

Chapter 1 Introduction

Microeconomics: Consumption and Production

1st course (1st semester)

Degree in Economics and Finance

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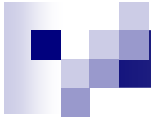
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CHAPTER 1 OUTLINE

1.1. The themes of Microeconomics

1.2. The basics of supply and demand



1.1. The themes of Microeconomics (1)

Why studying Economics?

We are consumers (and sometimes, we ask for money)

We invest our money/ We can be investment consultants

You might be businessmen/ businesswomen/ business consultants

You might work for the Public Sector (Government)

You might teach Economics



1.1. The themes of Microeconomics (2)

Economics studies the way in which societies use their scarce resources to efficiently produce goods and services to be distributed among individuals



1.1. The themes of Microeconomics (3)

Consumers

Consumers have limited incomes, which can be spent on a wide variety of goods and services, or saved for the future.

Workers

Workers also face constraints and make trade-offs. First, people must decide whether and when to enter the workforce. Second, workers face trade-offs in their choice of employment. Finally, workers must sometimes decide how many hours per week they wish to work, thereby trading off labor for leisure.

Firms

Firms also face limits in terms of the kinds of products that they can produce, and the resources available to produce them.

1.1. The themes of Microeconomics (4)

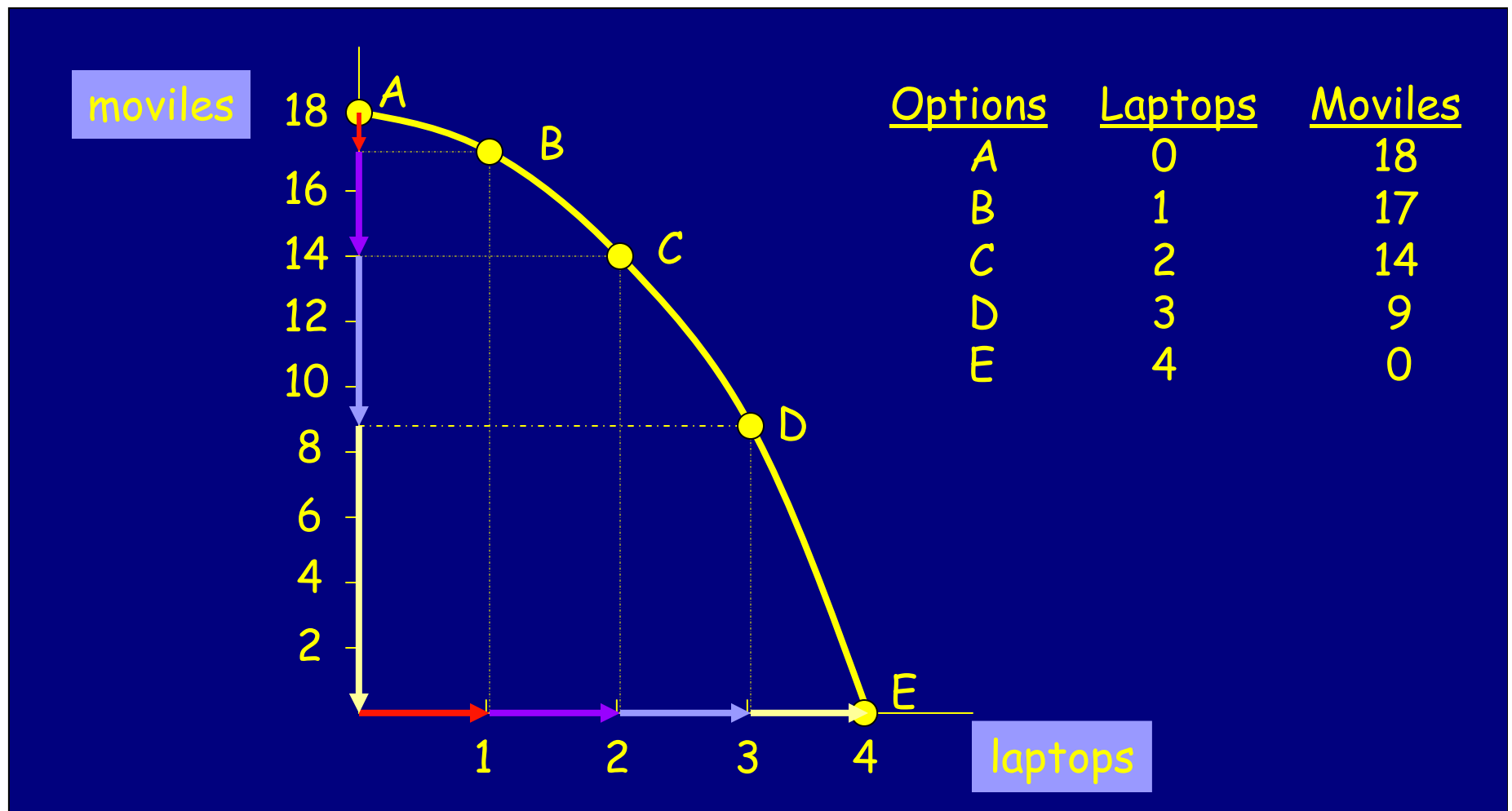


Then, use resources in the best possible, way, NO WASTE

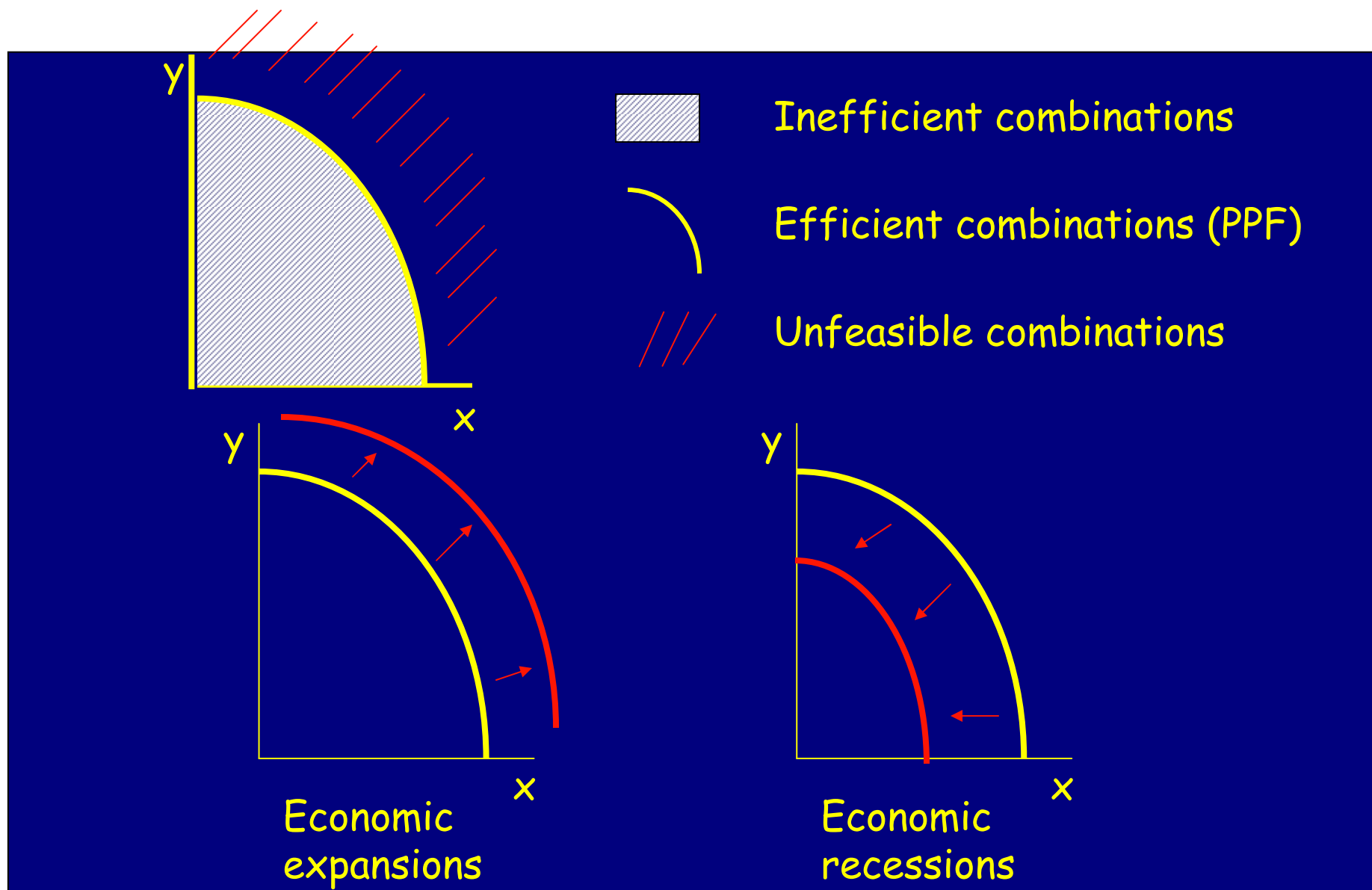
EFFICIENCY

The diagram shows a thick black arrow pointing downwards from a horizontal line to the word 'EFFICIENCY'. The horizontal line is positioned below the text 'Then, use resources in the best possible, way, NO WASTE'.

1.1. The themes of Microeconomics (5)



1.1. The themes of Microeconomics (6)





1.1. The themes of Microeconomics (7)

Relevant questions

WHAT TO PRODUCE

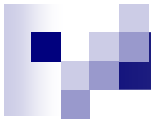
HOW TO PRODUCE

FOR WHOM TO PRODUCE



1.1. The themes of Microeconomics (8)

- **microeconomics** Branch of economics that deals with the behavior of individual economic units—consumers, firms, workers, and investors—as well as the markets that these units comprise.
- **macroeconomics** Branch of economics that deals with aggregate economic variables, such as the level and growth rate of national output, interest rates, unemployment, and inflation.



1.1. The themes of Microeconomics (9)

Prices and Markets

Microeconomics describes how prices are determined.

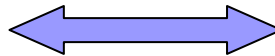
In a centrally planned economy, prices are set by the government.

