Lecture 1: Introduction to Macroeconomics

Prof. Laura Murphy

ECON 101: Intermediate Macroeconomic Theory
Winter 2026

Roadmap for today

1. Introductions
2. Course overview and logistics
3. Introduction to modern macroeconomics: growth and business cycles

About me

- From Toronto, Canada
- PhD in Economics from Northwestern University (2025)
- Joined Economics Department at UCSB July 2025
- Research interests: Macroeconomics, with a focus on labor markets and household finance decisions

Getting in touch

Teaching Assistants

- **Head TA (administrative questions):**
  Rihyeon Kang – rkang@ucsb.edu
- **Section TAs (course content questions):**
  Problem sets, lecture material, and practice problems
- Contact information for all TAs is posted on the syllabus on Canvas.

Instructor

Prof. Laura Murphy – laura_murphy@ucsb.edu
(Note: not lauramurphy@ucsb.edu)

Course logistics: problem sets

Problem Sets

20% of final grade

- Seven problem sets
- Due Thursdays at 11:59PM via Gradescope
- Best 5 count; no late submissions

Details are on the syllabus on Canvas.

Course logistics: exams

Exams

Two midterms + final

80% of final grade

- **Two midterms and a final**
  - Midterm 1: Jan. 29
  - Midterm 2: Feb. 26
- **Exam grading rule**
  - Best exam counts 35%
  - Middle exam counts 25%
  - Lowest exam counts 20%

All exam details and policies are listed on the syllabus on Canvas.

How learning works in this class

Lectures

Introduce concepts

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TA Sessions

Introduce applications

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Problem Sets & Practice Problems

Practice and check understanding

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Midterms / Final

Test understanding

Advice

Spend time on problem sets and TA sessions.

- Problem sets and TA sessions focus on applications.
- Lectures focus on concepts.
- Both are important, but exams emphasize applications.

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Use AI as a tutor, not someone to copy from.

- "Explain why this is the answer using economic intuition."
- "Walk through the logic step-by-step."
- "Generate new practice problems testing the same concept."

Advice

Don't panic about the math.

- Math is a tool to think about economic concepts more clearly.
- Focus on the economic intuition behind the models.
- Always translate equations back into words.

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Be proactive. If you feel lost, contact me. I can only help if you ask.

Why Macroeconomics?

- Microeconomics studies **individual decisions and markets**
  - Why are some goods expensive?
  - How do people choose occupations? Education?
  - Why do firms produce one good rather than another?
- These questions focus on **individual agents in isolation**
- Macroeconomics studies what happens when **many decisions interact**
- This interaction shapes **growth, recessions, and living standards**

Micro vs. Macro

- **Microeconomics:** studies individual agents and markets
  - Households
  - Firms

- **Macroeconomics:** studies outcomes at the level of the entire economy
  - Economic growth and living standards
  - Booms, recessions, and unemployment

Macroeconomics also studies topics such as aggregate inequality, public debt, inflation, and economic crises.

How micro and macro are connected

- Households and firms make **individual decisions**
- These decisions interact in **markets**
- When decisions are **aggregated**, they generate economy-wide outcomes
  - GDP and income
  - Employment and unemployment
  - Economic growth and recessions

Two core objects of study in macro

Macroeconomics

Two central questions

- **Long-run economic growth:** why living standards rise (or stagnate)
- **Business cycles:** why economies fluctuate (booms and recessions)
- Growth is the *trend*; cycles are the *wiggles around the trend*

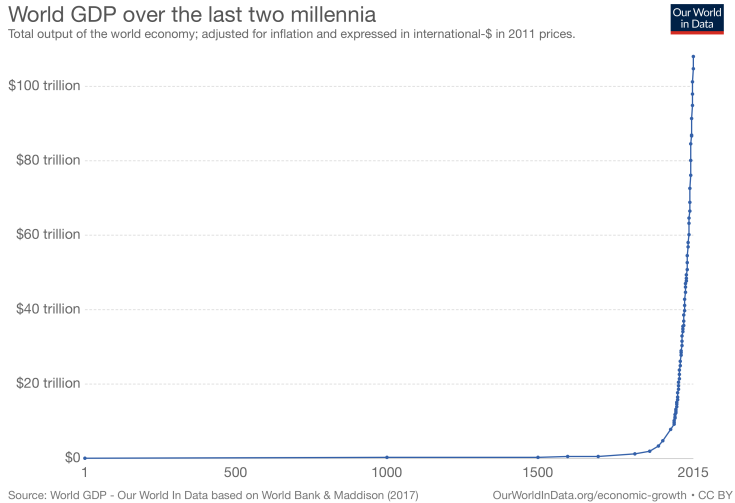
How macroeconomics answers these questions

