

北京大学国家发展研究院研究生课程

国际金融专题

**Topics in International Finance**

**Course Syllabus**

**Spring 2020**

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**COURSE DESCRIPTION**

This course introduces advanced topics in international finance and macroeconomics (IFM) for graduate students. We first present a toolbox for analyzing international business cycles and international capital markets, including solving and estimating international DSGE models. We then move to various issues in IFM, including (a) international business cycles, (b) international capital flows, portfolio choice and global imbalances, (c) credit booms and financial crises, (d) capital controls and macro-prudential policies, and (e) exchange rates and monetary policy in open-economies.

**PREREQUISITE**

Knowledge of economics at the level of advanced macroeconomics and econometrics is assumed.

**GRADING**

- **Replications (30%):** This course has three assignments of replicating published articles in order to make students learn modeling, computational and empirical skill.
- **Refereeing an article (30%):** Pick up an unpublished article, subject to my approval, and write a detailed referee report.
- **Term paper (50%)**
- **Class Attendance and Participation (10%)**

**REFERENCES**

**CV:** Carlos A. Vegh. 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:** Martín Uribe and Stephanie Schmitt-Grohé, 2017, "Open Economy Macroeconomics" Princeton University Press (April 4, 2017), ISBN-10: 0691158770, ISBN-13: 978-0691158778

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

**HM:** Burkhard Heer and Alfred Mauner. 2009. Dynamic General Equilibrium Modeling: Computational Methods and Applications (2nd ed. 2009. 2nd printing ed.). Springer Publishing Company, Incorporated.

**COURSE CONTENT** (articles with \* will be covered in class)

## **Week 0: The toolbox: Solving Dynamic Stochastic General Equilibrium (DSGE) Models**

### 1. Local approximation methods:

- Textbook reference: HM (chapter 1,2)
- Schmitt-Grohe, Stephanie, and Martin Uribe. "Closing Small Open Economy Models." Journal of international Economics 61.1 (2003): 163-185.
- Schmitt-Grohe, Stephanie & Uribe, Martin, 2004. "Solving dynamic general equilibrium models using a second-order approximation to the policy function," Journal of Economic Dynamics and Control, Elsevier, vol. 28(4), pages 755-775, January.
- Johnston, Michael K. and King, Robert G. and Lie, Denny, "Straightforward Approximate Stochastic Equilibria for Nonlinear Rational Expectations Models" (September 1, 2014). CAMA Working Paper No. 59/2014. Available at SSRN: <http://ssrn.com/abstract=2496154> or <http://dx.doi.org/10.2139/ssrn.2496154>
- Free software: *Dynare*

### 2. Global solution methods:

- Textbook reference: HM (chapter 4 and the following chapters therein)
- Carroll, Christopher D., 2006. "The method of endogenous gridpoints for solving dynamic stochastic optimization problems," Economics Letters, Elsevier, vol. 91(3), pages 312-320, June.
- Thomas Hintermaier, Winfried Koeniger, " The method of endogenous gridpoints with occasionally binding constraints among endogenous variables ", Journal of Economic Dynamics and Control, Volume 34, Issue 10, October 2010, Pages 2074-2088

## **Week 1-2: Introduction and basic models**

1. \*SU Book Chapter 2-3
2. \*Backus, David K., 1993. "Interpreting co-movements in the trade balance and the terms of trade," *Journal of International Economics*, vol. 34(3-4), pages 375-387.

