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Class time, location	M,W 1.15-3.05pm, 200-303
TA:	Assaf Zimring

## Econ 165: International Finance

**Course Description:** This class introduces basic models necessary to understand how different national economies are integrated with each other. Recent research on the empirical and practical relevance of these models is discussed. The aim is to give students the tools necessary to read critically and understand discussions of international economic policy found in popular media such as The Economist magazine, the Wall Street Journal and the Financial Times, as well as providing a basis for additional coursework in international macroeconomics.

**Prerequisites:** Econ 52. I do not have discretion to waive this prerequisite. If you have not completed this class, contact the Economics Undergraduate Office. A strong background in microeconomics is also assumed.

**Assessment:** Problem sets (20%); In-class midterm (30%); Final exam (50%). Out of 6 problem sets, only your best 5 scores will contribute to the final grade. Late problem sets will receive a score of zero. No make-up exams will be offered. In marginal cases, class attendance will be taken into account.

**Final exam:** Monday December 7, 8.30-11.30am. If you know in advance that you cannot make this time, do NOT take this class.

**Readings:** There is no required hard-copy textbook for this class. Lecture notes and links to required readings will be posted on the class webpage. Several are taken from the following online textbook: *International Macroeconomics*, by Schmitt-Grohé and Uribe (S&U). Some recommended readings will be taken from *International Economics*, by Paul Krugman and Maurice Obstfeld (K&O), and some from *Foundations of International Macroeconomics*, by Maurice Obstfeld and Kenneth Rogoff (O&R). These texts are on reserve at the library. Other recommended readings and resources will be made available through links on the class webpage.

**Webpage:** <http://coursework.stanford.edu>

**Class presentations:** Where noted, the last 15 minutes of class will be devoted to discussion of a set topic of current interest. Each week, 4 pre-chosen volunteers will speak for 2 minutes, followed by cold calling of other students. Volunteers will receive extra credit. What you say in the discussion will not affect your grade.

**Instructor's office hours:** Unless otherwise announced, my office hours are Tuesdays 10am-12pm sharp. Please e-mail me in advance if you plan to attend.

**Section:** Details on times and locations will be announced in the first week of the quarter.

## Frequently asked questions

- *How much math is used in this class?* Familiarity with basic algebra, calculus and elementary optimization is assumed.
- *How much reading should I do?* Required readings have been kept to a minimum, but required means required. Discussion readings are also required. If you are particularly interested in a topic, you are invited to explore the recommended readings.
- *When will lecture notes be posted?* In general, lecture notes will be posted shortly before class. But please do not complain if there is a delay. Note that reading the lecture notes is no substitute for attending class. I will not post the tablet slides from class. Please do not ask me to do so.
- *Will there be a break in the middle of class?* No. On occasion, class may finish 10 minutes early in lieu of a break.
- *Do I have to go to section?* Section is highly recommended. On occasion, new material will be covered there.
- *Can my friends and I work together on the problem sets?* Yes. The problem sets are intended to be learning experiences, so feel free to work in groups. However you may find it useful to attempt the problems on your own before working with others. Each student must submit their own problem set solutions. Doing the problem sets is the best way to prepare for the exams. If you copy another student's answers without understanding the material, your exam performance will suffer.
- *How are the problem sets graded?* The problem sets are graded on a scale of check plus, check, check minus and zero (if no problem set is handed in, or it is submitted late). Your TA appreciates legible problem sets.
- *Can I turn a problem set in late?* No. **I have instructed the TA not to grade problem sets turned in after the deadline** (12 noon on Mondays). Problem sets are to be turned in in the lockbox in the Undergraduate Economics Office, and the lockbox will be removed at 12.
- *What if I cannot take the midterm?* There will be no make up exams. You should contact me in advance if you cannot make the midterm.
- *What material will be covered on the midterm and final exam?* The midterm will cover the material up to and including the previous class. The final will cover material from the entire quarter.
- *What do I do if a mistake was made in grading my exam?* Please see the Economics Department common course management policies. Note that exams written in pencil are not eligible for regrades.

# Schedule and Readings

## 1. Monday 21st September 2009: Introduction; Tools; Endowment economies

- (a) Introduction
- (b) Review of budget sets, utility maximization and demand
- (c) Autarky and free trade in an endowment economy
- (d) Empirical evidence on autarky prices and the direction of trade

- **Key concepts:** Budget constraint, utility function, marginal rate of substitution, relative demand, homothetic preferences, small open economy, autarky, gains from trade, comparative advantage, terms of trade, relative abundance

- **Recommended reading:**

- Daniel Bernhofen and John Brown (2004), “A Direct Test of the Theory of Comparative Advantage: The Case of Japan,” *Journal of Political Economy* 112 (1) 48-67
- Douglas Irwin (2005), “The Welfare Cost of Autarky: Evidence from the Jeffersonian Trade Embargo,” *Review of International Economics* 13 (4) 631-645
- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapters 2-6 and 31 (or similar material in an alternative intermediate micro textbook)

