ECONOMICS in Action

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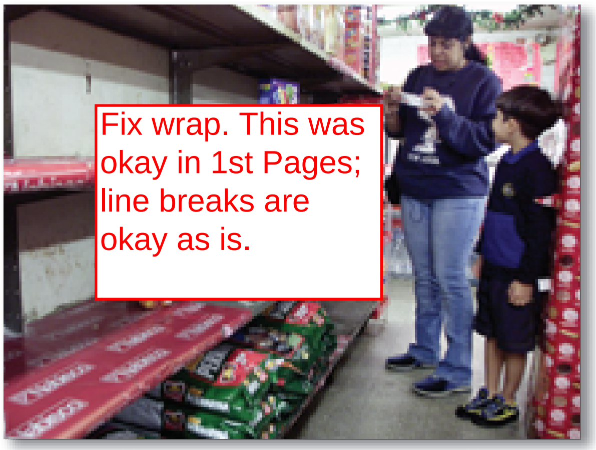
Price Controls in Venezuela: "You Buy What They Have"

By all accounts, Venezuela is a rich country—one of the world's top oil producers in a time of high energy prices. But in late 2013, the chronic lack of basic items—toilet paper, rice, coffee, corn, flour, milk, meat—had hit a nerve. "Empty shelves and no one to explain why a rich country has no food. It's unacceptable," said Jesús López, a 90-year-old farmer.



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Reuters/Daniel Aguilar/Landov

Venezuela's food shortages offer a lesson in why price ceilings, however well intentioned, are usually never a good idea.

The origins of Venezuela's food shortages can be traced to the policies put in place by former Venezuelan president Hugo Chávez and continued by his successor, Nicolás Maduro. Chávez came to power in 1998 on a platform denouncing the country's economic elite and promising policies that favored the poor and working class, including price controls on basic foodstuffs. These price controls led to shortages that began in 2003 and became severe by 2006. Prices were set so low that farmers reduced production. For example, Venezuela was a coffee exporter until 2009 when it was forced to import large amounts of coffee to make up for a steep fall in production. Venezuela now imports more than 70% of its food.

In addition, generous government programs for the poor and working class led to higher demand. The combination of price controls and higher demand led to sharply rising prices for goods that weren't subject to price controls or that were bought on the black market. The result was a big increase in the demand for price-controlled goods.

Worse yet, a sharp decline in the value of the Venezuelan currency made foreign imports more expensive. And it increased the incentives for smuggling: when goods are available at the government-mandated price, Venezuelans buy them and then resell them across the border in Colombia, where a bottle of milk is worth seven or eight times more. Not surprisingly, fresh milk and butter are rarely seen in Venezuelan markets.

Venezuelans, queuing for hours to purchase goods at state-run stores, often come away empty handed. Or, as one shopper, Katherine Huga, said, "Whatever I can get. You buy what they have." While items can often be found on the black market at much higher prices, Chávez's price-control policies have disproportionately hurt the lower- and middle-income consumers he sought to help. One shopper in a low-income area who waited in line for hours said, "It fills me with rage to have to spend the one free day I have wasting my time for a bag of rice. I end up paying more at the resellers. In the end, all these price controls proved useless."

Quick Review

- **Price controls** take the form of either legal maximum prices—**price ceilings—**or legal minimum prices—**price floors.**
- A price ceiling below the equilibrium price benefits successful buyers but causes predictable adverse effects such as persistent shortages, which lead to four types of inefficiencies: **deadweight loss, inefficient allocation to consumers, wasted resources,** and **inefficiently low quality.**
- A deadweight loss is a loss of total surplus that occurs whenever a policy or action reduces the quantity transacted below the efficient market equilibrium level.
- Price ceilings also lead to **black markets,** as buyers and sellers attempt to evade the price controls.

Check Your Understanding 4-2

1. On game days, homeowners near Middletown University's stadium used to rent parking spaces in their driveways to fans at a going rate of $11. A new town ordinance now sets a maximum parking fee of $7. Use the accompanying supply and demand diagram to explain how each of the following corresponds to a price-ceiling concept.
   a. Some homeowners now think it's not worth the hassle to rent out spaces.
   b. Some fans who used to carpool to the game now drive alone.
   c. Some fans can't find parking and leave without seeing the game.

