

ECON 312

Intermediate Macro Theory

Advanced Treatment

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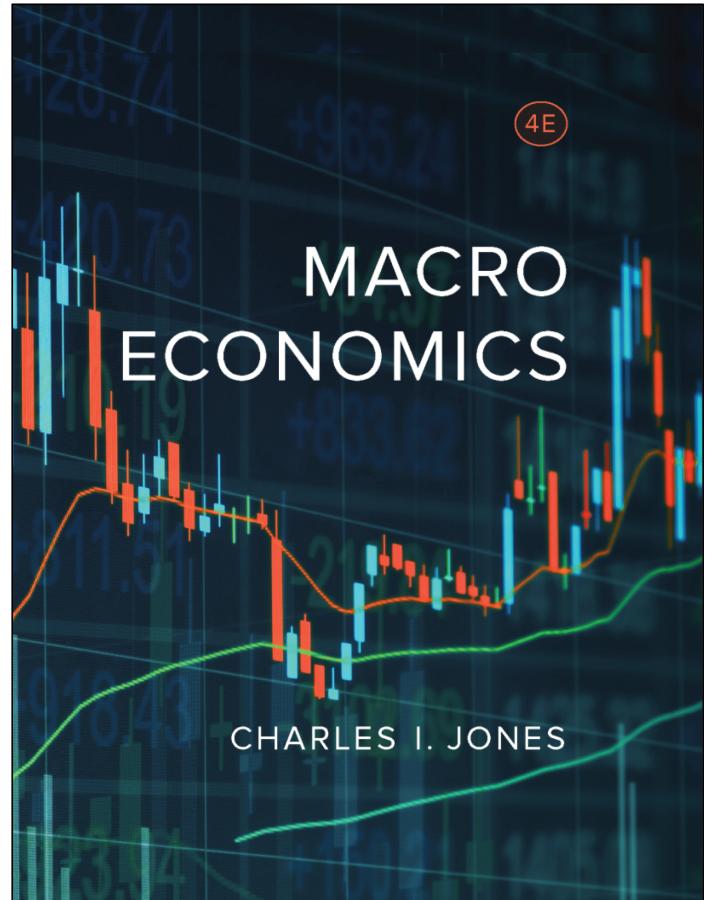
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Chapter 1

Introduction to Macroeconomics

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Revised, Expanded, and Updated by Simeon Alder
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1.1 Introduction

- What is “economics”?
- Why should you study economics? *how → efficient
social welfare*
- Microeconomics vs. macroeconomics

- Micro has long intellectual tradition going back to Adam Smith's "An Inquiry into the Nature and Causes of the Wealth of Nations"
 - Macroeconomics is more recent field of study with foundations laid by John Maynard Keynes and his "General Theory of Employment, Interest, and Money around the time of the Great Depression".

Macroeconomics in the News

Publications with good coverage of the economy (US, global,...):

- The Economist (weekly magazine)
- New York Times (Business / Economy)
- Financial Times
- Wall Street Journal
- Guardian
- Washington Post

Macroeconomics in the News

Radio broadcasts / podcasts:

- Marketplace (NPR): daily 30-minute broadcast
- Planet Money (NPR) – podcast

1.1 Introduction

- In this chapter, we learn:
 - Foundations of macroeconomic models and modeling
 - The three-part structure of the text:
 - The long run (“Growth and Development”)
 - The short run (“Business Cycles”)
 - Trade and Currency (among other topics)

big CS, b

Subfields in Economics

■ Microeconomics:

the study of individual
people, firms, or market behavior

price
equilibrium

■ Macroeconomics:

the study of how the interactions
of people and firms
through markets
affect overall economic
activity.

Some Macroeconomic Questions Worth Asking

- Why is today's average American
 - more than 10 times richer than 100 years ago
 - 50 times richer than the average Ethiopian?
- Do we understand and know the causes of the recent global financial crisis?
- How do prices change over time?
- What characterizes the *Great Depression* and the *Great Recession*?
- What are the causes of income inequality in the US and internationally? What are the consequences of income inequality?

