

What Is Macroeconomics?

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- 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 than 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.

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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.

Currently, the key ingredients of standard economic theory are:

- ① **Micro-foundations:** Aggregate behavior is the result of individual decisions.
- ② **Optimizing behavior:** Individual decisions are the outcomes of maximizing some objective function subject to constraints.
- ③ **Rational expectations:** Agents do not systematically make avoidable mistakes.
- ④ **Equilibrium:** Markets clear. (Or something like that.)

Are economic agents too rational?

- 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.

Is the Economic Approach Simplistic?

- Human behavior is clearly more complex and less rational than economists assume.
- Why then not make it richer?

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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.

- Why not relax rationality a little bit?

- 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.

- 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?

1 Tractability and correctness

- Economic arguments are complicated - many moving parts.
- Models ensure that arguments are correct.

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.

- 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.

- Economics uses one model to account for a broad range of behaviors.
- We would like to find a model of bounded rationality, but we don't have it yet.
- Use your judgement in applications.