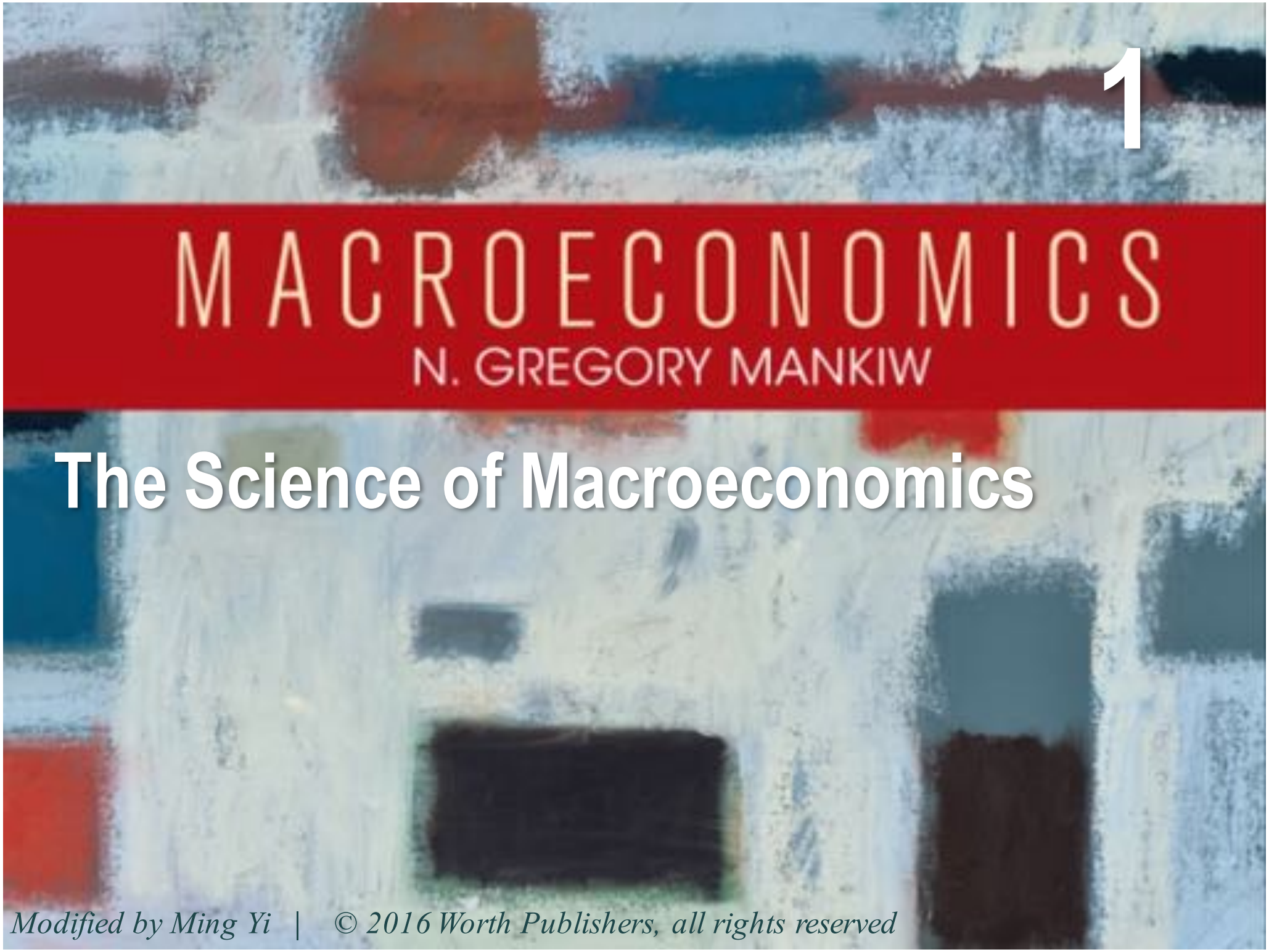


Modified by Ming Yi |

IN THIS CHAPTER, YOU WILL LEARN:

- About the issues macroeconomists study
- About the tools macroeconomists use
- Some important concepts in macroeconomic analysis

Important issues in macroeconomics

Macroeconomics—the study of the economy as a whole—addresses many topical issues, *e.g.*:

- What causes recessions? What is "government stimulus" and why might it help?
- How can problems in the housing market spread to the rest of the economy?
- What is the government budget deficit? How does it affect workers, consumers, businesses, and taxpayers?