## **Week 3: Puzzles in international macroeconomics**

3. Textbook references: OR (1.1 1.2 1.3)
4. \*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.
5. \*Gourinchas, Pierre-Olivier and Olivier Jeanne, 2013. "Capital Flows to Developing Countries: The Allocation Puzzle," *Review of Economic Studies*, Oxford University Press, vol. 80(4), pages 1484-1515.
6. Felstein, Martin, and Charles Horioka. "Domestic Savings and International Capital Flows." *The Economic Journal* 90 (1980): 314-329.
7. French, Kenneth R., and James Michael Poterba. "Investor Diversification and International Equity Markets." *American Economic Review* 81.2 (1991): 222-226.
8. 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.
9. McCallum, John. "National Borders Matter: Canada-US Regional Trade Patterns." *The American Economic Review* (1995): 615-623.
10. Rogoff, Kenneth. "The Purchasing Power Parity Puzzle." *Journal of Economic literature* (1996): 647-668.
11. Coeurdacier, Nicolas, and Hélène Rey. 2013. "Home Bias in Open Economy Financial Macroeconomics." *Journal of Economic Literature*, 51(1): 63-115.

## **Week 4: International business cycles: model vs. data**

12. Textbook references: CV (1) OR (2) SU (4-6) LS (8 16 17)
13. \*Mendoza, Enrique G. "Real Business Cycles in a Small Open Economy." *The American Economic Review* (1991): 797-818.
14. \*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.
15. Uribe, Martin, and Vivian Z. Yue. "Country Spreads and Emerging Countries: Who Drives Whom?." *Journal of international Economics* 69.1 (2006): 6-36.
16. Backus, David K., Patrick J. Kehoe, and Finn E. Kydland. "International Real Business Cycles." *Journal of political Economy* (1992): 745-775.

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

### **Week 5-6: International business cycles and international trade**

1. \*Di Giovanni, Julian, and Andrei A. Levchenko. "Putting the parts together: trade, vertical linkages, and business cycle comovement." *American Economic Journal: Macroeconomics* 2.2 (2010): 95-124.
2. \*Julian di Giovanni, Andrei A. Levchenko, and Isabelle Mejean, 2018, "The Micro Origins of International Business-Cycle Comovement" *American Economic Review*, vol. 108, no. 1, January 2018 (pp. 82-108)
3. \*Julian di Giovanni and Andrei A. Levchenko, 2012, Country Size, International Trade, and Aggregate Fluctuations in Granular Economies. *Journal of Political Economy*, 2012, vol. 120, no. 6
4. \*Matsuyama, Kiminori, Iryna Sushko, and Laura Gardini. "Globalization and synchronization of innovation cycles." (2015).
5. Laura Castillo-Martinez, 2019, "Sudden stops, productivity, and the exchange rate", London School of Economics
6. Bilbiie, Florin O., Fabio Ghironi, and Marc J. Melitz. "Endogenous entry, product variety, and business cycles." *Journal of Political Economy* 120.2 (2012): 304-345.
7. Christopher Erceg & Andrea Prestipino & Andrea Raffo, 2018. "The Macroeconomic Effect of Trade Policy," 2018 Meeting Papers 221, Society for Economic Dynamics.
8. Antonio Rodriguez-Lopez, 2018, Liquidity and the International Allocation of Economic Activity
9. Friederike Niepmann, Banking across borders, *Journal of International Economics*, Volume 96, Issue 2, 2015, Pages 244-265,
10. Bilbiie, Florin O., Ippei Fujiwara, and Fabio Ghironi. "Optimal monetary policy with endogenous entry and product variety." *Journal of Monetary Economics* 64 (2014): 1-20.
11. Matteo Cacciatore, 2014, International Trade and Macroeconomic Dynamics with Labor Market Frictions, *Journal of International Economics*, 93 (May 2014): 17-30.
12. Ravikumar, B., Ana Maria Santacreu, and Michael Spasi. "Capital Accumulation and Dynamic Gains from Trade." (2018).
13. Cacciatore, M., G. Fiori, and F. Ghironi (2016): "Market Deregulation and Optimal Monetary Policy in a Monetary Union," *Journal of International Economics* 99: 120-137
14. Alessandro Barattieri, Matteo Cacciatore, and Fabio Ghironi, 2018, Protectionism and the Business Cycle. NBER Working Paper No. 24353

