Behavioral Finance:
The Psychology of Risk and Investing

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Agenda: The Main Points

- What is standard (traditional) finance vs. behavioral finance?
- What is the standard finance vs. behavioral finance viewpoint towards risk?
- What is the role of personality and risk-taking on investor decision making?
- What are the specific factors that influence an investor's information processing including cognitive and affective (emotional) factors?
- What strategies and approaches can you utilize to make better financial judgments and decisions?
- What is the value of financial coaching?
- Conclusion

What is standard finance?

- The current accepted theories in academic finance are referred to as ***standard or traditional finance*****.** The foundation of standard finance is based on modern portfolio theory and the efficient market hypothesis.

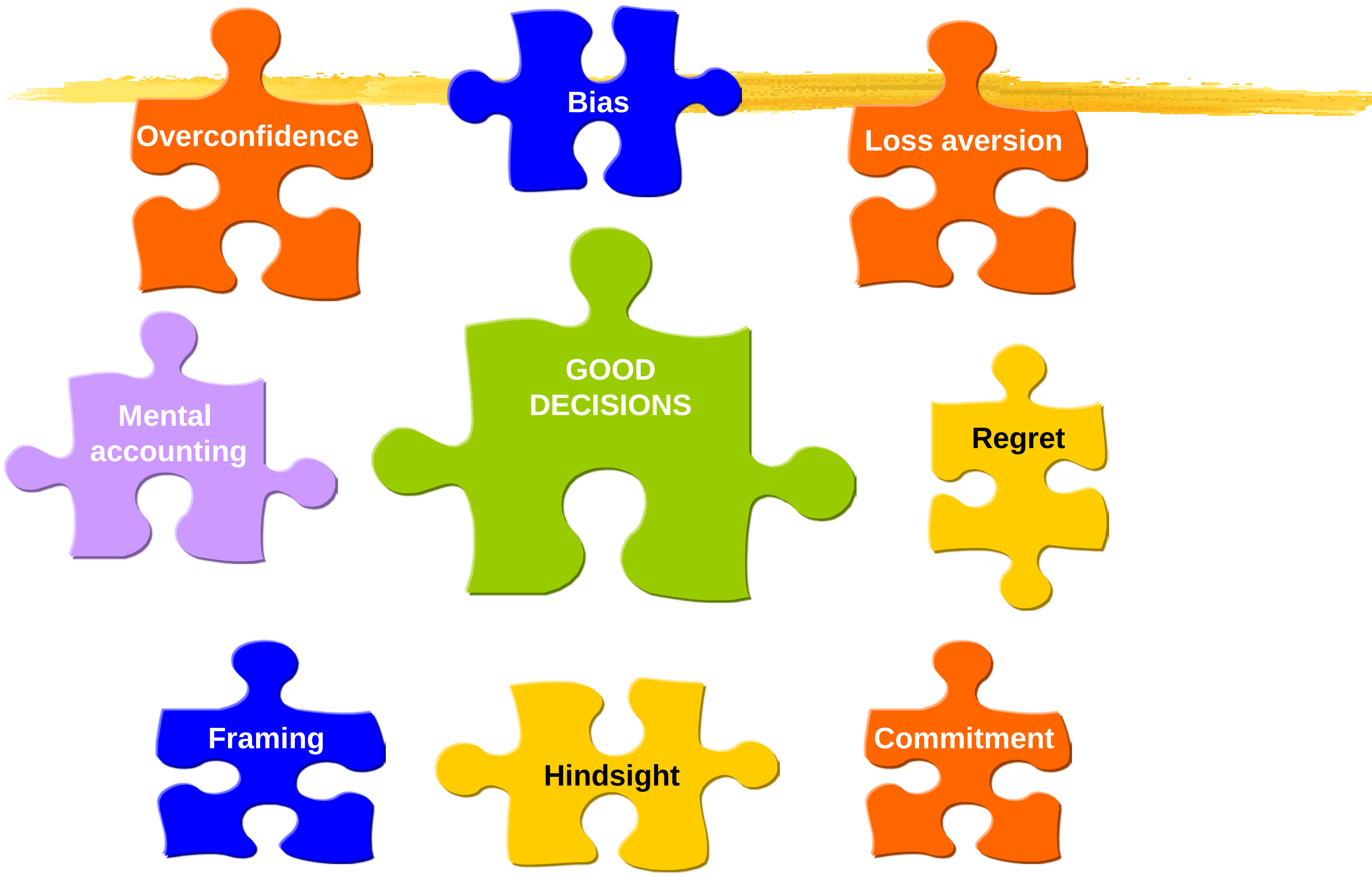
- **Modern Portfolio Theory (MPT)** is a stock or portfolio's expected return, standard deviation, and its correlation with the other stocks or mutual funds held within a diversified portfolio.

- Another main theme is known as the **Efficient Market Hypothesis (EMH).** This concept states the premise that all information has already been reflected in a security's price or market value, and that the current price the stock or bond is trading for today is its fair value.

What is rationality according to standard finance?

- Rationality = Maximizing “something” (usually called “utility”).
- Individuals optimize over an infinite time horizon given rational expectations.
- *An underlying assumption is investors or agents do not interact with each other directly but through markets.*
- The lay person's notion of rationality is whether a behavior makes sense to an average person.
  For example, many people might think that sky diving is not rational.
- *Self-Interest*: Theorists define rationality in terms of internal consistency of one's belief's and behaviors.

