Economics 742a Reading List and Lecture Plan

Adam Guren, Spring 2023

Two Topics:

1. Micro Variation in Macro (7 Lectures)
    1. Housing and Macro
    2. Other Sources of Micro Variation in Macro
    3. Aggregation
2. Heterogenous Agent New Keynesian Models (6 Lectures)

Extra material covered in previous years on the course website.

Course Outline:

1. Introduction, Micro Data in Macro
2. Housing I: Wealth Effects
3. Housing II: The 2000s Boom and Bust
4. Housing III: Stabilization Policy; Other Sources I: Bartik and Monetary Shocks
5. Other Sources I: Firm Shocks, Granular IV, Credit and the Great Recession
6. Other Sources II: Fiscal Multipliers; Aggregation I
7. Aggregation II (Early Start)
8. HANK 1: The Heterogenous Agent New Keynesian Model (Early Start)
9. HANK 2: Redistribution and Incomplete Markets
10. HANK 3: Investment and HANK
11. HANK 4: Durables and Mortgages in HANK
12. HANK 5: Microdata, Missalocation, and Optimal Policy in HANK (Early Start)
13. HANK 6: Behavioral HANK

My Approach:

- I want to give you a bird's eye view of the "lay of the land" of the literature.
    - Very useful for data source, identification strategies, etc.
- And then focus in on a few papers (2-3 per class) in detail.
    - You will be asked to read these carefully before class.
    - On some days, one paper will be used for the summary slides assignment. See last few pages of this Reading List.

My View on the "Big Questions in Macro":

- What are the drivers of fluctuations (shocks)?
- Why are responses so big to seemingly small shocks?
- Why are responses so persistent?
- What is the role of policy, particularly monetary and fiscal?
- What are the roles of non-linearities and how do they change the above questions?

What I ask of you:

- Read double-starred readings carefully. Read starred readings given your interests.
    - I will announce what to read before class (also see last two pages).
- Ask questions, participate, challenge me, etc.
- Read critically and come to class with an eye towards new research questions.

Topic 1: Micro Variation in Macro

- Introduction
    - ** Nakamura and Steinsson (2018). "Identification in Macroeconomics." *JEP*.
    - ** Huber (2018) "Disentangling the Effects of a Banking Crisis: Evidence From German Firms and Counties." *AER*.
    - ** Guren (2018) "House Price Momentum and Strategic Complementarity." *JPE*.
- House Prices and Consumption:
    - * Mian and Sufi (2011) "Housing Price, Home Equity-Based Borrowing, and the U.S. Household Leverage Crisis." *AER*.
    - ** Mian, Sufi, and Rao (2013) "Household Balance Sheets, Consumption, and the Economic Slump." *QJE*.
    - ** Mian and Sufi (2014) "What Explains High Unemployment? The Aggregate Demand Channel." *Emca*.
    - * Saiz (2010) "The Geographic Determinants of Housing Supply." *QJE*.
    - Sinai and Souleles (2005) "Owner Occupied Housing as a Hedge Against Rent Risk." *QJE*.
    - * Berger, Guerrieri, Lorenzoni, and Vavra (2018) "House Prices and Consumer Spending." *Restud*.
    - ** Guren, McKay, Nakamura, and Steinsson (2021). "Housing Wealth Effects: The Long View." *Restud*.
- The 2000s Housing Cycle
    - * Burnside, Eichenbaum, and Rebelo (2016) "Understanding Booms and Busts in Housing Markets." *JPE*.
    - * Favilukis, Ludvigson, and Van Nieuwerburgh (2016) "The Macroeconomic Effects, of Housing Wealth, Housing Finance, and Limited Risk Sharing in General Equilibrium." *JPE*.
    - Justiniano, Primiceri, and Tambalotti (2019) "Credit Supply and the Housing Boom." *JPE*.
    - * Landvoigt, Piazzesi, and Schenider (2015) "The Housing Market(s) of San Diego." *AER*.
    - ** Kaplan, Mitman, and Violante (2020) "The Housing Boom and Bust: Model Meets Evidence." *JPE*.
    - * Guren and McQuade (2020) "How Do Foreclosures Exacerbate Housing Downturns?" *RESTUD*.
    - Garriga and Hedlund (2020) "Mortgage Debt, Consumption and Illiquid Housing Markets in the Great Recession." *AER*.
    - ** Greenwald and Guren (2021) "Do Credit Conditions Move House Prices?" WP.
    - ** Chodorow-Reich, Guren, and McQuade (2023) "The 2000s Housing Boom With 2020 Hindsight: A Neo-Kindlebergerian View." *RESTUD*.
- Housing Market Stabilization Policy
    - * Agarwal, Amromin, Ben-David, Chomsisengphet, Piskorski, and Seru (2017) "Policy Intervention in Debt Renegotiation: Evidence from the Home Affordable Modification Program." *JPE*.