In a market economy, prices are determined by the interactions of consumers, workers, and firms. These interactions occur in *markets*—collections of buyers and sellers that together determine the price of a good.

1.1. The themes of Microeconomics (10)

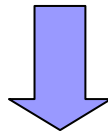
Economic systems

Market economy



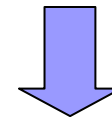
Centrally planned economy

US
EU
Japan



The majority of economic decisions are private.
Sometimes, the Government corrects some outcomes

Cuba
China (in the past)
Ex Soviet Union



Government decides on almost every economic aspect



1.1. The themes of Microeconomics (11)

Theories and Models

In economics, explanation and prediction are based on *theories*. Theories are developed to explain observed phenomena in terms of a set of basic rules and assumptions.

A *model* is a mathematical representation, based on economic theory, of a firm, a market, or some other entity.

Positive versus Normative Analysis

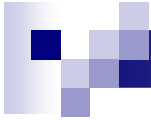
- **positive analysis** Analysis describing relationships of cause and effect.
- **normative analysis** Analysis examining questions of what ought to be.



1.1. The themes of Microeconomics (12)

What is a market?

- **market** Collection of buyers and sellers that, through their actual or potential interactions, determine the price of a product or set of products.
- **market definition** Determination of the buyers, sellers, and range of products that should be included in a particular market.
- **arbitrage** Practice of buying at a low price at one location and selling at a higher price in another.



1.1. The themes of Microeconomics (13)

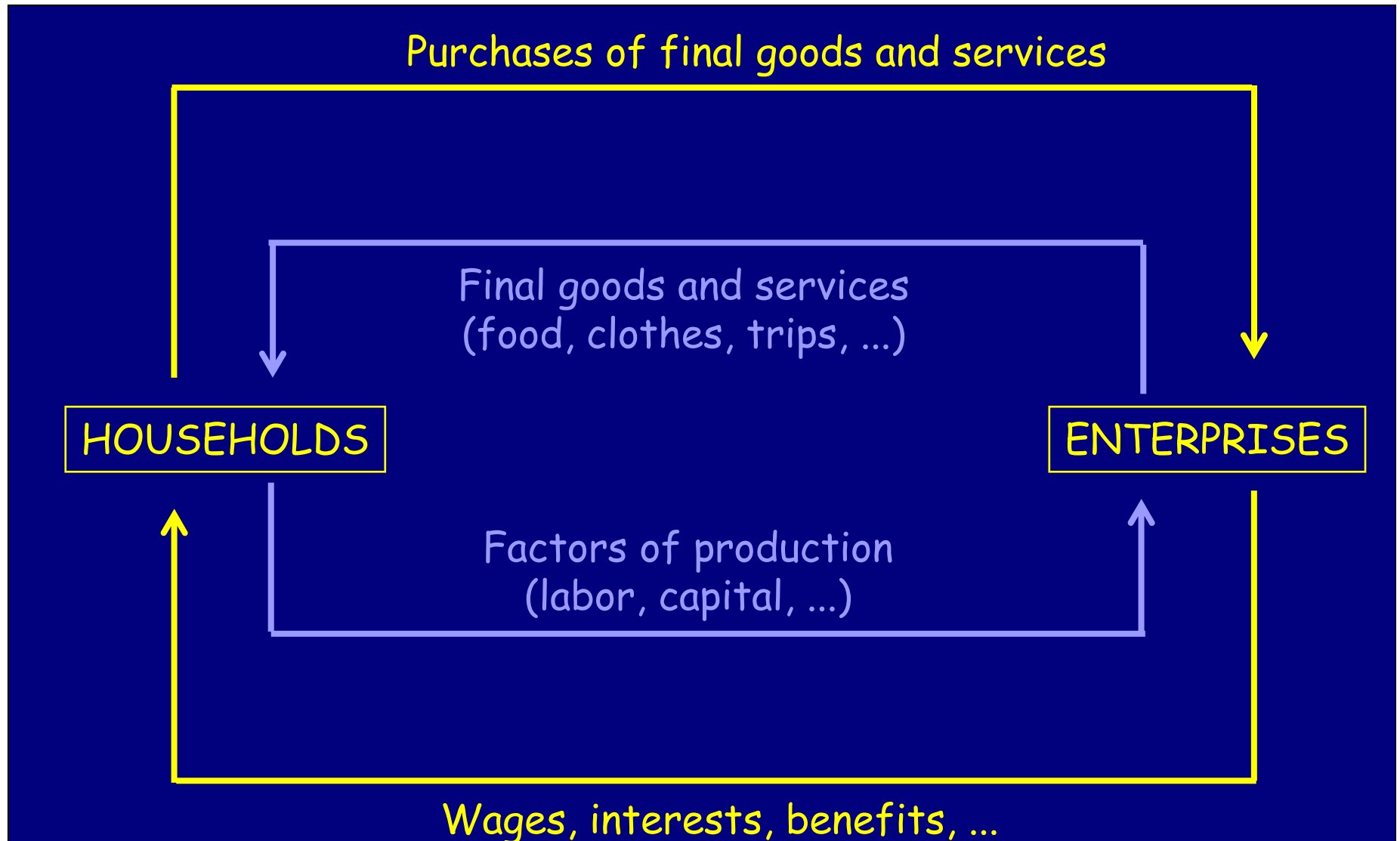
Market Definition—The Extent of a Market

- **extent of a market** Boundaries of a market, both geographical and in terms of range of products produced and sold within it.

