Maximum and Minimum Price Controls

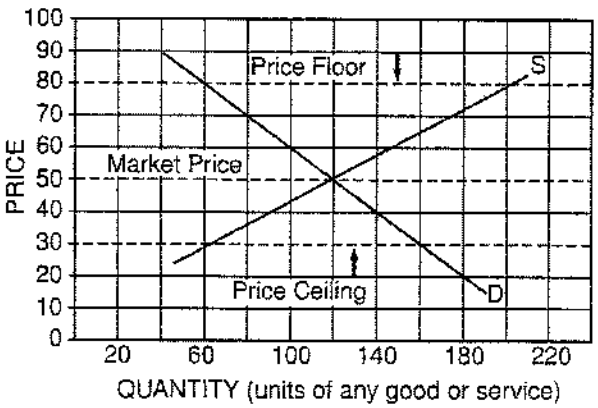
Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives. High prices induce extra production while they discourage consumption.

In this exercise, we discover how the imposition of price controls (maximum or minimum prices) interrupts the process that matches production with consumption. *Price ceilings* (maximum prices) sometimes appear in the form of rent control, utility prices and other caps on upward price pressure. *Price floors* (minimum prices) also occur in the form of prevailing wages and minimum wages.

When government imposes price controls, citizens should understand that some people gain and some people lose from every policy change. By understanding the consequences of legal price regulations, citizens are able to weigh the costs and benefits of the change.

As a general rule, price floors create a *surplus* of goods or services, or *excess supply*, since the quantity demanded of goods is less than the quantity supplied. Conversely, price ceilings generate *excess quantity demanded*, causing shortages.

Figure 22.1
Price Floors and Ceilings



Price floors and ceilings can be plotted with supply and demand curves. Use Figure 22.1 to answer the questions. Fill in the answer blanks or underline the correct words in parentheses.

1. What is the market price? _____

2. What quantity is demanded and what quantity is supplied at the market price?
   (A) Quantity demanded _____
   (B) Quantity supplied _____

Adapted from *Capstone Student Activities* (New York: National Council on Economic Education, 1989), p. 57.

3. What quantity is demanded and what quantity is supplied if the government passes a law requiring the price to be no higher than $30? This is called a *price ceiling.*

   (A) Quantity demanded _____

   (B) Quantity supplied _____

   (C) There is a (*shortage / surplus*) of _____ .

4. What quantity is demanded and what quantity is supplied if the government passes a law requiring the price to be no lower than $80? This is called a *price floor.*

   (A) Quantity demanded _____

   (B) Quantity supplied _____

   (C) There is a (*shortage / surplus*) of _____ .

   (D) What happens to total consumer or producer surplus? _____

   (E) Is society better or worse off after the price floor is imposed? _____

   (F) Who gains from the price floor? _____

Activity 1
Price Floors and Ceilings

1. What is the market clearing price in the graph below?

2. What quantity is demanded and what quantity is supplied at the market clearing price?

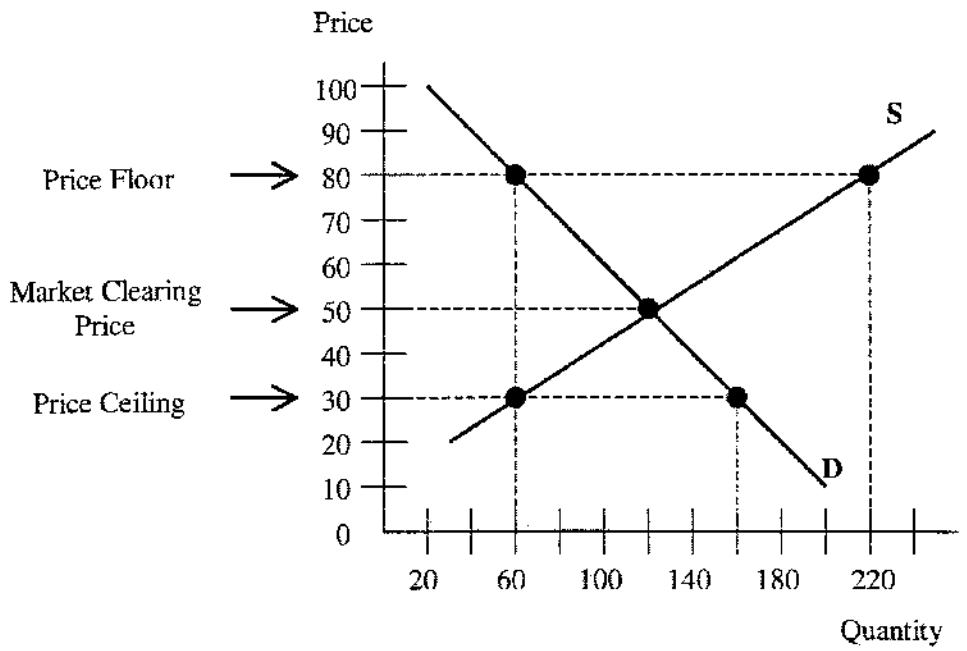
   Quantity demanded _____
   Quantity supplied _____

