

Ch. 1: Introduction to Macroeconomics

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Chapter Outline

- What Macroeconomics is about
- What Macroeconomists do
- Why Macroeconomists disagree

What Macroeconomics is About

- The study of structure and performance of national economies and government policies that affect economic performance
- Issues:
 - ▶ Long-run economic growth (cover decades)
 - ▶ Business cycles (short-run economic outcomes)
 - ▶ Unemployment
 - ▶ The international economy (→ Macroeconomics B)
 - ▶ Macroeconomic policy

Aggregation

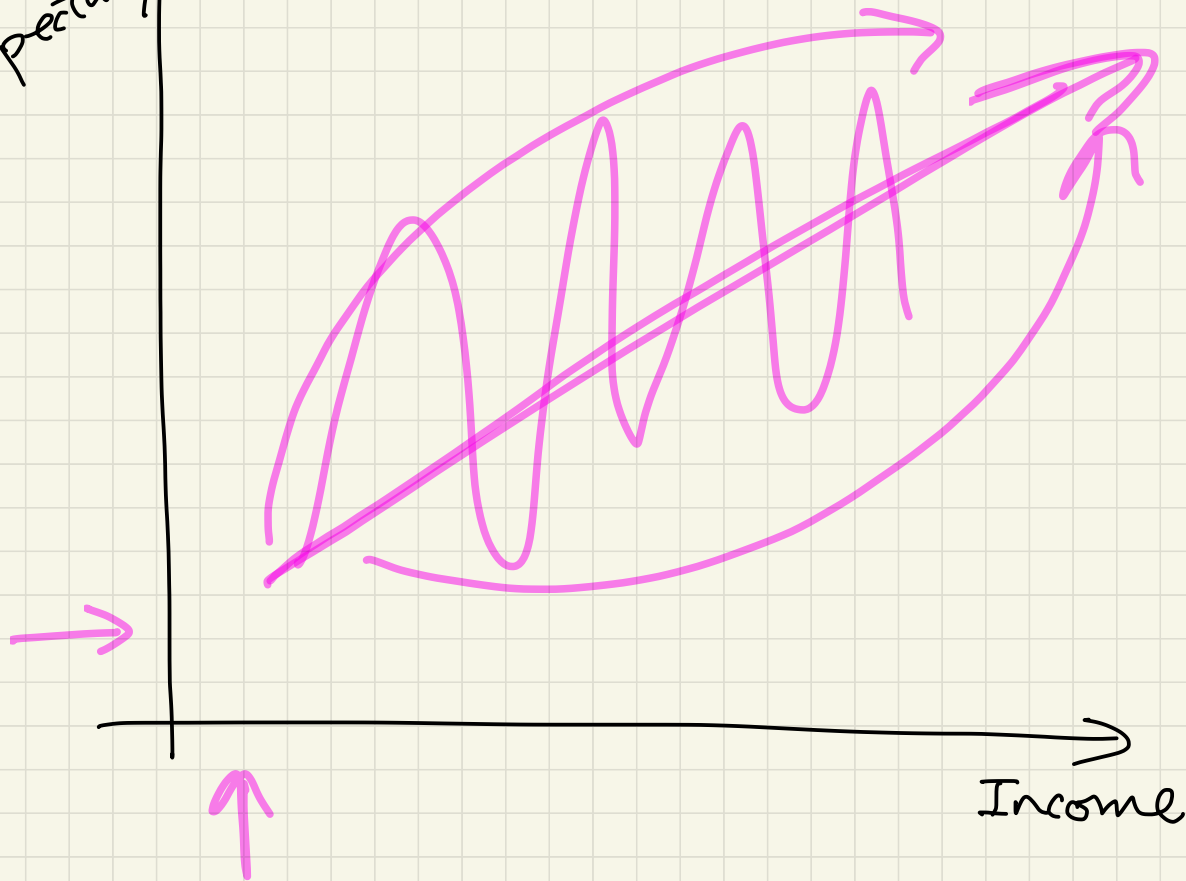
- Summing individual economic variables to obtain economywide totals
- Distinguishes microeconomics (disaggregated) from macroeconomics (aggregated)

Long-run Economic Growth

- Why do some countries grow faster than others?
- What is the difference between rich nations and developing nations?
 - Income vs. Life Expectancy
- What determines a nation's long-run economic growth?

