

**Economics 792**  
**Course Overview**

This course studies open economy macroeconomics and international finance: theory and evidence. Students in this course must have completed the core theory sequence in Economics PhD program.

Class meeting time: Tuesday and Thursday, 2-3:30 PM, CAS 114-A. We will try to move to a room within the economics building.

Contact information:

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Office Hours: Tuesday and Thursdays 11:30 and 1:30. My schedule on other days will vary weekly, depending mainly on the job market events.

**Readings:** A reading list for this course is attached. Books which you may wish to own include the textbook Obstfeld, Maurice and Kenneth Rogoff (1996) *Foundations of International Macroeconomics*, (MIT Press, Cambridge), 1996, the textbook by Nelson Mark (2001), "International Macroeconomics and Finance" (Blackwell), and the Handbook of International Economics vol. 3. Solutions to the Obstfeld/Rogoff book are here:

<http://www.economics.harvard.edu/~krogoff/Foundations/workbook.html>

**Requirements and grading:**

(1) First, and most important, is the requirement that you read the assigned papers in advance and arrive in class ready to discuss the readings. Each day at the beginning of class, you will hand in a 2-3 page summary of the paper(s) to be discussed, including (i) the goal of the paper; (ii) the method/theoretical background/techniques used; (iii) substantive findings of the paper; and (iv) two nontrivial questions that you would ask the author about the paper if the paper were being presented at BU at a workshop. You should arrive in class each day having read the paper(s) and being ready to discuss the paper. If you had problems with parts of the papers, it is fine to ask questions in class.

(2) You will each have responsibility for presenting and critiquing a specific topic, and then proposing future research on this topic. Students will work individually, and can choose a specific topic or sub-topic from the reading list, or propose an alternative topic. The student will then be responsible for the following: (i) prepare a reading list for the class, involving 2-4 papers on the topic; (ii) present the material to the class, taking 2 class periods; (iii) write a summary of the research area, including the papers assigned to the class plus at least 2 additional papers; (iv)

describe potential future research in this area, including at least 1 well-described possible papers that could be written on this topic.

- (3) Referee Reports: You will write two referee reports on papers relevant to our class. Writing a referee report has many benefits. You will learn how to think critically and constructively about a piece of work. You cannot be shallow, lazy, aggressive, or destructive. You must show that you understand the paper and its place in the literature, and you must seriously evaluate the good and bad points of the paper. Your job is to help the journal's editor to make a good decision on the paper. You must constantly remember that people's careers are on the line. I will give you more detail and some examples of referee reports later on.
- (4) Computational analysis of an open economy model: We will be learning how to set up and solve a modern open economy macroeconomic model, beginning with the simplest small-scale competitive models and working toward models with sticky prices and alternative price-setting strategies. We will be using Matlab. If you are an accomplished Gauss programmer, you can use Gauss. But it would be better to learn how to use Matlab.
- (5) Homework: Homework is assigned as a means to help you learn the material in a way that is not possible by only reading, not "doing." You are encouraged to work together. Therefore, the homework will not be graded. We will discuss the homework in class on the "due date".

**Requirements and Grading Summary:**

- 15% : Daily paper summaries and class participation
- 25%: Presentation and analysis of chosen topic
- 30%: Referee reports
- 30%: Analysis of computational models

**Academic Conduct:** It is your responsibility to know and understand the provisions of the CAS Academic Conduct Code (copies are available in room CAS 105). Cases of suspected academic misconduct will be referred to the Dean's Office. Plagiarism, whether from a friend, a book, or a website, is a serious academic offense. Misconduct on an exam will result in a zero grade for the exam. You may not work in groups or discuss assigned work with classmates unless this is specifically allowed in the written instructions for the assignment or exam.

## Topics and Readings

For each date, there are main readings, and also supplementary readings. You are expected to read the paper(s) assigned for each class in advance and to be able to discuss the paper. For most topics, there are additional, “supplementary” readings. These are optional, but are listed for students who are interested in pursuing particular topics in more depth. Supplementary papers that are required for the field exam are denoted by boldface type. I will sometimes discuss parts of these supplementary papers in class. Anything discussed in class may appear on the course and/or field exams, whether or not it is in the designated required readings.

