Behavioral Finance

Instructor: Wen

Behavioral Finance

Study Session 1	Behavioral Finance
Study Session 2	Capital Market Expectations
Study Session 3	Asset Allocation and Related Decisions in Portfolio Management
Study Session 4	Derivatives and Currency Management
Study Session 5-6	Fixed-Income Portfolio Management
Study Session 7-8	Equity Portfolio Management
Study Session 9	Alternative Investments for Portfolio Management
Study Session 10-11	Private Wealth Management
Study Session 12	Portfolio Management for Institutional Investors
Study Session 13	Trading, Performance Evaluation and Manager Selection
Study Session 14	Case in Portfolio Management and Risk Management
Study Session 15-16	Ethical and Professional Standards

Behavioral Finance

Essay Question:

- 2018: 1 case (Behavioral, 15 mins),
- 2017: 1 case (Individual/Behavioral , 15 mins),
- 2016: 1 case (Individual/Behavioral , 16 mins),
- 2015: 1 case (Individual/Behavioral , 18 mins),
- 2014: 1 case (Individual/Behavioral , 17 mins),
- 2013: 1 case (Individual/Behavioral , 16 mins),
- 2012: 1 case (Individual/Behavioral , 17 mins),
- 2011: 1 case (Individual/Behavioral , 15 mins)
- 2010: 1 case (Individual/Behavioral , 25 mins)
- 2009: Zero
- 2008: 1 case (Individual/Behavioral , 9 mins)
- 2007: 1 case (Individual/Behavioral , 12 mins)
- 2006: 1 case (Individual/Behavioral , 34 mins)
- 2005: Zero

Behavioral Finance

考纲对比

- 与2021版相比，2022版考纲删除了原2021行为金融理论的章节部分。整体行为金融学内容量及难度下降，对考生是利好。

Understanding Behavioral Finance

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Categorizations of Behavioral Biases

Behavioral Biases

- **Cognitive errors:**
  - ✓ biases based on faulty cognitive reasoning
  - ✓ stem from basic statistical, information or memory errors
  - ✓ better education, and advice can correct (moderate) for them
- **Emotional bias:**
  - ✓ bias based on reasoning influenced by feelings or emotions
  - ✓ stem from impulse or intuition
  - ✓ “adapt” to it

Cognitive errors

Belief Perseverance	Information Processing
Representative	Framing
Illusion of Control	Anchoring
Conservatism	Mental Accounting
Confirmation	Availability
Hindsight	

Emotional Biases

Emotional Biases

Loss aversion

Overconfidence

Self-control bias

Status quo bias

Endowment bias

Regret-aversion bias

Cognitive errors (1)

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Cognitive errors

Belief Perseverance	Information Processing
Representative	Framing
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Hindsight	

Cognitive errors

Representativeness Bias

- **Definition:** People with this bias tend to overweight new information based on past experiences (heuristics).
  - ✓ Base-rate neglect
  - ✓ Sample-Size Neglect
- **Consequences**: overweight new information; overweight small sample

Cognitive errors

Illusion of control

- **Definition:** People tend to believe that they can control outcomes when, in fact, they cannot. (Believe they can control outcomes/Overstate their influence)
- **Consequences:**
  - ✓ Overconfident in their analysis and excessive trading
  - ✓ Fail to adequately diversify

Cognitive errors

Conservatism Bias

- **Definition:** People maintain prior views by inadequately incorporating new information.
- **Consequences:**
  - ✓ Maintain or be slow to update a view
  - ✓ Hold security too long

Cognitive errors

Confirmation Bias (Selection bias)

- **Definition:** People tend to notice what support their beliefs, and to ignore what contradicts their beliefs. (look for positive info. /ignore negative info.)
- **Consequences:**
  - ✓ Consider only positive information and ignore any negative information
  - ✓ Develop screening criteria
  - ✓ Under-diversify portfolio
  - ✓ Overconcentrate

Cognitive errors

Hindsight Bias (“I knew it all along” effect)

- **Definition:** People may see past events as having been predictable and reasonable to expect.
- **Consequences:**
  - ✓ Overestimate the degree that they predicted an outcome
  - ✓ Unfairly assess performance and risk

Cognitive errors

Belief Perseverance	Information Processing
Representative	Framing
Illusion of Control	Anchoring
Conservatism	Mental Accounting
Confirmation	Availability
Hindsight	

Cognitive errors

Framing Bias

- **Definition:** people answer a question differently based on the way that it is asked/framed. (make decisions based on description)
- This bias are quite prevalent in the risk tolerance questionnaires
- **Consequences:**
  - ✓ Misidentify risk tolerances
  - ✓ Choose suboptimal investments
  - ✓ Focus on short-term price fluctuations and result in excessive trading

