

**Econ 5560: Advanced International Trade and Investment**  
**Hong Kong University of Science and Technology**  
**School of Business and Management**  
**Department of Economics**  
**Spring 2017**

Lecture Classroom and time: G001, CYT Bldg (Cheng Yu Tung Building) ; Tu 16:30-20:20  
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**Course Description and Objectives**

This is an advanced course on the economics of international trade and foreign direct investment (FDI). In this course, students learn to analyze the causes and consequences of international trade and foreign direct investment. Topics include the sources of gains from trade, the determinants of trade pattern, offshoring, multinational production, geography & trade, and implications of trade policies. We shall discuss models of comparative advantage and models of increasing returns to scale, both without and with heterogeneous firms. Various new trade models are discussed and compared. The importance of innovation and technology diffusion in global trade is explored.

This is a 4-credit course for PhD students, but it is open to MSc students (who will be assessed with lower standards). MSc students who take this course and are willing to be assessed with the same standards as the PhD students can have the credits transferred to our PhD program in the future if he/she joins our PhD program. MSc students who do not plan to transfer their credits to our PhD program in the future are held to lower standards: 1. we only count the best 4 out of 5 problem sets; 2. we only count the best 5 out of 6 questions in the final exam; 3. marks in the class presentation will be increased by 20%.

**Learning Outcome**

Upon completing the course, students should be able to:

1. know the different theories that seek to explain the causes of trade, gains from trade and pattern of trade flows;
2. analyze the impact of trade on individual economies and to the world, including the aspects of welfare, growth and resource allocation;
3. analyze the causes and consequences of trade protection;
4. explain the gap between the theory and observed facts about international trade;
5. know the economics of the world trading system.

**Teaching Approach**

This course is primarily delivered through lectures, class discussion, class presentation and homework.

<b>Teaching and Learning Activities</b>	<b>Roles in the Course</b>	<b>Course Learning Outcome addressed</b>
Lectures with in-class discussions	Explain key concepts and models to students	1, 2, 3, 4, 5

Homework assignments	Practice problem solving, apply models to analyze current economic issues	1, 2, 3, 5
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Grading:

Based on performance in problem sets (25%), class presentation (20%), final examination (50%) and participation (5%).

Class presentation:

Each student has to choose a paper, preferably in the course outline (agreed by the instructor) and present the paper in class. The presentation is one hour 30 minutes long, followed by 15 minutes of discussion. If the paper is too long, you may just present part of it with the permission of the instructor.

Problem sets:

There will be about five problem sets given to you as the course proceeds. The TA will grade them and answer keys will be distributed. The problem sets are good guidelines for preparing for the examination(s). Therefore, you should take them seriously.

The following may or may not be implemented, depending on the number of students in the class: To facilitate learning, students are requested to present the answers in the class by the time the homework is due. Students are requested to make a photo copy of their homework answers and submit the original to the instructor. Then the presentation begins after all answers are submitted. The answer key will be distributed after the presentations. Performance in problem set presentation count towards participation.

Final exam:

It will cover all the material taught in the class.

Required texts:

Robert C. Feenstra, Advanced International Trade, Princeton University Press (abbreviated as F)

Recommended texts:

Paul Krugman, Maurice Obstfeld and Marc Melitz, International Economics: Theory and Policy, ninth/tenth edition (abbreviated as KO)

Feenstra, Robert C. and Taylor Alan M., International Economics, Worth Publishers

Varian, Hal, Microeconomic Analysis, W. W. Norton, third edition

General References

AK. Dixit and V. Norman, Theory of International Trade, 1980, Cambridge University Press. (abbreviated as DN)

Ronald Jones and Peter Kenen (eds.), Handbook of International Economics, vol.1, Elsevier-North Holland (abbreviated as JK)

Gene Grossman and Elhanan Helpman, Innovation and Growth in the Global Economy, MIT Press (abbreviated as GH)

Elhanan Helpman and Paul Krugman, Market Structure and Foreign Trade, MIT Press, 1985. (abbreviated as HK)

Paul Krugman, Rethinking International Trade, MIT Press, 1990 (abbreviated as K)

Alan D. Woodland, International Trade and Resource Allocation, North-Holland, 1982.