### **Introduction; The “facts” about international finance and macroeconomics**

Granger, Clive (1966) “The Typical Spectral Shape of an Economic Variable,” *Econometrica*, January 1966, 34:1, 150-161.

Baxter, Marianne and Robert King (1999) “Measuring business cycles: Approximate band-pass filters for economic time series,” *Review of Economics and Statistics* 81:4, November 1999, 575-593. Also published as NBER Working Paper 5022, February 1995.

Baxter, Marianne (1994) “Real exchange rates and real interest differentials: Have we missed the business-cycle relationship?” *Journal of Monetary Economics* 33:5-38.

Baxter, Marianne (1995) "International trade and business cycles," *in: Handbook of International Economics* 3, (G. Grossman and K. Rogoff, eds.), December 1995, those sections that deal with descriptions of empirical business cycles.

#### Supplementary reading:

Backus, David; Patrick Kehoe and Finn Kydland (1992) “International evidence on the historical properties of business cycles,” *American Economic Review* 82:864-888.

Baxter, Marianne and Alan Stockman (1989) “Business cycles and the exchange-rate regime: Some international evidence,” *Journal of Monetary Economics* 23, (May 1989), 377-400.

**Homework:** *Applying the band-pass filters*

### **Flexible-price equilibrium models of international business cycles**

Baxter, Marianne (1995) "International trade and business cycles," *in: Handbook of International Economics* 3, (G. Grossman and K. Rogoff, eds.), December 1995

Baxter, Marianne and Dorsey D. Farr (2001) "Variable factor utilization and international business cycles," NBER Working Paper 8392, July 2001.

Obstfeld, M., and K. Rogoff (1996) *Foundations of International Macroeconomics*, MIT Press, 1996. Chapters 1, 2.

Baxter, Marianne and Mario Crucini (1993) "Explaining saving-investment correlations," *American Economic Review* (June 1993).

Baxter, Marianne and Mario Crucini (1995) "Business cycles and the asset structure of foreign trade," *International Economic Review*.

Kouparitsas, Michael A. (1996) "North-South business cycles" manuscript, Federal Reserve Bank of Chicago, May 1996

Glick, Reuven and Kenneth Rogoff (1995) "Global versus country-specific productivity shocks and the current account," *Journal of Monetary Economics* 35:159-192.

Kehoe, Patrick and Fabrizio Perri (1998), "International Business Cycles with Endogenously Incomplete Markets," Federal Reserve Bank of Minneapolis. Published in *Econometrica*. Working paper link: <http://research.mpls.frb.fed.us/research/sr/sr265.pdf>

Supplementary reading:

Svensson, Lars and Torsten Persson. (1985) "Current Account Dynamics and the Terms of Trade: Harberger-Laursen-Metzler Two Generations Later," *Journal of Political Economy* 93 (1985) 43-65.

Backus, David; Patrick J. Kehoe and Finn Kydland (1992) "International real business cycles," *Journal of Political Economy* 100:4 (August 1992), 745-775.

Stockman, Alan C. and Linda L. Tesar. "Tastes and technology in a two-country model of the business cycle: Explaining international comovements," *American Economic Review* 85: 168-185.

King, R; C. Plosser and S. Rebelo. Technical Appendix.

King, Robert G. and Mark W. Watson, "System reduction and solution algorithms for singular linear difference systems under rational expectations models," 1995.

Homework: *Analysis of competitive models of open economies*

**Empirical behavior of exchange rates and the forward premium puzzle**

Meese, Robert and Kenneth Rogoff (1983) "Empirical exchange rate models of the seventies: Do they fit out of sample?" *Journal of International Economics* 14:3-24.

Engel, C., N. Mark and K. West (2007) "Exchange rate models are not as bad as you think," NBER Macro Annual 2007, available as NBER Working Paper 13318.

Mark, Nelson C. (1994) "Exchange rates and fundamentals: Evidence on long-horizon predictability," *American Economic Review* 84.

Engel, Charles (1995) "Accounting for U.S. real exchange rates," *Journal of Political Economy* .

