# **International Trade Theory**

Professor Giovanni Facchini

# **Corse Outline and Reading List**

The goal of this course is to describe the nature of trade, its causes and welfare effects. We will discuss the gains from trade and their measurement, different causal explanations for trade (comparative advantage from technological differences, comparative advantage from endowment differences, increasing returns to scale internal and external to the firm in the presence of firm heterogeneity), determinants of the pattern of trade, trade's effect on factor rewards. The emphasis in this section of the course is on explaining why countries trade and what are the effects of trade on wages, prices, and production patterns.

Two problem sets will be posted in the course material repository as the course progresses. They will be graded and they will contribute to 30% of the final mark for the course. The remaining 70% of the grade will be determined as a result of a written examination.

### **Textbooks:**

While there is no assigned text for the course, I highly recommend the recent textbook by Bob Feenstra, which is a good blend of theory and empirical applications. The following list includes other textbooks as well, which might be good acquisitions for your personal collection.

- Feenstra Robert C. Advanced International Trade Princeton, Princeton University Press, 2004
- Wong, Kar-yiu, *International Trade in Goods and Factor Mobility*, Cambridge, MA: The MIT Press, 1995. (382.075118 W846 I)
- Bhagwati, J. N., Panagariya, A., and Srinivasan, T.N., Lectures on International Trade, Cambridge, MA: The MIT Press, 2<sup>nd</sup> Edition, 1998. (382 B469 I 1998)
- Dixit, A. K. and V. Norman, *Theory of International Trade: A Dual, General Equilibrium Approach*, Cambridge: Cambridge University Press, 1980. (337 D642 T)
- Leamer, E. E. International Economics, New York: Worth Publishers, 2001.
- Grossman, Gene M. and Kenneth Rogoff, eds. *Handbook of International Economics*, Vol. 3, Amsterdam: North-Holland, 1995.

- Helpman, E. and P. Krugman, *Trade Policy and Market Structure*, Cambridge, MA: The MIT Press, 1989.
- Grossman, G.M. and E. Helpman *Interest Groups and Trade Policy* Princeton and Oxford UK: Princeton University Press, 2002
- Grossman, G. M. ed., *Imperfect Competition and International Trade*, Cambridge, MA: The MIT Press, 1992.
- Krugman, Paul R., *Rethinking International Trade*, Cambridge, MA: The MIT Press, 1994.

Papers which will be discussed in class are marked with (\*)

#### Week 1

### **Differences in Technology**

- (\*) Dornbusch, R., S. Fischer and P.A. Samuelson, "Comparative Advantage, Trade and Payments in a Ricardian Model with a Continuum of Goods," <u>American Economic Review</u>, 47, 5, 1977, 823-839.
- *Eaton, J. and S. Kortum "Technology, Geography and Trade"* <u>*Econometrica*</u> 70, 5, 2002, 1741-1779
- Davis, D. R., "Intra-Industry Trade: A Heckscher-Ohlin-Ricardo Approach," Journal of International Economics, 39, 1995, 201-226.
- Jones, R.W., "Technical Progress and Real Incomes in a Ricardian Trade Model," in <u>International Trade: Essays in Theory</u>, Amsterdam: North-Holland, 1979.
- Takayama, Akira, <u>International Trade</u> (New York: Holt, Rinehart and Winston, Inc., 1972), Ch. 4, 6.
- Wilson, Charles A., "On the General Structure of Ricardian Models with a Continuum of Goods: Applications to Growth, Tariff Theory, and Technical Change," <u>Econometrica</u>, 48, 7, Nov. 1980, 1675-1702.

#### Week 2

#### **Differences in Endowments (2x2 Hecksher-Ohlin Model)**

- (\*) Jones, R.W., "The Structure of Simple General Equilibrium Model," <u>Journal of Political</u> <u>Economy</u>, 73, 6, December 1965, 557-572.
- (\*) Mussa, M., "The Two-Sector Model in Terms of Its Dual: A Geometric Exposition," Journal of International Economics, 9 1979, pp. 513-526.
- (\*) Stolper W. and P.A. Samuelson, "Protection and Real Wages," <u>Review of Economic Studies</u>,

9, November 1941, 58-73.