Judgments, Perceptions, Investments, and Risks

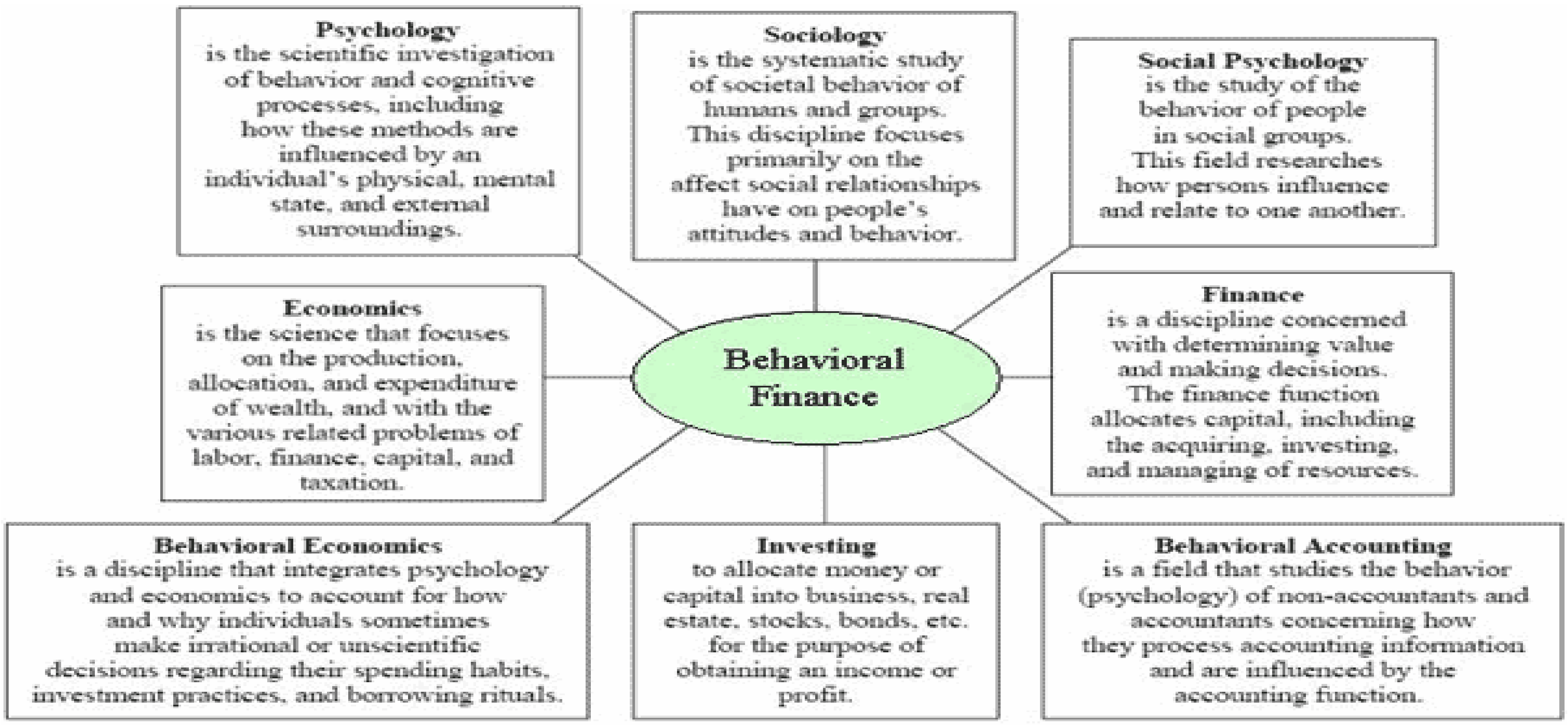


What is behavioral finance?

- Behavioral finance is a discipline that attempts to explain and increase understanding regarding how the cognitive errors (mental mistakes) and emotions of investors influence the decision-making process.

- Integrates the fields of psychology, sociology, and other behavioral sciences to explain individual behavior, to examine group behavior, and to predict financial markets.

What is the interdisciplinary nature of behavioral finance?



What is behavioral finance?

- Investors are consistent in the mistakes that they make.
- **They believe that:**
  1. Growth stocks outperform value stocks.
  2. Winners continue to be winners and losers continue to be losers.
- People separate choices into mental accounts in order to help maintain self control. For some investors dividends are a way to maintain self control. By not dipping into capital (principal); this serves as a self control mechanism.
  - **People split dividends and capital gains into separate mental accounts to protect funds designated for other goals.**
- Selling assets to satisfy current consumption can cause regret if the security price increases after it is sold.

What is the meaning of rationality according to behavioral finance?

- **People are not always rational**:
  - Many investors fail to diversify, trade too much, and seem to try to maximize taxes by selling winners and holding losers.
- Independent Deviations from Rationality
  - Psychologists argue that people deviate from rationality in predictable ways:
    - **Representativeness**: drawing conclusions from too little data.
      - This can lead to bubbles in security prices.
    - **Conservativism**: people are too slow in adjusting their beliefs to new information.
      - Security prices seem to respond too slowly to earnings surprises.

What is behavioral finance?

- Pompian (2006) categorized behavioral finance into two sub-disciplines (p. 9):

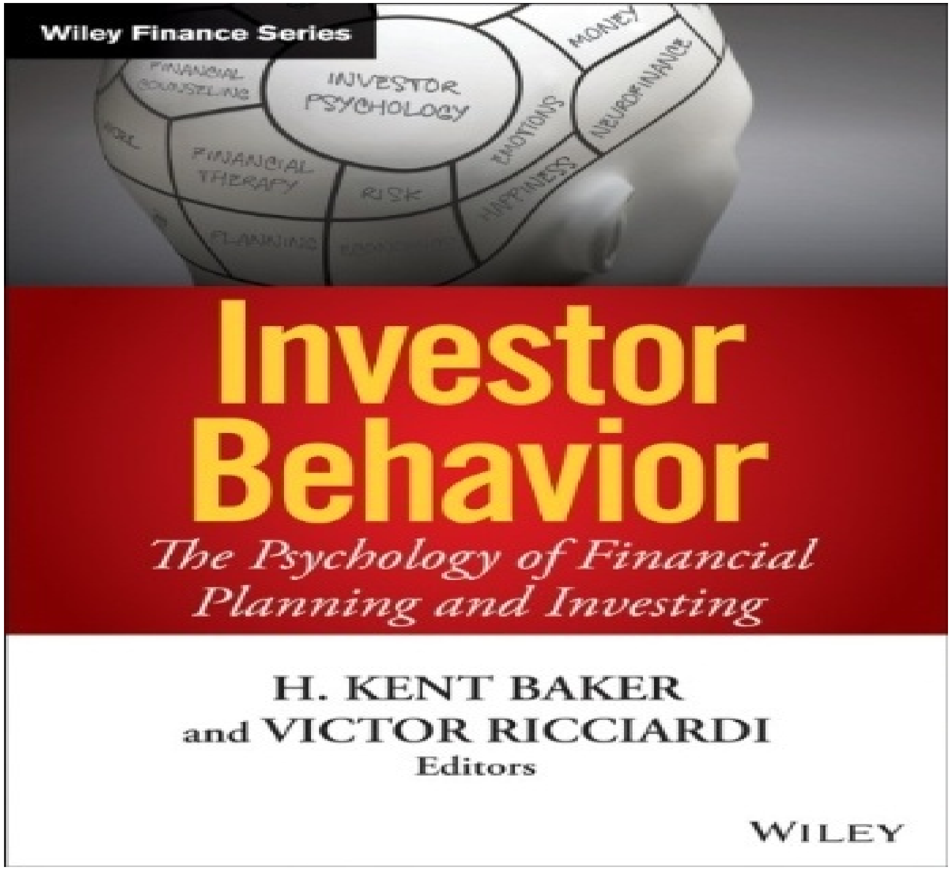
  1. **Behavioral Finance Micro (BFMI)** examines behaviors or biases of individual investors that distinguish them from the rational actors envisioned in classical economic theory.

  2. **Behavioral Finance Macro (BFMA)** detects and describe anomalies in the efficient market hypothesis that behavioral models may explain.

