Hand-out week 0/1/2

1st 2 weeks: 0. Organisation, Introduction, Motivation

1. Trade and/or Factor Mobility

1.1. Classical Trade Models
Ricardo, Heckscher-Ohlin, Classification of Models, Relationship to Factor Mobility

1.2. Factor Price Equalization
Theory, Empirics, Implications for Factor Mobility

1.3. Integrated Economy Approach
Samuelson's Angel, Cone of Diversification, importance of (n-1).

1.4. Gains from Trade and Factor Mobility
Ordering different regimes

1.5. Extensions
Factor Mobility in the Presence of Externalities and IRS

Readings: Krugman & Obstfeld chpts 2+4.

Paul Samuelson, "Int'l FPE Once Again", Economic Journal, June 1949, pp. 181-97.

Glenn Rayp, "An Empirical Test of the Dixit-Norman Approach to FPE, Using Co-integration Techniques", Weltwirtschaftliches Archiv, 134:3, 1998, pp. 484-512. Just look at the results here.

Paul Krugman, "The integrated-economy approach to int'l trade" from his chapter in the   Handbook of International Economics, Vol. 3, edited by Grossman and Rogoff, pages 1245-48.

Kar-Yiu Wong, "On choosing among trade in goods and international capital and labor mobility", Journal of International Economics: 14, 1983, pp. 223-250.

Assaf Razin and Efraim Sadka, "Cross-Border Flows: Labor, Capital, and Finance", to be published by Cambridge University Press, Chpt 1.

Practice Problems:

1. Let country H be endowed with 1200 units of labor. The unit labor requirement in their automobile industry is 3 and in toy production it is 2. Country F is endowed with 800 units of labor. Unit requirements are 5 for automobiles and 11 for toys. Let relative demand take the form $Q_a/Q_t = P_t/P_a$, where Q denotes quantities and P the price of automobiles (a) and toys (t) respectively.

a) Which country has the comparative advantage in which of the two goods?
b) Calculate the free trade equilibrium relative price of automobiles in terms of toys.
c) Calculate the pattern of exports and imports.
d) Show that each country gains from trade.
e) Calculate the ratio between the wage in country H and F. What would be the direction of migration if it were possible?
f) Repeat e) for the two regimes of complete specialization.

2. The Heckscher-Ohlin model (sometimes HOS - S for Samuelson) was long the workhorse of trade theory. List its assumptions. What is its central message/theorem? Derive it graphically. Pick at least three examples of traded goods that you can think of and try to use the HO model to explain them. Another implication of the model is the magnification effect in quantities as well as prices. Whose names are associated with these results? Show both results mathematically.

3. A fourth result usually listed in the context of the HO model is factor price equalization. List the crucial assumptions needed to obtain this result. Do you expect your salary after graduation to be the same no matter where you take up a job? How do you explain this discrepancy?

4. Where do the Heckscher-Ohlin and Ricardo models differ? How does each explain trade? What are each model's predictions for factor mobility if such mobility were possible? Feel free to comment on these predictions.

5. As the integrated world economy approach shows, FPE only obtains if the endowment point lies in the cone of diversification.

a) How do you construct/define this cone?
b) What goes wrong if the endowment point lies outside the cone?
c) How can this condition for FPE be generalized to many goods and factors (as long as the number of the former does not exceed the latter)?

6. Consider the EU ante and post its 1992 common market project (which by the way involves free trade within the union as well as free movement of factors). Assume technology was not altered by implementation of the project. Suppose in the integrated market 40% of labor and 60% of capital is used in manufacturing while the remaining 60% of labor and 40% of capital are used in a second sector. Now Southern Europe (as opposed to the North) is populated by 50% of EU workers and owns 30% of EU capital. Could there have been FPE before free movement of factors was permitted in 1992?

7. Wong (JIE, 1983) establishes a series of orderings, eg $T+K \geq T \geq K$.

a) Give an intuitive reasoning for this example.
b) Why are the regimes $T+K$ and $T+L$ not equivalent in his model given that they allow for free movement of (n-1) goods/factors?
c) Are trade and factor mobility complements or substitutes in his model?

Note: - this and all future hand-outs can be found on the class webpage at
                 http://willmann.bwl.uni-kiel.de/~gerald/facmobil

                 - first midterm at the end of class on Wednesday June 12