International Macroeconomics Fall 2015

Economics 280B: Pierre-Olivier Gourinchas.

This course covers core models in international finance and open-economy macroeconomics and surveys selected recent research topics in the field. We will cover: growth and capital flows, external adjustment and global imbalances, international asset pricing, exchange rates, international portfolios, financial frictions, international real business cycle models, new and old models of sticky prices and stabilization policies, speculative attacks, models of sovereign debt.

Course Schedule

Classes will be held every Wednesday from 10 to 12. Room: 597 EVANS.

Grading Policy

- Problem Sets (30% of grade)
- Group presentation (30% of grade)
- Final (40% of grade).

Course Material

There is no textbook for this course. A few useful references are:

- <u>Foundations of International Macroeconomics</u>, by Maurice Obstfeld and Kenneth Rogoff, MIT Press, October 1996;
- Exchange Rate Dynamics, Martin Evans, Princeton University Press, 2011
- <u>Recursive Macroeconomic Theory</u>, 2nd ed., by Tom Sargent and Lars Ljungqvist, MIT Press 2004.
- <u>Monetary Policy, Inflation, and the Business Cycle</u>, 2nd ed., Jordi Galí, Princeton University Press, 2015

In addition, I <u>may</u> distribute, at irregular intervals, lecture notes riddled with typos, inconsistencies and omissions!!

Reading List

The following reading list gives a guide to the material that will be covered in the course. All articles are available on-line (follow the links). Starred articles (*) are **required** reading.

The web page for this class is accessed through bCourses at this address: <u>bcourses.berkeley.edu/courses/1377102</u> or through my web page at: <u>socrates.berkeley.edu/~pog/teaching</u>.

Group Presentations

Group Presentations will be scheduled during RRR week. The rules of engagement are as follows:

- 1. Groups should have 2 or 3 people max.
- Each group needs to select a paper marked (SP) in the syllabus for presentation. Each paper can only be presented by <u>one</u> group, so make your selection early to get your pick.
- 3. Email me your paper selection and group composition by <u>Thursday October 1</u> at the latest.
- 4. Each group will have about 15' to present.
- 5. Each presentation will have three parts: (a) a brief summary of the paper; (b) an assessment of the intellectual contribution; (c) a <u>constructive</u> critique.
- 6. There will be *one* presenter for each group. This rule will be *strictly* enforced.
- 7. You can (but do not have to) send me a written version of your presentation, of no more than 5 pages.
- 8. I will need to receive your slides and presentation by email by <u>Wednesday December 4</u>, <u>7pm</u> at the latest.

Topics

1. Introduction and Intertemporal Approach to the Current Account, Wed. Aug. 26.

- Arezki R., L. Sheng and V. Ramey, "<u>News Shocks in Open Economies: Evidence from Giant</u> <u>Oil Discoveries</u>," mimeo UCSD January 2015.
- Nason J. and J. Rogers, "<u>The Present-Value Model of the Current Account Has Been</u> <u>Rejected: Round Up the Usual Suspects</u>", Journal of International Economics, Jan 2006, 68(1)
- (*) Obstfeld and Rogoff chapters 1-2
- Obstfeld M. and K. Rogoff, "The Intertemporal Approach to the Current Account", in Handbook of International Economics, Gene Grossman and Ken Rogoff, ed, North Holland, 1995, also available as <u>NBER working paper 4893</u>.
- Sachs, J., "<u>The Current Account and Macroeconomic Adjustment in the 1970s</u>," Brookings Papers on Economic Activity, Spring 1981.

2. Stochastic Small Open Economy Models, Wed. Sep. 2.

 (*) Aguiar M. and G. Gopinath, "<u>Emerging Markets Business Cycles: The Cycle is the Trend</u>," Journal of Political Economy, Feb. 2007, vol. 115(1)

- Mendoza, E., "<u>Real Business Cycles in a Small Open Economy</u>," American Economic Review, Sep. 1991, 81(4), 797-818
- Neumeyer A. and F. Perri, "<u>Business Cycles in Emerging Economies: the Role of Country</u> <u>Risk</u>," Journal of Monetary Economics, Mar. 2005
- Schmitt-Grohe S. and M. Uribe, "<u>Closing Small Open Economy Models</u>", Journal of International Economics, Oct. 2003, 61(1).
- Uhlig H., , "<u>A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily</u>." 1999, Federal Reserve bank of Minneapolis, Discussion Paper 101.