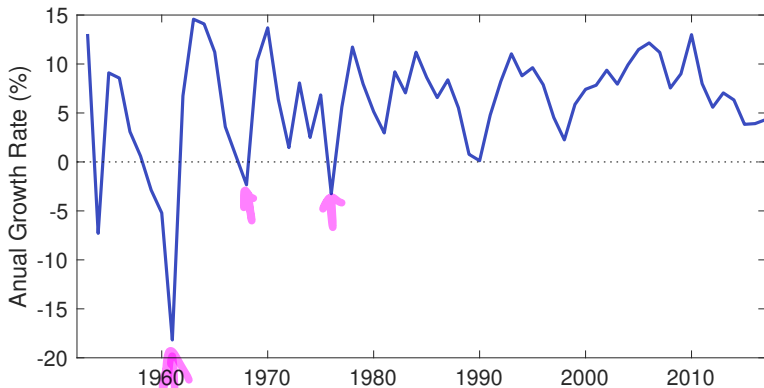
Life
Expectancy

Over time.



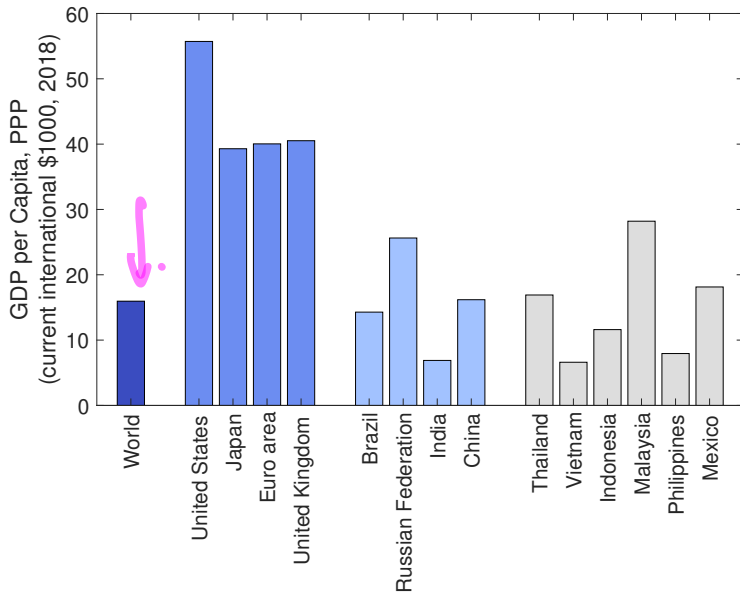
China's GDP Growth Rate

6-7%.

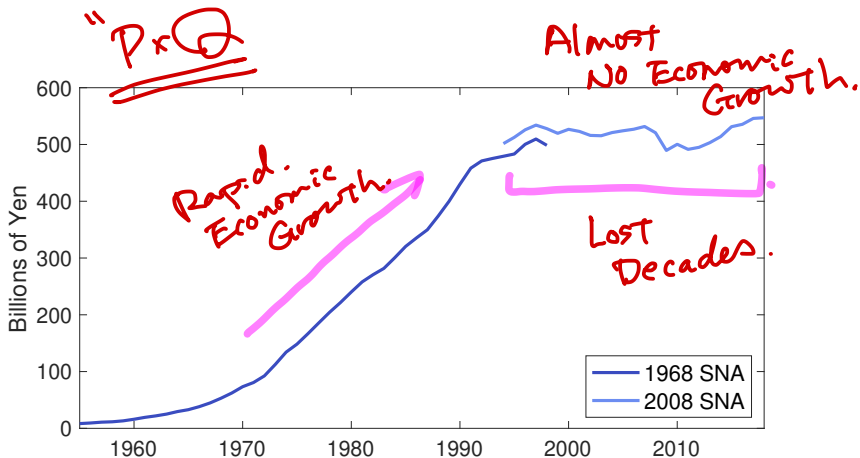


Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/RGDPNACNA666NRUG>.

