

# Macroeconomic Models of Consumption, Saving, and Labor Supply

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Office hours: by appointment (just write an email)

Summer Semester 2021  
Time: Mondays, 8.30 to 10.00 am

Room: virtual seminar (using Zoom)

## Description

This course is intended to help second year PhD students develop a research question in an area of the microfoundations of macroeconomics, and acquire some of the skills needed to answer interesting research questions. The main focus of the course is on quantitative macroeconomic models. We will learn how to write down a model, especially heterogeneous agent models, derive predictions from the model, and evaluate the model performance against empirical counterparts. You will also get familiar with the most heavily used data sets in the research area. We will study dynamic programming and structural estimation techniques, calibration, and reduced form empirical approaches.

## Readings

There is no required textbook for this class. The syllabus contains links to the readings. The numbered readings are the ones that we will primarily discuss in class (in that order). I always also list further references.

## Organization Summer Semester 2021

Unfortunately, we still have to stick to the virtual format, using Zoom.

If you are interested in taking this course (also if you are not sure yet and just want to try it out), **please register for the course on OLAT (*Macroeconomic Models of Consumption, Saving, and Labor Supply (SS 2021)*, [OLAT-Link](#))**. This will also register you for this course's e-mail distribution list. Note that de-registering will be possible if you do not wish to continue the course. We will send a link for a video conference room to everyone who signed up by the latest on Friday, April 9th. **If you do not receive a mail by then, please contact Khanh Hoang at [khanhhoangtrung@gmail.com](mailto:khanhhoangtrung@gmail.com)**. We will keep the OLAT page up to date with any news.

## Requirements

There are two components to the assessment for this class.

The first and most important component is a short paper on a topic broadly related to the class. The goal of the paper is to encourage you to learn some hands-on lessons about the process of doing research. One possibility is to replicate empirical results or a calibration exercise from a paper in the literature. Obviously, more ambitious exercises are welcome. You should start talking to me about your ideas as soon as possible, and definitely before the due date for the proposal. Simply send me an email, and we will meet virtually. The proposal should be two pages long, and contain a detailed outline of what you plan to do. For example, if you plan to replicate an empirical paper or work on an empirical topic of your own, your proposal should describe the relevant data sources, and demonstrate that you have access to them. During the last class, everyone is required to do a short presentation on his or her research idea. I want to give you the opportunity to get feedback from your colleagues, and to get to know what other people are working on.

*Important dates for the paper*

June 7:	Proposal for paper is due
July 12:	In-class presentations of proposals/papers
September 6:	Final version of paper is due

Second, I expect you to actively participate in virtual class discussions. Class participation will be part of the assessment for the class.

**Change in Schedule**

Please note this change to the regular schedule:

- No class on May 17, instead class from 8.30 to 11.30 am on July 12

The longer class on July 12 will be devoted to the student presentations of the research projects. Thereby, everyone gets to present on the same day.

## **I. Introduction to Data on Consumption, Working Hours, and Time Use**

## **II. Structural Estimation of a Life Cycle Consumption Model**

1. Gourinchas, Pierre-Olivier and Jonathan A. Parker (2002): [Consumption over the Life Cycle](#), *Econometrica*, 70(1), 47-89.

Cagetti, Marco (2003): [Wealth Accumulation Over the Life Cycle and Precautionary Savings](#), *Journal of Business and Economic Statistics*, 21(3), 339-353.

Laibson, David, Peter Maxted, Andrea Repetto, and Jeremy Tobacman (2018): [Estimating Discount Functions with Consumption Choices over the Lifecycle](#), Working Paper.

## **III. Idiosyncratic Risk and Aggregate Uncertainty in General Equilibrium**

2. Aiyagari, S. Rao (1994): [Uninsured Idiosyncratic Risk and Aggregate Saving](#), *Quarterly Journal of Economics*, 109(3), 659-684.

3. Krusell, Per and Anthony Smith (1998): [Income and Wealth Heterogeneity in the Macroeconomy](#), *Journal of Political Economy*, 106(5), 867-896.

Ahn, SeHyoun, Greg Kaplan, Benjamin Moll, Tom Winberry, and Christian Wolf (2018): [When Inequality Matters for Macro and Macro Matters for Inequality](#), NBER Macroeconomics Annual.

An, Sungbae, Yongsung Chang, and Sun-Bin Kim (2009): [Can a Representative-Agent Model Represent a Heterogeneous-Agent Economy](#), *American Economic Journal: Macroeconomics*, 1(2), 29-54.