    - * Agarwal, Amromin, Chomsisengphet, Landvoigt, Piskorski, Seru, and Yao (2022) "Mortgage Refinancing, Consumer Spending, and Competition: Evidence from the Home Affordable Refinance Program." *Restud*.
    - ** Ganong and Noel (2020). "Liquidity Versus Wealth in Household Debt Obligations: Evidence From Housing Policy in the Great Recession." *AER*.
    - Guren, Krishnamurthy, and McQuade (2021) "Mortgage Design in an Equilibrium Model of the Housing Market." *JF*.
    - Campbell, Clara, and Cocco (2021) "Structuring Mortgages for Macroeconomic Stability." *JF*.
    - Greenwald, Landvoigt, and Van Nieuwerburgh (2021) "Financial Fragility and SAM." *JF*.
- Share-Shift "Bartik" Shocks
    - * Autor, Dorn, and Hanson (2013). "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *AER*.
    - Adao, Kolesar, and Morales (2019). "Shift-Share Designs: Theory and Inference." *QJE*.
    - Goldsmith-Pinkham, Sorkin, and Swift (2020) "Bartik Instruments: What, When, Why and How." *AER*.
    - Borusyak, Hull, and Jaravel (2021). "Quasi-Experimental Shift-Share Research Designs." *Restud*.
- Monetary Shocks
    - Ramey, Valerie (2016). "Macroeconomic Shocks and Their Propagation." *Handbook of Macroeconomic*s.
    - Christiano, Lawrence, Martin Eichenbaum, and Charles Evans (2005). "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy." *JPE.*
    - Romer and Romer (2004). "A New Measure of Monetary Shocks: Derivation and Implications." *AER*.
    - Coibion, Olivier (2012). "Are The Effects of Monetary Policy Shocks Big or Small?" *AEJ: Macro*.
    - Gürkaynak, Sack, and Swanson (2005). "Do Actions Speak Louder Than Words? The Response of Asset Prices to Monetary Policy Actions and Statements." *International Journal of Central Banking.*
    - Gertler and Karadi (2015). "Monetary Policy Surprises, Credit Costs, and Economic Activity." *AEJ: Macro*.
    - Nakamura and Steinsson (2018). "High Frequency Identification of Monetary Non-Neutrality: The Information Effect." *QJE*.
    - * Bauer and Swanson (2022). "A Reassessment of Monetary Policy Surprises and High-Frequency Identification." *NBER Macro Annual.*
    - Plagborg-Moller and Wolf (2021). "Local Projections and VARs Estimated the Same Impluse Responses." *Emca*.
    - Li, Plagborg-Moller, and Wolf (2022). "Local Projections vs. VARs: Lessons from Thousands of DGPs." WP.
    - Bauer and Swanson (2023). "An Alternative Explanation for the 'Fed Information Effect.'" *AER*.
    - Acosta (2022). "The Perceived Causes of Monetary Policy Surprises." WP.