The Behavioral Finance Checklist: The Main Issues, Topics, and Theories

Anchoring	Financial Psychology	Cascades
Chaos Theory	Cognitive Dissonance	Fear
Cognitive Errors	Contrarian Investing	Crashes
Loss Aversion	Herd Behavior	Greed
Anomalies	Market Inefficiency	Fads
Overreaction	Underreaction	Framing
Mental Accounting	Irrational Behavior	Heuristics
Risk Perception	Behavioral Economics	Gender Bias
Overconfidence	Hindsight Bias	Preferences
Regret Theory	Economic Psychology	Manias
Groupthink Theory	Group Polarization	Risky Shift
Prospect Theory	Behavioral Economics	Panics
Affect (Emotions)	Behavioral Accounting	Issues of Trust
Illusion of Control	Cognitive Psychology	Issues of Knowledge
Downside Risk	Experimental Psychology	Familiarity Bias
Below Target Returns	Views of Experts vs. Novices	Information Overload

What is the basis of the content in this presentation?



Victor Ricciardi's first book *Investor Behavior: The Psychology of Financial Planning and Investing* with co-editor H. Kent Baker in 2014.

The book has 30 chapters with 45 contributors on emerging research in behavioral finance, financial therapy, financial planning, and investment behavior.

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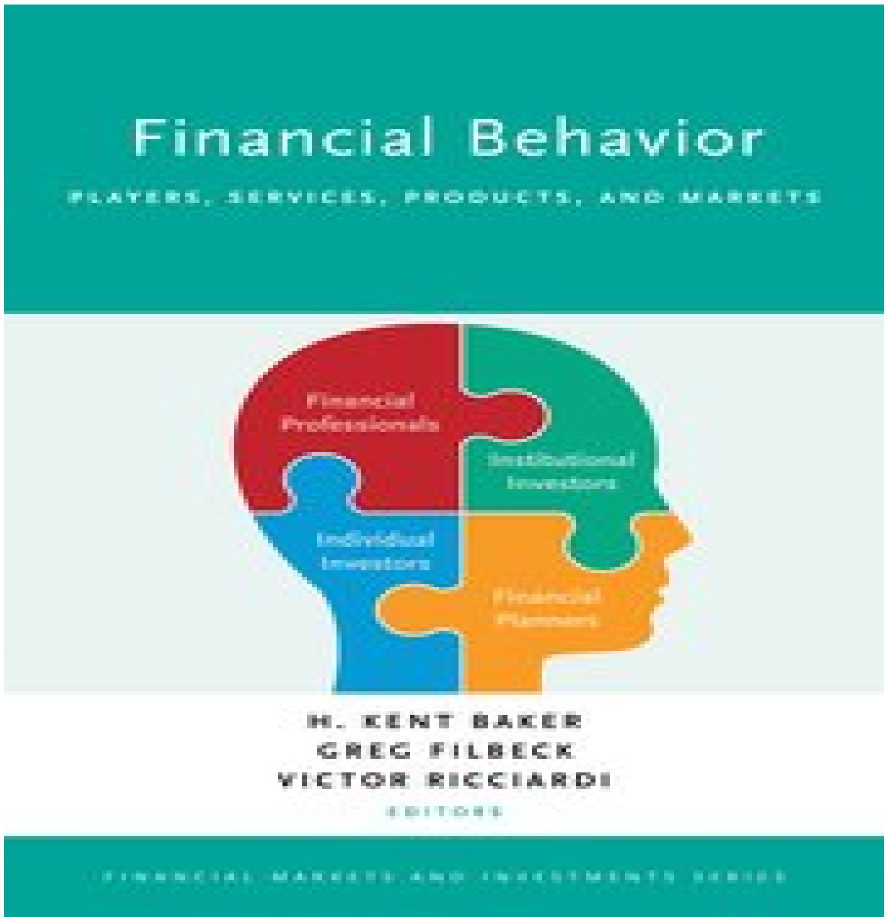


Victor Ricciardi's second book (summer 2017) Financial *Behavior: Players, Services, Products, and Markets* with co-editors Kent Baker and Greg Filbeck.

The book has 30 chapters with 50 contributors on emerging research in behavioral finance, financial planning, and client psychology.

What are three important assumptions of behavioral finance?

1. **Loss aversion:** the characteristic of seeking to limit the size of the potential loss rather than seeking to minimize the variability of the potential returns.
2. **Bounded rationality:** the manner in which human beings behave, that is, with limits on their rationality. People's choices in financial matters are shaped not only by knowledge and rational thinking but also by our past experiences, beliefs, values, and emotions.
3. **Denial of risk:** the tendency of some individuals to engage in risky behaviors on a voluntary basis, seemingly failing to appreciate the true level of danger in the situation. They may know the statistical odds but refuse to believe that these odds apply to them personally.

Overconfidence vs. Status quo bias

- *Overconfident investors*: As human beings we have a tendency to overestimate our own skills and predictions for success.

- Barber and Odean (2001) examines the trading behavior based on the notion of gender bias for a sample of 35,000 client accounts over a six year investment horizon.
  - The findings suggest that males are more overconfident than females in terms of their investing abilities and males trade on a more frequent basis.
  - Males tend to sell their stocks at the wrong time and also reveal higher trading costs than females.
  - Females tend to trade less, utilizing a buy and hold strategy resulting in lower trading costs.
  - Males traded 45 percent more than females while single males trade 67 percent more frequently than single females. Trading costs decreased the net investment returns of men by 2.6 percent per year and only 1.7 percent for women.

- **Overactive investors**: An extensive number of research literature in behavioral finance reveals people have a tendency to be overconfident regarding their financial and investment decisions.

Overconfidence vs. Status quo bias

- *Status quo investors*: This group of investors has an inclination to suffer from inertia, procrastination or inattention towards their financial judgments and decisions.
- The study by Mitchell, Mottola, Utkus and Yamaguchi (2006) examines the trading behavior of employees invested in 401(k) plans.
- The study utilizes a sample of 1.2 million workers enrolled in 1,500 different retirement plans, a very strong majority of the 401(k) plan investors are categorized by ***intense inactivity*** .
- **Inattention bias:** This study reveals “most workers in defined contribution retirement plans are inattentive portfolio managers: only a few engage in any trading at all, and only a tiny minority trades actively.”
- Nearly all retirement investors (approximately 80%) execute no trades, and an additional 11% makes just a single financial transaction, over a two-year period (2003-2004).
- **Inactive investors**: This status quo bias is related to failure of the pure “buy and hold” strategy.

What is prospect theory?

- Prospect theory suggests:

  1. that individuals do not always act rationally (logically). This theory states that there are constant biases motivated by psychological issues that influence an individual’s choices under circumstances of uncertainty.

  2. Schwartz (1998) states that “subjects (investors) tend to evaluate prospects or possible outcomes in terms of gains and losses relative to some reference point rather than the final states of wealth.”

What is prospect theory?

- Experiment 1: To illustrate, consider an investment selection between:

  Option A: A sure profit (gain) of $ 7,500 or

  Option B: An 80% possibility of gaining $10,000, with a 20 percent chance of receiving nothing ($ 0).

  Question: Which option would give you the best chance to maximize your profits?

What is prospect theory?

