Course Overview

EC502 Macroeconomics
Topic 0

Masao Fukui

2024 Spring

Course Logistics

- Lecture:
  - Tuesdays, Thursdays, 2:00-3:15pm, in SAR 103
  - No class on April 18
- Instructor:
  - Masao Fukui (mfukui@bu.edu)
  - Office hours: Tue 3:30-5pm in SSW Room 400
- TA:
  - Pengyue Zhu (pyuzhu@bu.edu)
  - Office hours: Fri 4:30-5:45 in SSW B17 whenever there is no section
- Sections:
  - Dates: Jan 26, March 1, April 26 (and possibly more)
  - Fri 4:30-5:45pm in EPC 207

Course Logistics

- Textbooks:
  - Charles I. Jones, “Macroeconomics,” W. W. Norton & Company
  - David Romer “Advanced Macroeconomics,” McGraw Hill
- Grades:
  - 40% midterm exam: held in class on **March 7**
  - 40% final exam: time and location TBD by the BU Registrar
  - 20% problem sets
- There will be several problem sets
  - Grading based on three scales: ✓+, ✓, ✓−
  - Strongly encouraged to work in a group
  - Strongly encouraged to write it up electronically
  - The first problem set is already posted. Due Feb 1

Course Outline

What is macroeconomics? – Study of economic aggregates!

1. The long-run
   - Why are some countries richer than others?
   - Why do economies grow?
   - Why do some countries work more than others?
   - What determines inequality?
2. The short-run
   - What causes recessions and booms?
   - What determines inflation?
   - How do monetary policies affect the real economy?
   - Why do financial crises happen?
   - Why does unemployment rise during recessions?

Approach

1. Document the facts
2. Develop a model
3. Compare the predictions of the model with the original facts
4. Use the model to make other predictions that may eventually be tested

What is GDP?

What is GDP?

- What is Gross Domestic Product (or GDP)?
  GDP is the market value of the final goods and services produced in an economy during the year.
- Three equivalent ways to measure GDP:
  1. Production
  2. Expenditure
  3. Income
- In 2022, U.S. GDP = $25 trillion, or $76,000 per person (current $).

National Income Identity

$$Y = C + I + G + NX$$

Y: GDP

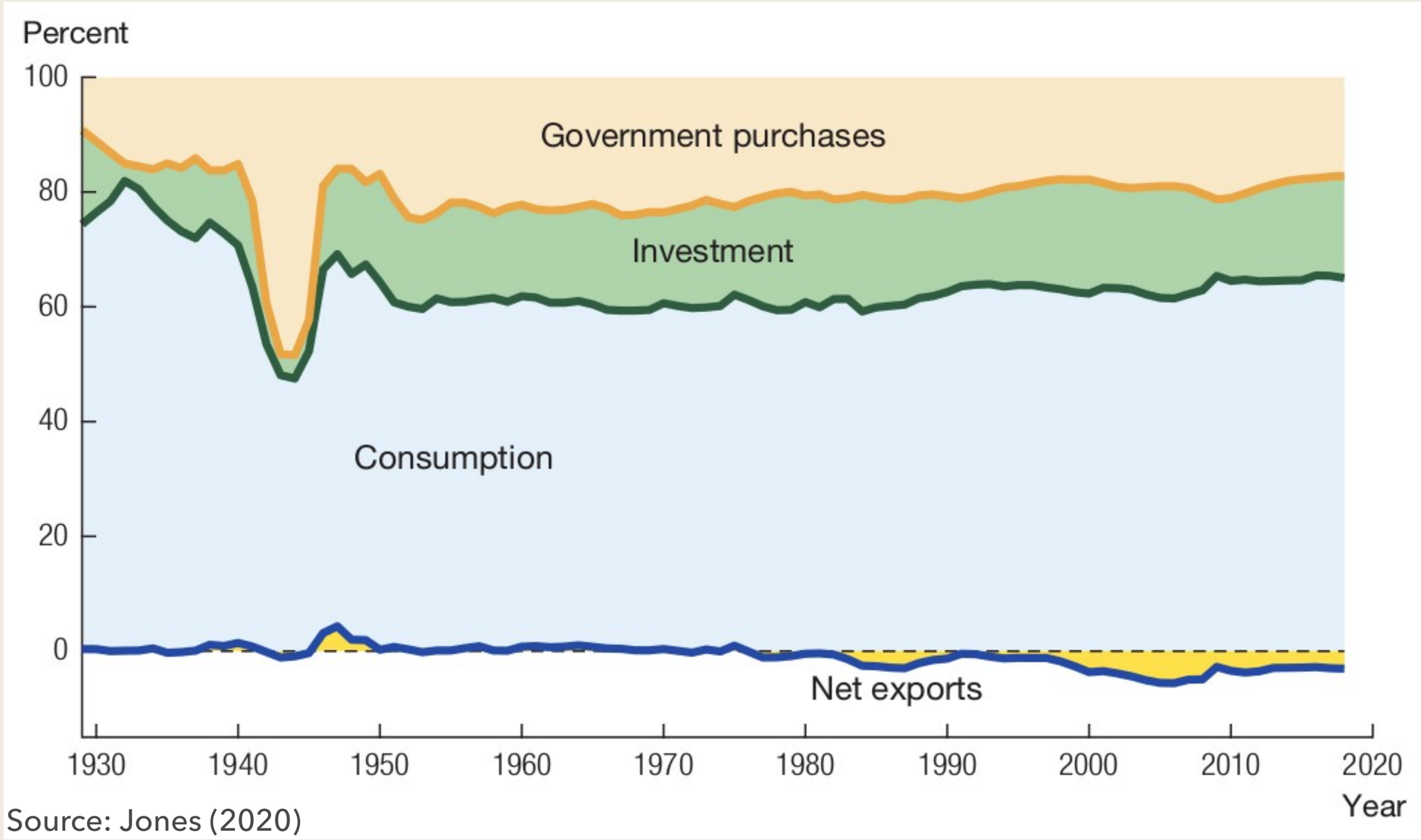
C: Consumption

I: Investment

G: Government expenditure

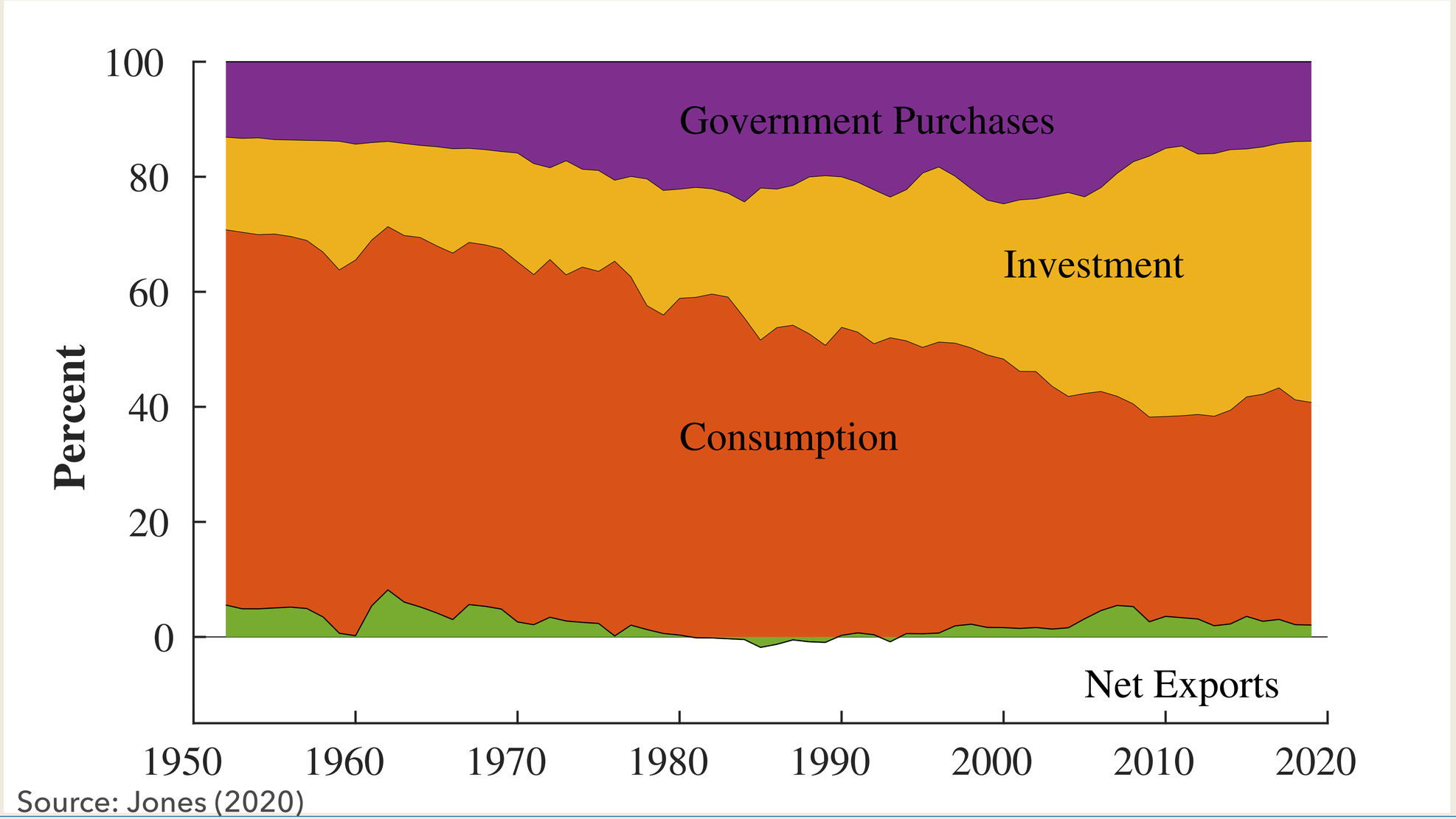
NX: Net exports = exports - imports

The Composition of U.S. GDP



Source: Jones (2020)