Market definition is important for two reasons:

- A company must understand who its actual and potential competitors are for the various products that it sells or might sell in the future.
- Market definition can be important for public policy decisions.

1.1. The themes of Microeconomics (14)





1.2. The basics of supply and demand (1)

Supply-demand analysis is a fundamental and powerful tool that can be applied to a wide variety of interesting and important problems. To name a few:

- Understanding and predicting how changing world economic conditions affect market price and production
- Evaluating the impact of government price controls, minimum wages, price supports, and production incentives
- Determining how taxes, subsidies, tariffs, and import quotas affect consumers and producers

1.2. The basics of supply and demand (2)

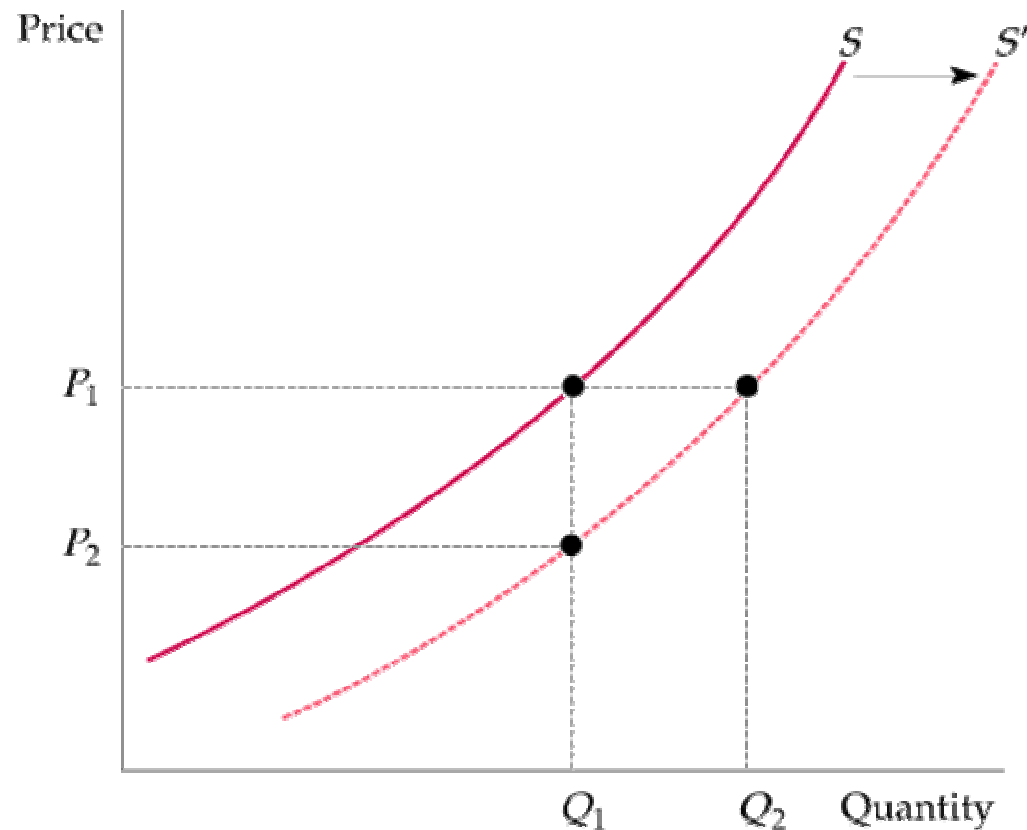
- **supply curve** Relationship between the quantity of a good that producers are willing to sell and the price of the good. $Q_s = Q_s(P)$

Figure 2.1

The Supply Curve

The supply curve, labeled S in the figure, shows how the quantity of a good offered for sale changes as the price of the good changes. The supply curve is upward sloping: The higher the price, the more firms are able and willing to produce and sell.

If production costs fall, firms can produce the same quantity at a lower price or a larger quantity at the same price. The supply curve then shifts to the right (from S to S').





1.2. The basics of supply and demand (3)

Other Variables That Affect Supply The quantity supplied can depend on other variables besides price. For example:

The quantity that producers are willing to sell depends not only on the price they receive but also on their production costs, including wages, interest charges, and the costs of raw materials.

When production costs *decrease*, output *increases* no matter what the market price happens to be. *The entire supply curve thus shifts to the right.*

Economists often use the phrase change in supply to refer to shifts in the supply curve, while reserving the phrase change in the quantity supplied to apply to movements along the supply curve.

