

ECO522 – First Half

Advanced Macroeconomics II

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This course covers a number of research topics at the frontier of quantitative macroeconomics with heterogeneous agents and incomplete markets. A one-line summary of the course is “macro models meet micro data”.

- **Requirements:** Knowledge of basic macroeconomic models with incomplete markets learned in ECO504. Ability to code (in Matlab, Python, Julia, R, Fortran, or C++) is necessary to perform some of the class assignments. If you’re still unsure about which language to choose, see Coleman-Lyon-Maliar-Maliar: Matlab, Python, Julia: What to Choose in Economics? *CEPR-DP13210*.
- **Lectures:** Monday and Wednesday 2:40-4:10 PM in Room 298 JRRB
- **Class Material:** Slides for all lectures, various announcements, regularly updated syllabus, and additional teaching material will be posted on the *Canvas* page of the course.
- **Office Hours:** Contact me by email: <violante@princeton.edu>
- **Evaluation.** The evaluation is based on three assignments.
 1. **Presentation and referee report:** 15 mins class presentation of one of the papers on the reading list. There will be a presentation each week. On the same paper, the student will prepare a referee report. Please, read: How to Write an Effective Referee Report and Improve the Scientific Review Process, by Jonathan B. Berk, Campbell R. Harvey, and David Hirshleifer, published in the *Journal of Economic Perspectives*, 2017. The report is due one week after the presentation. **Weight: 1/3**
 2. **Homework:** There will be some homework assignments during the course. Some will be computational, others more theoretical, like the problem sets in first-year macro. George Nikolakoudis, a Princeton PhD student, has built a GitHub repository of Julia code on heterogeneous agent models, here <https://github.com/nikolakou> from which you can draw for your assignments. The repository at <https://quantecon.org/> has a ton of examples of Julia and Python code applied to macro. **Weight: 1/3**

3. **Replication:** A replication of the main result from an existing paper (either published or still at the working paper stage). It could be one of those on the reading list, or another one of your liking. You choose it, but you need my approval. Feel free to ask me for suggestions if you are unsure. *The replication is due the first day of class of the Spring semester.* **Weight: 1/3.**
- **General Exam:** The papers marked with a * are a must read for the General Macro Exam. They will be updated week by week.

Course Outline

1. Externalities and Constrained Efficiency in Heterogeneous-Agent Models

- * Blanchard O., and N. Kiyotaki (1987). Monopolistic Competition and the Effects of Aggregate Demand. *American Economic Review*
- Ball L. (1987). Externalities from Contract Length. *American Economic Review*
- * Ball and Romer (1989). Are Prices Too Sticky? *Quarterly Journal of Economics*
- * Fahri, E. and I. Werning (2016). A Theory of Macroprudential Policy in the Presence of Nominal Rigidities. *Econometrica*
- * Stiglitz, J. (1982). The Inefficiency of the Stock Market Equilibrium. *Review of Economic Studies*
- * Davila, E. and A. Korinek (2017). Pecuniary Externalities in Economies with Financial Frictions. *Review of Economic Studies*
- * Davila, J, J.H. Hong, P. Krusell, J.V. Rios-Rull (2012). Constrained efficiency in the neoclassical growth model with uninsurable idiosyncratic shocks. *Econometrica*
- Lorenzoni, G. (2008). Inefficient credit booms. *Review of Economic Studies*
- Lanteri A., and A. Rampini (2023). Constrained-Efficient Capital Reallocation. *American Economic Review*
- Nuno, G. and B. Moll (2018). Social Optima in Economies with Heterogeneous Agents. *Review of Economic Dynamics*

2. Unsecured Credit and Default

- * Zhang Harold (1997). Endogenous Borrowing Constraints with Incomplete Markets, *Journal of Finance*
- * Livshits Igor, Jim McGee and Michele Tertilt (2006). Consumer Bankruptcy: A Fresh Start, *American Economic Review*
- * Chatterjee, Satyajit, Dean Corbae, Makoto Nakajima, Jose-Victor Rios-Rull (2007). A Quantitative Theory of Unsecured Consumer Credit with Risk of Default. *Econometrica*
- * Exler, F. and M. Tertilt (2020). Consumer Debt and Default: A Macro Perspective. Mimeo.
- * Chatterjee, Satyajit, Dean Corbae, Kyle Dempsey, Jose-Victor Rios-Rull (2023). A Quantitative Theory of the Credit Score. *Econometrica*
- * Zinman, Jonathan. 2015. Household Debt: Facts, Puzzles, Theories, and Policies. *Annual Review of Economics* 7(1).

