

# Why study money and banking?

# Goals for the semester

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- ▶ To see how financial markets and institutions work
- ▶ To examine the role of money in the economy

# Financial markets

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- ▶ Move funds from where they are less productive to where they are more productive

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- ▶ **Interest rate**:
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  - ▶ price paid on rental of funds
  - ▶ millions of different interest rates

# Interest rate is the cost of borrowing

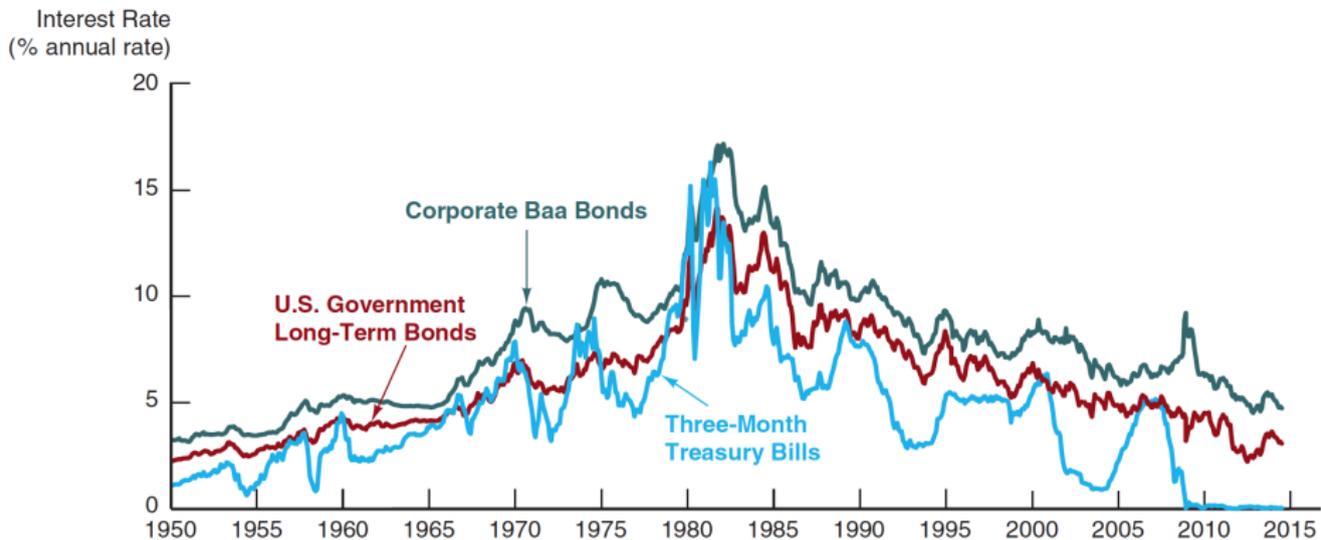
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# Interest rate is the cost of borrowing

- ▶ High interest rates  $\Rightarrow$  less motivation to “invest” (buy physical capital)
- ▶ High interest rates  $\Rightarrow$  fewer purchases of durable goods

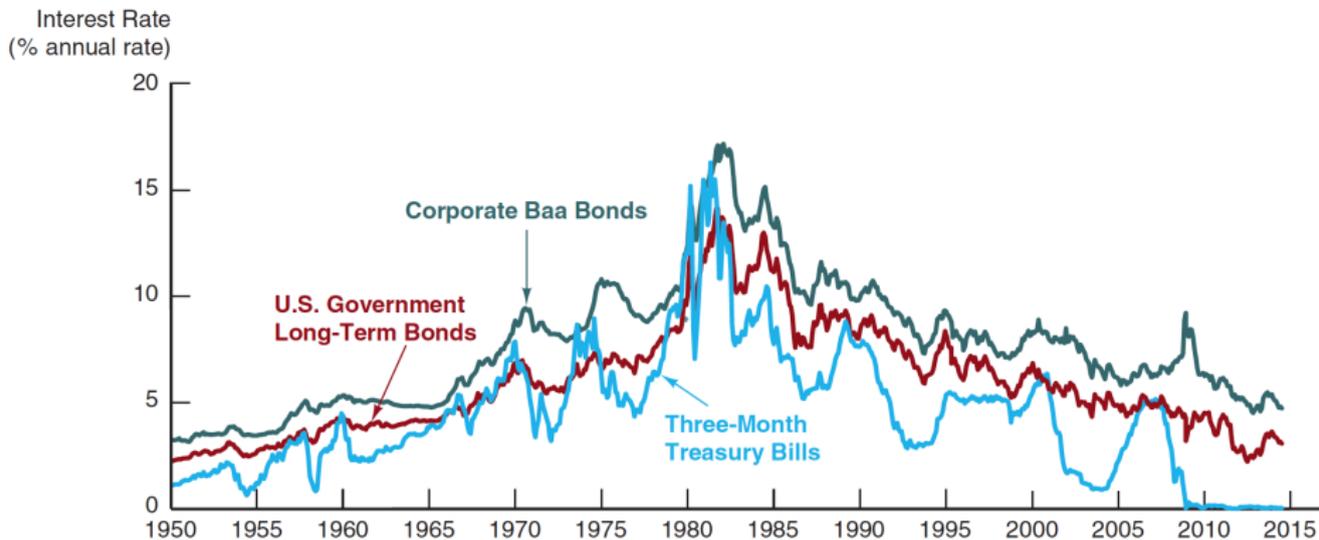
# “The interest rate”