The Composition of China's GDP



Source: Jones (2020)

Real vs Nominal GDP

- GDP in 2022 was $25 trillion, in 1995 was $7.4 trillion.
- How much is more goods and services, and how much is higher prices?

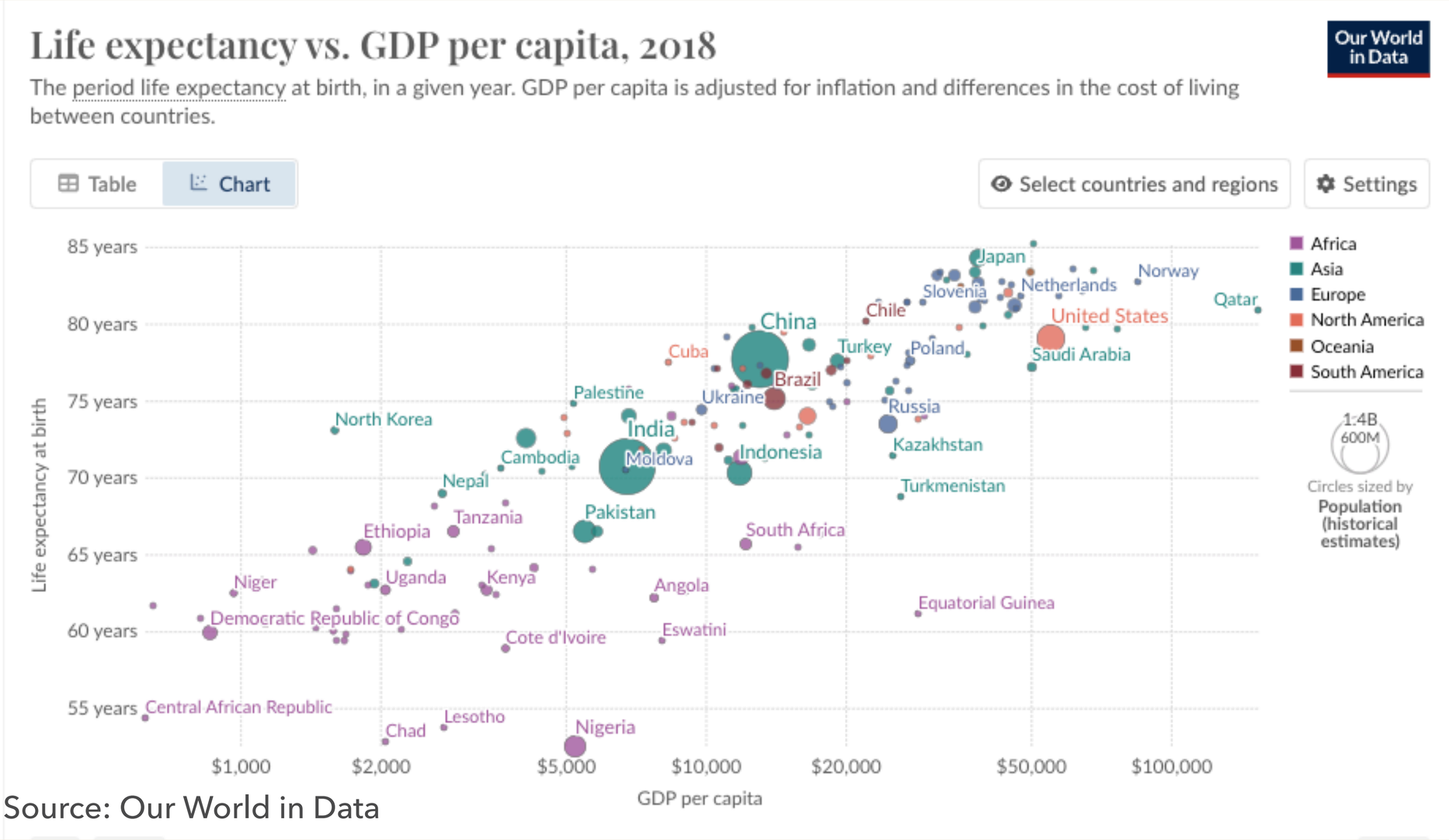
$$\text{Nominal GDP} = \text{Price level} \times \text{Real GDP}$$

  - Nominal GDP = Value in current dollars
  - Price Level = Price index
  - Real GDP = Quantity of goods and services
    – e.g. “in 2012 dollars” or “in constant prices”

Why Do We Care GDP?

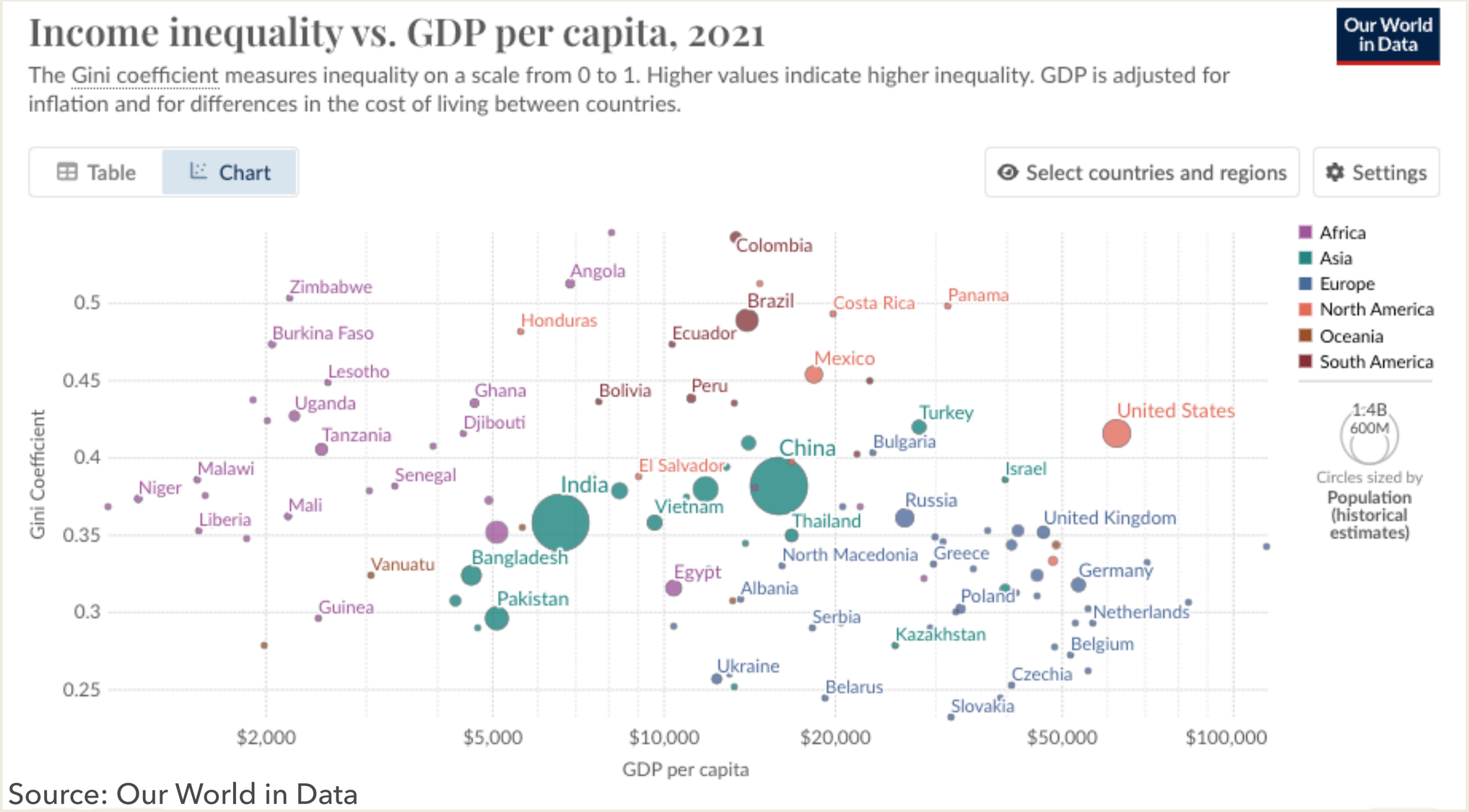
- Presumably, we care about human welfare rather than GDP
- But GDP is measurable and objective
  - Much less clear how we measure “human welfare” objectively
- Moreover, GDP correlates with other measures of welfare
  - Life expectancy
  - Leisure
  - Lower inequality
  - Self-reported life satisfaction!

