### **International Finance**

Econ 741 - Fall 2015 University of Maryland

# 1 Course Information

Professor: Felipe E. Saffie
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Office Hours: Thursday 1:00 PM - 3:00 PM.
Class Time: Tuesday and Thursday 9:30 AM - 10:45 AM
Location: TYD, room 2108

# 2 Course Description

**Disclaimer:** This is an **advanced** Ph.D. level course on open economy macroeconomics and international finance designed for  $2^{nd}$  year students. All first year classes should be mastered before taking this class.

**Overview**: The first half of the course reviews the basic empirical regularities observed at business cycles frequencies in small open economies, and then develops quantitative and analytic tools to model these facts. The second portion of the course applies those modeling tools to a variety of topics in international economics.

# 3 Course Requirements

Homeworks (30% total): There will be 3 homeworks (10% each), focusing on three sets of skills: Empirical, Computational, and Modeling. Homeworks are required to be handed in groups of two. The due dates and guidelines can be found in section 6.

**Midterms (40% total):** There will be two in class midterms (20% each), mostly related to in class material. The second midterm will also draw from students' presentation and reports. Both midterms are going to be held in class. The first midterm will be on **October**  $8^{th}$  and the second one on **December**  $10^{th}$ .

**Presentation** (10%): Each student will have to perform a 40 minutes presentation. No later than **September**  $30^{th}$  each student has to email me the paper requesting approval, first-come first-served. Acceptable papers, potential dates, and general guidelines are listed in section 8. You can also pick (subject to my approval) a recent unpublished paper in the broadly defined international field.

**Report** (15%): Every student has to work along the semester on a topic report. No later than **September**  $30^{th}$  each student has to email me the chosen topic. There will be no duplication, so the sooner you decide, the larger the topic pool. Before **December**  $1^{st}$  a three to four pages report must be submitted. Potential topics and guidelines are listed in section 7.

**Seminar** (5%): Every student has to attend the 709 Workshop in Macroeconomics and the Macro/International seminar on Wednesdays.

Letter Grade: No student will get a grade above  $B^+$  without presenting, handling every homework and report, and taking the midterms.

### 4 Reference Texts

**CV:** Carlos A. Végh. Open Economy Macroeconomics in Developing Countries. MIT Press, 2013.

**LS:** Ljungqvist, Lars, and Thomas J. Sargent. Recursive macroeconomic theory. MIT press, 2012.

**OR:** Obstfeld, Maurice and Kenneth S. Rogoff. Foundations of International Macroeconomics. Vol. 30. Cambridge, MA: MIT press, 1996.

SU: Schmitt-Grohé, Stephanie, and Martín Uribe. Open Economy Macroeconomics. www.columbia.edu/~mu2166

**GHR:** Gopinath, Gita, Elhanan Helpman, and Kenneth Rogoff, eds. Handbook of International Economics. Vol. 4. Elsevier, 2014.

## 5 Course Outline: Topics (articles with a †are mandatory)

#### 1. Introduction: International Macroeconomic Puzzles

- Textbook references: OR (1.1 1.2 1.3)
- Articles:

<sup>†</sup>Obstfeld, Maurice, and Kenneth Rogoff. "The Six Major Puzzles in International Macroeconomics: is there a Common Cause?." NBER Macroeconomics Annual 2000, Volume 15. MIT press, 2001. 339-412.

Felstein, Martin, and Charles Horioka. "Domestic Savings and International Capital Flows." The Economic Journal 90 (1980): 314-329.

French, Kenneth R., and James Michael Poterba. "Investor Diversification and International Equity Markets." American Economic Review 81.2 (1991): 222-226. Backus, David K., and Gregor W. Smith. "Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods." Journal of International Economics 35.3 (1993): 297-316.

McCallum, John. "National Borders Matter: Canada-US Regional Trade Patterns." The American Economic Review (1995): 615-623.

Rogoff, Kenneth. "The Purchasing Power Parity Puzzle." Journal of Economic literature (1996): 647-668.

#### 2. Real Business Cycle: Data and Models for Small Open Economies:

- Textbook references: CV (1) OR (2) SU (1-6) LS (8 16 17)
- Articles:

<sup>†</sup>Mendoza, Enrique G. "Real Business Cycles in a Small Open Economy." The American Economic Review (1991): 797-818.