## Interest rates on selected bonds



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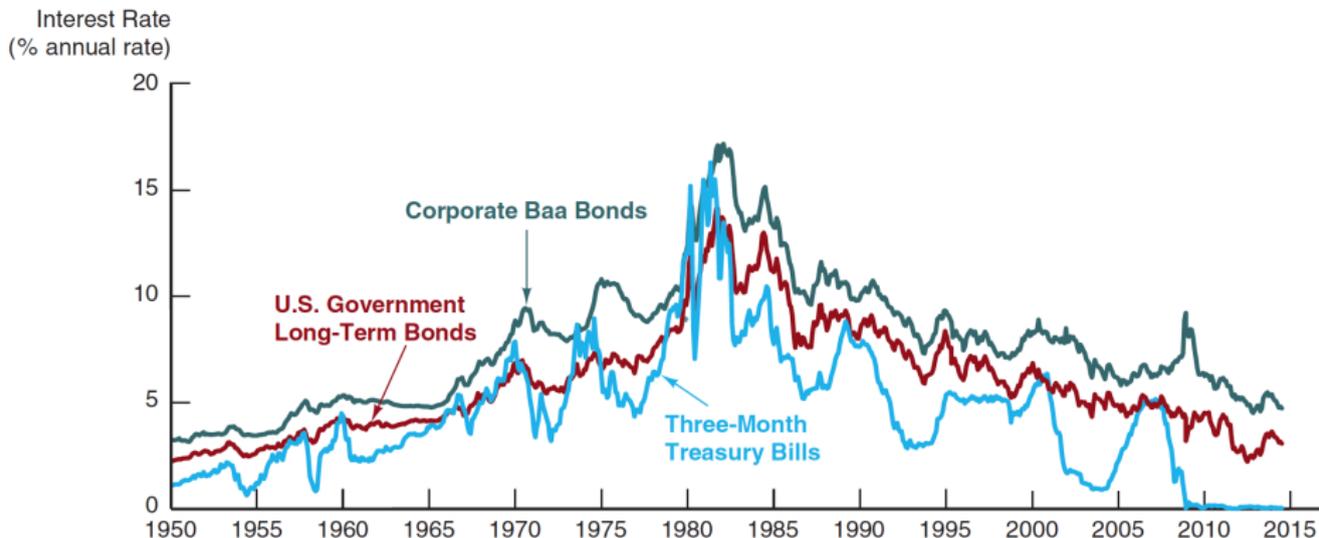
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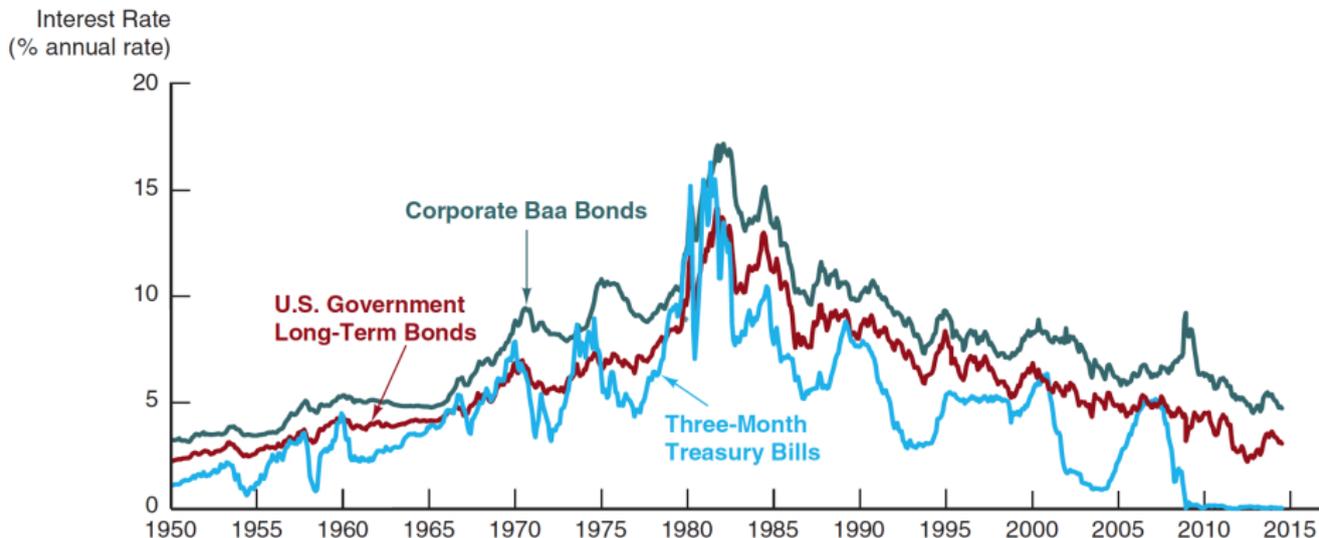
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## Interest rates on selected bonds



