

Econ 269: International Finance and Exchange Rates II

Spring 2018

Instructor: Adrien Auclert (plus guest lectures by Oleg Itskhoki).

Lectures: Tuesdays and Wednesdays, 5:30–7:20pm in Econ 106. (Note unusual times and days).

Course objective: This course is one of two parts of the second year PhD International Macroeconomics sequence at Stanford. The other part (Econ 268) was taught by Patrick Kehoe in the fall quarter. We will cover both standard topics and recent advances in the field. The goal is to make you aware of the core body of research in international macro, and to inspire and prepare you to write your own research papers.

Textbooks: Although we will not follow any textbook, the following will be useful for background reading:

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

Grading: Grading will be based on:

- a) Three problem sets designed to develop a mixture of theoretical, empirical, and quantitative skills. (Worth 50% of your grade)
- b) A research proposal, which should be 4–5 pages long and describe: the question you want to address; why you think it is important; why you think the answer of the previous literature is unsatisfactory; and how you plan to improve it. (Worth 50% of your grade)

Prerequisites: First year core PhD macroeconomics sequence or equivalent. The class will be technical and will build on knowledge and tools developed in the first year. Please contact me if you want to take the class without having completed the core sequence.

Students with Documented Disabilities: Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, [URL](#)).

Topics

We will be covering the following topics.

- a) **Classic topics in the field.** Intertemporal approach to the current account, international real business cycle models, international risk-sharing, gains from financial integration, global imbalances, uncovered interest rate parity. (6 classes)
- b) **Monetary models.** Review of closed economy New Keynesian models, HANK models, international dimensions of monetary policy, currency unions. (8 classes)
- c) **Exchange rates and prices.** Sticky price models of exchange rates, pricing-to-market and terms of trade, currency choice and international prices, financial models of exchange rates. (Guest lectures by Oleg Itskhoki, 2 classes)
- d) **Sovereign debt.** Foundations, empirics, and quantitative models. (2 classes)
- e) **International finance policy.** Capital controls, foreign exchange interventions. (2 classes)

There is some flexibility in terms of both topics and timing. Please reach out if there are topics you are especially interested in and I will try to accomodate them.

Last Update: 3/20/2018

1 The classics

Obstfeld, M. and Rogoff, K. (2001). **The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?** *NBER Macroeconomics Annual* 15:339–412

1.1 Intertemporal approach to the current account

*OR, Chapters 1–2

*Aguiar, M. and Gopinath, G. (2007). **Emerging Market Business Cycles: The Cycle Is the Trend.** *Journal of Political Economy* 115(1):69–102

*Sheffrin, S.M. and Woo, W.T. (1990). **Present Value Tests of an Intertemporal Model of the Current Account.** *Journal of International Economics* 29(3–4):237–253

*Gourinchas, P.O. and Rey, H. (2015). **Chapter 10 - External Adjustment, Global Imbalances, Valuation Effects.** In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 585–645. Elsevier [sections 2 and 5]

Nason, J.M. and Rogers, J.H. (2006). **The Present-Value Model of the Current Account Has Been Rejected: Round up the Usual Suspects.** *Journal of International Economics* 68(1):159–187

Gourinchas, P.O. and Rey, H. (2007). **International Financial Adjustment.** *Journal of Political Economy* 115(4):665–703

Tille, C. (2008). **Financial Integration and the Wealth Effect of Exchange Rate Fluctuations.** *Journal of International Economics* 75(2):283–294

Curcuru, S.E., Dvorak, T. and Warnock, F.E. (2008). **Cross-Border Returns Differentials.** *The Quarterly Journal of Economics* 123(4):1495–1530

Obstfeld, M. (2012). **Ely Lecture: Does the Current Account Still Matter?** *American Economic Review Papers and Proceedings* 102(3):1–23

Arezki, R., Ramey, V.A. and Sheng, L. (2017). **News Shocks in Open Economies: Evidence from Giant Oil Discoveries.** *The Quarterly Journal of Economics* 132(1):103–155