    - Aruoba and Dreschel (2022). “Identifying Monetary Policy Shocks: A Natural Language Approach.” WP.
    - Cieslak, Hansen, McMahon, and Xiao (2022). “Policymakers’ Uncertainty.” WP.
- Firms and Bank Shocks (regional and firm-level)
    - * Peek and Rosengren (2000) “Collateral Damage: Effects of the Japanese Bank Crisis on Real Activity in the United States.” *AER*.
    - Ashcraft (2005) “Are Banks Really Special? New Evidence from the FDIC-Induced Failure of Healthy Banks.” *AER.*
    - Ivashina and Scharfstein (2010) “Bank Lending During the Financial Crisis of 2008.” *JFE*.
    - ** Chodorow-Reich (2014) “The Employment Effects of Credit Market Disruptions: Firm-Level Evidence From the 2008-9 Financial Crisis” *QJE*.
    - Chodorow-Reich and Falato (2021) “The Loan Covenant Channel: How Bank Health Transmits to the Real Economy.” *JF*.
    - Mas, Greenstone, and Nguyen (2020) “Do Credit Market Shocks Affect the Real Economy? Quasi-Experimental Evidence from the Great Recession and ‘Normal’ Economic Times.” *AEJ: Policy*.
    - ** Khwaja and Mian. (2008) “Tracing the Impact of Bank Liquidity Shocks: Evidence from an Emerging Market.” *AER*.
    - Amiti and Weinstein (2017) “How Much Do Bank Shocks Affect Investment? Evidence From Matched Bank-Firm Loan Data.” *JPE*.
- Granular Instrumental Variables
    - * Gabaix and Koijen (2022). “Granular Instrumental Variables.” WP.
    - Kundu and Vats (2021). “Banking Networks and Economic Growth: From Idiosyncratic Shocks to Aggregate Fluctuations.” WP.
    - Kundu, Park, and Vats (2021). “The Geography of Bank Deposits and the Origins of Aggregate Fluctuations.” WP.
    - Galaasen, Jamilov Juelsrud, and Rey. “Granular Credit Risk.” WP.
- Firms and Collateral
    - * Chaney, Sraer, and Thesmar (2012) “The Collateral Channel.” *AER*.
- Households and Bank Shocks
    - Mondragon (2020) “Household Credit and Employment in the Great Recession.” WP.
    - Gilchrist, Siemer, and Zakrajsek (2019). “The Real Effects of Credit Booms and Busts.” WP.
- Fiscal Policy and the Multiplier
    - ** Nakamura and Steinsson (2014) “Fiscal Stimulus in a Monetary Union: Evidence from U.S. Regions” *AER*.
    - * Chodorow-Reich (2019) “Geographic Cross-Sectional Fiscal Multipliers: What Have We Learned?” *AEJ: Policy*.
    - * Shoag (2012) “The Impact of Government Spending Shocks: Evidence on the Multiplier From State Pension Plan Returns.” WP.
    - * Suarez Serrato and Wingender (2016) “Estimating Local Fiscal Multipliers.” WP.
    - Mian and Sufi (2012) “The Effects of Fiscal Stimulus: Evidence From the 2009 Cash For Clunkers Program.” *QJE.*

    - Parker, Souleles, Johnson, and McClelland (2013) "Consumer Spending and the Economic Stimulus Payments of 2008." *AER*.
- Aggregation
    - ** Beraja, Hurst, and Ospina (2019) "The Aggregate Implications of Regional Business Cycles." *Emca*.
    - * Beraja (2019) "A Semi-Structural Methodology for Policy Counterfactuals." *JPE*.
    - Acemoglu, Autor, Dorn, Hanson, and Price (2016) "Import Competition and the Great U.S. Employment Sag of the 2000s." *JOLE*.
    - * Carvalho, Nirei, Saito, and Tahbaz-Salehi (2021) "Supply Chain Disruptions: Evidence from the Great East Japan Earthquake." *QJE.*
    - Stumpner (2019) "Trade and the Geographic Spread of the Great Recession." *JIE*.
    - Guren, McKay, Nakamura, and Steinsson (2020). "What Do We Learn From Cross-Sectional Empirical Estimates in Macroeconomics?" NBER MA.
    - ** Wolf (2022) "The Missing Intercept: A Demand Equivalence Approach." WP.
    - ** Herreño (2021) "The Aggregate Effects of Bank Lending Cuts." WP.
    - Wolf and McKay (2022) "What Can Time Series Regressions Tell Us About Policy Counterfactuals?" WP.
    - * Hazell, Herreño, Nakamura, and Steinsson (2022). "The Slope of the Phillips Curve: Evidence From U.S. States." *QJE*.
    - Mian, Sarto, and Sufi (2022). "Estimating Credit Multipliers." WP.

