

## International Economics Development Economics

Academic year 2021-2022

## Advanced International Macroeconomics A: Selected Topics

### EI083 - Autumn - 3 ECTS

Friday 14h15 - 18h00

### Course Description

This course provides a graduate-level treatment of the international macroeconomics of trade and financial linkages. The course is divided in two parts, which will proceed simultaneously. In the first part, we will study the workhorse models and their solution methods. Topics covered include: discrete-time linear models; continuous-time linear models; higher-order perturbation methods; global solution methods; models with occasionally binding constraints. In the second part, we will study how these methods are used in various subfields of international macroeconomics. Sample topics are: international risk sharing; trade-macro linkages; sovereign debt and default; emerging market business cycles; exchange rate puzzles; capital flows.

### > PROFESSOR

[Paolo Cavallino](#)

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### > ASSISTANT

[Viktoria Vidahazy](#)

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## Syllabus

EI083 is the second part of the course. It covers selected advanced topics in international macroeconomics. The lectures will be taught using slides, and will be based on presentations of classical and recent papers by students and, occasionally, myself. The schedule of the presentations will be finalized in late September.

**Prerequisites:** Masters Macroeconomics sequence at IHEID or its equivalent at other institutions. Attendance of course EI082 is compulsory.

**Course materials:** Papers.

**Grades:** The final grades of the courses EI082 and EI083 will be the weighted average of three components: two (or three) graded homework assignments (50%); one presentation and one referee reports (or two presentations), (30%); class participation (20%). More details will be provided during the first lecture.

- *Presentation guidelines:* Depending on the number of students enrolled, you will either be presenting one or two papers. The presenter must know the paper in details and be ready to answer questions regarding any aspect of the paper. A superficial knowledge of the main messages of the paper will not be enough. Other students are required to read the paper before the class.

You can choose papers from the Reading List (below) or propose different ones. All choices are subject to my final approval. In some cases, if too many students choose the same topic I might need to reallocate. Preferences should be indicated before the beginning of the class (I will email the enrolled students), and I will then put together the schedule ensuring an even coverage of topics.

- *Referee report guidelines:* The report should be 2-3 pages long single spaced. You should break up the report into paragraphs. The first should deal with the question the paper addresses, and why it is an important question in the context of the literature. The second paragraph should summarize the main findings of the paper. The third paragraph should deal with how the paper arrives at its findings, and its methods. The rest of the report should deal with what you perceive as the shortcomings of the paper, and constructive suggestions that could improve the paper. Try to be creative in these parts. You should put a lot of care in writing the report because writing clearly and effectively is a very important skill for an economist.

You can choose papers from the Reading List (below) or propose different ones. All choices are subject to my final approval.

**Course schedule:** Below is a tentative course schedule for both EI082 and EI083. I might revise it before and/or during the course to include or exclude topics depending on our pace and the background of the students enrolled.

Date	Topics
Class 1	
October 1 <sup>st</sup>	Math review; The discrete-time SOE-RBC model: decentralized equilibrium, log-linearization and equilibrium dynamics.
Class 2	
October 1 <sup>st</sup>	The SOE-RBC model: calibration and numerical solution (introduction to Dynare), data and performance of the model.
Class 3	
October 15 <sup>th</sup>	Math review; The continuous-time SOE-NK model: decentralized equilibrium, log-linearization, welfare analysis.
Class 4	
October 15 <sup>th</sup>	Presentations
Class 5	
October 29 <sup>th</sup>	The two-country model: macroeconomic interdependence, international risk-sharing, portfolio determination.
Class 6	
October 29 <sup>th</sup>	Presentations
Class 7	
November 12 <sup>th</sup>	Dynamic programming; Global solution methods: value function iteration, policy function iteration.

Class 8	
November 12 <sup>th</sup>	Presentations
Class 9	
November 26 <sup>th</sup>	Global solution methods: Euler equation iteration, collocation methods.
Class 10	
November 26 <sup>th</sup>	Presentations
Class 11	
December 10 <sup>th</sup>	Models with occasionally binding constraints, Markov-switching models.
Class 12	
December 10 <sup>th</sup>	Presentations
Class 13	
December 17 <sup>th</sup>	Presentations
Class 14	
December 17 <sup>th</sup>	Presentations

