

Ricardian model

Problem №1

Consider the Ricardian model with 2 countries, *Home* and *Foreign*. The only factor of production is labor. *Home* and *Foreign* are endowed with 200 and 100 units of labor respectively. There are 2 goods, textiles (T) and computers (C). Production technologies are described by means of unit labor coefficients:

$$\begin{aligned}a_T &= 3, & a_C &= 2, \\a_T^* &= 3, & a_C^* &= 1,\end{aligned}$$

where “*” denotes *Foreign*. Preferences of consumers are identical in both countries and represented by the utility function:

$$U = \min(C_T, C_C),$$

where C_C denotes consumption of computers and C_T denotes consumption of textiles.

1. Find the relative price of computers (with respect to textile) in the world market equilibrium. Describe the specialization and trade patterns that arise in the world market equilibrium. Explain all your answers!
2. Derive the amounts *Home* produces and consumes in equilibrium. Does the country gains from trade? Explain your answers!
3. Assume that the endowment of labor in Foreign increases from 100 units to 150 units. Find the new relative price of computers in the world market equilibrium. Does a worker at Home and Foreign gain or lose from such a change in the foreign labor endowment? Explain your answers!

Problem №2

Consider a standard Ricardian model with a continuum of goods. Assume that the endowment of labor in Foreign L^* goes up.

- 1) Illustrate with the help of a picture changes in the equilibrium outcome. Explain the economic intuition behind these changes.
- 2) What is the effect of these changes on welfare at Home? What about Foreign?