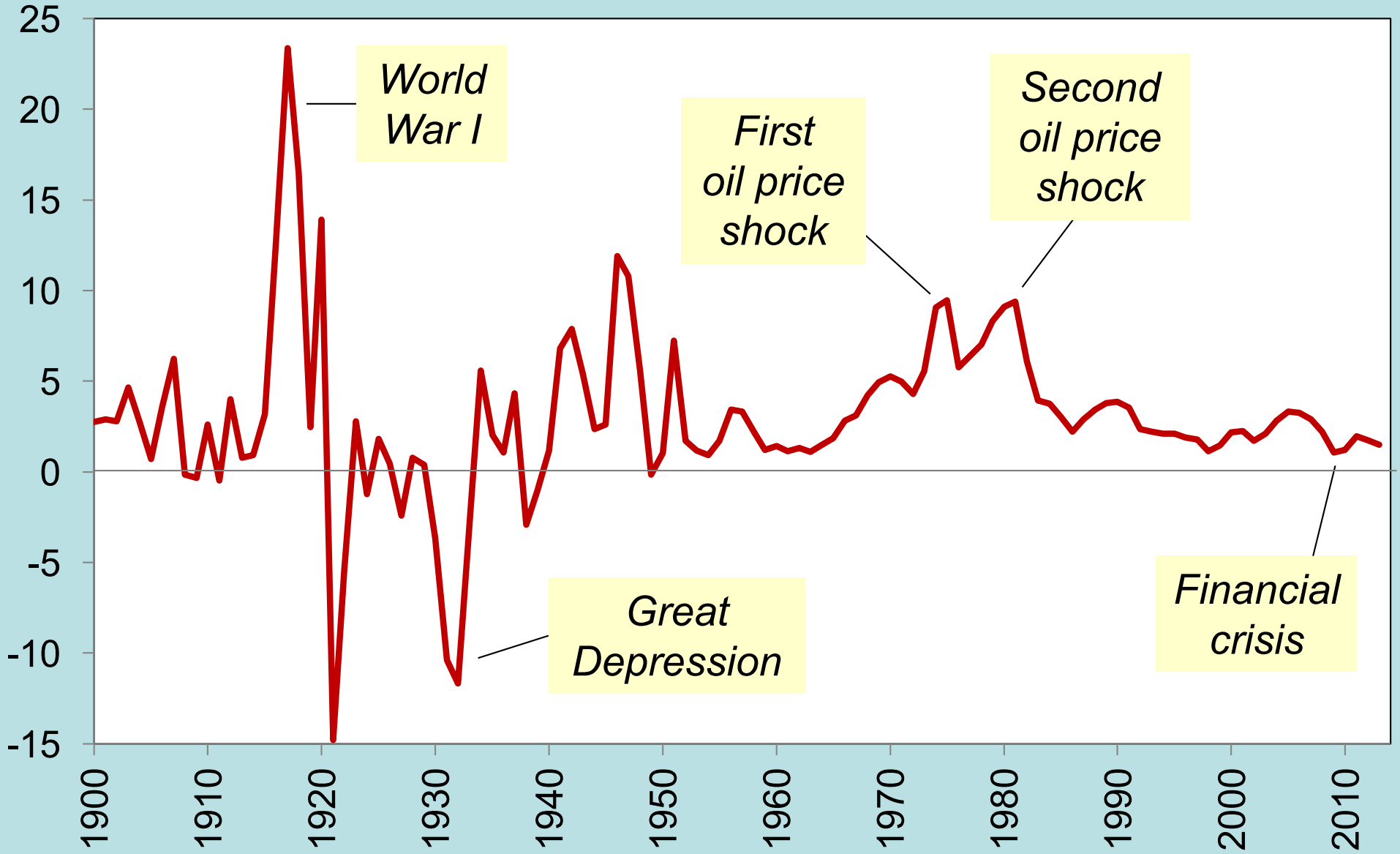
Important issues in macroeconomics

Macroeconomics—the study of the economy as a whole—addresses many topical issues, *e.g.*:

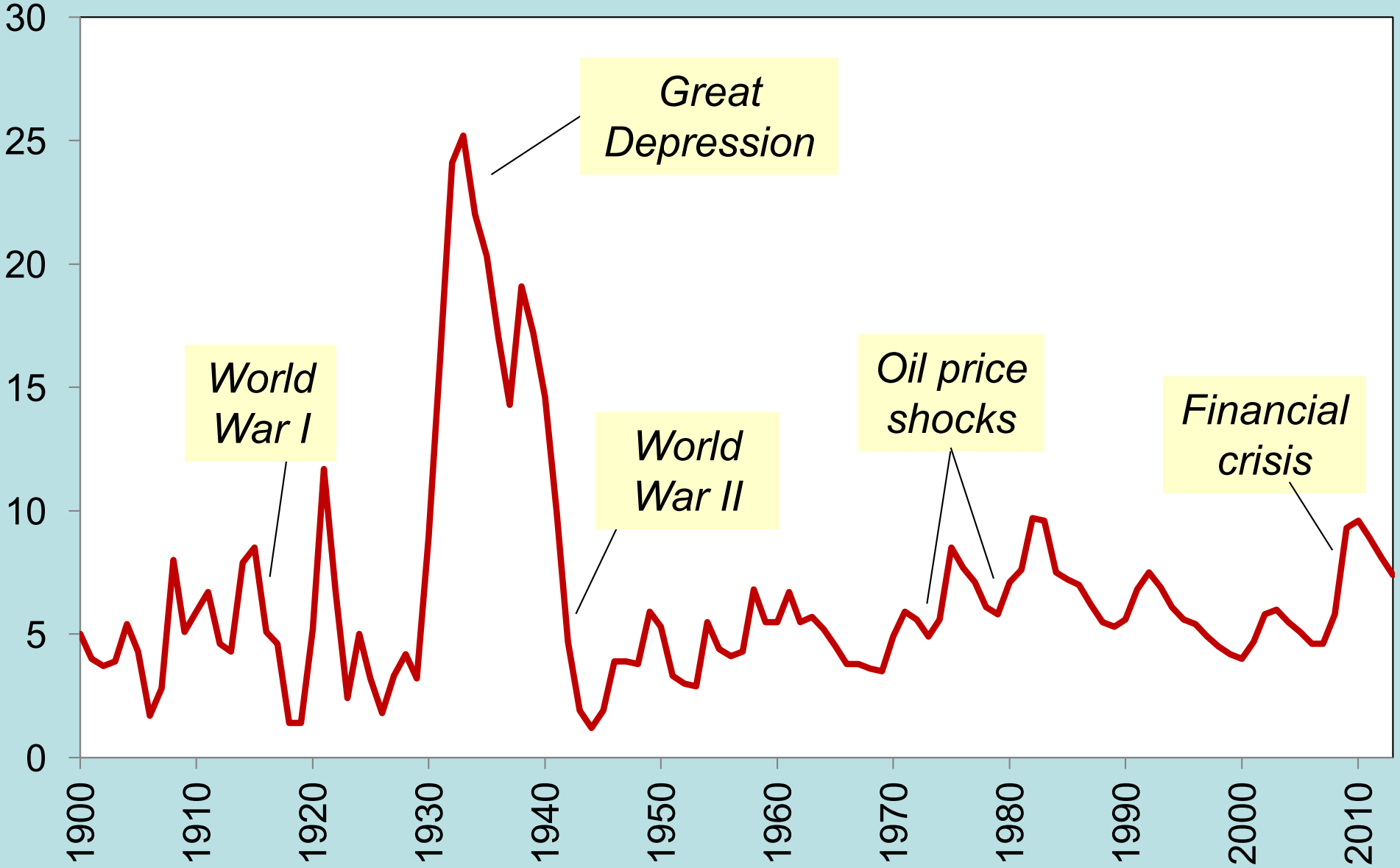
- Why does the cost of living keep rising?
- Why are so many countries poor? What policies might help them grow out of poverty?
- What is the trade deficit? How does it affect a country's well-being?

