

## International Economics Development Economics

Academic year 2021-2022

## Advanced International Trade A: Neoclassical Trade Theories

EI080 - Autumn - 3 ECTS

### Course Description

This course provided students with an advanced understanding of basic neoclassical international trade theory while teaching them to think with general equilibrium models and to extend models to address new issues. Much class time is devoted to exercises, to discussion of the underlying mechanisms driving the models, and to ways of extending the models.

### > PROFESSOR

[Richard Edward Baldwin](#)

[Office hours](#)

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### > ASSISTANT

[Office hours](#)

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### Syllabus

**Grading:** The course grade will be based on one in-class exam (40%), class participation (10%), an in-class presentation of a paper (30%), and weekly assignments done in groups (total 20%).

**Preparation in advance:** You must read the required readings and read the slides in advance of the lecture. There will be a weekly assignment based on this material that will be prepared in groups and uploaded to the Moodle the night before the lecture (at the latest). This is so we can make the lectures more about answering questions, exploring the economic logic, considering applications, doing some exercises, etc – instead of me just reading the slides to you. This way you will get more out of the course, be better prepared for the exam, and better learn how to conceptualise trade issues with general equilibrium models.

To reduce the number of in person meetings while allowing paced learning, the online group work is spaced out over every week, but the in-person lectures are concentrated into 3 days. Exams are in-class and student must be present to take them.

Students who have not taken the two-semester sequence of trade classes at HEID, or the equivalent elsewhere will have to do additional work to catch up. My MIS lectures are available on the Moodle (with and without videos), as are the MIS handouts that cover the same material with more emphasis

on graphical and verbal analysis. To be really well prepared, you should read the MIS handout and slides first, then the PhD handout, then the PhD slides.

Lectures 1 and 2	Ricardo
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### Lecture outline

- Introduction and general insights
- Ricardo 2x2x1 model
- Autarky and FT equilibriums, and insights
- GFT in general – revealed preference analysis
- DFS model
- EK model
- Insights from the Ricardian model

### Readings:

#### Required

- Baldwin teaching handout, “Ricardian trade model with modern extensions: Handout for PhD students”.
  - Read pp 1-17 carefully for lecture 1; rest for lecture 2
- Rudiger Dornbusch, Stanley Fischer, & Paul Samuelson, “Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods,” *American Economic Review* 67 (1977): 823-39.
- Technology, Geography, and Trade, Jonathan Eaton and Samuel Kortum, *Econometrica*, Vol. 70, No. 5 (Sep., 2002), pp. 1741-1779 (39 pages), <https://www.jstor.org/stable/3082019>.

#### Background

- For intuition and introduction if you’ve not studied Ricardian model before, watch the videos of my MIS lecture
- MIS handout, “Insights from the Ricardian Trade Model: Handout for Masters Students”, Baldwin teaching handout (pp 1 – 14).

#### Optional

- David Autor (2018), “14.662 Spring 2018, Lecture Note 7: Ricardian Models of Trade”, provides a clear and working out of the EK model, but skips some of the hard steps.
- Dave Donaldson has a good set of lecture notes on EK, including details of the probability calculations, but they are not super easy to follow, <http://dave-donaldson.com/wp-content/uploads/2016/10/Lecture-4-Ricardo-Theory-II.pdf>
- Treb Allen and Costas Arkolakis have a partial manuscript for an advanced trade textbook that uses the ‘hammer and tongs’ approach to models solving them head on, in detail with lots of the calculations are worked out. Good for the maths; not so much for intuition and insights. Particular noteworthy are:
  - For Ricardo: The treatment of EK model in Chapter 4.2 is quite complete is in terms of the mechanical working out of the probabilities.
  - For HO: there is a fully worked out HO model with Cobb-Douglas functional forms for 2x2x2
  - For New Trade Theory: They work out the CES demand function showing all the steps.
- What Do Undergrads Need to Know About Trade? Paul Krugman, *AER*, Vol. 83, No. 2, (May, 1993), pp. 23-26 (4 pages), <https://www.jstor.org/stable/2117633>
- Krugman, Paul R. "Ricardo's Difficult Idea." <http://web.mit.edu/krugman/www/ricardo.htm>
- Bernhofen, D.M. and J.C. Brown. "A Direct Test of the Theory of Comparative Advantage: The Case of Japan." Manuscript, 2000.

