

## International Economics - Problem Set 2

**Exercise 1:** The basics of Comparative Advantage:

- a. Define *comparative advantage* and explain its drivers under Ricardo and Heckscher-Ohlin.
- b. Who gains from Trade?
- c. As a results how do countries specialize?

**Exercise 2:** The Heckscher-Ohlin theorem

Heckscher-Ohlin Theorem: *Each country exports the good that is using intensively for production the factor the country is abundant in.*

Suppose we have two countries, Pakistan and Iran. Both produce robotic machinery and hand-made carpets. Thinking about the implications of Heckscher-Ohlin:

- a. Which country is likely relatively more abundant in labor? And which in capital? Which production, do you think, is more K-intensive and which one more L-intensive? Discuss.
- b. Based on your reasoning, plot the PPFs for both Pakistan and Iran, as well as the indifference curves and the relative price curves in autarky (assume preferences to be the same in both countries). What does the slope of the relative price curve say about the direction of the exchange?
- c. Assume the two countries open to international trade. Represent the triangle of exchange, and identify imports and exports on the sides of the triangles.

**Exercise 3:** Stolper Samuelson Theorem

Stolper-Samuelson Theorem: *A rise in the relative price of a good will lead to a rise in the relative return to the factor that is used intensively in the production of that good.*

Assume a country to produce personal computers (C) and shoes (S), and assume the following conditions apply.

THEN:

- a. Which sector is K-intensive and which one is L-intensive?

| Production              | Revenues         | Wages          | Rents          | % Increase in Price |
|-------------------------|------------------|----------------|----------------|---------------------|
|                         | $P_c \times Q_c$ | $W \times L_c$ | $R \times K_c$ | $\delta P_s / P_s$  |
| Personal Computers      | 100              | 50             | 50             | 0%                  |
| Shoes (very fancy ones) | 100              | 5              | 95             | +50%                |

- b. Given the variation in prices following the opening to international trade, which is the % variation of the cost of both K (rents) and L (wages)?
- c. Which factor gains in real terms? Is this result coherent with the Stolper-Samuelson Theorem?

**Exercise 4:** Oper Questions:

- a. What is the so-called 'China-Shock'? What do you think has been its impact on the US' and European economies? Discuss them in light of the insights from the Heckscher-Ohlin model and its derived theorems.