University of California, Davis
Department of Economics
International Economics

Date: June 7, 2005
Time: 3 hours
Reading Time: 20 minutes

PRELIMINARY EXAMINATION FOR THE Ph.D. DEGREE

Each of the 3 parts of this test have two questions. You must answer 4 questions, including at least one question from each of the 3 parts.

PART A

1. (a) In the two-good, two-factor, two-country Heckscher-Ohlin model, suppose that the factors of production are skilled and unskilled labor. When the countries open to trade, is it possible for the relative wage of skilled labor to rise in *both* countries? Explain why or why not (a verbal explanation is sufficient here).

   (b) Suppose that one of the countries (India) produces Software and Clothing. Each good uses both skilled and unskilled labor, and Software is skilled-labor intensive. The other country (the U.S.) produces Financial services using only skilled labor and Software, and Clothing using both skilled and unskilled labor. The U.S. also applies a *tariff* on imported Software.

   (i) Write down the zero-profit conditions for the two goods in each country.
   (ii) Suppose that the U.S. *lowers the tariff* on imported Software. Totally differentiate the zero-profit conditions in the U.S. to determine the impact on the wages for skilled and unskilled labor. Then do the same for India.
   (iii) Based on your results in (ii), what happens to the relative wage of skilled labor in each country as the tariff on Software is reduced?

2. In January 2005 the Multifibre Agreement expired and China began to export a large amount of clothing to the U.S., which threatened trade retaliation. In this question we examine the consequences of various trade policies applied by China or the U.S.

   (a) Initially, China proposed to limit its exports of clothing by applying an export tax. This tax would be a *specific tax*, for example, 10 cents per shirt. If a specific export tax is applied, then what is the effect on the *quality* of export goods? Justify your answer with a simple two-good example.

   (b) Suppose we model China and India as duopoly exporters of clothing to the U.S. How will the export tax applied by China affect its own welfare? You should distinguish different market structures, and illustrate your answer.

   (c) The United States was not satisfied with the proposed export tax, and instead decided to impose a quota on clothing exported from China. How will this quota applied by the U.S. affect Chinese welfare? Again, you should distinguish different market structures, and illustrate your answer.

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Part B

Question 1

(a) Robert Mundell, a recent Nobel Prize winner in Economics, advocates that the world returns to the gold standard that existed before World War I. What do you think?

(b) Were the defects of the Bretton Woods System of Pegged Exchange Rates identified by Milton Friedman in 1950 the primary reasons why the system ended in 1973?

(c) The bilateral DM-US$ exchange rate and the bilateral Yen-US$ exchange rate have behaved like random-walks for most of the period after 1973. Does such randomness indicate that the foreign exchange markets are inefficient processors of information, and that we ought to return to some kind of fixed exchange rate system?

Question 2

The Asian financial crisis caused (almost) all currencies in East Asia to depreciate significantly against the US $, and output growth in 1998 to be mostly negative.

(a) Explain the mechanics of the collapse according to the competing explanations of the crisis. (Hint: If the system had collapsed because of internal weaknesses, what were the first components that cracked? If the system had collapsed because of external shock, then what was the exogenous shock and the propagation mechanism?)

(b) Evaluate the merits and weaknesses of two competing explanations of the crisis.

(c) Propose six specific steps that would prevent, or reduce the blunt of, future crises.

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Part C

Question 1

Consider Helpman, Melitz and Yeaple's (2004) model which describes whether firms serve markets by foreign investment or export.

a) Provide the profit functions for each of the firm choices (domestic sales only, export, foreign investment), and then diagram the firm choices to show how they relate to firm productivity.

b) Suppose oil cost increases cause transportation costs to rise. Modify your diagram accordingly, and explain how firm choices will change.

c) How will the increased cost of transportation affect the productivity of firms in the economy? Explain why.

d) Suppose economic conditions are the same in all countries, with one exception – one country has a larger labor force than the other country. How will this affect the composition of firms <domestic, export, FDI> in the two markets? Explain why, again using the Helpman, Melitz, Yeaple framework.

Question 2

In Rauch and Trindade (2003), the output generated by partnership between firm i and firm j is given by $Y_{ij} = f(L_{ij}, Z_{ij})$, where Z_{ij} represents the distance between the partners on the unit circle, and output is increasing in Z_{ij} due to complementarity. While the workers in home and foreign are identical, the home economy is populated by a smaller number of workers L_i than is foreign, with its population L_i^*. International partner search involves the home firm receiving a single introduction to a potential foreign partner. If the home firm wishes, it can reject the potential partner, in favor of a domestic partner whose is located at $Z_{ij} = 1/2$.

a) Show how the home firm will decide the lower bound, which defines acceptable partners in the foreign market. Explain the intuition for this result

b) Derive the probability that the international search will result in a successful international partnership. Remember, the parameter k $[0 \leq k \leq 1]$ describes the degree of uncertainty in the international search process.

c) Graph the relationship between k and relative wages w/w^*. Explain the intuition for the relationship.

d) Search is an important in other economic models of trade, such as Grossman and Helpman's (2005) description of outsourcing. Under what conditions in this model, will a decrease in search costs cause Northern firms to increase their outsourcing in the South? Explain why.