



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

# FINM3407 – Behavioral Finance

## Revision Lecture:

FINM3407 Behavioral Finance

Dr. Shirina Lin

October 2024

## Agenda This Week

- **What we study in this course – 10 Topics Summary**
- *Disclaimer: This is not an exhaustive list of what we have learned in this semester.*
- **Final Exam Instruction**
- **Q&A**

# Course Structure

- Topic 1:  
Intro to Behavioral Finance : Introduction to Behavioral Finance and Traditional Finance Theories
- Topic 2: Prospect Theory
- Topic 3: Challenges to Market Efficiency
- Topic 4: Overconfidence and Investors
- Topic 5: Application of Managerial Overconfidence in Corporate Finance
- Topic 6: Heuristics and Biases and Its Implications
- Topic 7: Emotional Foundations and Individual Investors
- Topic 8: Behavioural Explanations for Anomalies
- Topic 9: Behavioral Factors and Stock Market Puzzles
- Topic 10: Behavioural Investing

# Topic 1: Introduction to Behavioral Finance and Traditional Finance Theories

Reference: Ackert/Deaves Chapters 1 & 2

## [Part One – Introduction to Behavioral Finance]

- **Overview of neoclassical economics**

- (1) Preference Relation
- (2) Utility Function and Expected Utility Theory
- (3) Brief Introduction to Behavioural Finance

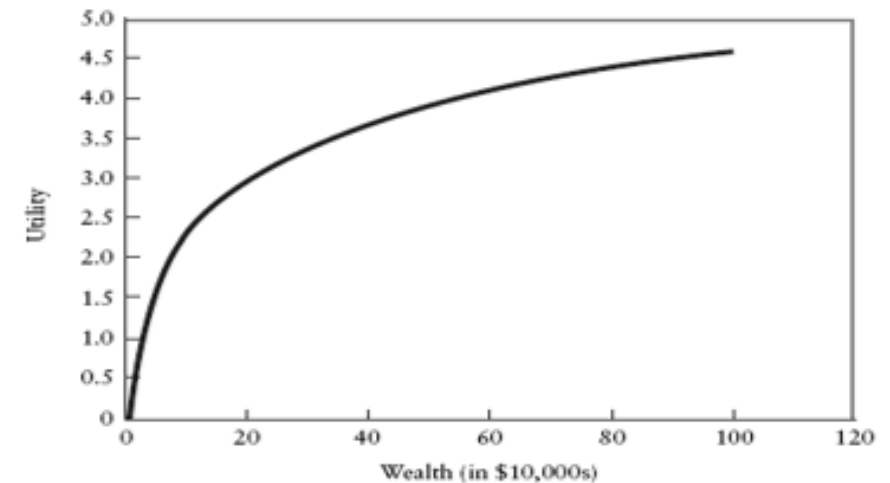
## [Part Two – Foundations of Finance]

- **Foundations of Finance II: Asset Pricing, Market Efficiency and Agency Relationships**

- (1) Risk and Return Relationship
- (2) CAPM model and Fama and French
- (3) Market Efficiency (brief introduction => more details in Topic 3)
- (4) Agency Relationships and Corporate Governance

# Part One

- Neoclassical economics (normative theory)
  1. Rational preferences
    - Completeness
    - Transitivity
  2. Maximise utility
    - The Expected Utility Theory of Prospect
    - Properties of Utility Functions
    - Certainty Equivalents
  3. Independent decisions based on all “relevant” information
- Introduction to Behavioural Finance
  - Loss Aversion
  - Representative
  - Mental Accounting
  - Fear of Regret



# Part Two

- Foundations of Finance
  1. Portfolio Risk & Return
    - Security/Portfolio Expected Return & Standard Deviations
    - Efficient Frontier & CML
  2. CAPM Model
  3. Market Efficiency (more discussed in Lecture 3)
  4. Agency Relationships & Corporate Governance
    - Agency Costs (Direct vs Indirect)