GDP per Capita



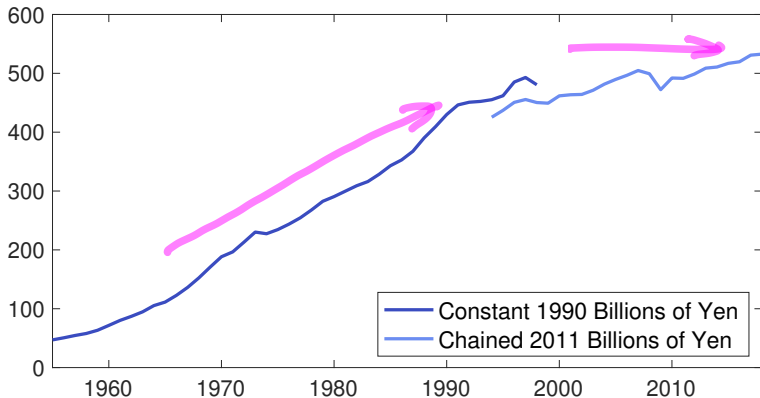
Nominal GDP in Japan



Source: Cabinet Office, Economic and Social Research Institute. 1968 SNA; 2008 SNA.

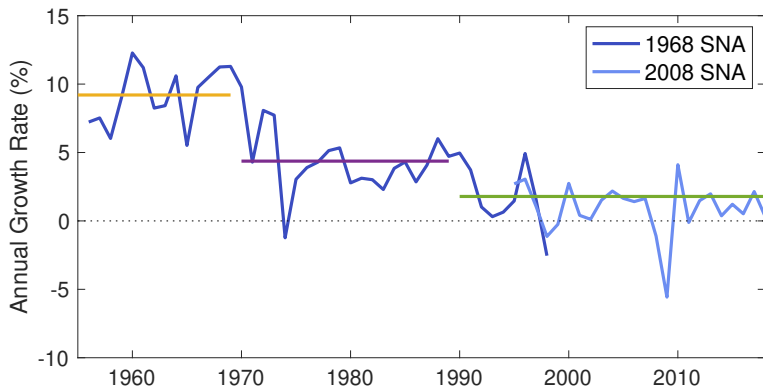
Real GDP in Japan

= Q .



Source: Cabinet Office, Economic and Social Research Institute. 1968 SNA; 2008 SNA.

Japan's Real GDP Growth



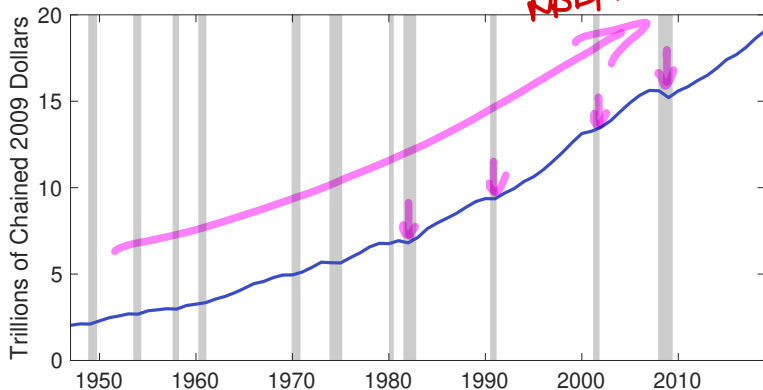
Ave. Growth Rate:

before 70s = 9.2% 70s – 80s = 4.4% after 90s = 1.8%

Source: Cabinet Office, Economic and Social Research Institute. 1968 SNA; 2008 SNA.