<sup>†</sup>Neumeyer, Pablo A., and Fabrizio Perri. "Business Cycles in Emerging Economies: the Role of Interest Rates." Journal of monetary Economics 52.2 (2005): 345-380.

Uribe, Martín, and Vivian Z. Yue. "Country Spreads and Emerging Countries: Who Drives Whom?." Journal of international Economics 69.1 (2006): 6-36.

Backus, David K., Patrick J. Kehoe, and Finn E. Kydland. "International Real Business Cycles." Journal of political Economy (1992): 745-775.

Correia, Isabel, Joao C. Neves, and Sergio Rebelo. "Business Cycles in a Small Open Economy." European Economic Review 39.6 (1995): 1089-1113.

Schmitt-Grohé, Stephanie, and Martín Uribe. "Closing Small Open Economy Models." Journal of international Economics 61.1 (2003): 163-185.

Guerrón-Quintana, P., Rubio-Ramirez, J. F., Fernández-Villaverde, J., and Uribe, M. (2011). "Risk Matters: The Real Effects of Volatility Shocks." American Economic Review, 101, 2530-2561.

#### 3. Stochastic Trend Business Cycles:

• Articles:

<sup>†</sup>Aguiar, Mark, and Gita Gopinath. "Emerging Market Business Cycles: The Cycle Is the Trend." Journal of Political Economy 115.1 (2007): 69-102.

<sup>†</sup>García-Cicco, Javier, Roberto Pancrazi, and Martín Uribe. "Real Business Cycles in Emerging Countries?." American Economic Review 100.5 (2010): 2510-31.

Boz, Emine, Christian Daude, and C. Bora Durdu. "Emerging Market Business Cycles: Learning About the Trend." Journal of Monetary Economics 58.6 (2011): 616-631.

Chang, Roberto, and Andrés Fernández. "On the Sources of Aggregate Fluctuations in Emerging Economies." International Economic Review 54.4 (2013): 1265-1293.

#### 4. International Risk Sharing and Co-Movements:

- Textbook references: OR (4, 5) CV (4) SU (7)
- Articles:

<sup>†</sup>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.

†Şebnem Kalemli-Özcan, Elias Papaioannou, and José-Luis Peydró. "Financial Regulation, Financial Globalization, and the Synchronization of Economic Activity." The Journal of Finance 68.3 (2013): 1179-1228.

Cole, Harold L., and Maurice Obstfeld. "Commodity Trade and International Risk Sharing: How Much do Financial Markets Matter?." Journal of Monetary Economics 28.1 (1991): 3-24.

#### 5. Financial Crises and Macroprudential Regulation:

- Textbook references: CV (2 16 17) SU (10)
- Articles:

<sup>†</sup>Mendoza, Enrique G. "Sudden Stops, Financial Crises, and Leverage." The American Economic Review 100.5 (2010): 1941-1966.

†Bianchi, Javier, and Enrique G. Mendoza. "Optimal Time-Consistent Macroprudential Policy." No. w19704. National Bureau of Economic Research, 2013.
†Lorenzoni, Guido "International Financial Crises." Handbook of international Economics 4 (2013), 647-87

Caballero, Ricardo J. and Krishnamurthy, Arvind "International and Domestic Collateral Constraints in a Model of Emerging Market Crises." Journal of Monetary Economics 48.3 (2001):513-548

Chang, R and. A. Velasco "A Model of Financial Crises in Emerging Markets" Quarterly Journal of Economics 116.2 (2001): 489-517.

Bianchi, Javier. "Overborrowing and Systemic Externalities in the Business Cycle." The American Economic Review (2011): 3400-3426.

#### 6. Sovereign Risk, Default, and Spreads:

- Textbook references: GHR (11)
- Articles:

<sup>†</sup>Arellano, Cristina. "Default Risk and Income Fluctuations in Emerging Economies." The American Economic Review (2008): 690-712. <sup>†</sup>Aguiar, Mark and Manuel Amador. "Sovereign Debt." Handbook of International Economics Vol 4. North-Holland. (2014): 647-87

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

Cole, Harold L., and Timothy J. Kehoe. "A Self-Fulfilling Model of Mexico's 1994-1995 Debt Crisis." Journal of international Economics 41.3 (1996): 309-330.