## Topic 2: Prospect Theory, Framing and Mental Accounting

Reference: AckertDeaves Chapters 3

### [Part One – Prospect Theory]

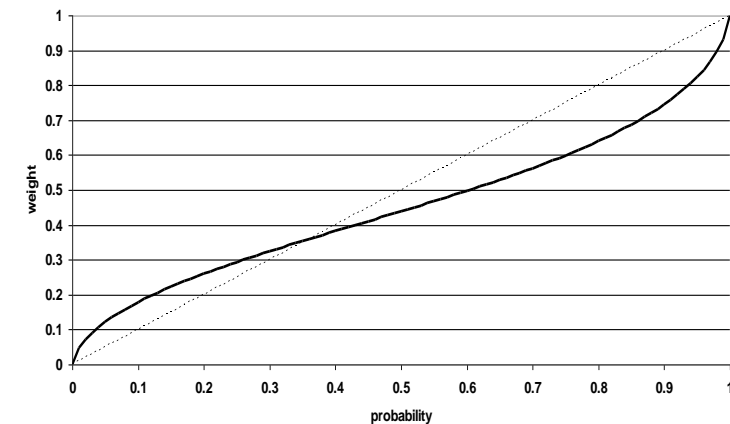
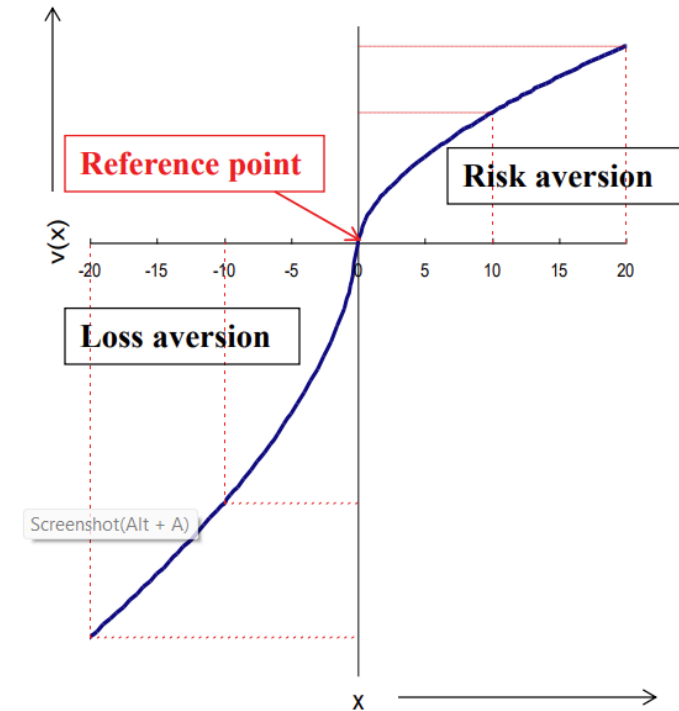
- **Overview about Prospect Theory**
  - (1) Risk Aversion vs. Risk Seeking
  - (2) Development of Prospect Theory
- **Prospect Theory Value Function**
- **The Weighting Function**

### [Part Two – Mental Accounting]

- **Mental Accounting**
  - (1) Integration vs. Segregation
  - (2) Theater Ticker Problems
  - (3) Opening and Closing Accounts

# Prospect Theory

1. Risk aversion vs Risk seeking vs Loss aversion
2. Value Function
  - Reference dependent
  - Risk averse in positive domain
  - Risk seeking in negative domain
    - Loss aversion
3. Weighting Function
  - Overweighting low probabilities
  - Underweighting medium-high probabilities
  - Certainty effect
4. Framing & Mental Accounting Effect
  - Segregation vs Integration (reference point)
  - Silver lining effect & House money effect





## Topic 3: Challenges to Market Efficiency

Reference: AckertDeaves Chapters 4

### [Part One – Efficient Market Hypothesis]

- Overview of Efficient Market Hypothesis
- Theoretical foundations and assumptions