Output of the US Economy

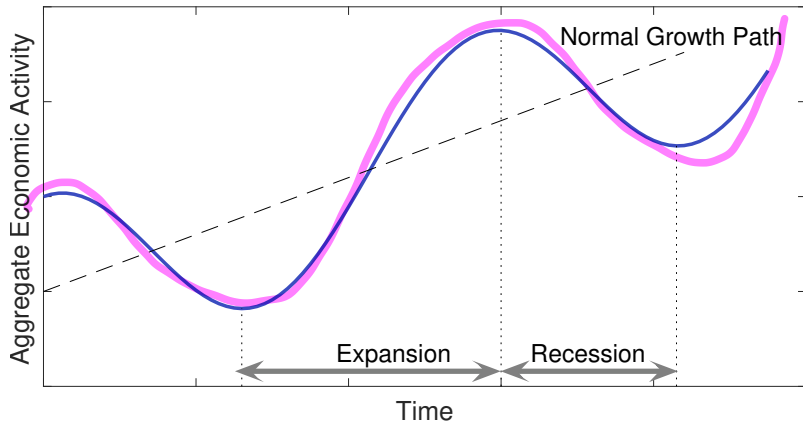
Shaded areas
correspond to
NBER recessions.

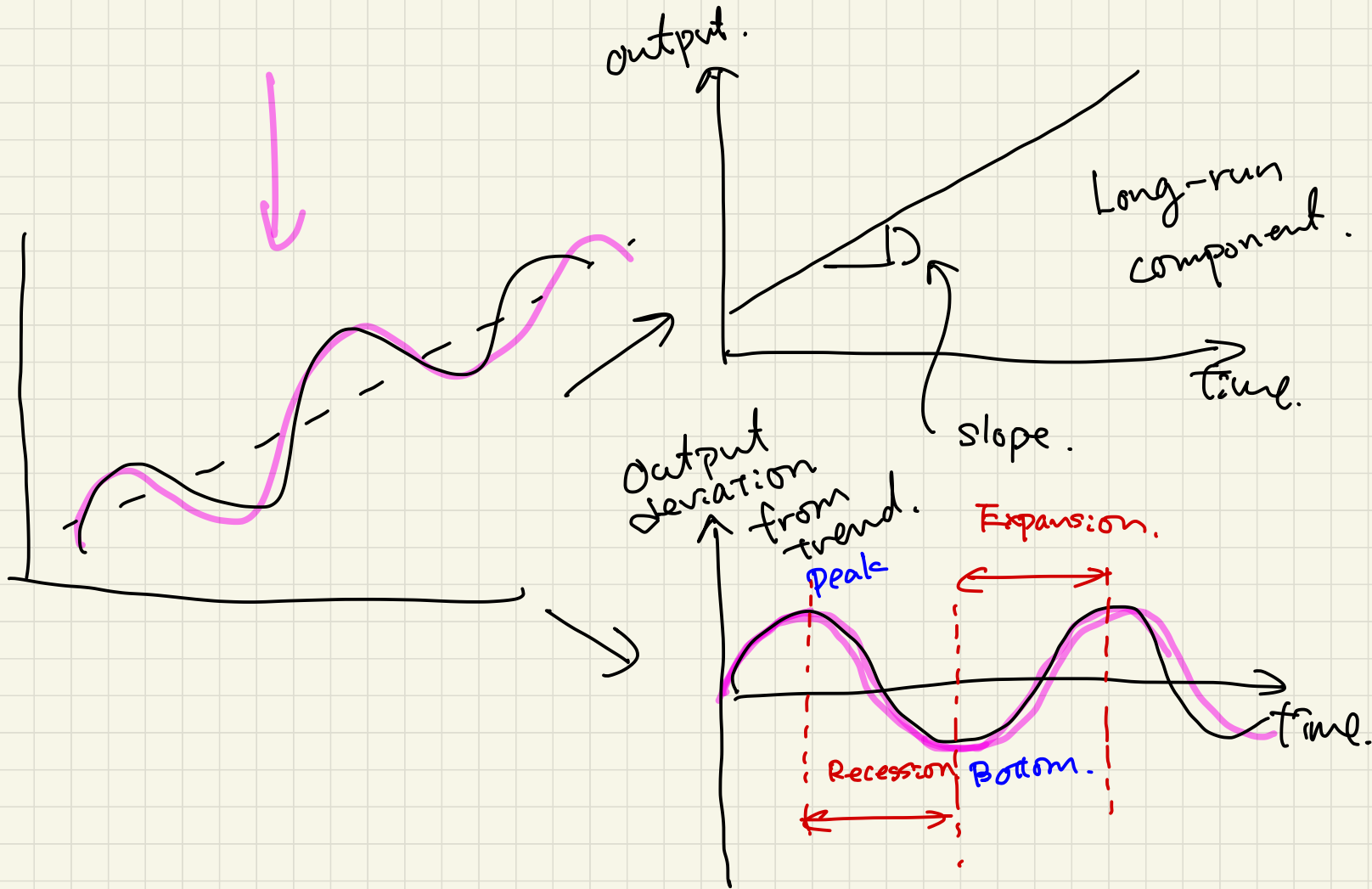


Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/GDPC1>.

Business Cycles

- Short-run contractions and expansions in economic activity
- Downward phase is called a recession (peak to trough)