Some Macroeconomic Questions Worth Asking

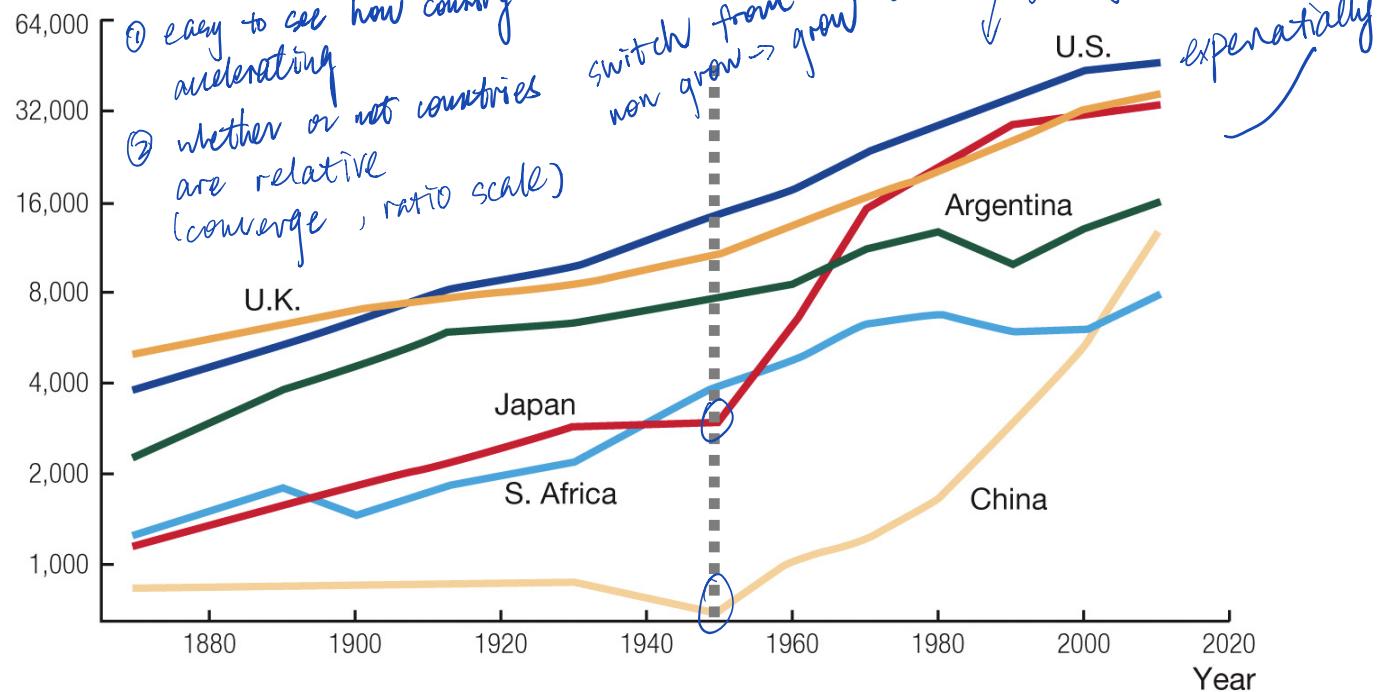
- How do we go about answering questions like these?
- We start with **data** ...
- ... and with **theory** (more on that later).

