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### Seminar

# **Recent Developments in International Trade**

Johannes Gutenberg University Mainz Winter term 2010/2011

## Objective

This seminar aims at shedding light on new developments and current issues in international trade on the basis of theoretical and empirical articles recently published in leading academic journals. We want to discuss how these articles relate to the existing literature and how they advance the field of international trade.

## **Participants**

The seminar mainly addresses **Diploma students in Economics**, but is also open to interested Bachelor, Master and Magister students in Economics or Business Administration with a background in international trade. The number of participants is limited to 15.

### Credits

Participants can get credits for the subject "Economic Theory" (Pflichtfach Volkswirtschaftstheorie) or the elective "International Economics" (Wahlfach Internationale Wirtschaftsbeziehungen).

## **Prerequisites**

Although there are no formal prerequisites, having a solid knowledge of standard international trade theories is extremely helpful. A good understanding of microeconomic principles and basic econometric methods is essential.

## Requirements

Students are expected to write a term paper of about 15 pages which **focuses on one of the original articles** cited below. In their term paper, students should not merely replicate the article, but rather sketch the main idea and the basic results. With respect to theoretical work, students should demonstrate that they understand the economic mechanisms and assumptions that drive the results and be able to explain the working of the model in an intuitive way. With respect to empirical work, students should show that they understand the intuition behind the empirical strategy of the article and the implications of the empirical results. Students should give a critical assessment of the model or the empirical analysis, address shortcomings and possible extensions, and sketch briefly how it relates to the existing literature. In questions of style, students may want to consult one of the references given below.

In addition to the term paper, students should prepare a presentation of about 45 minutes, which will be the basis for a discussion of the article in class. The term paper can be written and the presentation can be given either in English or in German.

### Grading

The term paper will account for 50%, the presentation for 30 %, and class participation for 20% of the total grade.

## Registration and admission

Interested students should **register for the seminar until Friday**, **June 25**, **2010** via e-mail to j.abel@econ.uni-mannheim.de. Please indicate your first, second and third choice out of the articles cited below. Please indicate your program of study and current semester and provide information on your background in international trade.

Since the number of participants is limited, I can neither guarantee that every student who registers can also participate in the seminar, nor that every participant can work on his favorite topic. If necessary, a selection will be made on the basis of the students' background in international trade.

## **Timing**

The **term paper is due on Monday, November 29, 2010**. Student presentations will take place in Mainz on three days in early January 2011. Detailed information on the time and the location of the sessions will be announced soon.

## **Topics**

### Firms in international trade

1. **Bernard, Andrew B. and Jensen, J. Bradford.** "Exceptional exporter performance: cause, effect or both?" *Journal of International Economics*, February 1999, 47(1), pp. 1-25.

#### Abstract

A growing body of empirical work has documented the superior performance characteristics of exporting plants and firms relative to non-exporters. Employment, shipments, wages, productivity and capital intensity are all higher at exporters at any given moment. This paper asks whether good firms become exporters or whether exporting improves firm performance. The evidence is quite clear on one point: good firms become exporters, both growth rates and levels of success measures are higher ex-ante for exporters. The benefits of exporting for the firm are less clear. Employment growth and the probability of survival are both higher for exporters; however, productivity and wage growth is not superior, particularly over longer horizons.

2. **Melitz, Marc J.** "The impact of trade on intra-industry reallocations and aggregate productivity." *Econometrica*, November 2003, 71 (6), pp. 1695-1725.

### Abstract

This paper develops a dynamic industry model with heterogeneous firms to analyze the intra-industry effects of international trade. The model shows how the exposure to trade will induce only the more productive firms to enter the export market (while some less productive firms continue to produce only for the domestic market) and will simultaneously force the least productive firms to exit. It then shows how further increases in the industry's exposure to trade lead to additional inter-firm reallocations towards more productive firms. The paper also shows how the aggregate industry productivity growth generated by the reallocations contributes to a welfare gain, thus highlighting a benefit from trade that has not been examined theoretically before. The paper adapts Hopenhayn's (1992a) dynamic industry model to monopolistic competition in a general equilibrium setting. In so doing, the paper provides an extension of Krugman's (1980) trade model that incorporates firm level productivity differences. Firms with different productivity levels coexist in an industry because each firm faces initial uncertainty concerning its productivity before making an irreversible investment to enter the industry. Entry into the export market is also costly, but the firm's decision to export occurs after it gains knowledge of its productivity.