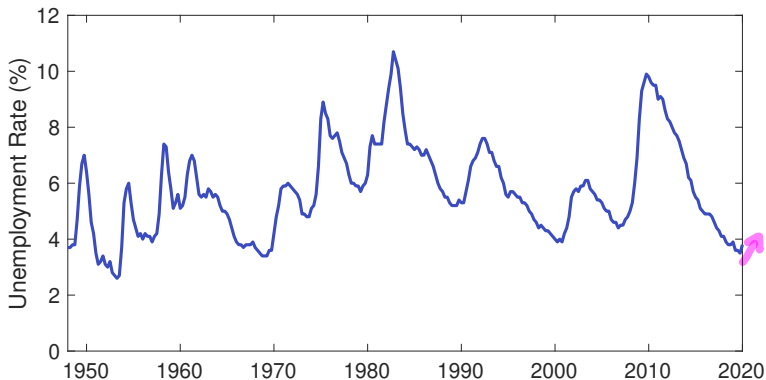


Unemployment

of unemployed

$\frac{\text{\# of unemployed}}{\text{\# of employed} + \text{\# of unemployed}}$

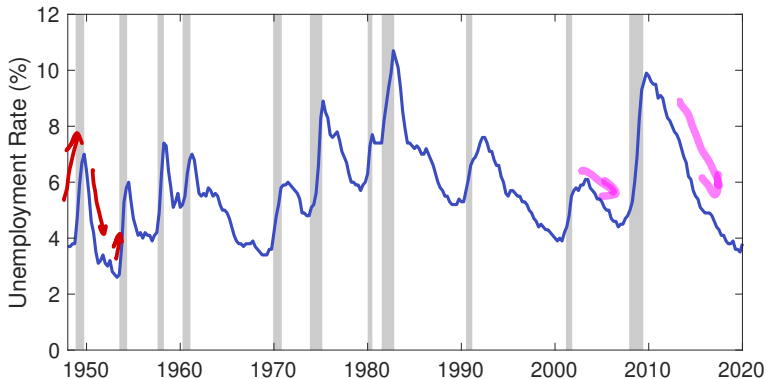
- The number of people who are available for work and actively seeking work, but cannot find jobs



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/UNRATE>.