1.2 Capital flows

*Gourinchas, P.O. and Jeanne, O. (2013). **Capital Flows to Developing Countries: The Allocation Puzzle.** *Review of Economic Studies* 80(4):1484–1515

*Lucas, R.E. (1990). **Why Doesn't Capital Flow from Rich to Poor Countries?** *American Economic Review Papers and Proceedings* 80(2):92–96

- *Caselli, F. and Feyrer, J. (2007). **The Marginal Product of Capital**. *Quarterly Journal of Economics* 122(2):535–568
- Feldstein, M. and Horioka, C. (1980). **Domestic Saving and International Capital Flows**. *Economic Journal* 90(358):314–329
- Kraay, A. and Ventura, J. (2000). **Current Accounts in Debtor and Creditor Countries**. *Quarterly Journal of Economics* 115(4):1137–1166
- Gourinchas, P.O. and Jeanne, O. (2006). **The Elusive Gains from International Financial Integration**. *The Review of Economic Studies* 73(3):715–741
- Aguiar, M. and Amador, M. (2011). **Growth in the Shadow of Expropriation**. *Quarterly Journal of Economics* 126(2):651–697

1.3 Global imbalances

- *Caballero, R.J., Farhi, E. and Gourinchas, P.O. (2008). **An Equilibrium Model of “Global Imbalances” and Low Interest Rates**. *American Economic Review* 98(1):358–393
- *Mendoza, E.G., Quadrini, V. and Ríos-Rull, J.V. (2009). **Financial Integration, Financial Development, and Global Imbalances**. *Journal of Political Economy* 117(3):371–416
- Coeurdacier, N., Guibaud, S. and Jin, K. (2015). **Credit Constraints and Growth in a Global Economy**. *American Economic Review* 105(9):2838–2881
- Gourinchas, P.O. and Rey, H. (2015). **Chapter 10 - External Adjustment, Global Imbalances, Valuation Effects**. In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 585–645. Elsevier [sections 3 and 4]
- Song, Z., Storesletten, K. and Zilibotti, F. (2011). **Growing Like China**. *American Economic Review* 101(1):196–233
- Antràs, P. and Caballero, R.J. (2009). **Trade and Capital Flows: A Financial Frictions Perspective**. *Journal of Political Economy* 117(4):701–744

1.4 Business cycles and international risk-sharing, I: complete markets

OR, Chapter 5

- *Backus, D.K., Kehoe, P.J. and Kydland, F.E. (1992). **International Real Business Cycles**. *Journal of Political Economy* 100(4):745–775
- *Backus, D.K. and Smith, G.W. (1993). **Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods**. *Journal of International Economics* 35(3–4):297–316
- *Backus, D.K., Kehoe, P.J. and Kydland, F.E. (1994). **Dynamics of the Trade Balance and the Terms**

of Trade: The J-Curve? *The American Economic Review* 84(1):84–103

Backus, D.K. and Kehoe, P.J. (1992). **International Evidence on the Historical Properties of Business Cycles.** *The American Economic Review* 82(4):864–888

Backus, D.K., Kehoe, P.J. and Kydland, F.E. (1993). **International business cycles: Theory vs. evidence.** *Federal Reserve Bank of Minneapolis Quarterly Review* 17(4):14

Stockman, A.C. and Tesar, L.L. (1995). **Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Comovements.** *The American Economic Review* 85(1):168–185

Heathcote, J. and Perri, F. (2015). **Chapter 9 - Assessing International Efficiency.** In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 523–584. Elsevier

1.5 Business cycles and international risk-sharing, II: incomplete markets

*Baxter, M. and Crucini, M.J. (1995). **Business Cycles and the Asset Structure of Foreign Trade.** *International Economic Review* 36(4):821–854

*Cole, H.L. and Obstfeld, M. (1991). **Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter?** *Journal of Monetary Economics* 28(1):3–24