Supplementary reading:

Lewis, Karen K. "Puzzles in International Financial Markets," in: G. Grossman and K. Rogoff, eds., *Handbook of International Economics III*, 1996, Chapter 37. NBER Working Paper 4951, December 1994.

Mussa, Michael (1986) "Nominal exchange rate regimes and the behavior of real exchange rate: Evidence and implications." *Carnegie Rochester Conference Series on Public Policy* 25 (Autumn 1986), 117-214.

Engel, Charles M. And James D. Hamilton (1990) "Long swings in the dollar: Are they in the data and do markets know it?" *American Economic Review* 80:689-713.

Grilli, Vittorio and Graciela Kaminsky (1991) "Nominal exchange rate regimes and the real exchange rate: Evidence from the United States and Great Britain, 1885-1986," *Journal of Monetary Economics* 27:191-212.

Homework: Long-horizon predictability

**Equilibrium models of money, interest rates, and real activity**

Lucas, Robert E. Jr. (1978) "Asset prices in an exchange economy," *Econometrica* 46: 1429-1445.

Lucas, Robert E., Jr. (1982) "Interest rates and currency prices in a two-country world," *Journal of Monetary Economics* 10:336-360.

Supplementary reading:

Svensson, Lars. (1985) "Money and Asset Prices in a Cash-in-Advance Economy," *Journal of Political Economy* 93 (1985) 919-944.

**"New Keynesian" Open Economy Monetary Models**

**Early Models**

Dornbusch, Rudiger. (1987) "Expectations and exchange rate dynamics," *Journal of Political Economy* 84:1161-1186.

Obstfeld-Rogoff book, Chapter 10. (Same as JPE paper, "Exchange Rate Dynamics Redux,")

Obstfeld, Maurice and Kenneth Rogoff, "New Directions in Stochastic Open Economy Models," *Journal of International Economics* 48 (February 2000), 117-153.

### **Modern models**

You will receive additional readings for this section.

Landry, Anthony: "Expectations and Exchange-Rate Dynamics: A State-Dependent-Pricing Approach," November 2006. <http://www.dallasfed.org/research/papers/2006/wp0604.pdf>

Baxter, M. and A. Landry, "International Linkages in a New Keynesian Model with Capital," in progress (draft to be provided.)

Chari, VV., P.J. Kehoe, and E. R. McGrattan "Can Sticky Prices Generate Volatile and Persistent Real Exchange Rates?" *Review of Economics and Statistics* 69:3, July 2002, 533-563.

### **Supplementary reading:**

Clarida, Richard; Jordi Gali, and Mark Gertler (2002) "A Simple Framework for International Monetary Policy Analysis," NBER Working Paper 8870, April 2002.

Clarida, Richard; Jordi Gali, and Mark Gertler (2001) "Optimal Monetary Policy in Open versus Closed Economies: An Integrated Approach." NBER Working Paper 8604, November 2001.

Maurice Obstfeld and Kenneth Rogoff, "Risk and Exchange Rates," July 1998, NBER Working Paper 6694, August 1998.

Devereux, Michael and Charles Engel (2002) "Exchange Rate Pass-Through, Exchange Rate Volatility, and Exchange Rate Disconnect." NBER Working Paper 8858, March 2002.

## Topics Available for Student Choice

You may choose one of these topics for your presentation. After all the students have chosen topics, I will choose topics that I will present to the class.

### **Government debt**

Eaton, J. and R. Fernandez (1995) "Sovereign Debt." In: Handbook of International Economics III, G. Grossman and K. Rogoff, Eds., (Amsterdam: North-Holland), 2031-2077.

Bulow, J. and K. Rogoff (1989) "Sovereign Debt: Is to Forgive to Forget?" *American Economic Review* 79 (March 1979), 43-50.

Bulow, J. and K. Rogoff (1989) "A Constant Recontracting Model of Sovereign Debt," *Journal of Political Economy* 97:155-78.

Longstaff, F., J. Pan, L. Pederson, and K. Singleton, "How Sovereign is Sovereign Credit Risk?" NBER Working Paper 13658, December 2007.