- Experiment 2: To illustrate, consider an investment selection between:

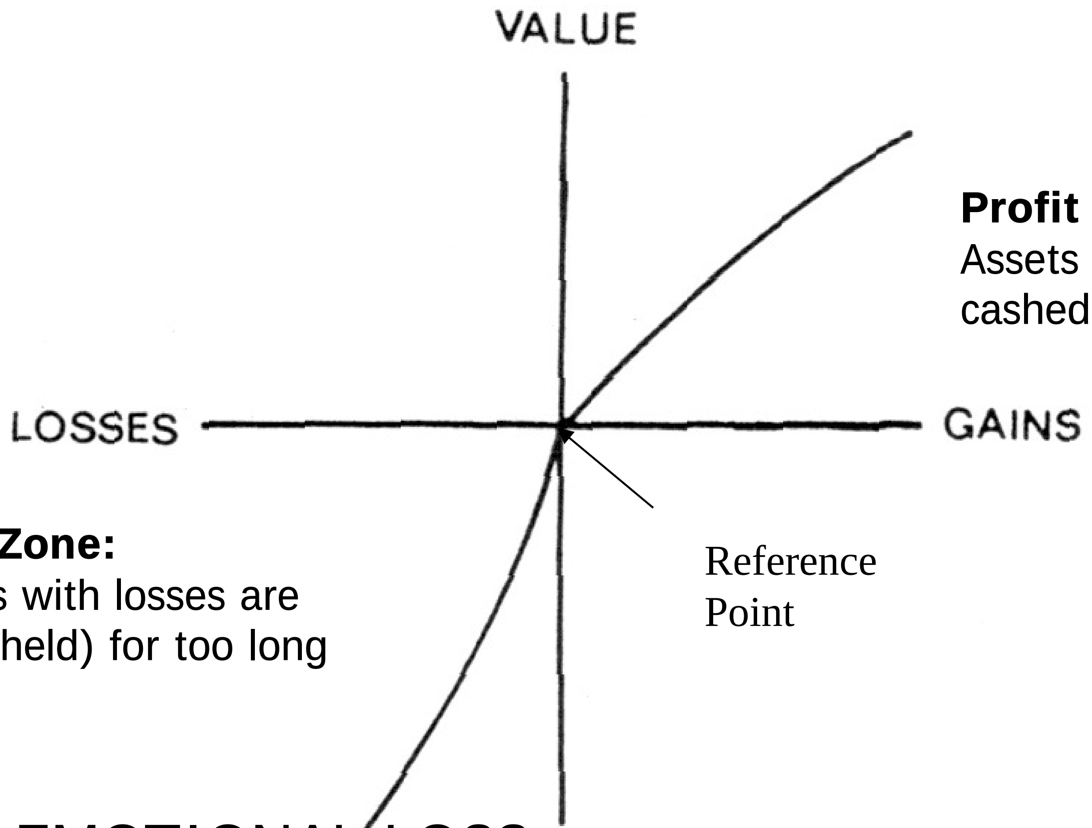
  Option C: A realized (fixed) loss of $7,500 or

  Option D: An 80% chance of losing $10,000, with a 20% possibility of losing no money at all.

  Question: Which selection would give you the best opportunity to minimize your losses?

What is prospect theory?

PRIDE



Profit Zone:
Assets with profits are cashed (sold) too early

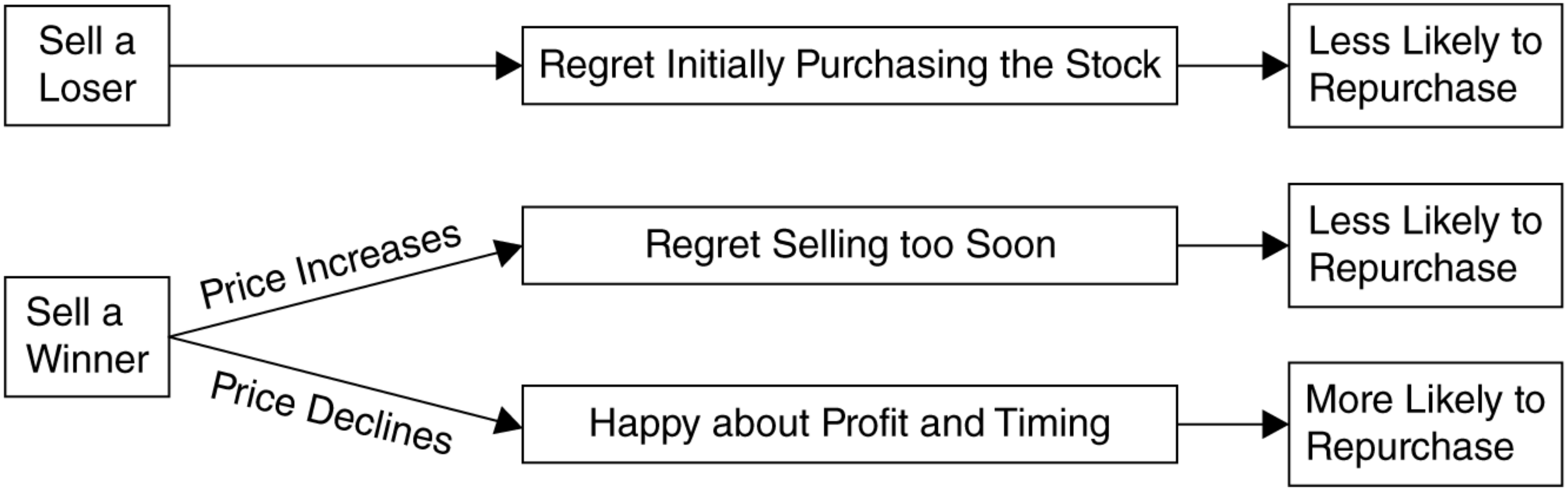
Reference Point

Loss Zone:
Assets with losses are kept (held) for too long

REGRET = EMOTIONAL LOSS

What is the connection between loss aversion and regret?

- **The Significance of Regret:** Regret influences whether clients will repurchase the same investment, product, or service again in the future.



Source: Michal Ann Strahilevitz, Terrance Odean, and Brad M. Barber. 2011. "Once Burned, Twice Shy: How Naïve Learning, Counterfactuals, and Regret Affect the Repurchase of Stocks Previously Sold," *Journal of Marking Research* 48, S102–S120

What is the perspective of standard finance academics about risk?

- Standard finance scholars utilize the “traditional approach” to measure risk based on statistical measures and the distribution of possible outcomes.
    - This is typically the approach taught to undergraduate and graduate students enrolled in finance classes.
- Objective risk measures namely historical risk (beta, standard deviation) and various definitions of risk (credit risk, liquidity risk).
- **An emphasis on the macro-finance perspective:**

  Objective measures of risk are based on a number of observations or calculations, with a focus on long-term data over a specific time period, and sophisticated statistical calculations or financial models to measure risk for specific financial instruments.
- During the past 45 years, there has been an ongoing academic debate over the validity and reliability of beta and the CAPM as a measure for risk.

