



ECO 1311, University of Dallas Supply & Demand Practice Problems

Basic

- Over the past 20 years, nearly every classroom in the US has been refurbished so that dry erase boards have replaced traditional chalk boards. What effect does this change have on the markets for (a) dry erase markers and (b) chalk?
- Show how the following events will affect the demand curve:
 - (lettuce) An outbreak of salmonella is traced to lettuce
 - (cars) Increasing incomes cause people to want more cars
 - (peanut oil) The price of soybean oil falls drastically due to a bumper crop of soybeans.
 - (gasoline) The price of gasoline increases sharply
- Use supply & Demand to show what happens to the equilibrium price and quantity in each market, in response to the described event. Each story is intended to cause one change. Start with an initial equilibrium and show how the change will result in a new equilibrium. (Use one diagram per story.)
 - (Market for oil): Rising standards of living in China, India, and Brazil result in a large increase in the number of people owning cars. Gasoline is made from oil.
 - (Market for fish): In a heavily publicized incident, an epidemic of food poisoning is traced to fish
 - (Market for computers): A breakthrough in manufacturing technology causes the price of CPU's (the core of a computer) to drop drastically.
 - (Market for corn): A much worse than average drought in the US Midwest results in a very small corn harvest.
- China has placed tariffs on semiconductor components that are necessary for the production of cell phones. What is the impact on the market for cell phones?
- A late freeze has completely eliminated the orange crops of orange farmers in northern Florida. What is the likely impact on the equilibrium price and quantity in the market for orange juice?
- Assume that margarine and butter are substitutes in consumption. What will happen to the market for margarine if the price for butter increases?
- Brazil is the world's largest coffee producer. There was a severe drought in Brazil in 2013-14 that damaged Brazil's coffee crop. Coffee and Tea are considered substitutes

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for consumers. What do we expect to happen to the equilibrium price and quantity of tea?

8. Suppose one of your friends offer the following argument: A rightward shift in demand will cause an increase in price. The increase in price will cause a rightward shift in the supply curve, which will lead to an offsetting decrease in price. Does this argument make sense?
9. In 1999, a vending machine was developed that would change the price of soda in hot weather because people would get thirstier quicker. What happens in the market for soda that explains the logic behind this machine?
10. Assume that bananas are an inferior good. What will happen to the market for bananas in the incomes of people who buy bananas increased?
11. What is the best way to think about the rise of oil prices in the 1970s, when wars and oil embargoes wracked the Middle East, a major producer of oil?
12. What would happen to the equilibrium price and quantity in the market for sugar if the wages of sugar cane harvesters increased?
13. A buyer considers condos and townhouses to be substitute goods. If the price of condos in Las Colinas falls, what will happen to the demand for townhomes in Las Colinas and why? Use a graph to illustrate how the market for townhomes will be impacted and provide a written explanation.
14. If the population of Las Colinas increases, how will this impact the market for townhomes? Use a graph and provide a written explanation.
15. Assume that the Cap Bar has a monopoly on high quality coffee consumed on campus. Suppose that the price of a cup of coffee in the Cap Bar changes from \$2 to \$1.50. How will consumers respond to this change? Illustrate the effect of this price change using the demand curve.

Intermediate

16. Recent forest fires have decimated the lumber industry. (a) What is the likely impact on the equilibrium price of wood fiber necessary for paper production? (b) What is this effect of the change in price of wood fiber on the equilibrium price and quantity of paper? (c) What is the impact, then, on the equilibrium price and quantity of print textbooks? (d) Finally, what is the likely impact on the equilibrium price and quantity of e-textbooks?
17. The U.S. government recently passed an environmental law requiring that diesel fuel be made with no Sulphur. Only about half the refineries in the US are capable of producing diesel fuel that meets the new regulations. How will this affect the equilibrium price and quantity in the market for diesel fuel? Is the effect on price and quantity larger or smaller if the demand curve for diesel fuel becomes more steep such that it is almost a vertical line? In the real world, do you think that the demand curve for diesel fuel is likely to be more flat or more steep; why?

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18. According to reports in the Chinese media, commuters in Beijing are facing a somewhat paradoxical situation: they find it difficult to get a cab while hundreds of cabs lie idle during rush hour. The cab rides are a normal good and the average incomes of people who ride cabs have increased. Government-determined gasoline prices have also increased. But the government, worried about rising prices for cab rides, has left the cabs' base fare unchanged.

Use supply and demand curves to explain what has happened in the market for cabs in Beijing. Assume this market was in equilibrium before incomes and gasoline prices increased and the government is forcing the cabs' base fare to stay at this original equilibrium price.

19. Suppose that you are analyzing the market for orange juice. A media report increases consumer interest in orange juice because it contains vitamin C, and at the same time a freeze has caused an increase in the price of oranges. What impact will these events have on the market for orange juice (ie how will equilibrium price and quantity be affected)? Draw a graph illustrating the impact of these events and explain your answer in words.
20. Suppose that the equilibrium price for a slice of pizza is \$2.00. Propose 2 scenarios that could cause the price being charged in the market to change to \$1.00. Use a graph and provide a verbal explanation of your answer.
21. What is the difference between willingness to accept and willingness to pay? For a trade to take place, does the willingness to accept have to be lower, higher, or equal to the willingness to pay?
22. Suppose that the equilibrium price for pizza in the Rathskellar & the cafeteria is \$4.00 per slice. In a well-intentioned move to make pizza more affordable, suppose UD implements a policy that all pizza sold on campus cannot be more than \$2.00 per slice. A) What will be the outcome in the market for pizza at UD and why? B) what kind of price control is the \$2 pizza policy as described?
23. Suppose one of your friends offered the following argument:
A rightward shift in demand will cause an increase in price. The increase in price will cause a rightward shift of the supply curve, which will lead to an offsetting decrease in price. Therefore, it is impossible to tell what effect an increase in demand will have on price.
Do you agree with your friend? If not, what is the flaw in your friend's reasoning?
24. Consider farmers who have land that is suitable for growing both wheat and soybeans. Suppose all farmers are currently farming wheat but they price of soybeans rises dramatically.
- Does the opportunity cost of producing wheat rise or fall?
 - Does this shift the supply curve for wheat or is it a movement along a fixed supply curve?

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- c. What direction is this shift or movement? Illustrate your answer using a diagram.
25. If the price of glass dramatically increases, what are we likely to see a lot less of: glass windows or glass bottles? Why?
26. Jon is on eBay, bidding for a first edition of the influential Frank Miller graphic novel *Batman: The Dark Knight Returns*. In this market, who is Jon competing with: the seller of the graphic novel or the other bidders?
27. Margarine is naturally white and is often colored yellow so that it looks like butter. For many years, it was illegal to color margarine yellow. Who do you think supported this law?
28. The government of Pakistan has established a price support for wheat of about \$0.20 per kilogram of wheat. At this price, consumers are willing to purchase 10 billion kilograms of wheat per year, while Pakistani farmers are willing to grow and harvest 18 billion kilograms of wheat per year. The government purchases and stores all surplus wheat.
- What are the annual consumer expenditures on the Pakistani wheat crop?
 - What are the annual government expenditures on the Pakistani wheat crop?
 - How much, in total, do Pakistani wheat farmers receive for the wheat they produce?
29. Suppose that the market clearing price of Pakistani wheat in the absence of price supports is equal to \$0.10 per kilogram. At this price, the quantity of wheat demanded is 12 billion kilograms. Under the government wheat price-support program, how much more is spent each year on wheat harvested in Pakistan than otherwise would have been spent in an unregulated market for Pakistani wheat?

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