Money over Mind: The Impact of Behavioral Finance

Wealth Management Services Department

ACR # 115895

Agenda

- Economics versus Behavioral Finance
- The Intuitive versus The Reflective Mind
- Why Behavioral Finance is Important
- Intelligent Investing: (1) Bias Education + (2) Planning and Processes
- Bias Education: Investor Behaviors
    - Investor Paralysis
    - Trend Chasing
    - Valuation Confusion
    - Overconfidence
- Adapting to Client
- Planning and Processes: Next Steps

Economics versus Behavioral Finance

Economics - People are rational and act as rational beings

- This classical definition neglects to address emotions that make us inherently human

Behavioral Finance/Economics - We are not as logical nor as disciplined as the classical economic definition categorizes us to be

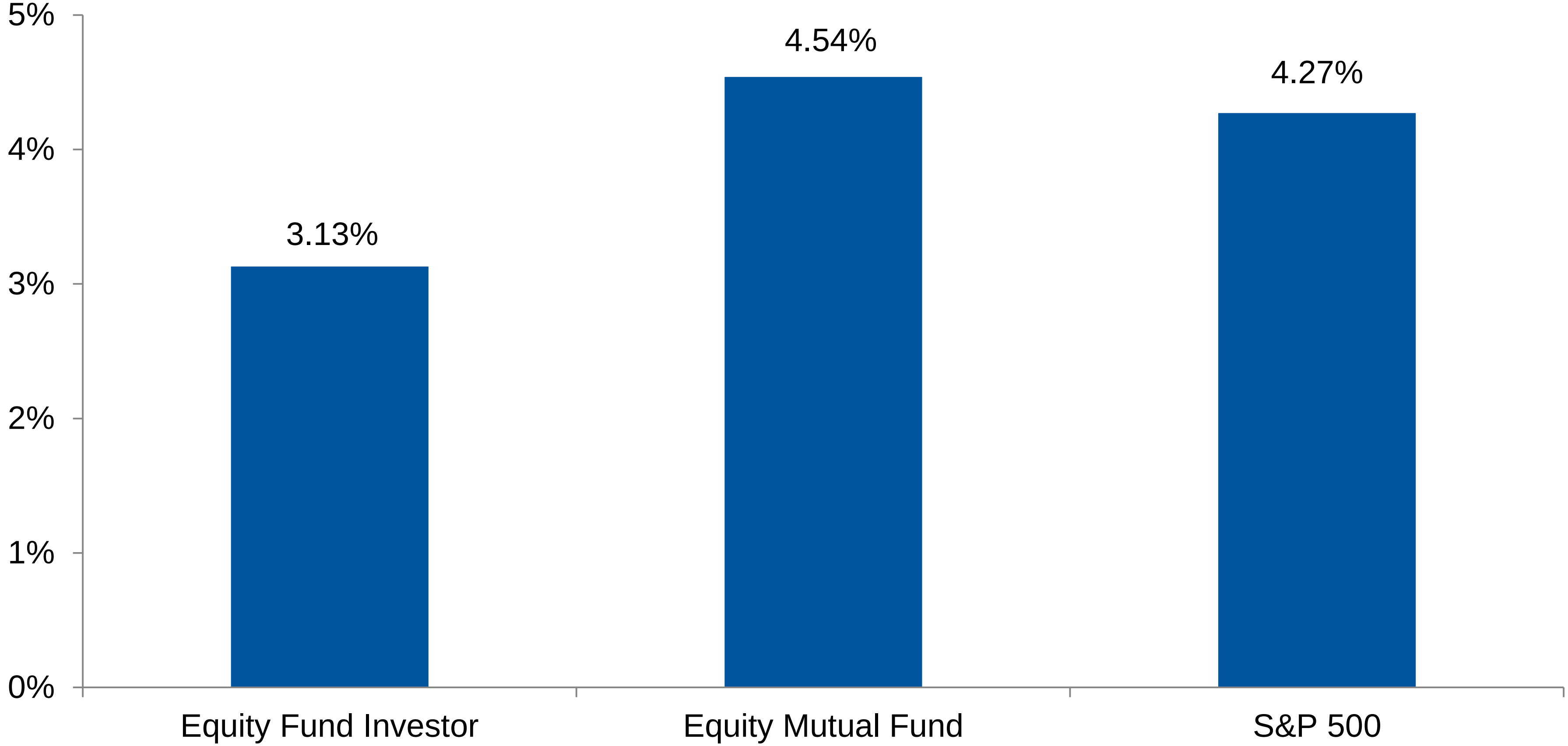
- This definition incorporates “irrational” emotions such as intuition and empathy
- Removes the impractical assumptions that are present in economic models that provide inaccurate results