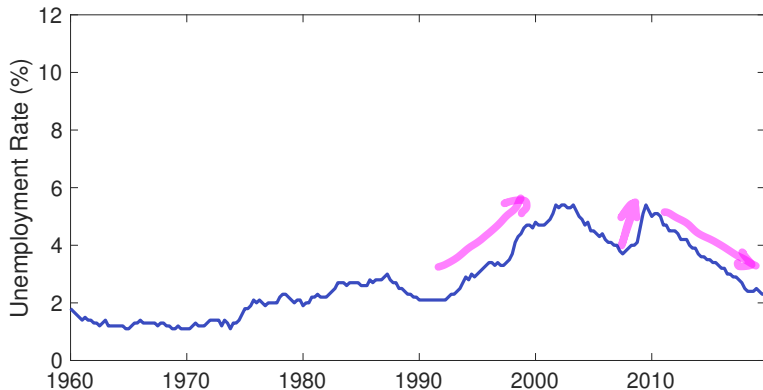
Unemployment

- The number of people who are available for work and actively seeking work, but cannot find jobs



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/UNRATE>.

Unemployment Rate in Japan



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/LRUNTTTTJPM156S>.

Inflation

$$\pi_t = \frac{P_t - P_{t-1}}{P_{t-1}} \times 100.$$

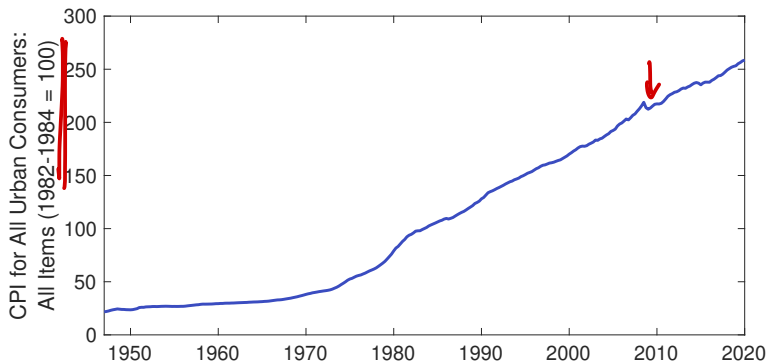
inflation rate at time t .

- Inflation rate: the percentage increase in the level of prices
- Deflation: when prices of most goods and services decline
- Hyperinflation: an extremely high rate of inflation

(e.g. Germany
Zimbabwe.
Venezuela.

Consumer Prices in the US

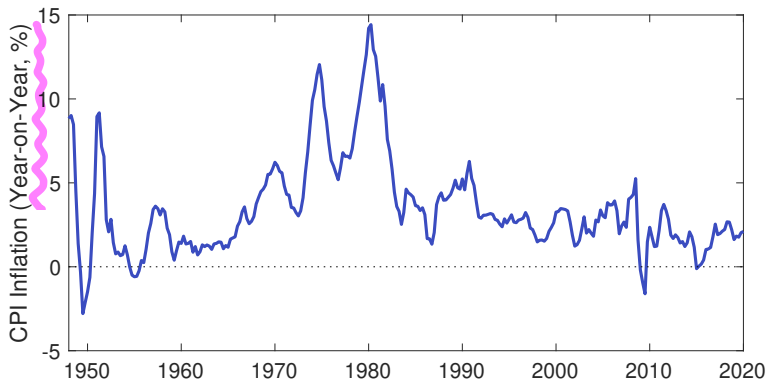
Price Level. (P_t)



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/CPIAUCSL>.

US CPI Inflation Rate

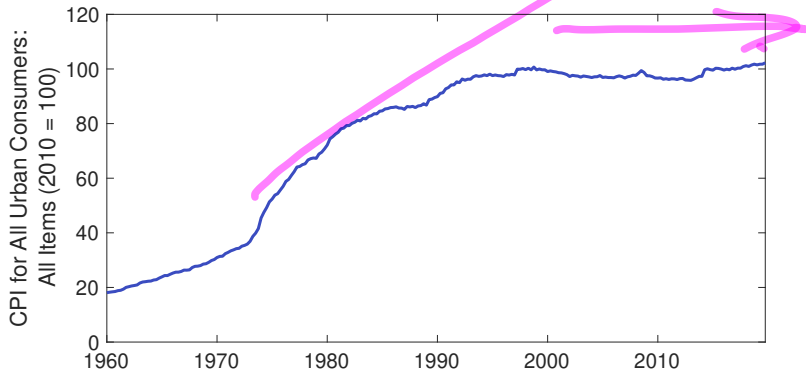
$$\left(\begin{array}{l} \text{Yr on Yr} \\ \pi_{\text{May}, 2020} = \frac{P_{\text{May}, 2020} - P_{\text{May}, 2019}}{P_{\text{May}, 2019}} \end{array} \right.$$