Topic 2: Heterogenous Agent New Keynesian Models

- The New Keynesian Model (Review)
    - Gali (2015). *Monetary Policy, Inflation, and the Business Cycle: And Introduction to the New Keynesian Framework and It's Applications*. 2nd edition.
    - Guren. 704 Class Notes and Syllabus.
    - Christiano, Eichenbaum, and Evans (2005). "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy." *JPE*.
    - Smets and Wouters (2007). "Shocks and Frictions in U.S. Business Cycle Models." *AER*.
    - Clarida, Gali, and Gertler (1999). "The Science of Monetary Policy: A New Keynesian Perspective." *JEL*.
- Introduction to HANK
    - * Kaplan and Violante (2018). "Microeconomic Heterogeneity and Macroeconomic Shocks. *JEP*.
    - * McKay and Wolf (2023). "Monetary Policy and Inequality." *JEP*.
    - * Gali (2018). "The State of New Keynesian Economics: A Partial Assessment." *JEP*.
- Computational Background
    - Miranda and Fackler (2002). *Applied Computational Economics and Finance*.
    - Judd (1998). *Numerical Methods in Economics*.
    - QuantEcon: www.quantecon.org
- Computational Methods

  - **Auclert, Bardoczy, Rognlie, and Straub (2021). "Using the Sequence-Space Jacobian to Solve and Estimate Heterogenous-Agent Models." *Emca*.
  - Ahn, Kaplan, Moll, Winberry, and Wolf (2018). "When Inequality Matters for Macro and Macro Matters for Inequality." NBER Macro Annual.
  - Boppart, Krusell, and Mitman (2018). "Exploiting MIT Shocks in Heterogenous-Agent Economics: The Impulse Response as a Numerical Derivative." *JEDC*.
  - Winberry (2018). "A Method For Solving and Estimating Heterogenous Agent Macro Models." *QE*.
  - Alisdair McKay Notes: https://alisdairmckay.com/Notes/HetAgents/index.html
  - Moll. "Mini Course on Heterogenous Agent Models in Continuous Time." https://benjaminmoll.com/lectures/.
  - Achdou, Han, Lasry, Lions, and Moll (2017). "Income and Wealth Distribution in Macroeconomics: A Continuous Time Approach."
- Monetary Policy With Heterogenous Agents
  - ** Kaplan, Moll, and Violante (2018). "Monetary Policy According to HANK" *AER*.
  - ** Auclert (2019). "Monetary Policy and the Redistribution Channel." *AER*.
  - * McKay, Nakamura, and Steinsson (2016). "The Power of Forward Guidance Revisited." *AER*.
  - ** Werning (2015). "Incomplete Markets and Aggregate Demand." WP.
  - Bilbiie (2020). "The New Keynesian Cross" *JME*.
  - Gorenemann, Kuester, and Nakajima (2021). "Doves For the Rich, Hawks For the Poor? Distributional Consequences of Monetary Policy." WP.
  - * Doepke and Schneider (2006). "Inflation and the Redistribution of Nominal Wealth." *JPE*.
- HANK vs. TANK
  - Bilbiie (2019). "Monetary Policy and Heterogeneity: An Analytical Framework."
  - * Debortoli and Gali (2018). "Monetary Policy With Heterogenous Agents: Insights from TANK Models."
  - * Acharya and Dogra (2020). "Understanding HANK: Insights From a PRANK." *Emca*.
  - Broer, Hansen, Krusell, and Orberg (2020). "The New Keynesian Transmission Mechanism: A Heterogenous-Agent Perspective." *RESTUD*.
- Fiscal Policy With Heterogenous Agents
  - McKay and Reis (2016). "The Role of Automatic Stabilizers in the U.S. Business Cycle." *Emca*.
  - Hagedorn, Manovskii, and Mitman (2019). "The Fiscal Multiplier." WP.
  - Auclert, Rognlie, and Straub (2018). "The Intertemporal Keynesian Cross." WP.
  - Kekre (2023). "Unemployment Insurance in Macroeconomic Stabilization." *R*.
- Mortgages, Durables, and HANK
  - Wong (2021). "Refinancing and the Transmission of Monetary Policy to Consumption." WP.
  - * Eichenbaum, Rebelo, and Wong. (2021). "State Dependent Effects of Monetary Policy: The Refinancing Channel." *AER*.
  - ** Berger, Milbradt, Tourre, and Vavra (2021). "Mortgage Prepayment and Path-Dependent Effects of Monetary Policy." *AER*.