### **Course Outline**

Papers with an asterisk (\*) are ones students can choose to present in class to satisfy part of the course requirements.

Items in bold type will be covered in depth in class. Items italic type should be read by PhD students in order to gain sufficient understanding of the whole picture.

#### 1. Comparative advantage, gains from trade and Ricardian model

**KO ch. 3;**

**F pp.1-4**

Notes

*K. Matsuyama, "[Ricardian trade theory](#)," forthcoming in L. Blume and S. Durlauf, eds., the New Palgrave Dictionary of Economics, 2nd Edition, Macmillan.*

**R. Dornbusch, S. Fischer and P. Samuelson, "[Comparative advantage, trade, and payments in a Ricardian model with a continuum of goods](#)," American Economic Review 1977, 823-839 (D-F-S 1977 AER)**

**Eaton, J. and S. Kortum, "[Technology, Geography, and Trade](#)," Econometrica (Sept. 2002).**

D. Bernhofen and J. Brown, "[An empirical assessment of the comparative advantage gains from trade: Evidence from Japan](#)," American Economic Review 2005, 208-225.

Deardorff, A.V., "[The General Validity of the Law of Comparative Advantage](#)," Journal of Political Economy (Oct. 1980).

Jones and Neary, "[The Positive Theory of International Trade](#)," chapter 1 in JK.

F. Alvarez and R. E. Lucas (2007), "[General Equilibrium Analysis of the Eaton-Kortum Model of International Trade](#)," Journal of Monetary Economics, 54(6), pp.1726-1768.

G.D.A. MacDougall, "[British and American exports: A study suggested by the theory of comparative costs](#)," Economic Journal 61 (Dec 1951), pp.697-724; 62 (Sept 1952), pp.487-521.

Chor, Davin (2010) "[Unpacking Sources of Comparative Advantage: A Quantitative Approach](#)", Journal of International Economics, Vol. 82, No. 2, pages 152-167.

Costinot, Arnaud. (2009) "[On the Origins of Comparative Advantage](#)", Journal of International Economics, Vol. 77, No. 2, pages 255-264.

#### 2. Factor-Proportions model (Heckscher-Ohlin model) and its implications

**KO ch. 5 (and appendix)**

**F pp.4-35**

Notes

E. Helpman, "[The factor content of foreign trade](#)," *Economic Journal* 1984, pp.84-94.

### 3. Heckscher-Ohlin model: empirical evidence

**F pp.35-61**

**Notes**

Leamer, Edward 1984, Sources of Comparative Advantage, MIT Press

D. Trefler, "[International factor price differences: Leontief was right!](#)" *Journal of Political Economy* 1993, 961-987

Trefler, D., "[The Case of the Missing Trade and other Mysteries](#)," *American Economic Review* (Dec. 1995).

John Romalis, "[Factor Proportions and the Structure of Commodity Trade](#)," *American Economic Review*, March 2004

### 4. Many goods and factors: theory

**1. KO ch 4, or chapter on Specific Factors Model in older edition**

**2. F pp.64-75, 88-93**

**3. Notes**

R. Dornbusch, S. Fischer and P. Samuelson, "[Heckscher-Ohlin Trade Theory with a continuum of goods](#)," *Quarterly Journal of Economics*, 1980.

Peter Neary, "[Short-run capital specificity and the pure theory of international trade](#)," *Economic Journal* 88: pp.488-510.

### 5. Many goods and factors: empirical evidence

**F pp.93-97**

**Notes**

Davis, Don and David Weinstein, "[An Account of Global Factor Trade](#)," *American Economic Review* (Dec. 2001).

A Costinot, David Donaldson and Ivana Komunger, "[What goods do countries trade: A quantitative exploration of Ricardo's ideas](#)," *Review of Economic Studies* 2012.