“Success in investing doesn't correlate with I.Q...once you have ordinary intelligence, what you need is the temperament to control the urges that get other people into trouble in investing” – Warren Buffett

Economics versus Behavioral Finance

Emotional Investment Decisions Lower Returns

Average Annualized Returns for 15-year Period ending March 31, 2013



Source: Morningstar Direct SM. Returns are annualized. Funds used to compute average Investor Returns and Mutual Fund Returns meet the following criteria: 1) Broad Category Group is Equity, 2) US Broad Asset Class is US Stock, 3) Primary Prospectus Benchmark is S&P 500 TR, 4) Morningstar Category is Large Blend, 5) Equity Style Box (Long) is Large Blend. 98 funds with available data met these criteria. Within this dataset, average Investor Return is 4.33% and average Fund Return is 5.40%.

The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to measure the performance of the broad domestic economy. Past performance is no guarantee of future results. Performance assumes the reinvestment of dividends and capital gains. All indices are unmanaged and unavailable for direct investment. Please see disclosures for additional information.

The Intuitive Mind versus The Reflective Mind

A

Bird

In The

The Bush

The Intuitive Mind versus The Reflective Mind

System 1: The Intuitive System	System 2: The Reflective System
Uncontrolled	Controlled
Effortless	Effortful
Associative	Deductive
Fast	Slow
Unconscious	Self-aware
Skilled	Rule-following

If an advisor can engage a client's *reflective* mind he or she has the ability to improve outcomes by correcting the mistakes of the *intuitive* mind

Why Behavioral Finance is Important

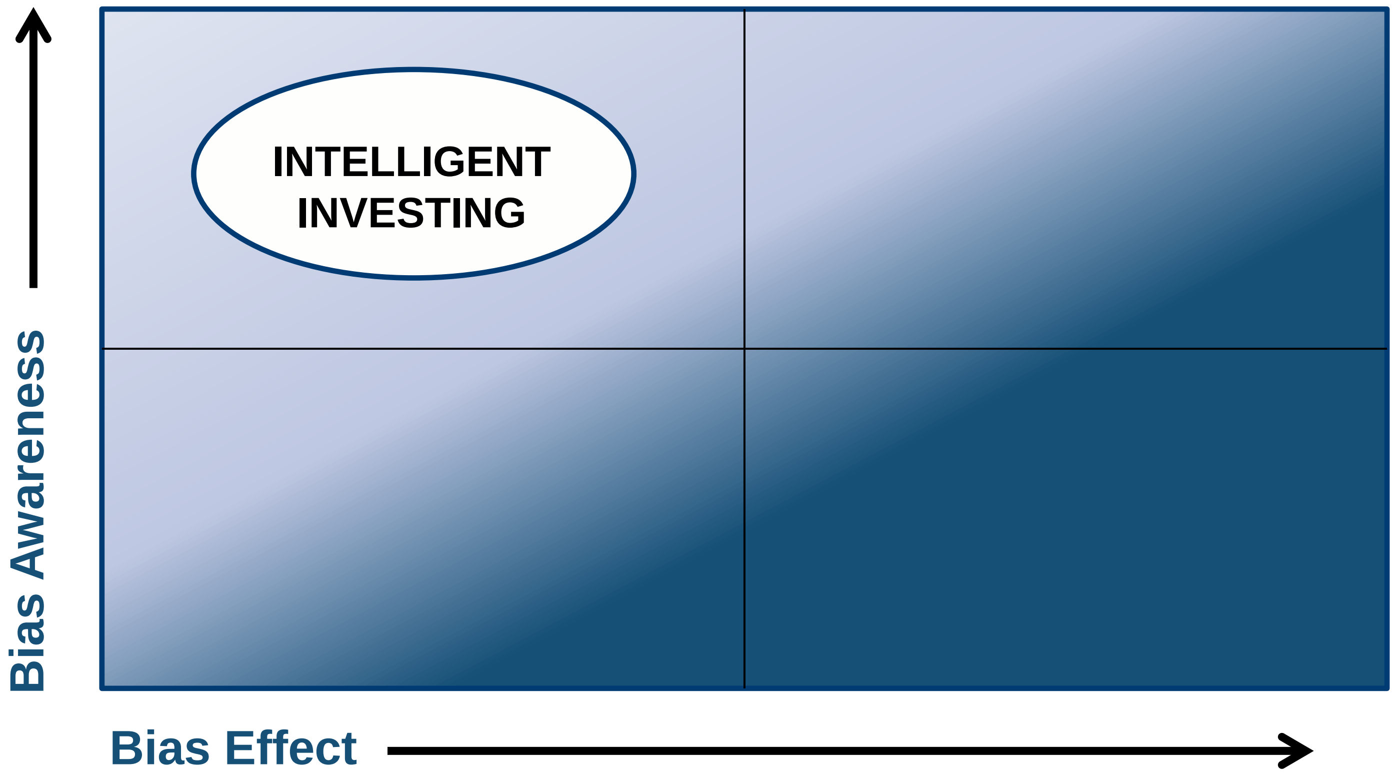
Behavioral Biases Present both Opportunity and Challenge

