Econ 281

Special Topics in Economics

Spring 2022

Instructors

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Lectures

Tuesdays from 2:00pm to 4:50pm

Econ 300.

Class Website

https://github.com/johanneswieland/ECON281

Course Description:

The modern macroeconomists is a jack of all trades. He/she must be comfortable with simple theoretical models, quantitative models, cross-sectional identification, and time-series identification. In this class we focus on cross-sectional identification and how to aggregate cross-sectional moments with simple theoretical or quantitative models. By the end of this class you should be familiar with identification arguments in the cross-section, challenges in aggregating cross-sectional moments, and solving standard heterogeneous agent models.

Readings

The syllabus includes more papers than we expect the typical student to read. Readings marked with * are required.

Class Project

The paper should connect micro data with macro model, in line with the theme of the class. The paper does not have to be complete. It does need to be original in the sense that the main result(s) has not been previously documented in the literature.

The paper should contain two parts:

1. *A new micro data fact or causal effect.* Okay to build on (but not copy!) other work.

2. *A (simple) macro model that connects the micro data fact to macroeconomic outcomes.* This part should have computational component (unless waived). We are not looking for pages of algebra but rather a way that tells us how important the micro fact is.

Exceptions to this structure are possible but must be approved by us in advance of the first submission deadline.

At the end of class you need to submit the paper and code. If we cannot replicate the paper figures and tables with one click or command, we will ask you to resubmit. Submit by giving us read access to your GitHub repository.

Paper deadlines:

1. 5/1/2022: Submit new micro data fact / causal effect. You submit by giving us read access to your GitHub repository.

2. Week 6: meeting for feedback. We may ask you to resubmit a new paper a week later.

3. 6/1/2022: Presentation in class.

4. 6/8/2022: Paper draft due.

Grading

The first iteration for the class project will count for 10% of the grade. The second iteration will count for 55% of the grade. Class participation will count for 35%.

Class participation entails closely reading the * papers on syllabus before class and participating in class discussion. If we judge that there is insufficient participation, then we will schedule a midterm and/or final to assign this grade.

Auditing

We expect students who audit the class to participate and do the required readings. If you want to submit your class project and get feedback on it, you need to take the class for grade.

1 Introduction to Empirics in Macroeconomics

We will review core empirical concepts such as identification, causality, treatment effects. Then we will review types of structural and causal inference in empirical macroeconomics. This lecture will also contain advice on how do research and how to organize empirical work.

Readings:

*Emi Nakamura and Jón Steinsson. Identification in macroeconomics. *Journal of Economic Perspectives*, 32(3):59–86, 2018

2 Identification with Regional Data with an Application to Fiscal Multipliers and Household Wealth Shocks

Identification with macroeconomic data is notoriously difficult due to reverse causality, small samples, and endogenous responses of economic policy attempting to stabilize the economy. In this lecture we will give an introduction to how to approach this problem using more disaggregated data, and measures of *shocks*, and heterogeneous *exposure* to those shocks, or shift-share designs in short. We will cover the identifying assumptions of shift-share designs, and new methods developed to solve them.

We will apply our knowledge of shift-share designs in order to study the empirical challenges of estimating the fiscal multiplier.

Readings:

*Paul Goldsmith-Pinkham, Isaac Sorkin, and Henry Swift. Bartik instruments: What, when, why, and how. *American Economic Review*, 110(8):2586–2624, 2020

*Kirill Borusyak, Peter Hull, and Xavier Jaravel. Quasi-experimental shift-share research designs. *The Review of Economic Studies*, 89(1):181–213, 2022

*Emi Nakamura and Jon Steinsson. Fiscal stimulus in a monetary union: Evidence from us regions. *American Economic Review*, 104(3):753–92, 2014

*Atif Mian, Kamalesh Rao, and Amir Sufi. Household balance sheets, consumption, and the economic slump. *The Quarterly Journal of Economics*, 128(4):1687–1726, 2013

Atif Mian and Amir Sufi. What explains the 2007–2009 drop in employment? *Econometrica*,

82(6):2197–2223, 2014

Rodrigo Adao, Michal Kolesár, and Eduardo Morales. Shift-share designs: Theory and inference. *The Quarterly Journal of Economics*, 134(4):1949–2010, 2019

Kirill Borusyak and Peter Hull. Non-random exposure to exogenous shocks: Theory and applications. Technical report, National Bureau of Economic Research, 2020

3 Regional Aggregation I: Fiscal Multipliers and Household Wealth

Once we have recovered regional multipliers after increases in government expenditures or transfers, how can one recover the aggregate multipliers? In this lecture we will cover some of the papers that move from "open-economy" multipliers, into the aggregate multiplier.

Readings:

*Gabriel Chodorow-Reich. Geographic cross-sectional fiscal spending multipliers: What have we learned? *American Economic Journal: Economic Policy*, 11(2):1–34, 2019 Christian K Wolf. The missing intercept: A demand equivalence approach. Technical report, National Bureau of Economic Research, 2021

Greg Kaplan, Kurt Mitman, and Giovanni L Violante. The housing boom and bust: Model meets evidence. *Journal of Political Economy*, 128(9):3285–3345, 2020

Adam M Guren, Alisdair McKay, Emi Nakamura, and Jón Steinsson. Housing wealth effects: The long view. *The Review of Economic Studies*, 88(2):669–707, 2021

*Jonathon Hazell, Juan Herreno, Emi Nakamura, and Jón Steinsson. The slope of the phillips curve: evidence from us states. Technical report, National Bureau of Economic Research, 2020

4 MOAR Regional Causal Effects and Aggregation

Moving from regional estimates to aggregate estimates goes beyond the case of fiscal multipliers, and extends to the determinants of inflation, the transmission of international shocks, and financial shocks. In this lecture we will cover some of the leading applications.