interpret the data.
connect ⇒
back and forth ⇒

Per Capita GDP in Seven Countries

Per Capita GDP in Seven Countries

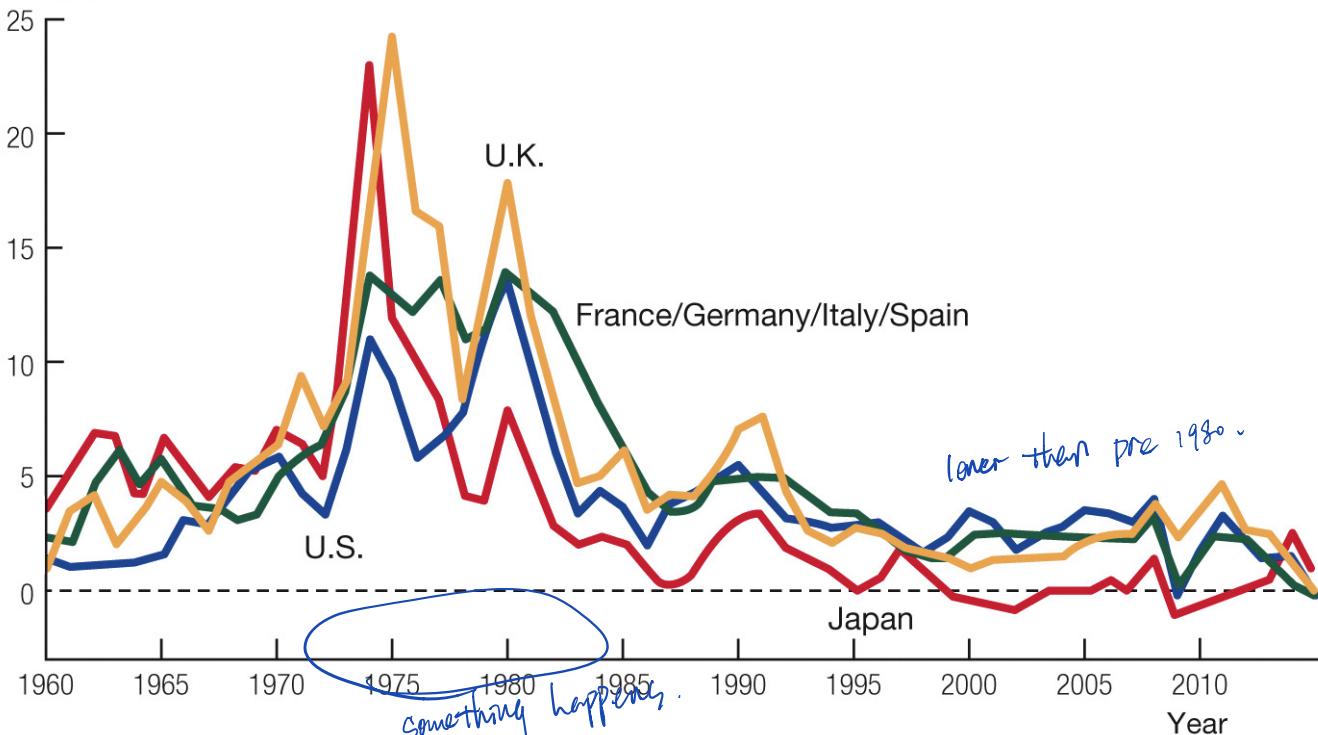
Per capita GDP
(ratio scale, 2009 dollars)



Inflation Rate in Certain Rich Countries

Inflation Rates in Certain Rich Countries

Percent



1.2 How Macroeconomics Studies Key Questions

- Macroeconomists have a general approach to study questions of interest:
 - Document the facts.
 - Develop a model. *fit the properties* ✓ *incomplete / unrealistic.*
 - Compare predictions of the model with original facts.
 - Use the model to make other predictions that will eventually be tested.
- Models
 - *simplify the complicated real world into its most relevant*
 - *useful if it has good predictive power*
 - *often involve systems of multiple equations*

What is a Good Model?

Parts of an Economic Model—1

■ Parameter

- input that is fixed over time, except when the model builder changes it for an experiment.

