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Name:.....

**Econ 364
Fall 2008
M. Muniagurria**

Midterm 1 (Total Points: 90)

I) Ricardo

Consider a Ricardian Model of two countries (Home and Foreign) and two goods (Textiles and Corn). The production technologies are specified by the unit labor requirements shown below:

	Home	Foreign (*)
Textiles(T)	3	6
Corn (C)	1	6

Suppose there are 60 units of labor in each country, consumers have “nice” indifference curves and both commodities are consumed in autarky.

Answer the following questions. Justify fully. Use a diagram or an equation when you are able to do so.

- (1) (6 pts) Graph the production possibilities frontier and a possible autarky point for both countries (put textiles in the horizontal axis).
- (2) (6 pts) What are the autarky relative prices p_T / p_C in each country? Which country has a comparative advantage in textiles?

Free trade

Suppose that when both countries trade freely, the relative price of textiles in terms of corn is 2, i.e. the free trade prices are $p_T / p_C = 2$.

- (3) (4 pts) What is the pattern of trade? Draw a new graph for Foreign showing: the free trade production point, a plausible consumption point, exports and imports .
- (4) (4 pts) Show with a new diagram Foreign's gains from trade .
- (5) (6 pts) Calculate Foreign's real wage in terms of corn under free trade.
- (6) (6 pts) Assume that textiles is used as a numeraire (i.e. $p_T = 1$) and that the countries are trading freely at the specified free trade prices ($p_T / p_C = 2$). What is the Average Cost of producing Textiles in the Home Country?
- (7) (6 pts) Are wages in the two countries identical? Justify fully

Suppose now that due to a new discovery, Foreign's marginal product of labor in the Textile sector doubles (and it stays the same in the Corn sector). Suppose further that both countries are still trading freely. Answer questions (9) and (10).

- (8) (4 pts) Is the pattern of trade still the same? Justify fully.
- (9) (6 pts) What do you think will be the effect of this change on the equilibrium world prices (p_T / p_C)? Justify fully.

(II) Specific Factors Model

Consider a country that can produce two commodities (Cloth and Soy) using three factors (capital, land and labor). The country has fixed endowments of the three factors. The production of Cloth (C) uses capital (K) and labor, while the production of Soy (S) uses land (T) and labor. Therefore labor is a mobile factor while capital and land are specific factors. Production technologies follow the assumptions listed in class. In addition the country has “nice” community indifference curves.

Free Trade:

Assume that the country is trading freely with the rest of the world at prices p_S/p_C that are **higher** than the autarky prices.

(1) (6 pts) Show a possible free trade equilibrium (draw a plausible PPF, indifference curves and identify possible production and consumption points). **Please use the horizontal axis for Soy.**

Free Trade at Fixed World Prices after an increase in the world relative price of Soy:

Suppose now that due to global factors the world relative price of Soy increases (i.e. p_S/p_C goes up). In the following questions (2 -6) you are asked to evaluate the qualitative effects of this change.

(2) (10 pts) Use a diagram to show what happens to labor allocation across sectors and to the wage as a result of this change.

(3) (4 pts) What happens to Soy and Cloth output? Justify.

(4) (6 pts) Are workers better off or worse off? Justify.

(5) (8 pts) Are the owners of Capital better off or worse off? Justify.

(6) (8 pts) Are the Owners of Land better off or worse off? Justify.