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- ▶ Short-term bonds have more variable rates
- ▶ Differences between rates matter

# Stock market

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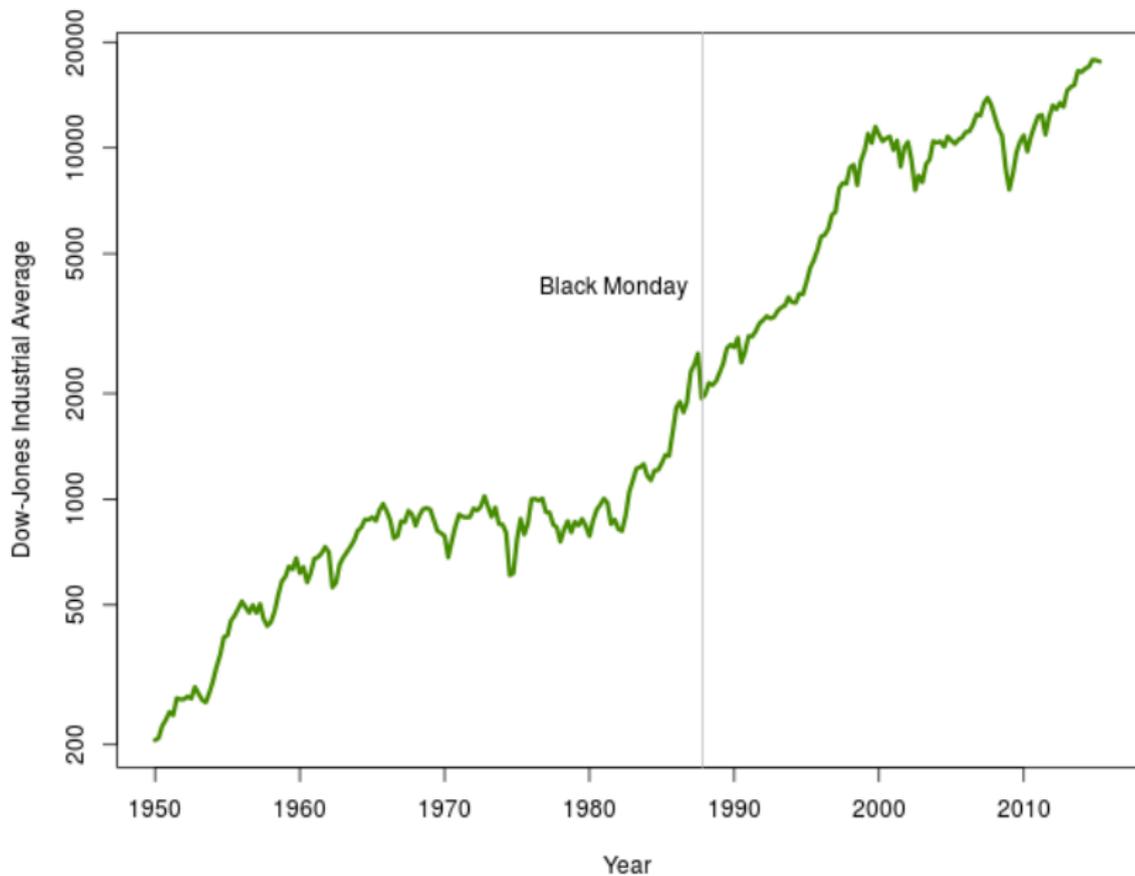
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## Common stock:

- ▶ A share of ownership in a corporation
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- ▶ Source of funds for businesses

## Stock values: Dow Jones Industrial Average

# Stock values: log of Dow Jones Industrial Average



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- ▶ Example: e-finance

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## **Happens all the time!**

