

Syllabus for “Frontiers of Macroeconomics” by Prof. Jesse Schreger and Prof. Chris Moser Columbia Business School, Fall 2023

Contact Information

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Meeting Times and Locations

Thursdays, 2:10-4:00pm @ 1101 International Affairs Building

Fall 2023 A-Term taught by Prof. Jesse Schreger: September 7/14/21/28 and October 5/12/19, 2023

Fall 2023 B-Term taught by Prof. Chris Moser: October 26, November 2/9/16/30, and December 7/14, 2023

Office Hours

Fall 2023 A-Term taught by Prof. Jesse Schreger: Thursdays, 4:00-5:00pm @ TBD

Fall 2023 B-Term taught by Prof. Chris Moser: Thursdays, 4:00-5:00pm @ TBD

Course Overview

Applied and empirical macroeconomics—the study of aggregate economic outcomes using a combination of theory and microdata—is a large and rapidly growing area in the field of economics. The increasing availability of large datasets has made it feasible to study the micro-foundations of macroeconomic phenomena as varied as producer price-setting behavior and inflation, the drivers of global capital flows, and the dynamics of firms and workers in the labor market. The first half of the course will focus on worker and firm heterogeneity in the labor market. The second half will focus on growth, innovation, and firm dynamics. Both parts of the course will guide students to the research frontier in the respective areas and emphasize methods that allow students to use microdata to address macroeconomic questions.

Course Materials

There is no required textbook for the course, and we will focus on research papers on the reading list. The following are useful as background references:

Fall 2023 A-Term taught by Prof. Jesse Schreger:

- Handbook of International Economics Volumes 4 and 5. Edited by Gita Gopinath, Elhanan Helpman and Kenneth Rogoff.
- Stanford Big-Data Initiative in International Macro-Finance Videos: [Link](#).

Fall 2023 B-Term taught by Prof. Chris Moser:

- Pissarides, Christopher A., "Equilibrium Unemployment Theory," 2000, MIT Press.
- Shimer, Robert, "Labor Markets and Business Cycles," 2010, Princeton University Press.
- Mortensen, Dale T., "Wage Dispersion: Why Are Similar Workers Paid Differently?," MIT Press, 2003.
- Rogerson, Richard, Robert Shimer, and Randall Wright, "Search-Theoretic Models of the Labor Market: A Survey," *Journal of Economic Literature*, 2005, 43(4), 959-988.

Grading

Grading for this class is based on class participation (20%), problem sets (30%), and a final research project (50%). Class participation involves preparing assigned readings ahead of class as well as active participation during class. The problem sets assume familiarity with a statistical software or programming language of your choice (MATLAB, Stata, Python, R, etc.). For the final research project, students are expected to develop an original research idea. While we do not necessarily expect a complete academic paper, students' research projects must contain a well-defined and well-motivated question, an empirical strategy, a description of the dataset used or the dataset hypothetically required to answer the question, and (potentially) preliminary results.

Course Outline

The course is divided into 12 topics, each roughly corresponding to a week of the semester. Readings with a * are required and other readings are suggested.

Fall 2023 A-Term taught by Prof. Jesse Schreger

Topic 1. Introduction to Exchange Rates, Risk Sharing and Trade

- Backus, D. K., and G. W. Smith. 1993. Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods. *Journal of International Economics* 35(3), 297–316.
- (*)Obstfeld, M. and Rogoff, K., 2000. The six major puzzles in international macroeconomics: is there a common cause?. *NBER Macroeconomics Annual*, 15, pp.339-390.
- Cole, H. L., and M. Obstfeld. 1991. Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter? *Journal of Monetary Economics* 28(1), 3-24.
- (*)Gabaix, X. and M. Maggiori. 2015. International Liquidity and Exchange Rate Dynamics, *Quarterly Journal of Economics*, 130(3), 1369-1420.

Topic 2. Exchange Rate Determination and Financial Frictions

- (*)Maggiore, M. "International Macroeconomics with Imperfect Financial Markets." *Handbook of International Economics*. Edited by Gopinath, Helpman, and Rogoff.
- Tarek, A. H., R. C. Mano. 2019. Forward and Spot Exchange Rates in a Multi-Currency World. *Quarterly Journal of Economics*, 134(1), 397–450
- (*) Du, W., A. Tepper, and A. Verdelhan. 2018. Deviations from Covered Interest Rate Parity. *The Journal of Finance*, 73(3), 915–57.
- Du, W. and J. Schreger. 2021. CIP Deviations, the Dollar, and Frictions in International Capital Markets. *Handbook of International Economics*. Edited by Gopinath, Helpman, and Rogoff.
- Ilzetzki, E., C.M. Reinhart, and K. Rogoff. 2019. Exchange Arrangements Entering the 21st Century: Which Anchor Will Hold?" *Quarterly Journal of Economics* 134 (2): 599-646.

