

ECON 574

INTERNATIONAL MACROECONOMICS

Syllabus

Autumn 2017

Lectures:

Monday and Wednesday, 3:30 – 4:50 pm; Savery Hall, Room 158

Fabio Ghironi

University of Washington

Savery Hall, Room 337

Phone: 206-543-5795

E-mail: ghiro@uw.edu

Web page: <http://faculty.washington.edu/ghiro>

Twitter: [@FabioGhironi](https://twitter.com/FabioGhironi)

Office Hours: Monday, 1:30 – 3:20 pm, and by appointment

Course Objectives and Description

This course covers several topics in international macroeconomics. Its purpose is to expose students to issues and techniques in the study of international business cycle transmission, the effect and conduct of macroeconomic policies in open economies, international financial adjustment, and the determination of international asset portfolios.

We will first study models of international interdependence under flexible prices, focusing on the role of different assumptions on the structure of financial asset markets in the international propagation of shocks. Exogenous shocks to technology will be the main source of fluctuations in these models. We will then introduce nominal rigidity and a role for monetary policy shocks in the models. This will be followed by endogenous interest rate setting and its consequences for exchange rate dynamics. In turn, this will lead us to study the conduct of optimal monetary policy in open economies under different assumptions about the nature of nominal rigidity. Next, we will focus on international financial adjustment, portfolio choices, and valuation effects. We will conclude the course by discussing the wave of crises that started in 2007 and its implications for policy.

A good reference textbook for background reading is Maurice Obstfeld and Kenneth Rogoff's *Foundations of International Macroeconomics*, Cambridge: MIT Press, 1996. I also recommend Nelson Mark's, *International Macroeconomics and Finance: Theory and Econometric Methods*, Blackwell Publishers, 2001, Martin Evans' *Exchange-Rate Dynamics*, Princeton: Princeton University Press, 2011, and Stephanie Schmitt-Grohé and Martín Uribe's *Open Economy Macroeconomics*, Princeton: Princeton University Press, 2017. However, my lectures will be based mainly on articles from the reading list below.

Course Requirements

Readings: Starting with the second lecture of the course, I will expect you to have read the papers I will cover in advance of the relevant lecture. (At the end of each lecture, I will announce the readings for the following lecture. All the readings we will cover can be found easily online.) There will be no homework for this course, but you must read these papers with pencil and paper, making sure you can reproduce all arguments and derivations whenever feasible. I will expect you to be able to do that for the final exam.

Discussions: We will hold a Course Conference in mid-November—on a day/time to be determined by mutual agreement. In this conference, you must give a thirty-minute discussion of an unpublished working paper. Papers in the reading list that you can discuss are marked with a smile (☺), but you can also discuss a paper that you find on your own outside the reading list (or even a paper on a topic that we do not cover), subject to my approval. You must spend approximately ten minutes explaining the key contribution of the paper and twenty minutes on your comments, focusing on issues of substance. You cannot cooperate in preparing discussions. The Conference can feature at most two discussions of the same paper, and the choice of paper to be discussed will be on a first-come, first-served basis.)

Research proposal: You must write a single-authored, research proposal on a topic of relevance to the course. Your proposal should begin by clearly stating the question of interest and why it is important. You should then explain how you plan to study the question in your research, and how your work would contribute to the existing literature. (If you have already obtained any result, you should briefly summarize them and the intuitions before explaining how you contribute to the literature.) Your proposal must be at most three pages long (1.5 spacing), excluding references, figures, and/or tables. The proposal must be e-mailed to me as a pdf file by noon on Friday, December 22, 2017.

Final exam: There will be a closed-books, closed-notes final exam on Thursday, December 14, 2:30 – 4:20 pm, in Savery Hall, Room 158.

Discussion, short paper, and final exam will be graded on a scale 0-100. The weights of these requirements in your final course grade will be as follows:

Discussion:	20 percent;
Research proposal:	30 percent;
Final exam:	50 percent.

Academic Integrity

Following is the Economics Department policy on Academic Conduct:

Academic integrity is the cornerstone of the Department's rules for student conduct and evaluation of student learning. Students accused of academic misconduct will be referred directly to the Office of Community Standards and Student Conduct for disciplinary action pursuant to the Student Conduct Code and, if found guilty, will be subject to sanctions. Sanctions range from a disciplinary warning, to academic probation, to immediate dismissal for the Department and the University, depending on the seriousness of the misconduct. Dismissal can be, and has been, applied even for first offenses. Moreover, a grade of zero can be assigned by the instructor for the course.

Where to Leave Documents for Me

If you need to leave a document for me, please do not leave it under my office door. Leave it in my mailbox in the Economics Department main office (Savery Hall, Room 305). Thank you.

A Course That May Be of Interest

If you are seriously interested in international macroeconomics for your research, and you are not familiar with the history of the international monetary system, you should consider attending ECON 425 Topics in Monetary Economics: The International Monetary System from the Gold Standard to Globalization (Mondays and Wednesdays, 10:30 am – 12:20 pm, Sieg Hall, Room 224). It is an upper-level, undergraduate elective course on the history and functioning of international monetary arrangements from the 19th century to the present day. If you have not had a similar course in the past, sitting in these lectures should be useful to give you a better idea of the evolution of important policy questions over time. (The course also presents some models that I do not cover in this graduate class.)