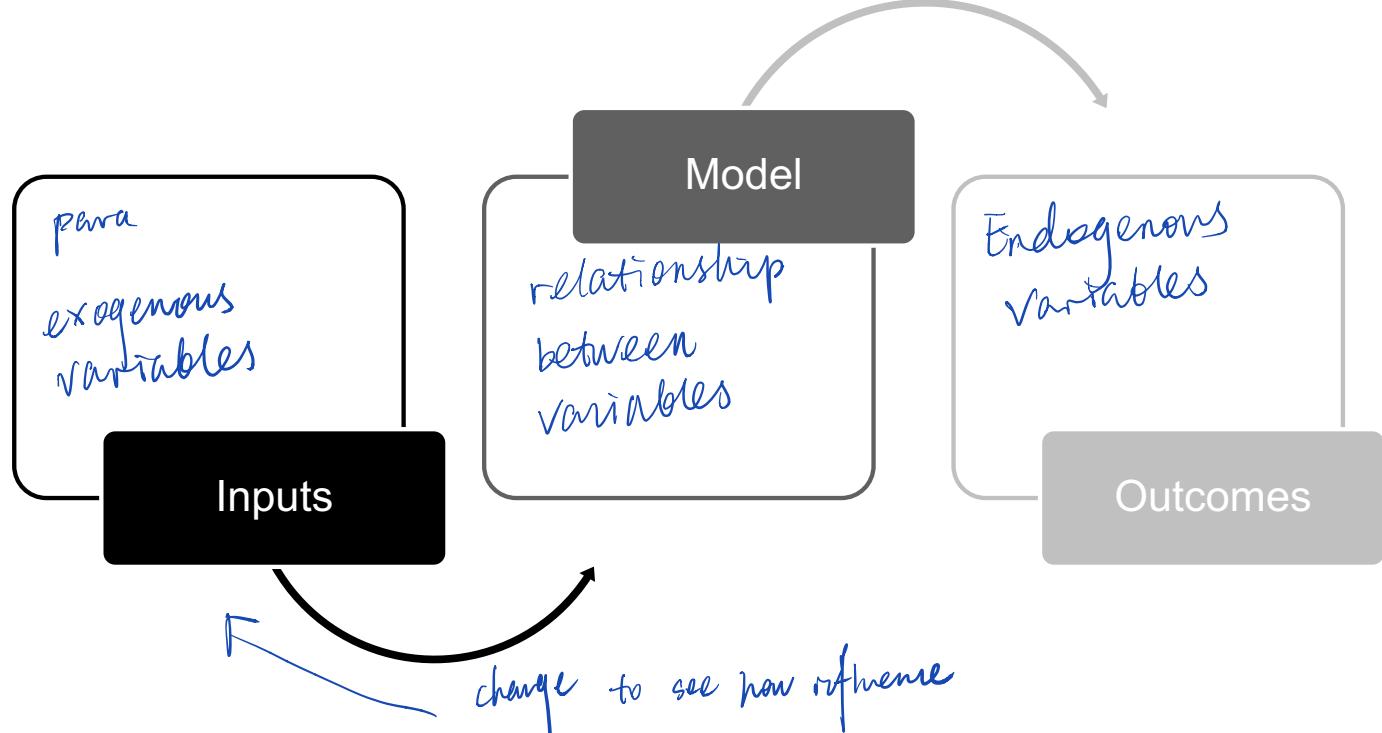
■ Exogenous variable \Rightarrow fit out.

- an input that can change over time, but determined ahead of time by the model builder
- exogenous = "outside of the model".

■ Endogenous variable

- an outcome of the model - something that is explained by the model.
- endogenous = "within the model".

Parts of an Economic Model—2



Suppose We Have a Working Model...

- How can we use it?

- change parameters and exogenous variables to see how they endogenous variable.
 - predict costs and benefits of how new government policies.

e.g. tax.

1.2 Model Example

- Labor supply and demand
- Variables:
 - L_s = number of hours laborers want to work
 - L_d = number of labor hours firms want to hire
 - w = wage
- Parameters: $\bar{f}, \bar{l}, \bar{a}$

