Invest Intelligently by Controlling Behavioral Biases

Presentation by
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to the
Mensa Annual Gathering
Louisville, Kentucky
July 4, 2015
Introduction and Overview

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Bob Pugh, CFA, CFP® Brief Biography

- President, Insight Wealth Management, Inc., an independent, fiduciary Registered Investment Adviser in Gainesville, VA, providing fee-only wealth and investment management, and financial planning services to individuals, families, businesses and non-profit organizations since 2005. Member of the Schwab Advisor Services network of select independent advisors for custody and brokerage of client assets.


- President of the CFA Society of Washington, DC, 2005 to 2007, and Eastern Region Presidents Council Representative, CFA Institute, 2009 to 2011.

- Over twenty-five years of experience as an economist, financial educator and analyst, portfolio manager, and personal financial planner in the private and public sectors. Experience includes serving as an economic analyst with the Central Intelligence Agency, director of investment research at another firm, and senior financial analyst in municipal government.

- Graduate degrees in global political economy from The Johns Hopkins University, School of Advanced International Studies, and in financial economics from the University of North Carolina at Greensboro.

- Full-time and adjunct faculty member experience with numerous colleges and universities, including nine years as a member of the Practitioner Faculty in Finance with The Johns Hopkins University’s (JHU) Carey School of Business, and with the JHU School of Medicine, teaching graduate-level courses in investment analysis, portfolio management, and corporate finance, and continuing education in the Business of Medicine program. Currently teach the full Level III CFA Exam review courses for the CFA Society of Washington, DC and the World Bank.

- Community Volunteer, including serving as President of the Prince William Symphony Orchestra for four years, Lay Speaking Minister in the Virginia United Methodist Conference, and over twelve years of service with the Virginia Cooperative Extension’s Personal Finance Program in Prince William County. Recently appointed by the Prince William County, Virginia Board of Supervisors as a Board Member of the Health Systems Agency of Northern Virginia.


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Introduction and Overview

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Introduction and Overview

Behavioral Finance

- Attempts to reflect in investment analysis and decision-making the reality of human behavior that traditional finance theory lacks

- Two levels of behavioral analysis
  - Micro – how individual investors behave
  - Macro – understanding bubbles and market anomalies

- Discussion in this presentation derived largely from the Chartered Financial Analyst (CFA) Exams Level III curriculum
Introduction and Overview

Consistently Appearing in Lists of the Most Difficult Exams in the World

- IES (Indian Engineering Services)
- Mensa Admissions Test
- Chartered Financial Analyst (CFA) Exams
Introduction and Overview

Generally Recognized as the Most Difficult Exam in the World

Britain’s Master Sommelier Diploma Exam
Introduction and Overview

The Process Many Investors Use:
Introduction and Overview

The Outcome Many Investors Achieve:
“Although we certainly cannot rule out home price declines, especially in some local markets, these declines, were they to occur, likely would not have substantial macroeconomic implications. Nationwide banking and widespread securitization of mortgages make it less likely that financial intermediation would be impaired than was the case in prior episodes of regional house price corrections.”

Alan Greenspan, June 9, 2005
Introduction and Overview

If Alan Greenspan can’t get a forecast right, what chance do we have?

Investing is a probabilistic exercise based on analysis and expectations, rather than forecasting, fortune telling, market timing or thinking we know more than all the rest of the market participants combined.

Investing is about risk management first, and returns second.
Three Pillars of Traditional Finance Theory:

- Markowitz’ Modern Portfolio Theory (Mean-Variance Optimization)
- The Efficient Markets Hypothesis
- Capital Asset Pricing Model (CAPM)
Traditional Finance Theory

- Included Among the Many Assumptions Underlying Traditional Finance Theory are:
  - Rationality on the part of investors (they think consistently in terms of mean-variance optimization)
  - Perfect information on the part of investors (investors have all information relevant to making investment decisions)
  - Instantaneous integration of new information into securities prices
How Investing Should Work

- Asset allocation (cash equivalents, fixed-income, equity and alternative classes) is the most important tool to manage risk and achieve return in a portfolio

- Combine asset classes with imperfect correlations to obtain a mean-variance optimal portfolio based on investor goals and risk tolerance, and capital market expectations

- Must be based on forward-looking probabilistic analysis, not just historical relationships and trends, or forecasts

- Most benefit occurs over long time horizons
How Investing Should Work

- Diversify not only asset class exposure, but security holdings

- Diversification eliminates risk exposure to individual securities, and leaves only risk and return exposure to the market or sectors

- Either hold an adequate number of individual securities or invest in index funds

- Active management, call it stock picking, beating the market, adding alpha, timing or whatever other term, has been shown time and time again to be a fool’s game

- Diversified exposure to asset classes allows investors to benefit from the interaction of those classes in a portfolio to improve its risk and return performance, and create a mean-variance optimal portfolio
How Investing Should Work

One paramount rule of successful investing:

Minimize fees, transaction costs and taxes
Behavioral Finance

Two Main Categories of Behavioral Finance Biases

- **Cognitive Errors**
  - Faulty subconscious brain processing, past education, information processing errors, ineffective reasoning, etc.
  - Can corrected by education and self-awareness

- **Emotional Biases**
  - Emotional predispositions
  - Feelings, peer and social pressure, impulse rather than reason, pleasure seeking, pain avoidance
  - More difficult to correct than cognitive errors
Behavioral Finance

Cognitive errors and emotional biases are subjective concepts and are based on human behavior. They have overlap and even contradictions.
Cognitive Errors

- **Conservatism** - failure to incorporate new information into previous analysis, which may or may not have been accurate.