### [Part Two – Challenges to Market Efficiency]

- Rationales supporting the Efficient Market Hypothesis
- Theoretical Challenges and Empirical challenges

# Market Efficiency

1. 3 levels of efficiency
2. Implications: Better off do passive investing
3. Random Walk vs. EMH
  - “Prices are right” vs “No free lunch”
4. Theoretical Foundations
  - Universal Rationality
  - Uncorrelated Errors
  - Unlimited Arbitrage
5. Rationales Supporting Efficiency vs Effective Trading Rules (Anomalies?)

# Arbitrage

1. Triangular Arbitrage
2. Limits to Arbitrage
  - Fundamental Risk
  - Noise-trader Risk
  - Implementation Costs

# Topic 4: Overconfidence & Investors

Reference: AckertDeaves Chapters 6 & 9

## [Part One – Overconfidence]

- Overview about Overconfidence
- Miscalibration / Other Strains of Overconfidence
- Factors Impeding Correction

## [Part Two – The Impact of Overconfidence on Financial Decision-making]

- Overview: The Impact of Overconfidence on Financial Decision-making
- Overconfidence and Excessive Trading – A simple Model
- Under diversification and excessive risk taking
- Analysts and excessive optimism

# Overconfidence

- Strains of Overconfidence
  1. Miscalibration
    - Calibration Tests
    - Confidence Interval Approach
  2. Better-Than-Average Effect
  3. Illusion of Control
  4. Excessive Optimism
- Impact on Financial Decision-Making
  1. Excessive Trading
    - Unfounded belief in own ability to identify companies
  2. Under Diversification
    - Underestimating downside risks

# Topic 5: Application of Managerial Overconfidence

Reference: AckertDeaves Chapters 6 & 9

## [Application of Managerial Overconfidence]

- **Brief Introduction: Application of Managerial Overconfidence**
- **Capital Budgeting:**
  - Payback and Ease of Processing,
  - Allowing Sunk Costs to Influence the Abandonment Decision,
  - Allowing Affecting to Influence Choices
- **Managerial Overconfidence**
- **Investment and Overconfidence**
- **Can Managerial Overconfidence have a Positive Side?**

# Managerial Overconfidence

- Capital Budgeting
  1. Ease of Processing
  2. Loss Aversion (Abandonment)
    - Sunk Costs
    - Ex-Post Mistake
    - Attachment/Involvement
  3. Affect
- Managerial Overconfidence
  1. Overinvestment
    - Unfounded belief in own ability to identify companies
  2. Higher Sensitivity of Investment to Cashflows
  3. More Active in M&A
  4. Too Quick to Start New Businesses
  5. CEO Overconfidence Not All Negative

# Topic 6: Heuristics & Biases

Reference: Ackert/Deaves Chapters 5 & 8

## [Part One – Application of Heuristics and Biases]

**Brief Introduction: Application of Heuristics and Biases**

**Perception, Memory and Heuristics**

**Familiarity & Representativeness and Related Heuristics**

**Anchoring; Irrationality and Adaptions**

## [Part Two – Implications of Heuristics and Biases for Financial Decision-Making]

**Introduction: Implications of Heuristics and Biases for Financial Decision-Making**

**Financial Behavior Stemming from Familiarity & Representativeness**

**Anchoring to Available Economic Cues**

# Part One

- Perception & the Frame
  - Primacy vs Recency Effects
- Heuristics (Mental Shortcuts)
  - Type 1 (Autonomic)
  - Type 2 (Cognitive)
    - E.g. Ambiguity Aversion, Endowment Effect
- Representativeness
  - Conjunction Fallacy (Joint Probability)
  - Base Rate Neglect (Bayes' Rule)
  - Hot Hand Phenomenon & Gambler's Fallacy
  - Overestimating Predictability
- Bias Related to Representativeness
  - Recency
  - Saliency
  - Availability
- Anchoring
  - Seems contradicting with Representativeness
  - Coarsely Calibrated