Topic 3. Exchange Rates and Prices

- Engel, C. 2006. Equivalence Results for Optimal Pass-Through, Optimal Indexing to Exchange Rates, and Optimal Choice of Currency for Export Pricing. *Journal of the European Economic Association* 4(6), 1249–1260.
- (*)Burstein, A. and Gopinath, G., 2014. International Prices and Exchange Rates. In *Handbook of International Economics* (Vol. 4, pp. 391-451). Edited by Gopinath, Helpman, and Rogoff.
- Auer, R., Burstein, A. and Lein, S.M., 2021. Exchange rates and prices: evidence from the 2015 Swiss franc appreciation. *American Economic Review*, 111(2), pp.652-86.
- Cavallo, A., B. Neiman, and R. Rigobon. 2014. Currency Unions, Product Introductions, and the Real Exchange Rate. *The Quarterly Journal of Economics* 129(2), 529-595.
- (*) Gopinath, G., O. Itskhoki, and R. Rigobon. 2010. Currency Choice and Exchange Rate Pass-through. *American Economic Review* 100(1), 304–36.
- Gopinath, G., Boz, E., Casas, C., Díez, F.J., Gourinchas, P.O. and Plagborg-Møller, M., 2020. Dominant currency paradigm. *American Economic Review*, 110(3), pp.677-719

Topic 4. Global Portfolios I: Stylized Facts

- French, K. and J. Poterba. 1991 Investor diversification and international equity markets, *American Economic Review*, 81:222-226.
- (*) Portes, Richard and Hélène Rey, 2005, The Determinants of Cross Border Equity Flows, *Journal of International Economics*.
- Coeurdacier N., and H. Rey. 2013. Home Bias in Open Economy Financial Macroeconomics. *Journal of Economic Literature*, 51(1), 63-115.
- Lane, P.R. and J.C. Shambaugh. 2010. Financial Exchange Rates and International Currency Exposures, *American Economic Review*, 100(1), 518-540.
- (*) Coppola, A., M. Maggiore, B. Neiman, and J. Schreger. 2021. Redrawing the Map of Global Capital Flows: The Role of Cross Border Financing and Tax Havens. *Quarterly Journal of Economics*, 136(3), pp.149-182.

Topic 5. Global Portfolios II: Explaining Patterns of Global Capital Allocation

- (*) Koijen, R.S. and Yogo, M., 2020. Exchange rates and asset prices in a global demand system (No. w27342). National Bureau of Economic Research.
- (*) Maggiori, M., Neiman, B. and Schreger, J., 2020. International Currencies and Capital Allocation. *Journal of Political Economy*, 128(6), pp.2019-2066.
- Pellegrino, B., Spolaore, E., & Wacziarg, R. (2021). Barriers to Global Capital Allocation (No. w28694). National Bureau of Economic Research.
- Jiang, Z., Richmond, R., & Zhang, T. (2020). A portfolio approach to global imbalances. Working Paper.

Topic 6. The International Monetary System and the Dollar

- (*)Gopinath, G. and Stein, J.C., 2020. Banking, Trade, and the making of a Dominant Currency. *Quarterly Journal of Economics*.
- (*) Farhi, E. and M. Maggiori. 2018. A Model of International Monetary System. *Quarterly Journal of Economics*, 133(1), 295-355.
- He, Zhiguo, Arvind Krishnamurthy, and Konstantin Milbradt. "A model of safe asset determination." *American Economic Review* 109, no. 4 (2019): 1230-62
- Maggiori, Matteo, 2017. Financial Intermediation, International Risk Sharing, and Reserve Currencies. *American Economic Review* 107, pp 3038-3071.
- (*) Jiang, Z., Krishnamurthy, A. and Lustig, H., 2020. Foreign safe asset demand and the dollar Exchange Rate. Forthcoming, *Journal of Finance*.

