International Economics - Intermediate Learning Assessment no. 2

Last name (in capital letters):

First name (in capital letters):

Student registration number:

Signature:

General instructions:

1. *Papers that are missing either name, student number, or signature are not valid;*
2. *Write your name, student number, and signature also on the other sheets employed to answer the questions; these sheets, together with scratch paper, have to be handed back;*
3. *Questions are to be answered with a pen; pencil is allowed only for graphs;*
4. *Available time: 1 hour 15 minutes.*

SECTION A

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

1. When a big country levies a tariff on imports:
   a) the terms of trade change so that imports become relatively cheaper
   b) the terms of trade change so that imports become relatively more expensive
   c) the terms of trade do not change

2. Given the symbols used in class, the operating margin of a firm with some market power, $p - c$, is equal to:
   a) $c / (\varepsilon - 1)$
   b) $\varepsilon / (\varepsilon - 1)$
   c) $\varepsilon\, c / (\varepsilon - 1)$

3. Given the symbols used in class, the perceived demand elasticity, ε, of the demand accruing to a firm with some market power is equal to:
   a) σ / s
   b) σ / n
   c) $\sigma * s$

SECTION B

Exercise: FDI and Multinationals (5 points)

Consider the horizontal FDI model. There are two markets, each with a demand level equal to *E*. The firm faces two options. The first entails staying as a national enterprise (*NE*), and so carrying out production in a single plant with a fixed cost *F*, a marginal cost *c*, and a transport cost *t* to reach the foreign market. The second entails becoming a multinational enterprise (*MNE*), with headquarters cost *H*, and so carrying out production in two separate plants, each with fixed cost *F* and marginal cost *c*.

i) Write the profit function for the multinational and national organizational forms, respectively.

ii) Compute the profit differential $\Pi^{MNE} - \Pi^{NE}$ and write the conditions under which this profit differential is larger, equal or smaller than zero.

iii) Compute analytically the level of foreign demand, E^*, below which it is convenient to stay national.

iv) Show graphically how to get the foreign demand level E^* and provide a graphical assessment of the impact of **smaller fixed costs of production** (smaller *F*) on the likelihood of being *MNE*. Give the economic intuition explaining this effect that can be traced back to investment liberalization.

v) Say why this model is said to formalize the trade-off between proximity and concentration.

SECTION C

Exercise: Exchange rates and the price level in the long run (5 points)

Consider the **long run** model of the exchange rate between the dollar and the euro that is based on PPP.

i) Write the equation that represents the relationship between interest rates on currency deposits and expected inflation rates, and discuss the economic meaning of the variables involved.

ii) 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 United States. In such a graph, show the effect of an **increase in the growth rate** of money supply in the United States from π to $(\pi + \Delta\pi)$. Comment on the relationship that links the interest rate and the exchange rate in this scenario.

iii) What is the underlying hypothesis that is made in this model regarding the behaviour of the price level?

iv) Briefly describe at least one problem that explains why, from an empirical point of view, the theory of PPP performs poorly.

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