# Part Two

- Home Bias
  - Implied Under Diversification
  - Language & Culture
  - Information Advantage
- Representativeness
  - Good Companies vs. Good Investments
- Anchoring
- Momentum-Chaser vs. Contrarian

# Topic 7: Emotional Foundations and Individual Investors

Reference: AckertDeaves Chapters 7 & 10

## [Part One – Emotional Foundations]

**Brief Introduction: Emotional Foundations**

**The Substance of Emotion**

*Cognitive Antecedents; Intentional Objects, Physiological Arousal; Physiological Expressions; Valence; Action Tendencies*

**A Short History of Emotion Theory**

**Evolutionary Theory**

**The Brain / Emotion and Reasoning**

## [Part Two – Individual Investors and the Force of Emotion]

**Brief Introduction: Individual Investors and the Force of Emotion**

**Is the Mood of Investor the Mood of the Market / Pride and Regret**

**The Disposition Effect (Important)**

**House Money / Affect**

# Emotions

- Substance of Emotion (6 of them)
- History of Emotion Th
  - Evolutionary Theory
- The Brain
- Emotion & Reasoning
  - Phineas Gage & Elliot
- Emotion is not all Bad
- Pride & Regret
- Disposition Effect
  - Tendency to sell the winners too early and hold on to losers too long
  - Explain using Prospect Theory & Mental Accounting
- Sequential Decisions
  - House Money Effect (Winning)
  - Snake-Bit Effect & Break-Even Theory (Losses)
- Affect

# Topic 8: Behavioural Explanations for Anomalies

Reference: AckertDeaves Chapters 13

## [Behavioral Explanations for Anomalies]

- **Brief Introduction: Behavioral Explanations for Anomalies**
- **Earnings Announcements and Value vs. Growth**

*What is behind lagged reactions to earnings announcements*

*What is behind the value advantage*

- **What is Behind Momentum and Reversal**

*Daniel-Hirshleifer-Subrahanyam Model*

*Grinblatt-Han Model and Explaining Momentum*

*Barberis-Shleifer-Vishny Model and Explaining Momentum and Reversal*

- **Rational Explanations**

*Important Risk Adjustment*

*Fama-French Three Factor Models/Factor Zoo – Tutorial*

# Anomalies

- Value Premium
  - Mistakes of Judgment
  - Agency Considerations
- Momentum & Reversal
  - DHS Model (Reversal)
  - GH Model (Momentum)
  - BSV Model (Momentum & Reversal)
- Rational Explanation
  - Inappropriate Risk Adjustment
  - Fama-French 3 Factors Model
- Factor Zoo Concern

# Topic 9: Behavioural Factors & Stock Market Puzzles

Reference: AckertDeaves Chapters 14

## [Behavioral Factors and Stock Market Puzzles]

- Brief Introduction: Behavioural Explanations for Stock Market Puzzles
- Equity Premium Puzzle

### *The Equity Premium*

*Why is the Equity Premium a Puzzle?*

*What Can Explain This Puzzle?*

- Real-World Bubbles
- Experiment Bubble Market

### *Design of Bubbles Markets*

*What can we learn from these experiments?*

- Excessive Volatility / Markets in 2008

# Puzzles

- Equity Premium Puzzle
  - Extreme Risk Aversion (Rational)
  - Ambiguity Aversion (Behavioural)
  - Myopic Loss Aversion (Behavioural)
- Bubbles
  - Greater Fool Theory
- Excessive Volatility
  - Overreaction
  - Recency Effect

# Topic 10: Behavioural Investing

Reference: AckertDeaves Chapters 19

- 10-1: Anomaly Attenuation, Style Peer Groups, and Style Investing
- 10-2: Refining Anomaly Capture:
  - *Refining Value Investing using Accounting Data*
  - *Refining Momentum-Investing using Volume*
  - *Momentum and Reversal (Value)*
- 10-3: Multivariate Approaches
- 10-4: Style Rotation
- 10-5: Is It Possible To Enhance Portfolio Performance Using Behavioral Finance
  - *Early Evidence*
  - *What is Behavioral Investing*