U.S. Real GDP per capita
(2009 dollars)

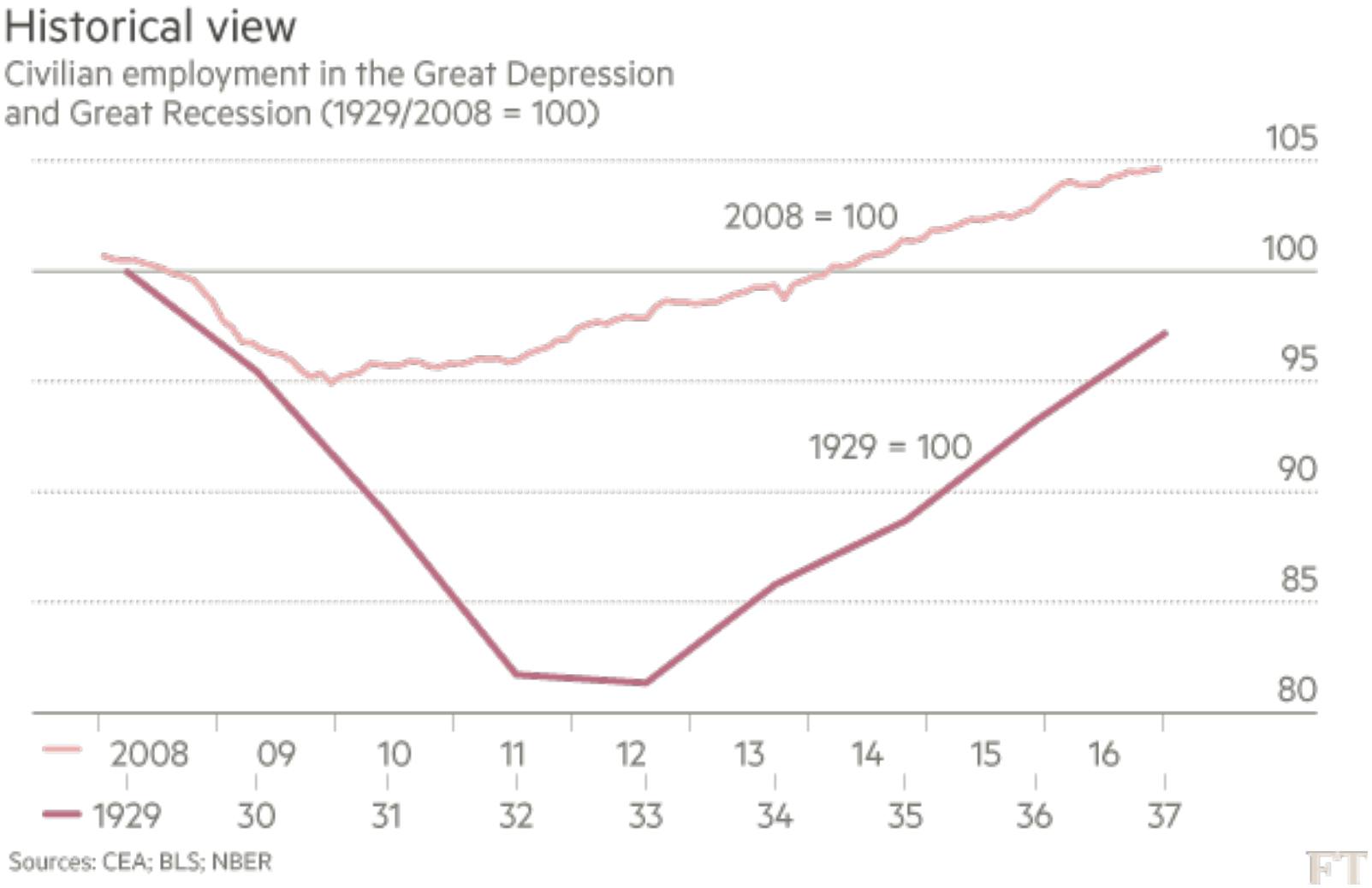
U.S. Inflation Rate
(% per year)



U.S. Unemployment Rate
(% of labor force)



