



# Behavioral Finance

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# Welcome to EE434!



Getting to know you

<https://padlet.com/sunsiree/219cwxtb1pvejb3t>



Three words as you see what  
behavioral finance is about

<https://www.menti.com/paf992uiw8>



**Behavioral economics** is the combination of psychology and economics that investigates what happens in markets in which some of the agents display human limitations and complications (Mullainathan&Thaler, 2000).

## Psychology

*Psychology is the study of the mind and behavior. The discipline embraces all aspects of the human experience.* (American Psychological Association, 2020).

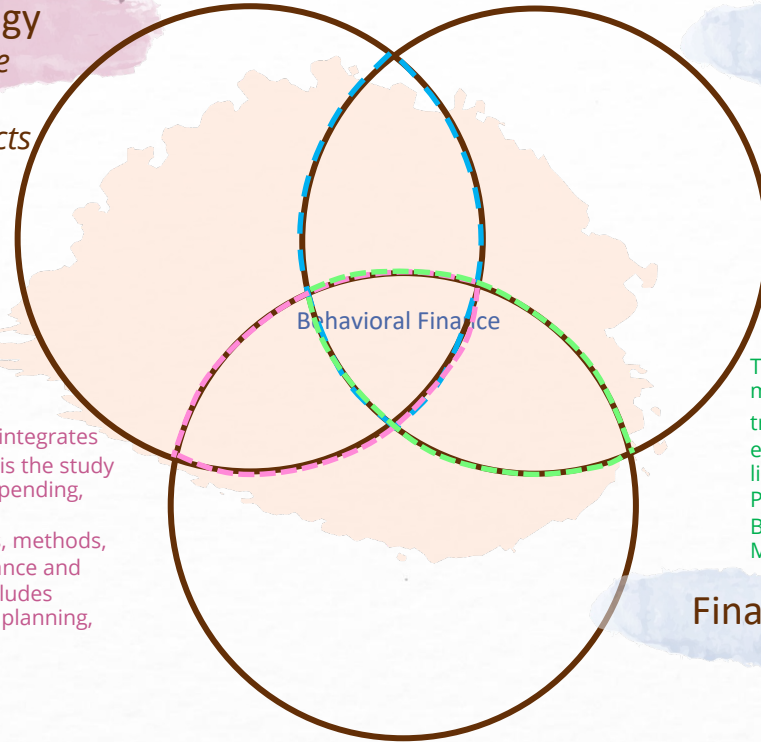
## Economics

Traditional economics focuses on exchanges in which money is one, but only one, of the items traded. **Financial economics** concentrates on exchanges in which money of one type or another is likely to appear on both sides of a trade. It studies Pricing of Securities and Derivatives, Asset Pricing and Business Cycles, Microstructure and Regulation of Markets, Financial Decision Making, etc.

## Behavioral Finance

**Financial psychology** is a field that integrates psychology with financial management. It is the study of the mind and behavior as it relates to spending, saving, and investing decisions. Financial psychologists apply psychological theories, methods, and practices to the areas of personal finance and financial services. Financial psychology includes aspects of the academic fields of financial planning, therapy, counseling, and coaching.

## Finance



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Introduction  
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# 01

## Introduction to behavioral economics

The combination of  
psychology and economics  
that investigates what happens in markets in which  
some of the agents display human limitations and  
complications (Mullainathan&Thaler, 2000).

# What is economics?

“The core theory used in economics builds on a simple but powerful model of behavior. Individuals makes choices so as to maximize a utility function, using the information available, and processing this information appropriately. Individuals’ preferences are assumed to be time-consistent, affected only by own payoffs, and independent of the framing of the decision.”

