

Economics C181, EEP C181: International Trade

Assignment #2:

Due Wednesday, October 1, beginning of class

Professor Harrison

Fall 2008

1. Specific Factors and Trade

Finland is capital abundant relative to potential trading partners in the rest of the world.

Telecommunications is a capital intensive industry relative to the business services industry. Businesses in Finland have made investments in both industries, creating stocks of capital that are devoted to either telecommunications or business services. The mobile factor of production is labor.

- Suppose that Finland is not trading. Draw the specific factors diagram for Finland, indicating how labor is divided between the two industries, and showing the prevailing wage w_0 .
- Modify your diagram to show how Finland's labor allocation and wage change when it opens trade with the rest of the world.
- How does the opening of trade affect capital owners in Finland's telecommunications industry? Describe and show on your graph.
- Are Finnish workers likely to benefit or lose from the opening of trade?
- Suppose Finnish workers consume as much telecommunications as they can, while they buy very few business services. How does this affect the magnitude of worker gains or losses?

2. The HO Framework.

	USA	Canada
Capital	40 machines	10 machines
Labor	200 workers	60 workers

- Suppose that the United States and Canada have the factor endowments in the above table. Suppose further that the production requirements for a unit of steel is two machines and eight workers, and the requirement for a unit of bread is one machine and eight workers.

Which good, bread or steel, is relatively capital intensive? Labor intensive? Explain how you know. Which country exports bread with trade? Why?

- What does the term factor price equalization mean?

3. Another HO Problem: suppose there is only one technique that can be used in clothing and food 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 that the wage rate and capital rental are each valued at 2 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. 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 by assumption), and the rent on capital. Assuming that the country is relatively well endowed with labor, relate your results to the Stolper-Samuelson theorem.

4. Heckscher-Ohlin Trade Theory and Endowments

At current goods and thus factor prices, cloth is produced using 20 hours of labor for each acre of land, while food is produced using only 5 hours of labor per acre of land.

- The economy's total resources are 600 hours of labor and 60 acres of land. Use an Edgeworth box to determine the allocation of resources.
- Labor supply increases from 600 to 900 to 1200 hours. Using an Edgeworth box, trace out the changing allocation of resources.