Life Expectancy and GDP



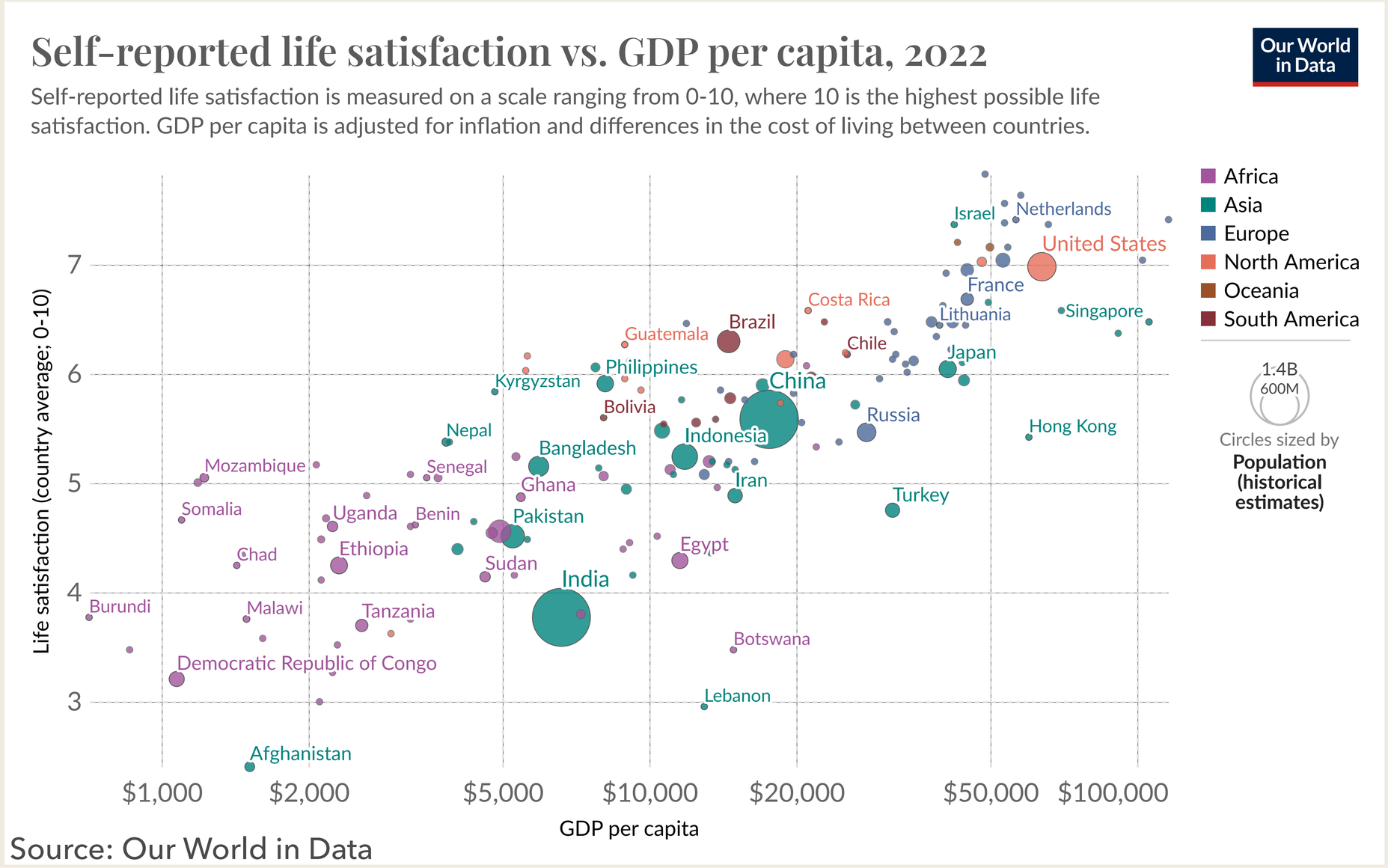
Source: Our World in Data

Income Inequality and GDP



Source: Our World in Data

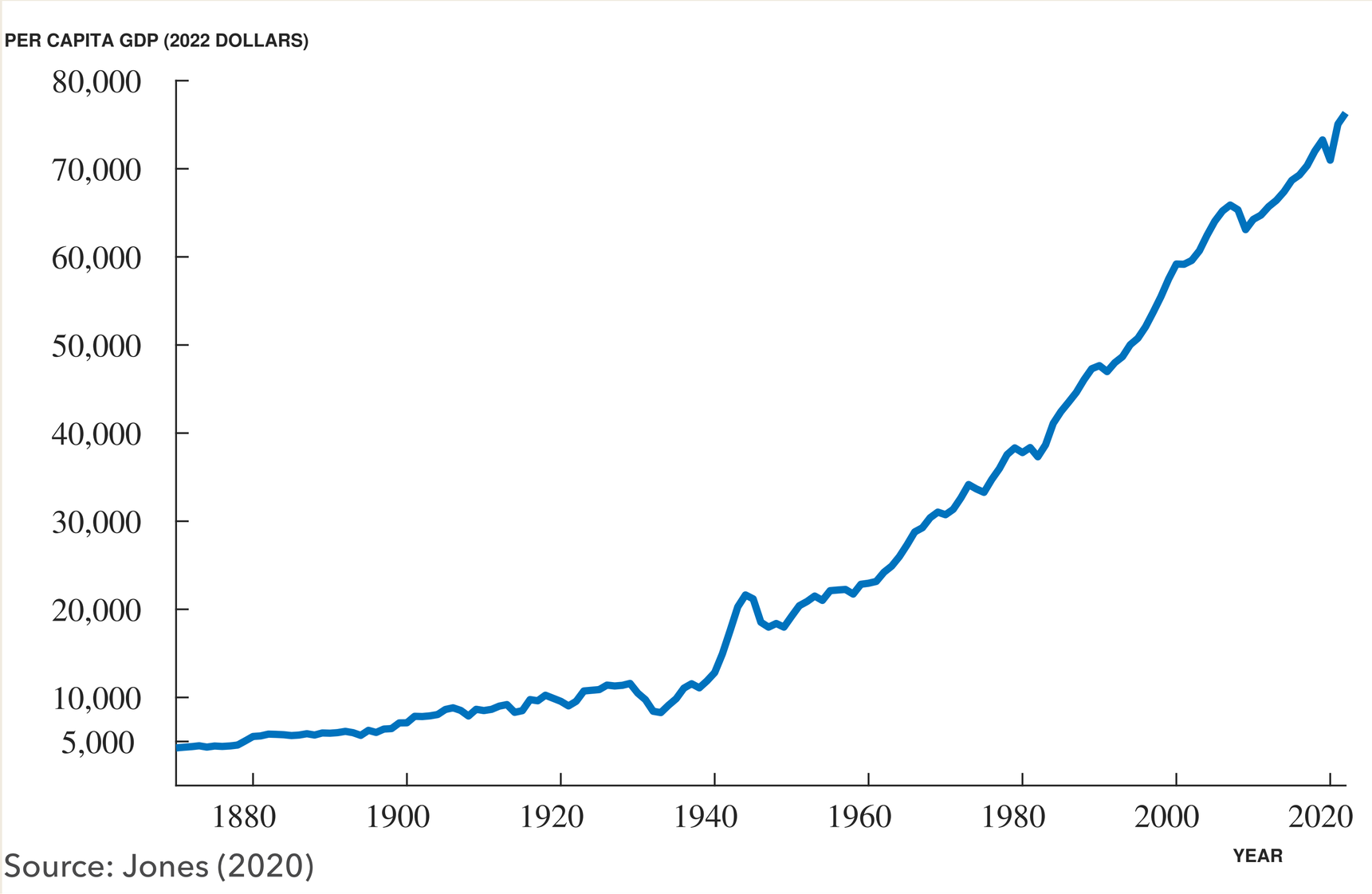
Life Satisfcation and GDP



Source: Our World in Data

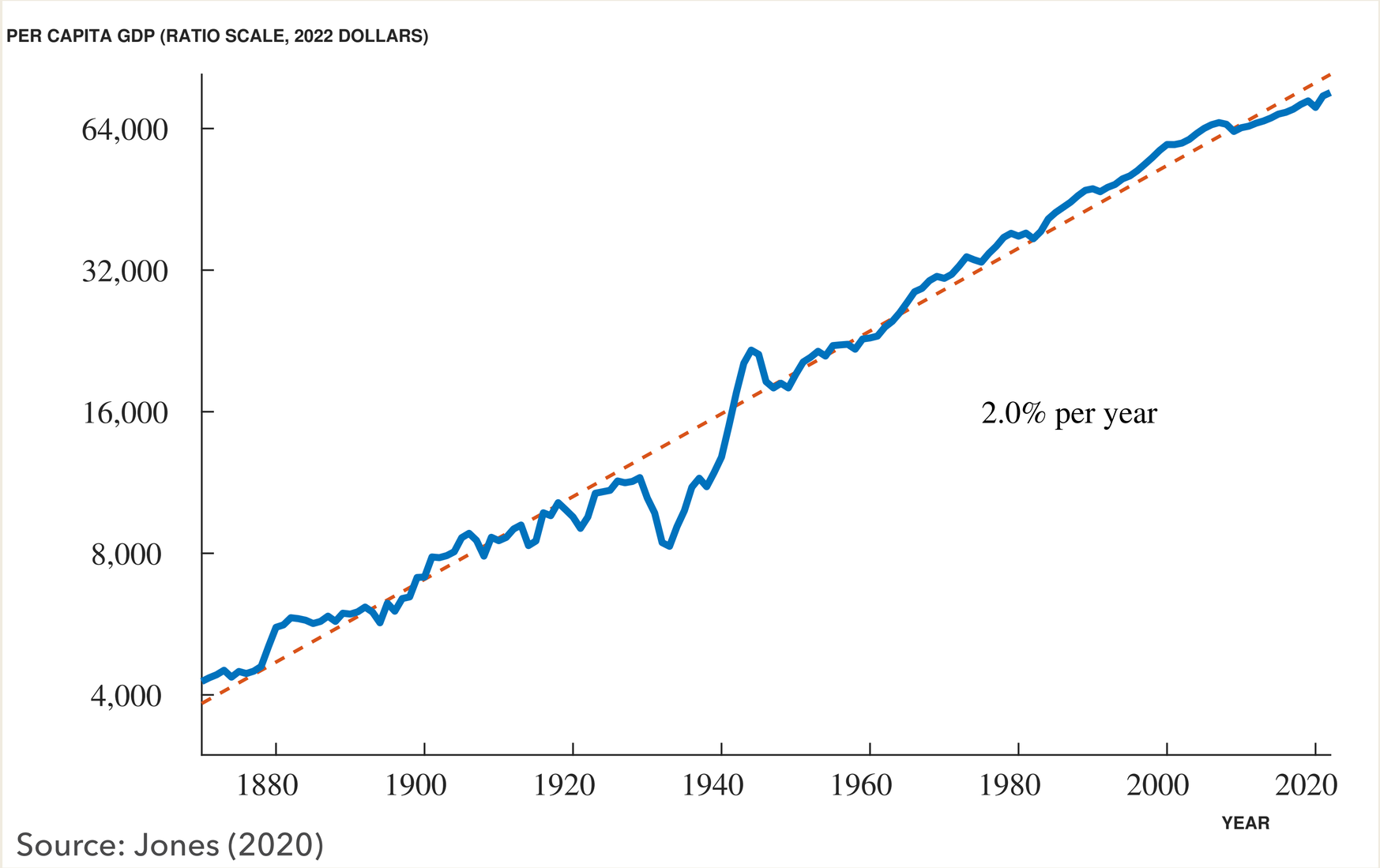
The Macroeconomics of the Long-Run

U.S. GDP per capita



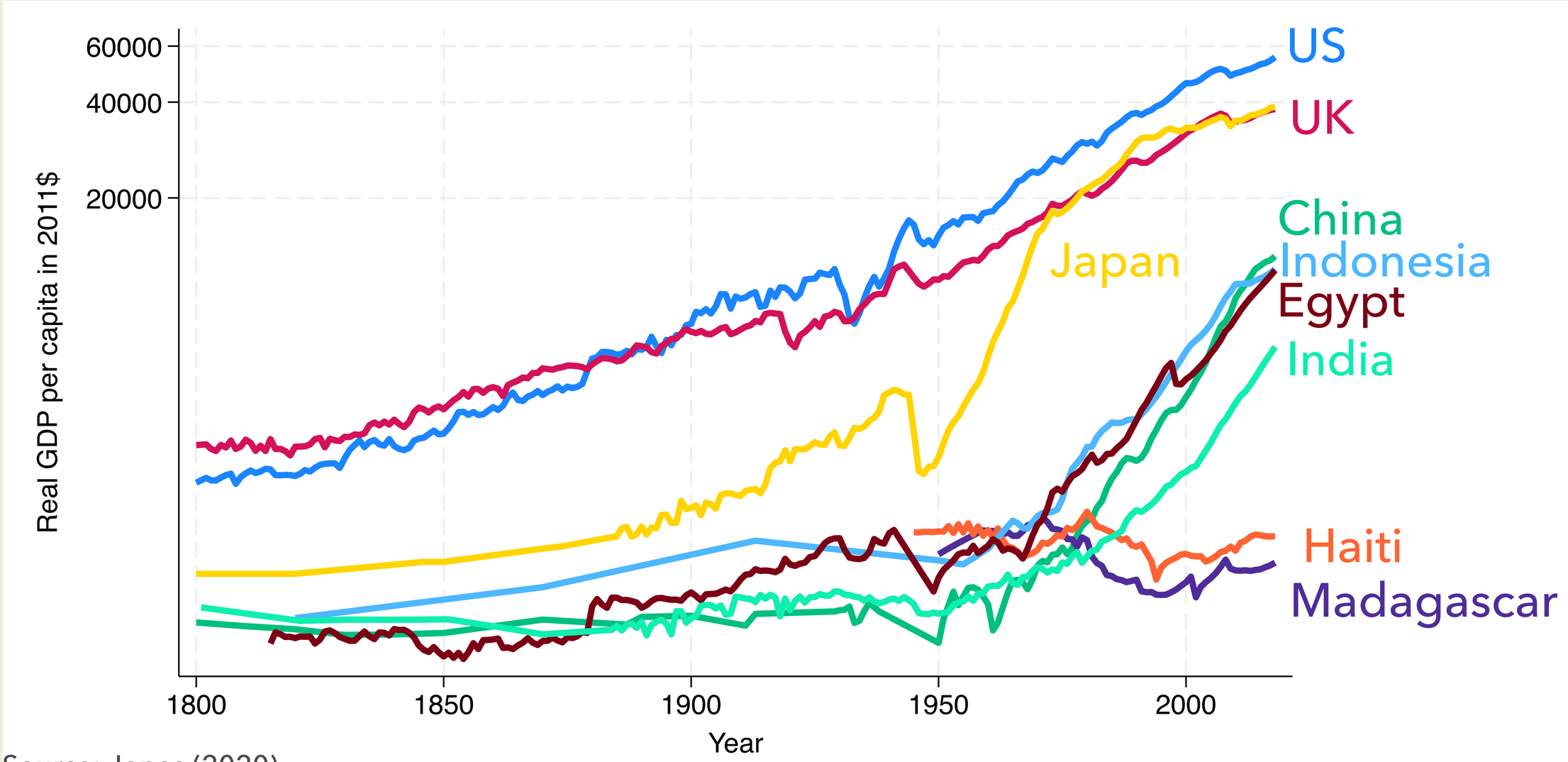
Source: Jones (2020)

U.S. GDP per capita in Log Scale



Source: Jones (2020)

Different Countries, Different Paths



Source: Jones (2020)

Famous Lucas Quotation

I do not see how one can look at figures like these without seeing them as representing possibilities. Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, what exactly? If not, what is it about the "nature of India" that makes it so? The consequences for human welfare involved in questions like these are simply staggering: Once one starts to think about them, it is hard to think about anything else.

— Robert E. Lucas, Jr., 1995

The Macroeconomics of the Short-Run

Famous Keynes Quotation

But this "long run" is a misleading guide to current affairs. "In the long run" we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again.