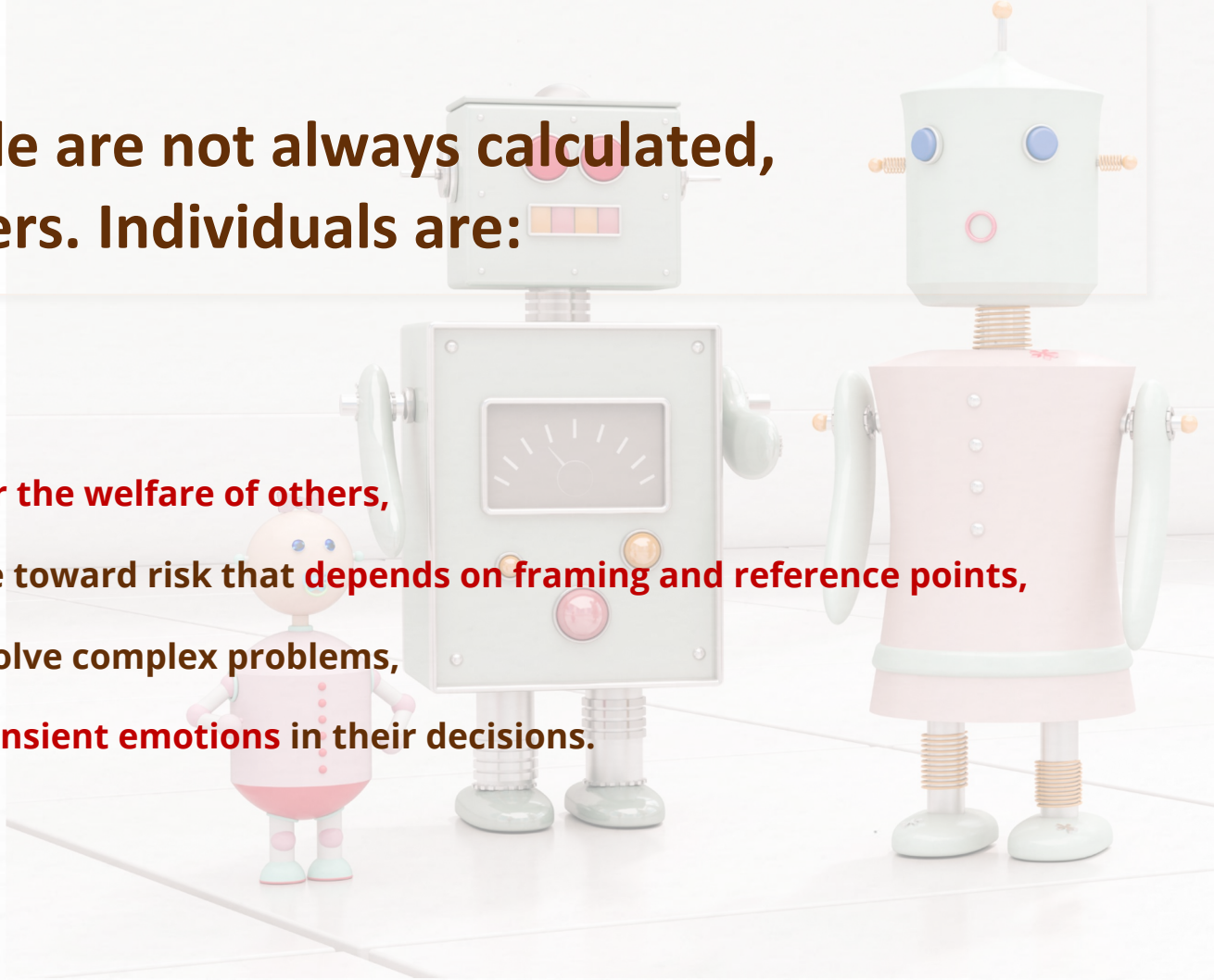
– Stefano DellaVigna(JEL, 2009), *Psychology and Economics: Evidence from the Field*

# What is economics?

- Economics is the study of how people and societies deal with scarcity (i.e., limited resources)
- Some assumptions of the standard economic model:
  - Individuals are motivated by **expected utility maximization**;
  - Individuals have **time-consistent preferences**;
  - Individual's utility governed by **individual (selfish) concerns**;
  - Framing should not matter, only **information**;
  - All income and assets are **fungible**.