3. Complete Markets and International Risk Sharing, Wed. Sep. 9.

- Backus D. and G. Smith, "<u>Consumption and Real Exchange Rates in Dynamic Economies</u> with Nontraded Goods," Journal of International Economics, Nov. 1993, 35(3-4), 297-316
- Baxter, M. and M. Crucini, "Business Cycles and the Asset Structure of Foreign Trade," International Economic Review, Nov, 1995, 36(4)
- (*) Cole H. and M. Obstfeld, "<u>Commodity Trade and International Risk Sharing: How much</u> <u>do Financial Markets Matter?</u>", Journal of Monetary Economics Aug 1991, 28(1), pp3-24
- (*) Ljungqvist and Sargent, chapter 8
- (*) Backus, D., P. Kehoe and F. Kydland, "<u>International Real Business Cycles</u>," Journal of Political Economy, Aug. 1992, 100(4), 745-775
- Backus, D., P. Kehoe and F. Kydland, "<u>Dynamics of the Trade Balance and the Terms of</u> <u>Trade: the J curve?</u>" American Economic Review, Mar 1994, 84(1), 84-103
- (*) Obstfeld and Rogoff chapters 5:1-5:2
- Obstfeld M. and K. Rogoff, "<u>The Six Major Puzzles in International Macroeconomics: Is</u> <u>There a Common Cause?</u>" NBER Macro Annual 2000.

4. Nominal Exchange Rates and International Asset Pricing. Wed. Sep. 16 and 23.

- (*) Obstfeld and Rogoff Chapter 8.1-8.3 & 8.7.
- Engel, C., "<u>Exchange Rates and Interest Rate Parity</u>," Handbook of International Economics, 2013, NBER WP 19336.
 - a. International Asset Pricing
- (*) Lucas R., "<u>Interest Rates and Currency Prices in a Two-Country World</u>", Journal of Monetary Economics, 10, 335-59, 1982
- Brandt M., Cochrane J. and P. Santa Clara, "<u>International Risk Sharing is better than you</u> <u>think (or exchange rates are much too smooth)</u>", Journal of Monetary Economics, May 2006.

- b. Parity Puzzles, Carry Trade: Time-Varying Risk Premia, Disaster Risk, Long Run Risk
- (SP) Colacito R. and M. Croce, "International Asset Pricing with Recursive Preferences," Journal of Finance, Nov. 2013,
- Farhi E. and X. Gabaix, "<u>Rare Disasters and Exchange Rates</u>," NBER Working paper 13805, Feb. 2011,
- (SP) Hassan T. and R. Mano, "Forward and Spot Exchange Rates in a Multi-Currency World," mimeo, 2015
- **(SP)** Lustig, H. and A. Verdelhan, "<u>The Cross-Section of Foreign Currency Risk Premia and</u> <u>US Consumption Growth Risk</u>," American Economic Review, Mar. 2007, 97(1),
- Verdelhan, A, "<u>A Habit -Based Explanation of the Exchange Rate Risk Premium</u>," Journal of Finance, Feb. 2010

c. Exchange Rate Predictability and Exchange Rate Disconnect

- (*) Engel, C. and K. West, "<u>Exchange Rates and Fundamentals</u>", Journal of Political Economy, Jun. 2005, 113(3), 485-517.
- Mark, N, "<u>Exchange Rates and Fundamentals: Evidence on long-horizon predictability</u>," American Economic Review Mar. 1995, 85(1), 201-218,
- Meese R. and K. Rogoff, "<u>Empirical Exchange Rate Models of the Seventies</u>," Journal of International Economics Feb. 1983, 14(1-2), 3-24.
 - d. Imperfect Assest Substitutability Portfolio Balance
- (SP) Blanchard, O., F. Giavazzi, & F. Sa, "International Investors, the U.S. Current Account, and the Dollar," Brookings Papers on Economic Activity, vol. 1, 2005
- (*) Gabaix, X. & M. Maggiori, "<u>International Liquidity and Exchange Rate Dynamics</u>," mimeo NYU Stern, 2013
- (*) Kouri, P., "<u>Balance of Payments and the Foreign Exchange Market: A Dynamic Partial</u> <u>Equilibrium Model</u>," in Economic Interdependence and Flexible Exchange Rates, edited by J. S. Bhandari and B. H. Putnam, MIT Press, 1983
- (SP) Pavlova, A. & R. Rigobon, "<u>Equilibrium Portfolios and External Adjustment under</u> Incomplete Markets," Mimeo, London Business School, 2012
- **(SP)** Krishnamurthy A. and Vissing-Jorgensen A., "<u>The Aggregate Demand for Treasury</u> <u>Debt</u>," Journal of Political Economy, April 2012, vol. 120(2)