Cole, Harold L., and Timothy J. Kehoe. "Self-Fulfilling Debt Crises." The Review of Economic Studies Vol. 67, No. 1 (Jan., 2000), pp. 91-116

Chatterjee, Satyajit, and Burcu Eyigungor. "Maturity, Indebtedness, and Default Risk." American Economic Review 102.6 (2012): 2674-99.

Mendoza, Enrique G., and Vivian Z. Yue. "A General Equilibrium Model of Sovereign Default and Business Cycles." The Quarterly Journal of Economics 127 (2012): 889-946.

Bocola, Luigi. "The Pass-Through of Sovereign Risk." Journal of Political Economy (forthcoming).

Hatchondo, Juan Carlos, Leonardo Martinez, and Cesar Sosa Padilla. "Debt dilution and sovereign default risk." Journal of Political Economy (forthcoming).

#### 7. Long-run Consequences of Financial Crises

• Articles:

<sup>†</sup>Cerra, Valerie, and Sweta Chaman Saxena. "Growth Dynamics: The Myth of Economic Recovery." The American Economic Review 98.1 (2008): 439-457.

<sup>†</sup>Reinhart, Carmen M., and Kenneth S. Rogoff. "Recovery from Financial Crises: Evidence from 100 Episodes." The American Economic Review 104.5 (2014): 50-55.

<sup>†</sup>Ateş, Sînâ T., and Felipe E. Saffie "Fewer but Better: Sudden Stops, Firm Entry, and Financial Selection." (2013).

Queraltó, Albert. "A Model of Slow Recoveries from Financial Crises". Board of Governors Working Paper, 2013.

Gornemann, N. M. Sovereign Default, "Private Investment and Economic Growth." mimeo. University of Pennsylvania, 2013.

Guerrón-Quintana, Pablo, and Ryo Jinnai. "Liquidity, Trends and the Great Recession." Tokyo Center for Economic Research (TCER) Paper No. E-66 (2014).

#### 8. Capital Flows and Global Imbalances:

- Textbook references: GHR (10)
- Articles:

<sup>†</sup>Caballero, Ricardo J., Emmanuel Farhi, and Pierre-Olivier Gourinchas. "An Equilibrium Model of "Global Imbalances" and Low Interest Rates." The American Economic Review (2008): 358-393.

<sup>†</sup>Mendoza, Enrique G., Vincenzo Quadrini, and José-Víctor Ríos-Rull. "Financial Integration, Financial Development, and Global Imbalances." Journal of Political Economy 117.3 (2009).

#### 9. Exchange Rate Determination and Open Economy Monetary Policy

- Textbook references: GHR (8) CV (8-11) SU (8 9)
- Articles:

<sup>†</sup>Chari, Varadarajan V., Patrick J. Kehoe, and Ellen R. McGrattan. "Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?." The Review of Economic Studies 69.3 (2002): 533-563.

<sup>†</sup>Gali, Jordi, and Tommaso Monacelli. "Monetary Policy and Exchange Rate Volatility in a Small Open Economy." The Review of Economic Studies 72.3 (2005): 707-734.

Clarida, Richard H. "Reflections on Monetary Policy in the Open Economy." NBER International Seminar on Macroeconomics 2008. University of Chicago Press, 2009.

Corsetti, Giancarlo, Luca Dedola, and Sylvain Leduc. "Optimal Monetary Policy in Open Economies." (2010).

### 6 Homeworks

- Homeworks must be handled in groups of two.
- You must write them in Latex.
- They have to be sent to my email before the due date, no late work will be admitted. Beside the write-up you need to submit data and codes when applicable.
- Every member of the group has to be prepared to defend their answers in case of discussing the homework.
- Grading is relative to the best group.
- These are the due dates:
  - 1. First Homework: September  $18^{th}$  at 4:00 pm.
  - 2. Second Homework: October  $23^{rd}$  at 4:00 pm.
  - 3. Third Homework: December  $14^{th}$  at 4:00 pm.