E. Helpman, "[The structure of foreign trade](#)," *Journal of Economic Perspectives* 1999, 121-144.

### 6. External economies and trade

**KO ch. 7**

**Helpman in Handbook (JK) pp.337-348**

**HK, Ch 3, especially pp.51-55**

**Notes**

G. Grossman and E. Rossi-Hansberg, "[External economies and international trade redux](#)," *QJE* 2010, pp. 829-858.

### 7. Internal economies, imperfect competition and trade, with homogeneous firms

F pp.137-146, 165-169

KO Ch. 8

Notes

P. Krugman, "[The Increasing Returns Revolution in Trade and Geography.](#)" AER (2009), Nobel lecture. [Video and Slides.](#)

P. Krugman, "[Increasing returns, monopolistic competition, and international trade.](#)" *Journal of International Economics* 1979. (1979 JIE)

P. Krugman, "[Scale economies, product differentiation and the pattern of trade.](#)" *American Economic Review* 1980

*P. Krugman, "Increasing returns and theory of International Trade," in ch.5 of K*

*P. Krugman and J. Brander, "[A reciprocal dumping model of international trade.](#)" *Journal of International Economics*, 1983, pp.313-321 (also in ch.4 of K)*

8. Internal economies, imperfect competition and trade, with heterogeneous firms

KO Ch. 8

Notes

Melitz, M.J., "[The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.](#)" *Econometrica* (Nov. 2003).

\*Melitz, Marc and Giancarlo Ottaviano, "[Market Size, Trade, and Productivity.](#)" *Review of Economic Studies*, 2008, vol. 75, pp.295-316.

\*Chaney, Thomas. 2008. "[Distorted Gravity: The Intensive and Extensive Margins of International Trade.](#)" *The American Economic Review*, Vol. 98, No. 4 (Sep., 2008), pp. 1707-172

Andrew Bernard, Bradford Jensen, Stephen Redding, and Peter Schott, "[Comparative Advantage and Heterogeneous Firms.](#)" *Review of Economic Studies* 73(1), pp.31-66, 2007

\*Andrew Bernard, Jonathan Eaton, Bradford Jensen, Samuel Kortum, "[Plants and Productivity in International Trade.](#)" *AER*, 2003 93(4):1268-1290.

Lu, Dan, "[Exceptional Exporter Performance? Evidence from Chinese Manufacturing Firms.](#)" November 2010, Job Market paper, U. of Chicago.

Dai, Mi; Madhura Maitra and Miaojie Yu, "[Unexceptional Exporter Performance in China? The Role of Processing Trade.](#)" working paper, Columbia University.

\*Arkalokis, Costas; Costinot Arnaut and Rodriguez-Clare Andres, "[New Trade Models, Same Old Gains.](#)" *AER*, 2012.

Melitz, Marc J. and Stephen J. Redding. 2014. "Missing Gains from Trade?", *American Economic Review Papers and Proceedings* 104(5), 317-321.

\*Melitz, Marc J. and Stephen J. Redding. 2015. "New Trade Models, New Welfare Implications." *American Economic Review*, 105(3), 1105-1146.

FAN, Haichao; Edwin LAI and Han QI, "[Global Gains from Reduction of Trade Costs](#)," manuscript, 2016.

## 9. The gravity equation

F pp.146-153 (general), 161-163 (using fixed effects)

KO ch. 2

Notes

**Anderson, James and Eric Van Wincoop, "[Gravity with Gravitas: A Solution to the Border Puzzle](#)," American Economic Review 2003, 93: pp.170-192**

Anderson, James (1979) "[A Theoretical Foundation for the Gravity Equation](#)", AER.

Keith Head and Thierry Mayerz (2013) "[Gravity Equations: Workhorse, Toolkit, and Cookbook](#)", Elsevier's *Handbook of International Economics Vol. 4*. --- pay attention to pp.1-19.