- The economy is complex: many agents, many interactions
- To understand it, economists use **models**
- A model is a **simplified representation** designed to answer a specific question

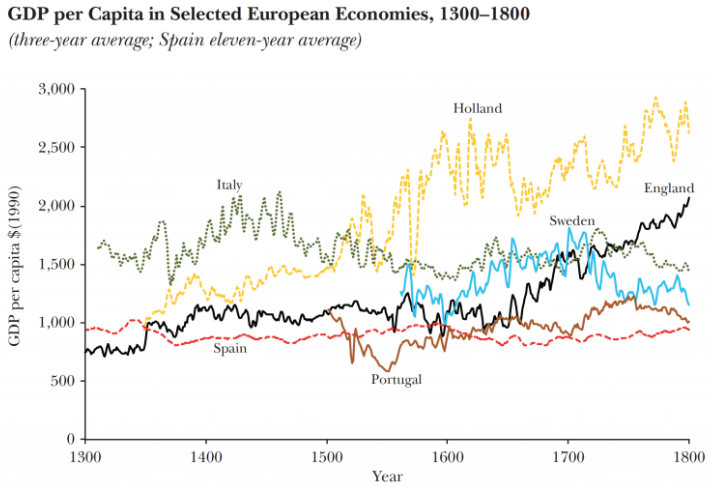
Why use models?

- Make assumptions explicit
- Clarify cause and effect
- Answer counterfactual questions (*what would happen if. . . ?*)