1.2. The basics of supply and demand (4)

- **demand curve** Relationship between the quantity of a good that consumers are willing to buy and the price of the good. $Q_D = Q_D(P)$

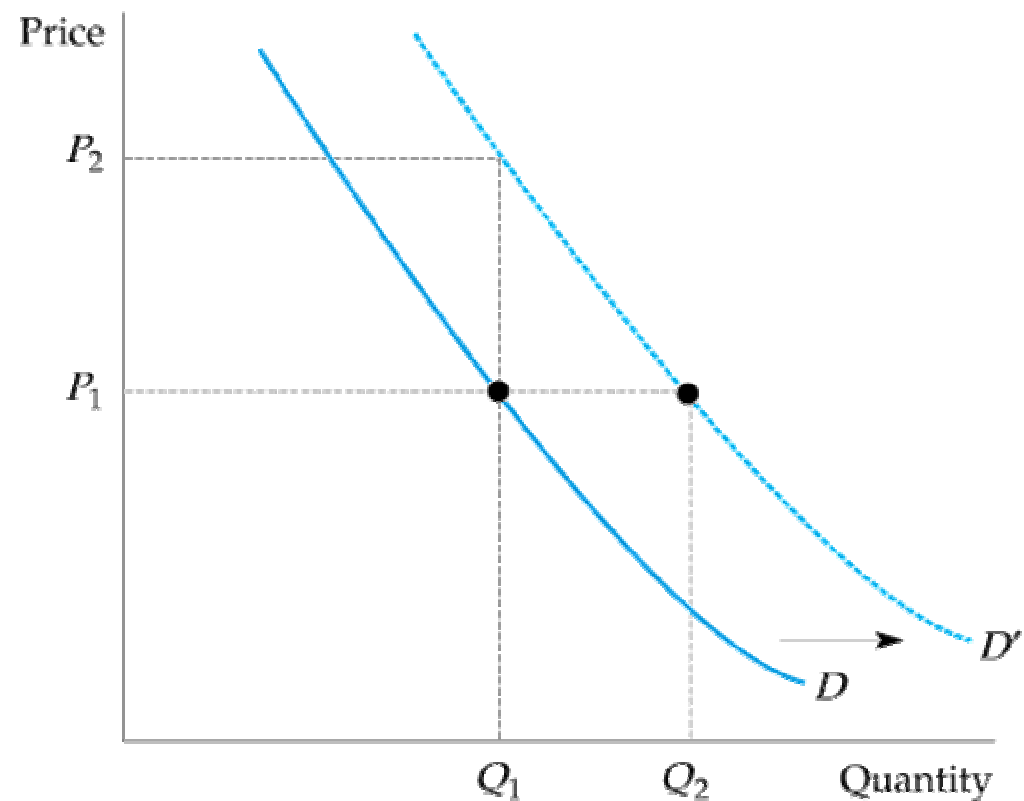
Figure 2.2

The Demand Curve

The demand curve, labeled D , shows how the quantity of a good demanded by consumers depends on its price. The demand curve is downward sloping; holding other things equal, consumers will want to purchase more of a good as its price goes down.

The quantity demanded may also depend on other variables, such as income, the weather, and the prices of other goods. For most products, the quantity demanded increases when income rises.

A higher income level shifts the demand curve to the right (from D to D').





1.2. The basics of supply and demand (5)

Shifting the Demand Curve

If the market price were held constant, we would expect to see an increase in the quantity demanded as a result of consumers' higher incomes. Because this increase would occur no matter what the market price, the result would be a *shift to the right of the entire demand curve*.

Substitute and Complementary

Goods

- **substitutes** Two goods for which an increase in the price of one leads to an increase in the quantity demanded of the other.
- **complements** Two goods for which an increase in the price of one leads to a decrease in the quantity demanded of the other.



1.2. The basics of supply and demand (6)

Equilibrium

- **equilibrium (or market clearing) price**
Price that equates the quantity supplied to the quantity demanded.
- **market mechanism** Tendency in a free market for price to change until the market clears.