- Investing is a game of inches; little corrections may result in disproportionately larger effects
- Money is personal; helping clients maximize their returns builds personal relationships and trust
- Offering specific advice on avoiding behavioral biases can be a point of differentiation for your practice
- Helping investor to follow through on advice can prove to be challenging when dealing with emotions

Intelligent Investing

(1) Bias Education (raises **Bias Awareness**) **+**
(2) Planning and Processes (lowers **Bias Effect**) **=**

INTELLIGENT INVESTING



Bias Education

Investor Behaviors – Case Studies

- Investor Paralysis
- Trend Chasing
- Valuation Confusion
- Overconfidence

Investor Paralysis

Common Situations

- Investor is hesitant to follow guidance on liquidating some or all of a slumping stock, not wanting to realize the loss when he sells the stock
- Business owner's portfolio is over concentrated within owner's industry because she feels comfortable with familiar stocks
- Investor keeps a large percentage of assets in cash because he is overwhelmed with the amount of investment choices available

Biases at Play:

- Loss Aversion – tendency to prefer avoiding losses to acquiring gains
- Familiarity Bias – the overconcentration of opportunities familiar to investor
- Information Overload – the increase in investor indecision upon increasing choices

Investor Paralysis – Loss Aversion

Example 1

Award of $100,000 AND

(a) Certain gain of $50,000

OR

(b) Flip a coin in which you have:

- **H: 50% chance of a *gain* of $100,000**
- **T: 50% chance of gain of $0**

Example 2

Award of $200,000 AND

(a) Certain loss of $50,000

OR

(b) Flip a coin in which you have:

- **H: 50% chance of *loss* of $100,000**
- **T: 50% chance of loss of $0**

Source: *Prospect Theory: An analysis of Decision under Risk,* Daniel Kahneman and Amos Tversky, Econometrica, 47(2), pages 263-291,page 273 March 1979. Hypothetical example for educational purposes only. Not representative of an actual client or transaction.