*Corsetti, G., Dedola, L. and Leduc, S. (2008). **International Risk Sharing and the Transmission of Productivity Shocks.** *Review of Economic Studies* 75(2):443–473

Mendoza, E.G. (1991). **Real Business Cycles in a Small Open Economy.** *The American Economic Review* 81(4):797–818

Correia, I., Neves, J.C. and Rebelo, S. (1995). **Business Cycles in a Small Open Economy.** *European Economic Review* 39(6):1089–1113

Neumeyer, P.A. and Perri, F. (2005). **Business Cycles in Emerging Economies: The Role of Interest Rates.** *Journal of Monetary Economics* 52(2):345–380

Schmitt-Grohe, S. and Uribe, M. (2003). **Closing Small Open Economy Models.** *Journal of International Economics* 61(1):163–185

1.6 UIP and foreign exchange puzzles

*Engel, C. (2015). **Chapter 8 - Exchange Rates and Interest Parity.** In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 453–522. Elsevier [section 4]

*Lustig, H. and Verdelhan, A. (2007). **The Cross Section of Foreign Currency Risk Premia and Consumption Growth Risk.** *American Economic Review* 97(1):89–117

- *Brandt, M.W., Cochrane, J.H. and Santa-Clara, P. (2006). **International Risk Sharing Is Better Than You Think, or Exchange Rates Are Too Smooth.** *Journal of Monetary Economics* 53(4):671–698
- Fama, E.F. (1984). **Forward and Spot Exchange Rates.** *Journal of Monetary Economics* 14(3):319–338
- Backus, D.K., Foresi, S. and Telmer, C.I. (2001). **Affine Term Structure Models and the Forward Premium Anomaly.** *The Journal of Finance* 56(1):279–304
- Burnside, C., Eichenbaum, M., Kleshchelski, I. and Rebelo, S. (2006). **The Returns to Currency Speculation.** Working Paper 12489, National Bureau of Economic Research
- Burnside, C., Eichenbaum, M., Kleshchelski, I. and Rebelo, S. (2011). **Do Peso Problems Explain the Returns to the Carry Trade?** *The Review of Financial Studies* 24(3):853–891
- Colacito, R. and Croce, M.M. (2011). **Risks for the Long Run and the Real Exchange Rate.** *Journal of Political Economy* 119(1):153–181
- Farhi, E. and Gabaix, X. (2016). **Rare Disasters and Exchange Rates.** *The Quarterly Journal of Economics* 131(1):1–52

2 Monetary models

2.1 The canonical New Keynesian model

- Galí, J. (2008). *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework.* Princeton University Press
- *Werning, I. (2012). **Managing a Liquidity Trap: Monetary and Fiscal Policy.** *Manuscript*
- *Cochrane, J.H. (2017). **The New-Keynesian Liquidity Trap.** *Journal of Monetary Economics* 92(Supplement C):47–63

2.2 Monetary policy in closed economies

- *Auclert, A. (2017). **Monetary Policy and the Redistribution Channel.** *Manuscript*
- *Kaplan, G., Moll, B. and Violante, G.L. (2018). **Monetary Policy According to HANK.** *American Economic Review* 108(3):697–743
- McKay, A., Nakamura, E. and Steinsson, J. (2016). **The Power of Forward Guidance Revisited.** *American Economic Review* 106(10):3133–3158
- Angeletos, G.M. and Lian, C. (2016). **Forward Guidance without Common Knowledge.** Working Paper 22785, National Bureau of Economic Research
- Farhi, E. and Werning, I. (2017b). **Monetary Policy, Bounded Rationality, and Incomplete Markets.** Working Paper 23281, National Bureau of Economic Research