### **Week 6-7: Production network and international business cycles**

15. \*Alfaro-Urena, A., Manelici, I. and Vasquez, J.P., 2019. The Effects of Joining Multinational Supply Chains: New Evidence from Firm-to-Firm Linkages. Available at SSRN 3376129.
16. \*Michael B. Devereux, Karine Gente and Changhua Yu, 2019, Production Network and International Fiscal Spillovers
17. \*Zhen Huo, and Andrei A. Levchenko and Nitya Pandalai-Nayar, “The Global Business Cycle: Measurement and Transmission”, (November, 2018)
18. \*Saroj Bhattarai and Konstantin Kucheryavy, 2018, A Unified Model of International Business Cycles and Trade
19. \*Auer, Raphael, Andrei A. Levchenko, and Philip Saure (forthcoming), “International inflation spillovers through input linkages.” *Review of Economics and Statistics*.
20. \*Rodriguez-Clare, A., Ulate, M. and Vásquez, J.P., 2019. New-Keynesian Trade: Understanding the Employment and Welfare Effects of Sector-Level Shocks.
21. Ghironi, F., and M. J. Melitz (2005): International Trade and Macroeconomic Dynamics with Heterogeneous Firms, *Quarterly Journal of Economics* 120: 865-915.
22. Gopinath, Gita, and Jeremy Stein. 2018, “Banking, Trade and the Making of a Dominant Currency”, Working Paper, Harvard University
23. Chaney, Thomas (2014), “The network structure of international trade.” *American Economic Review*, 104(11), 3600–3634.
24. Caliendo, Lorenzo, et al. "The impact of regional and sectoral productivity changes on the US economy." *The Review of economic studies* 85.4 (2017): 2042-2096.
25. Shaowen Luo, 2015, Propagation of Financial Shocks in an Input-Output Economy with Trade and Financial Linkages of Firms
26. Carvalho, Vasco M. and Basile Grassi (forthcoming), “Large firm dynamics and the business cycle.” *American Economic Review*.
27. Vasco M. Carvalho and Alireza Tahbaz-Salehi, 2018, Production Networks: A Primer

### **Week 8: Stochastic trend in business cycles**

28. \*Aguiar, Mark, and Gita Gopinath. “Emerging Market Business Cycles: The Cycle Is the Trend.” *Journal of Political Economy* 115.1 (2007): 69-102.
29. \*Garcia-Cicco, Javier, Roberto Pancrazi, and Martin Uribe. “Real Business Cycles in Emerging Countries?.” *American Economic Review* 100.5 (2010): 2510-31.
30. 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.
31. Chang, Roberto, and Andrés Fernández. “On the Sources of Aggregate Fluctuations in Emerging Economies.” *International Economic Review* 54.4 (2013):1265-1293.

### **Week 9-10: International capital flows and portfolio choices**

32. \*Lane, Philip R. and Gian Maria Milesi-Ferretti, 2007, “The External Wealth of Nations Mark II,” *Journal of International Economics*, Vol. 73, pp. 223–50.

33. \*Lane, Philip R., and Gian Maria Milesi-Ferretti (2018) "The External Wealth of Nations Revisited: International Financial Integration in the Aftermath of the Global Financial Crisis." *IMF Economic Review* 66(1), 189-222
34. \*Lane, Philip R., and Jay C. Shambaugh (2010a) "Financial Exchange Rates and International Currency Exposures." *American Economic Review* 100(1), 518-540
35. \*Yu, Changhua, 2015. "Evaluating international financial integration in a center-periphery economy," *Journal of International Economics*, vol. 95(1), pages 129-144.
36. Lane, Philip R., and Gian Maria Milesi-Ferretti (2007) "The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970-2004." *Journal of International Economics* 73(2), 223-250
37. Devereux, Michael B., and Alan Sutherland (2010) "Country portfolio dynamics." *Journal of Economic Dynamics and Control* 34(7), 1325-1342
38. Devereux, Michael B., and Alan Sutherland (2011) "Country Portfolios In Open Economy Macro-Models." *Journal of the European Economic Association* 9(2), 337-369