- * Greenwald (2018). “The Mortgage Credit Channel of Macroeconomic Transmission.” WP.
    - Cloyne, Ferriera, and Surico (2020). “Monetary Policy When Households Have Debt: New Evidence on the Transmission Mechanism.” *RESTUD*.
    - ** McKay and Wieland (2021). “Lumpy Durable Consumption Demand and Limited Ammunition of Monetary Policy.” *Emca*.
    - * Berger and Vavra (2015). “Consumption Dynamics During Recession. *Emca*.
- Investment and HANK
    - ** Kekre and Lenel (2022). “Monetary Policy, Redistribution, and Risk Premia.” *Emca*.
    - * Bernanke, Gertler, and Gilchrist (1999). “The Financial Accelerator in a Quantitative Business Cycle Framework.” Handbook of Macroeconomics.
    - ** Ottonello and Winberry (2020). “Financial Heterogeneity and the Investment Channel of Monetary Policy.” *Emca*.
    - * Dreschel (2023). “Earnings-Based Borrowing Constraints and Macroeconomic Fluctuations.” *AEJ: Macro*.
    - * Jeenas (2019). “Firm Balance Sheet Liquidity, Monetary Policy Shocks, and Investment Dynamics.” WP.
    - Cloyne, Ferriera, Froemel, and Surico (2023). “Monetary Policy, Corporate Finance, and Investment.”*JEEA*.
- Unemployment and HANK
    - Ravn and Sterk (2020). “Macroeconomic Fluctuations With HANK and SAM: An Analytical Approach. *JEEA*.
    - Cho (2023). “Unemployment Risk, MPC Heterogeneity, and Business Cycles.” *QE*.
    - Graves (2023). “Does Unemployment Risk Affect Business Cycle Dynamics?”*AEJ: Macro*.
- Estimating HANK
    - ** Auclert, Rognlie, and Straub (2020). “Micro Jumps, Macro Humps: Monetary Policy and Business Cycles in an Estimated HANK Model.” WP.
    - Bayer, Born, and Luetticke (2020). “Shocks, Frictions, and Inequality in U.S. Business Cycles.” WP.
    - Hagedorn, Manovskii, and Mitman (2019). “Monetary Policy in Incomplete Markets Models: Theory and Evidence.” WP.
- New Microdata On Heterogeneity and HANK
    - ** Holm, Paul, and Tischbirek (2021). “The Transmission of Monetary Policy Under the Microscope.” *JPE*.
    - Andersen, Johannesen, Jorgensen and Peydro (2021). “Monetary Policy and Inequality” WP.
    - Bach, Calvet, Sodini (2020). “Rich Pickings? Risk, Return, and Skill in Household Wealth.” *AER*.
    - Fagereng, Guiso, Malacrino, and Pistaferri (2020). “Heterogeneity and Persistence in Returns to Wealth.” *Emca*.
    - Fagergeng, Holm, Moll, and Natvik (2020). “Savings Behavior Across the Wealth Distribution: The Importance of Capital Gains.” *Emca*.