The Great Recession



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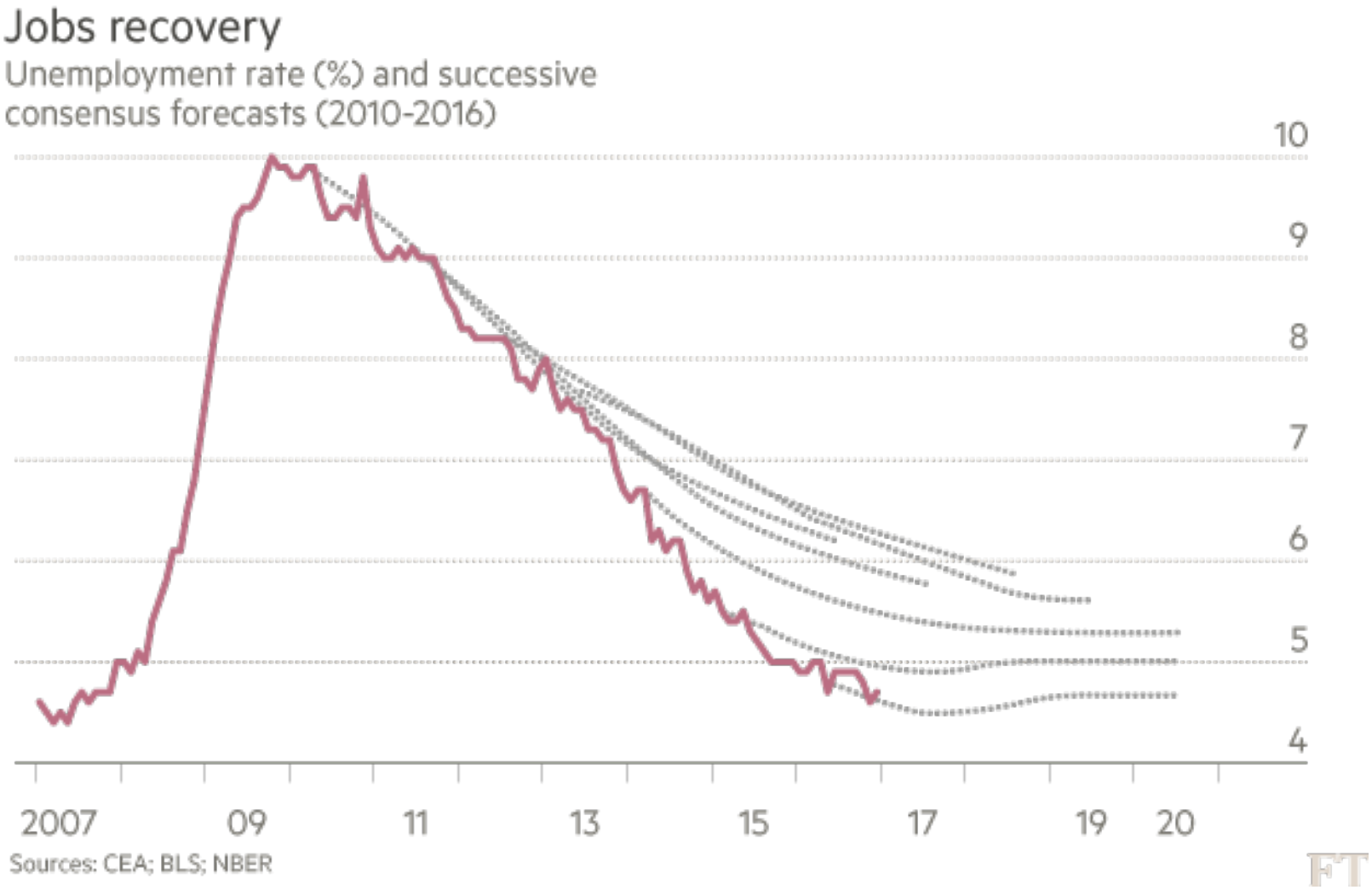
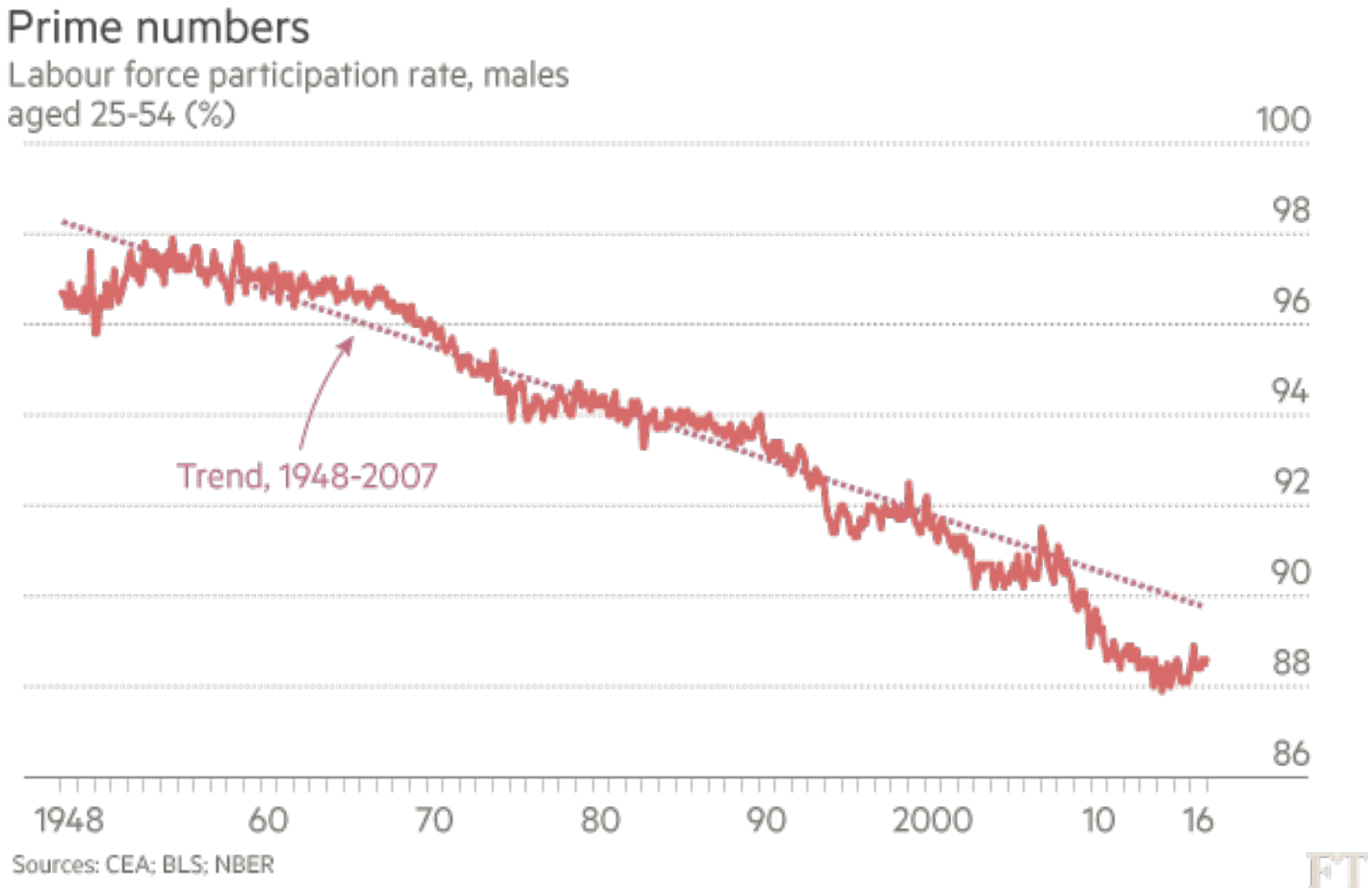