What is the viewpoint of behavioral finance scholars towards risk?

- Behavioral finance scholars employ the “behavioral approach” to evaluate risk based on data from laboratory experiments and survey/questionnaire instruments.
- *Risk has a subjective (perceived) component:*

  The examination of beliefs, attitudes, and feelings towards risk for a specific situation, activity or circumstance.
- **An emphasis on the micro-finance perspective:**

  An important aspect of the risk perception research is the focus on judgments of the *individual decision maker* and within a *group setting*.
- “Perceived risk is an *ex ante* measure which may be based on past returns, fundamental analysis, present hunches, and all other information that portfolio managers and analysts believe to be germane” (McDonald and Stehle, 1975).

What is your risk tolerance?

- *Risk tolerance* refers to an investor's comfort with the inherent risk in a given type of investment.
- This is also referred to as the "***sleep factor***"- the level of risk an investor can withstand and still be able to sleep at night. You should not invest beyond your risk tolerance.
- Typically, a financial advisor will provide you with a questionnaire and interview to determine your risk tolerance profile.
- There are many different types of risk tolerance questionnaires and asset allocation strategies utilized by investment firms and mutual fund companies.
  - Usually 10 to 25 questions for each risk tolerance quiz.
  - Will calculate a risk tolerance score and identify your risk tolerance category.

What is the role of an individual's demographic characteristics in decision making towards risk?

- The literature in risk taking behavior reveals some well-established findings regarding demographic characteristics:
  1. **Gender**: Men tend to be more risk seeking than women.
  2. **Marital status**: Single individuals tend to make riskier decisions than married persons.
  3. **Age**: Younger persons are inclined to be more risk seeking than older individuals.
  4. **Level of education**: A person with higher levels of education display a greater risk propensity or tendency to take risks.
  5. **Financial knowledge (Experience/Expertise):** Individuals who believe they have more knowledge of risk and risky situations, tend to undertake greater financial risks.

What are distinguishing characteristics between risk averters and risk seekers?

Risk Averter	Risk Seeker
sees risk as danger	sees risk as challenge or opportunity
overestimates risk	underestimates risk
prefers low variability	prefers high variability
adopts the worst-case scenario (emphasizes the probability of loss)	adopts the best-case scenario (emphasizes the probability of a win)
is pessimistic	is optimistic
likes structure	likes uncertainty
dislikes change	enjoys change
prefers certainty to uncertainty	prefers uncertainty to certainly

The Perception of Risk

- **Risk Analysis**: Since the 1970s, there has been an ever-changing and evolving area of research conducted by social scientists in the area of health issues (e.g., smoking behavior), safety concerns (e.g., seat belts in cars), environmental matters (e.g., the use of nuclear power) and industrial applications (e.g., new applications of biotechnology).
- This research work is attributed to the organization Decision Research (Paul Slovic and Robert Olsen).
- Risk = cognitive & emotional response to (expected) loss.
- People respond to risk as they perceive the risks to be.
- Facts become irrelevant until the perception is brought into line with the truth.

What is the viewpoint of behavioral finance towards risk?

- Perceived risk is quantifiable, foreseeable, subjective (qualitative), and descriptive in nature.
- Risk is determined by different types of behavioral risk characteristics (indicators) such as the degree of trust, dread, worry, familiarity, and controllability.
- Risk possesses a degree of emotion (affect) as an essential aspect of the judgment and decision-making process.
- Risk can be defined subjectively as the emotional response to a person's perception of fear, worry, chance, probability or consequence of loss.

The relationship between risk perception and risk tolerance

- *Risk perception* is the loss that an investor believes exists in purchasing a financial service or product from a particular company, whether a risk actually exists.
- Roszkowski and Davey (2010) define risk tolerance as the "amount of risk that an individual is willing to accept in the pursuit of some goal."
- Grable (2008) describes risk tolerance as the "maximum amount of uncertainty someone is willing to accept when making a financial decision."
- Littell, Tacchino, and Cordell (2003) provide this practical perspective about these two risk concepts in which individuals "are often not fully aware of their true level of risk tolerance or of the factors that influence their perception of the riskiness of a situation."

Source: Victor Ricciardi and Douglas Rice. (2014). Risk Perception and Risk Tolerance. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

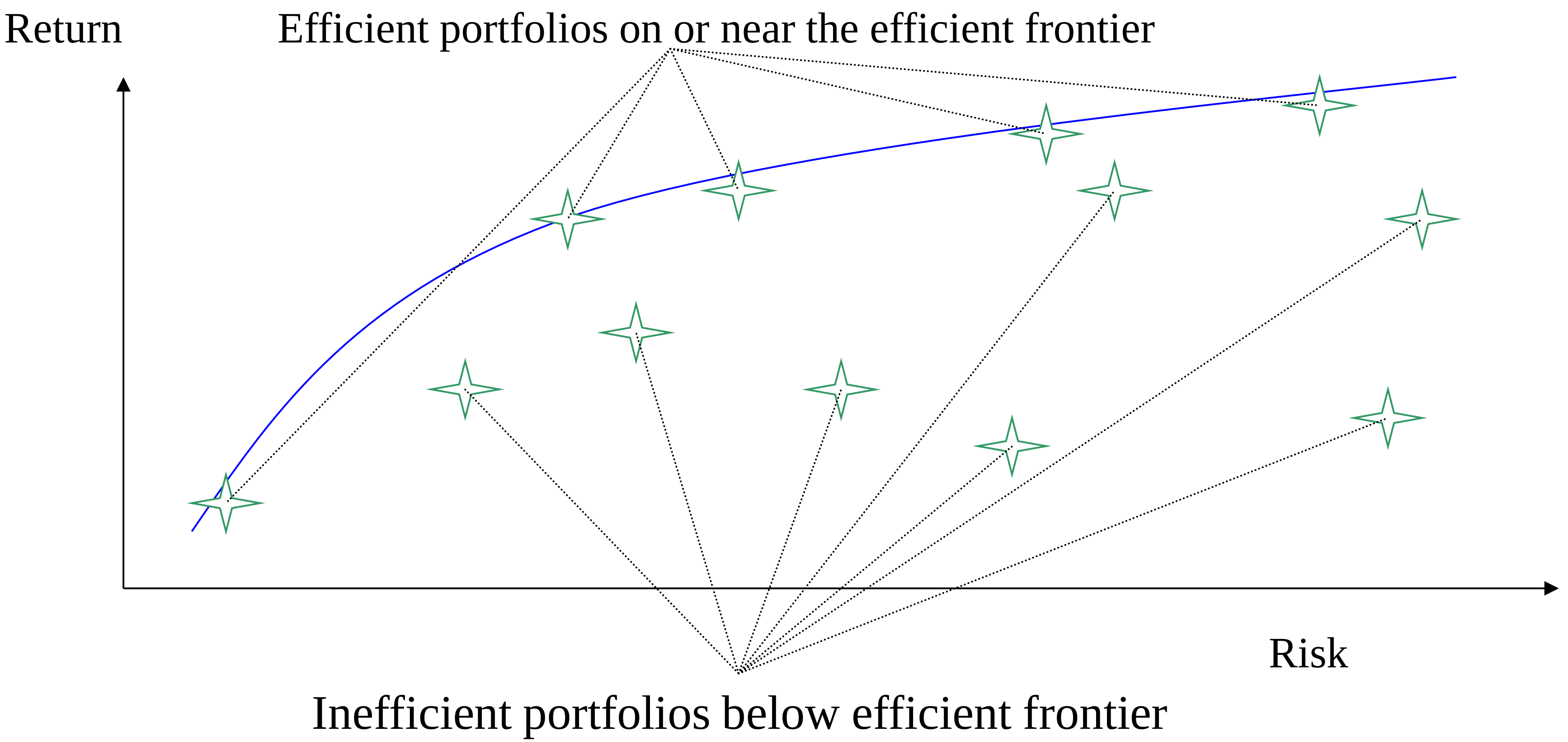
What is the relationship between objective and subjective measures of stock risk?

