

ECON 120: Global Macroeconomics

Homework 1: Production Possibilities Frontiers

Due: Friday, February 4th at beginning of class

Directions: Answer the following questions on a separate sheet of paper. Turn in only the separate sheet with your work and answers. Keep this sheet.

1. The great hypothetical sovereign nation Farmland can grow corn to be used for food or to be used for ethanol. The following table presents hypothetical production possibilities when all resources are used efficiently.

Corn (food)	200	180	140	80	0
Ethanol	0	5	10	15	20

- (a) Draw the production possibilities for corn (food) and ethanol. Label the parts of the graph that are attainable but not efficient, most efficient, and not attainable.
 - (b) Compute the opportunity cost of ethanol for each level of production in the table. What happens to the opportunity cost of ethanol as the production of ethanol increases?
 - (c) Compute the opportunity cost of corn for each level of production in the table. What happens to the opportunity cost of corn as the production of corn increases?
 - (d) Show what would happen to the production possibilities curve if there was a drought.
 - (e) Show what would happen to the production possibilities curve if governments stop encouraging the use of bio-fuels such as ethanol.
2. Problem 1.1, page 58.
 3. Problem 1.2, page 58.
 4. Problem 1.3, page 58.
 5. Problem 1.4, page 58.
 6. Problem 1.6, page 58.
 7. Problem 1.7, page 58.
 8. Problem 1.12, page 59.
 9. Problem 1.13, page 59.