    - Fagering, Holm, and Natvik (2020). "MPC Heterogeneity and Household Balance Sheets." *AEJ: Macro* forthcoming.
- Misallocation and Monetary Policy
    - ** Baqaee, Farhi, and Sangani (2022). "The Supply-Side Effects of Monetary Policy." WP.
    - Baqaee, Farhi, and Sangani (2022). "The Darwinian Returns To Scale." WP
    - Baqaee and Farhi (2020) "Productivity and Misallocation in General Equilibrium." *QJE*.
- Optimal Policy in HANK
    - ** Davila and Schaab (2022). "Optimal Monetary Policy With Heterogenous Agents: A Timeless Ramsey Approach." WP.
    - Bhandari, Evans, Golosov, and Sargent (2021). "Inequality, Business Cycles, and Monetary-Fiscal Policy." *Emca*.
    - Acharya, Challe, and Dogra (2022). "Optimal Monetary Policy According to HANK" WP.
    - McKay and Wolf (2022). "Optimal Policy Rules in HANK." WP.
- Behavioral HANK
    - ** Farhi and Werning (2019). "Monetary Policy, Bounded Rationality, and Incomplete Markets." *AER*.
    - Gabaix (2020). "A Behavioral New Keynesian Model." *AER*.
    - Pfauti and Seyrich (2022). "A Behavioral Heterogenous Agent New Keynesian Model." WP.
    - ** Libson, Maxted, and Moll (2021). "Present Bias Amplifies the Household Balance-Sheet Channels of Macroeconomic Policy." WP.
    - Rigato and Fernandes (2022). "Precautionary Savings and Stabilization Policy in a Present-Biased Economy."

Extra Literature Guide to Housing and Macro Topics I Did Not Cover in Class

- Monetary Policy and Housing Markets
    - Di Maggio, Kermani, Keys, Piskorski, Ramcharan, Seru, and Yao (2017) "Interest Rate Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Deleveraging." *AER*.
    - Beraja, Fuster, Hurst, and Vavra (2019) "Regional Heterogeneity and the Refinancing Channel of Monetary Policy." *QJE*.
    - Wong (2021) "Refinancing and the Transmission of Monetary Policy to Consumption." WP.
    - Greenwald (2018) "The Mortgage Credit Channel of Macroeconomic Transmission." WP.
    - Berger, Milbradt, Tourre, and Vavra (2021) "Mortgage Prepayment and the Path-Dependent Effects of Monetary Policy." *AER*.
    - Eichenbaum, Rebelo, and Wong (2022) "State Dependent Effects of Monetary Policy: The Refinancing Channel" *AER*.
- Behavioral Housing Economics
    - Genesove and Mayer (2001) "Loss Aversion and Seller Behavior: Evidence from the Housing Market." *QJE*.

    - Andersen, Badarinza, Liu, Marx, and Ramadorai (2022) "Reference Dependence in the Housing Market." *AER*.
    - Andersen, Campbell, Nielsen, and Ramadorai (2020) "Sources of Inaction in Household Finance: Evidence from the Danish Mortgage Market" *AER*.
    - Kuchler, Piazzesi, and Stroebel "Housing Market Expectations." *Handbook of Economic Expectations*.
    - Armona, Fuster, and Zafar (2019) "Home Price Expectations and Behavior: Evidence from a Randomized Information Experiment." *RESTUD*.
    - Kuchler and Zafar (2019) "Personal Experiences and Expectations about Aggregate Outcomes." *JF*.
    - Kindermann, Le Blanc, Piazzesi and Schneider (2021) "Learning About Housing Cost: Survey Evidence from the German House Price Boom." WP.
- Housing Supply
    - Glaeser and Gyourko (2018) "The Economic Implications of Housing Supply." *JEP*.
    - Gyourko and Molloy (2015) "Regulation and Housing Supply." *Handbook of Regional and Urban Economics.*
    - Glaeser and Gyourko (2005) "Urban Decline and Durable Housing." *JPE*.
    - Baum-Snow and Han (2022) "The Microgeography of Housing Supply." WP.