The Great Recession



Economic models

…are simplified versions of a more complex reality.

- irrelevant details are stripped away

…are used to:

- show relationships between variables
- explain the economy's behavior
- devise policies to improve economic performance

Example of a model:
Supply & demand for new cars

- Shows how various events affect price and quantity of cars
- Assumes the market is competitive: each buyer and seller is too small to affect the market price

Variables

Q^d = quantity of cars that buyers demand

Q^s = quantity that producers supply

P = price of new cars

Y = aggregate income

P_s = price of steel (an input)

The demand for cars

Demand equation: $Q^d = D(P, Y)$

- Shows that the quantity of cars consumers demand is related to the price of cars and aggregate income

Digression: functional notation

- **General functional notation**
  shows only that the variables are related.

  $$Q^d = D(P, Y)$$

- A **specific functional form** shows the precise quantitative relationship.
  - Example:

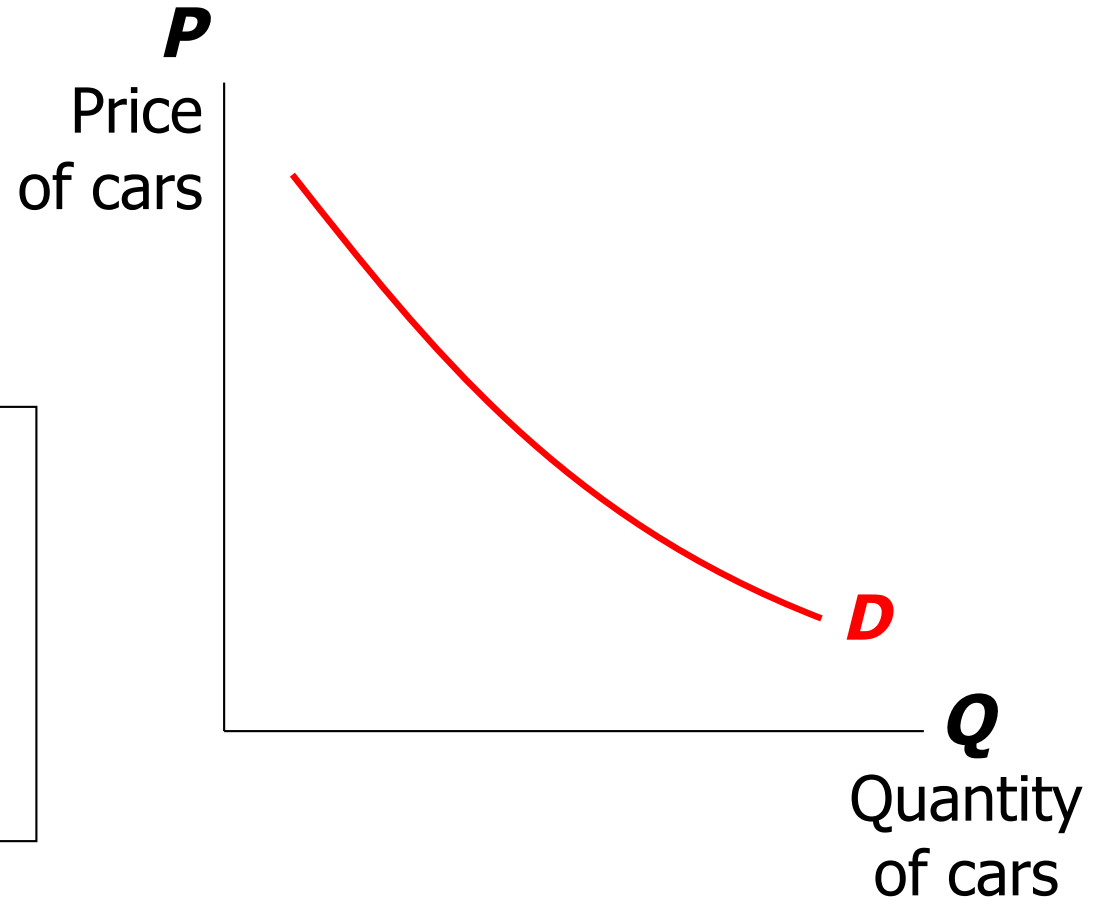
    $$D(P, Y) = 60 - 10P + 2Y$$

The market for cars: Demand

Demand equation:

$$Q^d = D(P, Y)$$

The **demand curve** shows the relationship between quantity demanded and price, other things equal.