Readings:

*Joshua K Hausman, Paul W Rhode, and Johannes F Wieland. Recovery from the great depression: The farm channel in spring 1933. *American Economic Review*, 109(2):427–72, 2019

*John Modragon and Johannes Wieland. Housing demand and remote work. 2022

Gabriel Chodorow-Reich and Johannes Wieland. Secular labor reallocation and business cycles. *Journal of Political Economy*, 128(6):2245–2287, 2020

Vasco M Carvalho, Makoto Nirei, Yukiko U Saito, and Alireza Tahbaz-Salehi. Supply chain disruptions: Evidence from the great east japan earthquake. *The Quarterly Journal of Economics*, 136(2):1255–1321, 2021

*Jonathan A Parker, Nicholas S Souleles, David S Johnson, and Robert McClelland. Consumer spending and the economic stimulus payments of 2008. *American Economic Review*, 103(6):2530–53, 2013

*Kirill Borusyak, Xavier Jaravel, and Jann Spiess. Revisiting event study designs: Robust and efficient estimation. *arXiv preprint arXiv:2108.12419*, 2021

Andreas Fagereng, Martin B Holm, and Gisle J Natvik. Mpc heterogeneity and household balance sheets. *American Economic Journal: Macroeconomics*, 13(4):1–54, 2021

Jacob Orchard, Valerie Ramey, and Johannes Wieland. Micro mpcs and macro counterfactuals: The case of the 2008 rebates. 2022

5 Household and Firm Aggregation

We have studied so far cases of aggregation of regional elasticities into national elasticities, the case of local GE effects. In this lecture we will study leading papers computing household-level or firm-level elasticities to economic shocks, and study how can one use these elasticities

to learn about the national economy.

Readings:

*Kilian Huber. Disentangling the effects of a banking crisis: Evidence from german firms and counties. *American Economic Review*, 108(3):868–98, 2018

*Gabriel Chodorow-Reich. The employment effects of credit market disruptions: Firm-level evidence from the 2008–9 financial crisis. *The Quarterly Journal of Economics*, 129(1):1–59, 2014

*Juan Herreño. The aggregate effects of bank lending cuts. *Unpublished working paper, Columbia University*, 2020

Michael Carlos Best, James S Cloyne, Ethan Ilzetzki, and Henrik J Kleven. Estimating the elasticity of intertemporal substitution using mortgage notches. *The Review of Economic Studies*, 87(2):656–690, 2020

James Cloyne, Kilian Huber, Ethan Ilzetzki, and Henrik Kleven. The effect of house prices on household borrowing: a new approach. *American Economic Review*, 109(6):2104–36, 2019

6 HANK and TANK

In this lecture we will study the leading models of heterogeneity of the New Keynesian tradition. The Two-Agent New Keynesian Model (TANK) and the Heterogeneous Agent New Keynesian Model (HANK). We will compare the transmission mechanism in these models compared to the Representative Agent New Keynesian Model (RANK).

Readings:

*Greg Kaplan and Giovanni L Violante. A model of the consumption response to fiscal stimulus payments. *Econometrica*, 82(4):1199–1239, 2014

*Greg Kaplan, Benjamin Moll, and Giovanni L Violante. Monetary policy according to hank. *American Economic Review*, 108(3):697–743, 2018

*Davide Debortoli and Jordi Galí. Monetary policy with heterogeneous agents: Insights from tank models. 2017

*Alisdair McKay, Emi Nakamura, and Jón Steinsson. The power of forward guidance revis-

ited. *American Economic Review*, 106(10):3133–58, 2016

Iván Werning. Incomplete markets and aggregate demand. Technical report, National Bureau of Economic Research, 2015

7 The Sequence Space

We will learn how to write models in the Sequence Space, and learn a powerful tool to solve models with heterogeneity in discrete time with aggregate shocks.

Readings:

*Adrien Auclert, Bence Bardóczy, Matthew Rognlie, and Ludwig Straub. Using the sequence-space jacobian to solve and estimate heterogeneous-agent models. *Econometrica*, 89(5):2375–2408, 2021

8 Macroeconomics of Consumption with Heterogeneity

In this lecture we will study how consumption responses that are in line with the micro data impact the transmission of economic policy. We will discuss the challenges of incorporating heterogeneity in MPCs in macro models, the challenges of solving the models, and the implications this models have about the conduct of macro stabilization policy.

Readings:

*Adrien Auclert, Matthew Rognlie, and Ludwig Straub. Micro jumps, macro humps: Monetary policy and business cycles in an estimated hank model. Technical report, National Bureau of Economic Research, 2020

*Alisdair McKay and Johannes F Wieland. Lumpy durable consumption demand and the limited ammunition of monetary policy. *Econometrica*, 89(6):2717–2749, 2021

*Alisdair McKay and Johannes F Wieland. Forward guidance and durable goods demand. *American Economic Review: Insights*, 4(1):106–22, 2022

*Yann Koby and Christian Wolf. Aggregation in heterogeneous-firm models: Theory and measurement. *Manuscript, July*, 2020

9 Macroeconomics of Investment with Heterogeneity

In this lecture we will study how investment responses that are in line with the micro data impact the transmission of economic policy. We will discuss the challenges of incorporating heterogeneity in propensities to invest in macro models, the challenges of solving the models, and the implications this models have about the conduct of macro stabilization policy.

Readings:

*Rohan Kekre and Moritz Lenel. Monetary policy, redistribution, and risk premia. Technical report, National Bureau of Economic Research, 2021

*Andres Drenik, Juan Herreno, and Pablo Ottonello. Measuring information frictions: Evidence from capital markets. 2019