

NAME and SURNAME (Capital letters):

STUDENT ID NUMBER:

SIGNATURE:

ILA 2 - INTERNATIONAL ECONOMICS

General recommendations:

1. Exams without name, surname, student ID number, and signature are not valid.
2. No scratch papers will be considered for the evaluation.
3. Please write your answers by using a pen; pencils are admitted only for drawing graphs
4. Time available: 1 hour and 15 minutes

MULTIPLE CHOICE - suggested time for completion 15 minutes (**3 questions; 2 points for each right answer, 0 for any missing answer, -1 for every wrong answer**)

1. In the model with **export subsidies with two big countries**, if country H introduces a subsidy on the exports of good Y
 - a) the equilibrium terms of trade p^* improve (p^* goes up)
 - b) the equilibrium terms of trade p^* improve (p^* goes down)
 - c) the equilibrium terms of trade p^* deteriorate (p^* goes up)
2. In the new trade theories, if there is the **selection/defragmentation** effect:
 - a) the total number of firms in the integrated market made by two countries is larger than in a single market in autarchy
 - b) the total number of firms in the integrated market made by two countries is smaller than in a single market in autarchy
 - c) the total number of firms in the integrated market made by two countries is exactly equal to two times the number of firms in a single market in autarchy
3. In the new trade theories, in a graph with firms' profitability, π , on the vertical axis, and the number of firms, n , on the horizontal axis, if the **market demand elasticity to the price, σ** , goes up:
 - a) the curve linking firms' profitability, π , to the number of firms, n , shifts upwards
 - b) the curve linking firms' profitability, π , to the number of firms, n , shifts downwards
 - c) the number of firms at equilibrium increases as the market demand elasticity to the price goes up

EXERCISE 1: Vertical FDI - suggested time for completion 25 minutes (max 3 points)

To manufacture a certain good, a firm must perform two stages of production: the first to produce components (at marginal cost c if production takes place at home, whereas at $c^* < c$ if abroad); the second for their final assembly (necessarily at home, at marginal cost a). By locating abroad the first stage of production, the firm would be required to pay a fixed cost H for co-ordination, and would incur a trade barrier equal to t when shipping components across borders.

- a) Write down the expression of firm profits both in the case the firm opts for offshoring the stage of production of components, and the case where it does not.
- b) Determine the formal expression for the threshold of the marginal cost c^* , with respect to which the firm will choose its optimal strategy, and discuss when the vertical FDI will be undertaken, and when not. Provide a graphical representation.

Note: For every curve, please indicate what the curve represents (benefits from the FDI, cost of the FDI)

- c) Suppose that technological progress leads to a **reduction of transportation costs t** and, **simultaneously**, that **marginal cost c of producing components at home increases**, due to higher wages in the domestic labor market. Show in the graph and explain in words how these *shocks* jointly affect the optimal choice of the firm as regard to the FDI.

EXERCISE 2: Money, Interest Rates, and Exchange Rates - suggested time for completion 35 minutes (max 5 points)

- a) Plot a graph (with dollar returns on the horizontal axis and the current exchange rate on the vertical axis) of the equilibrium in the foreign exchange market (Euro-Dollar) under the hypothesis of **parity in the expected returns of currency deposits** and show how the equilibrium would change when economic agents revise their expectations towards a future appreciation of the US dollar (as in the textbook, take the perspective of the US as *home country*).

HINT: Explain what each curve stands for and the intuition underlying the determination of the equilibrium level of the exchange rate. Explain how capital flows move US-EU as a reflection of the change in expectations.

Let us now consider a Cartesian coordinate system with two panels, a top one and a bottom one. On the horizontal axis you have the rate of returns expressed in dollars, on the vertical axis of the top panel you have the current exchange rate, while on the vertical axis of the bottom panel you have real monetary holdings in the US.

- b) Suppose that nominal interest rates in the US market increase. What type of monetary policy by the US Central Bank (the FED) might be at the origin of this increase? What would be the implication for the equilibrium exchange rate **in the short run**, under the assumption that prices are sticky? Study this situation by means of the graph.
- c) Let us now study the effect of the US monetary policy in the **long run**, allowing prices to adjust, but excluding that there is any real effect on the US total income/GDP. In a separate graph similar to the one used for point b), show and briefly comment what happens in the long run, both in the American money market and in the foreign exchange market (Euro-Dollar).
- d) Explain what it is the *overshooting* of the exchange rate, and explain why graphs under points b) and c) are useful to explain its emergence in the foreign exchange market.