3. **Helpman, Elhanan, Melitz, Marc J. and Rubinstein, Yona.** "Estimating trade flows: trading partners and trading volumes." Quarterly Journal of Economics, May 2008, 123(2), pp. 441-487.

### Abstract

We develop a simple model of international trade with heterogeneous firms that is consistent with a number of stylized features of the data. In particular, the model predicts positive as well as zero trade flows across pairs of countries, and it allows the number of exporting firms to vary across destination countries. As a result, the impact of trade frictions on trade flows can be decomposed into the intensive and extensive margins, where the former refers to the trade volume per exporter and the latter refers to the number of exporters. This model yields a generalized gravity equation that accounts for the self-selection of firms into export markets and their impact on trade volumes. We then develop a two-stage estimation procedure that uses an equation for selection into trade partners in the first stage and a trade flow equation in the second. We implement this procedure

parametrically, semiparametrically, and nonparametrically, showing that in all three cases the estimated effects of trade frictions are similar. Importantly, our method provides estimates of the intensive and extensive margins of trade. We show that traditional estimates are biased and that most of the bias is due not to selection but rather due to the omission of the extensive margin. Moreover, the effect of the number of exporting firms varies across country pairs according to their characteristics. This variation is large and particularly so for trade between developed and less developed countries and between pairs of less developed countries.

## Organization of production

4. Antràs, Pol and Helpman, Elhanan. "Global sourcing". *Journal of Political Economy*, 2004, 112(3), pp. 552-580.

#### Abstract

We present a North-South model of international trade in which differentiated products are developed in the North. Sectors are populated by final-good producers who differ in productivity levels. On the basis of productivity and sectoral characteristics, firms decide whether to integrate into the production of intermediate inputs or outsource them. In either case they have to decide from which country to source the inputs. Final-good producers and their suppliers must make relationship-specific investments, both in an integrated firm and in an arm's-length relationship. We describe an equilibrium in which firms with different productivity levels choose different ownership structures and supplier locations. We then study the effects of within sectoral heterogeneity and variations in industry characteristics on the relative prevalence of these organizational forms.

5. **Nunn, Nathan and Trefler, Daniel.** "The boundaries of the multinational firm: an empirical analysis," in E. Helpman, D. Marin and T. Verdier, eds., The organization of firms in a global economy, Harvard University Press, 2008, pp. 55-83.

#### Abstract

Using data on U.S. intra-firm and arm's-length imports for 5,423 products and 210 countries, we examine the determinants of the share of U.S. imports that are intra-firm. Three determinants of this share have been proposed: (1) Antràs (2003) focuses on the share of inputs provided by the headquarter firm. We provide added confirmation and further strengthen the empirical findings in Antràs (2003) and Yeaple (2006). (2) In a model featuring heterogeneous productivities, Antràs and Helpman (2004) focus on the interaction between the firm's productivity level and the headquarter's input share. We find very strong support for this determinant. (3) Antràs and Helpman (2006) add to this the possibility of partially incomplete contracting. We find that consistent with the novel prediction of their model, improved contracting of the supplier's inputs can increase the share of U.S. imports that are intra-firm. In short, the data bear out the primary predictions of this class of models about the share of U.S. imports that is intra-firm trade.

6. **Grossman, Gene M. and Rossi-Hansberg, Esteban.** "Trading tasks: a simple theory of offshoring." *American Economic Review,* December 2008, 98(5), pp. 1978-1997.

### **Abstract**

We propose a theory of the global production process that focuses on tradable tasks, and use it to study how falling costs of offshoring affect factor prices in the source country. We identify a productivity effect of task trade that benefits the factor whose tasks are more easily moved offshore. In the light of this effect, reductions in the cost of trading tasks can generate shared gains for all domestic factors, in contrast to the distributional conflict that typically results from reductions in the cost of trading goods.

## International trade and distribution

7. **Egger, Hartmut and Kreickemeier, Udo.** "Firm heterogeneity and the labor market effects of trade liberalization." *International Economic Review,* 2009, 50(1), pp. 187-216.

### **Abstract**

This article develops a model that incorporates workers' fair wage preferences into a general equilibrium framework with heterogeneous firms. In a setting where the wage considered to be fair by workers depends on the productivity of the firm they are working in, we study the determinants of profits, involuntary unemployment and within-group wage inequality. We use this model to investigate the effects of globalization, thereby pointing to distributional conflicts that have so far not been accounted for: a simultaneous increase of average profits and involuntary unemployment as well as a surge in within-group wage inequality.