- Agarwal, Sumit, Souphala Chomsisengphet, Neale Mahoney, and Johannes Stroebel. 2017. Do Banks Pass through Credit Expansions to Consumers Who want to Borrow? *Quarterly Journal of Economics*
- Dempsey K. and F. Ionescu (2021). Lending Standards and Borrowing Premia in Unsecured Credit Markets. Mimeo, FRB.
- Nakajima, Makoto and Jose-Victor Rios-Rull (2005). Default and Aggregate Fluctuations in Storage Economies.
- Auclert A. and K. Mitman (2020). Consumer Bankruptcy as Aggregate Demand Management. Mimeo Stanford.
- Galenianos, Manolis, and Alessandro Gavazza. 2019. Regulatory Interventions in Consumer Financial Markets: The Case of Credit Cards. CEPR Discussion Papers 13807.
- Herkenhoff, Kyle and Gajendran Raveendranathan. 2020. Who Bears the Welfare Costs of Monopoly? The Case of the Credit Card Industry. Working paper 26604, National Bureau of Economic Research.
- Telyukova, Irina A. 2013. Household Need for Liquidity and the Credit Card Debt Puzzle. *Review of Economic Studies* 80(3)
- Narajabad, Borghan N. 2012. Information Technology and the Rise of Household Bankruptcy. *Review of Economic Dynamics* 15(4)
- Fay, Scott, Erik Hurst, and Michelle J. White. 2002. The Household Bankruptcy Decision. *American Economic Review* 92(3).

3. The Marginal Propensity to Consume

(a) Empirical Estimates of the MPC

- Background Reading
 - * Jappelli, Tullio and Luigi Pistaferri (2014). The consumption response to income changes. *Annual Review of Economics*
 - Anna Sokolova (2022). Marginal Propensity to Consume in Recessions: a Meta-analysis. Mimeo.
- Survey Evidence
 - * Fuster, Andreas, Greg Kaplan, Basit Zafar (2018). What Would You Do with \$500? Spending Responses to Gains, Losses, News and Loans.
 - Christelis, D. , D. Georgarakos, T. Jappelli, L. Pistaferri, and M. van Rooij (2019). Asymmetric Consumption Effects of Transitory Income Shocks. *Economic Journal*.
 - Bunn P., J. Le Roux, K. Reinold, and P. Surico (2018). The Consumption Response to Positive and Negative Income Shocks. *Journal of Monetary Economics*.

