

# - Master Seminar - Heterogeneous Firms in the Global Economy

Winter 2018

Chair of International Finance

This version: August 2, 2018

## Seminar Description

In this seminar, we will cover two important lines of research in international trade that have developed over the past 15 years.

First, with the appearance of firm-level data sets in the mid-90s, researchers noticed that only a small fraction of firms - the largest and most productive ones - participate in international markets through exports. Extending the Krugman (1980) model to allow for firms with heterogeneous productivity, the seminal contribution by Melitz (2003) started an active and innovative literature in which empirical and theoretical work are strongly linked.

Second, Eaton and Kortum (2002) developed a Ricardian model of trade with many goods and many countries that has enabled researchers to analyze trade patterns, complex interactions between countries and welfare effects of globalization in a tractable framework. Models based on this seminal contribution are easily matched to sectoral or country-level trade data and are used today in policy analysis, for example for quantifying the effects of the North American Free Trade Agreement (NAFTA).

We will study theoretical as well as empirical work that builds on these two seminal contributions. Researchers have used the Melitz model to study the role of firm heterogeneity in a wide variety of applied topics, both theoretically as well as empirically. These include

- trade and product quality
- trade and finance
- export vs FDI
- outsourcing
- trade and technology choice
- trade and inequality.

The Eaton Kortum model has recently been applied in policy work to (among other things)

- assess the welfare effects of NAFTA
- explain trade patterns between rich and poor countries
- assess the effects of removing all current account imbalances on production, trade and welfare around the world.

## Seminar requirements

Working knowledge of calculus is required and previous contact with trade theory is highly recommended. In particular, knowledge of the Melitz (2003) and Eaton and Kortum (2002) models is very helpful. Good knowledge of econometrics is highly recommended.

## Organization

**Introductory meeting (compulsory):** Friday, October 19, 2018, time tbd, room tbd

**Seminar paper:** Friday, November 2, 2018 - Friday, November 30, 2018

**Presentations:** Friday, December 14, 2018, room tbd, 9.00 am - 6.00 pm

**Instructor:** Philipp Herkenhoff, philipp.herkenhoff@uni-mainz.de

We will discuss details of the seminar paper topics, assignment of topics as well as all further organizational issues including formal requirements of the seminar paper in the introductory meeting.

## Literature

Some (easy to read) introductory literature...

- Bernard, A. B., J. B. Jensen, S. J. Redding and P. K. Schott (2007). “Firms in International Trade.” *Journal of Economic Perspectives* 21(3), pp. 105-130.
- Eaton, J. and S. Kortum (2012). “Putting Ricardo to Work.” *Journal of Economic Perspectives* 26(2), pp. 65-90.
- Melitz, M. J. and S. J. Redding (2014). “Heterogeneous Firms and Trade” In: *Handbook of International Economics*, Vol. 4, ed. Gopinath, G., Helpman, E. and Rogoff K., Elsevier, pp. 1-54.
- Melitz, M. J. and D. Trefler (2012). “Gains from Trade when Firms Matter.” *Journal of Economic Perspectives* 26(2), pp. 91-118.

These are the two seminal papers the applied topics are based on:

- Eaton, J. and S. Kortum (2002). “Technology, Geography, and Trade.” *Econometrica* 70, pp. 1741-1779.
- Melitz, M. J. (2003). “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.” *Econometrica* 71, pp. 1695-1725.

Here is a *preliminary* list of applied papers that may form the basis of a seminar paper.

- Antràs, P. and E. Helpman (2004). “Global Sourcing.” *Journal of Political Economy* 112(3), pp. 552-580.
- Arkolakis, C., A. Costinot and A. Rodríguez-Clare (2012). “New Trade Models, Same Old Gains?” *American Economic Review* 102(1), pp. 94-130.

- Bustos, P. (2011). “Trade Liberalization, Exports, and Technology Upgrading: Evidence on the Impact of MERCOSUR on Argentinian Firms.” *American Economic Review* 101, pp. 304-340.
- Caliendo, L. and F. Parro (2015). “Estimates of the Trade and Welfare Effects of NAFTA.” *Review of Economic Studies* 82, pp. 1-44.
- Chaney, T. (2008). “Distorted Gravity: The Intensive and Extensive Margins of International Trade.” *American Economic Review* 98(4), pp. 1707-1721.
- Dekle, R., J. Eaton and S. Kortum (2008). “Global Rebalancing with Gravity: Measuring the Burden of Adjustment.” *IMF Staff Papers* 55(3), pp. 511-540.
- Egger, H. and U. Kreickemeier (2012). “Fairness, Trade, and Inequality.” *Journal of International Economics* 86, pp. 184-196.
- Fieler, A. C. (2011). “Nonhomotheticity and Bilateral Trade: Evidence and a Quantitative Explanation.” *Econometrica* 79(4), pp. 1069-1101.
- Helpman, E., M. J. Melitz and S. Yeaple (2004). “Export Versus FDI with Heterogeneous Firms.” *American Economic Review* 94, pp. 300-316.
- Kugler, M. and E. Verhoogen (2012). “Prices, Plant Size, and Product Quality.” *Review of Economic Studies* 79, pp. 307-339.
- Manova, K. (2013). “Credit Constraints, Heterogeneous Firms, and International Trade.” *Review of Economic Studies* 80, pp. 711-744.
- Melitz, M. J. and G. I. P. Ottaviano (2008). “Market Size, Trade, and Productivity.” *Review of Economic Studies* 75, pp. 295-316.
- Monte, F. (2011). “Skill Bias, Trade, and Wage Dispersion.” *Journal of International Economics* 83(2), pp. 202-218.