## 10. Fragmentation of production

\*G. M. Grossman and E. Rossi-Hansberg, "[Trading Tasks: A Simple Theory of Offshoring](#)" *American Economic Review*, 2008.

G. M. Grossman and E. Rossi-Hansberg, "[The Rise of Offshoring: It is not Wine for Cloth Anymore](#)," *The New Economic Geography: Effects and Policy Implications*, Federal Reserve Bank of Kansas City, Jackson Hole Symposium, 2007.

\*Kei-Mu Yi, "[Can Vertical Specialization Explain the Growth of World Trade?](#)" *Journal of Political Economy*, Vol. 111, No. 1 (February 2003), pp. 52-102

Yi, Kei-Mu. 2010. "Can Multistage Production Explain the Home Bias in Trade?" *American Economic Review* 100(1), 364-393.

**Robert Koopman, Zhi Wang, and Shang-Jin Wei (2014), "[Tracing Value-Added and Double Counting in Gross Exports](#)" American Economic Review, 104(2): 459–494.**

*Robert C. Johnson and Guillermo Noguera (2012), "[Accounting for intermediates: Production sharing and trade in value added](#)" *Journal of International Economics*, 2012, pp.224-236.*

*Robert C. Johnson and Guillermo Noguera (2012) "[Proximity and Production Fragmentation](#)" *American Economic Review: Papers & Proceedings* 2012, 102(3): 407–411*

*Robert C. Johnson "[Five Facts about Value-Added Exports and Implications for Macroeconomics and Trade Research](#)", *Journal of Economic Perspectives—Volume 28, Number 2—Spring 2014—Pages 119–142**

CHEN Xikang, Leonard K. CHENG, K.C. FUNG, Lawrence J. LAU, Yun-Wing SUNG, K. ZHU, C. YANG, J. PEI, Y. DUAN, "[Domestic value added and employment generated by Chinese exports: A quantitative estimation](#)" *China Economic Review*, 23 (2012), pp.850-864.

## 11. Trade and Geography

\*P. Krugman, "[Increasing Returns and Economic Geography](#)," *JPE*, Volume 99, Issue 3, Jan 1991

P. Krugman, *Geography and Trade*, MIT Press, 1991.

Stephen Redding and Anthony Venables, "[Economic geography and international inequality](#)," *Journal of International Economics* 2004.

## 12. Trade, innovation, imitation and growth

GH Ch. 9, 11, 12  
F pp. 348-363, 366-367

Elhanan Helpman, "[Innovation, Imitation, and Intellectual Property Rights](#)," *Econometrica*, Vol. 61, No. 6. (Nov 1993), pp. 1247-1280

**Lai, Edwin L.-C., 1998, "[International Intellectual Property Rights Protection and Rate of Product Innovation](#)," *Journal of Development Economics* 55, 133-153. (1998 JDE)**

Romer, Paul M., 1990, "[Endogenous Technological Change](#)," *Journal of Political Economy* 98, S71-S102. (JPE 1990)

W. Keller, 2004, "[International Technology Diffusion](#)," *Journal of Economic Literature*, 252-282

J. Eaton and S. Kortum, 2002, "[Technology, Trade and Growth: A Unified Framework](#)," *European Economic Review*

**P. Krugman, "[A Model of Innovation, Technology Transfer, and the World Distribution of Income](#)," *Journal of Political Economy*, Jan. 1979, 87(2).**

Eaton, Jonathan and Samuel Kortum, "[International technology diffusion: Theory and measurement](#)" *International Economic Review* 1999.

## 13. Multinationals

F 371-386, 387-390 (ignore technical detail), 396-399, 406-407

Helpman, E., "[Trade, FDI, and the Organization of Firms](#)," *JEL* (Sept. 2006).

Helpman, E., "[A Simple Theory of Trade with Multinational Corporations](#)," *JPE* (June 1984).

\*Melitz, Marc, Elhanan Helpman and Stephen Yeaple, "[Export Versus FDI with Heterogeneous Firms](#)" *AER* (Mar 2004).