

LECTURE 3
SUPPLY AND DEMAND FRAMEWORK

January 23, 2018

- I. INTRODUCTION TO MARKETS
 - A. Implications of scarcity and the gains from specialization
 - B. What is a market?

- II. SUPPLY AND DEMAND
 - A. Why demand curves slope down
 - B. Why supply curves slope up

- III. MARKET EQUILIBRIUM
 - A. Role of prices
 - B. Equilibrium price and quantity
 - C. How the market gets to equilibrium
 - D. How do markets deal with scarcity and the gains from specialization?

- IV. SHIFTS IN THE CURVES
 - A. Ceteris paribus
 - B. A shift in the supply curve
 - 1. A more costly technology
 - 2. A movement along the curve versus a shift of the curve
 - C. A shift in the demand curve
 - 1. Adverse change in tastes due to bad news about a product
 - 2. A movement along the curve versus a shift of the curve

- V. EFFECTS OF A PRICE CONTROL
 - A. Definition of a price control and examples of different types
 - B. Modeling a price ceiling on bottled water after a natural disaster
 - C. Effects of a price ceiling
 - D. Revisiting the example of growing water-intensive crops in California

Economics 2
Spring 2018

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LECTURE 3

Supply and Demand Framework



January 23, 2018

Announcements

- Problem Set 1 is due at the beginning of lecture next Tuesday (January 30).
- **You may work together on the problems, but:**
 - We strongly recommend working on the problems by yourself first.
 - Your answers must be handwritten and in your own words.
 - You must list other students you worked with at the start of your answers.

Announcements

- **Optional problem set work session:** Thursday, 4-6 p.m. in 648 Evans Hall.

Components of a Good Problem Set Answer

- Neatness is important.
- Graph is usually essential.
- Explain your answer; give the reasoning or intuition for why something happens.

I. INTRODUCTION TO MARKETS

Two Building Blocks

- **Scarcity:** A situation in which a person, firm, or country faces a constraint.
- **Gains from Specialization:** A group of people can produce and consume more if they specialize and trade than if each is self-sufficient.

Market

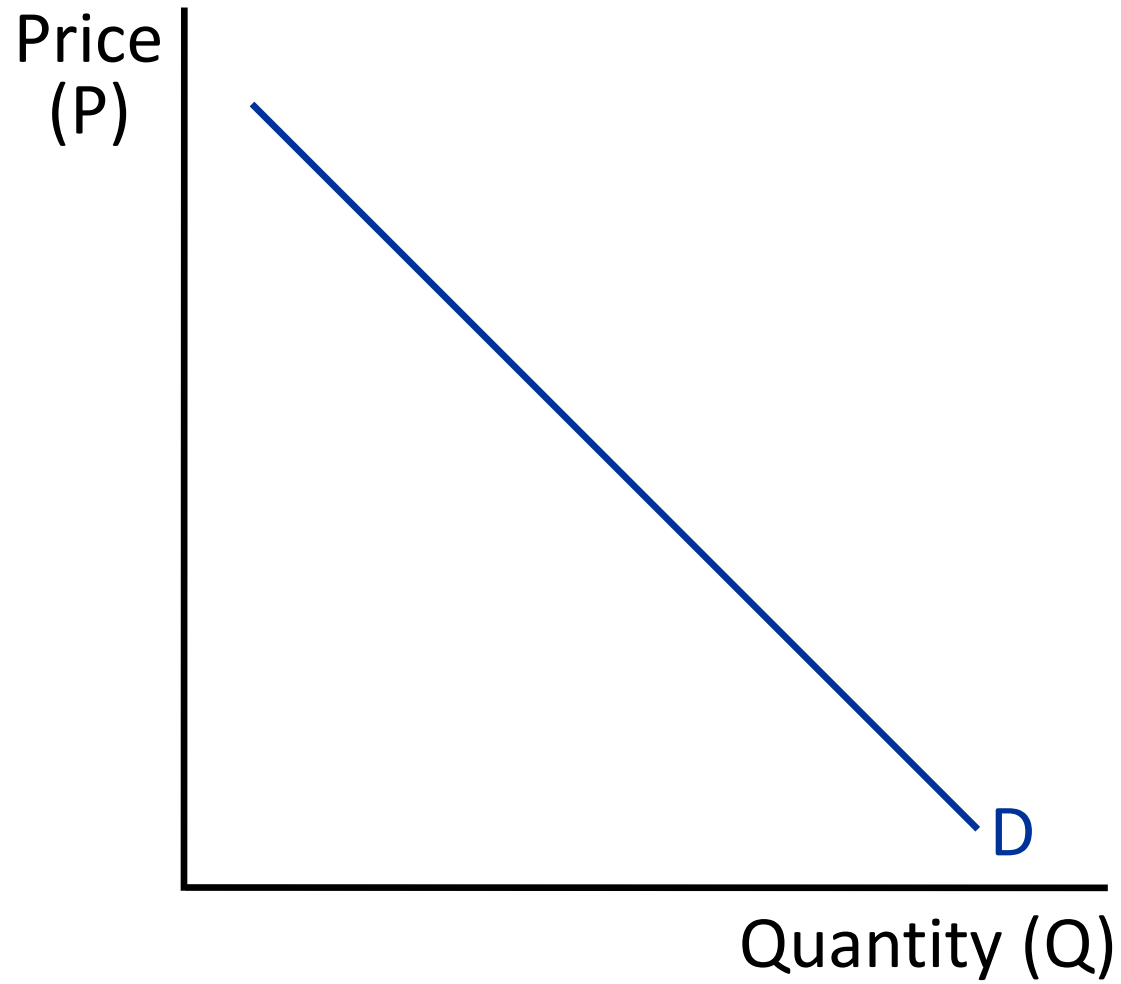
- An arrangement by which economic exchanges between people take place.