- **Example** – An investor purchased Enron stock based on analysis showing it to be a solid, blue-chip company but ignored new information regarding the company’s problems and held on to the stock until it crashed.
Cognitive Errors

- **Confirmation Bias** – investors seek information to support what they believe already and ignore new information that contradicts currently-held views.

- **Example** – An investor bought an ETF representing a specific sector, which may have been a good move at the time. That investor now seeks out only information that confirms he made the right decision even though economic and market conditions have changed.
Cognitive Errors

- **Representativeness** – new evidence is interpreted in the context of what the investor wants to believe, or investment decisions are based on simple rules of thumb or heuristics.

- **Examples**
  - Suppose most indicators show that the economy is sinking into recession and technology stocks, a sector that is cyclically very sensitive, have been tanking for two months. An investor who focuses on tech stocks interprets a one week rebound as renewed strength in the sector as representative of a long-term rebound and pours more money into tech stocks.
  - An investor buys any stock with three years earnings growth above a specified level without consideration of any other relevant factors.
Cognitive Errors

- **Illusion of Control** – Belief that your own abilities or knowledge can influence or predict the outcome of events.

- **Example** – An investor selects investments based on market-timing believing that he is better able to make such trades than all other traders participating in the same market, rather than looking at investment results as probabilistic outcomes.
Cognitive Errors

- **Hindsight Bias** – Investing based on selective memory of what was done, known or believed in the past.

- **Example** – Uncle Loudmouth at Thanksgiving Dinner every year extols his own investing prowess with descriptions of the winning stock picks he made that year while neglecting to mention his losers. Gullible family members act on his stock tips thinking he is a great investor.
Cognitive Errors

- **Anchoring and Adjustment** – investment decisions are made relative to an “anchor” point rather than more objective criteria.

- **Example** – An investor bought a stock based on initially sound analysis, which turned out to be incorrect and the stock goes down. The investor then wants to hold the stock until it goes back to its purchase price (the anchor) rather than cutting their losses and making a better investment.
Cognitive Errors

- **Mental Accounting** – Investable assets are segmented into separate mental portfolios based on the investor's goals and needs, rather than treated as a single mean-variance optimal portfolio. This practice results long-term in lower risk-adjusted returns and sub-optimal performance.

- **Example** - An investor maintains separate accounts for income generation, capital appreciation, and speculation when a total return portfolio would produce much better long-term results.
Cognitive Errors

- **Framing** – Investment decisions are made based on how choices are presented.

- **Example** – An investor buys a variable annuity with 5 percent annual fees and unknowingly pays the salesman an 8 percent commission because the salesman uses the phrases “guaranteed income for life” and “never lose money in the market.” The investor ends up with a much lower standard of living in retirement than would have been possible with a mean-variance optimal, low-fee portfolio.
Cognitive Errors

- **Availability** – Making investment decisions based on availability of information or ease of recall of information.

- **Example** – An investor who has had good results with U.S. stocks starts investing in international stocks using the same analytical methodologies, information sources, assumptions, etc. he uses for U.S. stocks.
Emotional Biases

- **Loss-Aversion** – investors feel more pain from losses than they feel pleasure from gains, and take excessive risk to avoid losses. Related to regret avoidance.

- **Example** – A stock an investor bought goes down, and the investor margins additional positions in the stock in hopes of regaining his losses.
Emotional Biases

- **Overconfidence** – Investors overestimate their own ability or intelligence.

- **Example** – Investors think they have the knowledge and ability to “beat” the market on a long-term, consistent basis by stock picking, market timing or choosing actively-managed funds.
Emotional Biases

- **Self-control Bias** – Seeking immediate gratification and lacking self-discipline in investment decision-making.

- **Examples** – Investors chose to spend income they should be saving for retirement, or in retirement draw down their portfolios too fast and suffer the consequences of longevity risk.
Emotional Biases

- **Status Quo Bias** – Unwilling to make necessary changes because you have grown too comfortable with things as they are.

- **Example** – A successful sixty-five year-old executive plans to retire in two years and has built a large portfolio over the years allocated ninety percent to equity. He feels the portfolio has done well and does not want to make any changes, such as adding a significant allocation to safer, investment-grade bonds. One year before he retires, the stock market corrects and a bear market ensues that lasts for over five years, severely impairing his ability to maintain the lifestyle he sought in retirement.
Emotional Biases

- **Endowment Bias** – Belief that an asset is special or more valuable because you already own it.

- **Example** – A surviving spouse and children inherit a very large position in XYZ stock when the husband dies. It constitutes over half of their investable assets but they hold it anyway because dad picked it. Later, the stock suffers a significant fall despite a rising stock market because the firm encounters financial difficulties dad didn’t anticipate before his passing.
**Emotional Biases**

- **Regret Aversion** – Avoiding taking an investment action out of fear that it will be wrong or confirm a previous wrong decision.

- **Examples**
  - A forty-year old who plans to work until age sixty-seven keeps his retirement portfolio invested mostly in cash because of fear of stock market volatility.
  - An investor buys a large position in a speculative stock because one of the personal finance magazines says it’s a “sure thing.” The stock starts losing value and is clearly headed down. The investor refuses to sell that stock and reinvest elsewhere because he doesn’t want to realize the loss and admit an error.
Black Swans

- Events that are not highly probable but would have a high negative impact, and are difficult or impossible to foresee, or to time
- Traditional finance theory risk analysis is based on standard deviation of returns and doesn’t do well with black swan risk
- Geopolitical
  - War in Middle East
  - Major terrorist event
- Financial
  - Greek default?
  - Major bank(s) failure
- Other Regional or Global Catastrophes
  - Pandemic
  - Climate or weather disaster
  - “Honey Boo-Boo” renewed for another season
Questions?

Bob is available in person or by conference/video call for a free, no-obligation initial consultation and portfolio review, or to answer your questions about this presentation and help you with the available resources.

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