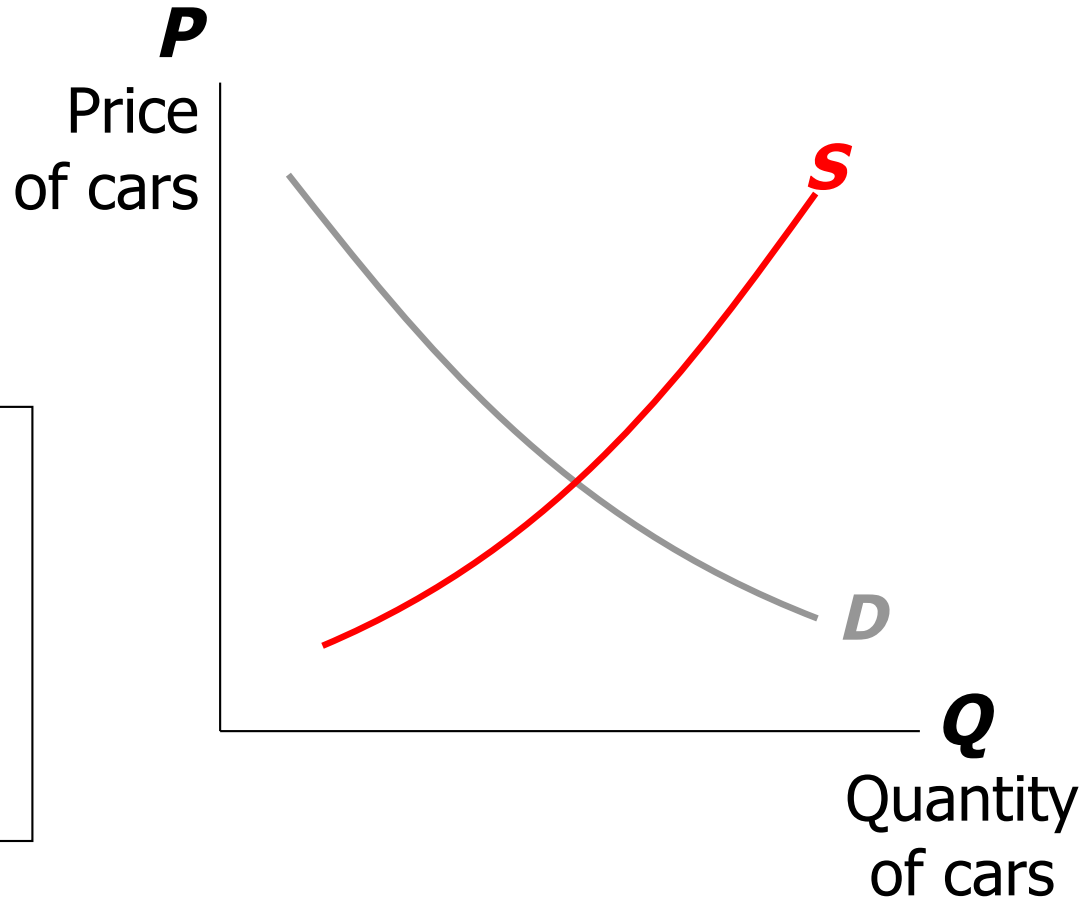


The market for cars: Supply

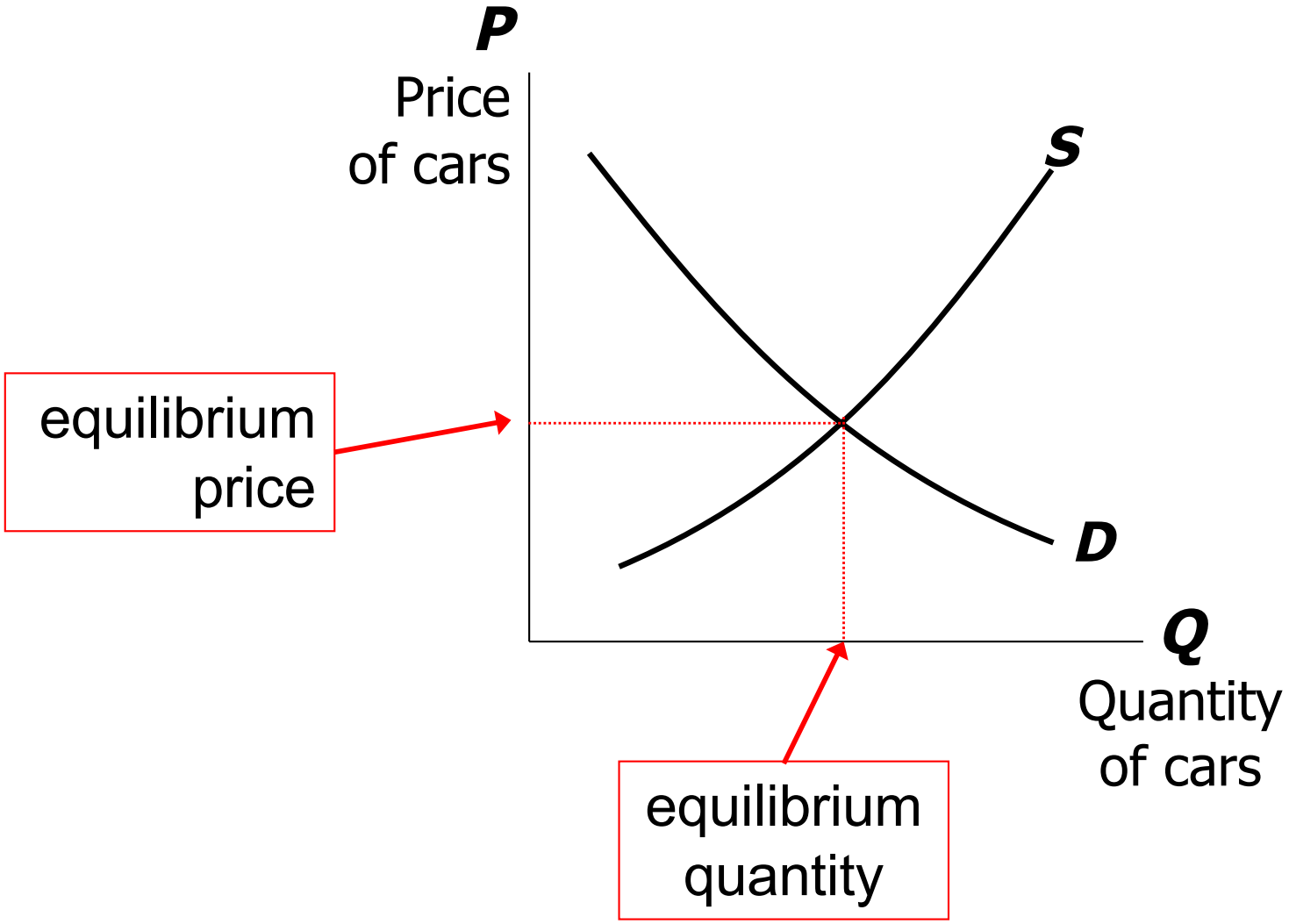
Supply equation:

$$Q^s = S(P, P_S)$$

The **supply curve** shows the relationship between quantity supplied and price, other things equal.



The market for cars: Equilibrium



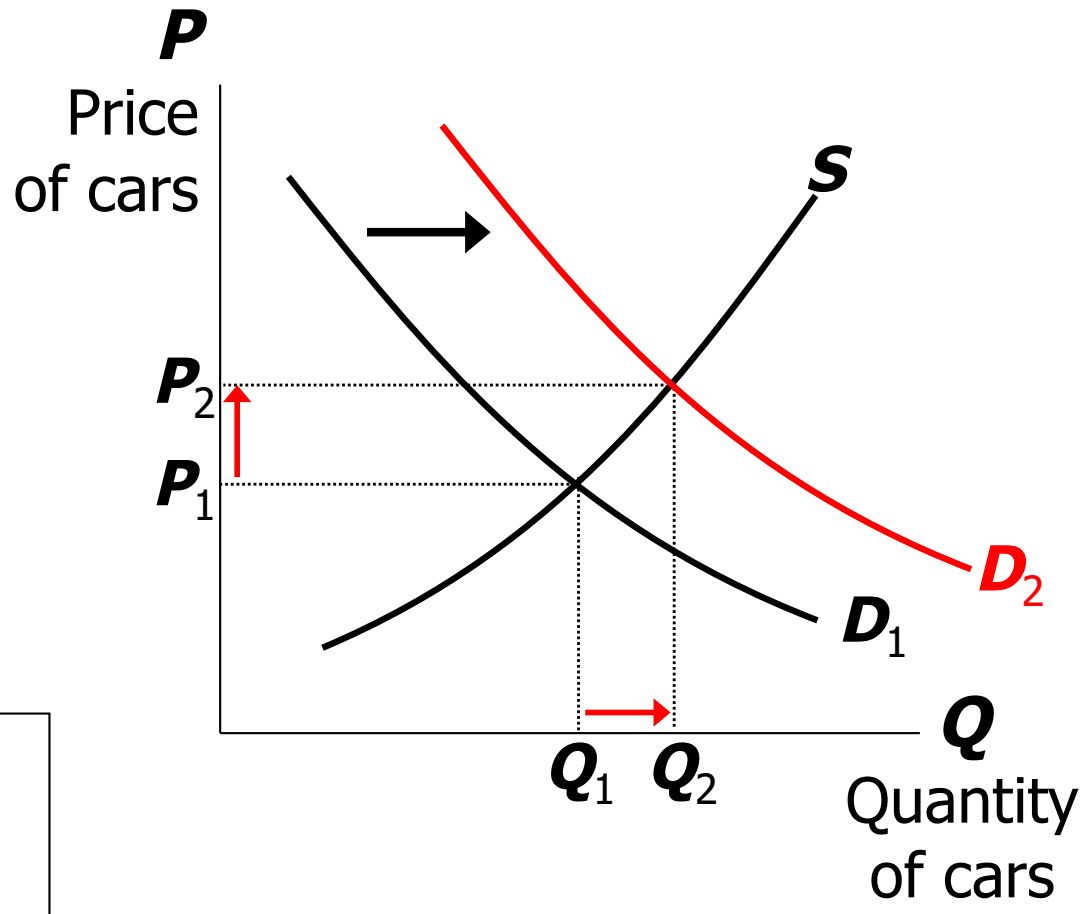
The effects of an increase in income

Demand equation:

$$Q^d = D(P, Y)$$

An increase in income increases the quantity of cars consumers demand at each price…

…which increases the equilibrium price and quantity.