II. SUPPLY AND DEMAND

Demand

- The buying side of the market.
- There is a negative relationship between the quantity demanded of a good and its price.
- The relationship reflects optimizing behavior on the part of households.

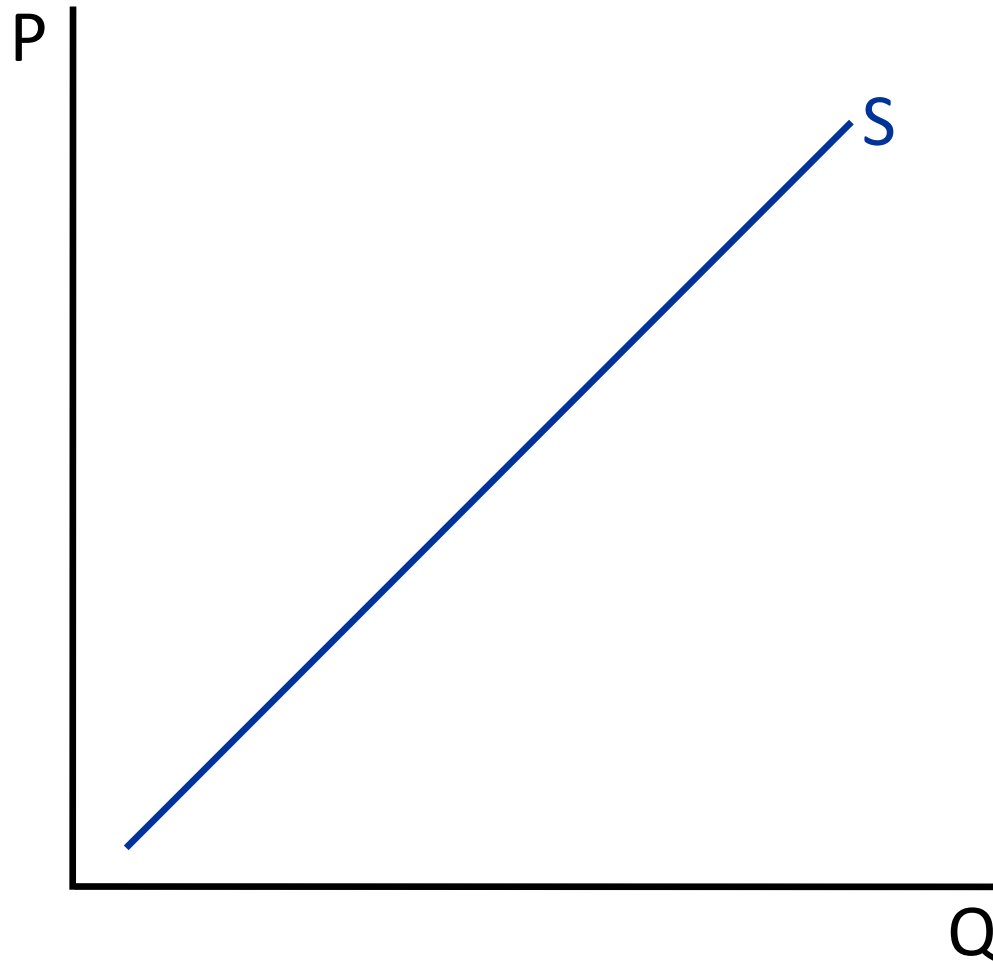
Demand Curve for Blueberries



Supply

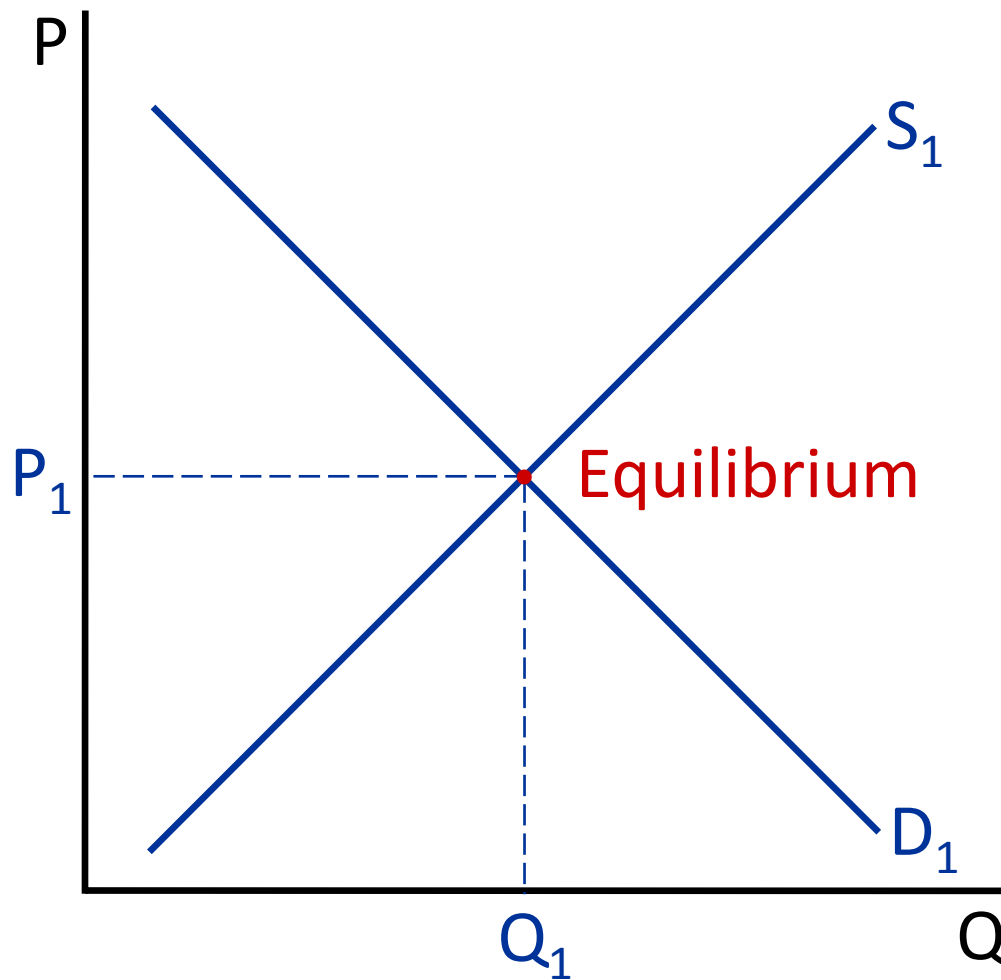
- The selling side of the market.
- There is a positive relationship between the quantity supplied of a good and its price.
- This relationship reflects optimizing behavior on the part of firms.