Next Steps: Overcoming Investor Paralysis

Memorialize a “pre-commitment agreement”

Diversify into similar industries with low correlations

Invest using dollar cost averaging

Trend Chasing

Common Situations

- Investor insists on quickly moving investment dollars from an underperforming, low priced fund into an expensive, high-performing fund
- Investor decides to put a high percentage of capital into mortgage-backed securities, because three of his friends recently have been enjoying high returns on that strategy
- Client bases her opinions of actively managed mutual funds on past year's performance only and dismisses quality long-term investments which are experiencing a period of underperformance

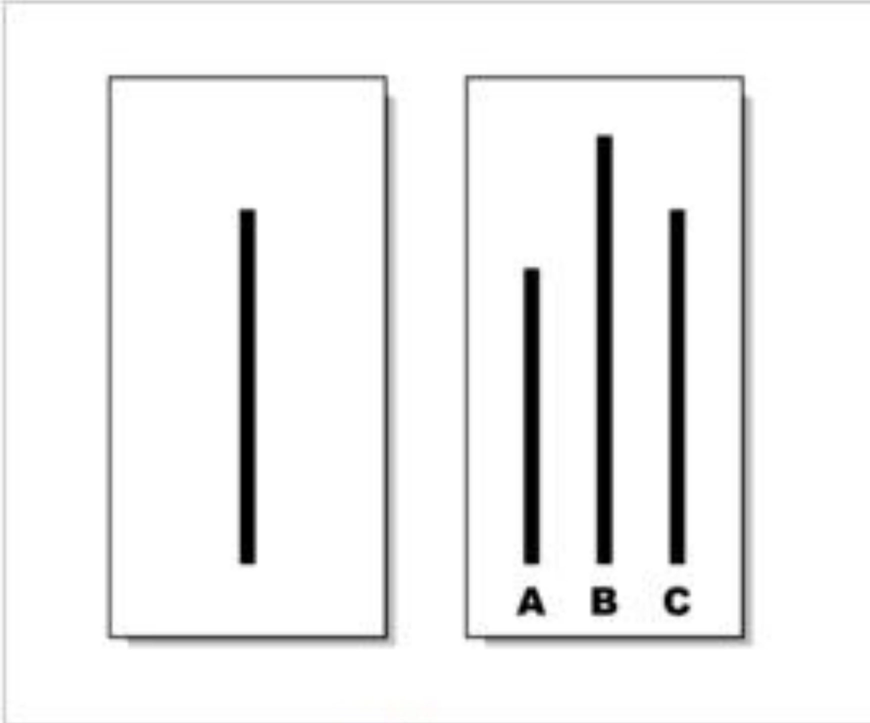
Biases at Play

- Herd – the tendency to believe something is better, because others are doing it
- Recency – factoring in recent events more than earlier events when making decisions

Conforming with the Crowd– Herd Mentality

Asch Experiment of Social Conformity

- 8 group members – 7 control, 1 test subject
- Members asked which of three lines is the same length as the reference line
- When other 7 members purposely give wrong answer, **33% of test members give same wrong answer**.
- Why?
  - — Distortion of perception
  - — Distortion of judgment
  - — Distortion of action