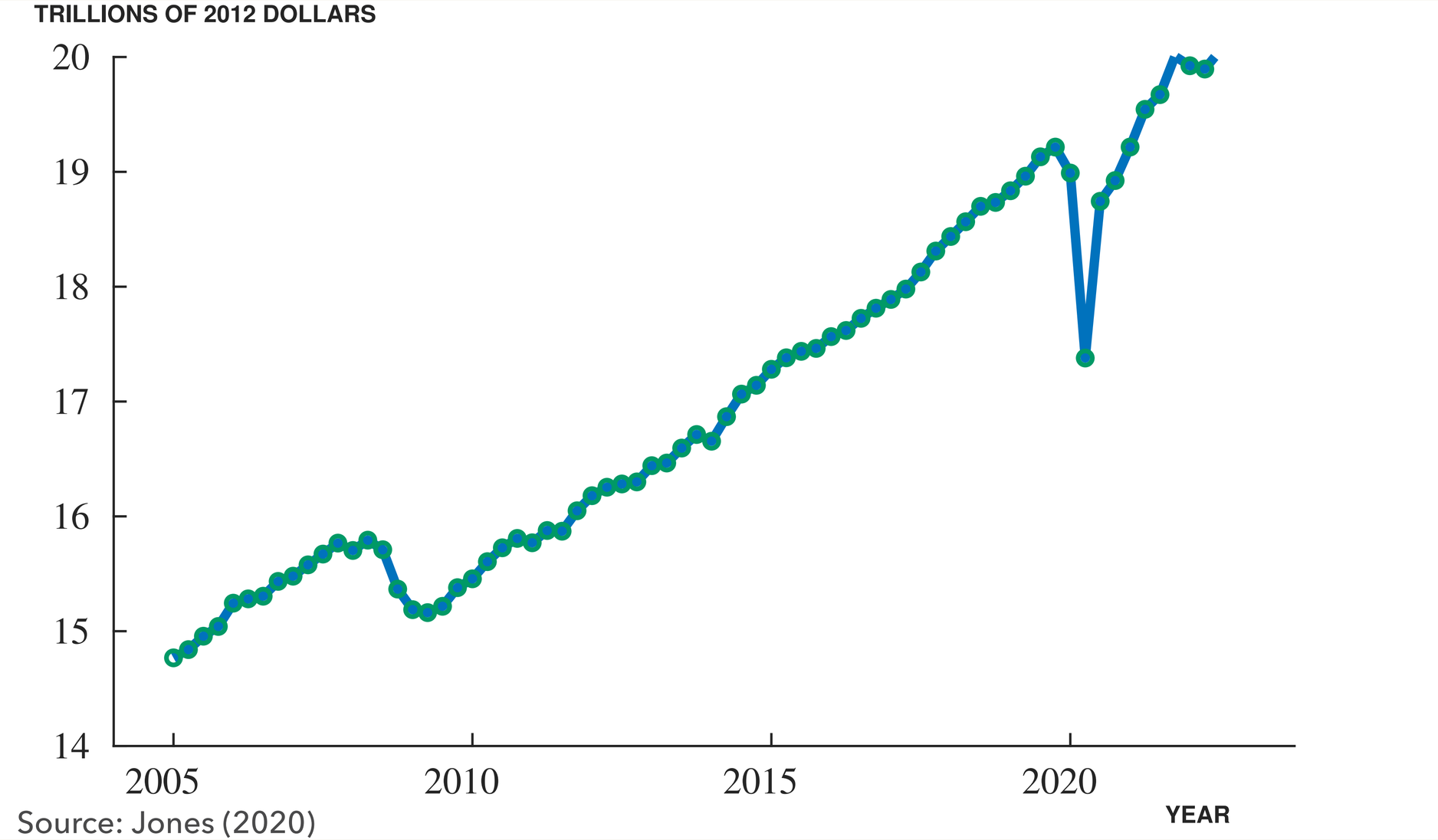
— John Maynard Keynes, 1923

Macroeconomics in the Short-run

In the second half of the course, we will talk about

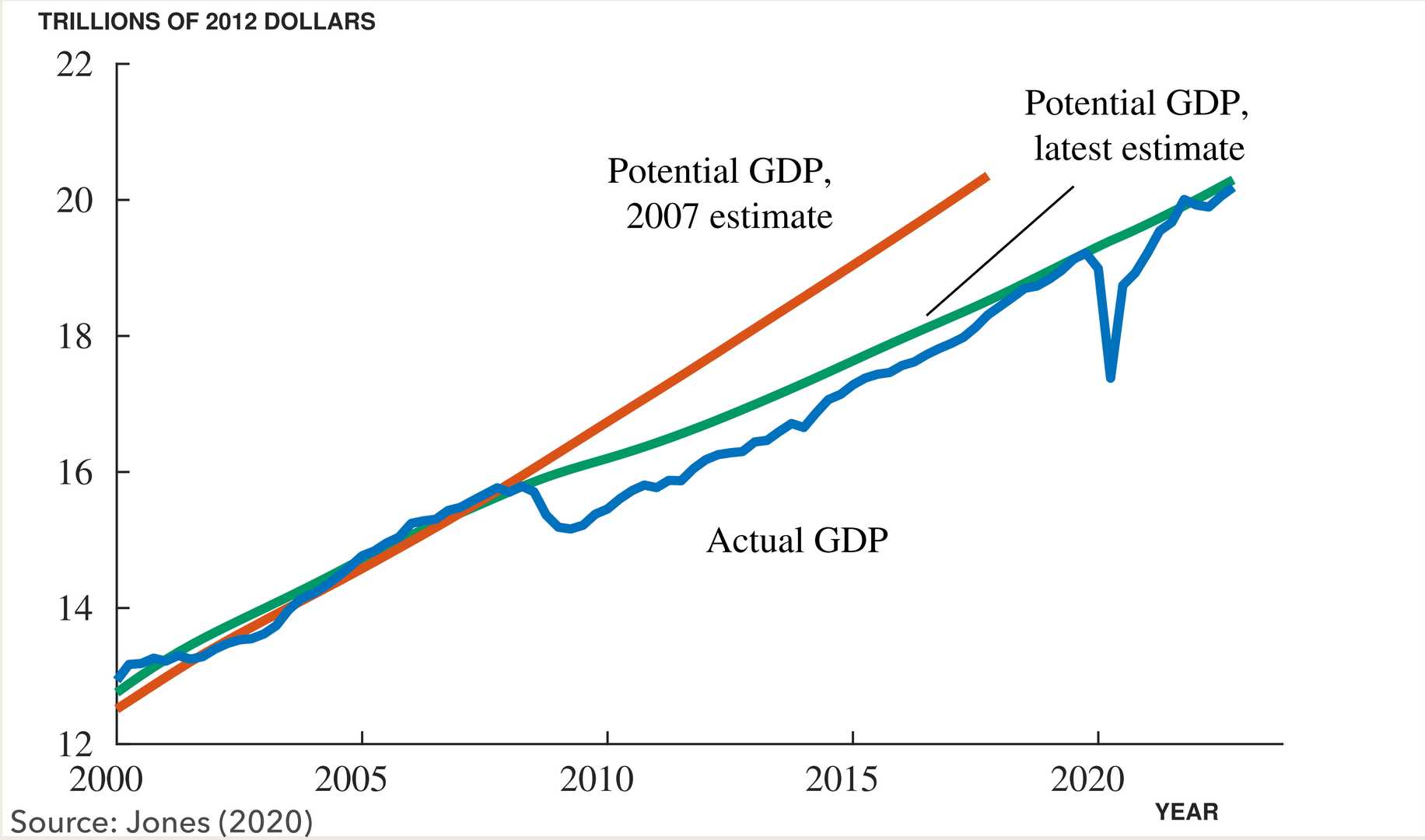
- Booms and recessions
- Unemployment
- Inflation
- Monetary and fiscal policy
- Financial crises