Supply Curve of Blueberries

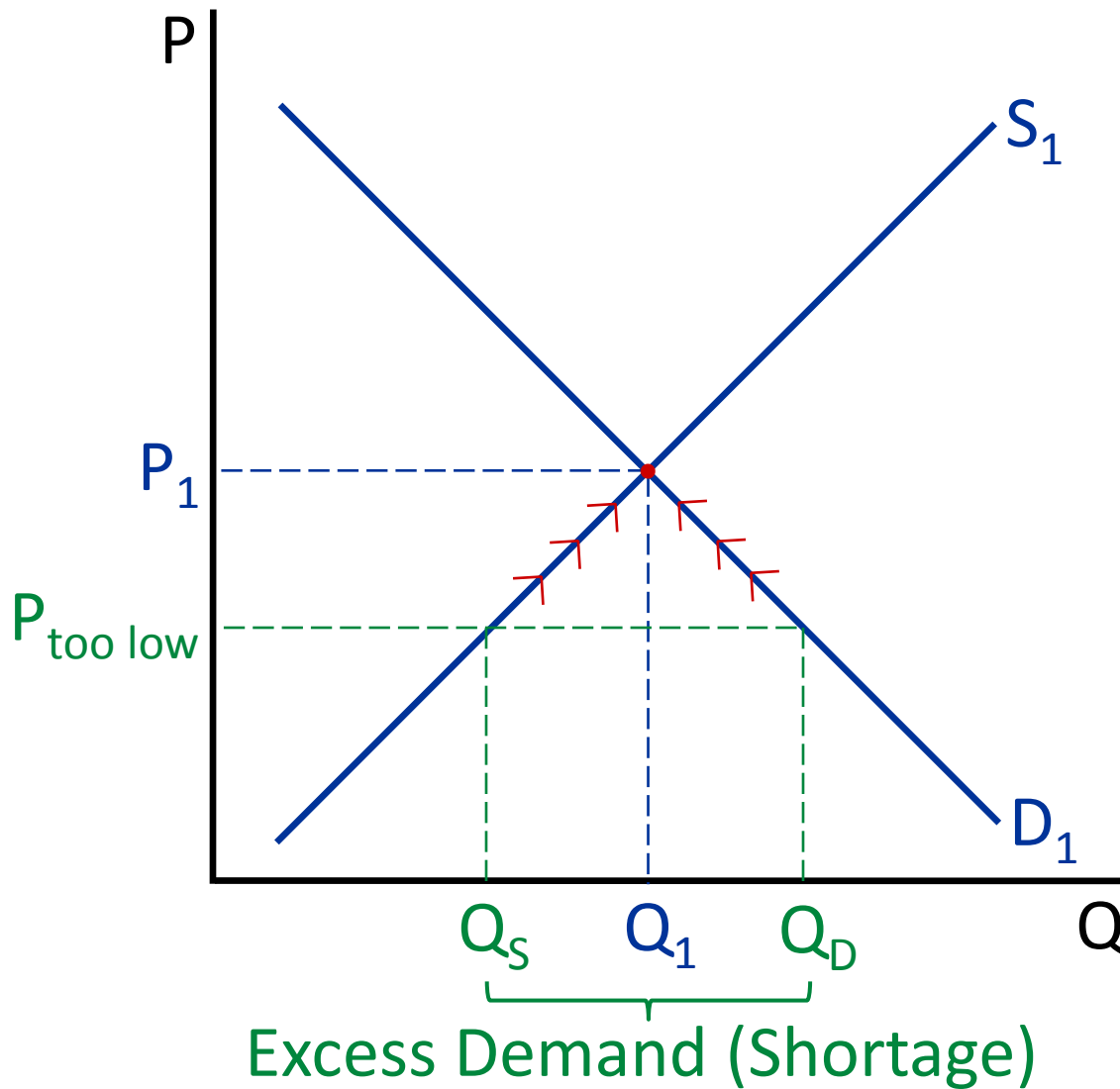


III. MARKET EQUILIBRIUM

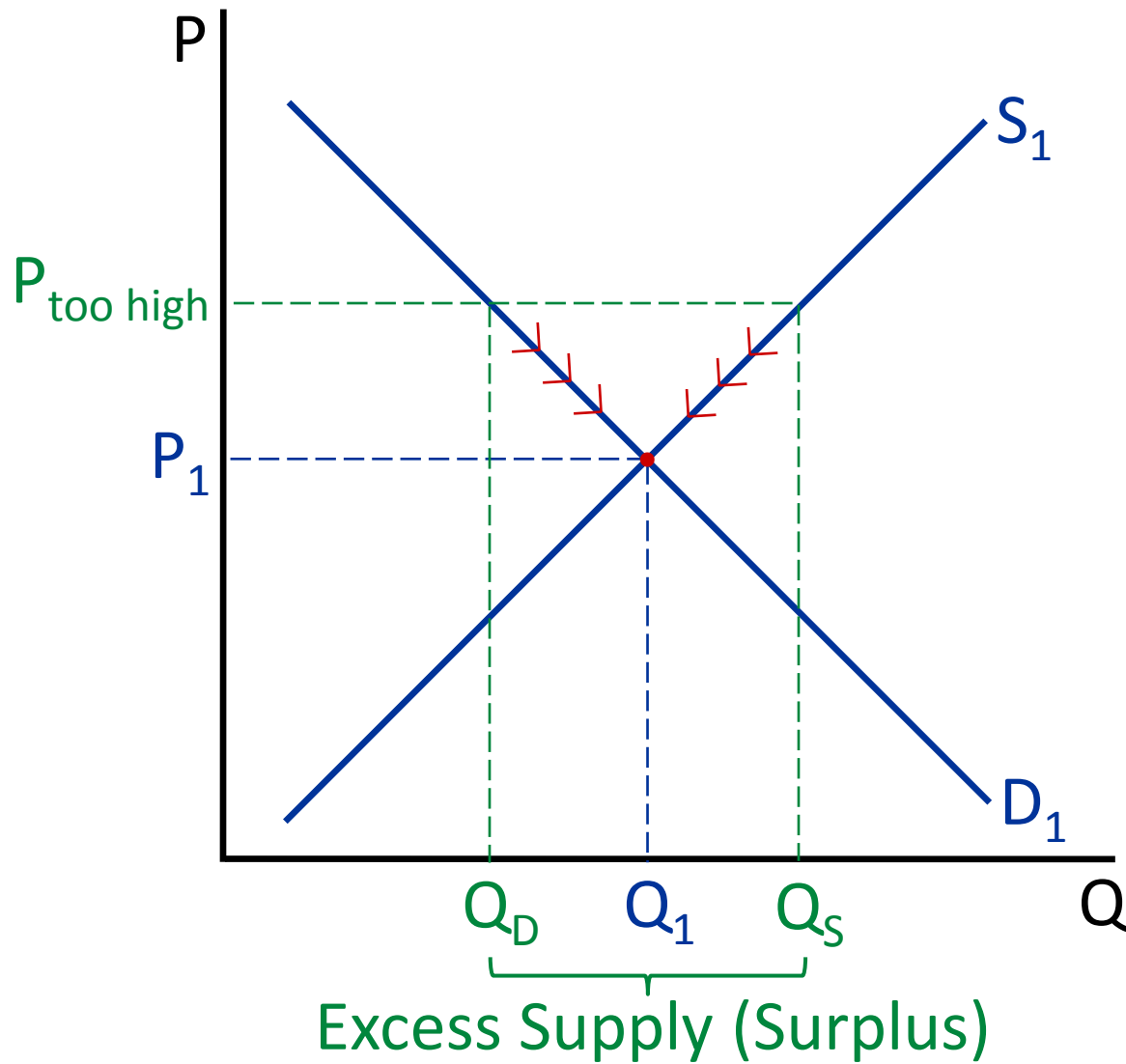
Equilibrium in the Market for Blueberries



What happens if the price is **below** P_1 ?



What happens if the price is **above** P_1 ?



How Do Markets Deal with Scarcity and the Gains from Specialization?

- The existence of markets allows people to specialize along the lines of comparative advantage because they can trade for other goods that they want.
- Markets deal with scarcity by balancing the optimizing behavior of consumers and producers. Prices adjust to equilibrate the two sides of the market.
- The consumers who actually get the good are those who are willing and able to pay the equilibrium price.
- The firms that actually produce the good are those that find it profit-maximizing to produce at the equilibrium price.