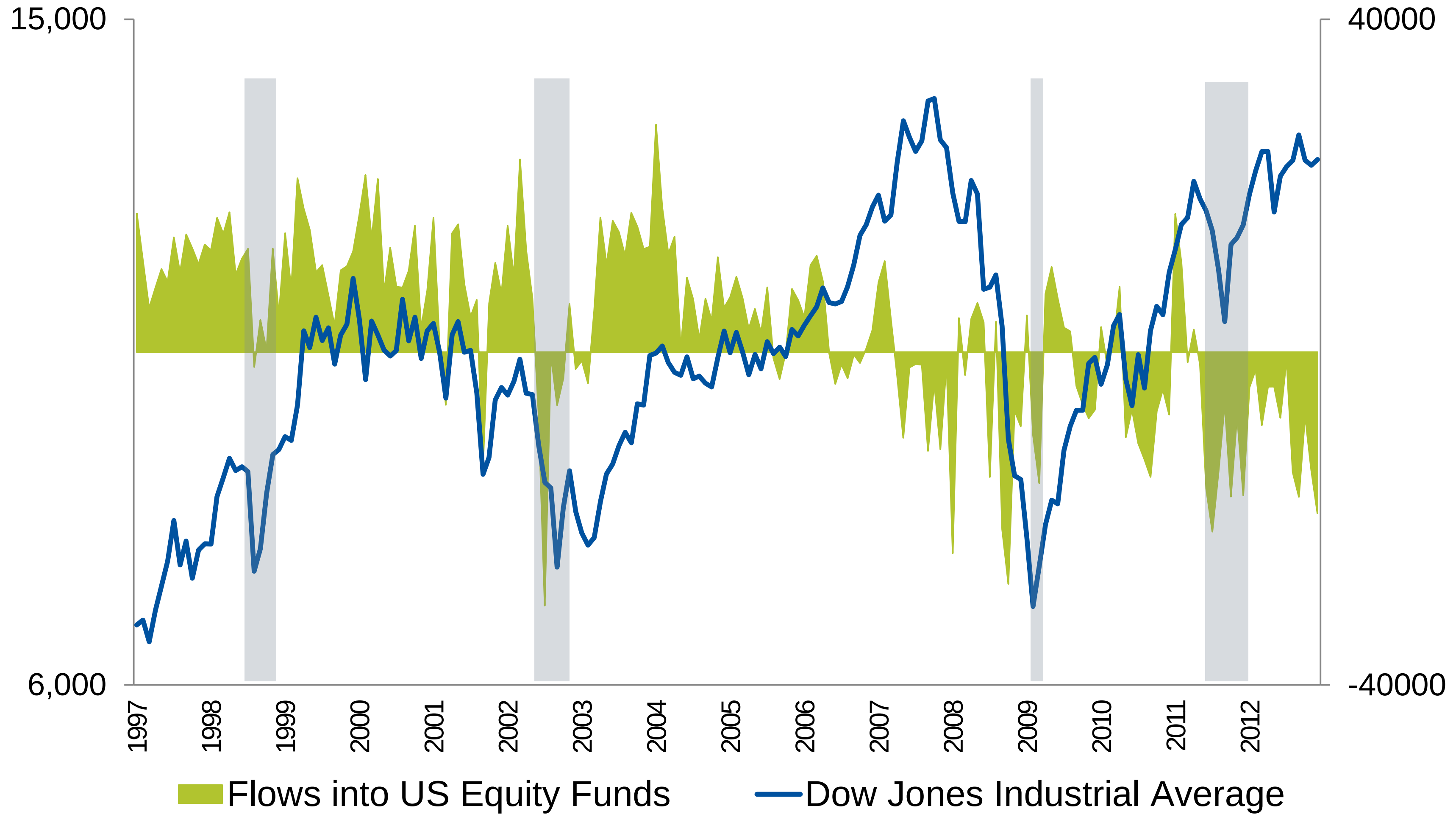


One of the pairs of cards used in the experiment. The card on the left has the reference line and the one on the right shows the three comparison lines.

Source: S.E. Asch, “Effects of Group Pressure Upon the Modification and Distortion of Judgment,” in Harold Guetzkow, 1951.

Herd-Like Behavior in the Market

Untimely Decisions



Sources: Ibbotson Associates. Morningstar Associates.

These charts illustrate periods of 15% or greater market declines on a quarter-to-quarter basis, as indicated by the columns, during a 15-year time span. Past performance is no guarantee of future results. The Dow Jones Industrial Average is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange and the Nasdaq. All indices are unmanaged and unavailable for direct investment. Please see end of presentation for important disclosures..,

Next Steps: Overcoming Trend Chasing

Employ integrated client discovery to better understand investor philosophy

Craft a comprehensive Investment Policy Statement

Valuation Confusion

Common Situations

- Client is upset because his portfolio had a negative return, even though it beat its benchmark and the S&P 500
- Investor believes the value of a real estate investment to be that at which it was purchased, and refuses to sell it for less
- As client's wealth increases, and especially after a large gain, client takes more irrational risks

Biases at Play

- Mental Accounting – dividing assets into separate groups, assigning each group different levels of utility
- Anchoring – allowing an initial price point to determine one's idea of value

