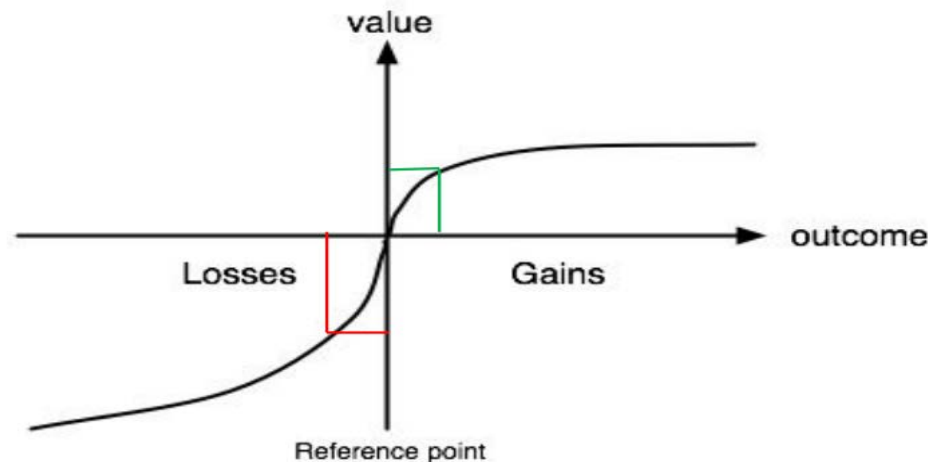
Background

- According to “conventional” financial theory, the world and its participants are, for the most part, ***rational*** “wealth maximizers”
- The results are:
 - Efficient Market Hypothesis
 - CAPM
- However, there are some “anomalies” (i.e., irregularities) that conventional financial theories have failed to explain

SOME PSYCHOLOGICAL FACTORS

Loss Aversion, Prospect Theory, the Disposition Effect and the Endowment Effect

- People have been shown to be loss averse, generally appearing to dislike losing something roughly twice as much as they like gaining it (Kahneman and Tversky, 1982)



Status Quo Bias and the Default Option

- The term status quo bias was advanced by Samuelson and Zeckhauser to explain the tendency to stick with current choices/patterns of behavior
- An example; when a University added some new options to its employment-based healthcare plan, faculty joining after this point understandably took advantage of most of the options. However, faculty previously employed (who of course had the right to take advantage of the new options) chose to participate in the new options to a far lesser degree

Framing Effects and Anchoring Effects

- The appraisal of alternative options can also depend on the way the choice is presented, or “framed”. People have a preference for positive rather than negative frames, an effect which follows on from loss aversion
- For example, in choosing cancer treatment, 82% of patients preferred surgery over radio therapy when surgery was described as having a 90% survival rate. However, only 56% preferred surgery over radio therapy when it was described as having a 10% mortality rate.

Mental Accounting

- Mental accounting occurs when sums of money are treated and valued differently depending on where they came from and/or where they are kept
- For example, most people coming to a store to buy a lamp for \$50 would travel to a different branch 5 minutes away if told that they could buy the same lamp at the other location for a special sale price of \$25.
- However, most people coming to a store to buy a dinner table set for \$1,500 would not travel to a different branch 5 minutes away if told they could buy the same set at another store for \$1,475

Overconfidence

- People have a natural tendency to be overconfident. It is a well-documented psychological bias. People's confidence systematically exceeds the accuracy of their choices
- For example, when given market reports of twenty stocks and asked to predict stock price changes, people rated their own accuracy in prediction at 68% while the actual accuracy was only 47%

SOME ANOMALIES

Anomalies (1)

- The presence of regularly occurring anomalies in conventional economic theory was a big contributor to the formation of behavioral finance
- January Effect:
 - The January effect is named after the phenomenon in which the average monthly return for small firms is consistently higher in January than any other month of the year

Anomalies (2)

■ The Winner's Curse

- the winner's curse - a tendency for the winning bid in an auction setting to exceed the intrinsic value of the item purchased

■ Equity Premium Puzzle

- Studies have shown that over a 70-year period, stocks yield average returns that exceed government bond returns by 6-7%
- However, academics believe that an equity premium of 6% is extremely large and would imply that stocks are considerably risky to hold over bonds (Next Time)

Shiller (2003)

- The 1980s and Excess Volatility
 - The anomaly represented by the notion of excess volatility seems to be much more troubling for efficient market theory than some other financial anomalies
 - The efficient market hypothesis can be stated as:

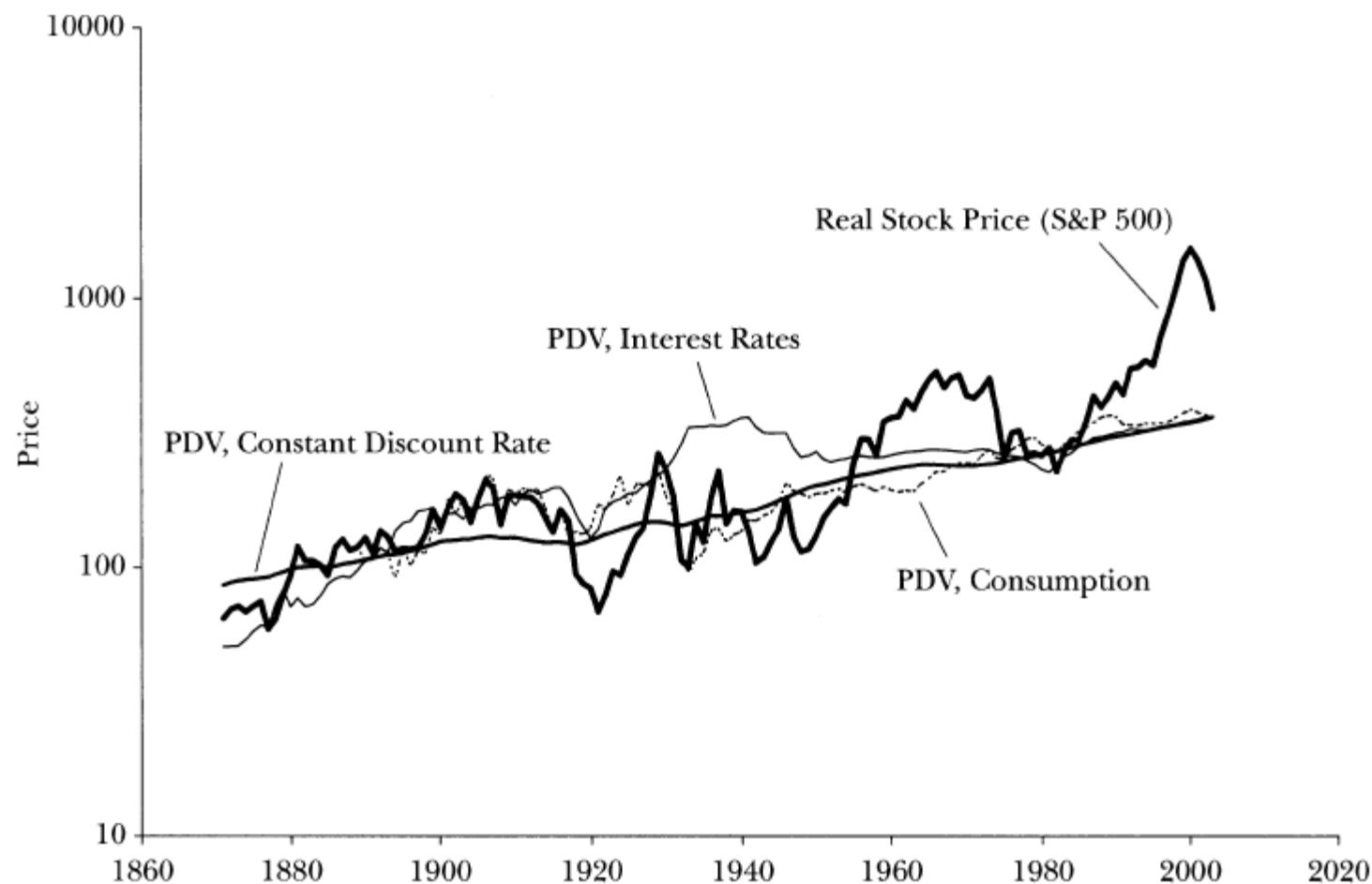
$$P_t^* = P_t + U_t$$

- Forecast must be less variable than the variable forecasted
-

Figure 1

Real Stock Prices and Present Values of Subsequent Real Dividends

(annual data)



The Blossoming of Behavioral Finance

- In the 1990s, a lot of academic discussion shifted away from the econometric analyses of time series on prices, dividends and earnings toward developing models of human psychology as it relates to financial markets
 - Two examples:
 - Feedback Models
 - Smart Money Vs. Ordinary Investors
-

Feedback Models (1)

- When speculative prices go up, creating successes for some investors, this may attract public attention, promote word-of-mouth enthusiasm, and heighten expectations for further price increases
 - People talk about “new era” that justify the price increases, increasing the investor demand and generating another round of price increases
-

Feedback Models (2)

- The high prices are ultimately not sustainable, since they are high only because of expectations of further price increases, and so the bubble eventually bursts, and prices come falling down
- The presence of such feedback is supported by some “experimental” evidence
- Biased Self-Attribution: Individuals attribute events that confirm the validity of their actions to their own high ability and attribute events that disconfirm their actions to bad luck or sabotage

Smart Money Vs. Ordinary Investors

- There are two types of investors:
 - Smart Money (Rational Investors)
 - Feedback Traders (Irrational Investors)
 - It is far from clear that smart money has the power to drive market prices to fundamental values
 - Smart money may face some constraints to bring prices back to fundamental
-

Critics

- The most notable critic of behavioral finance is Eugene Fama, the founder of market efficiency theory. Professor Fama suggests that even though there are some anomalies that cannot be explained by modern financial theory, market efficiency should not be totally abandoned in favor of behavioral finance.
- In fact, he notes that many of the anomalies found in conventional theories could be considered shorter-term chance events that are eventually corrected over time. In his 1998 paper, entitled "Market Efficiency, Long-Term Returns And Behavioral Finance", Fama argues that many of the findings in behavioral finance appear to contradict each other, and that all in all, behavioral finance itself appears to be a collection of anomalies that can be explained by market efficiency.