- Quasi-Experimental Evidence
 - * Johnson, D.S. and Parker, J.A. and N. Souleles (2006). Household Expenditure and the Income Tax Rebates of 2001. *The American Economic Review*
 - Parker, Jonathan A., Nicholas S. Souleles, David S. Johnson, and Robert McClelland (2013). Consumer Spending and the Economic Stimulus Payments of 2008. *The American Economic Review*
 - * Broda, Christian and Jonathan Parker (2016). The Economic Stimulus Payments of 2008 and the aggregate demand for consumption. *Journal of Monetary Economics*
 - * Shapiro, Matt, Michael Gelman, Shachar Kariv, Dan Silverman, and Steven Tadelis (2017). How Individuals Smooth Spending: Evidence from the 2013 Government Shutdown Using Account Data. *Journal of Public Economics*
 - Baker, Scott (2017). Debt and the consumption response to household income shocks. *Journal of Political Economy*
 - * Fagereng, Andreas, Martin Blomhoff Holm, and Gisle Natvik (2021). MPC heterogeneity and household balance sheets. *AJ: Macro*
 - * Mikhail Golosov, Michael Graber, Magne Mogstad, David Novgorodsky (2021). How Americans Respond to Idiosyncratic and Exogenous Changes in Household Wealth and Unearned Income. NBER WP 29000.
 - * Ganong P., D. Jones, P. Noel, D. Farrell, F. Greig, C. Wheat (2020). Wealth, Race, and Consumption Smoothing of Typical Income Shocks. *University of Chicago, Becker Friedman Institute for Economics Working Paper*
 - Marco Di Maggio, Amir Kermani, Benjamin J. Keys, Tomasz Piskorski, Rodney Ramcharan, Amit Seru, Vincent Yao (2017). Interest Rate Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Deleveraging, *American Economic Review*
 - Coyne David, Itzik Fadlon, and Tommaso Porzio (2021). Measuring Valuation of Liquidity with Penalized Withdrawals.
 - Jeppe Druedahl, Emil Bjerre Jensen, Soren Leth-Petersen (2022). The Intertemporal Marginal Propensity to Consume out of Future Persistent Cash-Flows: Evidence from Transaction Data.
- Semi-structural Models
 - * Blundell, Richard, Luigi Pistaferri and Ian Preston (2006). Consumption inequality and partial insurance. *The American Economic Review*
 - * Kaplan, Greg and Gianluca Violante (2010). How much consumption insurance beyond self-insurance? *American Economic Journal: Macroeconomics*
 - * Commault, Jeanne (2018). How Does Consumption Respond to a Transitory Income Shock? Reconciling Natural Experiments and Structural Estimations. Mimeo, Sciences Po.

(b) The MPC in one-asset models

- * Carroll, Christopher, Jiri Slacalek, Kiichi Tokuoka, and Matthew N. White (2017). The Distribution of Wealth and the Marginal Propensity to Consume. *Quantitative Economics*
- Carroll, C., M. Blomhoff Holm, M. Kimball (2020). Liquidity Constraints and Precautionary Saving. Mimeo, JHU.
- Blomhoff Holm, M. (2018). Consumption with liquidity constraints: An analytical characterization. *Economic Letters*
- * Kaplan, G. and G.L. Violante (2020). The Marginal Propensities to Consume in Heterogeneous Agent Models. *Annual Review of Economics*
- * Orchard, Jacob, Valerie Ramey and Johannes Wieland (2022). Micro MPCs and Macro Counterfactuals: The Case of the 2008 Rebates. Mimeo, UCSD.

4. The Two-Asset Heterogeneous-Agent Model

- * Kaplan, Greg, Gianluca Violante, and Justin Weidner (2014). The Wealthy Hand-to-Mouth. *Brookings Papers on Economic Activity*
- * Kaplan, Greg and Gianluca Violante (2014). A Model of the Consumption Response to Fiscal Stimulus Payments. *Econometrica*
- Kaplan, Greg and Gianluca Violante (2014). A Tale of Two Stimulus Payments: 2001 vs 2008. *American Economic Review PP*
- * Aguiar, M., M. Bils, and C. Boar (2020). Who are the hand-to-mouth? Mimeo. Princeton.
- Cochrane, J. (1989). The Sensitivity of Tests of the Intertemporal Allocation of Consumption to Near-Rational Alternatives. *American Economic Review*
- * Attanasio, O., A. Kovacs and P. Moran (2020). Temptation and Incentives to Wealth Accumulation, Working Paper 28938.
- * Laibson David, Peter Maxted and Benjamin Moll (2021). Present Bias Amplifies the Household Balance-Sheet Channels of Macroeconomic Policy.
- * Graves, S. (2021). A Two-Step Method for Solving Two-Asset Models. Mimeo, FRB.