3. What quantity is demanded and what quantity is supplied if the government passes a law setting a maximum price of $30?

   Quantity demanded _____
   Quantity supplied _____

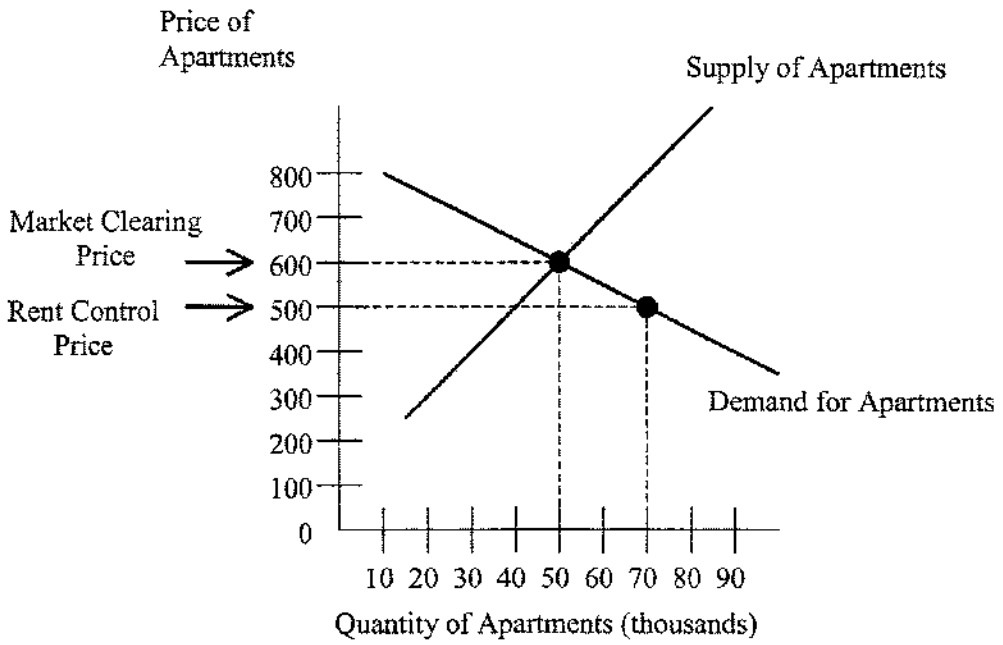
4. What quantity would be demanded and what quantity would be supplied if the government passes a law setting a minimum price of $80?

   Quantity demanded _____
   Quantity supplied _____



Activity 2
Apartments to Rent, but How Many at What Price?

Ourtown is a Midwest city with about two million residents, which grew rapidly over the past 10 years. That growth caused rents on apartments in the city to rise rapidly, and four years ago a new mayor and several new city councilors were narrowly elected after promising to set rent controls to help low-income families and the homeless. The rent on a basic apartment with a kitchen, living room, dining area, and two bedrooms, with no more than 1,000 square feet, was set at $500 a month. The debate over these rent controls is still heated, and the mayor and city council are now debating several options to deal with the problem. An economist at Ourtown University presented the following graph at the last meeting of the city council, which she feels shows the current market for these kinds of apartments in Ourtown.



Activity 2 (Continued)

Discussion Questions:

A. Everybody wants a place to live, so how can it be true that more apartments will be demanded at a lower price than at higher prices?

B. On any given day, there are only a certain number of apartments in the city, so why isn't the supply curve of apartments a vertical line? In other words, can it really be true that there will be more apartments for rent at high prices than at low prices?

C. How many total apartments are available at the rent control price?

D. How many apartments do people want to rent at the rent control price?

E. What is the problem facing the city and the people who want to rent apartments?

The mayor and city council have been considering three options:

- Let apartment rents rise to the market price.
- Continue the rent controls, and let people find and rent apartments on a first-come, first-served basis. Anyone convicted of collecting or paying more than the rent control price will be subject to fines and imprisonment.
- Conduct random drawings each month to fill all vacant apartments.

