

3. Home and Foreign can produce cheese, wine, and tools with the following unit labor requirements:

	Home	Foreign
Cheese	12	2
Wine	4	4
Tools	9	3

In world trade equilibrium, wages at home are half of foreign, with $w = 1/2w^*$. What good(s) will Home Produce? What good(s) will Foreign produce?

4. True or false? (please explain your answer, using a diagram) In the standard trade model, an improvement in terms of trade for a country will lead the country to export less and import more, placing the country on a lower indifference curve.

7. Discuss the predictions of the gravity model. What does this model say about the pattern of bilateral trade? Is the evidence consistent with the model?

8. Discuss two explanations for increasing inequality which focus on the demand for labor. Show how these could account for increasing inequality. Briefly mention the evidence for or against these two explanations.

9. True or false? According to the Heckscher-Ohlin framework, if the US is skill-abundant and scarce in unskilled-labor, then the US will produce more skill-intensive goods. If telecommunications is a skill-intensive good, then the Heckscher-Ohlin framework implies that opening up to trade will increase the return to skilled workers relative to unskilled workers, as well as increase the ratio of skilled to unskilled workers within the telecommunications sector.

10. In the past, many economists have argued that opening up to trade should reduce world poverty because the poorest countries have a comparative advantage in exporting labor-intensive goods. Has the incidence of poverty declined? Give two reasons why the Heckscher-Ohlin framework may not apply in trying to estimate the impact of opening up to trade on poverty.

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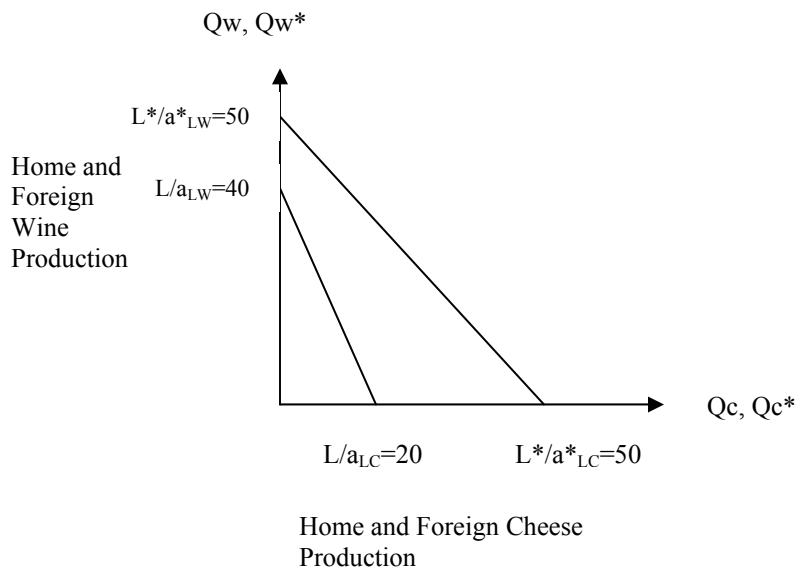
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Part II. The Ricardian Model of Trade (20 points)

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The production possibility frontiers for Home (no asterisk) and Foreign (asterisk) are depicted in the graph below. Both countries' labor forces are equally large, $L = L^*$.



II.A (10 points) Calculate the opportunity cost of cheese in terms of wine for Home and Foreign. Which country has an absolute advantage in cheese production? Which country has a comparative advantage in cheese production?

II.B (5 points) Home and Foreign are trading. Each country completely specializes in one good. What is the possible range of the relative equilibrium price of cheese P_c/P_w ?

II.C (5 points) Choose one possible relative equilibrium price P_c/P_w . Is trade beneficial to both countries? You may explain briefly in words or illustrate your answer graphically.

Part III. The Specific Factor Model (20 points)

According to an article that appeared in the New York Times several weeks ago, there has been an increase in suicides among Indian cotton farmers. The article attributes this increase at least in part to the 18 billion dollar a year spent on subsidies to cotton that the United States gives its own cotton farmers.

You are a consultant for the World Trade Organization, which has asked you to determine how Indian cotton farmers would be affected by removing the subsidies on US cotton. Assume the following:

- There are two goods produced in India and the USA, cotton and high technology services (software, back-office processing etc).
- Technology is the same in both countries.
- There are 3 factors: unskilled labor which is specific to cotton, skilled labor which is specific to high technology services, and capital, which is the mobile factor.
- Assume that the removal of US cotton subsidies increases the world price of cotton P_c but has no impact on the price of high technology services, P_t .
- Assume that the ratio of the endowment of unskilled to skilled labor in India is higher than in the United States, although there are equal numbers of skilled workers in both countries.

Answer the following questions:

A. (5 points) What impact does the removal of US cotton subsidies have on nominal wages and the nominal return to capital in India?

B. (5 points) What impact does the removal of US cotton subsidies have on real wages and the real return to capital in India?

C. (5 points) What will happen to inequality in India as a result of the US removal of its cotton subsidies?

D. (5 points) If you are told that capitalists consume high technology services but refuse to wear cotton shirts, how does this change your answer to (B)?

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Part IV. The Hecksher-Ohlin Model. (20 points)

Suppose there is only one technique that can be used in clothing production. To produce a unit of clothing requires four labor-hours and one unit of capital; in food production each unit requires a single labor-hour and one unit of capital. At an initial equilibrium suppose the wage rate and capital rental are each valued at two dollars. If both goods are produced, what must be their prices? Now keep the price of food constant and raise the price of clothing to 15 dollars. Trace through the effects on the distribution of income. Rank the relative changes in the wage rate, the price of clothing, the price of food (unchanged), and the rent on capital. Relate your results to the Stolper-Samuelson theorem.