5. Labor Supply

- Blundell Richard, and Tom MaCurdy (1999). Labor Supply: A Review of Alternative Approaches, in Handbook of Labor Economics, vol. 3, North Holland
- MaCurdy, Tom (1981). An Empirical Model of Labor Supply in a Life-cycle Setting, *Journal of Political Economy*
- Altonji, Joseph (1986). Intertemporal Substitution in Labor Supply: Evidence from Micro Data, *Journal of Political Economy*
- Pistaferri, Luigi (2003). Anticipated and Unanticipated Wage Changes, Wage Risk, and Intertemporal Labor Supply, *Journal of Labor Economics*

- Domeij David, and Martin Floden (2006). The Labor-Supply Elasticity and Borrowing Constraints: Why Estimates are Biased, *Review of Economic Dynamics*
- Rogerson Richard (1998). Indivisible Labor, Lotteries and Equilibrium, *Journal of Monetary Economics*
- * Chang Yongsung and S. Kim (2006). From Individual to Aggregate Labor Supply: A Quantitative Analysis Based on a Heterogeneous Agent Economy, *International Economic Review*
- Rogerson Richard, and Johanna Wallenius (2009). Micro and Macro Elasticities in a Life Cycle Model with Taxes, *Journal of Economic Theory*
- * Keane, M. and R. Rogerson (2012). Micro and macro labor supply elasticities: A reassessment of conventional wisdom, *Journal of Economic Literature*
- * Keane, M. and R. Rogerson (2015). Reconciling micro and macro labor supply elasticities: A structural perspective, *Annual Review of Economics*
- * Keane, M. (2011). Labor Supply and Taxes: A Survey. *Journal of Economic Literature*
- Ljungqvist, Lars and Thomas J. Sargent (2011). A Labor Supply Elasticity Accord?, *American Economic Review*

6. Fiscal Theory of the Price Level: A Primer

- Sargent, T., and N. Wallace (1981). Some Unpleasant Monetarist Arithmetic. *Federal Reserve Bank of Minneapolis, Quarterly Review*
- * Cochrane. J. (2022). The Fiscal Theory of the Price Level. Princeton University Press. Chapters 1,2, 7, 19
- Sims, C. (1994). Simple Model for Study of the Determination of the Price Level and the Interaction of Monetary and Fiscal Policy. *Economic Theory*
- * Christiano, L. and Terry J. Fitzgerald (2000). Understanding the Fiscal Theory of the Price Level. *Economic Review, FRB of Cleveland*
- Leeper, Eric M. (1991). Equilibria under ‘Active’ and ‘Passive’ Monetary and Fiscal Policies, *Journal of Monetary Economics*
- Woodford, Michael (1994). Monetary Policy and Price Level Determinacy in a Cash-in-Advance Economy, *Economic Theory*
- * Greg Kaplan, Georgios Nikolakoudis, and Giovanni L. Violante (2023). Price Level Determination and Inflation Dynamics in Heterogeneous-Agent Economies. Mimeo Princeton.
- Amol Amol, Luttmer, Erzo (2022). Permanent Primary Deficits, Idiosyncratic Long-Run Risk, and Growth. Mimeo, U of Minnesota.
- Miao, J, and D. Su (2023). Fiscal and Monetary Policy Interactions in a Model with Low Interest Rates. *American Economic Journal: Macroeconomics*

- Kwicklis, Noah (2023). Transfer Payments, Sacrifice Ratios, and Inflation in a Fiscal Theory HANK. Mimeo UCLA

7. Fiscal Policy in a Low Interest Rate Environment

- Blanchard, O. (2020). Public Debt and Low Interest Rates. NBER WP
- * Mark Aguiar, Manuel Amador and Cristina Arellano (2021). Micro Risks and (Robust) Pareto Improving Policies. NBER Working Paper No. 28996.
- * Jiang, Zhengyang , Hanno Lustig, Stijn Van Nieuwerburgh, and Mindy Z. Xiaolan (2022). Fiscal Capacity: An Asset Pricing Perspective. *Annual Review of Economics*.
- Angeletos M., Fabrice Collard and Harris Dellas (2023). Public Debt as Private Liquidity: Optimal Policy *Journal of Political Economy*
- Angeletos, M., L. Chen and C. Wolf (2023). Can Deficits Finance Themselves?
- Reis R. (2021). The constraint on public debt when $r < g$ but $g < m$. Work. Pap., London School Econ.
- Reis R. (2022). Debt revenue and the sustainability of public debt. *J. Econ. Perspective*
- Mian, Atif, Ludwig Straub, and Amir Sufi (2022). A Goldilocks Theory of Fiscal Deficits. Mimeo, Princeton.