Arellano, Cristina, Yan Bai, and Patrick Kehoe (2019): [Financial Frictions and Fluctuations in Volatility](#), *Journal of Political Economy*, 127(5), 2049-2103.

Den Haan, Wouter J., Kenneth L. Judd, and Michel Juillard (2010): [Computational Suite of Models with Heterogeneous Agents: Incomplete Markets and Aggregate Uncertainty](#), *Journal of Economic Dynamics and Control*, 34(1), 1-3.

Khan, Aubhik and Julia Thomas (2013): [Credit Shocks and Aggregate Fluctuations in an Economy with Production Heterogeneity](#), *Journal of Political Economy*, 121(6), 1055-1107.

Krusell, Per and Anthony A. Smith (1999): [On the Welfare Effects of Eliminating Business Cycles](#), *Review of Economic Dynamics*, 2(1), 245-272.

## IV. The Skewness of the Wealth Distribution

4. Castañeda, Ana, Javier Díaz-Giménez and José-Victor Ríos-Rull (2003): [Accounting for the U.S. Earnings and Wealth Inequality](#), *Journal of Political Economy*, 111(4), 818-857.

Benhabib, Jess, Alberto Bisin and Shenghao Zhu (2011): [The Distribution of Wealth and Fiscal Policy in Economies With Finitely Lived Agents](#), *Econometrica*, 79(1), 123-157.

Cagetti, Marco and Mariacristina De Nardi (2008): [Wealth Inequality: Data and Models](#), *Macroeconomic Dynamics*, 12(S2), 285-313.

De Nardi, Mariacristina (2004): [Wealth Inequality and Intergenerational Links](#), *Review of Economic Studies*, 71(3), 743-768.

De Nardi, Mariacristina, and Marco Cagetti (2006): [Entrepreneurship, Frictions, and Wealth](#), *Journal of Political Economy*, 114(5), 835-870.

Dynan, Karen, Jonathan Skinner and Stephen Zeldes (2004): [Do the Rich Save More?](#), *Journal of Political Economy*, 112(2), 397-444.

Hubbard, Glenn, Jonathan Skinner and Stephen Zeldes (1995): [Precautionary Saving and Social Insurance](#), *Journal of Political Economy*, 103(2), 360-399.

Huggett, Mark (1996): [Wealth Distribution in Life-Cycle Economies](#), *Journal of Monetary Economics*, 38(3), 469-494.

Huggett, Mark, and Gustavo Ventura (2000): [Understanding Why High Income Households Save More Than Low Income Households](#), *Journal of Monetary Economics*, 45(2), 361-397.

Quadrini, Vincenzo (2000): [Entrepreneurship, Saving and Social Mobility](#), *Review of Economic Dynamics*, 3(1), 1-40.

Quadrini, Vincenzo (1999): [The Importance of Entrepreneurship for Wealth Concentration and Mobility](#), *Review of Income and Wealth*, 45(1), 1-19.

## V. Consumer Durables, Illiquid Assets, and Consumption

5. Fernandez-Villaverde, Jesus and Dirk Krueger (2011): [Consumption and Saving over the Life Cycle: How Important are Consumer Durables?](#), *Macroeconomic Dynamics*, 15(05), 725-770.

6. Kaplan, Greg, and Giovanni Violante (2014): [A Model of the Consumption Response to Fiscal Stimulus Payments](#), *Econometrica*, 82(4), 1199-1239.

7. Kaplan, Greg, and Giovanni Violante (2014): [A Tale of Two Stimulus Payments: 2001 versus 2008](#), American Economic Review: Papers & Proceedings, 104(5), 116-121.

De Nardi, Mariacristina, Eric French, and John Bailey Jones (2010): [Why do the Elderly Save? The Role of Medical Expenses](#), Journal of Political Economy, 118, 39-75.

French, Eric (2005): [The Effects of Health, Wealth and Wages on Labor Supply and Retirement Behavior](#), Review of Economic Studies, 72(2), 395-427.

Kaplan, Greg, Giovanni Violante, and Justin Weidner (2014): [The Wealthy Hand-to-Mouth](#), Brookings Papers on Economic Activity, 48(Spring), 77-153.

## **VI. Taxation and Hours Worked in Europe and US**

8. Prescott, Edward (2004): [Why do Americans Work so Much More than Europeans?](#), Quarterly Review, Federal Reserve Bank of Minneapolis Quarterly Review, 28(1), 2-13.