- **Problem set:** No problem set this week

## 2. Wednesday 23rd September 2009: Production economies

- (a) The production possibility frontier
- (b) Production, trade and welfare
- (c) Empirical evidence
- (d) Trade policy

- **Key concepts:** Production possibility frontier, factors of production, production function, marginal rate of transformation, optimal tariff

- **Recommended reading:**

- Robert Baldwin (1989), “The Political Economy of Trade Policy,” *Journal of Economic Perspectives* 3 (4), 119-135
- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapter 32

- **Section:** No section this week

### 3. Monday 28th September 2009: Increasing returns, love of variety and trade

- (a) Motivation
- (b) What are increasing returns/ economies of scale?
- (c) Imperfect competition – monopoly and monopolistic competition
- (d) Gains from trade under increasing returns
- (e) Evidence on trade liberalization and variety

- **Key concepts:** Imperfect competition; Differentiated products; Increasing returns to scale; Profit maximization; Pure monopoly; Monopolistic competition; Fixed costs; Markups; Free entry

- **Recommended reading:**

- K&O Chapter 6, pages 110-113
- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapters 18, 24 and 25.7-25.9
- Krugman, P. (1980), “Scale Economies, Product Differentiation and the Pattern of Trade,” *American Economic Review* 70 (5), 950-959

- **Problem set:** No problem set this week

### 4. Wednesday 30th September 2009: Intertemporal trade I

- (a) Intertemporal preferences, budget constraint and prices
- (b) A small 2-period endowment economy
- (c) A 2-period 2-country world
- (d) The current account

- **Key concepts:** Discount factor, interest rate, elasticity of intertemporal substitution, trade balance, current account, net foreign assets

- **Required reading:**

- S&U Chapter 1, Chapter 2

- **Recommended reading:**

- O&R Chapter 1, Sections 1 and 2
- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapter 10

- **Section:** Review of national income accounting in an open economy

5. **Monday 5th October 2009:** Intertemporal trade II

(a) Introducing investment

(b) A 2-country world with investment

- **Key concepts:** Investment, capital, diminishing marginal product

- **Required reading:**

  - S&U Chapter 3, Chapter 4

- **Recommended reading:**

  - O&R Chapter 1, Sections 2 and 3

- **First problem set:** Due at 12 noon on Monday 5th October

6. **Wednesday 7th October 2009:** Growth in open economies

(a) Review of the closed economy Solow model

(b) Growth in a small open economy

- **Key concepts:** Steady state, convergence

- **Recommended reading:**

  - Greg Mankiw: *Macroeconomics* 6th edition, Chapter 7

- **Section:** Review of trade in goods today and goods tomorrow

7. **Monday 12th October 2009:** Intertemporal trade and the government's role

- (a) The government budget constraint
- (b) Ricardian equivalence
- (c) The government, autarky prices and current accounts in an endowment world
- (d) The government, autarky prices and current accounts in a world with investment

- **Key concepts:** Ricardian equivalence, crowding out

- **Required reading:**

- S&U Chapter 5

- **First debate:** Is the US current account deficit sustainable?

- "The Global Saving Glut," speech by Ben Bernanke, April 14 2005

- A. Ghosh and U. Ramakrishnan, "Do Current Account Deficits Matter?" *Finance and Development*, December 2006

- G.-M. Milesi-Ferretti, "Changing Fortunes," *Finance and Development*, March 2009

- **Second problem set:** Due at 12 noon on Monday 12th October

8. **Wednesday 14th October 2009:** International risk sharing

- (a) Preferences over uncertainty and the demand for insurance
- (b) A small endowment economy
- (c) A 2-country endowment world
- (d) Portfolio composition

- **Key concepts:** Expected utility, risk aversion, risk neutrality, contingent assets, equities

- **Recommended reading:**

- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapter 12, Chapter 37, section 7

- **Section:** Review for midterm

9. **Monday 19th October 2009:** Puzzles in international capital markets

- (a) Why does capital flow from poor to rich countries?
- (b) Allocation puzzle
- (c) Feldstein-Horioka puzzle
- (d) Home bias in portfolios
- (e) A model with non-traded goods

- **Key concepts:**

- **Required reading:**

- S&U Chapter 6, section 6.1
- E. Prasad, R. Rajan and A. Subramanian, "The Paradox of Capital," *Finance and Development*, March 2007

- **Recommended reading:**

- Lucas, R., (1990), "Why Doesn't Capital Flow From Poor to Rich Countries?" *American Economic Review* 80 (2), 92-96.
- Feldstein, M. and C. Horioka, (1980), "Domestic Saving and International Capital Flows," *Economic Journal* 90, 314-329.