### **Supplementary reading:**

Arellano, Cristina, "Default risk, the real exchange rate and income fluctuations in emerging economies," manuscript, University of Minnesota, June 2004,  
<http://www.econ.umn.edu/~arellano/riskdefault.pdf>

Yue, Vivian (2004) "Sovereign default and debt renegotiation," manuscript, U. of Pennsylvania, Dec. 2004,  
[http://www.econ.upenn.edu/~yuez/Yue\\_JobMarketPaper.pdf](http://www.econ.upenn.edu/~yuez/Yue_JobMarketPaper.pdf)

Eaton, J. and M. Gersovitz (1981) "Debt with Potential Repudiation," *Review of Economic Studies* 48 (April 1981), 289-309.

Cole, H. and P. Kehoe (1995) "The role of institutions in reputation models of sovereign debt," *Journal of Monetary Economics* 35 (1995), 45-64.  
<http://econ.bu.edu/ec792/readings/colekehoedebt.pdf>

Cole, Harold and Patrick Kehoe (1997) "Reviving reputation models of international debt," FRB-Minneapolis Quarterly Review, Winter 1997.

### **Purchasing power parity**

Engel, Charles (1993) "Real exchange rates and relative prices: An empirical investigation," *Journal of Monetary Economics* 32:35-50.

Rogoff, Kenneth (1996) "The purchasing power parity puzzle," *Journal of Economic Literature*, 1996.

Froot, Kenneth and Kenneth Rogoff (1995) "Perspectives on PPP and long-run real exchange rates," in: G. Grossman and K. Rogoff, eds., *Handbook of International Economics III*, 1996, Chapter 32.

Supplementary reading:

Balassa, Bela (1964) "The purchasing power parity doctrine: A reappraisal," *Journal of Political Economy* 72:584-596.

Engel, Charles (1996) "Long-run PPP may not hold after all," *National Bureau of Economic Research Working Paper #5646*, July 1996.

Froot, Kenneth, Michael Kim and Kenneth Rogoff. "The Law of One Price over 700 Years," NBER Working Paper #5132, 1995.

**Real Exchange Rates**

Baxter, Marianne (1994) "Real exchange rates and real interest differentials: Have we missed the business-cycle relationship?" *Journal of Monetary Economics* 33:5-38.

Crucini, Mario; Christopher Telmer, and Marios Zachariades (2002) "Understanding European Real Exchange Rates." mimeo, Vanderbilt University.

Crucini, Mario and Mototsugu Shintani (2002) "Persistence in Law-of-One-Price Deviations: Evidence from Micro-data", mimeo, Vanderbilt University.

Paul Bergin and Robert Feenstra, "Pricing to Market, Staggered Contracts, and Real Exchange Rate Persistence," *Journal of Monetary Economics* 54, 2001, 333-359.

Burstein, A., J. Neves, and S. Rebelo (2001) "Distribution costs and real exchange rate dynamics during exchange-rate-based stabilizations," Working Paper, Northwestern University, <http://www.kellogg.nwu.edu/faculty/rebelo/htm/jcnMay2001.pdf> ; also <http://econ.bu.edu/mbaxter/ec792/readings/bnrebelo.pdf>

Supplementary reading:

Paul Bergin and Reuven Glick, "Endogenous Nontradability and Macroeconomic Implications." NBER Working Paper 9739, June 2003.

Paul Bergin and Robert Feenstra, "Staggered Price Setting and Endogenous Persistence," *Journal of Monetary Economics*. 45, June 2000, 657-680.

### **Speculative attacks and balance of payments crises--“Early” models**

Garber, Peter and Lars E.O. Svensson (1995) “The operation and collapse of fixed exchange rate regimes,” in: G. Grossman and K. Rogoff, eds., *Handbook of International Economics III*, 1996, Chapter 36. Also, NBER Working Paper 4971.

Krugman, Paul. (1996) “Are Currency Crises Self-Fulfilling?” NBER Macroeconomics Annual, 345-78.

Obstfeld-Rogoff Text, pp. 558-67, 576-78, 648-653.

Salant, Stephen (1983) “The Vulnerability of Price Stabilization Schemes to Speculative Attack,” *Journal of Political Economy* 91: 1-38.

