TUTORIAL 5 (DUE WEEK 7)

The Heckscher-Ohlin Model

Q1. Why is the Heckscher-Ohlin Model sometimes called the 2 x 2 x 2 model?

Q2. Assume we have an economy called PukpukLand that produces two products: handbags (H) and fertiliser (F). The unit requirements are as follows:

$\alpha_{LH} = 3$ $\alpha_{LF} = 1$

$\alpha_{KH} = 2$ $\alpha_{KF} = 5$

a. Assuming, we have 3,000 hours of labour and 4,000 hours of capital, graph the PPF (made out of budget constraints) for this economy. Put handbags on the y-axis.

b. What is the opportunity cost on each part of this PPF?

c. If we removed the requirement that each unit of handbags and fertiliser required a fixed proportion of inputs, what would we expect the shape of the PPF to be? Why would it be this shape?

d. Explain and illustrate the effect of an increase in the relative price of fertiliser to handbags ($\uparrow P_F/P_H$) on the PPF for PukpukLand.

e. Explain and illustrate the effect in (d) on the wage-rental ratio and the labour to capital ratio (L/K) used in production.

Now PukpukLand trades with another country named KumulLand. Let's assume that PukpukLand has a comparative advantage in producing handbags.

f. What will KumulLand's comparative advantage be in? How can we be sure of our answer?

g. Show the effect of opening to trade on a relative demand / relative supply diagram.

h. Show the effect of opening to trade on the PPF of PukpukLand.

i. According to the Heckscher-Ohlin Theory, what input (i.e. factor of production) does PukpukLand have a relative abundance in?

j. If KumulLand also has 3,000 hours of labour available for production, what can we say about how much capital it has available?

k. Who will be better off after trade in PukpukLand? Who will be worse off?

The Standard Trade Model

Q3. a. Explain what indifference curves are, and what they measure.

b. Why do indifference curves have the shape that they do?

c. What are terms of trade? Would you want them to increase for your country, or decrease? Why?

Q4. Assume that the economy we are analysing is PukpukLand from Q2. PukpukLand is a small, open economy (meaning that it <u>will not</u> affect the world price of fertiliser and handbags when it opens to trade). Remember that PukpukLand has a comparative advantage in producing handbags (the relatively labour-intensive product).

a. Illustrate the effect of opening to trade on a relative demand / relative supply diagram.

b. Illustrate the effect of opening to trade on the PPF of PukpukLand. Remember to show the effects on <u>consumption</u> as well as production.

Now assume that PukpukLand experiences growth that is biased towards fertiliser production, but not enough to change its comparative advantage in handbags.

c. Illustrate this effect on a relative demand / relative supply diagram. Include the World RS curve.

d. Illustrate this effect on PukpukLand's PPF. Is PukpukLand better off or worse off?

Now assume that PukpukLand's biased growth towards fertiliser never happens. Also assume that PukpukLand is a <u>large</u> open economy. This means that changes in its domestic price will affect the world price.

e. What is immiserising growth? What type of biased growth could lead to immiserising growth in PukpukLand?

f. Using a relative demand / relative supply diagram, and PukpukLand's PPF, illustrate an example of immiserising growth in PukpukLand.

Review

Q5. a. What are the four major trade models we cover in this course?

b. Describe each of the four models we have learnt so far with a few sentences each. How are they different?