## Reading list (tentative)

### 1. International business cycles

- a. Backus, D., P. Kehoe and F. Kydland, "International Real Business Cycles," JPE, 1992
- b. Stockman, A., and L. Tesar, "Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Co-Movements," AER 1995.
- c. Backus, D., P. Kehoe and F. Kydland, "Dynamics of the Trade Balance and the Terms of Trade: the J-Curve?" AER, 1994.
- d. Aguiar, M. and G. Gopinath, "Emerging Market Business Cycles: The Cycle is the Trend," Journal of Political Economy, 2007.
- e. García-Cicco, Javier, Roberto Pancrazi, and Martín Uribe. "Real Business Cycles in Emerging Countries?" The American Economic Review 100.5 (2010): 2510-2531.
- f. Neumeyer, P.A. and F. Perri, "Business Cycles in Emerging Markets: The Role of Interest Rates," Journal of Monetary Economics, 2005.
- g. Boz, Emine, Christian Daude, and Bora Durdu, "Emerging Market Business Cycles: Learning about the Trend," Journal of Monetary Economics 58, 2011, 616–631.
- h. Blanchard, Olivier J., Jean-Paul L’Huillier, and Guido Lorenzoni, "News, Noise, and Fluctuations: An Empirical Exploration," American Economic Review 103, 2013, 3045–3070.
- i. Uribe, Martin, and Z. Vivian Yue, "Country Spreads and Emerging Countries: Who Drives Whom?" Journal of International Economics 69, 2006, 6–36.
- j. Akinci, Ozge, "Global Financial Conditions, Country Spreads, and Macroeconomic Fluctuations in Emerging Countries," Journal of International Economics 91, 2013, 358–371.
- k. Mendoza, Enrique, "The Terms of Trade, the Real Exchange Rate, and Economic Fluctuations," International Economic Review 36, 1995, 101–137.
- l. Kose, M. Ayhan, "Explaining Business Cycles in Small Open Economies: ‘How Much Do World Prices Matter?’" Journal of International Economics 56, 2002, 299–327.
- m. Schmitt-Grohé, Stephanie, and Martín Uribe. "How Important are Terms-Of-Trade Shocks?." *International Economic Review* 59.1, 2018, 85-111.
- n. Fernandez, Andres, Andres Gonzalez, and Diego Rodriguez, "Sharing a Ride on the Commodities Roller Coaster: Common Factors in Business Cycles of Emerging Economies," Journal of International Economics, 2018, forthcoming.
- o. Drechsel, Thomas, Silvana Tenreyro, "Commodity Booms and Busts in Emerging Economies," NBER working paper 23716, August 2017.
- p. Heathcote, J. and F. Perri, "Financial Globalization and Real Regionalization," JET, 2004

- q. Burstein, A., C. Kurz and L. Tesar, "International Trade, Production Sharing and the Transmission of Business Cycles", *Journal of Monetary Economics*, 2009.

## 2. International risk-sharing and country portfolios

- a. Backus, D. K. and G. W. Smith. "Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods," *Journal of International Economics*, 1993.
- b. K. K. Lewis. What can explain the apparent lack of international consumption risk sharing? *Journal of Political Economy*, 1996.
- c. Corsetti, Giancarlo, Luca Dedola, and Sylvain Leduc. "International risk sharing and the transmission of productivity shocks." *The Review of Economic Studies* 75.2 (2008): 443-473.
- d. Artis, Michael J., and Mathias Hoffmann. "Financial Globalization, International Business Cycles and Consumption Risk Sharing." *The Scandinavian Journal of Economics* 110.3 (2008): 447-471.
- e. M. W. Brandt, J. H. Cochrane, and P. Santa-Clara. "International risk sharing is better than you think, or exchange rates are too smooth." *Journal of Monetary Economics*, 53(4), 2006.
- f. J. Imbs. "The real effects of financial integration." *Journal of International Economics*, 68 (2), 2006.
- g. Coeurdacier, Nicolas, and Helene Rey. Home bias in open economy financial macroeconomics. No. w17691. National Bureau of Economic Research, 2011.
- h. Heathcote, Jonathan, and Fabrizio Perri. "The international diversification puzzle is not as bad as you think." *Journal of Political Economy* 121.6 (2013): 1108-1159.
- i. Coeurdacier, Nicolas, Robert Kollmann, and Philippe Martin. "International portfolios, capital accumulation and foreign assets dynamics." *Journal of International Economics* 80.1 (2010): 100-112.
- j. Cole, H.L. and M. Obstfeld, "Commodity Trade and International Risk Sharing," *Journal of Monetary Economics*, 1991.
- k. Obstfeld, M. and K. Rogoff, "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?" NBER Macro Annual, 2000.
- l. French, K. and J. Poterba, "Investor Diversification and International Equity Markets," *AER* 1991.
- m. Tesar, L. and I. Werner, "Home Bias and High Turnover," *Journal of International Money and Finance*, 1994.
- n. Coeurdacier, N. and P. O. Gourinchas, "When Bonds Matter: Home Bias in Goods and Assets," Manuscript, London Business School, 2008.
- o. Van Nieuwerburgh, S., and L. Veldkamp, "Information Immobility and the Home Bias Puzzle", *Journal of Finance*, 2009.
- p. Engel, C. and A. Matsumoto, "The International Diversification Puzzle When Goods Prices Are Sticky: It's Really about Exchange-Rate Hedging, Not Equity Portfolios," *American Economic Journal: Macroeconomics*, 2009.
- q. Evans, M., and V. Hnatkovska, "Solving General Equilibrium Models with Incomplete Markets and Many Assets," Georgetown University Working Paper, 2010.
- r. Couerdacier, N., H. Rey and P. Winant, "The Risky Steady State", *American Economic Review Papers and Proceedings*, 2011.
- s. Maggiori, Matteo. 2017. "Financial Intermediation, International Risk Sharing, and Reserve Currencies." *American Economic Review*, 107 (10): 3038-71.