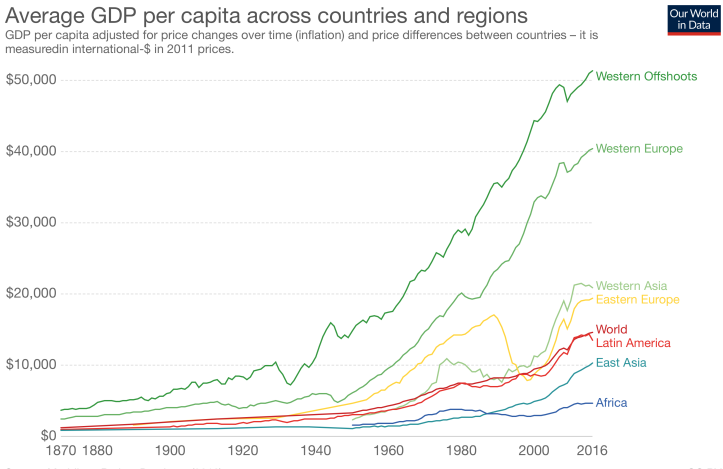
Long-run growth



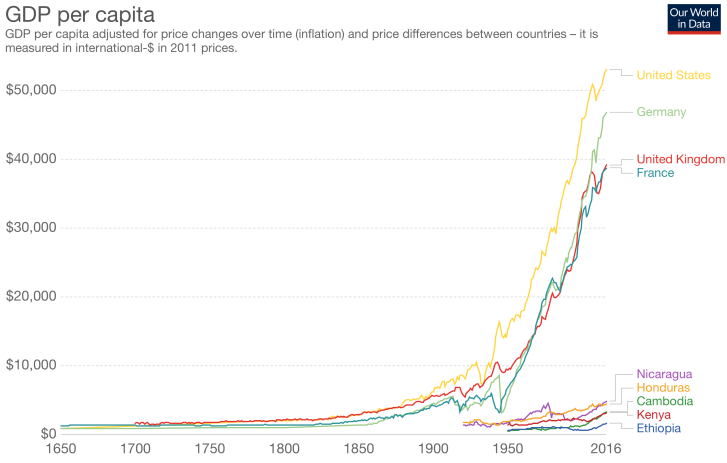
Unsustained economic growth



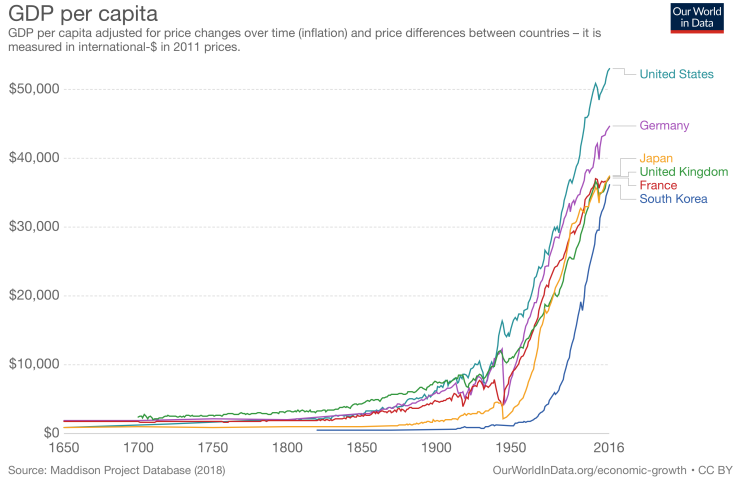
Sustained economic growth



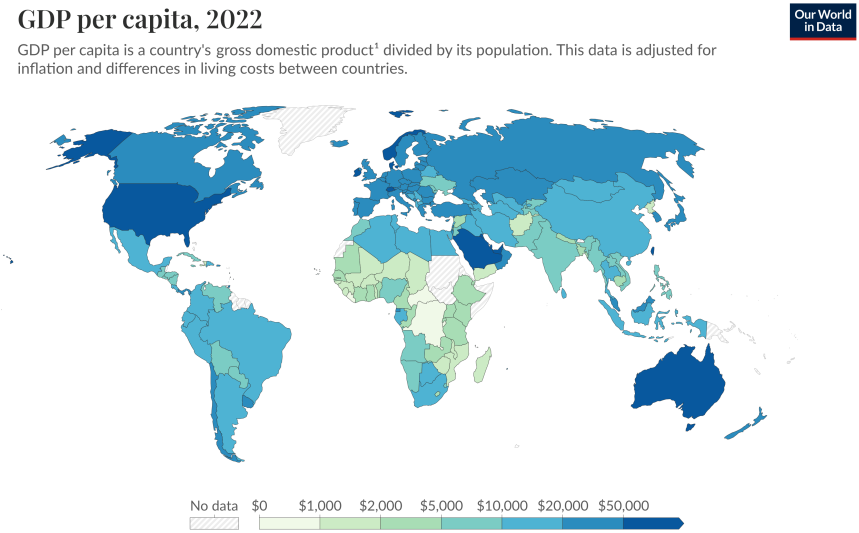
Divergence in *levels*



Catch-up in levels



GDP per capita around the world today



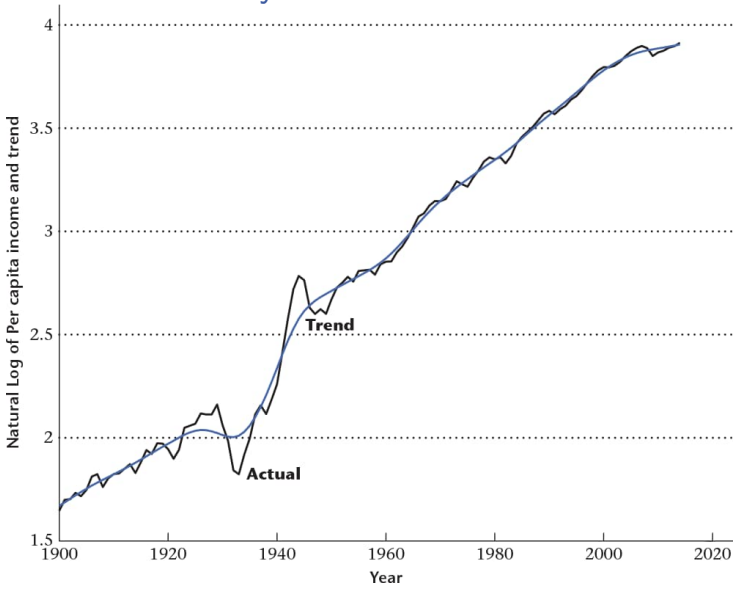
Economic growth over time

- Before the 19th century, most countries had relatively similar (low) income levels
- Over the last 200 years, incomes rose dramatically in some places but much less in others
- *One goal of growth theory: explain both the takeoff and the cross-country gaps*

From growth to business cycles

- Even in a growing economy, **output does not rise smoothly**
- We see **recessions** (downturns) and **booms** (upturns)
- **Business cycle analysis** studies these short-run fluctuations and their consequences