- ▶ Does not always lead to recession

# Why study money?

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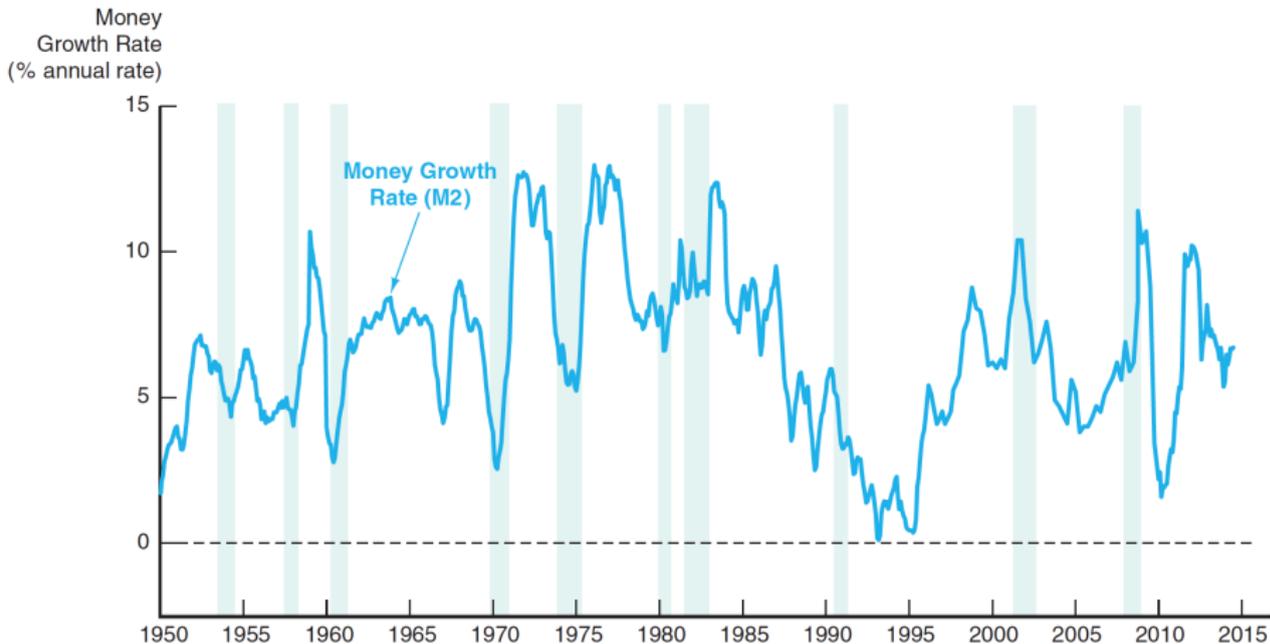
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- ▶ Money plays an important role in generating business cycles
- ▶ Recessions (and unemployment) have severe effects on human wellbeing

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## Money growth rate and recessions



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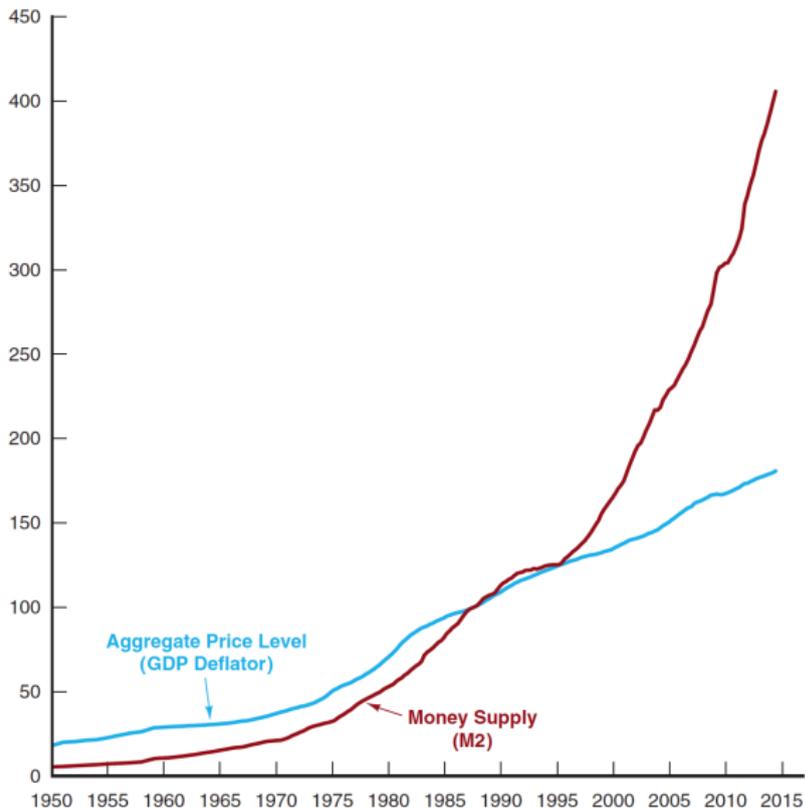
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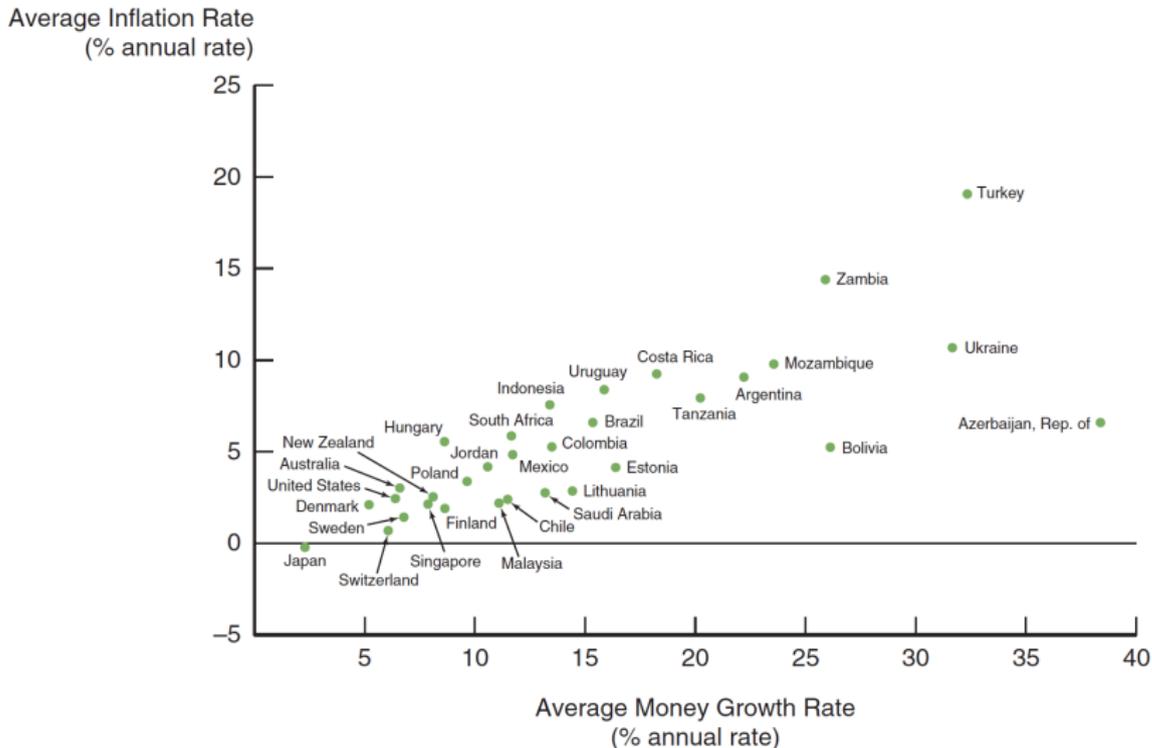
- ▶ Data show a connection between the money supply and the price level
- ▶ Inflation has costs (and benefits) for all economic players
- ▶ Aggregate price level: average price of goods and services in an economy
- ▶ Inflation: continual rise in the price level