## 3. International prices, exchange rates, and related puzzles

- a. Itskhoki, Oleg, and Dmitry Mukhin, "Exchange Rate Disconnect," NBER working paper 23401, May 2017.
- b. Schmitt-Grohé, Stephanie, and Martín Uribe, "Downward Nominal Wage Rigidity, Currency Pegs, and Involuntary Unemployment," *Journal of Political Economy* 124, October 2016, 1466-1514.

- c. Fornaro, Luca, "Financial Crises and Exchange Rate Policy," *Journal of International Economics* 95, 2015, 202-215.
- d. Drenik, Andres, "Labor Market Dynamics after Nominal Devaluations," Stanford University, December 2015.
- e. Ottonello, Pablo, "Optimal Exchange Rate Policy Under Collateral Constraints and Wage Rigidity," Columbia University, 2015.
- f. Schmitt-Grohé, Stephanie, and Martín Uribe, "Downward Nominal Wage Rigidity and the Case for Temporary Inflation in the Eurozone," *Journal of Economic Perspectives* 27, Summer 2013, 193-212.
- g. Calvo, Guillermo, Fabrizio Coricelli, and Pablo Ottonello, "Jobless Recoveries During Financial Crises: Is Inflation the Way Out?," NBER working paper 19683, November 2013.
- h. Schmitt-Grohé, Stephanie, and Martín Uribe, "Managing Currency Pegs," *American Economic Review: Papers and Proceedings* 102, May 2012, 192-197.
- i. Calvo, Guillermo, "Monetary Policy Challenges in Emerging Markets: Sudden Stop, Liability Dollarization, and Lender of Last Resort," NBER, working paper No. 12788, 2006.
- j. Cook, David, "Monetary policy in emerging markets: Can liability dollarization explain contractionary devaluations?," *Journal of Monetary Economics* 51, 1155-1181, 2004.
- k. Engel, Charles, and K. D. West. 2005. "Exchange Rates and Fundamentals." *Journal of Political Economy* 113, 485-517.
- l. Obstfeld, M., and K. Rogoff, "Exchange Rate Dynamics Redux," *Journal of Political Economy*, 1995.
- m. Betts, C. and M. Devereux, "Exchange Rate Dynamics in a Model of Pricing-To-Market," *JIE* 2000.
- n. Chari, V.V., P. Kehoe and E. McGrattan, "Monetary Shocks and Real Exchange Rates in Sticky Price Models of International Business Cycles," *REStud*, 2002.
- o. Devereux, Michael B., and Charles Engel. "Monetary policy in the open economy revisited: Price setting and exchange-rate flexibility." *The Review of Economic Studies* 70.4 (2003): 765-783.
- p. Alvarez, F., A. Atkeson, and P. Kehoe, "Money, Interest Rates, and Exchange Rates with Endogenously Segmented Asset Markets," *JPE*, 2002.
- q. Bacchetta, P., and E. van Wincoop, "Can Information Heterogeneity Explain the Exchange Rate Determination Puzzle?" *American Economic Review*, 2006.
- r. Rogoff, K., "The Purchasing Power Parity Puzzle", *Journal of Economic Literature*, 1996.
- s. Engel, C. and J. Rogers, "How Wide is the Border?" *AER*, 1996.
- t. Gorodnichenko, Y. and L. Tesar, "Border Effect or Country Effect? Seattle May Not be So Far From Vancouver After All." *American Economic Journal: Macroeconomics*, 2009.
- u. Imbs, J., H. Mumtaz, M. Ravn, and H. Rey. "PPP Strikes Back: Aggregation and the Real Exchange Rate", *Quarterly Journal of Economics*, 2005.
- v. Xavier Gabaix & Matteo Maggiori, 2015. "International Liquidity and Exchange Rate Dynamics," *The Quarterly Journal of Economics*, Oxford University Press, vol. 130(3), pages 1369-1420.