Model Example—1

■ Supply Function

- $L_s = g(w)$
- $L_s = \bar{a}w + \bar{l}$ *wage is 0*
- $L_s = 2w + 30$

■ Demand Function

- $L_d = f(w)$ *wage is 0*.
- $L_d = \bar{f} - w$
- $L_d = 60 - w$

Model Example—2

- Supply Function

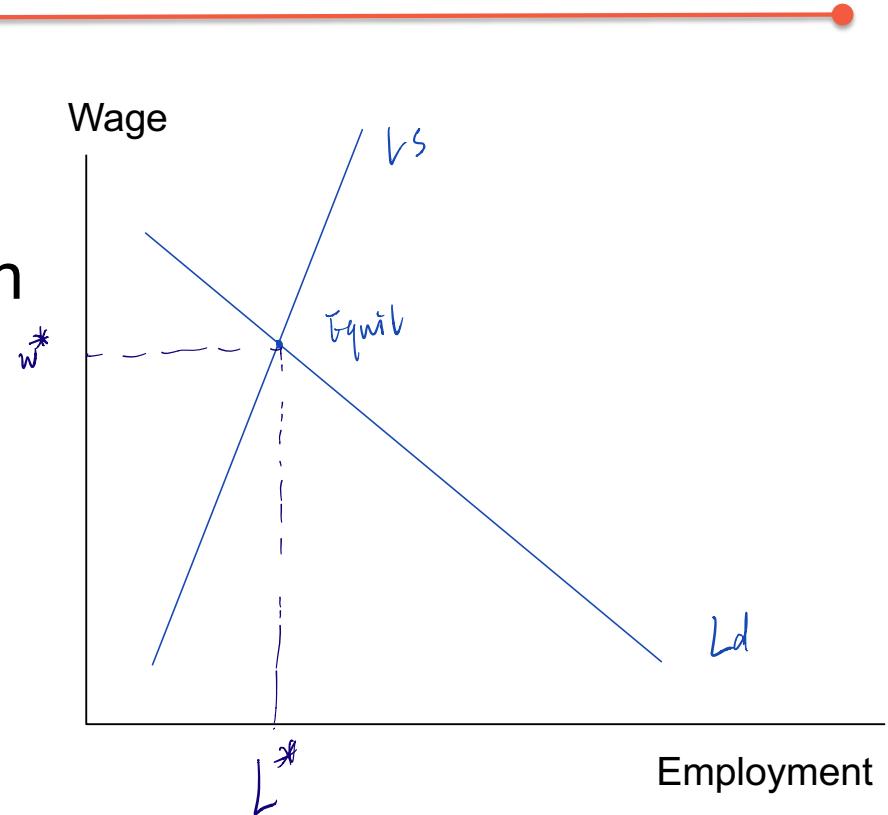
- $L_s = 2w + 30$

- Demand Function

- $L_d = 60 - w$

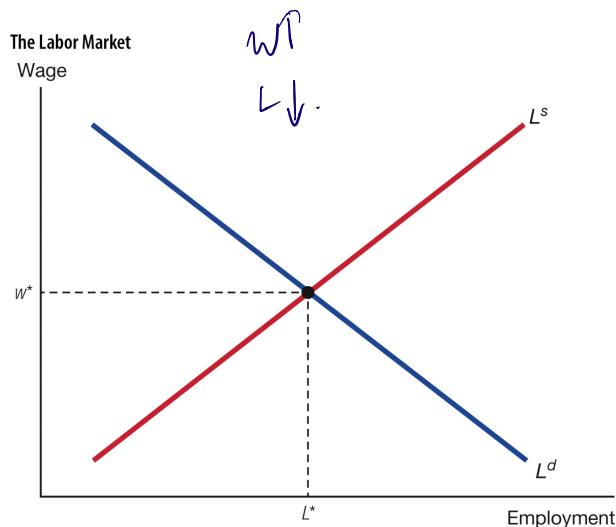
- Equilibrium

- $L_d = L_s$

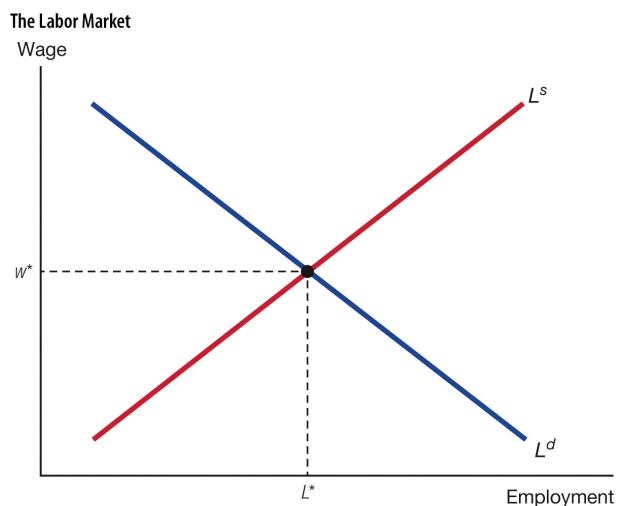


Model Example—3