1.2. The basics of supply and demand (7)

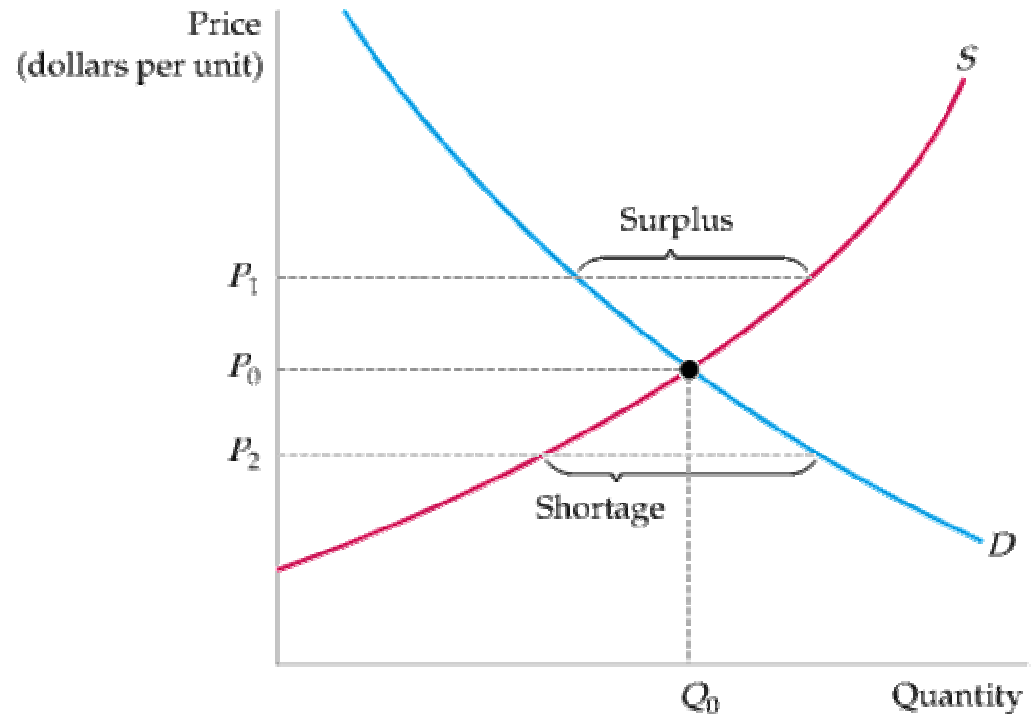
Figure 2.3

Supply and Demand

The market clears at price P_0 and quantity Q_0 .

At the higher price P_1 , a surplus develops, so price falls.

At the lower price P_2 , there is a shortage, so price is bid up.



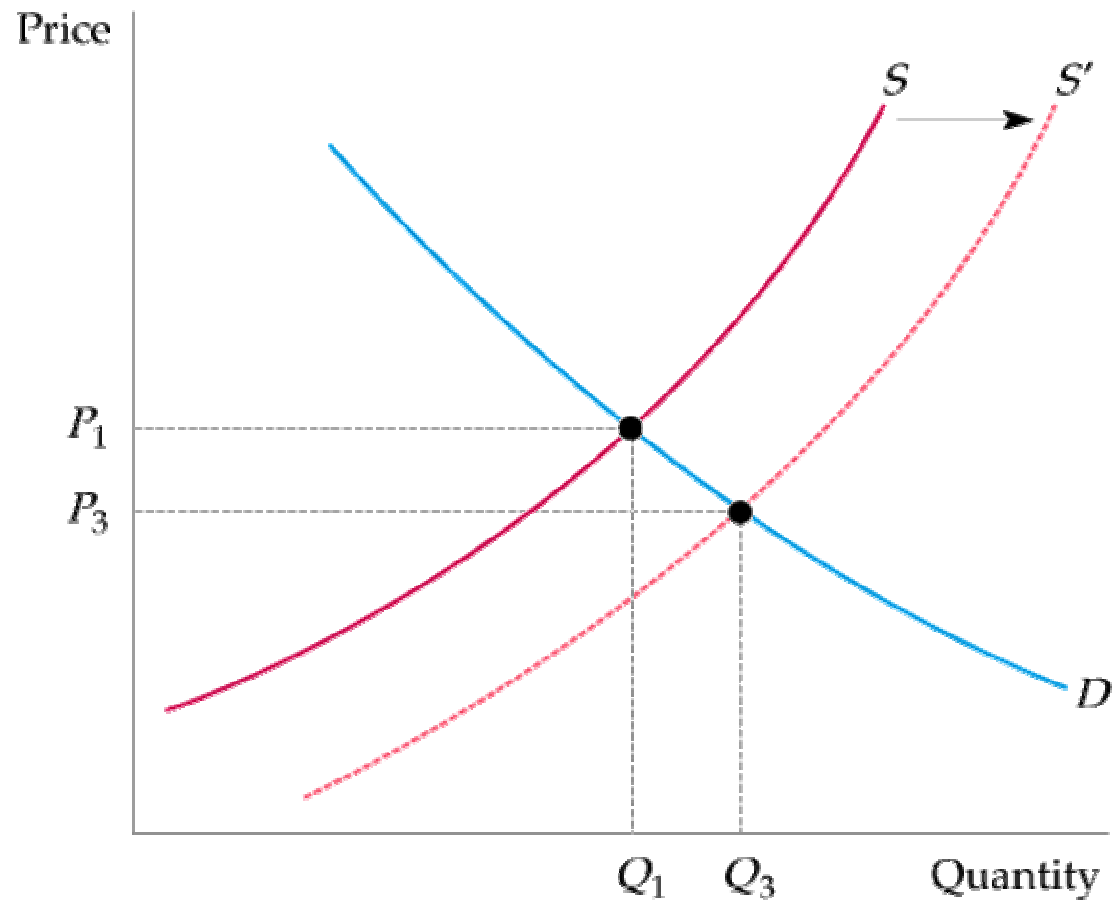
- **surplus** Situation in which the quantity supplied exceeds the quantity demanded.
- **shortage** Situation in which the quantity demanded exceeds the quantity supplied.

1.2. The basics of supply and demand (8)

Figure 2.4

New Equilibrium Following Shift in Supply

When the supply curve shifts to the right, the market clears at a lower price P_3 and a larger quantity Q_3 .

