

Short Answer Questions: Specific Factors Model

For questions 1-4 regarding the Specific Factors models assume there are two countries (Home and Foreign), two goods (Manufacturing and Agriculture) and three factors of production (capital, land and labor) with capital and land being specific to Manufacturing and Agriculture respectively.

1. In the specific factors model if both countries have identical endowments of all three factors as well as identical preferences can trade be mutually beneficial?

ANSWER: No. Comparative advantage in the Specific Factors model comes from differences in factor endowment. When preferences and endowments are identical relative prices will also be identical, allowing for no gains from arbitrage.

2. In the specific factors model if the price of Agriculture increases as a result of trade, it is possible for labor to gain more than the owners of land?

ANSWER: No. In the Specific Factors model the change in the return to the mobile factor of production always lies between the changes in the two prices, whereas the change in the return to land will exceed the increase in the price of Agriculture.

3. In the specific factors model with **fixed world prices** if the endowment of labor increases what will happen to the real return to labor? What about the real returns to capital and land?

ANSWER: The real return to labor will fall as wages will fall in both industries and the real return to both specific factors will increase since labor flows into both industries, which drives up the MPK in both industries.

4. In the specific factors model with **fixed world prices** if the endowment of either specific factor decreases what will happen to the real returns to both specific factors?

ANSWER: A decrease in either specific factor will result in an increase in the real return to both specific factors.

Heckscher-Ohlin Question:

For this question regarding the Heckscher-Ohlin model assume the following: there are two countries, Home and Foreign, abundant in capital and labor respectively. There are two goods (airplanes and bicycles) that are produced by two factors of production with diminishing returns. Assume airplane production is capital intensive and bicycle production is labor intensive (think about why that makes good sense). Let both countries have identical preferences such that in autarky both countries produce both goods

- a. If these two countries were to trade which country would export which good?
 1. **ANSWER:** Home will export airplanes and Foreign will export bicycles.
- b. State the theorem that pertains to the result in (a).
 1. **ANSWER:** The Heckscher-Ohlin theorem.
- c. What will happen to the capital intensity of production in Home?
 1. **ANSWER:** The capital intensity of production in Home will decrease
- d. What will happen to the capital intensity of production in Foreign?
 1. **ANSWER:** The capital intensity of production in Foreign will increase.
- e. What will happen to the real wage in Home and in Foreign?
 1. **ANSWER:** The real wage will fall in Home and rise in Foreign.
- f. What will happen to the real rental rate in Home and Foreign?
 1. **ANSWER:** The real rental rate will rise in Home and fall in Foreign.
- g. State the theorem that pertains to the results in (iii) and (iv).
 1. **ANSWER:** The Stolper-Samuelson theorem.

True, False or Uncertain

1. In the HO model with **fixed world prices**, if immigration increases the labor force in the Home country, the Home country will *decrease* its production of airplanes.

ANSWER: True. The decrease in airplane production, the capital intensive industry, follows directly from the Rybczynski theorem.

YOU DO NOT NEED TO KNOW THE FOLLOWING ANSWERS

2. In the HO model with **fixed world prices**, if immigration increases the labor force in the Home country, wages will fall and the return to capital will rise.

ANSWER: False. Since factor intensities does not change in either industry, neither do the returns to labor or capital. This follows from the Factor Price Insensitivity theorem.

3. In the HO model with **fixed world prices**, if capital inflows increase the capital stock in the Foreign country, they will increase the capital labor ratio employed in airplane production.

ANSWER: False. The decrease in production of bicycles allows for the capital labor ratio to remain unchanged in both industries.