#### Week 3

#### Extensions and empirical tests of the Heckscher Ohlin Model

- (\*) Bhagwati J.N. and Panagariya A. "Lectures on International Trade" Ch. 8
- Deardorff, A. V., "Weak Links in the Chain of Comparative Advantage," <u>Journal of</u> <u>International Economics</u>, 9, May, 1979,197-209.
- Helpman, E., "The Factor Content of Foreign Trade," <u>Economic Journal</u>, 94, March 1984, 84-94.
- Jones, R.W. and J. Scheinkman, "The Relevance of the Two-Sector Production Model in Trade Theory," Journal of Political Economy, 85, 5, October 1977, 909-936.
- Deardorff, Alan V., "The Possibility of Factor Price Equalization, Revisited," <u>Journal of</u> <u>International Economics</u>, 36, 1994, 167-175.
- Deardorff, A.V, "The General Validity of the Heckscher-Ohlin Theorem," <u>American</u> <u>Economic Review</u>, 72, 4, September, 1982, 683-694.
- *Ethier, Wilfred, "Higher Dimensional Trade Theory," in Jones, R. W. and P. B. Kenen, eds.* <u>Handbook of International Economics</u>, Vol. 1, Amsterdam: North-Holland, 1984, 131-184.
- Vanek, J. and Trent Bertrand, "Trade and Factor Prices in a Multi-Commodity World," in <u>Trade, Balance of Payments and Growth</u>, Bhagwati, J. and R.W. Jones, et. al. eds, (Amsterdam: North-Holland, 1971), 49-65.
- Markusen, James and Lars Svensson, "Trade in Goods and Factors with International Differences in Technology," <u>International Economic Review</u>, 1985.
- Neary, J. P. "Two-by-Two International Trade Theory with Many Goods and Factors," <u>Econometrica</u>, 53, 1985, 1233-1247.
- Mussa, Michael, "Dynamic Adjustment in the Heckscher-Ohlin-Samuelson Model," <u>Journal</u> <u>of Political Economy</u>, 86, 5, 1978, 775-791.
- Deardorff, A.V., "The General Validity of the Law of Comparative Advantage," <u>Journal of</u> <u>Political Economy</u>, 88, October 1980, 941-957.
- (\*) Davis, Donald. R., David E. Weinstein, Scott .C. Bradford and Kazushige Shimpo, "Using International and Japanese Regional Data to Determine When the Factor Abundance Theory of Trade Works," <u>American Economic Review</u>, 87, 3, June, 1997, 421-446.
- (\*) DebaereP. "Relative factor abundance and trade" Journal of Political Economy 111, 2003,589-610
- (\*) Trefler, Daniel, "International Factor Price Differences: Leontief Was Right<u>!</u>" Journal <u>of Political Economy</u>, 6, 101, December 1993, 961-987.

- (\*) Trefler, Daniel, "The Case of the Missing Trade and Other Mysteries," <u>American</u> <u>Economic Review</u>, 85, 5, December, 1995, 1029-1046.
- Brecher, R. A. and E. V. Choudri, "The Leontief Paradox Continued," <u>Journal of Political</u> <u>Economy</u>, 1982.
- Bowen, H. P., E. E. Leamer and L. Sveikauskas, "Multicountry, Multi-factor Tests of the Factor Abundance Theory," <u>American Economic Review</u>, 77, 5, December, 1987, 791-809.
- Davis D.R. and D. Weinstein"An account of global factor trade" American Economic Review 5, 91, December 2001, 1423-1453
- Hunter, L., "The Contribution of Non-Homothetic Preferences to Trade," <u>Journal of</u> <u>International Economics</u>, 1991.
- Harrigan, J., "Technology, Factor Supplies and International Specialization: Testing the Neoclassical Model," <u>American Economic Review</u>, 87, 1997, 475-494.
- Leamer, Edward E., "The Leontief Paradox, Reconsidered," <u>Journal of Political Economy</u>, 88, 3, 1980, 495-503.
- Leamer, Edward E. and J. Levinsohn, "International Trade Theory: The Evidence," in Grossman, G. M. and K. Rogoff, eds. <u>Handbook of International Economics</u>, Vol. 3, AmsterdamL North-Holland, 1995.
- Leamer, E. E., Sources of International Comparative Advantage, Cambridge, MA: The MIT Press, 1984.
- *Romalis, John "Factor Proportions and the Structure of Commodity Trade"* <u>American</u> <u>Economic Review</u>, 94(1), March 2004, pp.67-97

## Week 4

## Increasing Returns to Scale, Variety and the Gravity Equation

- (\*) Krugman, P., "Increasing Returns Monopolistic Competition, and International Trade," Journal of International Economics, 9, 4, November 1979, 469-479.
- (\*) Krugman, P., "Intra-Industry Specialization and the Gains from Trade," <u>Journal of</u> <u>Political Economy</u>, 89, 5, October 1981, 959-973.
- (\*) Feenstra R.C. Advanced International Trade Ch. 5
- (\*) Anderson J. and Eric Van Wincoop "Gravity with Gravitas: A solution to the border puzzle" <u>American Economic Review</u> 93, 2003170-192
- *Ethier, Wilfred, "Decreasing Costs in International Trade and Frank Graham's Argument for Protection," <u>Econometrica</u>, 50, 5. (Sep., 1982), 1243-1268.*
- Krugman, P., "Increasing Returns, Imperfect Competition and the Positive Theory of International Trade," in Gene Grossman and Kenneth Rogoff (eds.) <u>Handbook of</u> <u>International Economics</u>, Volume III. New York: Elsevier, 1995, 1243-1277.

#### Week 5

## **Heterogeneous Firms in International Trade**

- Melitz, M. and S. Redding (2015). Chapter 1 Heterogeneous Firms and Trade. Handbook of International Economics. K. R. Elhanan Helpman and G. Gita, Elsevier. Volume 4: 1-54.
- (\*) Melitz, M. (2003). "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity." <u>Econometrica</u> 71(6): 1695-1725.
- (\*) Bernard, A., J. Eaton, B. Jensen and S. Kortum (2003). "Plants and Productivity in International Trade." <u>American Economic Review</u> 93(4): 1268-1290.
- (\*) Bernard, A., S. Redding and P. Schott (2007). "Comparative Advantage and Heterogeneous Firms." <u>The Review of Economic Studies</u> 74(1): 31-66.
- (\*) Melitz, M. and G. Ottaviano (2008). "Market Size, Trade, and Productivity." <u>The Review of</u> <u>Economic Studies</u> 75(1): 295-316.
- Chaney, T. (2008). "Distorted Gravity: The Intensive and Extensive Margins of International Trade." <u>American Economic Review</u> 98(4): 1707-1721.
- (\*) Bernard, A., B. Jensen, S. Redding and P. Schott (2012). "The Empirics of Firm Heterogeneity and International Trade." <u>Annual Review of Economics</u> 4(1): 283-313.