U.S. Real GDP in Recent Years



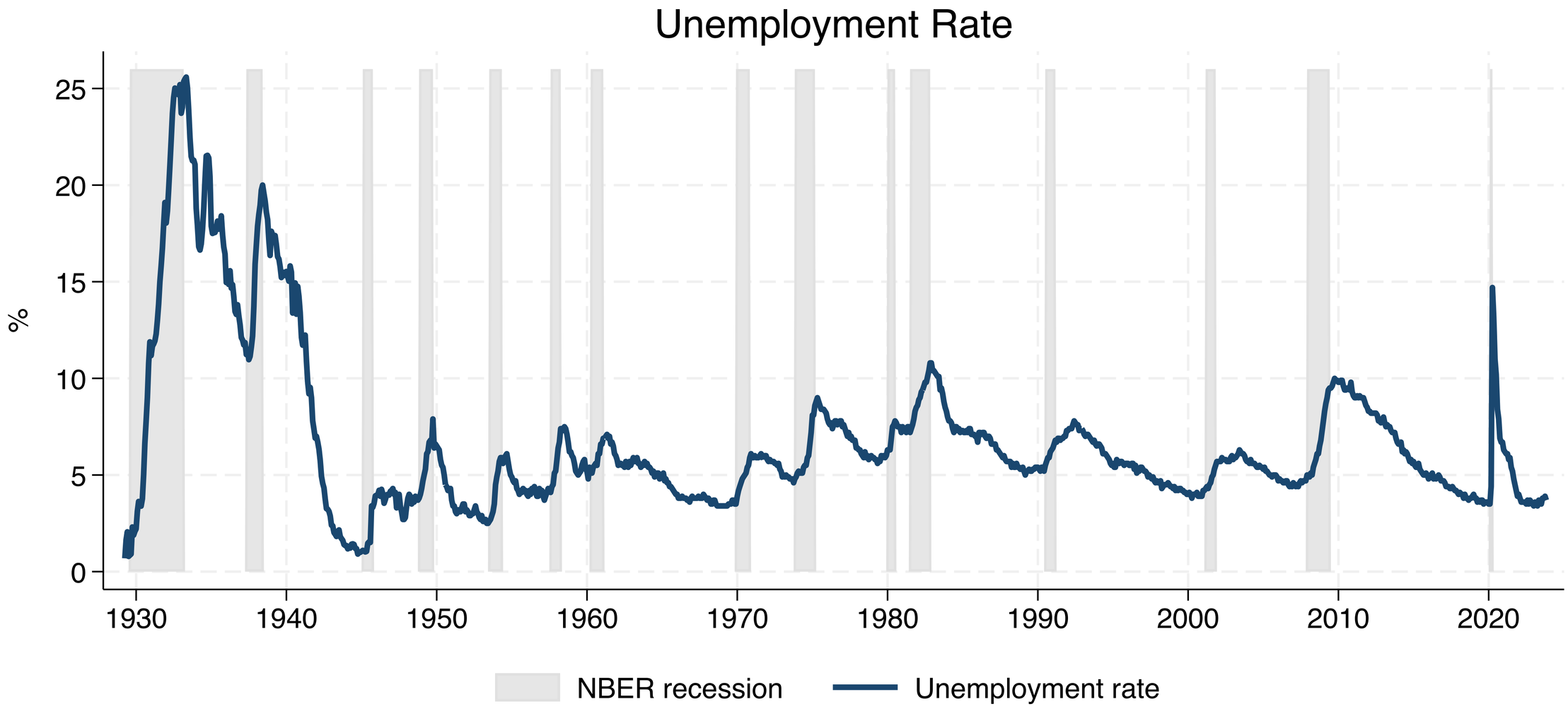
Source: Jones (2020)

U.S. Real GDP in Recent Years



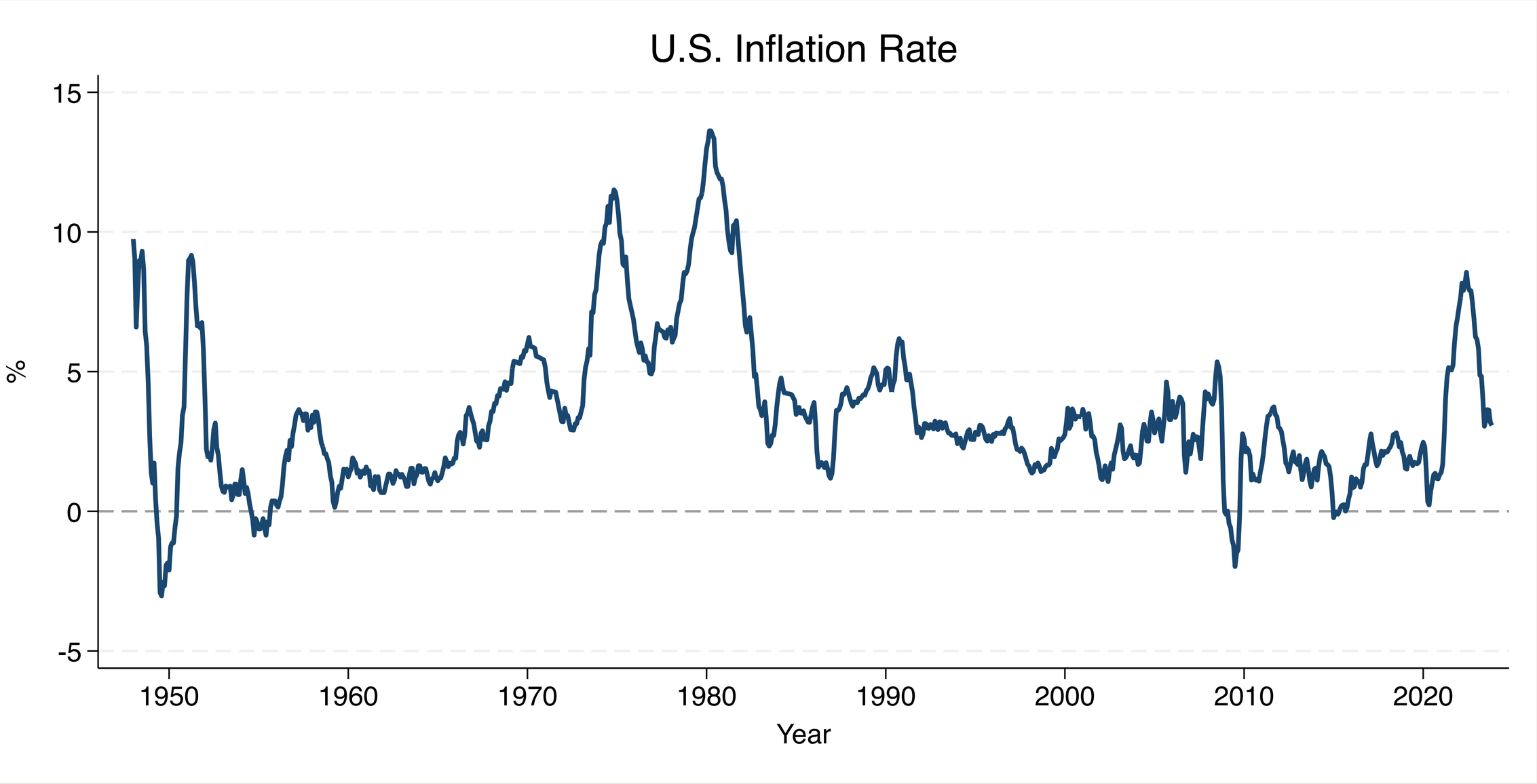
Source: Jones (2020)