8. **Broda, Christian and Romalis, John.** "Inequality and prices. Does China benefit the poor in America?" Mimeo, University of Chicago, 2008.

### Abstract

Over the past three decades there has been a spectacular rise in income inequality as measured by official statistics. In this paper we revisit the distributional consequences of increased imports from China by looking at the compositional differences in the basket of goods consumed by the poor and the rich in America. Using household data on non-durable consumption between 1994 and 2005 we document that much of the rise of income inequality has been offset by a relative decline in the price index of the poor. By relaxing the standard assumptions underlying the representative agent framework we find that inflation for households in the lowest tenth percentile of income has been 6 percentage points smaller than inflation for the upper tenth percentile over this period. The lower inflation at low income levels can be explained by three factors: 1) The poor consume a higher share of non-durable goods —whose prices have fallen relative to services over this period; 2) the prices of the set of non-durable goods consumed by the poor has fallen relative to that of the rich; and 3) a higher proportion of the new goods are purchased by the poor. We examine the role played by Chinese exports in explaining the lower inflation of the poor. Since Chinese exports are concentrated in low-quality non-durable products that are heavily purchased by poorer Americans, we find that about one third of the relative price drops faced by the poor are associated with rising Chinese imports.

### Effects of international trade

9. **Martin, Philippe, Mayer, Thierry and Thoenig, Mathias.** "Make trade not war?" *Review of Economic Studies*, 2008, 75(3), pp. 865-900.

#### Abstract

This paper analyses theoretically and empirically the relationship between military conflicts and trade. We show that the conventional wisdom that trade promotes peace is only partially true even in a model where trade is economically beneficial, military conflicts reduce trade, and leaders are rational. When war can occur because of the presence of asymmetric information, the probability of escalation is lower for countries that trade more bilaterally because of the opportunity cost associated with the loss of trade gains. However, countries more open to global trade have a higher probability of war because multilateral trade openness decreases bilateral dependence to any given country and the cost of a bilateral conflict. We test our predictions on a large data set of military conflicts on the 1950–2000 period. Using different strategies to solve the endogeneity issues, including instrumental variables, we find robust evidence for the contrasting effects of bilateral and multilateral trade openness. For proximate countries, we find that trade has had a surprisingly large effect on their probability of military conflict.

10. **Edmonds, Eric. V. and Pavcnik, Nina.** "The effect of trade liberalization on child labor". *Journal of International Economics*, 2005, 65(2), pp. 401-419.

### Abstract

The question of how trade liberalization affects the employment of children in developing economies is at the core of the debate on globalization. Trade theory predicts that an increase in the price of an exported good could either increase or decrease child labor depending on the magnitudes of the substitution and income effects. In this paper, we study the relationship between changes in the relative price of an exported commodity and child labor using household-level data from within a poor country. In particular, we relate child labor to regional and intertemporal variation in the real price of rice surrounding national and international rice market integration in Vietnam. We find that higher rice prices are associated with declines in child labor. Income effects play an important role in this relationship. Rice price increases are associated with the largest declines in child labor in households that are large net producers of rice. These findings show that greater market integration can be associated with less child labor. Moreover, our results suggest that the use of punitive trade sanctions on exports from developing countries to eradicate child labor is unlikely to yield the desired outcome.

11. Antweiler, Werner, Copeland, Brian R. and Taylor, M. Scott. "Is free trade good for the environment?" *American Economic Review*, September 2001, 91(4), pp. 877-908.

### Abstract

This paper investigates how openness to international goods markets affects pollution concentrations. We develop a theoretical model to divide trade's impact on pollution into scale, technique, and composition effects and then examine this theory using data on sulfur dioxide concentrations. We find international trade creates relatively small changes in pollution concentrations when it alters the composition of national output. Estimates of the trade-induced technique and scale effects imply a net reduction in pollution from these sources. Combining our estimates of all three effects yields a somewhat surprising conclusion: freer trade appears to be good for the environment.

12. Rauch, James E. and Trindade, Vitor. "Neckties in the tropics: A model of international trade and cultural diversity." *Canadian Journal of Economics*, August 2009, 42(3), pp. 809-843.