Topic 7. Sovereign Debt

- Aguiar, Mark, and Manuel Amador. "Chapter 11 - Sovereign Debt." In Handbook of International Economics, edited by Elhanan Helpman and Kenneth Rogoff Gita Gopinath, 4:647-87. Handbook of International Economics. Elsevier, 2014.
- Aguiar, M., S. Chatterjee, H. Cole, and Z. Stangebye. "Chapter 21 – Quantitative Models of Sovereign Debt Crises." In Handbook of Macroeconomics, edited by John B. Taylor and Harald Uhlig, 2:1697-1755. Elsevier, 2016.
- Aguiar, Mark, and Gita Gopinath. "Defaultable Debt, Interest Rates and the Current Account." *Journal of International Economics* 69, no. 1 (June 2006): 64-83.
- (*) Arellano, Cristina. "Default Risk and Income Fluctuations in Emerging Economies." *American Economic Review* 98, no. 3 (June 2008): 690-712.
- Eaton, Jonathan, and Mark Gersovitz. "Debt with Potential Repudiation: Theoretical and Empirical Analysis." *The Review of Economic Studies* 48, no. 2 (April 1, 1981):289-309.
- Chatterjee, S. and Eyigungor, B., 2012. Maturity, indebtedness, and default risk. *American Economic Review*, 102(6), pp.2674-99.
- (*) Hebert, Benjamin, and Jesse Schreger. "The Costs of Sovereign Default: Evidence from Argentina." *American Economic Review*, 107, no. 10 (2017): pp. 3119-3145
- (*) Cruces, J.J. and Trebesch, C., 2013. Sovereign defaults: The price of haircuts. *American economic Journal: macroeconomics*, 5(3), pp.85-117.
- (*) Meyer, J., Reinhart, C.M. and Trebesch, C., 2019. *Sovereign bonds since Waterloo* (No. w25543). National Bureau of Economic Research.

- Longstaff, F.A., Pan, J., Pedersen, L.H. and Singleton, K.J., 2011. How sovereign is sovereign credit risk?. *American Economic Journal: Macroeconomics*, 3(2), pp.75-103.

Fall 2023 B-Term taught by Prof. Chris Moser

Topic 1. Measuring Worker and Firm Heterogeneity in the Labor Market

- *Card, David, Jörg Heining, and Patrick Kline, "Workplace Heterogeneity and the Rise of West German Wage Inequality," *Quarterly Journal of Economics*, 2013, 128 (3), 967–1015.
- *Card, David, Ana Rute Cardoso, Jörg Heining, and Patrick Kline, "Firms and Labor Market Inequality: Evidence and Some Theory," *Journal of Labor Economics*, 2018, 36 (S1), S13–S70.
- *Alvarez, Jorge, Felipe Benguria, Niklas Engbom, and Christian Moser, "Firms and the Decline in Earnings Inequality in Brazil," *American Economic Journal: Macroeconomics*, 2018, 10 (1): 149-189.
- Davis, Steve J. and John Haltiwanger, "Wage Dispersion between and within U.S. Manufacturing Plants, 1963-86," *Brookings Papers on Economic Activity. Microeconomics*, 1991, 115–200.
- Brown, Charles and James L. Medoff, "The Employer Size-Wage Effect," *Journal of Political Economy*, 1989, 97 (5), 1027-1059.
- Abowd, John M., Francis Kramarz, and David N. Margolis, "High Wage Workers and High Wage Firms," *Econometrica*, 1999, 67 (2), 251–333.
- Song, Jae, David J. Price, Fatih Guvenen, Nicholas Bloom, and Till von Wachter, "Firming Up Inequality," *The Quarterly Journal of Economics*, 2018, 134 (1), 1–50.

Topic 2. Issues with and Alternatives to the Two-Way Fixed Effects Model

- *Andrews, Martyn J., Leonard Gill, Thorsten Schank, and Richard Upward, "High Wage Workers and Low Wage Firms: Negative Assortative Matching or Limited Mobility Bias?," *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 2008, 171 (3), 673–697.
- *Bonhomme, Stéphane, Thibaut Lamadon, and Elena Manresa, "A Distributional Framework for Matched Employer Employee Data," *Econometrica*, 2019, 87 (3), 699–739.
- *Engbom, Niklas, Christian Moser, and Jan Sauermann, "Firm Pay Dynamics," *Working Paper*, 2022.
- Kline, Patrick, Raffaele Saggio, and Mikkel Sølvsten, "Leave-Out Estimation of Variance Components," *NBER Working Paper 26244*, 2019.
- Borovickova, Katarina and Robret Shimer, "High Wage Workers Work for High Wage Firms," *Working Paper*, 2020.
- Roy, A. D., "Some Thoughts on the Distribution of Earnings," *Oxford Economic Papers*, 1951, 3 (2), 135–146.
- Becker, Gary S., "A Theory of Marriage: Part I," *Journal of Political Economy*, 1973, 81 (4), 813-846.
- Shimer, Robert and Smith, Lones, "Assortative Matching and Search," *Econometrica*, 2000, 68, 343-369.

Topic 3. Theories of Worker Heterogeneity, Firm Heterogeneity, and Sorting

- *Burdett, Kenneth and Dale T. Mortensen, "Wage Differentials, Employer Size, and Unemployment," *International Economic Review*, 1998, 39 (2), 257–273.