5. Capital Flows in the Neoclassical Model, Wed. Sep. 30.

 (*) Gourinchas P.O. & H. Rey, "<u>External Adjustment, Global Imbalances, Valuation Effects</u>," Handbook of International Economics, vol.4, ch. 10, eds. G. Gopinath, H. Helpman and K. Rogoff, Elsevier, 2014, pp585-645, section 3. a. The marginal product of capital, factor shares and Lucas puzzle

- (*) Caselli F. & J. Feyrer, "<u>The Marginal Product of Capital</u>," Quarterly Journal of Economics, vol. 122(2), 2007
- Gollin D. "Getting Income Shares Right," Journal of Political Economy, vol. 110(2), 2002
- (*) Karabarbounis, L. & B. Neiman, "<u>The Global Decline in the Labor Share</u>," Quarterly Journal of Economics, vol. 129(1), 2013
- Lucas, R., "<u>Why Doesn't Capital Flow from Rich to Poor Countries</u>," American Economic Review, vol. 80(2), 1990
- Piketty, T. "Capital in the XXI century," Harvard University Press, 2014
- (SP) Rognlie, Matthew, "<u>Deciphering the Fall and Rise in the Net Capital Share</u>," Brookings Papers on Economic Activity, March 2015

b. The neoclassical Growth Model, capital flows and development accounting

- (SP) Coeurdacier N., H. Rey & P. Winant, "<u>Financial Integration and Growth in a Risky</u> World," mimeo SciencesPo, October 2013
- (*) Gourinchas, P.O. & O. Jeanne, "<u>The Elusive Gains from International Financial</u> <u>Integration</u>," Review of Economic Studies, vol. 73(3), 2006
- Hall, R. and C. Jones, "<u>Why Do Some Countries Produce So Much More Output per Worker</u> <u>than Others?</u>" Quarterly Journal of Economics, vol. 114(1), 1999
- Kose A., E. Prasad and M. Terrones, "<u>Does Openness to International Financial Flows Raise</u> <u>Productivity Growth?</u>" Journal of International Money and Finance, vol. 28(4), 2009

c. The allocation puzzle

- (*) Aguiar M. & M. Amador, "<u>Growth in the Shadow of Expropriation</u>," Quarterly Journal of Economics, vol. 126(2), 2011
- **(SP)** Alfaro L., S. Kalemli-Ozcan, V. Volosovych, "<u>Sovereigns, Upstream Capital Flows and</u> <u>Global Imbalances</u>," NBER Working Paper 17396, 2011, forthcoming Economic Journal
- (*) Gourinchas, P.O. & O. Jeanne, "<u>Capital Flows to Developing Countries: the Allocation</u> <u>Puzzle</u>," Review of Economic Studies, vol. 80(4), pp1484-1515, Oct. 2013

6. New Approaches to External Adjustment. Wed. Oct. 7 and Oct. 14.

 (*) Gourinchas and Rey, "External Adjustment, Global Imbalances, Valuation Effects," Handbook of International Economics, vol. 4, ch. 10, G. Gopinath, H. Helpmann and K. Rogoff eds. Elsevier, 2014. Read sections 1, 2 and 4