2.3 Fiscal policy in closed economies

- *Woodford, M. (2011). **Simple Analytics of the Government Expenditure Multiplier.** *American Economic Journal: Macroeconomics* 3(1):1–35
- *Christiano, L., Eichenbaum, M. and Rebelo, S. (2011). **When Is the Government Spending Multiplier Large?** *Journal of Political Economy* 119(1):78–121
- *Auclert, A., Rognlie, M. and Straub, L. (2017). **The Intertemporal Keynesian Cross.** *Manuscript*
- McKay, A. and Reis, R. (2016). **The Role of Automatic Stabilizers in the U.S. Business Cycle.** *Econometrica* 84(1):141–194
- Auclert, A. and Rognlie, M. (2017). **A Note on Multipliers in NK Models with GHH Preferences.** *Manuscript*
- Hagedorn, M., Manovskii, I. and Mitman, K. (2017). **The Fiscal Multiplier.** *Manuscript*

2.4 Monetary policy in open economies

- *Galí, J. and Monacelli, T. (2005). **Monetary Policy and Exchange Rate Volatility in a Small Open Economy.** *Review of Economic Studies* 72(3):707–734
- *Devereux, M.B. and Engel, C. (2003). **Monetary Policy in the Open Economy Revisited: Price Setting and Exchange-Rate Flexibility.** *Review of Economic Studies* 70(4):765–783
- Obstfeld, M. and Rogoff, K. (1995). **Exchange Rate Dynamics Redux.** *Journal of Political Economy* 103(3):624–660
- Corsetti, G. and Pesenti, P. (2001). **Welfare and Macroeconomic Interdependence.** *Quarterly Journal of Economics* 116(2):421–445
- Clarida, R., Galí, J. and Gertler, M. (2002). **A Simple Framework for International Monetary Policy Analysis.** *Journal of Monetary Economics* 49(5):879–904
- Casas, C., Díez, F.J., Gopinath, G. and Gourinchas, P.O. (2016). **Dominant Currency Paradigm.** Working Paper 22943, National Bureau of Economic Research

2.5 Fiscal policy in open economies

- *Galí, J. and Monacelli, T. (2008). **Optimal Monetary and Fiscal Policy in a Currency Union.** *Journal of International Economics* 76(1):116–132
- *Farhi, E., Gopinath, G. and Itskhoki, O. (2014). **Fiscal Devaluations.** *Review of Economic Studies* 81(2):725–760
- *Farhi, E. and Werning, I. (2016). **Chapter 31 - Fiscal Multipliers: Liquidity Traps and Currency Unions.** In: H. Uhlig and J.B. Taylor (eds.) *Handbook of Macroeconomics*, vol. 2, pp. 2417–2492.

Elsevier

Benigno, P. (2004). **Optimal Monetary Policy in a Currency Area**. *Journal of International Economics* 63(2):293–320

Corsetti, G., Kuester, K. and Müller, G.J. (2013). **Floats, Pegs and the Transmission of Fiscal Policy**. *Central Banking, Analysis, and Economic Policies Book Series* 17:235–281

Farhi, E. and Werning, I. (2017a). **Fiscal Unions**. *American Economic Review* 107(12):3788–3834

2.6 Micro to macro with currency union models

*Nakamura, E. and Steinsson, J. (2014). **Fiscal Stimulus in a Monetary Union: Evidence from US Regions**. *American Economic Review* 104(3):753–792

Beraja, M., Hurst, E. and Ospina, J. (2016). **The Aggregate Implications of Regional Business Cycles**. *Manuscript, Chicago Booth*

Suárez Serrato, J.C. and Wingender, P. (2016). **Estimating Local Fiscal Multipliers**. Working Paper 22425, National Bureau of Economic Research

Hausman, J.K., Rhode, P.W. and Wieland, J. (2016). **Recovery from the Great Depression: The Farm Channel in Spring 1933**. *Manuscript*

House, C.L., Proebsting, C. and Tesar, L. (2015). **Austerity in the Aftermath of the Great Recession**. *Manuscript*

Chodorow-Reich, G. and Wieland, J. (2016). **Secular Labor Reallocation and Business Cycles**. Working Paper 21864, National Bureau of Economic Research

Chodorow-Reich, G. (2016). **Geographic Cross-Sectional Fiscal Multipliers: What Have We Learned?**

