

ECO 120: Global Macroeconomics
Week 2 Homework: Supply and Demand

Name: _____

Directions: Notice that all problems ask you for a descriptive answer in addition to performing a calculation or manipulating a graphical model. For full credit, make sure that you do both. You may print these sheets and put your answers in the space provided or you may use your own paper to write your answers.

When you have finished, scan or take pictures of your work, combine all images to a single PDF file, assure that all pictures are oriented right-side up, and upload your work as a single PDF file to the Canvas Assignment area. You may use <https://www.easypdfcloud.com/> to combine your images to a single PDF file.

For each of the following problems, read the scenario and determine the following (in order):

- Does the scenario cause a shift in the demand and/or supply curve? If so, which curve, which direction?
 - Draw the supply and demand curves, labeling the axis and giving a title with the market.
 - Draw in the appropriate shift(s) in the supply and/or demand curves.
 - Label the original and new equilibrium price and quantities.
 - What is the impact of the scenario on price? What is the impact on quantity?
1. Gasoline prices fell globally and in the United States in 2015-2016. Describe and illustrate the impact on the market for trucks and SUVs (which on average consume more gasoline than other vehicles).

2. The mountain pine beetle is an invasive species that feeds on and kills trees throughout British Columbia, which is a primary source of lumber used in North American construction. Describe and illustrate the impact on the market for lumber.

3. During the COVID-19 pandemic, people and businesses had a greater desire and need to work remotely, using computer technology to collaborate and communicate with each other. At the same time, production disruptions caused by the pandemic has led to lower production of computer microchips. Describe and illustrate the impact on the market for computer microchips.

4. Mortgage interest rates have increased from 3.5% to almost 6% in 2022 in the United States, making it more expensive for people to borrow money to buy homes. Describe and illustrate the impact on the market for residential housing.

5. Walmart sells a number of inferior goods, such as inexpensive off-brand clothing, off-brand food, etc. As the U.S. economy recovered from the 2020 COVID-19 recession, the unemployment rate dropped from 14% to 3.7% and average incomes rose. What was the impact on the market for inferior goods at Walmart?

6. Suppose the federal government increases the tax subsidy on ethanol given to ethanol producers (a subsidy is a payment made by the government to an individual or firm, usually for performing some kind of action, like production of a particular product). Describe and illustrate the impact on the market for gasoline blended with ethanol.

7. Suppose there is a technological innovation making it easier and less costly to produce recycled paper. Suppose at the same time, people become more environmentally conscious and become more interested in buying recycled paper. Describe and illustrate the impact on the equilibrium price and quantity of recycled paper.