Introduction

Prof. Lutz Hendricks

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What Macroeconomics Is About

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- Macro or micro - what's the difference?
- The traditional answer:
  - Micro studies individual households or firms.
  - Macro studies the economy as a whole.

How does Macro differ from Micro?

But many questions are "in between."
Examples:

1. Why do some people have trouble finding work?
2. Why do some people hold so much more wealth that others?

How does Macro differ from Micro?

Traditionally, macro used **aggregate** models (IS/LM), micro used disaggregated models (individual firms and households).
But:

- Modern answers to macro questions have **micro-foundations**.
- Economic models are **artificial economies**.
  - Households and firms interact in markets.
  - Each agent is characterized by certain behaviors.
  - The aggregate outcome is determined by market clearing (or some notion of **equilibrium**).

How does Macro differ from Micro?

- Macroeconomics is loosely defined by a set of **questions**:
  - Economic growth: Why is income per person so much higher today than it was in 1900?
  - Business cycles: Why are there expansions and recessions?
  - Monetary policy: Why is there inflation? What can the Federal Reserve do about it?
- The distinction between micro and macro is rather blurry.

What is Economics?

What is Economics?

Traditional answers:

- the study of production, consumption, and trade in *markets*.
- the study of things that have values that can be measured in *money* terms.
- But: Economists also study activities outside of markets
  - Examples: marriage, education, ...

Economics studies all social phenomena.

The Economic Approach

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The Economic Approach

- How does Economics differ from Sociology, Psychology, Pol Sci?
- Other social sciences consist of a multitude of theories.
- Each theory is targeted to explain specific behavior.
- In economics, this is not acceptable.

Economics aims to characterize human behavior using a **single, coherent theory**.

The Sociology / Psychology Approach

Examples:

1. People buy gym memberships and then don't exercise.
    - People have trouble with self-control.
2. People give up choices. Shouldn't more choices be better?
    - They avoid cognitive dissonance.
3. People don't hold stocks, even though stock returns are high
    - Loss aversion.

Economics proposes to explain all of this with a single theory.

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3. **Rational expectations**: Agents do not systematically make avoidable mistakes.
4. **Equilibrium**: Markets clear. (Or something like that.)

Are economic agents too rational?

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- Economics currently assumes that agents solve **optimization problems**.
  - Clearly, some notion of optimization is necessary to describe behavior.
- The (current) economic approach is stronger:
- Agents do not make systematic mistakes.
  - They use all available information
  - They are not prejudiced, inattentive, stupid, ...
- Note: Ex post, choices may turn out to be wrong.
  - But that is due to additional information.

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- Human behavior is clearly more complex and less rational than economists assume.
- Why then not make it richer?
- This is what "**behavioral economics**" does.
- It introduces concepts from psychology / sociology into economic models.
- It runs into the same problem as psychology / sociology: there are as many theories as there are puzzling behaviors.

Bounded Rationality

- Why not relax rationality a little bit?
- An old idea, going back to Herbert Simon in the 1970s.
- People maximize something, but they make some mistakes.
- A great idea but nobody has figured out how to implement it.
- It is hard to avoid a "sociological" proliferation of theories, each good at explaining a few observations.

There is one way to be rational, but there are millions of ways to be irrational.

Is this Biased in Favor of Free Markets?

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- Yes it is.
- Many government interventions are motivated by mistakes people make.
- But keep in mind: governments make mistakes, too. Lots of them.

What is the Future of Economics

- There will be a different, richer model in the future.
- Some form of "**bounded rationality**."
- However, at this point we do not have a theory of bounded rationality that accounts for a broad range of behavior.
- So we are stuck with the next best: full rationality.

Good Features of the Rational Choice Approach

- It does explain a wide range of behaviors: consumption / saving, schooling, investment, etc.
- It even explains behaviors that appear irrational: drug addiction, advertising.
  - In each case, the models don't account perfectly for the data.
- The theory is unambiguous
  - There is only one way of being fully rational.

Models and Math

- Economics uses **mathematical models**.
  - But this is inessential. Math is just a language.
- It would be perfectly fine to write down economic theory in words or pictures, but it would be much harder.
- Historical note: a British economist in the early 20th century had a hydraulic model of the economy.

Why Models?

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1. Tractability and correctness
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2. Quantitative analysis
   - Many macro questions are quantitative in nature (how large is the effect of the Bush tax cuts on economic growth?)
3. Consistency
   - The same set of assumptions should account for a wide range of data.

Models and Math

- Before models were used, confusion was widespread.
- Try to read Keynes, Marx, and other early economists.
  - To this day people argue about what Keynes was really saying.
- Models are unambiguous.

Long run vs. short run

- We analyze the economy in two steps:
  1. the long run
  2. the short run
- For the **short run** analysis we need to worry about frictions:
  - prices or quantities adjust slowly
  - not all markets clear
- For the **long-run**, we don't worry about frictions
  - mainly because slow adjustments have taken place

Long run vs. short run

- This means that we will talk about each phenomenon twice
  - e.g., long-run and short-run inflation
- If we had better tools, we could
  - analyze the **transition** between short-run and long-run
  - show rigorously that we can neglect certain friction for the long-run analysis.

Reading

Jones, Macroeconomics, ch. 1