# Aggregate price level and money supply

Index (1987 = 100)



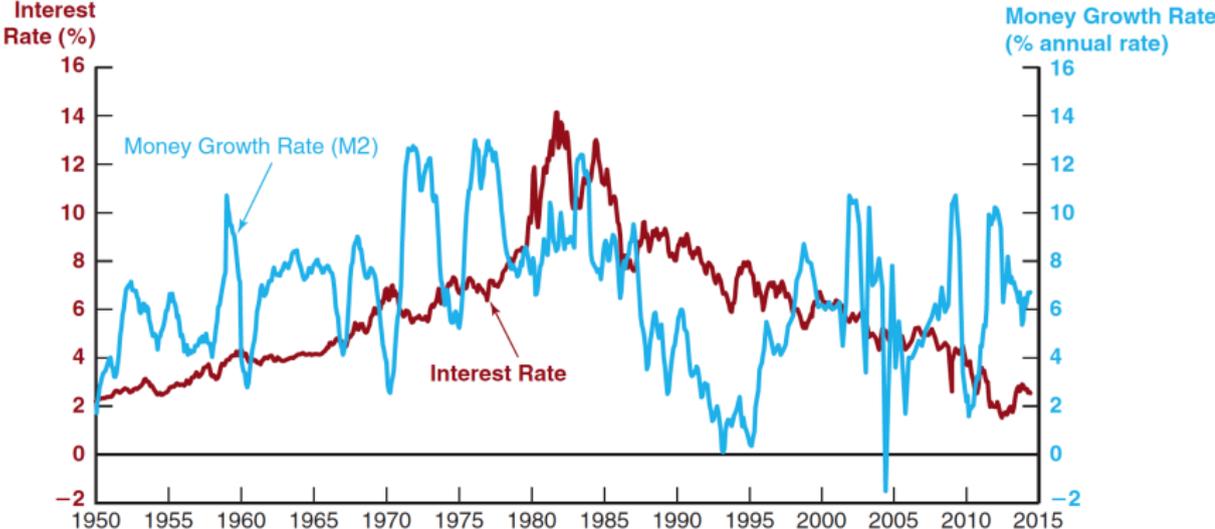
# Average Inflation Rate Versus Average Rate of Money Growth



Milton Friedman: "Inflation is always and everywhere a monetary phenomenon"