9. Ohanian, Lee, Andrea Raffo, and Richard Rogerson (2008): [Long-term Changes in Labor Supply and Taxes: Evidence from OECD countries, 1956-2004](#), Journal of Monetary Economics, 55(8), 1353-1362.

10. Guner, Nezih, Remzi Kaygusuz, and Gustavo Ventura (2012): [Taxation and Household Labor Supply](#), Review of Economic Studies, 79 (3), 1113–1149.

11. Bick, Alexander, and Nicola Fuchs-Schündeln (2018): [Taxation and Labor Supply of Married Women across Countries: A Macroeconomic Analysis](#), Review of Economic Studies, 85(3), 1543-1576.

Alesina, Alberto, Edward Glaeser, and Bruce Sacerdote (2006): [Work and Leisure in the U.S. and Europe: Why So Different?](#), NBER Macroeconomics Annual 2005, 1-100.

Chakraborty, Indraneel, Hans A. Holter and Serhiy Stepanchuk (2015): [Marriage Stability, Taxation and Aggregate Labor Supply in the U.S. vs. Europe](#), Journal of Monetary Economics, 72, 1-20.

McDaniel, Cara (2011): [Forces Shaping Hours Worked in the OECD, 1960-2004](#), American Economic Journal: Macroeconomics, 3(4), 27-52.

McDaniel, Cara (2017): [Average Tax Rates on Consumption, Investment, Labor and Capital in the OECD 1950-2003](#), Working Paper, Arizona State University.

Ragan, Kelly (2013): [Taxes and Time Use: Fiscal Policy in a Household Production Model](#), American Economic Journal: Macroeconomics, 5(1), 169-192.

Voena, Alessandra (2015): [Yours, Mine and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples?](#), American Economic Review, 105(8), 2295-2332.

Wallenius, Johanna (2013): [Social Security and Cross-Country Differences in Hours: A General Equilibrium Analysis](#), Journal of Economic Dynamics and Control, 37, 2466-2482.

## VII. Consumption and Hours across the World

12. Jones, Charles I. and Peter J. Klenow (2016): [Beyond GDP? Welfare across Countries and Time](#), American Economic Review, 106(9), 2426-2457.

13. Bick, Alexander, Nicola Fuchs-Schündeln and David Lagakos (2018): [How do Hours Worked Vary with Income? Cross-Country Evidence and Implications](#), American Economic Review, 108(1), 170-199.

Bridgman, Benjamin, Georg Duernecker and Berthold Herrendorf (2018): [Structural Transformation, Marketization, and Household Production around the World](#), Journal of Development Economics, 133, 102-126.

Caselli, Francesco (2005): [Accounting for Cross-Country Income Differences](#), in Aghion, Philippe and Steven N. Durlauf. (Eds.), Handbook of Economic Growth, 1(A), 679-741.

Costa, Dora L. (2000): [The Wage and the Length of the Work Day: From the 1890s to 1991](#), Journal of Labor Economics, 18(1), 156–181.

Gollin, Douglas, David Lagakos and Michael E. Waugh (2014): [The Agricultural Productivity Gap](#), Quarterly Journal of Economics, 129(2), 939–993.

## VIII. Human Capital Investment

14. Fuchs-Schündeln, Nicola, Dirk Krueger, Alexander Ludwig and Irina Popova (2020): [The Long Term Distributional and Welfare Effects of Covid-19 School Closures](#), CEPR Discussion Paper 15227

15. Lee, Sang Yoon and Ananth Seshadri (2019): [On the Intergenerational Transmission of Economic Status](#), Journal of Political Economy 127(2), 855–921.

Abbott, Brant, Giovanni Gallipoli, Costas Meghir, and Giovanni L. Violante (2019): [Education Policy and Intergenerational Transfers in Equilibrium](#), Journal of Political Economy 127(6), 2569–2624.

Caucutt, Elizabeth and Lance Lochner (2020): [Early and Late Human Capital Investments, Borrowing Constraints, and the Family](#), Journal of Political Economy 128(3), 1065–1147.

Guvenen, Fatih, Burhanettin Kuruscu and Serdar Ozkan (2014): [Taxation of Human Capital and Wage Inequality: A Cross-Country Analysis](#), Review of Economic Studies, 81, 818-850.

Yum, Minchul (2020): [Parental Time Investment and Intergenerational Mobility](#), Working Paper.