- **Third problem set:** Due at 12 noon on Monday 19th October

10. **Wednesday 21st October 2009:** Midterm exam

- **Section:** No section this week

11. **Monday 26th October 2009:** Moral hazard and underinvestment

- (a) Motivation
- (b) Moral hazard in international lending

- **Key concepts:** Moral hazard

- **Required reading:**

- S&U Chapter 9, sections 9.1-9.3

- **Recommended reading:**

- O&R Chapter 6, Sections 1 and 2

- Gertler, M. and K. Rogoff (1990), "North-South Lending and Endogenous Domestic Capital Market Inefficiencies," *Journal of Monetary Economics* 26, 245-266.

- **Problem set:** No problem set this week

12. **Wednesday 28th October 2009:** Debt overhang and debt buybacks

- (a) Debt overhang
- (b) Debt buybacks
- (c) Lessons for mopping up after a banking crisis

- **Key concepts:** TBA

- **Required reading:**

- S&U Chapter 9, Section 9.4

- Bulow, J. and K. Rogoff (1988), "The Buyback Boondoggle," *Brookings Papers on Economic Activity*: no. 2, 1988, 675-698

- Bulow, J. and K. Rogoff (1990), "Cleaning Up Third World Debt Without Getting Taken to the Cleaners," *Journal of Economic Perspectives* 4, 31-42.

- **Second debate:** Should we forgive Third World Debt?

- W. Easterly, "Debt Relief," *Foreign Policy* 127 (Nov.-Dec. 2001), 20-26

- **Section:** Return of midterms

13. **Monday 2nd November 2009:** Limited commitment

- (a) A 2-state model with full commitment
- (b) Absence of commitment
- (c) Lack of commitment and sanctions
- (d) Why do countries repay their debts?
- (e) Investment and sanctions

- **Key concepts:** Commitment, incentive compatibility, reputation

- **Recommended reading:**

- O&R Chapter 6, Sections 1 and 2
- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapter 12, Chapter 37, section 7

- **Problem set:** No problem set this week

14. **Wednesday 4th November 2009:** Multiple equilibria and crises

- (a) Maturity mismatch
- (b) Multiple equilibria
- (c) Bailouts, deposit insurance and moral hazard
- (d) Two applications

- **Key concepts:** Multiple equilibria

- **Recommended reading:**

- Hal Varian: *Intermediate Microeconomics* 7th edition, Chapter 37, section
- Douglas Diamond and Philip Dybvig (1983), “Bank Runs, Deposit Insurance and Liquidity,” *Journal of Political Economy* 91 (3), 401-419.

- **Section:** TBA

15. **Monday 9th November 2009:** Contagion and international financial regulation

- **Key concepts:** TBA
- **Required reading:**
  - N. Sacasa, "Preventing Future Crises," *Finance and Development*, December 2008
  - P. Mauro and Y. Yafeh, "Financial Crises of the Future," *Finance and Development*, December 2007
  - K. Rogoff and C. Reinhart, "This Time is Different: A Panoramic View of Eight Centuries of Financial Crises," mimeo, Harvard University.
- **Third discussion:** Is foreign capital a luxury that poor countries can live without?
  - M. Kose, E. Prasad, K. Rogoff and S.-J. Wei, "Financial Globalization: Beyond the Blame Game," *Finance and Development*, March 2007.
  - D. Rodrik, "The Disappointments of Financial Globalization."
- **Fourth problem set:** Due at 12 noon on Monday 9th November

16. **Wednesday 11th November 2009:** Price levels and the exchange rate in the long run

- (a) Nominal and real exchange rates
- (b) Theory of purchasing power parity
- (c) Why PPP fails: The Balassa-Samuelson effect
- (d) Movements in the current account and real exchange rates

- **Key concepts:** Nominal exchange rate, real exchange rate, appreciation, depreciation, law of one price, purchasing power parity, Balassa-Samuelson effect
- **Required reading:**
  - *The Economist*: "McCurrencies"
  - S&U Chapter 7 section 7.1
- **Recommended reading:**
  - Kenneth Rogoff, "The Purchasing Power Parity Puzzle," *Journal of Economic Literature* 34, June 1996, 647-68
  - K&O Chapter 15, pages 369-372, 379-388

- **Section:** TBA

17. **Monday 16th November 2009:** A model to analyze monetary and exchange rate policy I

- **Key concepts:** TBA
- **Required reading:**
  - TBA
- **Fourth discussion:** Should the international financial system be reformed?
- **Fifth problem set:** Due at 12 noon on Monday 17th November

18. **Wednesday 18th November 2009:** A model to analyze monetary and exchange rate policy II

- **Key concepts:** TBA
  - **Required reading:**
    - TBA
  - **Fifth discussion:** TBA
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- **Section:** TBA

19. **Monday 30th November 2009:** Fixed and floating exchange rates; Currency crises

- **Key concepts:** TBA
- **Required reading:**
  - TBA
- **Sixth discussion:** Should developing countries fix or float?
- **Sixth problem set:** due at 12 noon on Monday 30th November

20. **Wednesday 2nd December 2009:** Review

- **Section:** Review for final exam