a. Global Imbalances

- Angeletos, G.-M. & V. Panousi, "<u>Financial integration, entrepreneurial risk and global</u> <u>dynamics</u>." Journal of Economic Theory, vol. 146 (3), 2011
- (*) Bernanke, B., "<u>The Global Saving Glut and the U.S. Current Account Deficit</u>," Sandridge Lecture. Virginia Association of Economics, Richmond, Virginia, Federal Reserve Board, March 2005
- Blanchard, O.J., "<u>Debt, Deficits, and Finite Horizons</u>," Journal of Political Economy vol. 93, 1985
- (*) Broner, F. & J. Ventura, "<u>Rethinking the Effects of Financial Globalization</u>," mimeo CREI, October 2013,
- (*) Caballero R., E. Farhi and P.O. Gourinchas, "<u>An Equilibrium Model of Global Imbalances</u> and Low Interest Rates", American Economic Review, Mar 2008, 98(1)
- Forbes, K.J., "<u>Why Do Foreigners Invest in the United States?</u>" Journal of International Economics 80 (1), 2010.
- Gruber, J.W. & S.B. Kamin, "<u>Do Differences in Financial Development Explain the Global</u> <u>Pattern of Current Account Imbalances?</u>" Review of International Economics, vol 17(4), 2009.
- Kraay, A. & Ventura, J., "<u>Current Accounts in Debtor and Creditor Countries</u>," Quarterly Journal of Economics, vol. 115(4), 2000
- (*) Mendoza, E., V. Quadrini & V. Rios-Rull, "<u>Financial Integration, Financial Development</u> <u>and Global Imbalances</u>", Journal of Political Economy, vol. 117(3), 2009
- (SP) Song, Z., K. Storesletten & F. Zilibotti, "<u>Growing Like China</u>," American Economic Review, Vol. 101(1), 2011

b. Measuring External Returns

- Lane P. and G-M. Milesi-Ferretti, "<u>The External Wealth of Nations Mark II, 1970-2004</u>" Journal of International Economics, vol. 73(2), 2007
- Curcuru, S.E., T. Dvorak, & F.E. Warnock, "<u>Cross-border Returns Differentials</u>," Quarterly Journal of Economics, vol. 123(4), 2008,
- Gourinchas, P.-O. & H. Rey, "<u>From World Banker to World Venture Capitalist: US External</u> <u>Adjustment and the Exorbitant Privilege</u>." In: Clarida, R. (Ed.), G-7 Current Account Imbalances: Sustainability and Adjustment. University of Chicago Press, Chicago, 2007.
- Lane, P.R. & J.C. Shambaugh, "<u>Financial Exchange Rates and International Currency</u> <u>Exposures</u>," American Economic Review, vol. 100(1), 518540, 2010,
- Rogoff K. and Tashiro T., "Japan's Exorbitant Privilege," mimeo Harvard University, 2014,
- (SP) Zucman, G., "<u>The Missing Wealth of Nations: are Europe and the U.S. Net Debtors or</u> Net Creditors?" The Quarterly Journal of Economics, vol. 128(3), 2013
- c. The Financial Channel of External Adjustment
- (*) Gourinchas, P.-O. & H. Rey, "International Financial Adjustment," Journal of Political Economy 115 (4), 2007,

- Tille, C., "<u>Financial Integration and the Wealth Effect of Exchange Rate Fluctuations</u>," Journal of International Economics, vol. 75(2), 2008
- d. Exorbitant Duty and the International Monetary System
- Farhi, E., P-O. Gourinchas and H. Rey, <u>Reforming the International Monetary System</u>, CEPR E-Report, 2011,
- (*) Gourinchas, P.-O., H. Rey, & N. Govillot, "<u>Exorbitant Privilege and Exorbitant Duty</u>," Mimeo, UC Berkeley, 2014,
- (SP) Hassan, T.A., "<u>Country Size, Currency Unions, and International Asset Returns</u>," Journal of Finance, vol. 68(6), 2013,
- **(SP)** Maggiori, M., "<u>Financial Intermediation, International Risk Sharing, and Reserve</u> <u>Currencies</u>," mimeo, NYU Stern, 2012,
- He, Z, and A. Krishnamurthy and K. Millbradt, "<u>A Model of the Reserve Asset</u>," mimeo 2015

7. New Keynesian Open Economy Models, Secular Stagnation, Global Imbalances. Wed. Oct. 21 and Oct. 28

a. New Keynesian Open Economy Models

- (*) Chari, V. V., P. Kehoe, and E. McGrattan, "<u>Can Sticky Price Models Generate Volatile and</u> <u>Persistent Real Exchange Rates?</u>" Review of Economic Studies 69 (August 2002): 533-63.
- (*) Galí, J. and T. Monacelli, "<u>Monetary policy and exchange rate volatility in a small open</u> <u>economy</u>," Review of Economic Studies, 2008, Vol. 72(3),

b. Secular Stagnation

- (*) Eggertsson, G., N. Mehrotra, "<u>A Model of Secular Stagnation</u>," mimeo, 2015
- (*) Caballero, R. and E. Farhi, "<u>A Model of the Safe Asset Mechanism</u>," mimeo Harvard 2013,