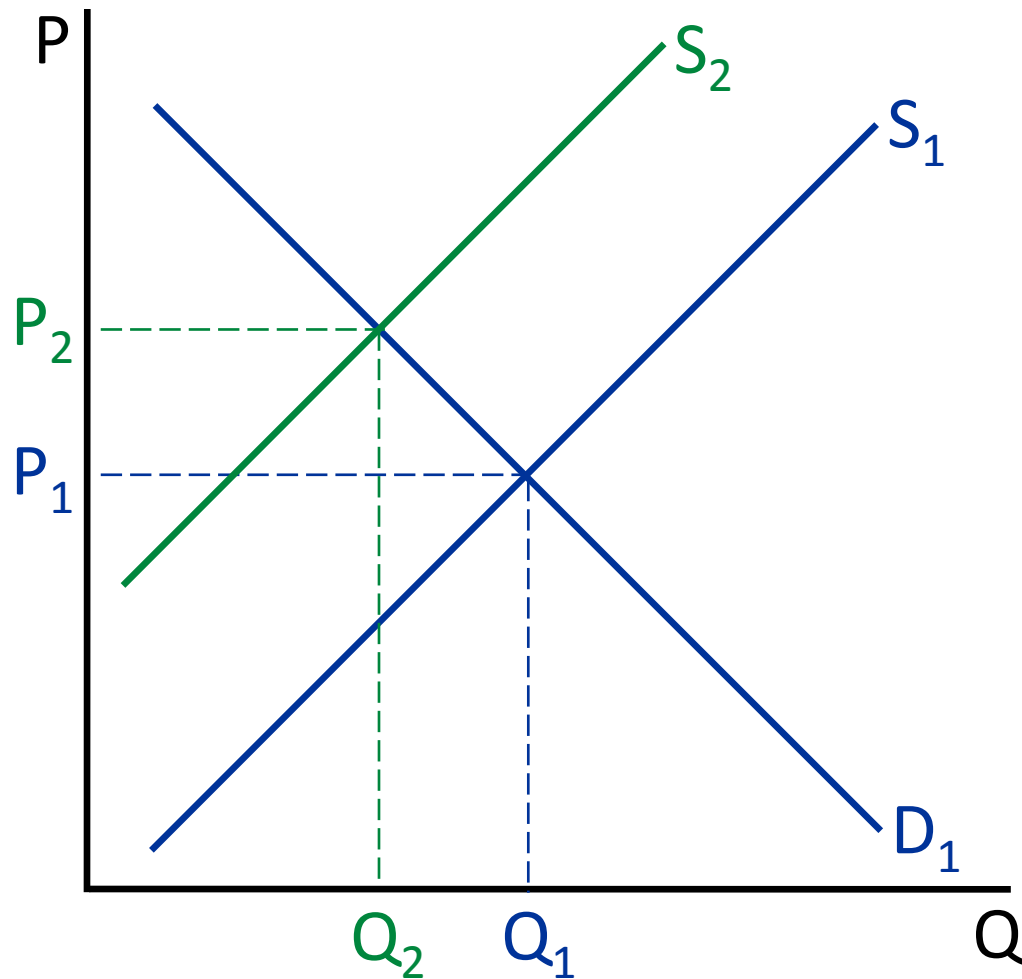
IV. SHIFTS IN THE CURVES

Ceteris Paribus

- “other things being equal”
- All variables other than those being studied are assumed to be constant.

