

Homework 3

due on Friday 07-Jan-2010 - pls hand in to Toni (room 02.147)

Problem 1: Consider the heterogeneous firm trade model as pioneered by Melitz (Econometrica 2003):

- Formally derive the entry and export market cutoffs φ^* and φ_x^* as well as the equilibrium number of firms, and show how these variables respond to changes in the trade cost.
- Now assume that productivity is drawn from a Pareto distribution, that is the density function takes the form kx_m^k/x^{k+t} where x_m is the lower bound of the support, and repeat your calculations from part a).
- Find empirical evidence (eg studies that show) that the size of firms does approximately follow a Pareto distribution. How does firm size relate to productivity in the Melitz model?

Problem 2: Globalization of Production.

- Find time series data for global GDP, trade, and FDI. What are the top destination countries for outward Belgian (or your home country's) FDI?
- Find and discuss (at least) one study that analyzes the impact of inward FDI on the receiving country's economy.
- In the Grossman/Rossi-Hansberg 'Trading Tasks' paper, formally derive the decomposition of the unskilled wage change into productivity, relative price, and labor supply effects, and briefly explain the intuition behind each effect.

Problem 3: 'Economies of Scope' and Trade.

- Compare economies of scope to economies of scale. Can you provide a sensible definition of increasing, constant, and decreasing economies of scope that is similar to the corresponding notion for economies of scale. If yes, please do so, if not, please explain.
- Provide a brief summary of the paper "Multi-Product Firms and Flexible Manufacturing in the Global Economy" (REStud January 2010) by Eckel and Neary.
- Explain the main similarities and differences between the Eckel/Neary approach and the one by Nocke and Yeaple that we discussed in class. How could you empirically test one against the other?