# Puzzles

- Anomaly Attenuation
  - Anomaly dissipation is expected in efficient market
- Peer Group
- Style Investing
  - Style Tilting vs. Style Rotation
- Refining Value Investing (Accounting Data)
- Refining Momentum Investing (Volume)
- Momentum & Reversal
  - Term Structure & Consistency
- Momentum & Value
- Multivariate Approaches
- Can Behavioural Finance Enhance Portfolio Performance?
  - No Conclusion

# FINAL EXAM – 50% of the Total Weight

## Final Exam

- Final examination will be held centrally by the University at the specified time. The final exam will be **a face to face on campus exam**.
- There is **NO** formula sheet attached to the exam
- Reading: 10 minutes
- Duration: 120 minutes
- Format: Short answer, Short essay, Problem solving
- Task Description:  
**The final assessment will be based on **all** materials covered in the course (from Topics 1-10).**  
The exam includes short answers, short essays, and problem-solving questions. **No MCQ**

## Some Extra Points

- What to bring:
  - Student ID!!!!
  - Blue/Black Pens
  - Calculators (Casio FX82 or UQ Approved and Labelled Only)
  - Clear water bottle with NO label
- No electronic devices (Including smart watches)
- Be there at least 30 mins prior to the exam
- No writing during the reading time

## How to Prepare for the Exam

- Go through the slides in detail (including examples)
- Practice lecture examples, tutorial questions, & practice exam and try to get a deep understanding of the examples and questions.
- Read the **reference chapters of the textbook and other references** (for the relevant content)
- It is more important to understand the concepts and know how to apply them, rather than simply memorising the definitions (won't give you full marks)

## Extra Consultations

- Try to utilise this opportunity effectively.
- Come prepared with questions, this is not a private tutorial
- Don't leave your preparation until the last minute

FINM3407 - Final Exam Consultation Timetable - 30th Oct - 07th Nov				
Staff	Days	Time	Venue	Email
Kelvin Tan	Thursday - 31st Octber	2:00 pm - 4:00 pm	39 - Room 347	<a href="mailto:k.tan@business.uq.edu.au">k.tan@business.uq.edu.au</a>
Michelle Mi	Friday - 1st November	1:30 pm - 3:30 pm	37 - Room 417 Consultation Pod3	<a href="mailto:x.mi@business.uq.edu.au">x.mi@business.uq.edu.au</a>
Jon Aster	Monday - 04th November	11:30 am- 1:30 pm	37 - Room 417 Consultation Pod 3	<a href="mailto:j.hearn1@uq.edu.au">j.hearn1@uq.edu.au</a>
Shanelle Yang	Tuesday - 05th November	12:00 pm - 2:00 pm	39 - Room 115 HD8 Tutor Hot Desk 8	<a href="mailto:shanelle.yang@uq.edu.au">shanelle.yang@uq.edu.au</a>
Imran Hossain	Wednesday - 06th November	10:00 am - 12:00 pm	39 - Room 115 HD6 Tutor Hot Desk 6	<a href="mailto:mdimran.hossain@business.uq.edu.au">mdimran.hossain@business.uq.edu.au</a>
Shirina Lin	Thursday - 07th November	11:00 am -1:00 am	39 - Room 115 HD8 Tutor Hot Desk 8	<a href="mailto:s.hsinen@business.uq.edu.au">s.hsinen@business.uq.edu.au</a>
Jon Aster	Thursday - 07th November	1:00 pm - 3:00 pm	39 - Room 115 HD8 Tutor Hot Desk 8	<a href="mailto:j.hearn1@uq.edu.au">j.hearn1@uq.edu.au</a>

**THANK YOU**