Cognitive errors

Anchoring and Adjustment Bias

- **Definition:** interpreting and analyzing the available information can be influenced by an "anchor." (overweight the anchor/default information)
- **Consequence:**
  - ✓ Stick too closely to their original estimates

Cognitive errors

Mental Accounting Bias

- **Definition:** People treat one sum of money differently from another equal-sized sum based on which mental account the money is assigned to.
  - ✓ grouping assets into non-fungible (non-interchangeable) mental accounts
- **Consequence:**
  - ✓ Neglect opportunities to reduce risk by combining assets with low correlations
  - ✓ Irrationally distinguish between returns derived from income and those derived from capital appreciation(chase income streams).

Cognitive errors

Availability Bias

- **Definition:** People take a heuristic approach to estimating the probability of an outcome based on how easily the outcome comes to mind.
- **Consequence:**
  - ✓ Make decision based on advertising
  - ✓ Limited investment opportunity set and under-diversify
  - ✓ Fail to achieve an appropriate asset allocation
  - ✓ Overreact to market conditions

Cognitive errors

Availability Bias

- There are various sources of availability bias:
  - ✓ *Retrievability*
  - ✓ *Categorization*
  - ✓ *Resonance*
  - ✓ *Narrow Range of Experience*

Emotional Biases

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Emotional Biases

Emotional Biases

Loss aversion

Overconfidence

Self-control bias

Status quo bias

Endowment bias

Regret-aversion bias

Emotional Biases

Loss Aversion Bias

- **Definition:** realize gains early and delay recognizing losses.
- **Consequences:**
  - ✓ House money effect: engage in increasingly risky gambles with previous winnings
  - ✓ Disposition effect: hold losers too long and sell winners too quickly
  - ✓ Limit the upside potential of a portfolio
  - ✓ Trade excessively and hold riskier portfolios
- Loss-aversion bias was identified by Kahneman and Tversky (1979) while they were working on developing **prospect theory**.

Emotional Biases

Overconfidence Bias

- **Definition:** People demonstrate unwarranted faith in their abilities.
- **Consequence:**
  - ✓ Underestimate risks and overestimate expected returns
  - ✓ Trade excessively
  - ✓ Hold poorly diversified portfolio
  - ✓ Experience lower returns than those of the market

Emotional Biases

Overconfidence Bias

- Overconfidence bias has aspects of both cognitive and emotional errors but is classified as emotional because the emotional aspect dominates.
- **Illusion of knowledge bias**
  - ✓ prediction overconfidence and certainty overconfidence
- **Self-attribution bias**
  - ✓ self-enhancing and self-protecting.

Emotional Biases

Self-Control Bias

- **Definition:** People deviate from their long term goals because of a lack of self-discipline.
- (have a strong desire to consume today)
- **Consequences:**
  - ✓ Save insufficiently for the future
  - ✓ Accept too much risk to generate higher returns
  - ✓ Cause asset allocation imbalance problems

Emotional Biases

Status Quo Bias

- **Definition:** People do nothing instead of making a change (because of inertia rather than conscious choice).
- **Consequence:**
  - ✓ Unknowingly maintain portfolios that are inappropriate for their circumstances
  - ✓ Fail to explore other opportunities

Emotional Biases

Endowment Bias

- **Definition:** People value an asset more when they hold rights to it than when they do not.
- **Consequence:**
  - ✓ Fail to sell off certain assets and replace them with other assets
  - ✓ Continue to hold classes of assets with which they are familiar
  - ✓ Maintain an inappropriate asset allocation

Emotional Biases

Regret-Aversion Bias

- **Definition:** People tend to avoid making decisions out of fear that the decision turns out poorly.
  - ✓ Error of commission
  - ✓ Error of omission
- **Consequences:**
  - ✓ Be too conservative in their investment choices
  - ✓ Engage in herding behavior

