Economic efficiency

Go to lesson page

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The supply curve shows the quantity that firms are willing to supply at each price. For example, point K in the diagram above illustrates that if tablet computers cost $45, firms still would have been willing to supply a quantity of 14 million. Those producers who would have been willing to

the new producer surplus is H+I. In effect, the price floor causes the area H to be transferred from consumer to producer surplus, but it also causes a deadweight loss of J+K.
So, price ceilings transfer some producer surplus to consumers—which helps to explain why consumers often favor them. Conversely, price floors transfer some consumer surplus to producers, which explains why producers often favor them.
However, both price floors and price ceilings block some transactions that buyers and sellers would have been willing to make, creating deadweight loss. Removing such barriers, so that prices and quantities can adjust to their equilibrium level, increases the economy's social surplus.

Summary

- Economic efficiency is the idea that it is impossible to improve the situation of one party without imposing a cost on another.
- If a situation is economically inefficient, it becomes possible to benefit at least one party without imposing costs on others.
- Consumer surplus is the gap between the price that consumers are willing to pay—based on their preferences—and the market equilibrium price.
- Producer surplus is the gap between the price for which producers are willing to sell a product—based on their costs—and the market equilibrium price.
- Social surplus is the sum of consumer surplus and producer surplus. Total surplus is larger at the equilibrium quantity and price than it will be at any other quantity and price.
- Deadweight loss is loss in total surplus that occurs when the economy produces at an inefficient quantity.

Self-check questions

Does a price ceiling increase or decrease the number of transactions in a market? Why? What about a price floor?
[See solution.]
Assuming that people obey the price ceiling, the market price will be above equilibrium, which means that Q_d will be less than Q_s. Firms can only sell what is demanded, so the number of transactions will fall to Q_d. To see this better, try creating a demand and supply model.
By analogous reasoning, with a price floor, the market price will be below the equilibrium price, so Q_d will be greater than Q_s. Since the limit on transactions in this situation is demand, the number of transactions will fall to Q_d. Note that because both price floors and price ceilings reduce the number of transactions, social surplus is reduced.
If a price floor benefits producers, why does a price floor reduce social surplus?
[Show solution.]
Because the losses to consumers are greater than the benefits to producers, the net effect is negative. And, since the lost consumer surplus is greater than the additional producer surplus, social surplus falls.

Review questions

- What is consumer surplus? How is it illustrated on a demand and supply diagram?
- What is producer surplus? How is it illustrated on a demand and supply diagram?
- What is total surplus? How is it illustrated on a demand and supply diagram?
- What is the relationship between total surplus and economic efficiency?
- What is deadweight loss?

Critical thinking questions

- What term would an economist use to describe what happens when a shopper gets a “good deal” on a product?
- Explain why voluntary transactions improve social surplus.
- Why would a free market never operate at a quantity greater than the equilibrium quantity? *Hint: What would be required for a transaction to occur at that quantity?*

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