Objective Risk Measures	+	Subjective Risk Measures	=	Financial or Investment Decision

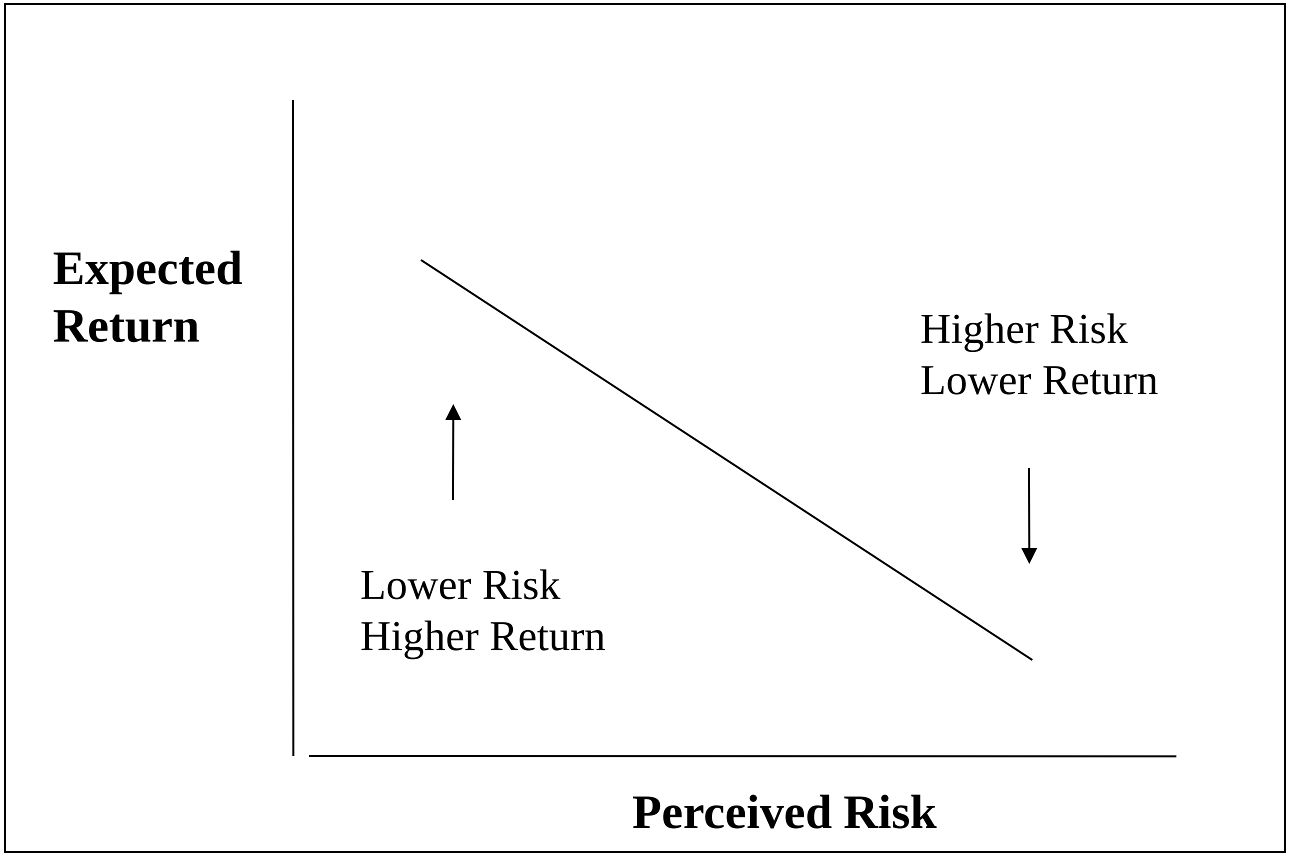
The Standard Finance School | **The Behavioral Finance Scholars**

The Standard Finance School	The Behavioral Finance Scholars
Stock Beta	Multidimensional Factors: An assortment of accounting and financial variables
Variance	The consequences of a large financial loss
Standard Deviation	The potential for below-target returns
The CAPM Model	Psychometric Risk Attributes: The level of worry or knowledge of risk by an investor

What is the risk and return relationship according to traditional finance based on historical risk?



What is the risk and return relationship according to behavioral finance based on perceived risk?



Source: Ricciardi, V. (2008b). What is risk? Standard finance vs. Behavioral finance. In F. J. Fabozzi (Ed.), *Handbook of Finance Series*. John Wiley & Sons.

What is the role of personality and risk-taking on investor decision making?

⌘ The “Big Five” Personality Traits are:

extraversion

agreeableness

conscientiousness

neuroticism

openness to experience/intellect

Source: Lucia Fung and Robert B. Durand. (2014). Personality Traits. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

What is the role of personality and risk-taking on investor decision making?

- **Extraverts** are social, passionate, outgoing, talkative, and self-confident. These types of individuals are inclined to accept more risk in order to satisfy their need for thrill or excitement.

- **Agreeableness**: In this category, tend to be highly trustworthy, unselfish, and optimistic. This personality type has a desire and need get along with other people.

- **Conscientiousness** individuals are organized, careful and a high degree of self-control. These individuals are able to to delay instant gratification and focus on long-term objectives.

Source: Lucia Fung and Robert B. Durand. (2014). Personality Traits. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

What is the role of personality on risk-taking on investor decision making?

- **Neurotic** people are emotionally unbalanced and volatile. These types are prone to high levels of psychological distress including depression, worry, and anger.

- **Openness to experience/intellect** types are very creative, curious, and open to new ideas. This category actively searches for ew adventures and experiences. This personality trait is highly associated with intelligence.

- **Neuroticism** (strong connection to over-confident behavior) and **extraversion** are significant personality traits in financial decision-making. (Source: Durand and Wang, 2014).