Behavioral Finance & Investment Processes

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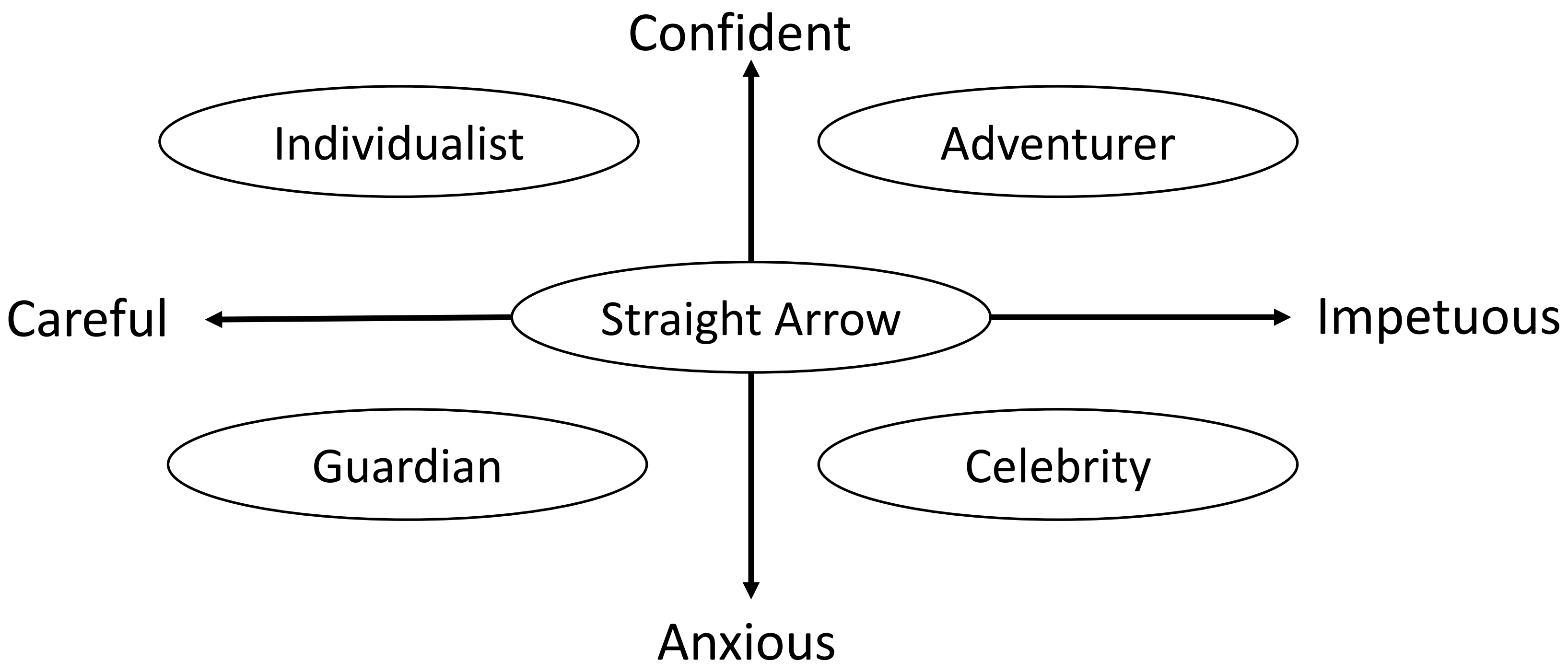
Classifying Investors into Types

- Barnewall two-way model
- Bailard, Biehl, and Kaiser five-way model
- Pompian model (four-way model)