Market for Blueberries

A More Costly Technology

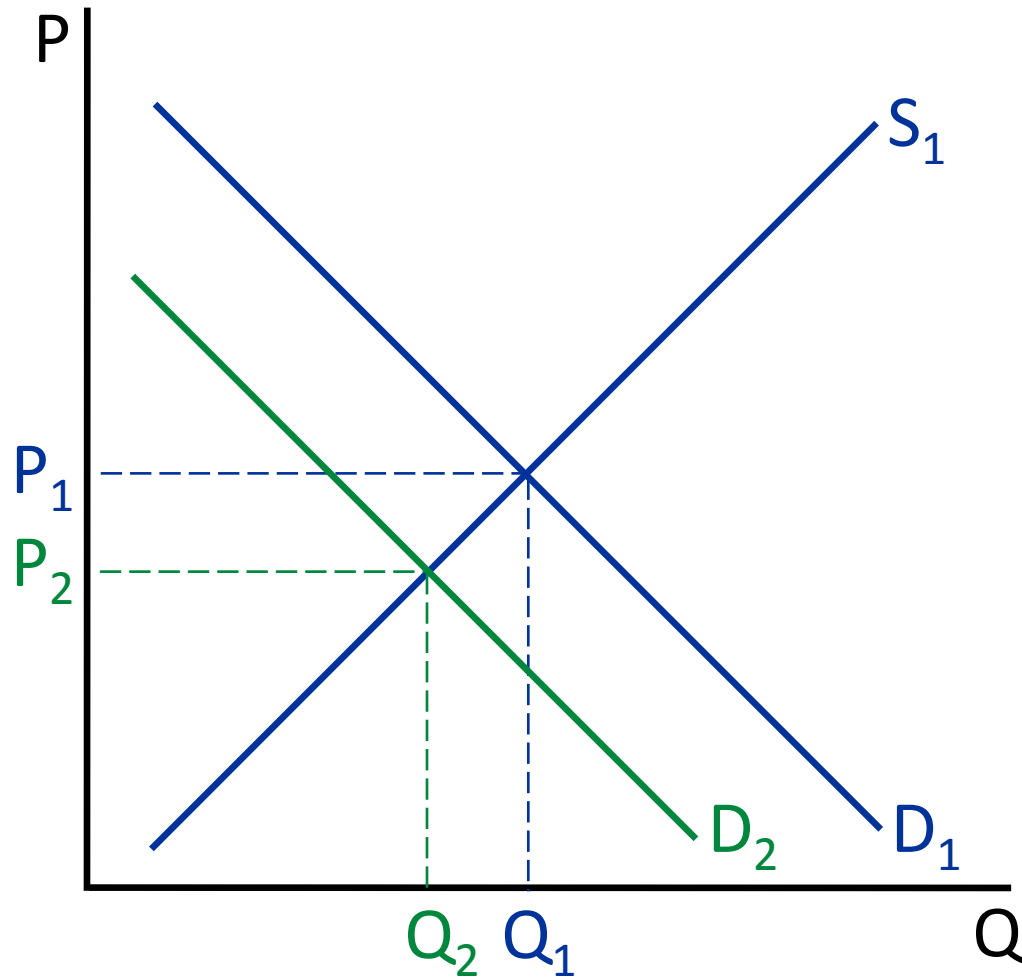


Movements Along vs. Shifts

- A change in the quantity supplied or quantity demanded because the price changed:
Movement along the curve.
- A change in the quantity supplied or quantity demanded at the same price:
Shift of the curve.