Two Additional Resources

I was a faculty member at Boston College (BC) before moving to the University of Washington. During my last three years at BC (Fall 2010-Spring 2013), I organized a seminar series on International Economic Policy and Political Economy (IEPPE), where I invited speakers to give non-technical presentations on topics of present-day policy relevance. The speakers included academics and current or former policymakers. The presentations were a great source of research ideas for students. Presentation materials are still available online. You can access the IEPPE archive from <http://faculty.washington.edu/ghiro/IEPPEArchive.htm>. Presentations during academic year 2012-13 were recorded, and it is possible to watch the recordings online. I encourage you to use the IEPPE Archive to learn about important policy (and possible research) questions.

I took a (for me) giant leap into modernity in June of 2015 and signed up for a Twitter account (@FabioGhironi). Contrary to my initial skepticism, I have been finding it a very useful source of information. Several of my tweets consist of retweeting op-ed articles I find especially interesting on current economic events, occasionally adding my own musings. If you are on Twitter and are interested in my thoughts on present-day economic issues, you can find them there. If you read the articles I tweet about, they may give you ideas for research. (I guess you can classify this “resource” also as a shameless attempt at self promotion.)

Other Important Information

The reading list below obviously includes many more papers than we will be able to cover in class. It is meant also as a reference source for additional readings if you become especially interested in any given topic (and I will be happy to give you similar reference lists on topics we do not cover if you are interested in exploring them). If you take the field exam in international economics, I will expect you to have read much more material and on several more topics than covered in class. If you plan to make international macroeconomics your primary research field and/or go on the job market with a paper in international macroeconomics and have me as advisor, I will expect you to have taken the field exam in international economics.

Course Topics and Readings

1. Asset Markets and the International Transmission of Shocks

Baxter, M., and M. Crucini (1995): "Business Cycles and the Asset Structure of Foreign Trade," *International Economic Review* 36: 821-853.

Bodenstein, M. (2011): "Closing Large Open Economy Models," *Journal of International Economics* 84: 160-177.

Cole, H. L., and M. Obstfeld (1991): "Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter?" *Journal of Monetary Economics* 28: 3-24.

Ghironi, F. (2006): "Macroeconomic Interdependence under Incomplete Markets," *Journal of International Economics* 70: 428-450.

Heathcote, J., and F. Perri (2002): "Financial Autarky and International Business Cycles," *Journal of Monetary Economics* 49: 601-627.

Kehoe, P. J., and F. Perri (2002): "International Business Cycles with Endogenous Incomplete Markets," *Econometrica* 70: 907-928.

Kim, J., and S. H. Kim (2003): "Spurious Welfare Reversals in International Business Cycle Models," *Journal of International Economics* 60: 471-500.

Schmitt-Grohé, S., and M. Uribe (2003): "Closing Small Open Economy Models," *Journal of International Economics* 61: 163-185.

2. International Real Business Cycles

Backus, D. K., P. J. Kehoe, and F. E. Kydland (1992): "International Real Business Cycles," *Journal of Political Economy* 100: 745-775.

Backus, D. K., P. J. Kehoe, and F. E. Kydland (1994): "Dynamics of the Trade Balance and the Terms of Trade: The J Curve?" *American Economic Review* 84: 84-103.

Backus, D. K., and G. W. Smith (1993): "Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods," *Journal of International Economics* 35: 297-316.

Bai, Y., and J. Zhang (2010): "Solving the Feldstein-Horioka Puzzle with Financial Frictions," *Econometrica* 78: 603-632.

Baxter, M. (1995): "International Trade and Business Cycles," in G. M. Grossman and K. Rogoff (eds.), *Handbook of International Economics*, vol. 3, pp. 1801-1864, Amsterdam: Elsevier.

Baxter, M., and M. J. Crucini (1993): "Explaining Saving-Investment Correlations," *American Economic Review* 83: 416-436.

Benigno, G., and C. Thoenissen (2008): "Consumption and Real Exchange Rates with Incomplete Markets and Non-Traded Goods," *Journal of International Money and Finance* 27: 926-948.

Corsetti, G., L. Dedola, and S. Leduc (2008a): “International Risk-Sharing and the Transmission of Productivity Shocks,” *Review of Economic Studies* 75: 443-473.

Corsetti, G., L. Dedola, and S. Leduc (2008b): “Productivity, External Balance, and Exchange Rates: Evidence on the Transmission Mechanism among the G7 Countries,” in Reichlin, L., and K. West (eds.), *NBER International Seminar on Macroeconomics 2006*, Cambridge: MIT Press, 117-178.

Corsetti, G., L. Dedola, and S. Leduc (2014): “The International Dimension of Productivity and Demand Shocks in the U.S. Economy,” *Journal of the European Economic Association* 12: 153-176.