Valuation Confusion - Anchoring

Anchoring and Adjustment

Experiment – Real estate professionals were asked to value a property

- Given an Asking Price and 20 minutes to examine property
- Group 1 was given a lower Asking Price than Group 2
- Professionals asked to estimate other price aspects

	Real Estate Group 1	Real Estate Group 2
Given Asking Price	**$119,900**	**$149,900**
Predicted Appraisal Value	$114,202	$128,752
Listing Price	$117,745	$130,981
Purchase Price	$111,454	$127,318
Lowest acceptable offer	$111,136	$123,818

Professionals anchored their assessment of property on given asking price

Gregory Northcraft and Margaret Neale, “Experts, Amateurs, and Real Estate: An Anchoring-and-Adjustment Perspective on Property Pricing Decisions,,”Organizational Behavior and Human Decision Processes vol. 39, no.1 (1987).

Next Steps: Overcoming Valuation Confusion

Communicate appropriate benchmarks

Differentiate actual and relative performance

Use mental accounting to client’s advantage

Remind clients of end goal

Overconfidence

Common Situations

- Corporate executive refuses to diversify her portfolio beyond her own company because she is confident in her company's performance
- Client seeks out opportunities to try to "time the market" and makes frequent trades
- Client convinces himself that he predicted the signs of the 2008 market crash, and he is now assured that his knowledge will protect him from any future crash