No class on Nov. 4

8. Financial Crises. Wed. Nov. 18

- (*) Obstfeld-Rogoff, ch. 8.4, ch. 9 pp648-653
- (*) Morris, S., and H. Shin, "<u>Unique Equilibrium in a Model of Self-Fulfilling Currency</u> <u>Attacks</u>," American Economic Review 88 (June 1998): 587-97. See also the <u>revised proof of</u> <u>Thm 2</u> by F. Heinemann,
- Krugman, P. "<u>A Model of Balance-of-Payments Crises</u>," Journal of Money, Credit and Banking 11 (August 1979): 311-25.

- Obstfeld, M., "<u>Models of Currency Crisis with Self-Fulfilling Features</u>," European Economic Review 40 (April 1996): 1037-47.
- **(SP)** Angeletos, G.M., and I. Werning, "<u>Crises and Prices: Information Aggregation,</u> <u>Multiplicity, and Volatility</u>,"American Economic Review, 2006, 96, pp1720-36.

9. Capital Controls. Wed. Dec 2.

- (SP) Brunnermeier M. & Y. Sannikov, "Pecuniary Externalities and Capital Controls," mimeo 2014
- (*) Costinot A., G. Lorenzoni & I. Werning "<u>A Theory of Capital Controls as Dynamic Terms of</u> <u>Trade Manipulation</u>," Journal of Political Economy, 122(1), 2014
- (SP) Farhi, E. & I. Werning, "<u>Dealing with the Trilemma: Optimal Capital Controls with Fixed</u> <u>Exchange Rates</u>," mimeo 2012,
- **(SP)** Farhi, E. & I. Werning, "<u>Dilemma not Trilemma? Capital Controls and Exchange Rates</u> with Volatile Capital Flows," mimeo Harvard 2014,
- (*) Jeanne O. & A. Korinek, "<u>Managing Credit Booms and Busts: A Pigouvian Taxation</u> <u>Approach</u>," January 2012
- (SP) Jeanne, O., "<u>Capital Account Policies and the Real Exchange Rate</u>." In: NBER International Seminar on Macroeconomics 2012
- (SP) Forbes, K., M Fratscher & R. Straub, "Capital Controls and Macroprudential Policies: What are they Good for?" mimeo 2013,
- (*) Mendoza, E., "<u>Sudden Stops, Financial Crises and Leverage</u>," American Economic Review, 100(5), 1941-66,
- Rey, H. "<u>Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy</u> <u>Independence</u>," Jackson Hole Symposium, 2013

10. Sovereign Debt. Wed. Dec 9 (tentative).

- (*) Obstfeld and Rogoff, Chapter 6
- (*) Aguiar M. and G. Gopinath, "<u>Defaultable debt, interest rates and the current account</u>," Journal of International Economics, 2006, 69(1), pp64-83,
- (*) Aguiar, M. and M. Amador, "<u>Sovereign Debt</u>," Handbook of International Economics, forthcoming, 2013
- **(SP)** Broner, F., A. Martin and J. Ventura, "<u>Sovereign Risk and Secondary Markets</u>," American Economic Review, 100(4), 2010, 1523-1555,
- Bulow J. and K. Rogoff, "<u>A constant recontracting model of sovereign debt</u>" Journal of Political Economy Feb 1989, 97(1), 155-178
- Bulow J. and K. Rogoff, "<u>Sovereign Debt: is to forgive to forget?</u>" American Economic Review Mar 1989, 79(1), 43- 50,

- Cole, H. and T. Kehoe, "<u>Self-Fulfilling Debt Crises</u>," Review of Economic Studies, 67(1), Jan. 2000: 91:116
- (*) Kletzer K. and B. Wright, "<u>Sovereign Debt as Intertemporal Barter</u>", American Economic Review, Jun 2000, 90,
- (*) Mendoza, E. and V. Yue, "<u>A General Equilibrium Model of Sovereign Default and Business</u> <u>Cycles</u>," Quarterly Journal of Economics, 2012, 127(2), pp889-946,
- (SP) Tirole, J., "Country Solidarity in Sovereign Crises," IDEI Working Paper, 2014