#### **4. Financial frictions and financial crisis**

- a. Bianchi, J. and E.G. Mendoza, 2018, "Optimal, Time-Consistent Macroprudential Policy," *Journal of Political Economy*
- b. Bianchi, J. and E.G. Mendoza, 2015, "Phases of Global Liquidity, Fundamentals News, and the Design of Macroprudential Policy," *BIS Working Paper No. 505*
- c. Bianchi, J. and E.G. Mendoza, 2020, "A Fisherian Approach to Financial Crises: Lessons from the Sudden Stops Literature,"

- d. Boz. E. and E.G. Mendoza, 2014, "Financial Innovation, the Discovery of Risk, and the U.S. Credit Crisis," *Journal of Monetary Economics*,
- e. Carrillo, J., E.G. Mendoza, V. Nuguer, and J. Roldan-Pena, 2020, "Tight Money-Tight Credit: Coordination Failure in the Conduct of Monetary and Financial Policies," *American Economic Journal: Macroeconomics* , forthcoming,
- f. Mendoza, E.G. and E. Rojas, 2019, "Positive and Normative Implications of Liability Dollarization for Sudden Stops Models of Macroprudential Policy," *IMF Economic Review*,
- g. Mendoza, E.G., 2016, "Macroprudential Policy: Promise and Challenges," NBER WP no. 22868
- h. Mendoza, E.G. and K. Smith, 2006, "Quantitative Implications of a Debt-Deflation Theory of Sudden Stops and Asset Prices," *Journal of International Economics*, 2006.
- i. Mendoza, E.G., 2008, "Sudden Stops, Financial Crises and Leverage," *American Economic Review*, Dec. 2010,
- j. Mendoza, E.G., and M. Terrones, "An Anatomy of Credit Booms and their Demise," NBER Working Paper no. 18379, 2012
- k. Mian, Atif, and Amir Suffi, "Finance and Business Cycles: The Credit-Driven Household Demand Channel," *Journal of Economic Perspectives*, forthcoming, 2018.
- l. Davila, Eduardo, and Anton Korinek, "Pecuniary Externalities in Economies with Financial Frictions," *Review of Economic Studies* 85, January 2018, 352395.
- m. Schmitt-Grohé, Stephanie, and Martín Uribe, "Multiple Equilibria in Open Economy Models with Collateral Constraints: Overborrowing Revisited," Columbia University, December 2017.
- n. Schmitt-Grohé, Stephanie, and Martín Uribe, "Adjustment to Small, Large, and Sunspot Shocks in Open Economies With Stock Collateral Constraints," *Ensayos Sobre Política Económica* 35, April 2017, 2-9.
- o. Bianchi, Javier, "Overborrowing and Systemic Externalities in the Business Cycle," *American Economic Review* 101, December 2011, 3400-3426.
- p. Mendoza, Enrique G., "Sudden Stops, Financial Crisis, and Leverage," *American Economic Review* 100, December 2010, 1941-1966.
- q. Lorenzoni, Guido, "Inefficient Credit Booms," *Review of Economic Studies* 75, 2008, 809-833.
- r. Uribe, Martín, "Individual Versus Aggregate Collateral Constraints and the Overborrowing Syndrome," NBER Working Paper No. 12260, May 2006.

## 5. Sovereign default

- a. Aguiar, M. and G. Gopinath, "Defaultable Debt, Interest Rates and the Current Account," *JIE* 2005.
- b. Arellano, Cristina, "Default Risk and Income Fluctuations in Emerging Economies," *American Economic Review* 98, June 2008, 690-712.
- c. Arellano, Cristina, and Ananth Ramanarayanan, "Default and the Maturity Structure in Sovereign Bonds," *Journal of Political Economy* 120, 2012, 187-232.
- d. Bai, Y. and J. Zhang, "Financial Integration and International Risk Sharing," mimeo, Arizona State University and University of Michigan, 2005.
- e. Yue, Vivian Z. , "Sovereign Default and Debt Renegotiation," *Journal of International Economics* 80, March 2010, 176-187.
- f. Na, Seunghoon, Stephanie Schmitt-Grohe, Martín Uribe, and Vivian Z. Yue, "A Model of the Twin Ds: Optimal Default and Devaluation," *American Economic Review*, forthcoming, 2018.
- g. Durdu, Bora, Ricardo Nunes, and Horacio Sapriza, "News and sovereign default risk in small open economies," *Journal of International Economics* 91, September 2013, 1-17.