Enders, Z., and G. J. Müller (2009): “On the International Transmission of Technology Shocks,” *Journal of International Economics* 78: 45-59.

Engel, C., and J. Wang (2011): “International Trade in Durable Goods: Understanding Volatility, Cyclicity, and Elasticities,” *Journal of International Economics* 83: 37-52.

Kose, M. A., C. Otrok, and E. Prasad (2012): “Global Business Cycles: Convergence or Decoupling?” *International Economic Review* 53: 511-538.

Kose, M. A., and K.-M. Yi (2006): “Can the Standard International Business Cycle Model Explain the Relation between Trade and Comovement?” *Journal of International Economics* 68: 267-295.

Mandelman, F. S., P. Rabanal, J. F. Rubio-Ramírez, and D. Vilán (2011): “Investment-Specific Technology Shocks and International Business Cycles: An Empirical Assessment,” *Review of Economic Dynamics* 14: 136-155.

Mendoza, E. G. (1991): “Real Business Cycles in a Small Open Economy,” *American Economic Review* 81: 797-818.

© Perri, F., and V. Quadrini (2008): “Understanding the International Great Moderation,” *mimeo*, University of Minnesota and University of Southern California.

Raffo, A. (2008): “Net Exports, Consumption Volatility and International Business Cycle Models,” *Journal of International Economics* 75: 14-29.

© Raffo, A. (2010): “Technology Shocks: Novel Implications for International Business Cycles,” International Finance DP 992, Board of Governors of the Federal Reserve System.

Stockman, A. C., and L. L. Tesar (1995): “Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Co-Movements,” *American Economic Review* 85: 168-185.

3. Macroeconomic Interdependence under Sticky Prices

Adolfson, M., S. Laséen, J. Lindé, and M. Villani (2007): “Bayesian Estimation of an Open Economy DSGE Model with Incomplete Pass-Through,” *Journal of International Economics* 72: 481-511.

Baxter, M., and A. C. Stockman (1989): "Business Cycles and the Exchange-Rate Regime: Some International Evidence," *Journal of Monetary Economics* 23: 377-400.

Benigno, G., and C. Thoenissen (2003): "Equilibrium Exchange Rates and Supply Side Performance," *Economic Journal* 113: 103-124.

Bergin, P. R. (2003): "Putting the 'New Open Economy Macroeconomics' to a Test," *Journal of International Economics* 60: 3-34.

Betts, C., and M. B. Devereux (2000): "Exchange Rate Dynamics in a Model of Pricing to Market," *Journal of International Economics* 50: 215-244. (Note the Erratum in *Journal of International Economics* 52: 207-208.)

Carvalho, C., and F. Nechio (2011): "Aggregation and the PPP Puzzle in a Sticky Price Model," *American Economic Review*: 2391-2424.

© Casas, C., F. Diez, G. Gopinath, and P.-O. Gourinchas (2017): "Dominant Currency Paradigm," *mimeo*, Banco de la República, Federal Reserve Bank of Boston, Harvard University, and University of California, Berkeley.

Chari, V. V., P. J. Kehoe, and E. R. McGrattan (2002): "Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?" *Review of Economic Studies* 69: 533-563.

Corsetti, G., and P. Pesenti (2001): "Welfare and Macroeconomic Interdependence," *Quarterly Journal of Economics* 116: 421-446.

Corsetti, G., and P. Pesenti (2005): "The Simple Geometry of Transmission and Stabilization in Closed and Open Economies," NBER WP 11341.

Devereux, M. B., C. M. Engel, and P. E. Storgaard (2004): "Endogenous Exchange Rate Pass-Through when Nominal Prices Are Set in Advance," *Journal of International Economics* 63: 263-291.

Dornbusch, R. (1976): "Expectations and Exchange Rate Dynamics," *Journal of Political Economy* 84: 1161-1176.

Engel, C. (2006): "Equivalence Results for Optimal Pass-Through, Optimal Indexing to Exchange Rates, and Optimal Choice of Currency for Export Pricing," *Journal of the European Economic Association* 4: 1249-1260.

Faia, E. (2007): "Finance and International Business Cycles," *Journal of Monetary Economics* 54: 1018-1034.

Farhi, E., and M. Maggiori (forthcoming): "A Model of the International Monetary System," *Quarterly Journal of Economics*.

Gertler, M. J., S. Gilchrist, and F. M. Natalucci (2007): "External Constraints on Monetary Policy and the Financial Accelerator," *Journal of Money, Credit and Banking* 39: 295-330.