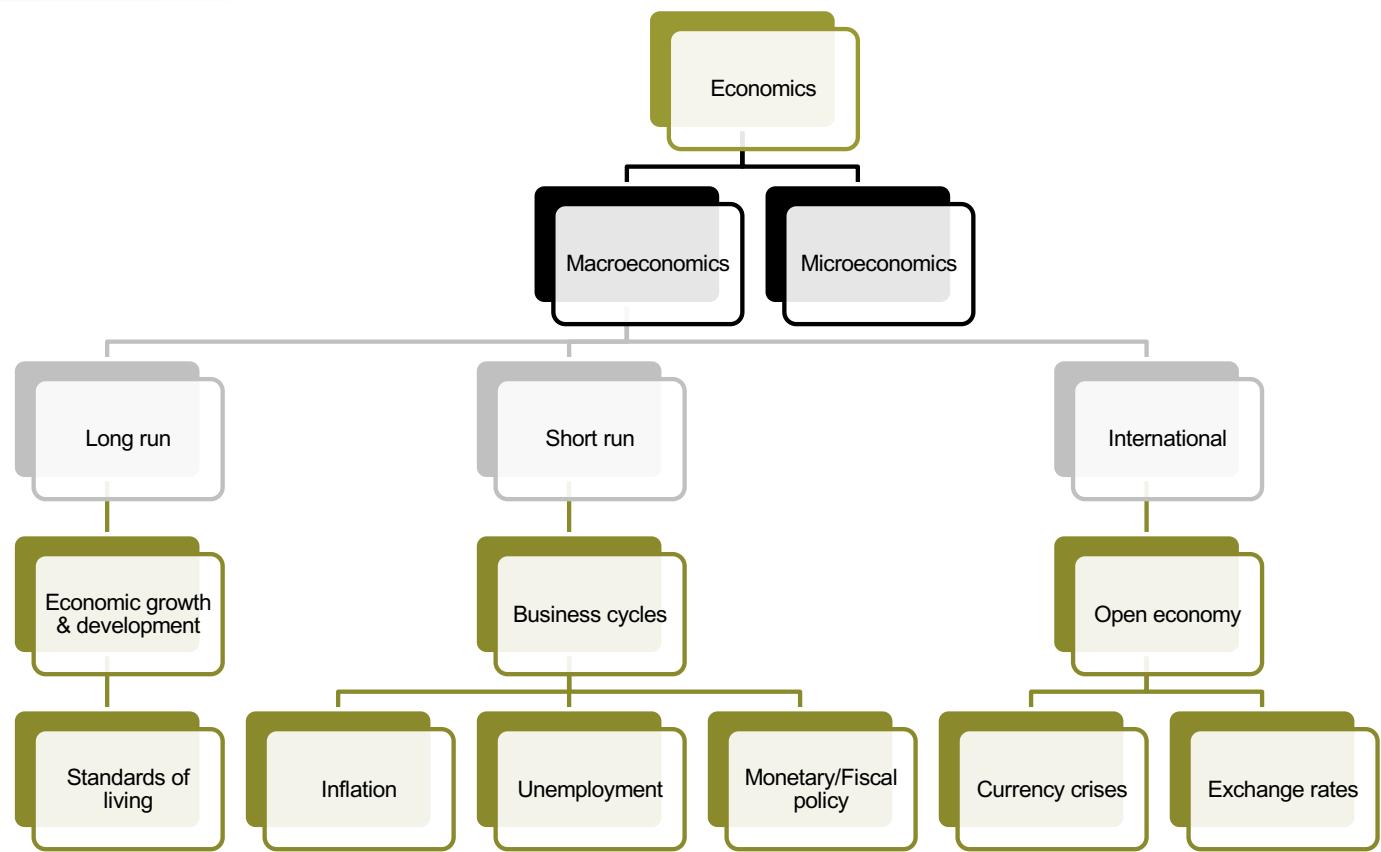
- Increase in income taxes



- Increase in an input price



1.3 An Overview of the Book



An Overview

- In addition to micro vs. macro we can divide economics into "fields" along other dimensions, such as:
 - **Theoretical:** Mathematical models
 - **Empirical:** data analysis using statistical methods
 - Theoretical and empirical methods are not independent, particularly so in modern macroeconomics