2.7 Optimal policy

*Benigno, P. and Woodford, M. (2003). **Optimal Monetary and Fiscal Policy: A Linear-Quadratic Approach**. *NBER Macroeconomics Annual* 18:271–333

*Corsetti, G., Dedola, L. and Leduc, S. (2010). **Chapter 16 - Optimal Monetary Policy in Open Economies**. In: B.M. Friedman and M. Woodford (eds.) *Handbook of Monetary Economics*, vol. 3, pp. 861–933. Elsevier

*De Paoli, B. (2009b). **Monetary Policy under Alternative Asset Market Structures: The Case of a Small Open Economy**. *Journal of Money, Credit and Banking* 41(7):1301–1330

- *Nuño, G. and Thomas, C. (2016). Optimal Monetary Policy with Heterogeneous Agents
- De Paoli, B. (2009a). *Monetary Policy and Welfare in a Small Open Economy*. *Journal of International Economics* 77(1):11–22
- Engel, C. (2011). *Currency Misalignments and Optimal Monetary Policy: A Reexamination*. *The American Economic Review* 101(6):2796–2822
- Benigno, P. and Woodford, M. (2005). *Inflation Stabilization and Welfare: The Case of a Distorted Steady State*. *Journal of the European Economic Association* 3(6):1185–1236
- Benigno, P. and Woodford, M. (2012). *Linear-Quadratic Approximation of Optimal Policy Problems*. *Journal of Economic Theory* 147(1):1–42
- Bhandari, A., Evans, D., Golosov, M. and Sargent, T. (2017). Optimal Fiscal-Monetary Policy with Redistribution. Tech. rep., Mimeo. New York University

3 Exchange rates and prices (by Oleg Itskhoki)

3.1 Introduction

- *Rogoff, K. (1996). *The Purchasing Power Parity Puzzle*. *Journal of Economic Literature* 34(2):647–668
- *Burstein, A. and Gopinath, G. (2015). *Chapter 7 - International Prices and Exchange Rates*. In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 391–451. Elsevier

3.2 Sticky price models of exchange rates

- *Chari, V.V., Kehoe, P.J. and McGrattan, E.R. (2002). *Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?* *Review of Economic Studies* 69(3):533–563
- *Carvalho, C. and Nechio, F. (2011). *Aggregation and the PPP Puzzle in a Sticky-Price Model*. *American Economic Review* 101(6):2391–2424

3.3 Pricing-to-market and terms of trade

- *Atkeson, A. and Burstein, A. (2008). *Pricing-to-Market, Trade Costs, and International Relative Prices*. *American Economic Review* 98(5):1998–2031
- *Amiti, M., Itskhoki, O. and Konings, J. (2014). *Importers, Exporters, and Exchange Rate Disconnect*. *American Economic Review* 104(7):1942–1978
- *Amiti, M., Itskhoki, O. and Konings, J. (2016). *International Shocks and Domestic Prices: How Large Are Strategic Complementarities?* Working Paper 22119, National Bureau of Economic

Research

3.4 Currency choice and international prices

*Gopinath, G., Itskhoki, O. and Rigobon, R. (2010). **Currency Choice and Exchange Rate Pass-Through**. *The American Economic Review* 100(1):304–336

*Mukhin, D. (2017). **An Equilibrium Model of the International Price System**. *Job market paper*

3.5 Currency choice and international prices

*Engel, C. and West, K.D. (2005). **Exchange Rates and Fundamentals**. *Journal of Political Economy* 113(3):485–517

*Itskhoki, O. and Mukhin, D. (2017). **Exchange Rate Disconnect in General Equilibrium**. Working Paper 23401, National Bureau of Economic Research

4 Sovereign Debt

Aguiar, M. and Amador, M. (2015). **Chapter 11 - Sovereign Debt**. In: E. Helpman, K. Rogoff and G. Gopinath (eds.) *Handbook of International Economics*, vol. 4, pp. 647–687. Elsevier