U.S. Unemployment Rate

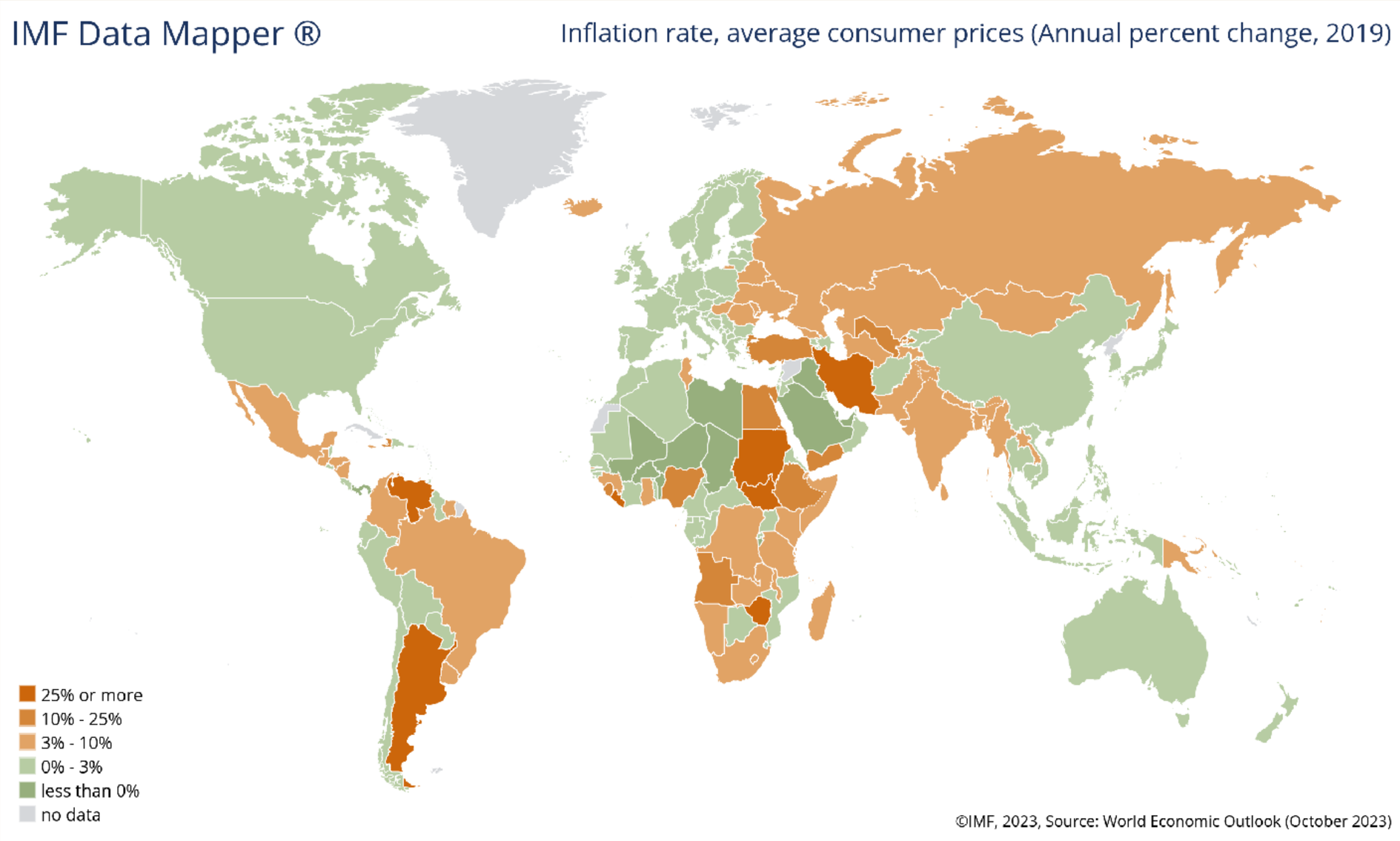


Data: NBER Macro History Database and CPS

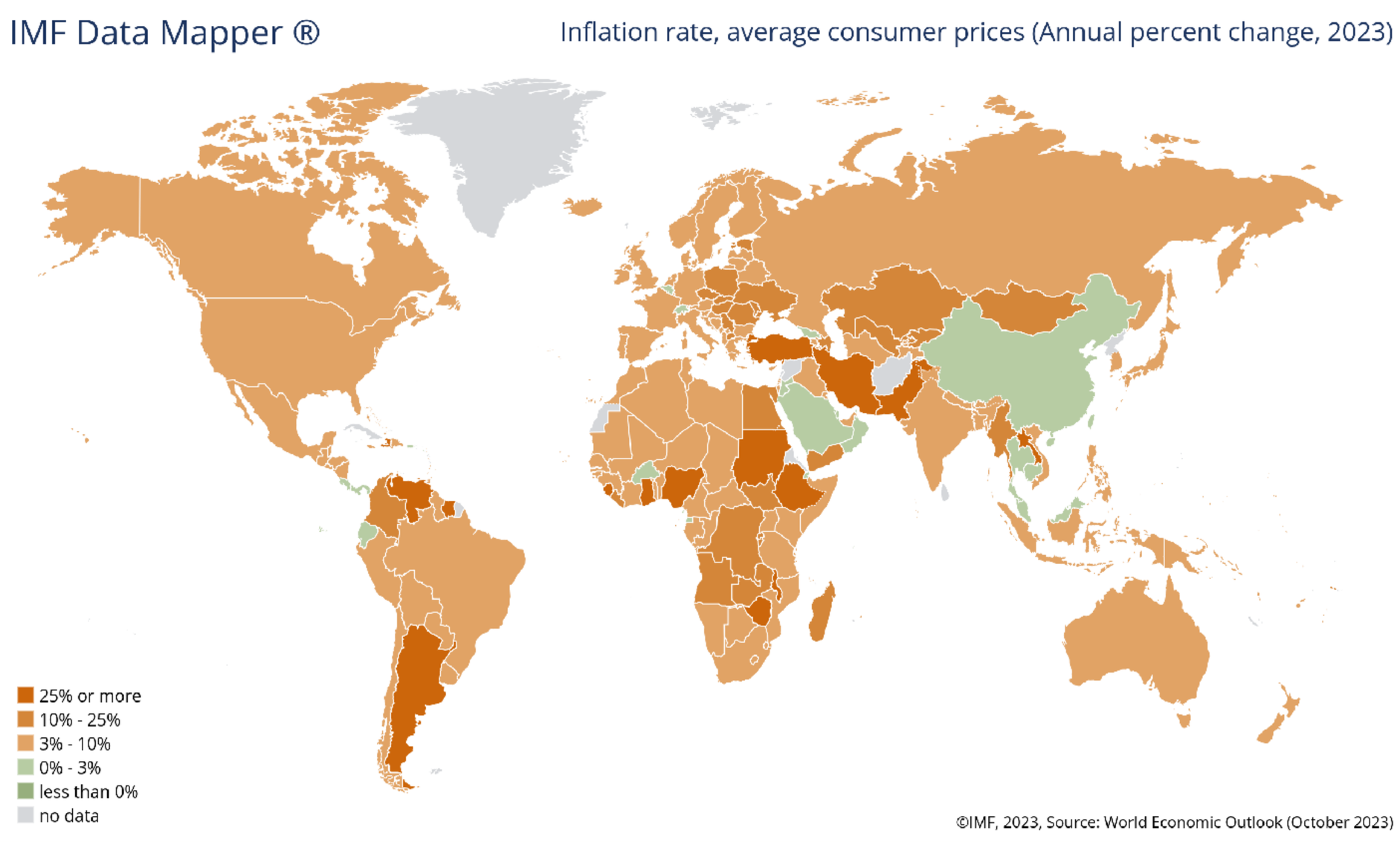
U.S. Inflation



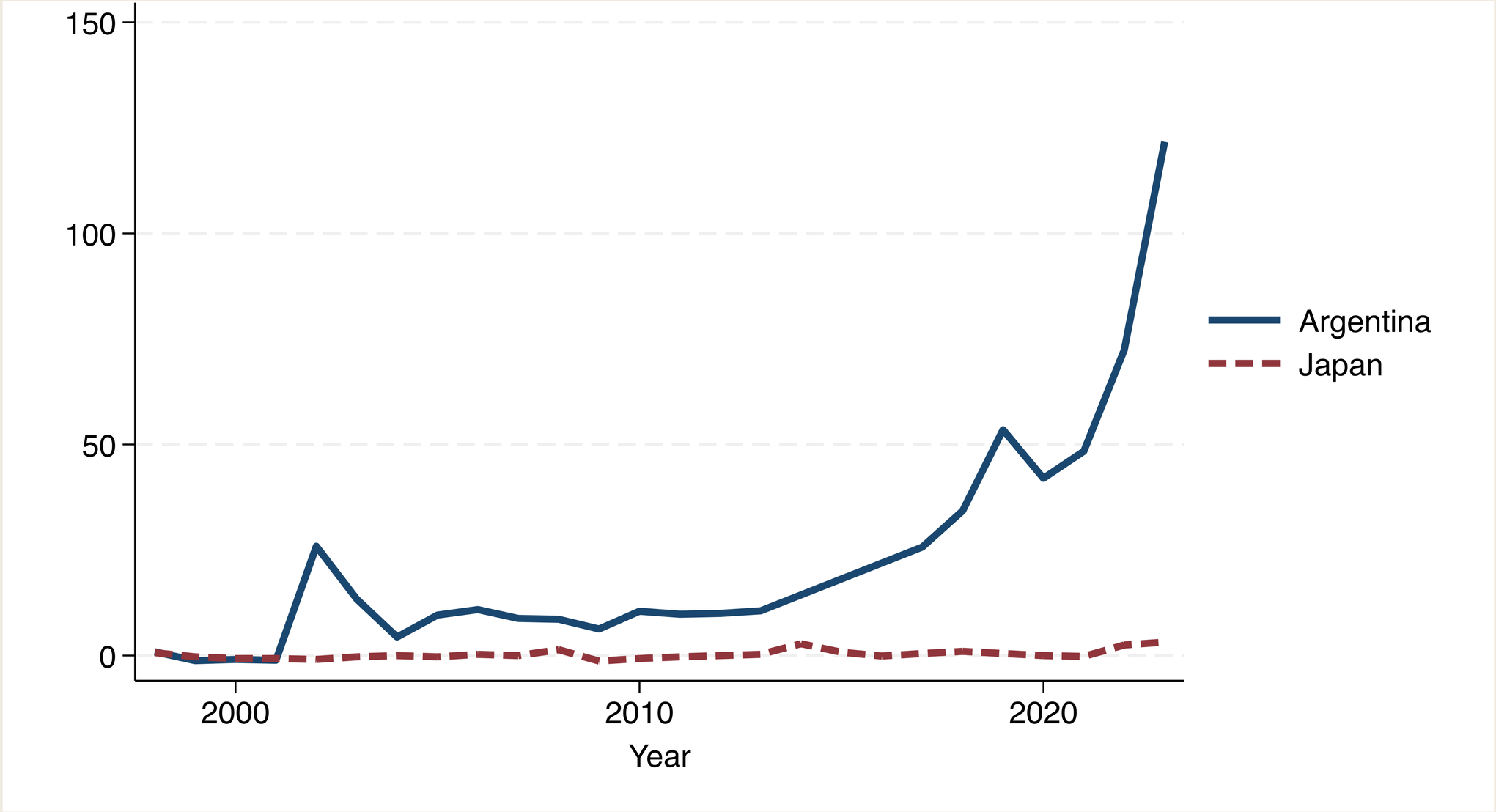
Inflation in 2019



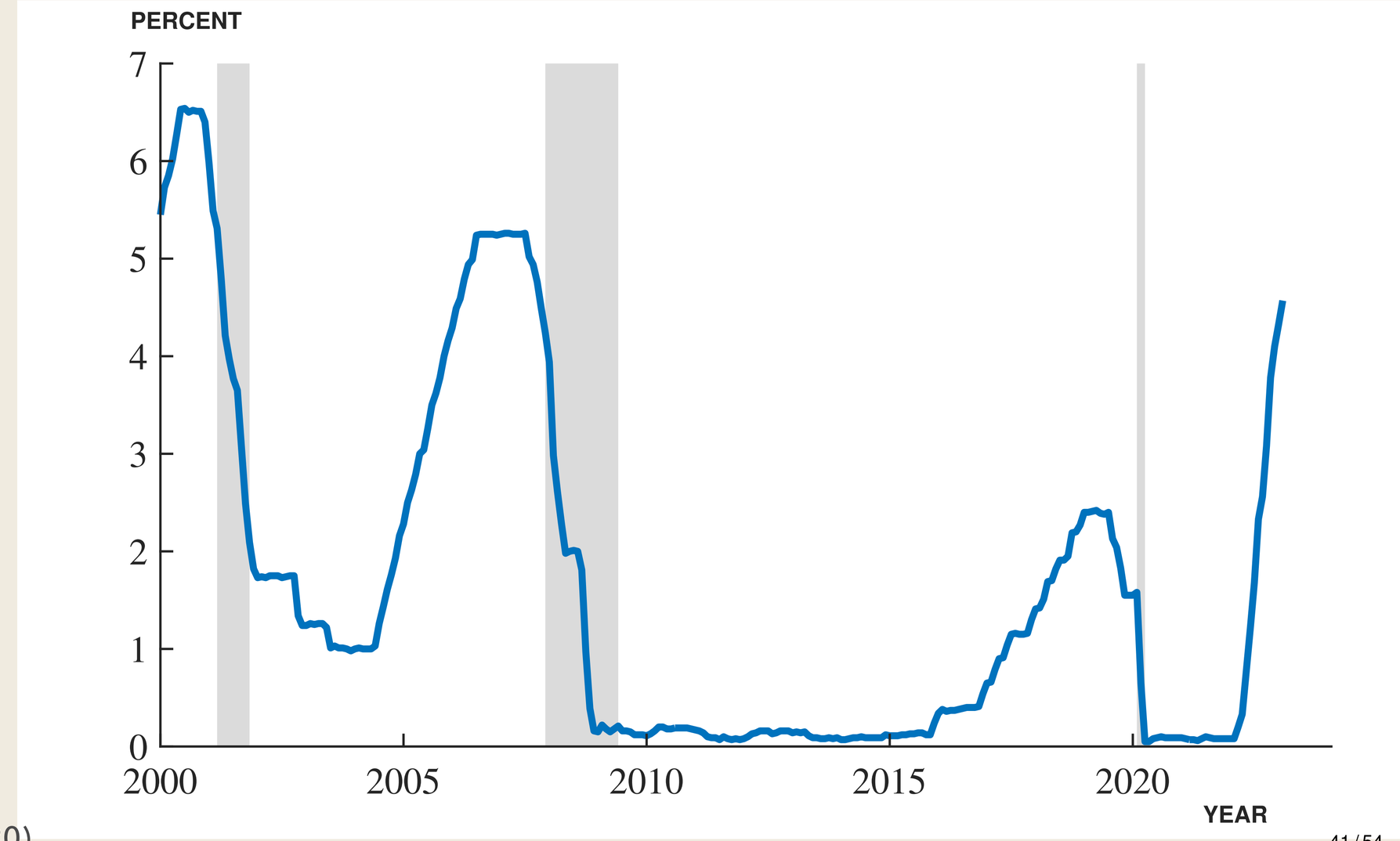