Market for Blueberries

Adverse Change in Tastes

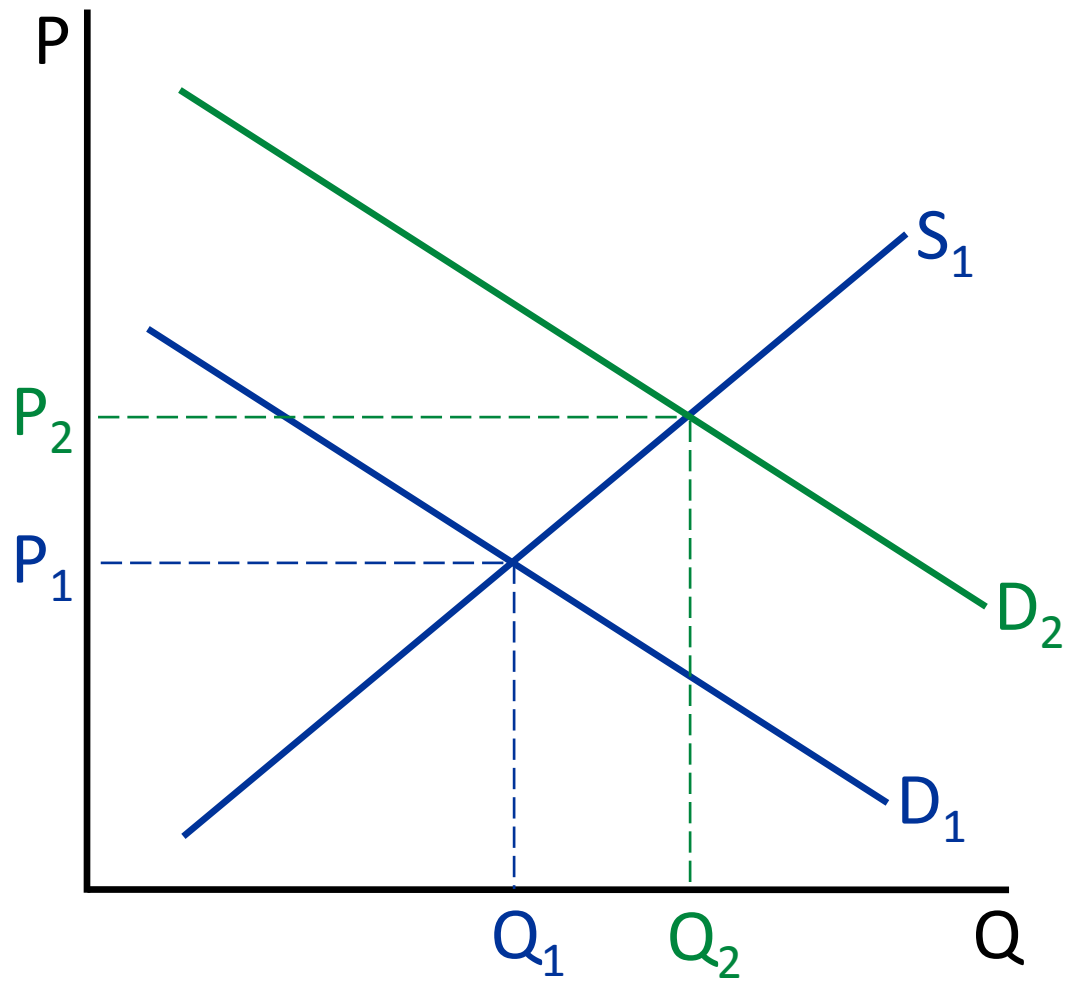


V. EFFECTS OF A PRICE CONTROL

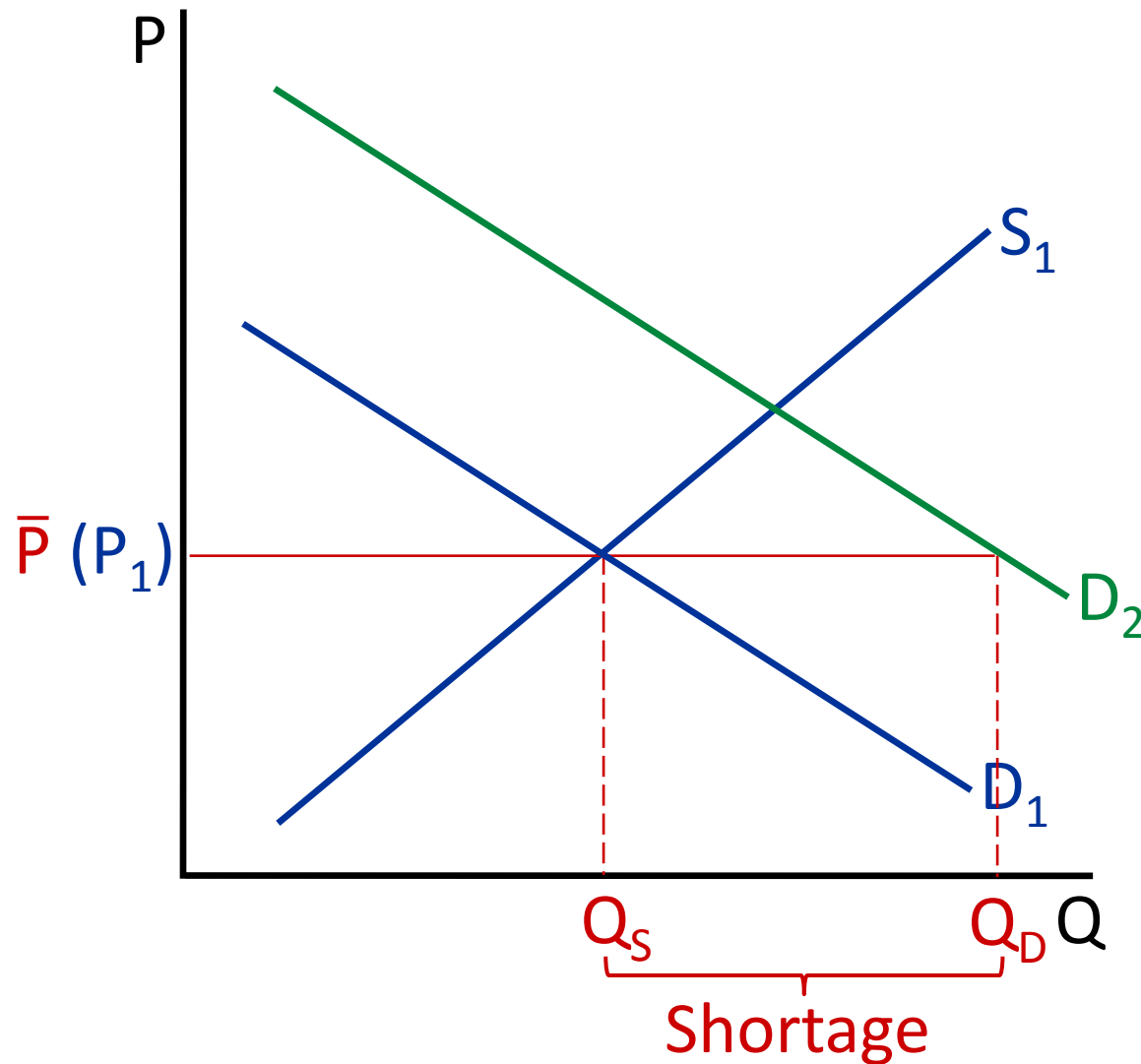
Price Control

- Government sets the price of a good; it is not allowed to go to its equilibrium level.
 - **Price Ceiling:** Maximum price; price is held below its equilibrium level.
 - **Price Floor:** Minimum price; price is held above its equilibrium level.

Bottled Water after a Disaster



Bottled Water after a Disaster with a Price Ceiling



Effects of a Price Ceiling

- Will lead to a shortage.
- Good will have to be allocated in some way other than by price.
- Discourages the decrease in quantity demanded and increase in quantity supplied that automatically occur as the price rises.

Why does California produce some water-intensive crops?

- Part of the answer is that much of our irrigation water is provided at a controlled price that is below the equilibrium level.
- As a result, there is a shortage of water.
- Water must be allocated by means other than price, and so some farmers do not feel the full opportunity cost of the water they use.