4.1 Classics

*Arellano, C. (2008). **Default Risk and Income Fluctuations in Emerging Economies**. *American Economic Review* 98(3):690–712

Aguiar, M. and Gopinath, G. (2006). **Defaultable Debt, Interest Rates and the Current Account**. *Journal of International Economics* 69(1):64–83

Eaton, J. and Gersovitz, M. (1981). **Debt with Potential Repudiation: Theoretical and Empirical Analysis**. *Review of Economic Studies* 48(2):289–309

Bulow, J. and Rogoff, K. (1989). **Sovereign Debt: Is to Forgive to Forget?** *American Economic Review* 79(1):43–50

Grossman, H.I. and van Huyck, J.B. (1988). **Sovereign Debt as a Contingent Claim: Excusable Default, Repudiation, and Reputation**. *American Economic Review* 78(5):1088–1097

Auclert, A. and Rognlie, M. (2016). **Unique Equilibrium in the Eaton–Gersovitz Model of Sovereign Debt**. *Journal of Monetary Economics* 84:134–146

4.2 Multiple equilibria

- *Calvo, G.A. (1988). **Servicing the Public Debt: The Role of Expectations**. *American Economic Review* 78(4):647–661
- *Cole, H.L. and Kehoe, T.J. (2000). **Self-Fulfilling Debt Crises**. *Review of Economic Studies* 67(1):91–116
- Lorenzoni, G. and Werning, I. (2014). **Slow Moving Debt Crises**. *Manuscript, Northwestern University and MIT*
- Bocola, L. and Dovis, A. (2016). **Self-Fulfilling Debt Crises: A Quantitative Analysis**. *Manuscript, Northwestern University and University of Pennsylvania*
- Bacchetta, P., Perazzi, E. and van Wincoop, E. (2018). **Self-Fulfilling Debt Crises: What Can Monetary Policy Do?** *Journal of International Economics* 110:119–134

4.3 Maturity choice

- *Broner, F.A., Lorenzoni, G. and Schmukler, S.L. (2013). **Why Do Emerging Economies Borrow Short Term?** *Journal of the European Economic Association* 11:67–100
- *Arellano, C. and Ramanarayanan, A. (2012). **Default and the Maturity Structure in Sovereign Bonds**. *Journal of Political Economy* 120(2):187–232
- *Aguiar, M. and Amador, M. (2014). **Take the Short Route: How to Repay and Restructure Sovereign Debt with Multiple Maturities**. *Manuscript*

5 International finance policy

5.1 Capital controls, macroprudential policy

- *Costinot, A., Lorenzoni, G. and Werning, I. (2014). **A Theory of Capital Controls as Dynamic Terms-of-Trade Manipulation**. *Journal of Political Economy* 122(1):77–128
- *Farhi, E. and Werning, I. (2012). **Dealing with the Trilemma: Optimal Capital Controls with Fixed Exchange Rates**
- Caballero, R.J. and Lorenzoni, G. (2014). **Persistent Appreciations and Overshooting: A Normative Analysis**. *IMF Economic Review* 62(1):1–47
- Bianchi, J. and Mendoza, E.G. (2018). **Optimal, Time-Consistent Macroprudential Policy**. *Journal of Political Economy* Forthcoming

5.2 Foreign exchange interventions

- *Jeanne, O. (2012). *Capital Account Policies and the Real Exchange Rate*. In: *NBER International Seminar on Macroeconomics 2012*, pp. 7–42. University of Chicago Press
- Rodrik, D. (2009). *The Real Exchange Rate and Economic Growth*. *Brookings Papers on Economic Activity* 2008(2):365–412
- Fanelli, S. and Straub, L. (2016). *A Theory of Foreign Exchange Interventions*. SSRN Scholarly Paper ID 2846984, Social Science Research Network, Rochester, NY
- Hassan, T.A., Mertens, T.M. and Zhang, T. (2016). *Currency Manipulation*. Working Paper 22790, National Bureau of Economic Research