# Money and Interest Rates

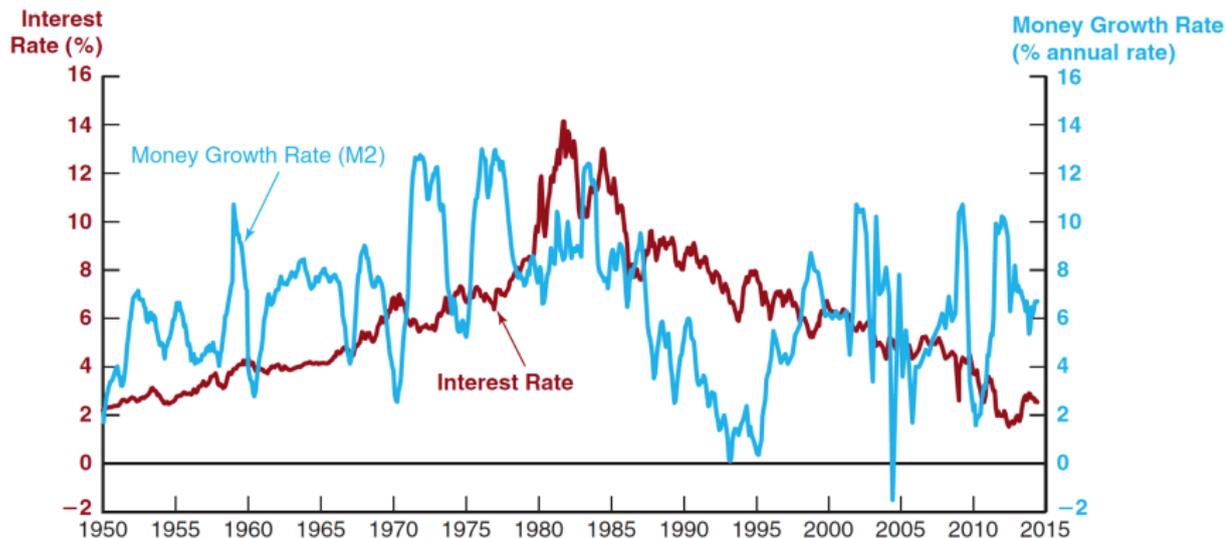
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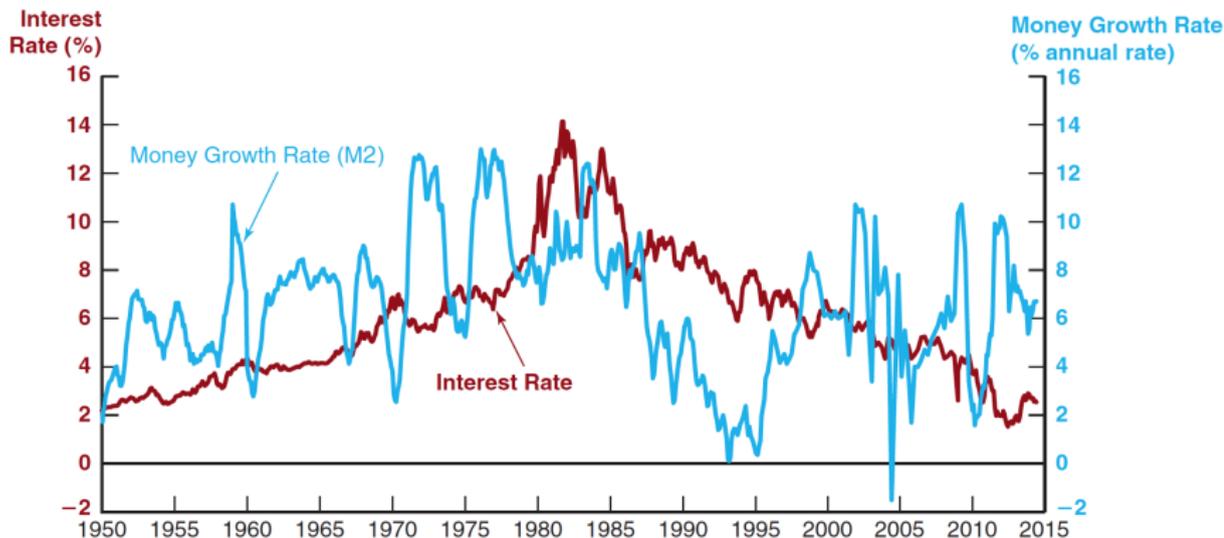
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# Money and Interest Rates

- ▶ Interest rates are the price of money
- ▶ Before 1980: rate of money growth and interest rates closely tied