### **Week 10-11: Credit booms and financial crises**

39. Textbook references: CV (2 16 17) SU (10)
40. \*Mendoza, Enrique G. "Sudden Stops, Financial Crises, and Leverage." *The American Economic Review* 100.5 (2010): 1941-1966.
41. \*Bianchi, Javier. 2011. "Over-borrowing and Systemic Externalities in the Business Cycle." *American Economic Review*, 101(7): 3400-3426.
42. \*Devereux, Michael B., and Changhua Yu. 2020. *International Financial Integration and Crisis Contagion*. *Review of Economic Studies*.
43. Lorenzoni, Guido. "Inefficient Credit Booms". *The Review of Economic Studies* 75.3 (2008): 809–833.
44. Lorenzoni, Guido "International Financial Crises." *Handbook of international Economics* 4 (2013), 647-87
45. 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
46. Chang, R and. A. Velasco "A Model of Financial Crises in Emerging Markets" *Quarterly Journal of Economics* 116.2 (2001): 489-517.
47. Adrian, Tobias and Hyun Song Shin, 2014. "Procyclical Leverage and Value-at-Risk," *Review of Financial Studies*, Society for Financial Studies, vol. 27(2), pages 373-403.

### **Week 12-13: Capital controls and Macroprudential Policies**

48. \*Erten, Bilge, Anton Korinek, and Jose Antonio Ocampo. *Capital controls: Theory and evidence*. No. w26447. National Bureau of Economic Research, 2019. JEL forthcoming
49. \*Bianchi, Javier, and Enrique G. Mendoza, 2018, "Optimal Time-Consistent Macroprudential Policy." *Journal of Political Economy*, vol 126(2), pages 588-634.

50. \*Devereux, Michael B., Eric R. Young and Changhua Yu (2019) "Capital Controls and Monetary Policy in Sudden Stop Economies" , Journal of Monetary Economics (in press).
51. \*Stephanie Schmitt-Grohé and Martín Uribe, "Downward Nominal Wage Rigidity, Currency Pegs, and Involuntary Unemployment," Journal of Political Economy 124, no. 5 (October 2016): 1466-1514.
52. \*Luca Fornaro and Federica Romei, 2018, "The Paradox of Global Thrift", Working Paper, Universitat Pompeu Fabra
53. \*Bianchi, Javier. 2016. "Efficient Bailouts?" American Economic Review, 106(12): 3607-59.
54. \*Korinek, Anton, and Damiano Sandri. "Capital controls or macroprudential regulation?." Journal of International Economics 99 (2016): S27-S42.
55. Emmanuel Farhi, Gita Gopinath and Oleg Itskhoki, 2014. "Fiscal Devaluations," Review of Economic Studies, Oxford University Press, vol. 81(2), pages 725-760.
56. Costinot, Arnaud, Guido Lorenzoni and Ivan Werning, 2014. " A Theory of Capital Controls as Dynamic Terms-of-Trade Manipulation," Journal of Political Economy, University of Chicago Press, vol. 122(1), pages 77 - 128.
57. Korinek, Anton, "The New Economics of Prudential Capital Controls: A Research Agenda," IMF Economic Review 59, August 2011, 523-561.
58. Bocola, Luigi, and Guido Lorenzoni. "Financial Crises, Dollarization, and Lending of Last Resort in Open Economies." (2018).
59. Aoki, Kosuke, Gianluca Benigno, and Nobuhiro Kiyotaki. "Monetary and financial policies in emerging markets." Unpublished paper, London School of Economics. (2018).
60. Caballero, Ricardo J., and Alp Simsek. A risk-centric model of demand recessions and macroprudential policy. No. w23614. National Bureau of Economic Research, 2017.

