

International Economics – Sample exam questions 2

Multiple choice questions (2 points for correct answer, 0 for blank answer, -1 for wrong answer)

1. Consider trade policy with two big countries. Country H is an exporter of good Y while country F is an importer. If country H guarantees a subsidy on exports
 - a) the relative world price (terms of trade) between X and Y , p_X/p_Y , will go up
 - b) the relative world price (terms of trade) between X and Y , p_X/p_Y , will go down
 - c) the relative domestic price between X and Y inclusive of the subsidy, $p_X / (p_Y (1+s))$, is higher than the relative world price between X and Y

2. Consider the horizontal FDI model. We know that the profit differential between the multinational and national form is $\Pi^{MNE} - \Pi^{NE} = tE - (F + H)$. The effect of an increase in trade barriers (**higher** t) is to
 - a) shift to the left the threshold of foreign market size E below which it is convenient to stay national
 - b) shift to the right the threshold of foreign market size E below which it is convenient to stay national
 - c) make trade and FDI complements

3. Consider the vertical FDI model. We know that the cost differential between the multinational and national form is $B^{MNE} - B^{NE} = H + t - (c - c^*)$. The loss of competitiveness of the Home economy leads to lower labor productivity (**higher** c). This is conducive to
 - a) a shift to the left of the threshold level of foreign marginal production cost c^* above which it is convenient to stay national
 - b) a shift to the right of the threshold level of foreign marginal production cost c^* above which it is convenient to stay national
 - c) making trade and FDI substitutes

4. Consider the outsourcing model. In this model the trade-off between the choice of the national enterprise form (NE) or the multinational enterprise form (MNE) is regulated by
 - a) the comparison of the benefits of proximity against the benefits of concentration
 - b) the comparison of the benefits of ownership-based imports against the benefits of contractual-based imports
 - c) the comparison of benefits of producing components at a lower marginal cost under MNE against the benefits of the lack of any contractual incompleteness issues under NE

Theories of trade with imperfect competition

Let us consider the Brander and Krugman (1983) model with imperfect competition. In country H , in a given sector with homogeneous final output, there are two firms: one is domestic and the other is foreign. The marginal cost for production in country H of the domestic firm is c , while the marginal cost for production of the foreign firm is

$$\hat{c} = \frac{c}{\tau},$$

where the parameter $\tau < 1$ represents freeness of trade, which is inversely related to the level of trade barriers (transport costs, tariffs, etc.). Let us also recall that, when the domestic firm has market power, the profit maximizing price is p , being equal to

$$p = \frac{\sigma}{\sigma - s} c$$

where σ is the market demand elasticity, and s is the market share of the domestic firm in country H .

- i) When there is autarchy there are no competitors for the domestic firm in market H . What is the autarchy price, p_A , that she charges in this case?
- ii) Write the expression of the price, p^* , charged by the foreign firm in H , as a function of σ , s , c , τ , when trade is allowed.
- iii) Since we are dealing with a homogeneous good, in equilibrium, when there is trade, it has to be that $p_T = p = p^*$, where p_T is the equilibrium price when there is trade. Starting from this condition, write the analytic expression of the market share, s , held by the domestic firm. Write also the analytic expression of the equilibrium price p_T as a function of the exogenous parameters σ , c , and τ only (the variable s is endogenous and disappears).
- iv) Derive the analytic condition that has to be satisfied by the freeness of trade parameter, τ , in order to have trade; that is, derive the analytic condition that allows the foreign firm's market share to be positive in country H . Why does this condition depend on the parameter σ of market demand elasticity.
- v) Compare the equilibrium price in H under autarchy, p_A , and the equilibrium price under trade, p_T . What price is the largest? Why?

Traditional theories of trade

Consider the following Ricardian framework. There are two countries, E and P , two tradable goods, v and c , and one factor of production, labor, which is immobile across countries. Good c is the numeraire good. Country E is endowed with 200 units of labor while country P is endowed with 100 units of labor. We have the following technologies in each country (unit labor requirements): $a_c^E = 2$; $a_v^E = 4$; $a_c^P = 10$; $a_v^P = 10$.

- i) Compute the autarchy equilibrium for E and P ; that is, compute the quantities produced (and consumed), the total amount of labor employed, wages, and prices in each sector.
- ii) Draw the world PPF and determine **only graphically** the world production and consumption under free trade, the free trade price ratio, the pattern of specialization of the two countries.