SOLVED PROBLEM The World's Second Most Expensive City

London is the second most expensive place in the world to rent an apartment (only Monte Carlo is more expensive). If you have ever visited London, you might have noticed an area around the city known as the "Green Belt." Zoning laws make it nearly impossible to build new residential housing on land designated as the Green Belt. Consider the following hypothetical market for apartments in London in the absence of zoning controls.

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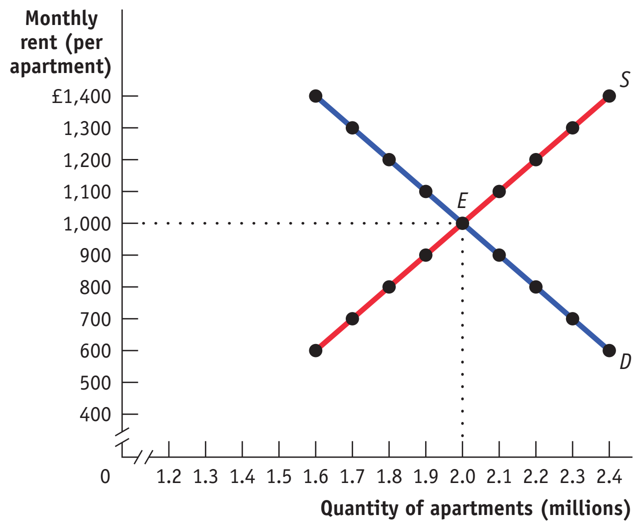

Monthly rent (per apartment)	Quantity of apartments (millions) Quantity demanded	Quantity supplied
£1,400	1.6	2.4
1,300	1.7	2.3
1,200	1.8	2.2
1,100	1.9	2.1
1,000	2.0	2.0
900	2.1	1.9
800	2.2	1.8
700	2.3	1.7
600	2.4	1.6

This figure should look familiar to you—it is Figure 4-6, but the currency is the British pound rather than the U.S. dollar. At the time of this writing, the British pound was worth about 1.5 dollars.

Now, let's go back to the reality of zoning controls in the Green Belt. Use a diagram to show the effect of a quota of 1.7 million apartments. What is the quota rent, and who gets it?

STEP 1 Use a diagram to show the effect of a quota of 1.7 million apartments.

Review pages 124–128.

In this figure, the black vertical line represents the quota limit of 1.7 million apartments. Because the quantity of apartments is limited, consumers must be at point A on the demand curve. The demand price of 1.7 million apartments is £1,300 each. The supply price, corresponding to point B on the diagram, of 1.7 million apartments is only £700 each, creating a "wedge" of £1300 – £700 = £600.

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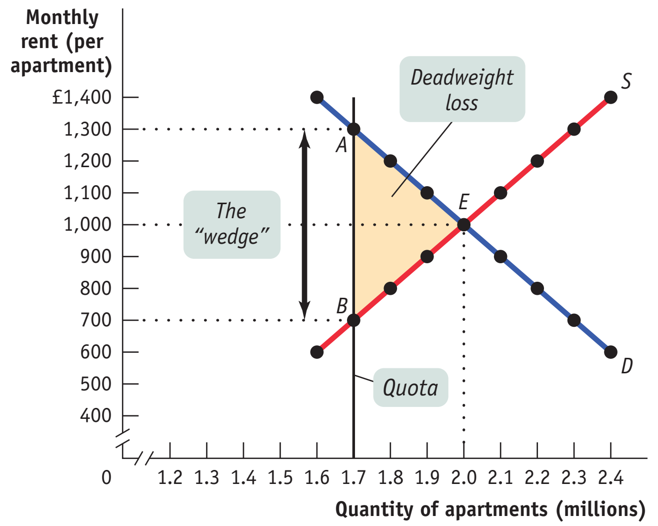


STEP 2 What is the quota rent in this case, and who gets it?

Review pages 124–128.