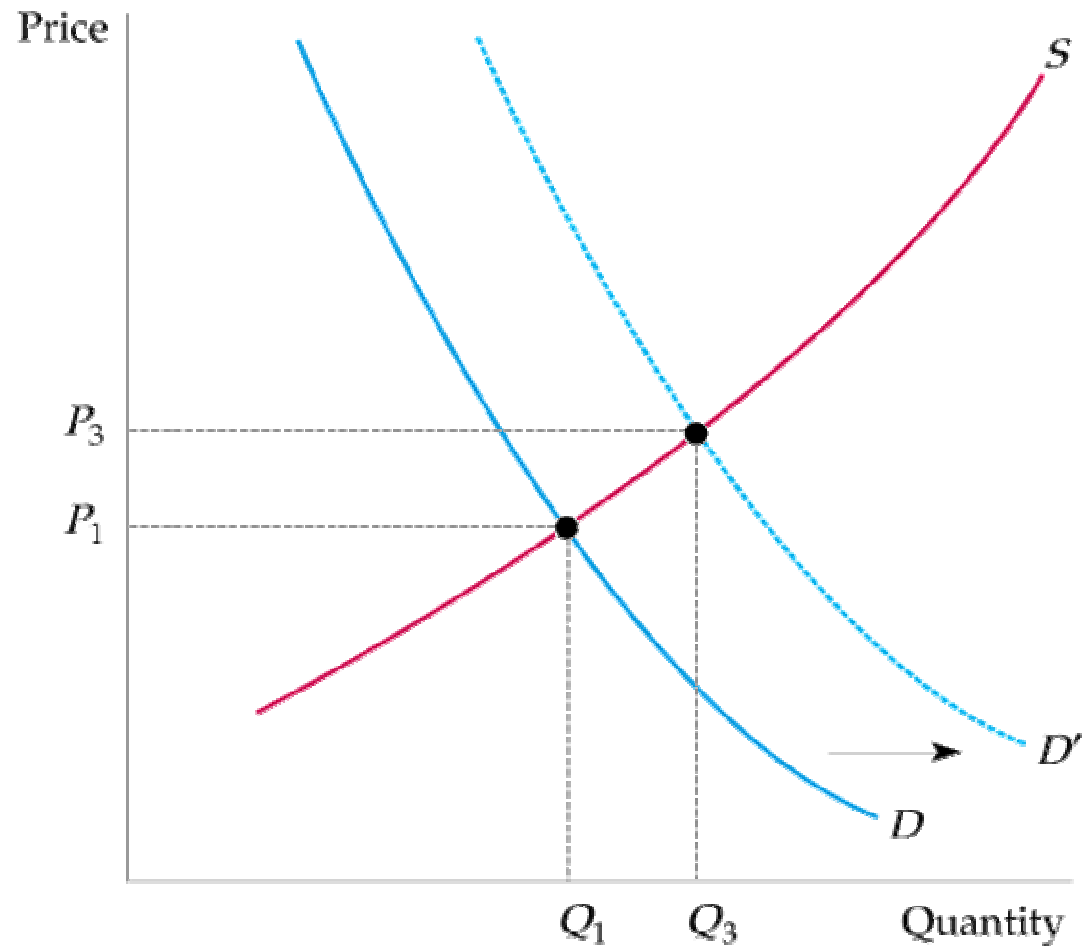


1.2. The basics of supply and demand (9)

Figure 2.5

New Equilibrium Following Shift in Demand

When the demand curve shifts to the right, the market clears at a higher price P_3 and a larger quantity Q_3 .