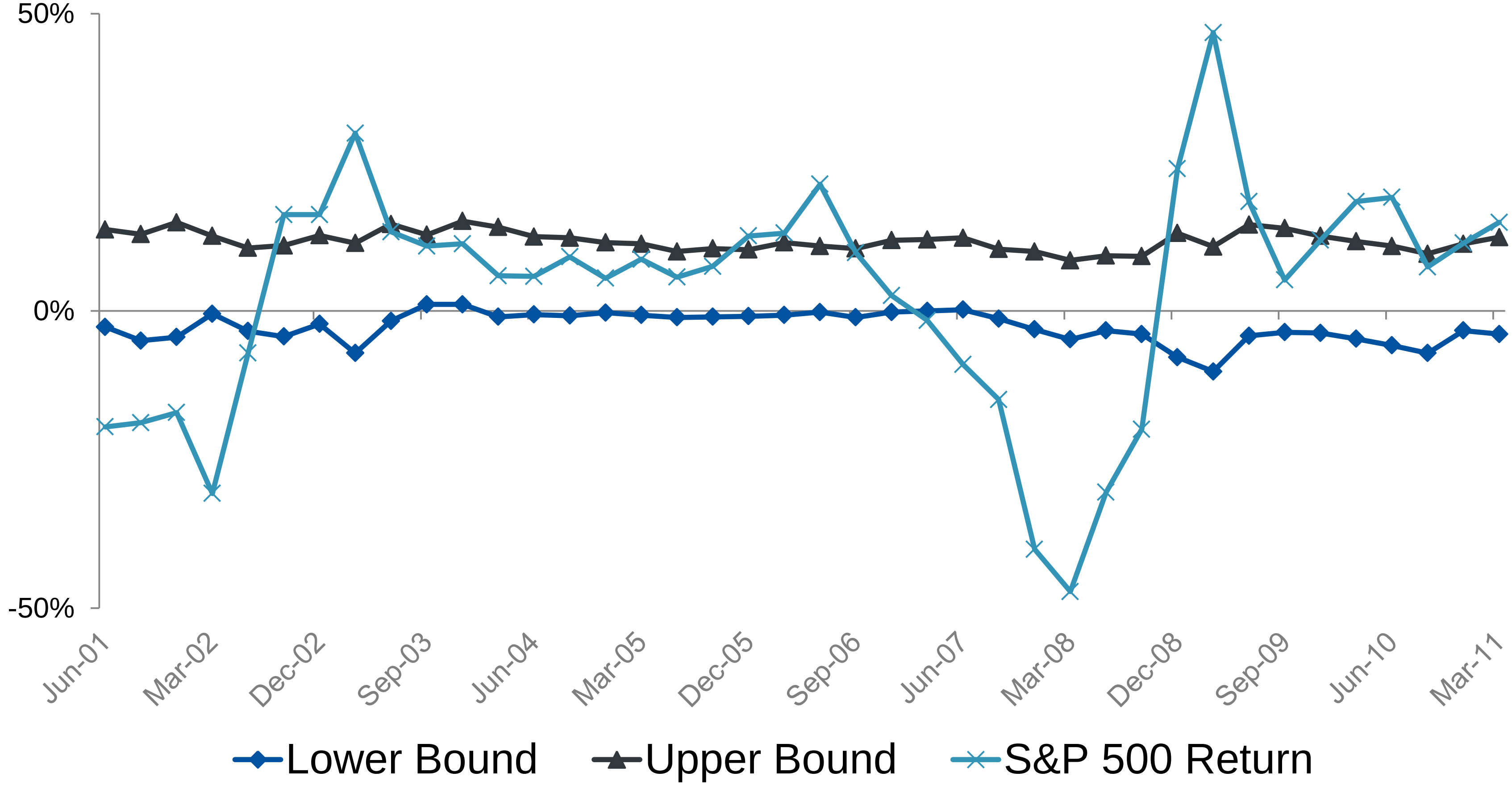
Biases at Play

- Overconfidence – overestimating one's own abilities and knowledge
- Confirmation Bias – only taking into consideration information which confirms your current opinions

Overconfidence

Overconfidence

CFO Confidence Intervals (90% Certainty) vs. Actual Returns



Source: "Managerial Miscalibration", Itzhak Ben-David, John R. Graham, and Campbell R. Harvey, SSRN working paper. The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to measure the performance of the broad domestic economy. Past performance is no guarantee of future results. Performance assumes the reinvestment of dividends and capital gains. All indices are unmanaged and unavailable for direct investment. Please see disclosures for additional information.

Next Steps: Overcoming Overconfidence

- Rebalance with discipline
- Track conversations and keep an investment journal
- Use framing to demonstrate different perspectives
- Utilize hedging strategies - limit orders, collars, puts, etc.

Adapting to Client

Asset Allocation Adjustments

Adjustments are appropriate when:

A. Biases are

(1) deeply emotional OR

(2) client has a very high net worth AND

B. Asset allocation adjustments can satisfy client’s wishes without endangering client’s future

How to make adjustments:

The total deviation from the suggested portfolio should be less than 20%

EXAMPLE	Suggested Allocation	Adjusted Allocation	Deviance % of Whole
Equities	70	75	5%
Fixed Income	25	15	10%
Cash	5	10	5%

Source: “Behavioral Finance and Wealth Management: How to Build Optimal Portfolios that Account for Investor Biases,” Michael Pompian, 2006. Example is hypothetical and is provided for illustrative purposes only and should not be relied upon as investment advice.