- Gopinath, G., and O. Itskhoki (2010): “Frequency of Price Adjustment and Pass-through,” *Quarterly Journal of Economics* 125: 675-727.
- Gopinath, G., O. Itskhoki, and R. Rigobon (2010): “Currency Choice and Exchange Rate Pass-through,” *American Economic Review* 100: 304-336.
- Gopinath, G., and R. Rigobon (2008): “Sticky Borders,” *Quarterly Journal of Economics* 123: 531-575.
- Justiniano, A., and B. Preston (2010a): “Can Structural Small Open Economy Models Account for the Influence of Foreign Shocks?” *Journal of International Economics* 81: 61-74.
- Justiniano, A., and B. Preston (2010b): “Monetary Policy and Uncertainty in an Empirical Small Open Economy Model,” *Journal of Applied Econometrics* 25: 93-128.
- Kim, S., and J. Lee (2015): “International Macroeconomic Fluctuations,” *Macroeconomic Dynamics* 19: 1509-1539.
- Kollmann, R. (2001a): “Explaining International Comovements of Output and Asset Returns: The Role of Money and Nominal Rigidities,” *Journal of Economic Dynamics and Control* 25:1547-1583.
- Kollmann, R. (2001b): “The Exchange Rate in a Dynamic-Optimizing Business Cycle Model with Nominal Rigidities: A Quantitative Investigation,” *Journal of International Economics* 55: 243-262.
- McCallum, B. T., and E. Nelson (2000): “Monetary Policy for an Open Economy: An Alternative Framework with Optimizing Agents and Sticky Prices,” *Oxford Review of Economic Policy* 16: 74-91.
- Neiman, B. (2010): “Stickiness, Synchronization, and Passthrough in Intrafirm Trade Prices,” *Journal of Monetary Economics* 57: 295-308.
- Obstfeld, M., and K. Rogoff (1995): “Exchange Rate Dynamics Redux,” *Journal of Political Economy* 103: 624-660.
- Obstfeld, M., and K. Rogoff (2000): “New Directions for Stochastic Open Economy Models,” *Journal of International Economics* 50: 117-153.
- Patureau, L. (2007): “Pricing to Market, Limited Participation, and Exchange Rate Dynamics,” *Journal of Economic Dynamics and Control* 31: 3281-3320.
- Povoledo, L. (2013): “A Note on the Volatility of the Tradeable and Nontradeable Sectors,” *Macroeconomic Dynamics* 17: 1158-1168.
- Tille, C. (2001): “The Role of Consumption Substitutability in the International Transmission of Monetary Shocks,” *Journal of International Economics* 53: 421-444.
- Tille, C. (2005): “The Welfare Effect of International Asset Market Integration under Nominal Rigidities,” *Journal of International Economics* 65: 221-247.

4. Endogenous Interest Rate Setting and Exchange Rate Dynamics

Benigno, G. (2004): “Real Exchange Rate Persistence with Endogenous Monetary Policy,” *Journal of Monetary Economics* 51: 473-502.

Benigno, G., and P. Benigno (2008): “Exchange Rate Determination under Interest Rate Rules,” *Journal of International Money and Finance* 27: 971-993.

Benigno, G., P. Benigno, and F. Ghironi (2007): “Interest Rate Rules for Fixed Exchange Rate Regimes,” *Journal of Economic Dynamics and Control* 31: 2196-2211.

Carlstrom, C. T., T. S. Fuerst, and F. Ghironi (2006): “Does It Matter (for Equilibrium Determinacy) What Price Index the Central Bank Targets?” *Journal of Economic Theory* 128: 214-231.

Cavallo, M., and F. Ghironi (2002): “Net Foreign Assets and the Exchange Rate: Redux Revived,” *Journal of Monetary Economics* 49: 1057-1097.

De Fiore, F., and Z. Liu (2005): “Does Trade Openness Matter for Aggregate Instability?” *Journal of Economic Dynamics and Control* 29: 1165-1192.

Dotsey, M., and M. Duarte (2008): “Nontradable Goods, Market Segmentation, and Exchange Rates,” *Journal of Monetary Economics* 55: 1129-1142.

Engel, C. M., and K. D. West (2005): “Exchange Rates and Fundamentals,” *Journal of Political Economy* 113: 485-517.

Jääskelä, J., and M. Kulish (2010): “The Butterfly Effect of Small Open Economies,” *Journal of Economic Dynamics and Control* 34: 1295-1304.

Linnemann, L., and A. Schabert (2006): “Monetary Policy and the Taylor Principle in Open Economies,” *International Finance* 9: 343-367.

© Zanna, L. F. (2003): “Interest Rate Rules and Multiple Equilibria in the Small Open Economy,” IFDP 2003-785, Board of Governors of the Federal Reserve System.

5. Optimal Monetary Policy in Open Economies

Auray, S., and A. Eyquem (2013): “On Financial Markets Incompleteness, Price Stickiness, and Welfare in a Monetary Union,” *Annales d'Economie et de Statistiques* 109-110: 205-234.

Auray, S., and A. Eyquem (2014): “Welfare Reversals in a Monetary Union,” *American Economic Journal: Macroeconomics*, 6: 246-290.

Benigno, G., and P. Benigno (2003): “Price Stability in Open Economies,” *Review of Economic Studies* 70: 743-764.

Benigno, G., and P. Benigno (2006): “Designing Targeting Rules for International Monetary Policy Cooperation,” *Journal of Monetary Economics* 53: 473-506.

Benigno, G., and P. Benigno (2008): “Implementing International Monetary Cooperation through Inflation Targeting,” *Macroeconomic Dynamics* 12: 45-59.