## Money growth and interest rates



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  - ▶ Deficit  $\neq$  Debt

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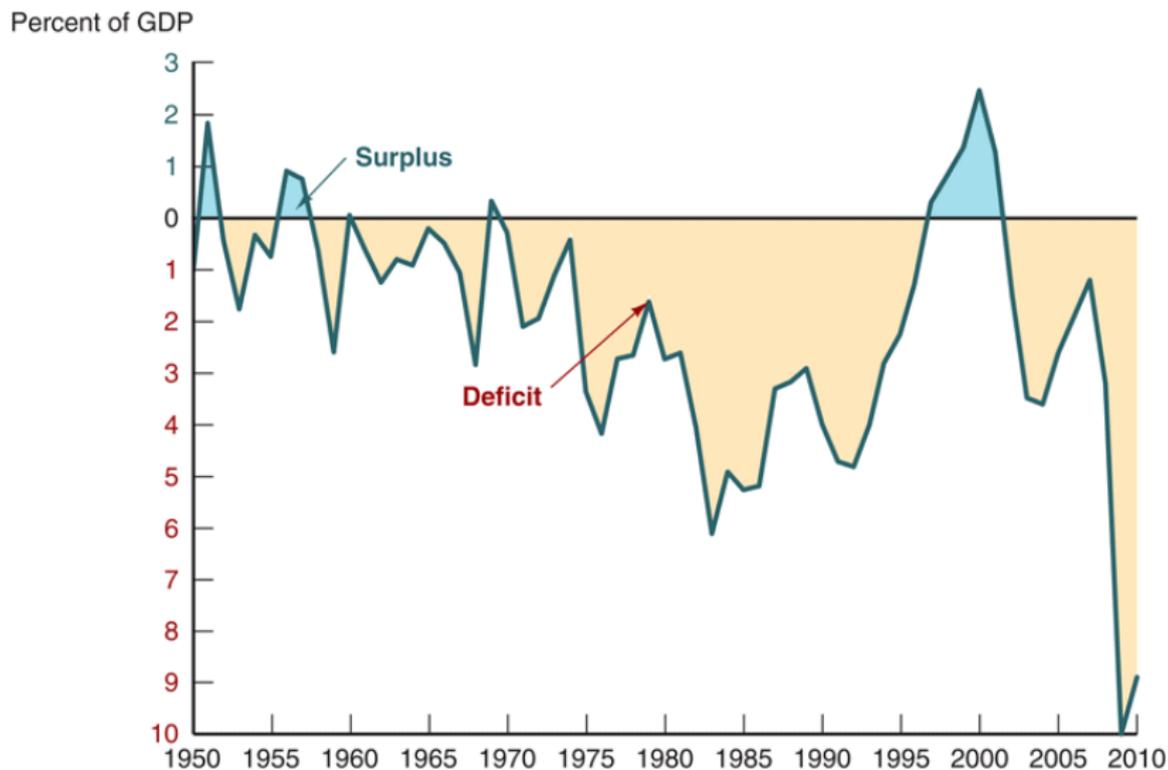
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Rate of flow of water  $\neq$  water level in tub

# Government Budget Surplus or Deficit as a Percentage of GDP

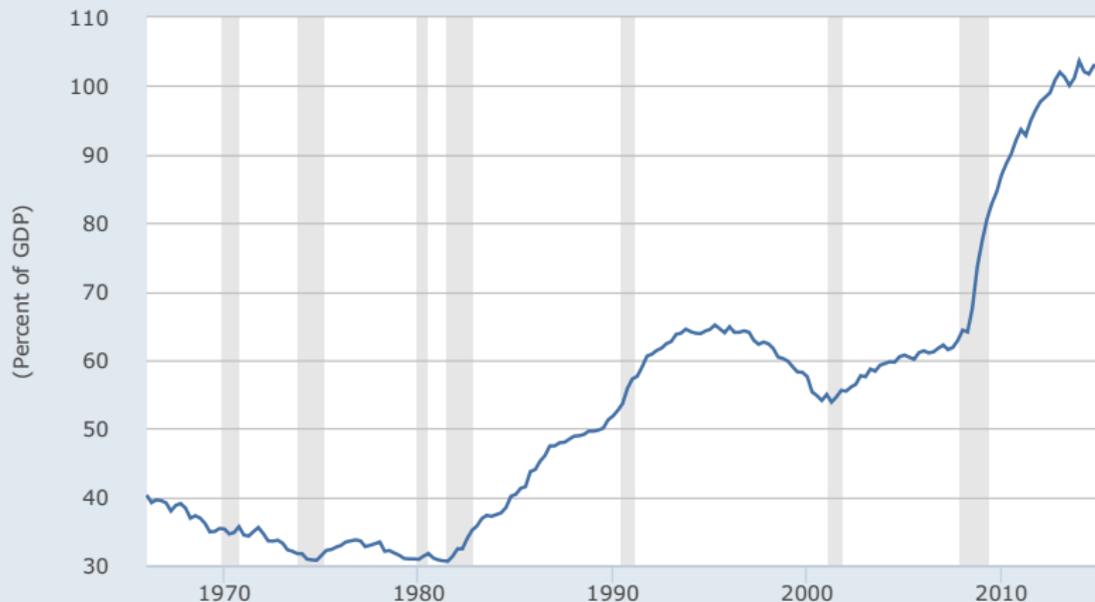


Source: unknown?