Planning and Processes

(1) Bias Education (raises **Bias Awareness**) **+**
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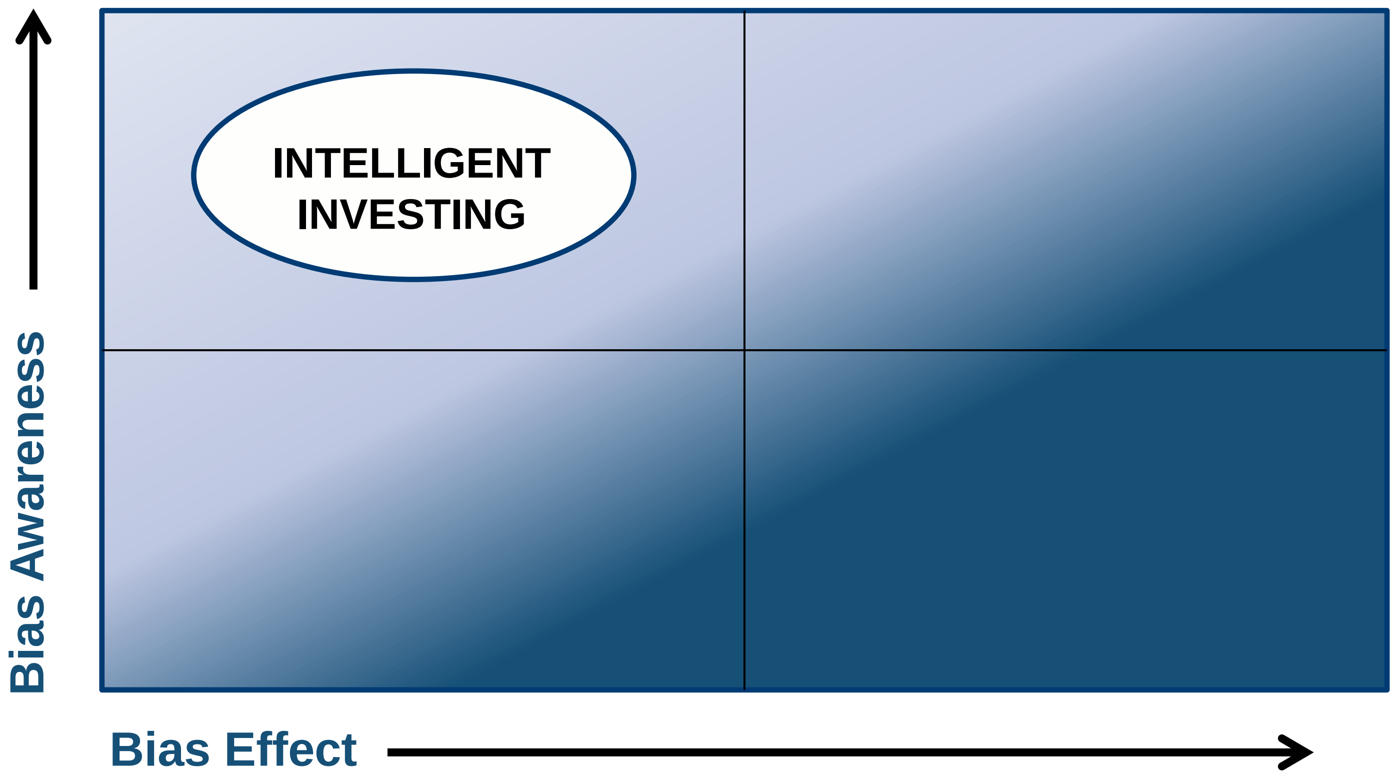

Planning and Processes

Next Steps

The planning process presents many opportunities to prevent and preempt behavioral biases and ensure your client's financial well being.

- Client Discovery
  - — The client discovery process gives advisor a chance to access client's particular behavioral inclinations
- Investment Policy Statement
  - — A well-crafted investment policy statement helps define boundaries and set goals for client's investments
- Client Review Meetings
  - — Debriefing client on investment performance and recalibrating strategy is a good opportunity to address any behavioral mistakes
- Value of Professional Advice
  - — Effectively communicating advisor value to clients helps ensure that clients will be receptive to advice

Resources

Nuveen Wealth Management Services (www.nuveen.com/wealthmanagement)

White Paper, “When Money and Emotions Collide: The Theory of Behavioral Finance”

Presentation and White Paper, “Creating a Powerful Client Discovery Experience”

Presentation, “Conducting Effective Client Review Meetings”

Presentation and White Paper, “Structuring an Investment Policy Statement: A Tool for Gathering and Retaining Assets”

Presentation, White Paper and Workbook “The Value of Professional Advice: Overcoming Objections when Transitioning to Advisory”

Third Party Resources

“Thinking Fast and Slow,” Daniel Kahneman, 2011.

“Nudge,” Richard Thaler and Cass Sunstein, 2008.

“Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing,” Hersh Shefrin, 2000.

“Animal Spirits: How Human Psychology Drives the Economy, and Why it Matters for Global Capitalism,” George A. Akerloff & Robert J. Schiller, 2009.

“Behavioral Finance and Wealth Management: How to Build Optimal Portfolios that Account for Investor Biases,” Michael Pompian, 2006.

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