# 7 Topic Report

- The report **must** be written using Latex. When analyzing your topic you should think mostly from an International Finance perspective.
- I expect you to read and work continuously during the year but the report must be emailed to me and every student before December  $1^{st}$ .
- Topics will be presented in class on December  $3^{rd}$  and  $8^{th}$ . Students should read each other reports because the second midterm will partially draw from these.
- Pick one concept from the following list: Over-borrowing and Sudden Stops, Debt Dilution-Debt Maturity and Rollover Risk, Business Cycle Synchronization, Exorbitant Privilege, Global Imbalances, Currency Unions, Contagion, Self-Fulfilling Crises, Reserve Accumulation, Dilemma or Trilemma?, Macro-Prudential Policy and Capital Controls, The Carry-Trade Puzzle, Flight to Quality, Balance Sheet Channel.

In general, you should accomplish the following in your report:

- Explain clearly the concept.
- Use formality (equations, toy model,...) and data whenever it is possible.
- Discuss classical papers and current working papers on the topic.
- Conjecture where this literature is going or what might be explored further in the topic.

### 8 In Class Presentation

- You should make your own slides using Beamer.
- You need to be smooth when presenting, no notes allowed.
- You should be comfortable enough with the paper so that you can answer questions from the audience.
- There will be two presentations per class on the following dates: November 19<sup>th</sup>, November 24<sup>th</sup>, and December 1<sup>st</sup>. The second midterm will draw partially from presentations.

The following is a list of acceptable papers for presentation. Note that the links provided are just a reference, **you should find the latest version**.

1. Bianchi, Javier, Juan Carlos Hatchondo, and Leonardo Martinez. International reserves and rollover risk. No. w18628. National Bureau of Economic Research, 2012.

- 2. Chatterjee, Satyajit, and Burcu Eyigungor. A Seniority Arrangement for Sovereign Debt. 2015.
- 3. Kehoe, Patrick, Alessandro Dovis, and Varadarajan Chari. Rethinking Optimal Currency Areas. 2014.
- 4. Bocola, Luigi, and Alessandro Dovis. Indeterminacy in Sovereign Debt Markets: an Empirical Investigation. 2015.
- Hassan, Tarek A., Thomas M. Mertens, and Tony Zhang. Not So Disconnected: Exchange Rates and the Capital Stock. 2015.
- Aguiar, Mark, et al. Coordination and Crisis in Monetary Unions. No. w20277. National Bureau of Economic Research, 2014.
- 7. Aguiar, Mark, and Manuel Amador. Take the short route: How to Repay and Restructure Sovereign Debt with Multiple Maturities. No. w19717. National Bureau of Economic Research, 2013.
- 8. Farhi, Emmanuel, and Xavier Gabaix. Rare Disasters and Exchange Rates. 2015
- 9. Maggiori, Matteo. Financial Intermediation, International Risk Sharing, and Reserve Currencies, 2013.
- Schreger, Jesse, and Wenxin Du. Sovereign Risk, Currency Risk, and Corporate Balance Sheets, 2015.
- 11. Fostel, Ana, John Geanakoplos, and Gregory Phelan. Global Collateral: How Financial Innovation Drives Capital Flows and Increases Financial Instability. 2015.
- Quadrini, Vincenzo. The growth of emerging economies and global macroeconomic stability. 2015
- Devereux, Michael B., and Changhua Yu. International Financial Integration and Crisis Contagion. No. w20526. National Bureau of Economic Research, 2014.
- 14. Gu, Grace W. "A Tale of Two Countries: Sovereign Default, Trade, and Terms of Trade." 2015
- 15. Gopinath, Gita, et al. Capital Allocation and Productivity in South Europe. No. w21453. National Bureau of Economic Research, 2015.
- Arezki, Rabah, Valerie A. Ramey, and Liugang Sheng. News Shocks in Open Economies: Evidence from Giant Oil Discoveries. No. w20857. National Bureau of Economic Research, 2015.
- 17. Sosa-Padilla, César. Sovereign Defaults and Banking Crises. 2015.
- Perez, Diego J. Sovereign Debt, Domestic Banks and the Provision of Public Liquidity 2014.

# 9 Learning Latex

One of the first things that you will have to learn in 741 is using Latex. The following links might accelerate your learning curve.

- 1. How to download and install.
- 2. Useful for working with formulae.
- 3. Getting started and Solving issues.