Inflation in 2023



Inflation in Argentina and Japan

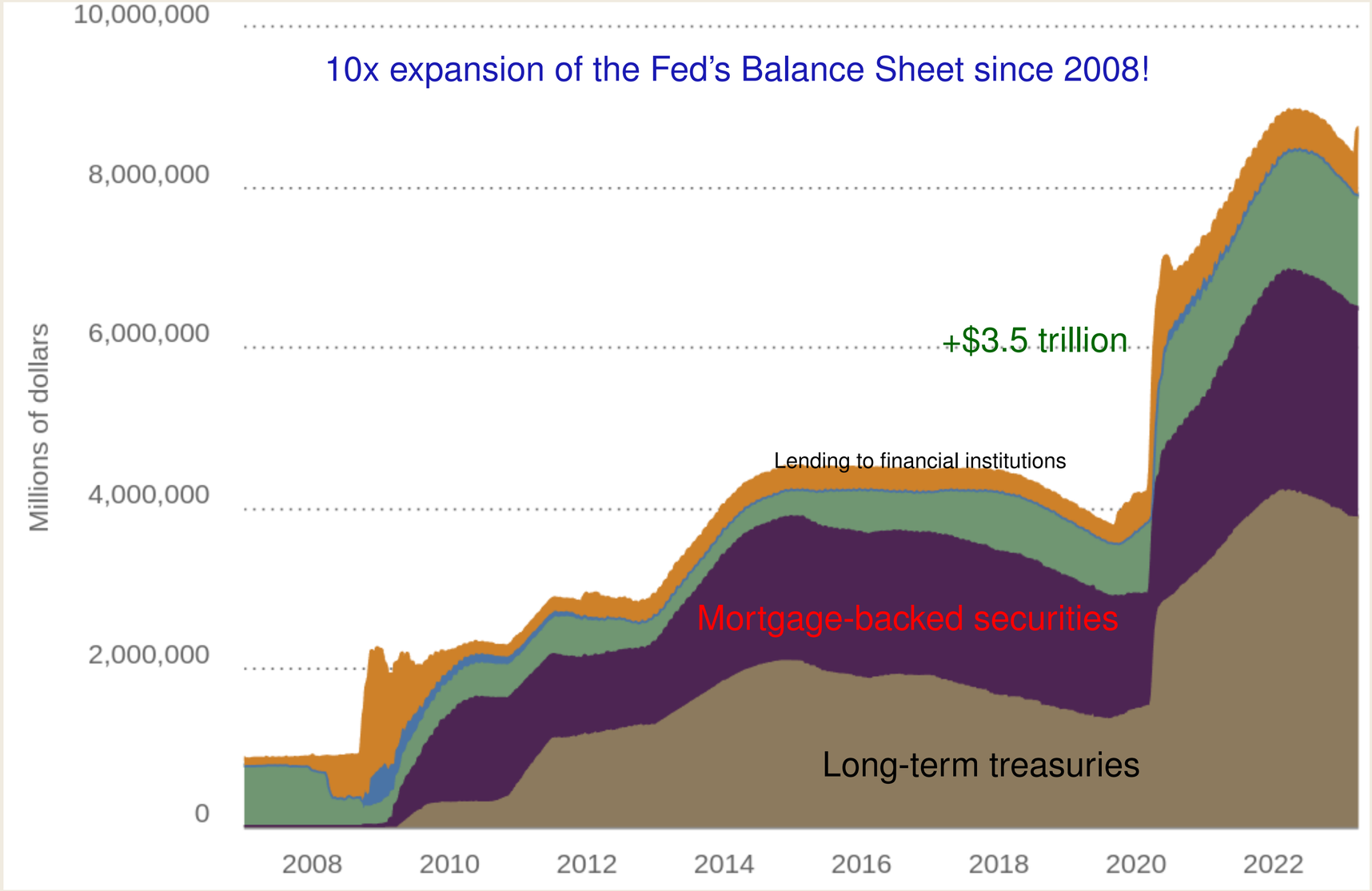


Federal Funds Rate



Source: Jones (2020)

Unconventional Monetary Policy: Quantitative Easing



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