Source: Lucia Fung and Robert B. Durand. (2014). Personality Traits. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

What are the specific factors that influence an investor's information processing including cognitive and affective (emotional) factors?

- **Heuristics**
- **Representativeness**
- **Anchoring**
- **Framing**
- **Familiarity Bias**
- **Control Issues**
- **Negative Feelings (The Influence of Worry)**
- **Positive Affect**
- **Affect Heuristic**

Source: Ricciardi, V. (2008a). The psychology of risk: The behavioral finance perspective. In F. J. Fabozzi (Ed.), *Handbook of Finance*. John Wiley & Sons. Available at: http://ssrn.com/abstract=1155822

What are heuristics?

- A heuristic is a simple and general rule we employ to solve a specific category of problems especially with situations that involve a high degree of risk-taking or uncertainty.
- Heuristics refer to the process by which people find things out for themselves, usually by trial and error.
- Trial and error leads people to develop rules of thumb which often causes errors.
- When individuals are faced with a complex judgment involving a statistical probability, frequency or incomplete information, many individuals usually utilize a limited number of heuristics that reduce the decision to a simpler task (Kahneman, Slovic, and Tversky, 1982).
- “All of us have a repertoire of these strategies based on bits of knowledge we have picked up, rules we have learned, or hypotheses that worked in the past” (Myers, 1989, p.286).

What is representativeness?

- The concept of representativeness proposes that humans have an automatic inclination to make judgments based on the similarity of items, or predict future uncertain events by taking a small portion of data and drawing a holistic conclusion.

- The representativeness heuristic is based on the notion that we tend to form an opinion in terms of events by how much they resemble other events which we are familiar.

- For example, investors frequently predict the performance of an initial public offering by relating it to the previous investment's success (gain) or failure (loss).

What is anchoring?

- Anchoring within the decision-making process is utilized by an individual to solve intricate problems by selecting an initial reference point and slowly adjusting to arrive at a final judgment.
- For example, investors tend to look at the past performance of a mutual fund. Investors will place to much weight on the funds 1-year, 5-year, and 10-year returns instead of other important issues.
- To further complicate this bias, even when individuals know they are anchoring, it is difficult to pull up the anchor.
- *The 2008-2009 financial crisis serves as a "negative anchor" for many investors resulting in a high risk aversion to common stocks.*

What is framing?

- Framing is the way in which a question is structured with regard to the issue being evaluated. For example, the same objective facts can be described either in terms of the probability of gaining or the probability of losing.

- Consider these two choices:

Selection A: Would you invest your money in a new enterprise if you had a 50% probability of "succeeding brilliantly?"

Selection B: Would you invest your money in a new enterprise if you had a 50% probability of "failing miserably?"

Source: Duchon, D., Ashmos, D. P., and Dunegan, K. J. (1991). Avoid decision making disaster by considering psychological bias. *Review of Business 13, 13–18* and Weber, A. (1991). *Introduction to Psychology. New York:* HarperCollins.

What is familiarity bias?

- *Familiarity bias has a strong connection to the inverse relation between risk and return.*
- Wang, Keller, and Siegrist (2011) examined the risk perception of more than 1,200 individuals from a German-language area of Switzerland about financial products.
  - The study's major finding is respondents perceive less complicated (i.e., easier to understand) investments as having lower risk, which is consistent with familiarity bias.
  - Participants also reveal a positive affective reaction to familiar financial securities.
- Applied within several areas of investment decision-making including:

  1) International finance and asset allocation in which investors demonstrate a preference for investing in domestic stocks (familiar assets) rather than international stocks (unfamiliar assets);

  2) Employee's that invest most of their retirement savings in their company stock (familiar assets); and

  3) Clients have demonstrated a tendency to invest money in local companies or stocks with recognizable brand names or reputations.

Source: Wang, M., Carmen, K., and Siegrist. M. 2011. "The Less You Know, the More You Are Afraid of a Survey on Risk Perceptions of Investment Products." *Journal of Behavioral Finance* 12:1, 9–19.

What is the significance of control?

- Individuals tend to underestimate the risk involved in events under their control, such as driving a car, relative to activities in which control is given to someone else, such as flying as a passenger in a plane.
- **Locus of control**: Categorizes individuals into those who believe that they control their environment (internal control) and those that believe that their environment is outside their personal control (external control).
- **Illusion of control**: Even in instances when control of an outcome is obviously in short supply, a person perceives that one has control over the outcome of a situation known as *illusion of control* (Langer 1975). “People often believe that they have influence over the outcome of uncontrollable events” (Baker and Nofsinger, 2002, p.103).
- People undertake more risk when they perceive they are personally in control since individuals are more likely to trust their own abilities and skills when engaging in a risky activity.
- **Self-control behavior** is a psychological tendency that causes people to consume today (focus on short-term goals) at the expense of saving for tomorrow (delay decisions about long-term objectives).

What is the influence of negative emotions such as worry?

- **Negative affect:** An individual's tendency to accentuate the negative aspects of himself or herself, other people, and the world in general. Negative affect focuses on the downward aspect of emotion (e.g., worry, anxiety, fear, stress, depression).
- Worrying is a lasting concern with a past or an upcoming event. It is a category of risk assessment that makes a person feel as if he or she were reliving a past occasion or living out a future one, and the individual cannot stop these types of contemplations from happening.
- A behavioral definition of worry is how a person might react towards a specific situation or decision that causes anxiety or as a source of unhappiness.
- Scholars identify worry (or the act of worrying) in various forms of cognitive factors and/or affective reactions in a sample of works on risk perception.

What type of negative emotions and issues did investors experience two years after the financial crisis?
(The findings of an online survey of investors)

Most investors hold both stocks and bonds in their investment portfolios. Which do you worry about more, stocks or bonds?

I do not have both stocks and bonds in my investment portfolio.	20%	341
Stocks	**70%**	**1,185**
Bonds	10%	171

Total 100% 1,697 responses

Source: This survey was taken February 2010 to June 2010 by Nightly Business Report viewers and Kiplinger's Personal Finance readers as part of the "Your Mind & Your Money" series. FinaMetrica administered the survey and the collection of data. Professor Ricciard would like to thank Geoff Davey of FinaMetrica for giving me the opportunity to develop eleven questions for this survey on worry and financial decision-making.

What specific research study demonstrates the importance of worry in the behavioral finance risk perception literature?

- The study by MacGregor, Slovic, Berry and Evensky (1999) focuses on how the financial decision-making process is linked to various aspects of investments/asset classes, specifically expert's perceptions of returns, risk, and risk/return associations.
- A survey was mailed to financial advisors in which, the 265 participants that responded were asked to provide their assessment of a series of 19 asset classes with 14 specific variables.
- The main findings revealed with the utilization of multiple regression analysis with perceived risk as the dependent variable revealed that three significant factors (**worry, volatility, and knowledge**) explained 98% r-square of the experts' risk perception.
- Finucane (2002) further comments, "perceived risk was judged as greater to the extent that the advisor would worry about the investments, that the investments had greater variance in market value over time, and how knowledgeable the advisor was about the investment option."

