



AFRICAN ECONOMIC RESEARCH CONSORTIUM
Collaborative Masters Programme in Economics for Anglophone Africa
(Except Nigeria)

JOINT FACILITY FOR ELECTIVES (JFE) 2013

JUNE – SEPTEMBER

INTERNATIONAL ECONOMICS I

First Semester: Final Examination

Duration: 3 Hours

Date: Tuesday, August 6, 2013

INSTRUCTIONS:

1. Answer **ANY FOUR** (4) questions.
 2. All questions carry equal marks.
 3. Show all your workings and use well labeled diagrams where appropriate.
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Question 1

Consider a specific factors model. The production functions of good X and Y, and the factor endowments are given as:

$$X = R^{0.5} L_x^{0.5},$$

$$Y = S^{0.5} L_y^{0.5},$$

$$\bar{L} = 500 = L_x + L_y,$$

$$\bar{R} = 200,$$

$$\bar{S} = 300$$

Labor (L) is homogenous and freely mobile across the two sectors. R is capital specific to the production of X and S is capital specific to the production of Y.

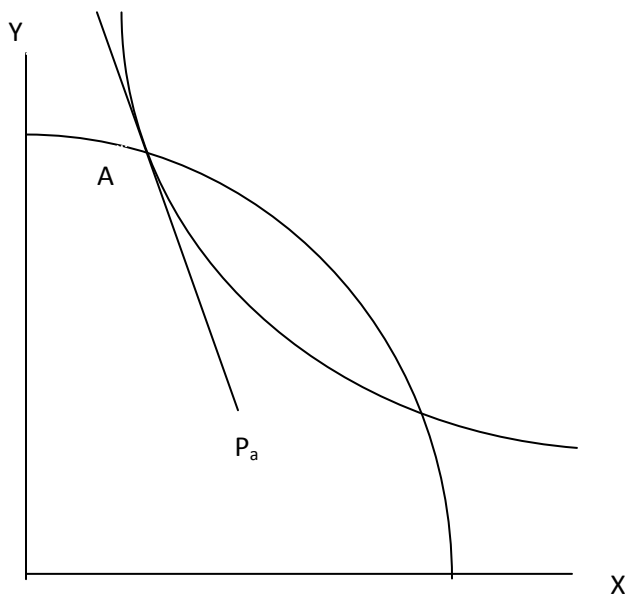
- (a) Suppose the prices are given as $P_x = 3$, and $P_y = 2$. Show how labor is shared in the production of X and Y (L_x and L_y) and compute the real factor prices (real wage in terms of X and Y, real rate for R, and real rate for S). **(10 Marks)**
- (b) Suppose the R endowment increased, while the prices (P_x , and P_y) and the endowments of L and S remain the same as in (a). Discuss the effect on the real income of the mobile factor (L), and real income of specific factors (R and S). Which group(s) will support a policy of free trade and which group(s) will oppose? **(10 Marks)**



Question 2

Suppose two identical small countries (H and F), each with a single monopoly producer of commodity X and no monopsony power in factor markets. Y is assumed to be produced by a competitive sector. The initial autarky equilibrium for both of the identical countries is given as point A in Figure 2.

Figure 2



- (i) The two countries open up for trade. Assuming each of the duopolist picks the best output given the output of the other firm (Cournot-Nash behavior), explain (and show on the diagram) the potential for pure pro-competitive gains. **(14 Marks)**
- (ii) What happens if the number of identical countries increases so that the number of firms and competition increases when opened for trade (also show graphically)? **(6 Marks)**

Question 3

For every quota we can find an equivalent tariff. But the effect of a tariff and a quota are not always interchangeable means of protecting import competing producers. Discuss the effects of the two protection instruments in a growing economy. (Assuming a small country, discuss growth in scarce factor and growth in abundant factor). **(20 Marks)**



Question 4

Consider a country producing goods Y and X. It is exporting Y and importing X. Using general equilibrium diagrams explain the impact on a country's welfare of imposing:

(a) Export subsidy on Y (10 Marks)

(b) Production subsidy on X (10 Marks)

Question 5

Consider the labor situation in countries I and II in a two-country world with marginal physical product schedules $MPPL_I$ (=demand for labor schedule D_I) for country I and marginal physical product schedule $MPPL_{II}$ (=demand for labor D_{II}) for country II, as shown in the figure 5 below. The vertical axes represent real wages. Without labor migration between the two countries, labor force is OL_2 in country I and $O'L_2$ in country II. The labor force L_1L_2 is unemployed in country I due to minimum wage law. If labor force is now allowed to flow freely between the two countries:

(i) Discuss the direction of labor movement, the effects on country I and II output, and global output. (12 Marks)

(ii) Discuss the effect of labor movement on wage rates and per capita income in country I and in country II. (8 Marks)

Figure 5