Benigno, P. (2009): “Price Stability with Imperfect Financial Integration,” *Journal of Money, Credit and Banking* 41: 121-149.

Benigno, P. (2004): “Optimal Monetary Policy in a Currency Area,” *Journal of International Economics* 63: 293-320.

☺ Bodenstein, M., L. Guerrieri, and J. LaBriola (2014): “Macroeconomic Policy Games,” *mimeo*, National University of Singapore, Board of Governors of the Federal Reserve System, and University of California, Berkeley.

Campolmi, A., and E. Faia (2015): “Rethinking Optimal Exchange Rate Regimes with Labour Frictional Labour Markets,” *Macroeconomic Dynamics* 19: 1116-1147.

Clarida, R., J. Galí, and M. Gertler (2001): “Optimal Monetary Policy in Open versus Closed Economies: An Integrated Approach,” *American Economic Review Papers and Proceedings* 91: 248-252.

Corsetti, G., L. Dedola, and S. Leduc (2012): “Optimal Monetary Policy in Open Economies,” in B. Friedman and M. Woodford (eds.), *Handbook of Monetary Economics*, vol. 3, pp. 861-933, Amsterdam: Elsevier.

Corsetti, G., and P. Pesenti (2005): “International Dimensions of Optimal Monetary Policy,” *Journal of Monetary Economics* 52: 281-305.

De Paoli, B. (2009a): “Monetary Policy and Welfare in a Small Open Economy,” *Journal of International Economics* 77: 11-22.

De Paoli, B. (2009b): “Monetary Policy in a Small Open Economy: The Role of the Asset Market Structure,” *Journal of Money, Credit, and Banking* 41: 1301-1330.

Devereux, M. B., and C. M. Engel (2003): “Monetary Policy in the Open Economy Revisited: Exchange Rate Flexibility and Price Setting Behavior,” *Review of Economic Studies* 70: 765-783.

Dmitriev, M., and J. Hoddenbagh (2012): “Price Stability in Small Open Economies,” *mimeo*, Florida State University and Johns Hopkins University.

Duarte, M., and M. Obstfeld (2008): “Monetary Policy in the Open Economy Revisited: The Case for Exchange-Rate Flexibility Restored,” *Journal of International Money and Finance* 27: 949-957.

Engel, C. (2016a): “Policy Cooperation, Incomplete Markets and Risk Sharing,” *IMF Economic Review* 64: 103-133.

Engel, C. (2016b): “International Coordination of Central Bank Policy,” *Journal of International Money and Finance* 67: 13-24.

Faia, E., and E. Iliopoulos (2011): “Financial Openness, Financial Frictions and Optimal Monetary Policy,” *Journal of Economic Dynamics and Control* 35: 1976-1996.

Faia, E. (2010): “Financial Frictions and the Choice of Exchange Rate Regimes,” *Economic Inquiry* 48: 965-982.

Forlati, C. (2015): “On the Benefits of a Monetary Union: Does It Pay to Be Bigger?” *Journal of International Economics* 97: 448-463.

Gali, J., and T. Monacelli (2005): “Monetary Policy and Exchange Rate Volatility in a Small Open Economy,” *Review of Economic Studies* 72: 707-734.

Kollmann, R. (2002): “Monetary Policy Rules in the Open Economy: Effects on Welfare and Business Cycles,” *Journal of Monetary Economics* 49: 989-1015.

Lombardo, G., and F. Ravenna (2014): “Openness and Optimal Monetary Policy,” *Journal of International Economics* 93: 153-172.

Lombardo, G., and A. Sutherland (2006): “Policy Instrument Choice and Non-Coordinated Monetary Policy in Interdependent Economies,” *Journal of International Money and Finance* 25: 855-873.

Obstfeld, M. (2002): “Inflation Targeting, Exchange-Rate Pass-Through, and Volatility,” *American Economic Review Papers and Proceedings* 92: 102-107.

Obstfeld, M., and K. Rogoff (2002): “Global Implications of Self-Oriented National Monetary Rules,” *Quarterly Journal of Economics* 117: 503-536.

© Sutherland, A. (2002): “A Simple Second-Order Solution Method for Dynamic General Equilibrium Models,” CEPR DP 3554.

© Sutherland, A. (2004): “International Monetary Policy Coordination and Financial Market Integration,” CEPR DP 4251.

Sutherland, A. (2005): “Incomplete Pass-Through and the Welfare Effects of Exchange Rate Variability,” *Journal of International Economics* 65: 375-399.

Sutherland, A. (2006): “The Expenditure Switching Effect, Welfare and Monetary Policy in a Small Open Economy,” *Journal of Economic Dynamics and Control* 30: 1159-1182.

Sutherland, A., and O. Senay (2014): “Endogenous Price Flexibility and Optimal Monetary Policy,” *Oxford Economic Papers* 66: 1121-1144.

6. Global Imbalances and International Financial Adjustment

Blanchard, O. J., F. Giavazzi, and F. Sá (2005): “International Investors, the U.S. Current Account, and the Dollar,” *Brookings Papers on Economic Activity* 1:2005, 1-65 (including comments).