Are any of these options fair? Who benefits and who loses under each option? Are there any other options that might work better? What do you think the mayor and city council should do?

Activity 3
The Market for Milk

MARKETS FOR MILK: Part I

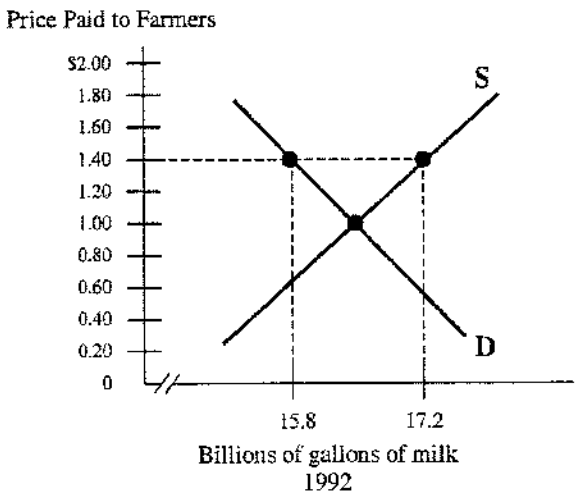
Through the early 1990s, using a system of geographic "marketing orders," quotas, and price controls, the federal government establishes a minimum price paid to dairy farmers for milk. In 1992, the effect of that system was to set the price at about $1.40 per gallon. That year, U.S. dairy farmers produced and sold about 17.2 billion gallons of milk. About 6.5 billion gallons were sold to consumers at an average price of about $1.40 per gallon. The remaining 10.7 billion gallons were sold to manufacturers and used in the production of butter, cheese, and dried milk. Consumers purchased enough of these manufactured dairy products (butter, cheese, etc.) to account for about 10.9 billion gallons of milk. The federal government's Commodity Credit Corporation purchased the remaining products, or the equivalent of about 1.4 billion gallons of milk. The graph below presents this information using basic supply and demand curves for milk.

According to the information in this graph:

A. Is there a shortage or a surplus in the market? Explain.

B. If there were no government price controls in the market, this graph suggests that the price of milk (the market-clearing price) paid to farmers would be approximately _____ per gallon.

C. Who would benefit and who would be hurt if price controls in the milk market were eliminated?



Government payments to the U.S. farm sector fell sharply in 1995 and 1996, and were lower than they had been since 1983. The Federal Agriculture Improvement and Reform Act of 1996 further limited and restructured agricultural subsidies, and phased out price supports in the dairy industry. As a result, prices were allowed to fluctuate more, with the government providing emergency payments to farmers when prices and profits fell sharply. By 2001, a major public policy debate had resurfaced about how extensive the emergency payments should be, and whether some form of price supports should be reestablished.

Source: Publications of the US Department of Agriculture National Agricultural Statistics Service at *www.usda.gov/nass/pubs/agr00/acro00.htm*

Activity 3 (Continued)

MARKETS FOR MILK: Part II

Imagine that you are a member of the U.S. House of Representatives. You must decide whether to vote yes or no on a bill that would eliminate the price-support program for milk. In committee hearings on the bill, you hear testimony from people who favor eliminating the program and from people who favor retaining it.

For example, you hear Diane Doright, who works at University Public Policy Institute, say:

> This program is costly to consumers and taxpayers, and is an unnecessary and inefficient form of government interference in the economy. We estimate that, if the price support were ended, the price that people pay for milk would decrease by about 60 cents a gallon. Prices of other dairy products, such as butter and cheese, would also decrease. And one of the worst effects of this program is that it keeps small, inefficient farms in operation. We shouldn't fear the forces of market competition.

You also hear Senator William Foxfire, from a Midwestern state with many dairy farmers and cheese factories, say:

> People who want to eliminate this program just don't understand dairy farming. It is a very risky and unstable business. Feed costs may suddenly increase because of floods or droughts. Price supports bring some stability into this situation by making it possible for farmers to be sure of a certain price so they can ride out the rough times. And the so-called savings to consumers and taxpayers are an illusion. What would happen is that large, monopolistic dairy farms would take over the small family farms, and the price of milk might go even higher than it is now! As the displaced farmers moved into cities, taxpayers would be saddled with high costs of training and public assistance. Our small family farms represent the best American values of family, hard work, honesty, and thrift. We should not enact legislation that weakens these values.

Evaluate these statements and explain why you would vote for or against the bill.