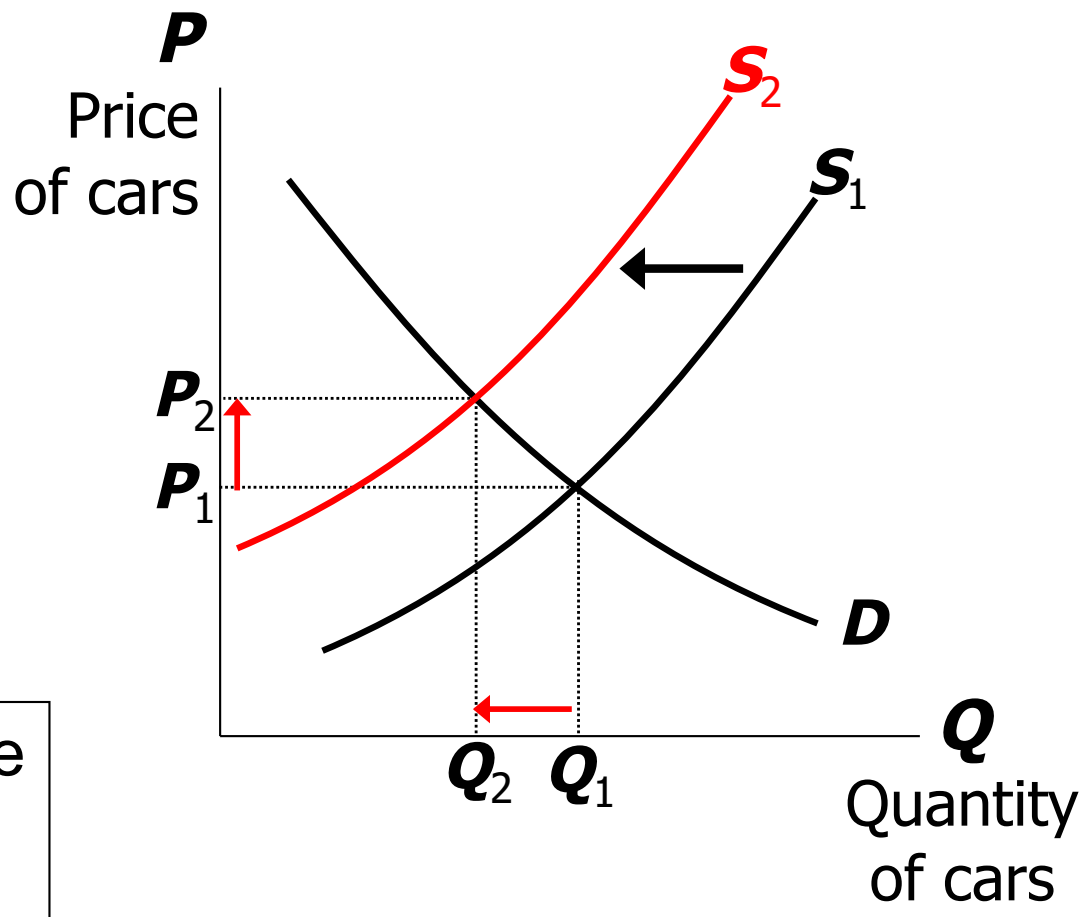
The effects of a steel price increase

Supply equation:

$$Q^s = S(P, P_S)$$

An increase in P_s reduces the quantity of cars producers supply at each price…

…which increases the market price and reduces the quantity.



Endogenous vs. exogenous variables

- The values of **endogenous variables** are determined in the model.
- The values of **exogenous variables** are determined outside the model: The model takes their values and behavior as given.
- In the model of supply & demand for cars,

  endogenous: P, Q^d, Q^s

  exogenous: Y, P_s

The use of multiple models

- No one model can address all the issues we care about.
- *E.g.*, our supply–demand model of the car market…
  - *can* tell us how a fall in aggregate income affects price & quantity of cars.
  - *cannot* tell us *why* aggregate income falls.

The use of multiple models

- So we will learn different models for studying different issues (*e.g.*, unemployment, inflation, long-run growth).
- For each new model, you should keep track of:
  - its assumptions
  - which variables are endogenous, which are exogenous
  - the questions it can help us understand, those it cannot

Prices: flexible vs. sticky

- **Market clearing**: An assumption that prices are flexible, adjust to equate supply and demand.
- In the short run, many prices are **sticky**—adjust sluggishly in response to changes in supply or demand. For example:
  - many labor contracts fix the nominal wage for a year or longer
  - many magazine publishers change prices only once every 3 to 4 years

Prices: flexible vs. sticky

- The economy's behavior depends partly on whether prices are sticky or flexible:
  - If prices are sticky (short run), demand may not equal supply, which explains:
    - unemployment (excess supply of labor)
    - why firms cannot always sell all the goods they produce
  - If prices are flexible (long run), markets clear and economy behaves very differently.

Outline of this course:

- Introductory material (Chaps. 1, 2)
- Classical Theory (Chaps. 3–7)
  How the economy works in the long run, when prices are flexible
- Growth Theory (Chaps. 8, 9)
  The standard of living and its growth rate over the very long run
- Business Cycle Theory (Chaps. 10–14)
  How the economy works in the short run, when prices are sticky

Outline of this course:

- Macroeconomic theory (Chaps. 15–17)
  Macroeconomic dynamics, models of consumer behavior, theories of firms' investment decisions
- Macroeconomic policy (Chaps. 18–20)
  Stabilization policy, government debt and deficits, financial crises

CHAPTER SUMMARY

- Macroeconomics is the study of the economy as a whole, including
  - growth in incomes
  - changes in the overall level of prices
  - the unemployment rate
- Macroeconomists attempt to explain the economy and to devise policies to improve its performance.

CHAPTER SUMMARY

- Economists use different models to examine different issues.
- Models with flexible prices describe the economy in the long run; models with sticky prices describe the economy in the short run.
- Macroeconomic events and performance arise from many microeconomic transactions, so macroeconomics uses many of the tools of microeconomics.