What is the role of affect or feelings?

- ***Affect heuristic***: is a mental shortcut that allows investors to make judgments and solve issues quickly and efficiently, in which current feelings or emotions influences a decision. This is a heuristic in which the emotional response is a highly weighted aspect of the overall subconscious decision making process.

- How does mood influence financial risk-taking behavior?
  - ***Affect Infusion Model***: a positive (negative) mood increases (decreases) risk tolerance.
    - For example, investors in a positive (happy) mood have a higher level of financial risk tolerance.
  - ***Mood Maintenance Hypothesis***: a positive (negative) mood deceases (increases) risk tolerance.
    - For example, investors in a happy mood reveal a lower preference for risky assets (i.e., investors are more cautious towards risky securities).

Source: Victor Ricciardi and Douglas Rice. (2014). Risk Perception and Risk Tolerance. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

Behavioral Finance Strategies and Approaches

What type of decision maker?

1) Classical Model: The “disciplined style” based on traditional rationality and the person makes judgments in a systematic or analytical (objective) philosophy.

2) Behavioral Model: The “behavioral style” of subjective decision-making based on bounded rationality and the individual makes choices on intuition or “gut feelings.”

3) A combination of both models or processes:
   For example, some individuals utilize an “affect heuristic.”

Behavioral Finance Strategies and Approaches

An illustration of behavioral finance issues and concepts:

1) What is the role of control and trust during the financial planning process?

2) What is the influence of framing issues and self-control behavior in the selection of financial products such as annuities?

3) What is the role of motivation and satisfaction in developing a financial plan for a client?

4) Bubble or Bust: What is the relationship between anchoring, risk tolerance, and asset allocation decisions?

5) The Winter Blues: How does seasonal depression affect risk-taking behavior and financial decisions?

6) What is the influence of mental accounting within the financial planning process?

Behavioral Finance Strategies and Approaches

An illustration of behavioral finance issues and concepts:

7) What is the relationship of nudging and messaging to influence client behavior?

8) What is the role of the 1/N heuristic in portfolio formation?

9) When should a financial professional play the role of a contrarian?

10) What is the level of expertise and educational background of the finance professional about behavioral finance?

11) How can the “Amazon Wish List” prevent overspending today and increase savings in the future for your client?

12) What is the influence of technology on financial judgments and decisions?

Behavioral Finance Strategies and Approaches

Two Investment Approaches:

1) Passive Management: An investment philosophy based on a "buy and hold strategy" with a long-term investment horizon that seeks to match the return and risk characteristics of a market segment or index.

2) Active Management: An investment management method based on informed as well as independent decision-making (such as value-investing) that actively buys and sells financial securities.

A Passive Investment Management Approach

For The Passive Investor Behavioral Finance Offers a Common Sense Strategy:

1) Assists Investors in Preventing "Mental Mistakes" and Controlling "Emotional Urges."

2) Investors should implement an "investment checklist" and adhere to a comprehensive "financial plan" for all types of securities including real estate, stocks, bonds and mutual funds.

An Active Investment Management Approach

1) Invest Your Money In a Behavioral Finance Mutual Fund:

    - Behavioral Growth Fund, Behavioral Value Fund.

2) Look for Arbitrage Opportunities Among Financial Anomalies such as the January Effect:

    - "Develop Your Own Portfolio of Various Anomalies."

An Active Investment Management Approach

3) The Contrarian Investment Philosophy

- A contrarian investor selects actions or investment decisions that are the opposite of what most other investors are doing (essentially going against the crowd.)

4) Value Investing

- Value investing is an investment style, which favors good stocks at great values over great stocks at good values.

An Active Investment Management Approach

5) Earnings Surprises and The Behavior of Security Analysts

Earnings surprises sometimes cause a substantial movement in the stock's price (on the upside or downside) known as an "overreaction" or "underreaction"

- Stock investors can profit with buys on the long side, short sales, call options or put options.

What are best practices for advising clients (individual investors) about risk?

- Focus on risk management (downside risk).
- Provide different asset allocation based on changes in risk tolerance and risk perception.
- Implement financial plans based on realistic performance and set performance goals below benchmarks.
- Provide personal narratives to clients rather than only focus on objective criteria.
- Frame discussions based on probabilities rather historical returns. Only 1 to 2 percent of the time actual returns equal historical returns.

Unresolved issues in the risk domain

⌘ Risk perception of stocks versus bonds

⌘ Risk tolerance might change over time

⌘ Relationship between risk tolerance and asset allocation

⌘ Heuristics influence the financial advising process

Source: Victor Ricciardi and Douglas Rice. (2014). Risk Perception and Risk Tolerance. *Investor Behavior: The Psychology of Financial Planning and Investing*. H. Kent Baker and Victor Ricciardi, Editors, Hoboken, NJ: John Wiley & Sons.

What is the value of financial coaching?

- **Business coaching/financial coaching:** is based on solution focused outcomes and tailoring positive results for each client.

- **Financial therapy:** focuses on a deeper psychological experience throughout our lifetime. All clients are influenced by money flashpoints and beliefs. In severe cases, for some individuals this results in money disorders.

What is the value of financial coaching?

- "In 2016, the 20-year annualized S&P return was 7.68% while the 20-year annualized for the Average Equity Fund Investor was only 4.79%, a gap of **2.89%**."

Source: DALBAR Study

- There is an estimate that working with a financial advisor using "Vanguard Advisor's Alpha Framework," can add **3 percentage points** (300 basis points) a year in net return.

Source: *Financial Behavior* by Baker, Filbeck, and Ricciardi

What is the value of financial coaching?

- “The framework includes suitable asset allocation using broadly diversified and exchange-traded funds (ETFs), cost-effective implementation (expense ratios), rebalancing, **behavioral coaching**, asset location (tax efficient investing), spending strategy (withdrawal order), and total-return versus income investing. **Vanguard attributes half of that return to behavioral coaching.”**

Source: *Financial Behavior* by Baker, Filbeck, and Ricciardi

How Should Investors Avoid/Control These Mental Mistakes and Psychological Roadblocks of Behavioral Finance?

In the case of stock investments:

- Why did an investor purchase the stock?
- What is your risk tolerance profile?
- What is their investment time horizon and investment objective?
- What is the expected return from this investment one year from now?
- What if a year from now the stock has under-performed or over-performed?
- How risky is this stock within your overall portfolio?

In the case of mutual fund investments:
(Tomic and Ricciardi) recommend to investors:

1. Invest with only no-load mutual funds with low operating expenses;
2. Look for funds with a strong historical track record such as 5 to 10 years;
3. Invest with tenured portfolio managers with a strong investment philosophy;
4. Understand the specific risk associated with each mutual fund.

Final points

- People simplify.
- Once a person makes up their mind, it's difficult to change it.
- People remember what they perceive (see).
- People cannot detect omissions in information they receive.
- Individuals find it difficult to evaluate expertise.