

Prof. Tybout

**INTERNATIONAL TRADE (ECONOMICS 507A)  
Midterm Exam**

October 31, 2007

**Please write your student ID number at the top of each page you turn in and number all pages (For example, if you use 6 pages, label them 1 of 6, 2 of 6., and so on.) Do not write your name anywhere on the exam.**

You must answer both questions in part I, and one of the two questions in part II. Each question will be weighted in proportion to its allotted time. Good luck!

**Part I: Answer both of the following questions**

1. (15 minutes) The following are (*very* approximate, to make your calculations simpler) data for national income and total number of workers for the United States and for the world as a whole (including the U.S.):

	<b>United States</b>	<b>World</b>
<b>Workers (millions)</b>	100	6,000
<b>Income (\$billions)</b>	2,500	30,000

- (a) Assume that U.S. trade is balanced, and apply the Heckscher-Ohlin Theorem to calculate the predicted net labor content of U.S. trade.
- (b) Explain in words what it means for the net labor content of U.S. trade to be what you said in part (a).
- (c) Based on the empirical work of Trefler (1995) and Davis and Weinstein (2001), approximately what would you expect to find if you were actually to measure the net labor content of U.S. trade? Explain your expectations.
2. (30 minutes) Indicate whether each of the following statements is *true or false*, and *defend your answer*. Grades will be based mainly on defenses.
- (a) In the Dornbusch-Fisher-Samuelson Ricardian continuum of goods model with free and frictionless trade, an increase in the productivity of all the workers in one country increases the real wages of workers in both countries.
- (b) A large country has less to gain from trade than a small country.
- (c) The Helpman-Krugman (1985) model, the Eaton-Kortum (2003) model, and the Melitz (2003) model all imply the same gravity equation and are therefore empirically indistinguishable.

**Part II: Answer one of the following two questions**

3. (30 minutes) In the context of Helpman and Krugman's monopolistic competition model, suppose that factor price equalization obtains, and that the home country is a net exporter of differentiated manufactured goods. Explain how migration of labor from the home country to foreign country might affect the equilibrium in terms of:
- a) trading patterns, including the ratio of intra- to inter-industry trade.
- b) plant size (production levels per plant among manufacturers)
- c) the number of manufactured varieties produced in each country.

4. (30 minutes) Suppose global warming changes ocean currents and thereby reduces the iceberg trade costs for countries that export *to* Examistan. However, Examistan's exports are all shipped over land or by air, so the trade costs for these goods are unaffected. Is Examistan better off?

Answer this question twice, first adopting the assumptions of the Eaton-Kortum (2003) model, then adopting the assumptions of the Melitz-Ottaviano (2005). When relevant, distinguish between short-run and long-run considerations.