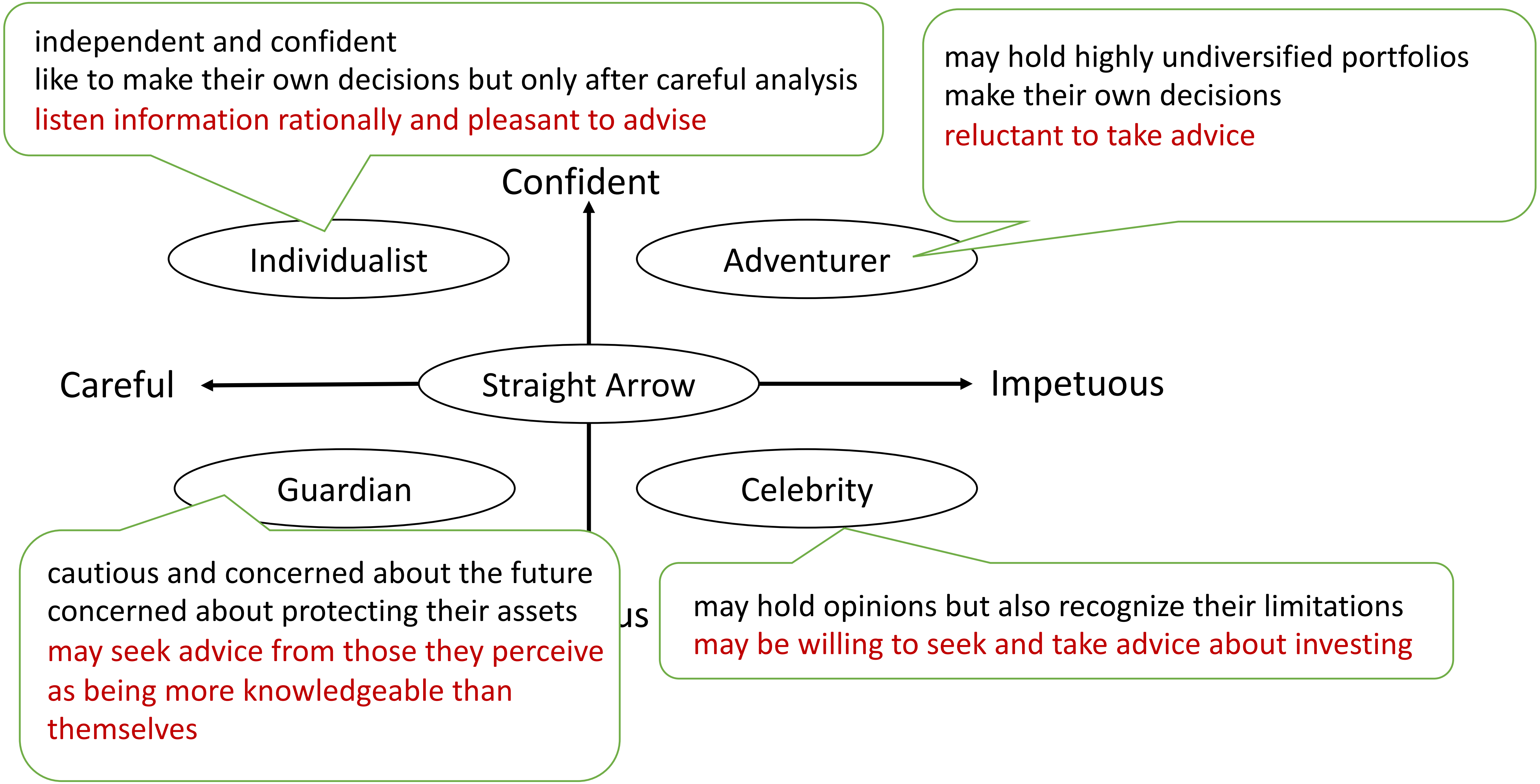
Barnewall two-way model

- **Passive investors:** accumulating wealth passively
  - ✓ lower tolerance for risk
  - ✓ the smaller the economic resources an investor has, the more likely the person is to be a passive investor
- **Active investors:** actively involved in wealth creation
  - ✓ higher tolerance for risk
  - ✓ prefer to maintain control of their own investments
  - ✓ when active investors sense a loss of control, their risk tolerance drops quickly

Bailard, Biehl, and Kaiser five-way model



Behavioral Finance & Investment Processes



Pompian model (four-way model)

Investor Type	Risk Tolerance	Investment Style	Primary biases
Passive Preserver	Low	Conservative	Primarily emotional
Friendly Follower	↓	↓	Primarily cognitive
Independent Individualist			Primarily cognitive
Active Accumulator	High	Aggressive	Primarily emotional
Quantitative measures work better with cognitively biased investors.			

Pompian model (four-way model)

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Quantitative measures work better with cognitively biased investors.			

“big picture”

Education

Education

take control of the situation

Limitations of Classifying Investors into BITs

- Individuals may simultaneously display both emotional biases and cognitive errors.
- Individual might display traits more than one behavioral investor type.
- As investors age, they will most likely go through behavioral changes.
- Even in the same type, individuals should not be treated the same due to their unique circumstances and psychological traits.
- Individuals act irrationally at different times and without predictability.

Behavioral Factors in Adviser–Client Relations

- Traditional risk tolerance questionnaires is certainly helpful and can generate important information.
- From the behavioral finance perspective, risk tolerance questionnaires may work better for institutional investors compared with individual investors.
- Risk tolerance questionnaires may fail emotionally biased individuals.

Behavioral Factors in Portfolio Construction

- Inertia and Default: Status quo
- Naïve Diversification: Regret aversion
- Company Stock: Familiar, overconfidence, Framing, Loyalty effects and status quo
- Excessive Trading: Many biases. (e.g. overconfidence, regret of aversion etc)
- Home Bias: Availability, illusion of control, endowment, and status quo, confirmation.
- Behavioral Portfolio Theory: Mental account bias

Analyst Biases in Conducting Research

- **Gamblers' fallacy**: a misunderstanding of probabilities in which people wrongly project reversal to a long-term mean, is a related cognitive bias.
- **Hot hand fallacy**: people affected by this fallacy wrongly project continuation of a recent trend.
- **Social proof:** individuals are biased to follow the beliefs of a group.
- **Halo effect:** extends a favorable evaluation of some characteristics to other characteristics.
- **Home bias:** portfolios exhibit a strong bias in favor of domestic securities.