1.2. The basics of supply and demand (10)

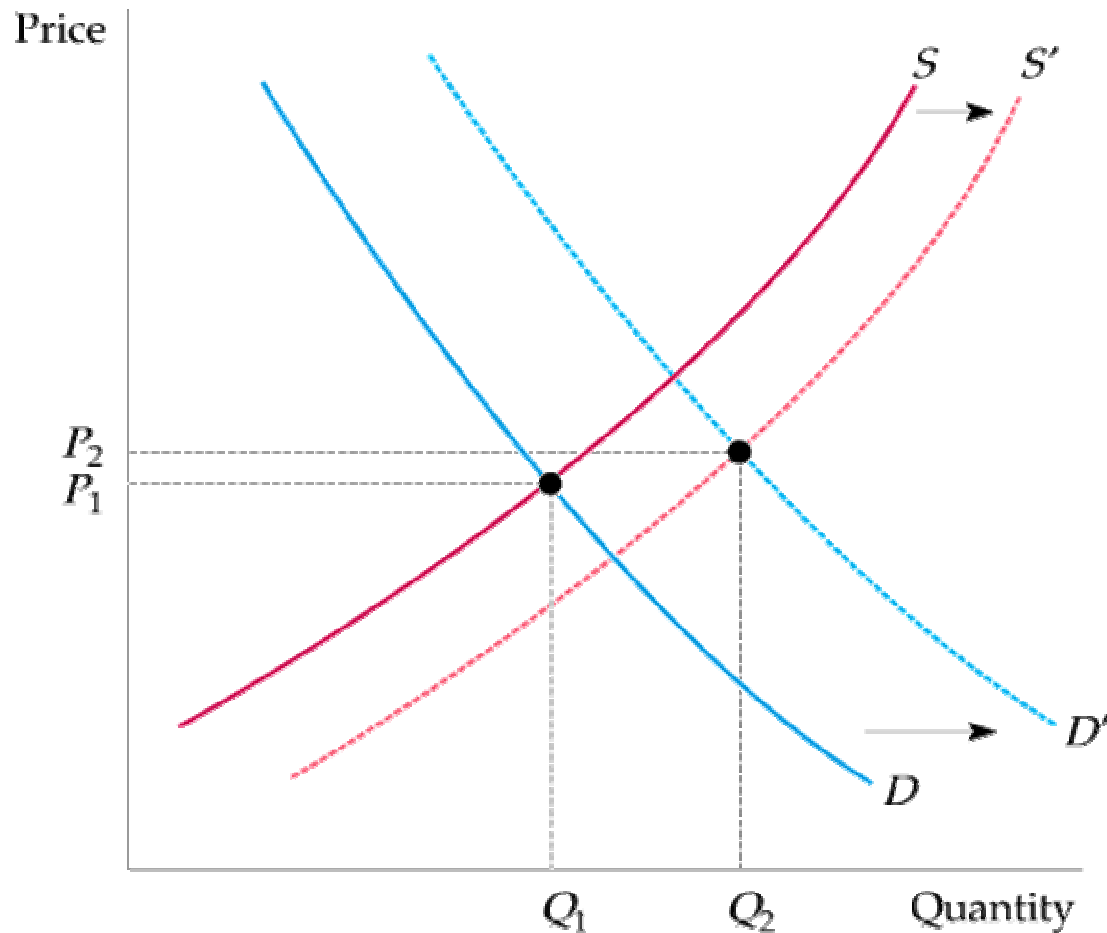
Figure 2.6

New Equilibrium Following Shifts in Supply and Demand

Supply and demand curves shift over time as market conditions change.

In this example, rightward shifts of the supply and demand curves lead to a slightly higher price and a much larger quantity.

In general, changes in price and quantity depend on the amount by which each curve shifts and the shape of each curve.



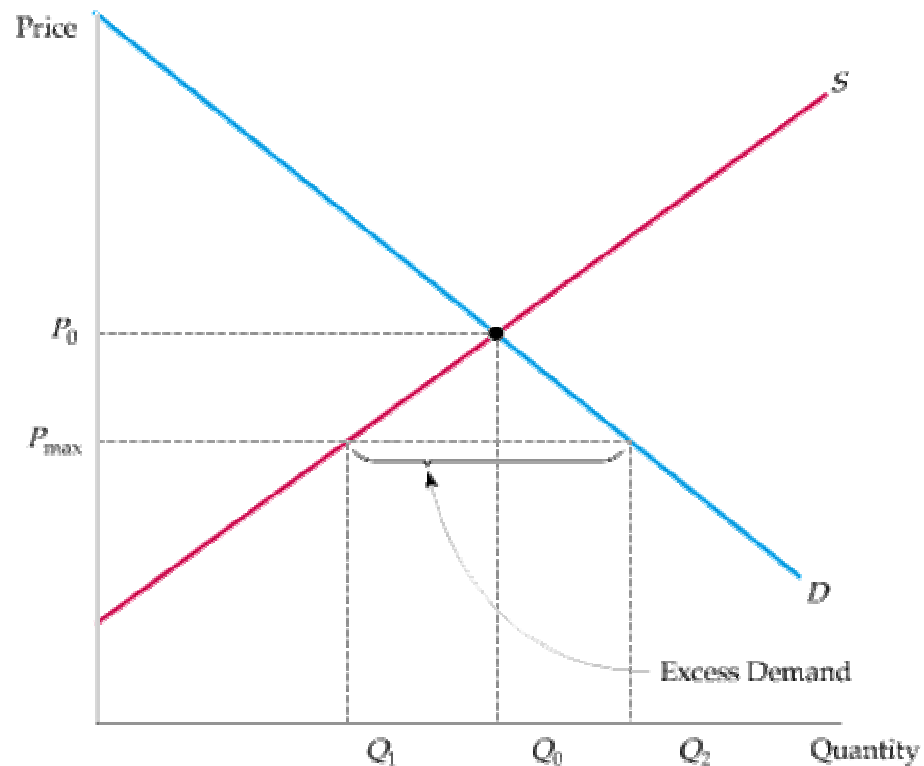
1.2. The basics of supply and demand (11)

Figure 2.24

Effects of Price Controls

Without price controls, the market clears at the equilibrium price and quantity P_0 and Q_0 .

If price is regulated to be no higher than P_{\max} , the quantity supplied falls to Q_1 , the quantity demanded increases to Q_2 , and a shortage develops.



1.2. The basics of supply and demand (12)

EXAMPLE 2.10

Price Controls and Natural Gas Shortages (continued)

The (free-market) wholesale price of natural gas was \$6.40 per mcf (thousand cubic feet). Production and consumption of gas were 23 Tcf (trillion cubic feet). The average price of crude oil (which affects the supply and demand for natural gas) was about \$50 per barrel.

$$\text{Supply:} \quad Q = 15.90 + 0.72P_G + 0.5P_O$$

$$\text{Demand:} \quad Q = -10.35 - 0.18P_G + 0.69P_O$$

Substitute \$3.00 for P_G in both the supply and demand equations (keeping the price of oil, P_O , fixed at \$50).

You should find that the supply equation gives a quantity supplied of 20.6 Tcf and the demand equation a quantity demanded of 23.6 Tcf.

Therefore, these price controls would create an excess demand of $23.6 - 20.6 = 3.0$ Tcf.