In the case of taxis, the quota rent is the earnings that accrue to the license-holder from ownership of the right to sell the good. In the case of apartments inside the Green Belt in London, the quota rent is the "wedge" of £600 created by the difference in the demand price and the supply price. The wedge goes to current owners of property or flats in London. Current owners benefit from the strict application of zoning laws.

c. With the price floor at $1.05 per pound of butter, producers sell 1.7 billion pounds of butter (some to consumers and some to the USDA). How much producer surplus is created now?

d. How much money does the USDA spend on buying up surplus butter?

e. Taxes must be collected to pay for the purchases of surplus butter by the USDA. As a result, total surplus (producer plus consumer) is reduced by the amount the USDA spent on buying surplus butter. Using your answers for parts b–d, what is the total surplus when there is a price floor? How does this compare to the total surplus without a price floor from part a?

13. The accompanying table shows hypothetical demand and supply schedules for milk per year. The U.S. government decides that the incomes of dairy farmers should be maintained at a level that allows the traditional family dairy farm to survive. So it implements a price floor of $1 per pint by buying surplus milk until the market price is $1 per pint.

Price of milk (per pint)	Quantity of milk (millions of pints per year)	
	Quantity demanded	Quantity supplied
$1.20	550	850
1.10	600	800
1.00	650	750
0.90	700	700
0.80	750	650

a. In a diagram, show the deadweight loss from the inefficiently low quantity bought and sold.

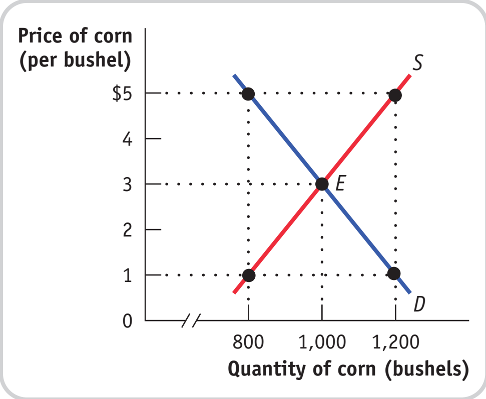
b. How much surplus milk will be produced as a result of this policy?

c. What will be the cost to the government of this policy?

d. Since milk is an important source of protein and calcium, the government decides to provide the surplus milk it purchases to elementary schools at a price of only $0.60 per pint. Assume that schools will buy any amount of milk available at this low price. But parents now reduce their purchases of milk at any price by 50 million pints per year because they know their children are getting milk at school. How much will the dairy program now cost the government?

e. Explain how inefficiencies in the form of inefficient allocation of sales among sellers and wasted resources arise from this policy.

14. For the last 80 years the U.S. government has used price supports to provide income assistance to American farmers. To implement these price supports, at times the government has used price floors, which it maintains by buying up the surplus farm products. At other times, it has used target prices, a policy by which the government gives the farmer an amount equal to the difference between the market price and the target price for each unit sold. Consider the market for corn depicted in the accompanying diagram.



a. If the government sets a price floor of $5 per bushel, how many bushels of corn are produced? How many are purchased by consumers? By the government? How much does the program cost the government? How much revenue do corn farmers receive?

b. Suppose the government sets a target price of $5 per bushel for any quantity supplied up to 1,000 bushels. How many bushels of corn are purchased by consumers and at what price? By the government? How much does the program cost the government? How much revenue do corn farmers receive?

c. Which of these programs (in parts a and b) costs corn consumers more? Which program costs the government more? Explain.

d. Is one of these policies less inefficient than the other? Explain.

15. In many European countries high minimum wages have led to high levels of unemployment and underemployment, and a two-tier labor system. In the formal labor market, workers have good jobs that pay at least the minimum wage. In the informal, or black market for labor, workers have poor jobs and receive less than the minimum wage.

a. Draw a demand and supply diagram showing the effect of the imposition of a minimum wage on the overall market for labor, with wage on the vertical axis and hours of labor on the horizontal axis. Your supply curve should represent the hours of labor offered by workers according to the wage, and the demand curve represents the hours of labor demanded by employers according to the wage. On your diagram show the deadweight loss from the imposition of a minimum wage. What type of shortage is created? Illustrate on your diagram the size of the shortage.

b. Assume that the imposition of the high minimum wage causes a contraction in the economy so that employers in the formal sector cut their production and their demand for workers. Illustrate the effect of this on the overall market for labor. What happens to the size of the deadweight loss? The shortage? Illustrate with a diagram.

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c. Assume that the workers who cannot get a job paying at least the minimum wage move into the informal labor market where there is no minimum wage. What happens to the size of the informal market for

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