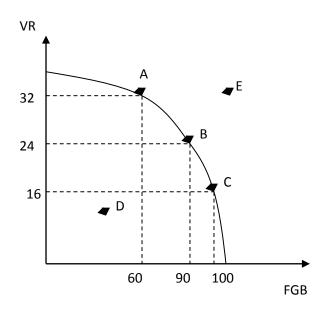
Professor Wallace

Due: September 20 & 21, 2012

Fall 2012

## Homework #1

1. Hipsterland produces two goods, vinyl records and fixed gear bikes. The graph below displays the country's PPF. Answer the following questions.



- a. Which point displayed on the PPF is not a feasible production point for Hipsterland?
- b. If Hipsterland is currently producing at combination A, what is the opportunity cost of producing 30 more fixed gear bikes?
- c. What is happening to the opportunity cost of producing more fixed gear bikes if we move from point A to point C. Explain your answer.
- 2. Suppose that the US and China each produce only two goods: basketballs and lamps. Furthermore, assume that the countries have linear production possibility frontiers. When the US uses all of its resources to produce basketballs, it produces 100. When it produces only lamps it can produce 200 lamps. When China allocates all of its resources to produce basketballs, it can produce 300 basketballs. When China produces only lamps it can produce 100.
  - a. What is the opportunity cost for each country of producing basketballs? What is the opportunity cost for each country of producing lamps?
  - b. Which country has the absolute advantage in producing basketballs? Which has the absolute advantage in producing lamps?
  - c. Which country has the comparative advantage in producing basketballs? Which has the comparative advantage in producing lamps?
  - d. Suppose that China and the US trade. Which country should specialize in producing lamps? Which country should specialize in producing basketballs?
  - e. What are the acceptable terms of trade for lamps (in terms of basketballs)? What are the acceptable terms of trade for basketballs (in terms of lamps)?
  - f. The US and China are engaged in trade and producing on their respective PPFs. Suppose that China is producing exactly 150 basketballs. How many lamps must they be producing? How many of each good must the US be producing?

## Econ 101: Principles of Microeconomics

Professor Wallace

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- 3. Suppose that you a considering opening a cane sugar refinery, where you will purchase raw cane sugar and produce refined cane sugar. Before deciding to open a factory, you want to consider a number of scenarios and how they could hurt or help your profitability. For each of the following scenarios, draw the effect on the market for refined cane sugar and figure out the overall effect on the price and quantity of refined sugar you will be able to sell in equilibrium (i.e. increase, decrease, or indeterminate).
  - a. The overall income of refined sugar consumers doubles.
  - b. Medical studies prove that high fructose corn syrup is actually extremely healthy.
  - c. The government decides to no longer protect the domestic cane sugar farmers and removes all import tariffs on raw cane sugar from abroad (leading to a fall in the price of raw cane sugar).
  - d. Mexican Coke and Dublin Dr. Pepper become the most popular drink in the US (both of which use cane sugar).
  - e. Consumers hear that there will be a drought next year and that refined cane sugar output will be low. (Assume that suppliers do not change their behavior in anticipation of the drought.)
  - f. Farmers increase production of raw cane sugar this year in anticipation of a drought next year. (Assume that consumers' behavior does not change.)
  - g. Farmers increase production of raw cane sugar and consumers increase consumption of refined cane sugar, both in anticipation of a coming drought.