

International Economics 2024

Home assignment 7

Question 1: Trade and Resources, solving for the effect of trade on real factor incomes

Home and Foreign both produce cars (C) and food (F) using labor and capital. In each country, labor and capital are both freely mobile across industries.

The technology is fixed coefficients: it takes 5 units of labor and 3 units of capital to produce 1 unit of food, and 4 units of labor and 4 units of capital to produce 1 car.

Home has 600 units of labor and 400 units of capital, while Foreign has 600 units of labor and 500 units of capital.

Each country has the same relative demand curve, given by $P^F/P^C = 1.1 - (0.075)Q^F/Q^C$.

Recall your calculations for the relative price of food in autarky and trade from home assignment 6. Answers the following using graphs:

(a) Who in Home benefits from trade? Is it the scarce factor or the abundant factor?

Who loses? The scarce factor or the abundant factor?

(b) Who in Foreign benefits from trade? Is it the scarce factor or the abundant factor?

Who loses? The scarce factor or the abundant factor?

Question 2: Political Economy

Consider an economy in which two factors of production, labor and capital, produce two goods, capital-intensive pharmaceuticals and labor-intensive clothing. Suppose that both factors of production are freely mobile across both industries, and that all producers, consumers, capitalists and workers are price-takers.

Suppose that there are currently steep tariffs on all imported goods, but there is a bill before Parliament to eliminate those tariffs, and the government has invited citizen

representatives of workers and capitalists to express their opinions on the matter.

Suppose that all citizen representatives understand the consequences of eliminating the tariffs (that is they understand that the price of the imported good will decrease after tariff elimination), and suppose as well that each representative simply wants to maximize his or her real income.

The Parliamentary hearing takes testimony from four groups, representing workers in the clothing industry, capitalists in the clothing industry, workers in the pharmaceuticals industry, and capitalists in the pharmaceuticals industry, respectively.

(a) If this economy is capital-rich relative to the rest of the world, which of these four groups do you expect to support the tariff-elimination bill and which do you expect to oppose it? Why?

(b) Now, suppose that the country is labor-rich relative to the rest of the world, and answer the same question.