# Federal Government Debt as a Percentage of GDP

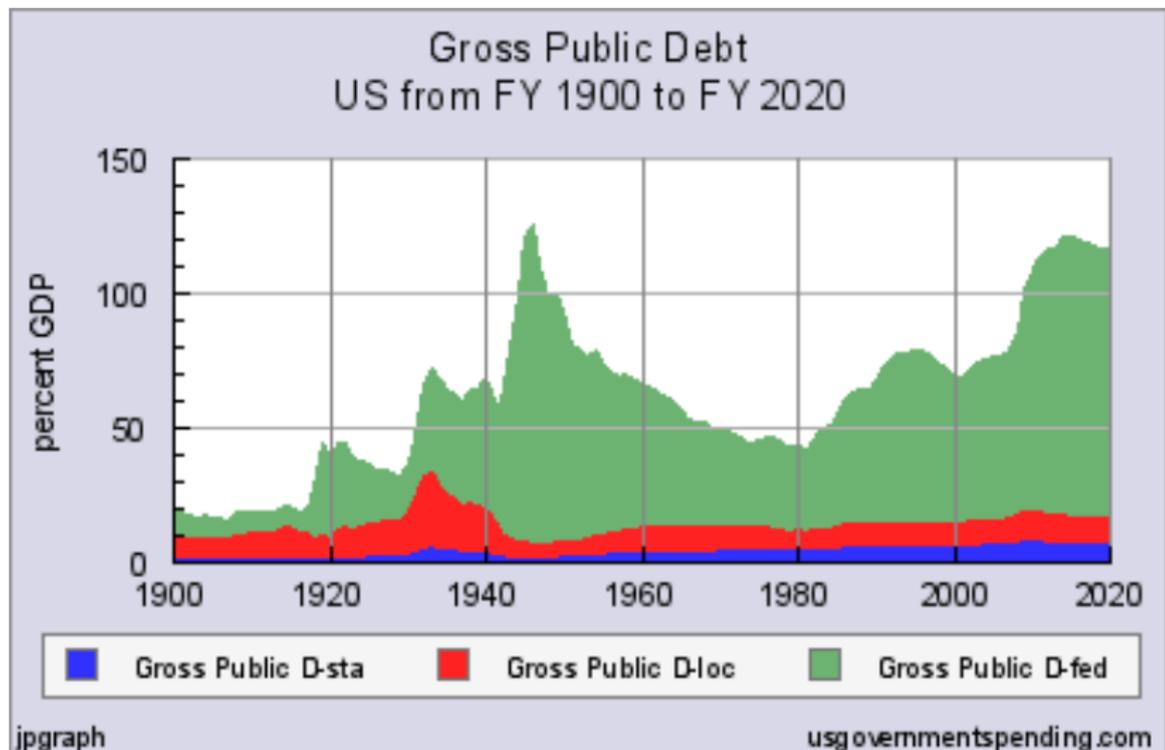
**FRED** 

— Federal Debt: Total Public Debt as Percent of Gross Domestic Product



Source: Federal Reserve Bank of St. Louis, US. Office of Management and Budget  
Shaded areas indicate US recessions - 2015 research.stlouisfed.org

## Total Government Debt as a Percentage of GDP



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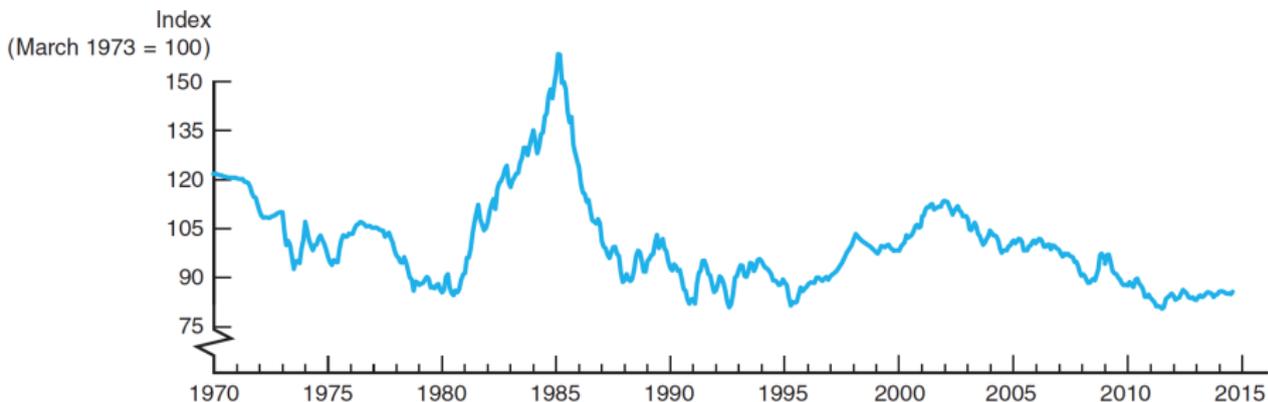
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- ▶ Currency exchange is necessary for international purchases

## Exchange Rate of the U.S. Dollar



- ▶ “Weak” dollar makes American goods cheaper
- ▶ “Strong” dollar makes foreign goods cheaper

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  - ▶ Capital controls impact domestic financial systems and, therefore, the performance of the economy
  - ▶ What should be the role of international financial institutions like the IMF?