Benigno, P. (2009): “Are Valuation Effects Desirable from a Global Perspective?” *Journal of Development Economics* 89: 170-180.

- Caballero, R. J., E. Farhi, and P.-O. Gourinchas (2008): "An Equilibrium Model of 'Global Imbalances' and Low Interest Rates," *American Economic Review* 98: 358-393.
- Cavallo, M., and C. Tille (2006a): "Current Account Adjustment with High Financial Integration: A Scenario Analysis," *FRBSF Economic Review* March 2006: 31-45.
- © Cavallo, M., and C. Tille (2006b): "Could Capital Gains Smooth a Current Account Rebalancing?" FRBSF WP 2006-03.
- Chang, Y., S.-B. Kim, and J. Lee (2013): "Accounting for Global Dispersion of Current Accounts," *Review of Economic Dynamics* 16: 477-496.
- Curcuru, S. E., T. Dvorak, and F. E. Warnock (2008): "Cross-Border Returns Differentials," *Quarterly Journal of Economics* 123: 1495-1530.
- Freund, C., and F. E. Warnock (2005): "Current Account Reversals in Industrial Countries: The Bigger They Are, the Harder They Fall?" in Clarida, R. (ed.), *G7 Current Account Imbalances: Sustainability and Adjustment*, Chicago: University of Chicago Press.
- Fogli, A., and F. Perri (2006): "The 'Great Moderation' and the U.S. External Imbalance," *Monetary and Economic Studies* 26: 209-225.
- Gourinchas, P.-O., and H. Rey (2007a): "International Financial Adjustment," *Journal of Political Economy* 115: 665-703.
- Gourinchas, P.-O., and H. Rey (2007b): "From World Banker to World Venture Capitalist: U.S. External Adjustment and the Exorbitant Privilege," in R. Clarida (ed.), *G-7 Current Account Imbalances: Sustainability and Adjustment*, Chicago: University of Chicago Press.
- Kim, S. (2002): "Nominal Revaluation of Cross-Border Assets, Term-of-Trade Changes, International Portfolio Diversification, and International Risk Sharing," *Southern Economic Journal* 69: 327-344.
- Lane, P. R., and G. M. Milesi-Ferretti (2003): "International Financial Integration," *IMF Staff Papers* 50: 83-113.
- Lane, P. R., and G. M. Milesi-Ferretti (2004): "Financial Globalization and Exchange Rates," CEPR DP 4745.
- Mann, C. L. (2002): "Perspectives on the U.S. Current Account Deficit and Sustainability," *Journal of Economic Perspectives* 16: 131-152.
- Mendoza, E. G., V. Quadrini, and J.-V. Rios-Rull (2009): "Financial Integration, Financial Development, and Global Imbalances," *Journal of Political Economy* 117: 371-416
- Obstfeld, M. (2004): "External Adjustment," *Review of World Economics* 140: 541-568.
- Obstfeld, M., and K. Rogoff (2005): "Global Current Account Imbalances and Exchange Rate Adjustments," *Brookings Papers on Economic Activity* 1:2005, 67-146 (including comments).

Obstfeld, M., and K. Rogoff (2006): “The Unsustainable U.S. Current Account Position Revisited,” CEPR DP 5416.

Tille, C. (2003): “The Impact of Exchange Rate Movements on U.S. Foreign Debt,” *Current Issues in Economics and Finance* 9 (January), Federal Reserve Bank of New York.

Tille, C. (2008): “Financial Integration and the Wealth Effect of Exchange Rate Fluctuations,” *Journal of International Economics* 75: 283-294.

7. Understanding International Portfolios and Valuation Effects

Baxter, M., and U. J. Jermann (1997): “The International Diversification Puzzle Is Worse than You Think,” *American Economic Review* 87: 170-191.

Coeurdacier, N. (2009): “Do Trade Costs in Goods Markets Lead to Home Bias in Equities?” *Journal of International Economics* 77: 86-100.

Coeurdacier, N., and P.-O. Gourinchas (2016): “When Bonds Matter: Home Bias in Goods and Assets,” *Journal of Monetary Economics* 82: 119-137.

Coeurdacier, N., R. Kollmann, and P. Martin (2008): “International Portfolios with Supply, Demand and Redistributive Shocks,” in Clarida, R., and F. Giavazzi (eds.), *NBER International Seminar on Macroeconomics 2007*, Chicago: University of Chicago Press, 231-263.

© Devereux, M. B., and M. Saito (2006): “A Portfolio Theory of International Capital Flows,” *mimeo*, University of British Columbia and Hitotsubashi University.

Devereux, M. B., and A. Sutherland (2007a): “Country Portfolio Dynamics,” CEPR DP 6208.

Devereux, M. B., and A. Sutherland (2007b): “Monetary Policy and Portfolio Choice in an Open Economy Macro Model,” *Journal of the European Economic Association (Papers and Proceedings)* 5: 491-499.

