

Homework 2

Market Equilibrium and Shocks

Econ 101
Professor Guse

1. This question is taken verbatim from the study guide accompanying the 1967 edition of the classic *Economics* textbook by Paul Samuelson. We say that in a competitive market, there is an “equilibrium” price at which demand and supply curves intersect.
 - (a) Why do we single out this intersection and call the price there “equilibrium price”? What makes this price different from other prices, and what do we mean by equilibrium?
 - (b) Is there any reason to suppose that in the actual dealings between buyers and sellers there will be forces at work tending to push price to this level? If so, what are those forces? Explain as carefully as you can.

2. Consider the market for gasoline. For each of the following shocks, draw a diagram illustrating the direction of change in price and quantity of gasoline traded. Note that for some, there may be more than one correct answer, so be sure to explain your reasoning.
 - (a) World income increases causing an outward shift in the demand for crude oil. (Crude is an input in the production of gasoline.)
 - (b) The price of steel increases which raises the cost of producing automobiles.
 - (c) Congress increases highway spending by \$100 billion.
 - (d) The heavy construction industry experiences a downturn which lowers the demand for heavy (diesel-consuming) equipment. (Perhaps, like me, you are not sure of the answer or suspect the answer may be “it depends”. Please just explain your answer as well as you can and state your assumptions clearly.)
 - (e) Food and health care prices increase while wages remain stagnant.
 - (f) The U.S. signs a global warming treaty and agrees to reduce CO₂ emissions by imposing a tax on all fossil fuel extraction and importation. However, the full amount of the tax is rebated back to each citizen in equal shares.
 - (g) A company invents a new battery and builds an electric car capable of 400 miles on a single charge.
 - (h) A new national trend in zoning laws encourages redevelopment of dense neighborhoods near city centers.