Lecture 3	SFM
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## Lecture outline

- Basic setup and assumptions
- Preliminaries: profit maximization implications
- Autarky equilibrium
- Solving autarkic equilibrium with the Beaker diagram
- Solving autarkic equilibrium with CD tastes and technology
- FT equilibrium
- Comparative statics
- Primer: Jones algebra made easy
- Characterising the impact of small changes around the FT equilibrium
- Insights from the SFM model

## Readings:

### Required

- Baldwin teaching handout, "SFM: Handout for PhD students".
- Neary, J. Peter (1978). "Short-Run Capital Specificity and the Pure Theory of International Trade". *The Economic Journal*. 88 (351): 488–510. <https://www.jstor.org/stable/2232049>

### Background

- For intuition and introduction if you've not studied SFM before, watch the videos of my MIS lecture
- MIS handout, "Insights from the SFM: Handout for Masters Students".

### Original contributions

- Jones, Ronald W.: "A Three-Factor Model in Theory, Trade and History," Ch. 1 in Jagdish Bhagwati, Ronald Jones, Robert Mundell and Jaroslav Vanek, (eds.), *Trade, Balance of Payments and Growth* (North-Holland, Amsterdam), 1971
- Samuelson, Paul "Ohlin Was Right," *The Swedish Journal of Economics*, 1971: An exposition of the algebra of the specific-factor setting

Lectures 4 and 5	HO theory
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### Lecture outline

- Introduction, basic set up, and autarky conditions (simplest HO model)
- GE feedback loops
- Solving the autarky equilibrium conditions
- Graphical solutions
- Building intuition by comparing autarky equilibriums across countries
- Solving the FT equilibrium conditions

FPE theorem

HO and HOV thms: Factor abundance as a source of comparative advantage (c.a.)

Two classic partial equilibrium exercises (SS and Ryb Thms)

- Technological change
- HO results with flexible technology

### Required

- Baldwin teaching handout, "Insights from the SFM model: Handout for PhD students"
  - Focus on pp 1-18 for the first HO lecture; the rest for the second.
- Recommended readings
- Davis, Donald. "Intra-Industry Trade: A Heckscher-Ohlin-Ricardo Approach." *Journal of International Economics* 39 (1995): 201-226.
- Deardorff, Alan "The General Validity of the Heckscher-Ohlin Theorem." *American Economic Review* 72 (1982): 683-694.

## Background

- For intuition and introduction if you've not studied the SFM before, watch the videos of my MIS lecture
- MIS handout, "Insights from the SFM: Handout for Masters Students", Baldwin teaching handout (pp 1 – 14).
- Thibault Fally at Berkeley has a good set of lectures on the SFM based on the Krugman-Obstfeld-Melitz textbook for advanced undergraduates, <https://are.berkeley.edu/~fally/Courses/Econ181Lecture3b.pdf>

## Optional

- Treb Allen and Costas Arkolakis have a partial manuscript for an advanced trade textbook that uses the 'hammer and tongs' approach to models solving them head on, in detail with lots of the calculations are worked out. Good for the maths; not so much for intuition and insights. Particular noteworthy are:
  - For HO: there is a fully worked out HO model with Cobb-Douglas functional forms for 2x2x2

## Original contributions

- Deardorff, Alan V. "Weak Links in the Chain of Comparative Advantage." *Journal of International Economics* 9 (1979): 197-209.
- Jones, Ronald W. "The Structure of Simple General Equilibrium Models." *Journal of Political Economy* 73 (1965): 557-572.
- Bertil Ohlin: *Interregional and International Trade*. Harvard University Press, Cambridge 1933 (revised edition: Cambridge 1967; reprint of the first edition: Routledge, London et al. 1998, ISBN 0-415-15891-5 )
- Paul A. Samuelson : *International Trade and the Equalization of Factor Prices*. In: *Economic Journal*. 58, No. 230, pp. 163-184 ( JSTOR 2225933 ).
- Paul A. Samuelson: *International Factor-Price Equalization Once Again*. In: *Economic Journal*. 59, No. 234, pp. 181-197 ( JSTOR 2226683 ).
- Heckscher's article (Heckscher 1919) originally only appeared in Swedish, a partial translation is contained in Howard S. Ellis (ed.): *Readings in the theory of international trade*. Blakiston, Philadelphia et al. a. 1949, pp. 272-300, for a full English translation, see Harry Flam and M. June Flanders (eds.): *The Effect of Foreign Trade on the Distribution of Income*. MIT Press, Cambridge and London 1991, ISBN 0-262-08201-2 , pp. 39-69.
- Stolper, W. F.; Samuelson, Paul A. (November 1941). "Protection and real wages". *The Review of Economic Studies*. 9 (1): 58–73.
- Ohlin, Bertil (1967). *Interregional and International Trade*. Harvard Economic Studies. 39. Cambridge, MA: Harvard University Press.