### Abstract

Some cultural goods are consumed socially and are characterized by the same consumption network externalities as languages. Also, producers of new cultural goods in any one country draw on the stock of ideas generated by previous cultural production in all countries. For such goods, costless trade and communication tend to lead to the dominance of one cultural style, increasing utility in the short run but reducing quality and welfare in the long run. Increasing protection while keeping communication costs low may stimulate production of cultural goods that are 'compatible' with the dominant style, adding little to the stock of usable ideas.'

## Networks in international trade

13. Casella, Alessandra and Rauch, James E. "Anonymous market and group ties in international trade." *Journal of International Economics*, 2002, 58, pp. 19-47.

### Abstract

History provides many examples of cohesive groups dispersed over several countries who exploit the ties between their members to gain entry into foreign markets. The phenomenon is well-established empirically and noteworthy because it suggests the importance of informational barriers in international transactions. We present a simple model where output is produced through a joint venture, and agents have complete information domestically but are unable to judge the quality of their match abroad. A minority of individuals, otherwise identical to all others, can exploit complete information in international matches between group members, if they so choose. Group ties increase aggregate trade and income, but hurt the anonymous market because they deprive it disproportionately of the group's more productive members.

14. Combes, Pierre-Phillipe, Lafourcade, Miren and Mayer, Thierry. "The trade-creating effects of business and social networks: evidence from France." *Journal of International Economics*, 2005, 66, 1-29.

### **Abstract**

Using theory-grounded estimations of trade flow equations, this paper investigates the role that business and social networks play in shaping trade between French regions. The bilateral intensity of networks is quantified using the financial structure and location of French firms and bilateral stocks of migrants. Compared to a situation without networks, migrants are shown to double bilateral trade flows, while networks of firms multiply trade flows by as much as four in some specifications. Finally, taking network effects into account divides the estimation of the impact of transport costs and of the effect of administrative borders by around three.

## Trade and market structure

15. **Neary, J. Peter.** "Globalization and market structure." *Journal of the European Economic Association,* April-May 2003, 1(2-3), pp.245-271.

### Abstract

This paper reviews some puzzling economic aspects of globalization and argues that they cannot be satisfactorily addressed in perfectly or monopolistically competitive models. Drawing on recent work, a model of oligopoly in general equilibrium is sketched. The model ensures theoretical consistency by assuming that .fi rms are large in their own markets but small in the economy as a whole, and ensures tractability by assuming quadratic preferences defined over a continuum of goods. Applications considered include the effects of trade liberalization on industrial structure, on cross-border merger waves, and on the distribution of income between skilled and unskilled workers.

# Recommended readings

Some useful references on international trade more generally:

- **Feenstra, Robert C.** Advanced international trade: theory and evidence. Princeton, NJ: Princeton University Press, 2004.
- Markusen, James R., Melvin, James R., Kaempfer, William M. and Maskus, Keith. *International Trade: Theory and Evidence.* New York: McGraw Hill, 1995.
- **Choi, E. Kwan and Harrigan, James (eds.)** *Handbook of international trade.* Oxford, UK: Blackwell Publishing, 2003.
- **Grossman, Gene M. and Rogoff, Kenneth (eds.)** *Handbook of international economics, Vol.* 3. Amsterdam: North-Holland, 1995.

Some references on writing term papers which you may find helpful:

- **Neugeboren, Robert.** The student's guide to writing economics. New York, NY: Routledge, 2005.
- McCloskey, Deirdre N. Economical writing. Long Grove, IL: Waveland Press, 2000.
- **Thomson, William.** A guide for the young economist. Cambridge, MA: MIT Press, 2001.
- **Eco, Umberto.** Wie man eine wissenschaftliche Abschlussarbeit schreibt: Doktor-, Diplom- und Magisterarbeit in den Geistes- und Sozialwissenschaften. Heidelberg: UTB Verlag, 2007
- Franck, Norbert and Stary, Joachim (eds.) Die Technik wissenschaftlichen Arbeitens. Paderborn: Schöningh Verlag, 2006.
- **Rossig, Wolfram E. and Prätsch, Joachim.** *Wissenschaftliches Arbeiten.* Weye: Teamdruck, 2006.
- **Sesink, Werner.** Einführung in das wissenschaftliche Arbeiten. München: Oldenbourg Verlag, 2007
- Theisen, Manuel R. Wissenschaftliches Arbeiten. München: Verlag Vahlen, 2006.