In reality, people are not always calculated, 'rational' thinkers. Individuals are:

- **time-inconsistent,**
- **show a concern for the welfare of others,**
- **exhibit an attitude toward risk that depends on framing and reference points,**
- **use heuristics** to solve complex problems,
- are affected by **transient emotions** in their decisions.



# What is behavioral economics?

- **Standard economic theory** assumes that individuals are **perfectly "rational"**.
- **Behavioral economics** points out ways in which people are **systematically "irrational"**.
- Behavioral economics started by observing anomalies and updating models based on these observations.

# What is behavioral economics?

Behavioral economics *tries to improve upon existing economic models* by *using insights from the field of psychology*.

## What is behavioral economics?

Behavioral economists are saying that standard models **could be better**, but they aren't claiming that the new models are **perfect**.

# What is behavioral economics? *If you love math,*

To fix ideas, consider the following stylized version of the standard model. Individual  $i$  at time  $t = 0$  maximizes discounted expected utility subject to the probability distribution  $p(s)$  of the state of the world  $s \in S$ :

$$\max_{x_i^t \in X_i} \sum_{t=0}^{\infty} \delta^t \sum_{s_t \in S_t} p(s_t) U(x_i^t | s_t)$$

# What is behavioral economics?

Behavioral Economics suggests that individuals (might) deviate from the standard model **in three (related) respects** (DellaVigna, JEL, 2009).

- **Nonstandard preferences**
- **Nonstandard beliefs/Incorrect beliefs**
- **Nonstandard decision making**

# What is behavioral economics?

- **Nonstandard preferences** are such as
  - Time preferences, e.g., self-control
  - Risk preferences, e.g., reference-dependence
  - Social preferences, e.g., altruism

# What is behavioral economics?

- **Nonstandard beliefs** are such as:
  - Overconfidence
  - Projection bias

# What is behavioral economics?

- **Nonstandard decision making** are such as:
  - Framing effect: being sensitive to how the problem is presented
  - Limited attention: being inattentive to the less salient features of the problem
  - Heuristics: use mental shortcut to solve the problem
  - Emotions: sadness, anxiety, fear, greed

# What is behavioral economics?

## Psychology vs. Behavioral Economics

- Psychologists develop models of how individuals make decisions.
- Behavioral economists use these insights to inform more realistic assumptions, and **determine how they might be relevant in economic contexts.**

# 02

## Introduction to behavioral finance





# What is Behavioral Finance?

“Behavioral Finance is the study of how psychology affects **financial decision making** and financial market.”  
Hersh Shefrin (2001)

# What is Behavioral finance?

- Standard finance rests on classical decision theory and presumes that individuals are “rational” and markets are efficient.
- “Rationality” in finance focuses on:
  - Agents update their beliefs, when new information arrives, in the manner described by Bayes’ law.
  - Given their correct beliefs, agents make choices consistent with subjective expected utility.

Barberis, Nicholas & Thaler, Richard, 2003. "A survey of behavioral finance," *Handbook of the Economics of Finance*, in: G.M. Constantinides & M. Harris & R. M. Stulz (ed.), *Handbook of the Economics of Finance*, edition 1, volume 1, chapter 18, pages 1053-1128 Elsevier.

# What is Behavioral finance?

- The area of behavioral finance was developed as a reaction to findings in psychology, to behavioral economics, and to evidence from financial markets that did not sit well with market efficiency.
- **Behavioral finance is arguing that some financial phenomena can be better understood using models in which some agents are not fully rational.**
- **Behavioral finance is the study of the influence of psychology on the behavior of individuals and financial practitioners and the subsequent effect on markets.**

# What is Behavioral finance?

- **Behavioral finance focuses on applying psychological and economic principles for the improvement of financial decision-making.**
  - Financial decision-making is such as:
    - How we should allocate our saving among various investment funds
    - Whether we should buy/sell a particular stock
- **Behavioral finance helps to clarify why people make the money choices they do, not dictate how they should make those choices.**

# Why is Behavioral Finance important to practitioners?

Practitioners are such as investors, financial analyst, financial planners, advisors, portfolio managers, corporate executives.