Devereux, M. B., and A. Sutherland (2008): “Financial Globalization and Monetary Policy,” *Journal of Monetary Economics* 55: 1363-1375.

Devereux, M. B., and A. Sutherland (2010): “Valuation Effects and the Dynamics of Net External Assets,” *Journal of International Economics* 80: 129-143.

Devereux, M. B., and A. Sutherland (2011): “Country Portfolios in Open Economy Macro Models,” *Journal of the European Economic Association* 9: 337-369.

Devereux, M. B., A. Sutherland, and O. Senay (2014): “Nominal Stability and Financial Globalization,” *Journal of Money, Credit and Banking* 46: 921-959.

Engel, C. M., and A. Matsumoto (2009): “The International Diversification Puzzle When Prices Are Sticky: It’s Really about Exchange-Rate Hedging not Equity Portfolios,” *American Economic Journal: Macroeconomics* 1: 155-188.

Evans, M. D. D., and V. V. Hnatkovska (2007): “Financial Integration, Macroeconomic Volatility and Welfare,” *Journal of the European Economic Association (Papers and Proceedings)* 5: 500-508.

Evans, M. D. D., and V. V. Hnatkovska (2012): “A Method for Solving General Equilibrium Models with Incomplete Markets and Many Financial Assets,” *Journal of Economic Dynamics and Control* 36: 1909-1930.

Evans, M. D. D., and V. V. Hnatkovska (2014): “International Capital Flows, Returns and World Financial Integration,” *Journal of International Economics* 92: 14-33.

Fitzgerald, D. (2012): “Trade Costs, Asset Market Frictions and Risk Sharing,” *American Economic Review* 102: 2700-2733.

Ghironi, F., J. Lee, and A. Rebucci (2015): “The Valuation Channel of External Adjustment,” *Journal of International Money and Finance* 57: 86-114.

Heathcote, J., and F. Perri (2013): “The International Diversification Puzzle is not as Bad as You Think,” *Journal of Political Economy* 121: 1108-1159.

Hnatkovska, V. V. (2010): “Home Bias and High Turnover: Dynamic Portfolio Choice with Incomplete Markets,” *Journal of International Economics* 80: 113-128.

© Kollmann, R. (2006): “International Portfolio Equilibrium and the Current Account,” CEPR DP 5512.

Lewis, K. K. (1995): “Puzzles in International Financial Markets,” in G. M. Grossman and K. Rogoff (eds.), *Handbook of International Economics*, vol. 3, pp. 1913-1971, Amsterdam: Elsevier.

Obstfeld, M. (2006): “International Risk Sharing and the Costs of Trade,” The Ohlin Lectures, *mimeo*, University of California, Berkeley.

Sá, F., and F. Viani (2013): “Shifts in Portfolio Preferences of International Investors: An Application to Sovereign Wealth Funds,” *Review of International Economics* 21: 868-885.

Tille, C., and E. van Wincoop (2010): “International Capital Flows,” *Journal of International Economics* 80: 157-175.

van Wincoop, E., and F. E. Warnock (2010): “Can Trade Costs in Goods Explain Home Bias in Assets?” *Journal of International Money and Finance* 29: 1108-1123.

8. The Crises of 2007-...

Several non-technical references on the wave of crises that began in 2007 are in the syllabus of ECON 425 Topics in Monetary Economics: The International Monetary System from the Gold Standard to Globalization. These references give you a good idea of issues and questions. A large number of papers have already been written in closed-economy macroeconomics on models that explain the (U.S.) crisis. Some references on various aspects of the global crisis of 2007-2009 and the European sovereign debt crisis that began in 2010 are below. In some cases (such as some

analyses of capital controls or fiscal policy), the papers do not address the crises directly, but interest in their topics was spurred by the crises.

8.a. Some Models of the Global Crisis and Policy Response

Bacchetta, P., and E. Van Wincoop (2013): “Sudden Spikes in Global Risk,” *Journal of International Economics* 89: 511-521.

Bacchetta, P., and E. van Wincoop (2016): “The Great Recession: A Self-Fulfilling Global Panic,” *American Economic Journal: Macroeconomics* 8: 177-198.

© Benigno, G., and L. Fornaro (2017): “Stagnation Traps,” *mimeo*, London School of Economics and Universitat Pompeu Fabra.

Boz, E., and E. G. Mendoza (2014): “Financial Innovation, the Discovery of Risk, and the U.S. Credit Crisis,” *Journal of Monetary Economics* 62: 1-22.

Cook, D., and M. B. Devereux (2013): “Sharing the Burden: Monetary and Fiscal Policy in a World Liquidity Trap,” *American Economic Journal: Macroeconomics* 5: 190-228.

Cook, D., and M. B. Devereux (2016): “Exchange Rate Flexibility under the Zero Lower Bound,” *Journal of International Economics* 101: 52-69.

Corsetti, G., A. Meier, and G. J. Müller (2010): “Debt Consolidation and Fiscal Stabilization of Deep Recessions,” *American Economic Review Papers and Proceedings* 100: 41-45.