Graciela Kaminsky and Carmen Reinhart, "The Twin Crises: The Causes of Banking and Balance of Payments Problems," *American Economic Review* 89, June 1999, 473-500.

Pierre-Olivier Gourinchas, Rodrigo Valdes, and Oscar Landerretche, "Lending Booms, Some Stylized Facts," mimeo, Princeton University.

### **New models of speculative attack and contagion**

Kaminsky, G., C. Reinhart and C. Vegh, (2003) “The Unholy Trinity of Financial Contagion,” *Journal of Economic Perspectives*, 17:4, 51-74.

Roberto Chang and Andres Velasco, "A Model of Financial Crises in Emerging Markets," *Quarterly Journal of Economics*.

Roberto Chang and Andres Velasco, "Liquidity Crises and Emerging Markets: Theory and Policy" *Federal Reserve Bank of Atlanta WP 99-15*, *NBER Macroeconomics Annual 1999*, pp. 11-58.

Phillippe Aghion, Philippe Bacchetta, and Abhjit Banerjee, "A Simple Model of Monetary Policy and Currency Crises" *European Economic Review* 44(4-6), 2000, 728-738.

Phillippe Aghion, Philippe Bacchetta, and Abhjit Banerjee, "Capital Markets and Instability of Open Economies," mimeo, Harvard University, November 2000.

Phillippe Aghion, Abhjit Banerjee and Thomas Piketty, "Dualism and Macroeconomic Volatility," *Quarterly Journal of Economics* 114(4), November 1999, 1359-1397.

Kaminsky, G. and C. Reinhart, (1999) “The twin crises: The causes of banking and balance of payments problems,” *American Economic Review* Vol. 89, No. 3. (Jun., 1999), pp. 473-500.

Kenneth Rogoff, "Institutions for Reducing Global Financial Instability," *Journal of Economic Perspectives* 13, Fall 1999, 21-42. Also NBER Working paper 7265, July 1999.

Olivier Jeanne, "Debt Maturity and the Global Financial Architecture," CEPR Discussion Paper No.2520, August 2000.

Detragiache, Enrica (1999) "Bank Fragility and International Capital Mobility," IMF Working Paper WP/99/113, August 1999.

### **International Risk-Sharing**

Lewis, Karen K. (1996b) "What can explain the apparent lack of international consumption risk-sharing?" *Journal of Political Economy* 104:2 (April 1996), pp. 267-297.

Baxter, Marianne (2004) "International Risk-sharing in the Short Run and in the Long Run," manuscript, Boston University, March 2004.

#### Supplementary reading:

Lewis, Karen K. (1999) "Trying to Explain Home Bias in Equities and Consumption," *Journal of Economic Literature* 37:2 (June 1999), 571-608.

### **Financial architecture**

Calvo, G. and C. Reinhart (2000) "Fear of Floating" NBER Working Paper 7993, November 2000

Reinhart, C. and K. Rogoff (2002) "The Modern History of Exchange Rate Arrangements: A Reinterpretation" NBER Working Paper 8963, May 2002.

Stephen Morris and Hyun Song Shin, "Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks," *American Economic Review* 88 (June 1998), 587-97.

See also the correction to Morris and Shin's theorem 2 in Frank Heinemann, "Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks: Comment," *American Economic Review* 90 (March 2000), 316-18.

#### Supplementary reading:

Friedman, Milton (1953) "The case for flexible exchange rates," in: *Essays in Positive Economics* (University of Chicago Press, Chicago).

Mundell, R. (1961), "A theory of Optimum Currency Areas," *American Economic Review*, 51, 657-65.

## **International Portfolio Choice**

Baxter, Marianne and Urban J. Jermann (1996) "The international diversification puzzle is worse than you think," *American Economic Review*.

Baxter, Marianne; Urban J. Jermann and Robert G. King (1996) "Nontraded goods, nontraded factors, and international non-diversification," *Journal of International Economics*.

### Supplementary reading:

French, Kenneth and Poterba, James. (1991) "International diversification and international equity markets," *American Economic Review* (May 1991), 81(2), 222-226.