- *Postel-Vinay, Fabien and Jean-Marc Robin, "Equilibrium Wage Dispersion with Worker and Employer Heterogeneity," *Econometrica*, 2002, 70 (6), 2295–2350.
- *Hornstein, Andreas, Per Krusell, and Giovanni L Violante, "Frictional Wage Dispersion in Search Models: A Quantitative Assessment," *American Economic Review*, 2011, 101, 2873–2898.
- Cahuc, Pierre, Fabien Postel-Vinay, and Jean-Marc Robin, "Wage Bargaining with On-the-Job Search: Theory and Evidence," *Econometrica*, 2006, 74 (2): 323-364.
- Hopenhayn, Hugo, "Entry, Exit, and Firm Dynamics in Long Run Equilibrium," 1992, *Econometrica*, 60(5), 1127–11250.
- Klette, Tor Jakob, and Samuel Kortum, "Innovating Firms and Aggregate Innovation," 2004, *Journal of Political Economy*, 112 (5), 986–1018.
- Lucas, Robert E., "On the Size Distribution of Business Firms," 1978, *The Bell Journal of Economics*, 9(2), 508.
- Luttmer, Erzo G. J., "Selection, Growth, and the Size Distribution of Firms," *Quarterly Journal of Economics*, 2007, 122 (3), 1103–1144.
- Moll, Benjamin, "Productivity Losses from Financial Frictions: Can Self-Financing Undo Capital Misallocation?" *American Economic Review*, 2014, 104 (10), 3186-3221.
- McCall, John J., "Economics of Information and Job Search," *Quarterly Journal of Economics*, 1970, 84 (1), 113–126.
- Mortensen, Dale T. and Christopher A. Pissarides, "Job Creation and Job Destruction in the Theory of Unemployment," 1994, *Review of Economic Studies*, 61 (3), 397–415.

Topic 4. Taking Models to the Data I: Job Ladders

- *Jarosch, Gregor, "Searching for Job Security and the Consequences of Job Loss," *Working Paper*, 2021.
- *Sorkin, Isaac, "Ranking Firms Using Revealed Preference," *The Quarterly Journal of Economics*, 2018, 133 (3), 1331– 1393.
- *Morchio, Iacopo and Christian Moser, "The Gender Gap: Micro Sources and Macro Consequences," *Working Paper*, 2020.

Topic 5. Taking Models to the Data II: Empirical Patterns of Sorting

- *Bagger, Jesper and Rasmus Lentz, "An Empirical Model of Wage Dispersion with Sorting," *The Review of Economic Studies*, 2019, 86 (1), 153–190.
- *Lise, Jeremy and Jean-Marc Robin, "The Macrodynamics of Sorting between Workers and Firms," 2017, *American Economic Review*, 107(4), 1104–1135.
- *Lamadon, Thibaut, Magne Mogstad, and Bradley Setzler, "Imperfect Competition, Compensating Differentials and Rent Sharing in the U.S. Labor Market," *Working Paper No. 2019-84, Becker Friedman Institute for Economics, University of Chicago*, 2019.
- *Luo, Mi and Simon Mongey, "Assets and Job Choice: Student Debt, Wages and Job Satisfaction," *NBER Working Paper No. 25801*, 2019.

Topic 6. Taking Models to the Data III: Macroeconomic Fluctuations and Policies

- *Shimer, Robert, "The Cyclical Behavior of Equilibrium and Vacancies Unemployment," *American Economic Review*, 2005, 95 (1), 25–49.

- Pissarides, Christopher A., "The Unemployment Volatility Puzzle: Is Wage Stickiness the Answer?," 2009, *Econometrica*, 77 (5), 1339–1369.
- *Gertler, Mark, Christopher Huckfeldt, and Antonella Trigari, "Unemployment Fluctuations, Match Quality, and the Wage Cyclicalilty of New Hires," 2016, *NBER Working Paper*.
- Hazell, Jonathon, "Downward Rigidity in the Wage for New Hires," *Working Paper*, 2020.
- Flinn, Christopher J., "Minimum Wage Effects on Labor Market Outcomes under Search, Matching, and Endogenous Contact Rates," *Econometrica*, 2006, 74 (4), 1013–1062.
- *Engbom, Niklas and Christian Moser, "Earnings Inequality and the Minimum Wage: Evidence from Brazil," *Working Paper*, 2021.
- *Moser, Christian, Farzad Saidi, Benjamin Wirth, and Stefanie Wolter. "Credit Supply, Firms, and Earnings Inequality," *Working Paper*, 2021.