Long-run growth vs business cycles



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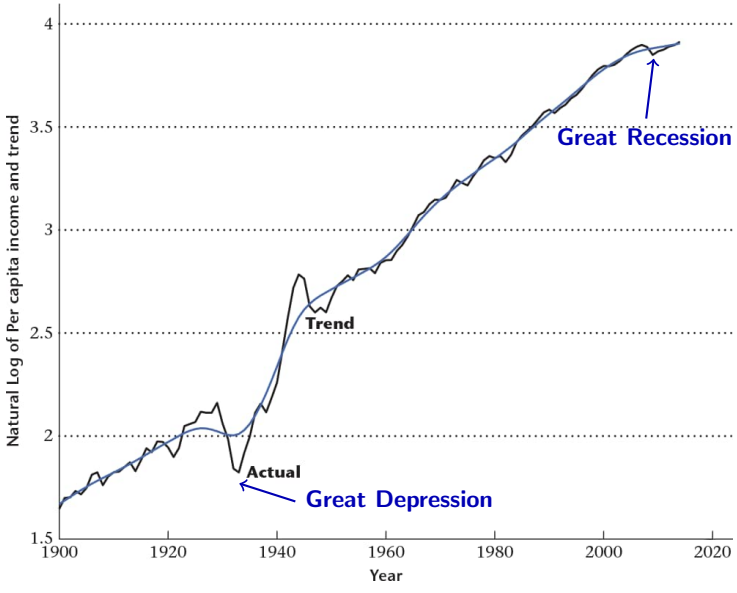

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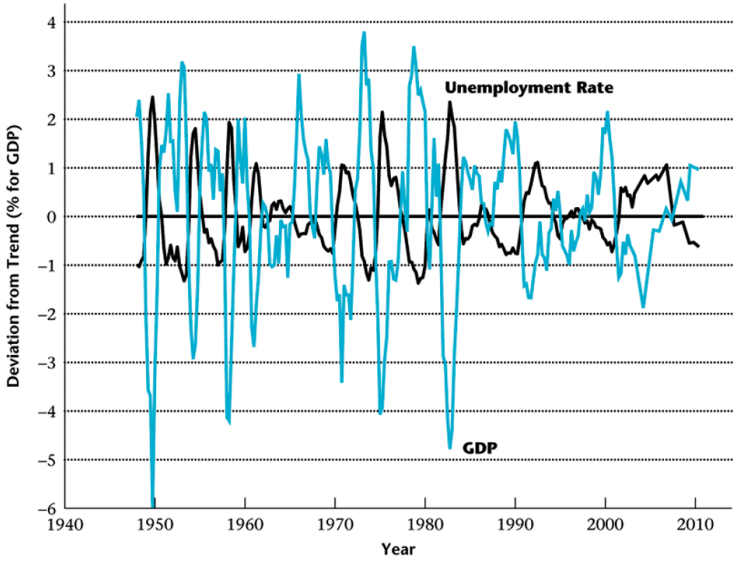

Business cycles: what moves together?

- Business cycles are **economy-wide fluctuations** around the long-run growth trend
- In recessions:
  - **Output (GDP) falls below trend**
  - **Unemployment rises**
- Many macro variables **co-move**: employment, investment, incomes, and often inflation
- *A goal of business cycle theory: explain these co-movements and evaluate policy tradeoffs*

Business cycles: effects beyond employment

- Business cycles affect more than jobs and unemployment

- **Earnings and income risk**
  - Wages fall or grow more slowly
  - Hours worked decline even for the employed

- **Long-run career and life outcomes**
  - Graduating in a recession lowers earnings for many years
  - Early-career shocks can permanently affect career paths

- **Consumption and inequality**
  - Households cut consumption, especially when credit-constrained
  - Recessions often widen inequality

How this course is organized

Part I: Economic Growth

- Measuring the macroeconomy
  GDP, CPI, etc.
- Long-run facts
  income levels, growth rates
- Growth models - Malthus & Solow
- Cross-country differences

Part II: Business Cycles*

- Business cycle measurement
- Facts about fluctuations
- One-period model
  Labor market and production decisions
- Two-period model
  Consumption/saving and investment

By the end of this course, you should be able to...

- **Measure** macroeconomic activity (GDP, inflation, unemployment, etc.)
- Know key **facts** about long-run growth and business cycles
- Use **benchmark models** to explain facts and explore mechanisms

Next class

Measuring the Macroeconomy