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/CPIAUCSL> ←

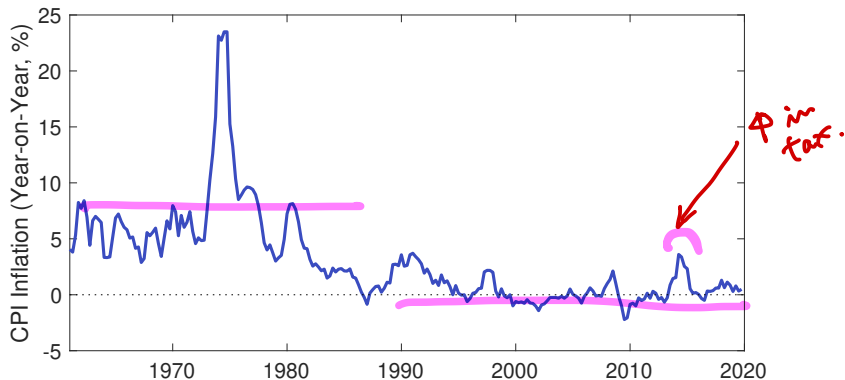
$$\left(\begin{array}{l} \text{Month-to-Month} \\ \pi_{\text{May}, 2020} = \frac{P_{\text{May}, 2020} - P_{\text{Apr}, 2020}}{P_{\text{Apr}, 2020}} \end{array} \right.$$

CPI in Japan



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/JPNCPALLMINMEI>.

CPI Inflation in Japan

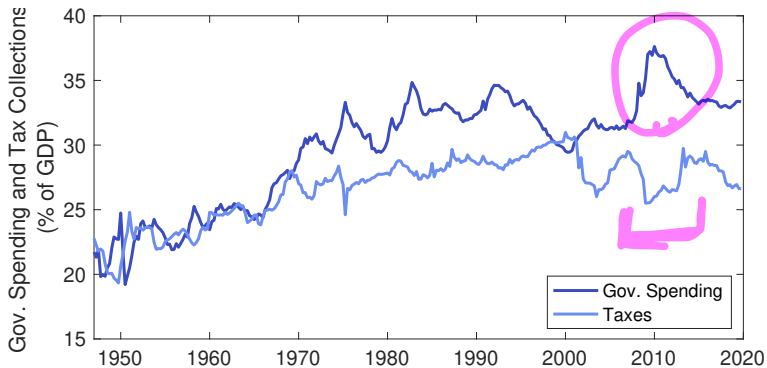


Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/JPNCPIALLMINMEI>.

Macroeconomic Policy

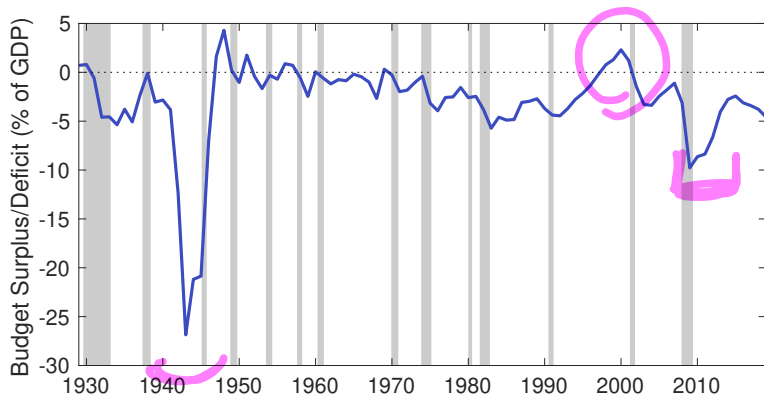
- Fiscal policy: government spending and taxation
- Monetary policy: growth of money supply; determined by a central bank (Bank of Japan, European Central Bank, Fed)

US Federal Government Spending and Tax



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/GEXPND>;
<https://fred.stlouisfed.org/series/GRECPT>; <https://fred.stlouisfed.org/series/GDP>.