- h. Hatchondo, Juan Carlos, and Leonardo Martinez, "Long-duration bonds and sovereign defaults," *Journal of International Economics* 79, September 2009, 117-125.
- i. Mendoza, Enrique G., and Vivian Z. Yue, "A General Equilibrium model of sovereign default and business cycles," *Quarterly Journal of Economics* 127, 2012, 889-946.
- j. Bianchi, Javier, Pablo Ottonello, Ignacio Presno, "Fiscal Policy, Sovereign Risk, and Unemployment," manuscript, Federal Reserve Bank of Minneapolis, 2018.
- k. Broner, Fernando A., Guido Lorenzoni, and Sergio L. Schmukler, "Why do emerging economies borrow short term?," *Journal of the European Economic Association* 11(S1), January 2013, 67-100.
- l. Chatterjee, Satyajit, and Burcu Eyigungor, "Maturity, Indebtedness, and Default Risk," *American Economic Review* 102, October 2012, 2674-2699.
- m. Du, Wenxin, and Jesse Schreger, "Sovereign Risk, Currency Risk, and Corporate Balance Sheets," Harvard University, May 22, 2015.
- n. Durdu, Bora, Ricardo Nunes, and Horacio Sapriza, "News and sovereign default risk in small open economies," *Journal of International Economics* 91, September 2013, 1-17.
- o. Eaton, Jonathan and Mark Gersovitz, "Debt with Potential Repudiation: Theoretical and Empirical Analysis," *Review of Economic Studies* 48, April 1981, 289-309.
- p. Hatchondo, Juan Carlos, and Leonardo Martinez, "Long-duration bonds and sovereign defaults," *Journal of International Economics* 79, September 2009, 117-125.
- q. Hatchondo, Juan Carlos, Leonardo Martinez, and Horacio Sapriza, "Quantitative properties of sovereign default models: solution methods matter," *Review of Economic Dynamics* 13, October 2010, 919-933.
- r. Hatchondo, Juan Carlos, Leonardo Martinez, and Cesar Sosa-Padilla, "Debt dilution and sovereign default risk," *Journal of Political Economy*, 2015, forthcoming.
- s. Lizarazo, Sandra Valentina, "Default Risk and Risk Averse International Investors," *Journal of International Economics* 89, March 2013, 317-330.
- t. Martinez, Jose V. and Guido Sandleris, "Is It Punishment? Sovereign Default and the Decline in Trade," *Journal of International Money and Finance* 30, February 2011, 909-930.
- u. Mendoza, Enrique G., and Vivian Z. Yue, "A General Equilibrium model of sovereign default and business cycles," *Quarterly Journal of Economics* 127, 2012, 889-946.  
Reinhart, Carmen M., Kenneth Rogoff, and Miguel Savastano, "Debt Intolerance," *Brookings Papers On Economic Activity* 2003(1), 2003, 1-74.
- v. Tomz, Michael and Mark Wright, "Do Countries Default in Bad Times?," *Journal of the European Economic Association* 5, April-May 2007, 352-360.
- w. Uribe, Martin, "A Fiscal Theory of Sovereign Risk," *Journal of Monetary Economics* 53, November 2006, 1857-1875.
- x. D'Erasmus, P. and E. Mendoza, 2020, "History Remembered: Optimal Sovereign Default on Domestic and External Debt," forthcoming, *Journal of Monetary Economics*,
- y. D'Erasmus, P. and E. Mendoza, 2016, "Distributional Incentives in an Equilibrium Model of Domestic Sovereign Default," *Journal of the Eur. Ec. Assoc.*,
- z. Mendoza, E., L. Tesar and J. Zhang, "Saving Europe?: The Unpleasant Arithmetic of Fiscal Austerity in Integrated Economies".
- aa. Lorenzoni, G. and I. Werning, 2014, "Slow Moving Debt Crises," mimeo, Dept. of Economics, MIT.
- bb. Farhi, Emmanuel, and Jean Tirole. 2018. "Deadly Embrace: Sovereign and Financial Balance Sheets Doom Loops." *Review of Economic Studies* 85 (3): 1781-1823.

- cc. Bulow, J., and K. Rogoff. 1989. "Sovereign Debt: Is to Forgive to Forget?" *American Economic Review* 79(1), 43-50.
- dd. Calvo, G. A. 1988. "Servicing the Public Debt: The Role of Expectations." *American Economic Review* 78(4), 647-661.
- ee. Harold C. L., and T. J. Kehoe. 2000. "Self-Fulfilling Debt Crises." *Review of Economic Studies* 67(1).