

Market Failures: Problems

1. Which of the following satisfy the criteria for being a public good?
 - a. a bottle of barbecue sauce
 - b. an article on a newsite
 - c. lobsters in the Gulf of Maine
 - d. clean air
 - e. an mp3 file containing Moonbeam Ice Cream by Benson Boom.
2. True or False? Having a government supply a public good always results in the best allocation of that good.
3. Although roads are often thought of as a public good, there are some privately provided roads. Suppose that a society relied on only privately provided roads. Using a supply and demand graph, illustrate how this would lead to deadweight loss.

Consider the private demand and supply for private jets:

Table 1: Market for Private Jets		
Units	Total Utility	Total Cost
1	\$10M	\$1M
2	\$19M	\$4M
3	\$27M	\$8M
4	\$34M	\$13M
5	\$40M	\$19M
6	\$45M	\$25M
7	\$49M	\$31M
8	\$52M	\$40M
9	\$54M	\$50M
10	\$7300	\$2400

5. (review) Calculate the equilibrium price and quantity. Note that this is just a review of basic supply and demand.
6. Now suppose that each private jet emits \$3 million dollars worth of pollution. Is this a positive or negative externality?

7. Show the deadweight loss from not correcting this market failure.
8. Explain how a tax on jets could be a Pareto improvement.
9. Should the tax from #9 be imposed on the producers of jets or the consumers of jets?
10. True or False. Any Pareto optimal outcome is preferable to any Pareto suboptimal outcome.
11. Suppose the equilibrium price, for some good, is initially \$5 per unit. Now suppose that a government imposes a price floor (minimum price). True or False? This will lead to deadweight loss.
12. Suppose that a seller of insurance expects to be bailed out if they in danger of going bankrupt because of too many claims (*e.g.* when a auto insurer must pay to repair the damage from a crash). How will this affect the amount of the service that they choose to provide?
13. What type of market failure best fits #12.
14. Suppose that a supplier has market power. How will they use it to increase their profits or utility?
15. Suppose that a demander has market power. How will they use it to increase their profits or utility?
16. What type of market failure is antitrust law intended to address?