# Why is Behavioral Finance important to practitioners?

- Behavioral finance helps solve persistent problems and limitations previously addressed with the concepts of standard finance and classical economics.
- Behavioral finance *tries to fill the void between classical theory and practice*, by providing a new body of theories and a new set of predictions that help to explain financial behavior and real-world markets.

# Why is Behavioral Finance important to practitioners?

- Behavioral finance focuses on *how people actually behave as opposed to how they should behave*.
- Behavioral finance provides a means of helping practitioners recognize their mistakes, comprehend the reasons for making these mistakes, and deal with them.
- It can help people avoid emotion-driven speculation leading to losses, and devise an appropriate wealth management strategy.
- At a market level, it can provide a clearer explanation of bubbles and crashes.

# Traditional finance vs. Behavioral finance

Traditional finance

Behavioral finance

**Approach**

Normative  
Describing how real world  
should function

Positive  
Describing how real world is  
functioning

**Assumption**

Homo economicus (ECONS)  
Rationality

Homo Sapien (HUMANS)  
Irrationality,  
Behavioral anomalies

**Concepts**


Expected Utility  
maximization

Prospect Theory  
(Kahneman&Tversky, 1979)


**Concepts**

Efficient market hypothesis  
Capital Asset Pricing Model  
(CAPM)

Limits to arbitrage



Behavioral finance *is not a replacement* of standard finance. Instead, it *is a companion that complements* standard finance. (And, so is behavioral economics to standard economics!)



Revealing the cognitive biases of decision makers and becoming aware of flaws in their judgments, allows us to find ways to overcome these biases and to design policies to improve financial decision making and the functioning of capital markets.

# Behavioral finance micro (BFMI) vs. Behavioral finance macro (BFMA)

## BFMI

### Analyze what?

Analyzes **behavioral biases** which distinguish **individual investors** from totally rational economic beings – homo economicus – from neoclassical economics

### Question what?

Questions rational decision-making

### State what?

States that behavioral biases have a profound impact on decision-making and can drive suboptimal decision-making and errors that directly contradict with traditional finance

## BFMA

Analyzes market anomalies that distinguish **financial markets** from efficient markets assumed by traditional finance

Questions the informational efficiency of markets

States that financial markets are impacted by behavioral influences (market anomalies, bubbles, excess volatility, limited arbitrage)

# Understanding certain puzzles

- Why do people tend to invest in local companies?
- Why do people increase the amount of risk they are willing to take on if they have experienced good or bad portfolio performance?
- Why are they reluctant to eliminate poorly performing investments from their portfolios?
- Why do many investors trade as often as they do?
- Why do they insufficiently diversify their asset holdings?
- Why do people follow the crowd?
- Why do investors seek only information confirming their previous views and decisions?
- Why do sunk costs matter a lot for corporate managers?
- Are there limits to arbitrage?

# Hold or Sell?

Suppose one of your stocks, **stock A**, has a few increases in its price and another, **stock B**, has a few decreases in its price. What would you most likely do ?

<https://www.menti.com/lovd6rrxjr>



# To Sell Winners Too Early and To Ride Losers Too Long





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# Examples of previous research interests

- Herding Behavior in Cryptocurrency Market
- Herding behavior: Evidence in Thai stock market
- The Investor bias based on regret aversion
- Does Market Efficient Hypothesis hold true in the real market?
- How age and experience affect investment decisions of investors and how they are changed over lifetime?
- Behavioral Finance and Cryptocurrency
- How the present bias has an impact on our financial mistakes
- Do people's risk preferences really reflect how they behave?
- Biases in Finance Behavior Among Professional Investors and Ordinary People
- The use of nudge tools to enhance investors' financial performance
- The influence on the disposition effect: Tax and Investor's Mood
- Why do Chinese household investments concentrate in the real estate sector?
- How did Thai investors invest during the Covid-19 recession?
- Can we really beat the market? (Active VS Passive investors)
- Tulipmania phenomenon.