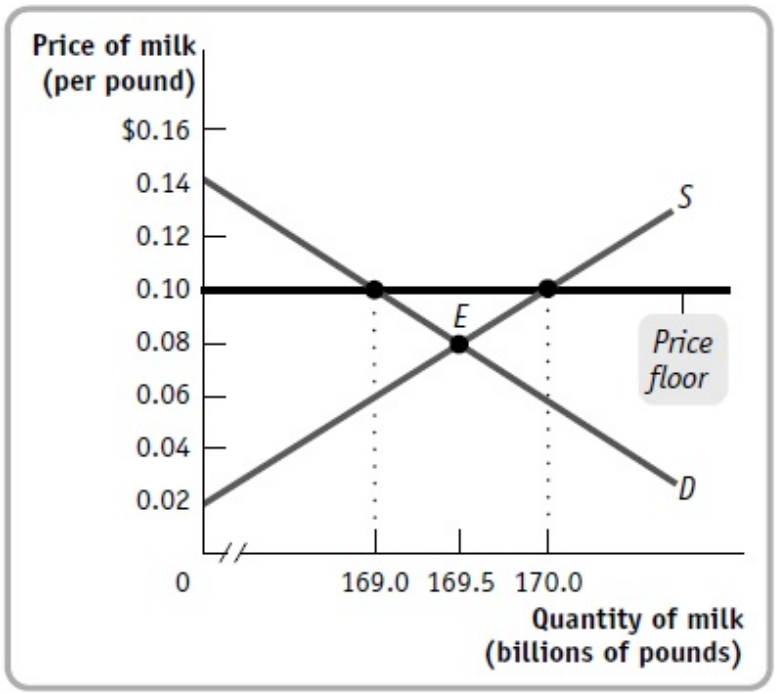
CH-310-A Microeconomics - Theory and Policy

Chapter 5 of Krugman and Wells

The market for milk

The U.S. Department of Agriculture (USDA) administers the price floor for milk, set at \$0.10 per pound of milk. At that price, according to data from the USDA, the quantity of milk produced in 2003 by U.S. producers was 170 billion pounds, and the quantity demanded was 169 billion pounds. To support the price of milk at the price floor, the USDA had to buy up 1 billion pounds of milk. The accompanying diagram shows supply and demand curves illustrating the market for milk.



Questions on market for milk

(a) In the absence of a price floor, how much consumer surplus is created? How much producer surplus? What is the total surplus?

(b) With the price floor at \$0.10 per pound of milk, consumers buy 169 billion pounds of milk. How much consumer surplus is created now?

(c) With the price floor at \$0.10 per pound of milk, producers sell 170 billion pounds of milk (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 milk?

(e) Taxes must be collected to pay for the purchases of surplus milk by the USDA. As a result, total surplus (producer plus consumer) is reduced by the amount the USDA spent on buying surplus milk. 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?

French labor market

As noted in the text, European governments tend to make greater use of price controls than does the U.S. government. For example, the French government sets minimum starting yearly wages for new hires who have completed *le bac*, certification roughly equivalent to a high school diploma. The demand schedule for new hires with *le bac* and the supply schedule for similarly credentialed new job seekers are given in the accompanying table. The price here – given in euros, the currency used in France – is the same as the yearly wage.

Wage (per year)	Quantity demanded (new job offers per year)	Quantity supplied (new job seekers per year)
€45,000	200,000	325,000
40,000	220,000	320,000
35,000	250,000	310,000
30,000	290,000	290,000
25,000	370,000	200,000

Questions on labor market

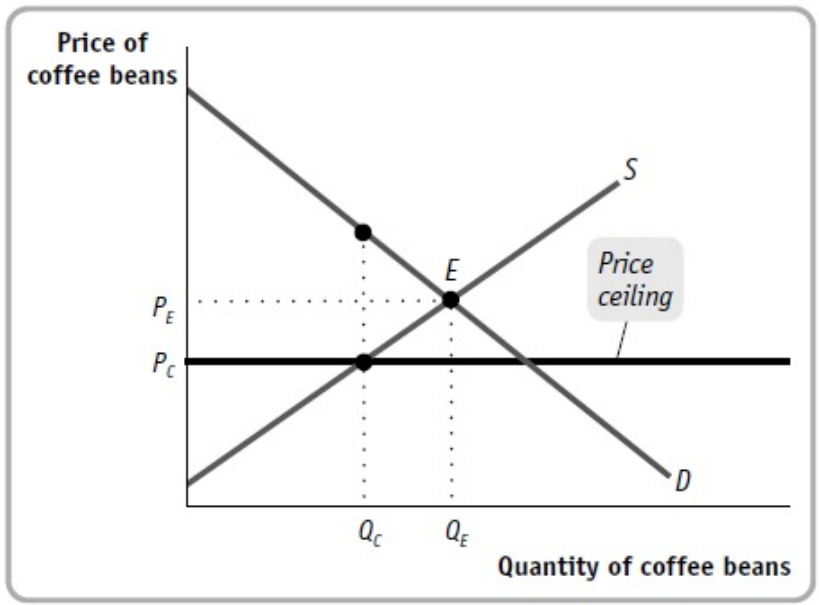
(a) In the absence of government interference, what are the equilibrium wage and number of graduates hired per year? Will there be anyone seeking a job at the equilibrium wage who is unable to find one, that is, will there be anyone who is involuntarily unemployed?