US Budget Surplus/Deficit



Source: FRED database, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/FYFSGDA188S>.

What Macroeconomists Do

- Macroeconomic forecasting
- Macroeconomic analysis
- Macroeconomic research
- Data development

Why Macroeconomists Disagree

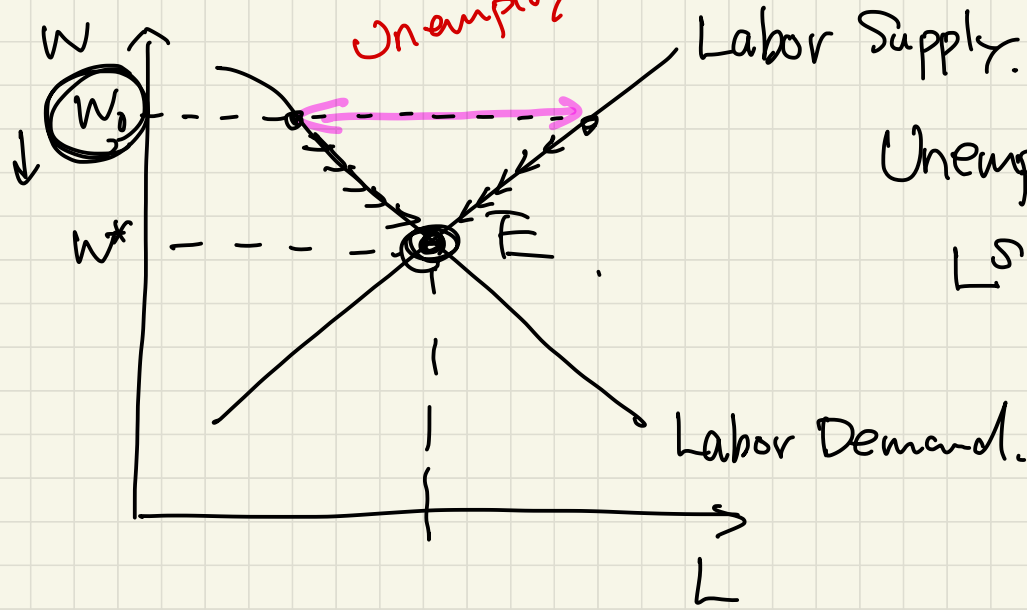
- Classicals vs. Keynesians
- The classical approach
 - ▶ The economy works well on its own
 - ▶ The “invisible hand”: the idea that if there are free markets and individuals conduct their economic affairs in their own best interests, the overall economy will work well
 - ▶ Wages and prices adjust rapidly to get to equilibrium
 - Equilibrium: a situation in which demand and supply equal
 - Changes in wages and prices are signals that coordinate people's actions
 - ▶ Government should have only a limited role in the economy

Why Macroeconomists Disagree (Cont'd)

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↓

- The Keynesian approach
 - ▶ The Great Depression: Classical theory failed because high unemployment was persistent
 - ▶ Keynes: Persistent unemployment occurs because wages and prices adjust slowly, so markets remain out of equilibrium for long periods
 - ▶ Government should intervene to restore full employment
- Debate
 - ▶ Keynesians dominated from WWII to 1970
 - ▶ Stagflation led to a classical comeback in the 1970s
 - ▶ Last 30 years: excellent research with both approaches

Labor market



Unemployment.

$$L^S > L^D.$$

Our Approach

- Three markets: goods, assets, and labor
- Microfoundations – individual behavior
- Long-run: wages and prices are perfectly flexible
- Short-run:
 - Classical** flexible wages and prices
 - Keynesian** wages and prices are slow to adjust (sticky)