#### **Week 14: Exchange rates and monetary policy in open-economies**

61. Textbook references: GHR (8) CV (8-11) SU (8 9)
62. \*Oleg Itskhoki, Dmitry Mukhin, "Exchange Rate Disconnect in General Equilibrium", NBER Working Paper No. 23401, Issued in May 2017
63. \*Farhi, Emmanuel, and Matteo Maggiori. "A Model of the International Monetary System." Quarterly Journal of Economics 133, no. 1 (2018): 295-355
64. Mukhin, Dmitry. "An equilibrium model of the International Price System." 2018 Meeting Papers. No. 89. Society for Economic Dynamics, 2018.
65. Egorov, K., & Mukhin, D. (2019). Optimal monetary policy under dollar pricing. Available at SSRN 3404660.
66. 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.
67. Engel, Charles. "Exchange rates, interest rates, and the risk premium." The American Economic Review 106.2 (2016): 436-474.
68. Xavier Gabaix and Matteo Maggiori. "International Liquidity and Exchange Rate Dynamics." The Quarterly Journal of Economics (2015) 130 (3): 1369-1420.

69. Michael B. Devereux and Changhua Yu, "Exchange Rate Adjustment in Financial Crises", *IMF Economic Review*, August 2017, Volume 65, Issue 3, pp 528–562
70. Mark Aguiar, Manuel Amador, Emmanuel Farhi and Gita Gopinath, 2015. "Coordination and Crisis in Monetary Unions," *The Quarterly Journal of Economics*, Oxford University Press, vol. 130(4), pages 1727-1779.
71. 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.
72. Cespedes, L., R. Chang, and A. Velasco, "Balance Sheets and Exchange Rate Policy," *American Economic Review* 94, September 2004, 1183-1193.
73. Corsetti, Giancarlo and Dedola, Luca and Leduc, Sylvain. "Optimal Monetary Policy in Open Economies" *Handbook of Monetary Economics*, 2010.
74. Farhi, Emmanuel, Gita Gopinath and Oleg Itskhoki, 2014. "Fiscal Devaluations," *Review of Economic Studies*, Oxford University Press, vol. 81(2), pages 725-760.
75. Rey, Helene (2015) "Dilemma not Trilemma: the Global Financial Cycle and Monetary Policy Independence." Working Paper 21162, National Bureau of Economic Research.
76. Bruno, Valentina, and Hyun Song Shin (2015a) "Capital Flows and the Risk-taking Channel of Monetary Policy." *Journal of Monetary Economics* 71(C), 119–132.
77. Bruno, Valentina, and Hyun Song Shin (2015b) "Cross-Border Banking and Global Liquidity." *Review of Economic Studies* 82(2), 535–564.
78. Maggiori, Matteo. "Financial Intermediation, International Risk Sharing, and Reserve Currencies." *American Economic Review* 107, no. 10 (2017): 3038-3071.
79. Sebastian Fanelli and Ludwig Straub 2017 "A Theory of Foreign Exchange Interventions"

### **Week 15: International capital flows and global imbalances**

80. Textbook references: GHR (10)
81. \*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.
82. \*Mendoza, Enrique G., Vincenzo Quadrini, and Jose-Victor Rios-Rull. "Financial Integration, Financial Development, and Global Imbalances." *Journal of Political Economy* 117.3 (2009).
83. \*Jin, Keyu. 2012, "Industrial structure and capital flows." *American Economic Review* 102, no. 5: 2111-46.
84. \*Coeurdacier, Nicolas, Stéphane Guibaud, and Keyu Jin. "Credit constraints and growth in a global economy." *The American Economic Review* 105.9 (2015): 2838-2881.
85. \*Barany, Zsofia, Nicholas Coeurdacier, and Stéphane Guibaud. 2018 "Capital Flows in an Aging World"



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87. McGrattan, Ellen R. and Edward C. Prescott, 2010. "Technology Capital and the US Current Account," *American Economic Review*, vol. 100(4), pages 1493-1522, September.
88. Gourio, Francois, Michael Siemer, and Adrien Verdelhan. "Uncertainty and international capital flows." (2015).

**Week 16: Students present their research proposals**