Mendoza, E. G., and V. Quadrini (2010): “Financial Globalization, Financial Crises and Contagion,” *Journal of Monetary Economics* 57: 24-39.

© Ozhan, G. K. (2016): “Financial Intermediation, Resource Allocation, and Macroeconomic Interdependence,” *mimeo*, University of St. Andrews.

Perri, F., and V. Quadrini (forthcoming): “International Recessions,” *American Economic Review*.

8.b. House Prices and the Current Account

© Coimbra, N. (2010): “An Iberian Disease? On Current Account Imbalances within a Monetary Union,” *mimeo*, Paris School of Economics.

Gete, P. (2015): “Housing Demand, Savings Gluts and Current Account Dynamics,” *mimeo*, Georgetown University.

Punzi, M. T. (2013): “Housing Market and Current Account Imbalances in the International Economy,” *Review of International Economics* 21: 601-613.

8.c. Crisis, Macro-Prudential Policies, Capital Controls

Benigno, G., H. Chen, C. Otrok, A. Rebucci, and E. R. Young (2011): “Revisiting Overborrowing and Its Policy Implications,” in L. F. Cespedes, R. Chang, and D. Saravia (eds.), *Monetary Policy under Financial Turbulence*, Central Bank of Chile.

Benigno, G., H. Chen, C. Otrok, A. Rebucci, and E. R. Young (2012): “Optimal Policy for Macro-Financial Stability,” CEP DP 1172.

© Bianchi, J., and E. G. Mendoza (2010): “Overborrowing, Financial Crises and ‘Macro-Prudential’ Taxes,” NBER WP 16091.

Costinot, A., G. Lorenzoni, and I. Werning (2014): “A Theory of Capital Controls as Dynamic Terms-of-Trade Manipulation,” *Journal of Political Economy* 122: 77-128.

© De Paoli, B., and A. Lipińska (2013): “Capital Controls: A Normative Analysis,” Federal Reserve Bank of New York Staff Report 600.

Dominguez, K. M. E., Y. Hashimoto, and T. Ito (2012): “International Reserves and the Global Financial Crisis,” *Journal of International Economics* 88: 388-406.

Farhi, E., and I. Werning (2012): “Dealing with the Trilemma: Optimal Capital Controls with Fixed Exchange Rates,” *mimeo*, Harvard University and MIT.

Farhi, E., and I. Werning (2016): “A Theory of Macroprudential Policies in the Presence of Nominal Rigidities,” *Econometrica* 84: 1645-1704.

© Fornaro, L. (2012): “International Debt Deleveraging,” *mimeo*, London School of Economics.

Fornaro, L. (2015): “Financial Crises and Exchange Rate Policy,” *Journal of International Economics* 95: 202-215.

Jeanne, O., and A. Korinek (2010): “Managing Credit Booms and Busts: A Pigouvian Taxation Approach,” NBER WP 16377.

Jeanne, O., and A. Korinek (2011): “Macroprudential Regulation Versus Mopping Up After the Crash,” *mimeo*, Johns Hopkins University and University of Maryland.

© Korinek, A. (2011): “Systemic Risk-Taking: Amplification Effects, Externalities, and Regulatory Responses,” *mimeo*, University of Maryland.

Schmitt-Grohé, S., and M. Uribe (2016): “Downward Nominal Wage Rigidity, Currency Pegs, and Involuntary Unemployment,” *Journal of Political Economy* 124: 1466-1514.

8.d. Sovereign Debt Crisis and Macroeconomic Policy

Corsetti, G., and L. Dedola (2011): “Fiscal Crises, Confidence and Default: A Bare-Bones Model with Lessons for the Euro Area,” *mimeo*, Cambridge University and European Central Bank.

Corsetti, G., and L. Dedola (2016): “The Mystery of the Printing Press: Self-Fulfilling Debt Crises and Monetary Sovereignty,” *Journal of the European Economic Association* 14: 1329-1371.

Corsetti, G., K. Kuester, A. Meier, and G. J. Müller (2013): “Sovereign Risk, Fiscal Policy, and Macroeconomic Stability,” *Economic Journal* 123: F99-F132.

© Dmitriev, M., and J. Hoddenbagh (2013): “The Optimal Design of a Fiscal Union,” *mimeo*, Florida State University and Johns Hopkins University.

Farhi, E., G. Gopinath, and O. Itskhoki (2014): “Fiscal Devaluations,” *Review of Economic Studies* 81: 725-760.

Farhi, E., and I. Werning (forthcoming): “Fiscal Unions,” *American Economic Review*.

© Farhi, E., and I. Werning (2014): “Labor Mobility within Currency Unions,” *mimeo*, Harvard University and MIT.

Farhi, E., and I. Werning (forthcoming): “Fiscal Multipliers: Liquidity Traps and Currency Unions,” *Handbook of Macroeconomics*, Amsterdam: Elsevier.

© Kriwoluzky, A., G. J. Müller, and M. Wolf (2016): “Exit Expectations and Debt Crises in Currency Unions,” *mimeo*, University of Halle, University of Tübingen, and University of Bonn.