(b) Suppose the French government sets a minimum yearly wage of 35,000€. Is there any involuntary unemployment at this wage? If so, how much? Illustrate with a diagram. What if the minimum wage is set at 40,000€? Also illustrate with a diagram.

(c) Given your answer to part b and the information in the table, what do you think is the relationship between the level of involuntary unemployment and the level of the minimum wage? Who benefits from such a policy? Who loses? What is the missed opportunity here?

Coffee market

The Venezuelan government has imposed a price ceiling on the retail price of roasted coffee beans. The accompanying diagram shows the market for coffee beans. In the absence of price controls, the equilibrium is at point E, with an equilibrium price of P_E and an equilibrium quantity bought and sold of Q_E.



Questions on coffee market

(a) Show the consumer and producer surplus before the introduction of the price ceiling.

(b) Show the consumer surplus after the introduction of the price ceiling, P_C (assuming that the consumers with the highest willingness to pay get to buy the available coffee beans; that is, assuming that there is no inefficient allocation to consumers).

(c) Show the producer surplus after the introduction of the price ceiling (assuming that the producers with the lowest cost get to sell their coffee beans; that is, assuming that there is no inefficient allocation of sales among producers).

(d) Using the diagram, show how much of what was producer surplus before the introduction of the price ceiling has been transferred to consumers as a result of the price ceiling?

(e) Using the diagram, show how much of what was total surplus before the introduction of the price ceiling has been lost? That is, how great is the deadweight loss?

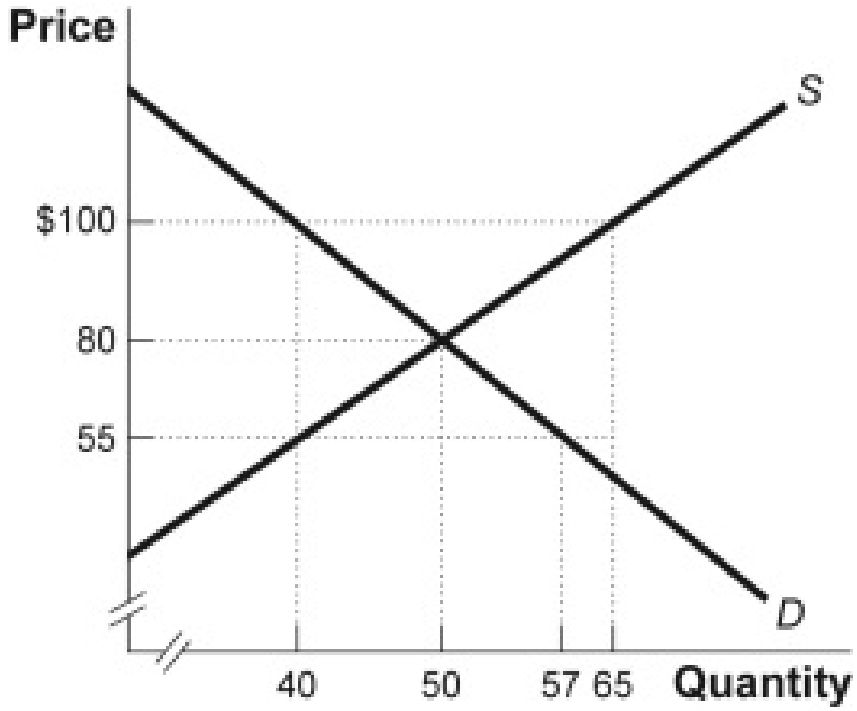
Apartment market

This figure represents a competitive market for apartments. If a government price ceiling at \$800 is now imposed on this market (in the name of fairness), then an inefficiency will result in the form of (a) surplus of 0.6 million apartments; (b) shortage of 0.6 million apartments; (c) surplus of 0.4 million apartments; (d) shortage of 0.4 million apartments.

Apartment market

What would happen if the government set a price ceiling of \$1,200 on this market?

Market for blue jeans



Suppose the government believes the producers of blue jeans are too profitable and the government wants to make sure blue jeans consumers are not paying too much. This type of price control is called a *blank* and the price would be set equal to *blank*. (a) price floor; \$100; (b) price floor; \$55; (c) price ceiling; \$55; (d) price ceiling; \$100.