Starred Readings By Lecture

1. Introduction (January 19)
    a. Class Discussion: Nakamura-Steinsson, Huber
    b. **: Nakamura-Steinsson, Huber
2. Housing I (January 24): Wealth Effects
    a. Summary slides: Mian-Sufi-Rao or Guren-MacKay Nakamura-Steinsson (your choice)
    b. **: Mian-Sufi-Rao, Mian-Sufi 14, Guren-McKay-Nakamura-Steinsson
    c. *: Mian-Sufi 11, Saiz 10, Berger-Guerrieri-Lorenzoni-Vavra
3. Housing II (January 26): The 2000s Boom and Bust
    a. Summary Slides: Greenwald-Guren or Chodorow-Reich-Guren-McQuade (your choice)
    b. **: Kaplan-Mitman-Violante, Greenwald-Guren, Chodorow-Reich-Guren-McQaude
    c. *: Favilukis-Ludvigson-Van Niuewerburgh
4. Housing III (January 31): Stabilization Policy; Bartik and Monetary Shocks
    a. Summary Slides: Ganong-Noel
    b. **: Ganong-Noel
    c. *: Autor-Dorn-Hanson, Bauer-Swanson
5. Credit, Collateral, and Monetary Policy; Credit and the Great Recession (February 2)
    a. Summary Slides: Khwaja-Mian or Chodorow-Reich (your choice)
    b. ** Khwaja-Mian, Chodorow-Reich
    c. *: Chaney-Sraer-Thesmar, Autor-Dorn-Hanson, Bauer-Swanson (Macro Annual)
6. Fiscal Multipliers, Aggregation I (February 7)
    a. Summary Slides: Nakamura-Steinsson
    b. **: Nakamura-Steinsson
    c. *: Shoag, Suarez Serrato-Wingender, Chodorow-Reich
7. Aggregation II (February 9)
    a. Summary Slides: Herreño or Wolf (your choice)
    b. **: Beraja-Hurst-Ospina
    c. *: Mian-Sufi (2014), Carvalho-Nirei-Saito-Tahbaz-Salehi, Wolf, Herreño, Hazell-Herreño-Nakamura-Steinsson
8. HANK 1: The Heterogenous Agent New Keynesian Model (February 14)
    a. ** Reading Group Paper 1: Kaplan-Moll-Violante
        i. KMV Related Papers: Gali, Kaplan-Violante, Debortoli-Gali, Acharya-Dogra, McKay-Nakamura-Steinsson
    b. ** Reading Group Paper 2: Auclert-Rognlie-Straub (Micro Jumps Macro Humps)
        i. Related Papers: Smets-Wouters
    c. ** Reading Group Paper 3: Auclert-Bardoczy-Rognlie-Straub
        i. Related Papers: See computational papers above.
9. HANK 2: Inspecting the Mechanism: Redistribution and Incomplete Markets (February 16)
    a. ** Reading Group Paper 1: Auclert
        i. Auclert Related Papers: Doepke-Schneider
    b. ** Reading Group Paper 2: Werning

            i. Related Papers: Auclert-Rognlie-Straub (Intertemporal Keynesian Cross)

10. HANK 3: Investment and HANK (February 23)
    a. ** Reading Group Paper 1: Kekre-Lenel
        i. Related Papers: Bernanke-Gertler-Gilchrist
    b. ** Reading Group Paper 2: Ottonello-Winberry
        i. Related Papers: Dreschel, Jeenas
11. HANK 4: Durables and Mortgages in HANK February 28)
    a. ** Reading Group Paper 1: Berger-Milbradt-Tourre-Vavra
        i. Related Papers: Eichenbaum-Rebelo-Wong, Wong, Greenwald
    b. ** Reading Group Paper 2: McKay-Wieland
        i. Related Papers: Berger-Vavra
12. HANK 5: New Microdata on Heterogeneity and HANK, Misallocation and Monetary Policy, Optimal Policy in Hank (March 2)
    a. ** Reading Group Paper 1: Holm-Paul-Tischbirek
        i. Related Papers: Andresen-Johannesen-Jorgensen-Peydro, Fagereng-Holm-Natvik, Fagereng-Holm-Moll-Natvik, Fagereng-Guiso-Malacrino-Pistaferri, Bach-Calvet-Sodini
    b. ** Reading Group Paper 2: Baqaee-Farhi-Sangani
        i. Related Papers: Baqaee-Farhi
    c. *** Reading Group Paper 3: Davila-Schaab
        i. Related Papers: McKay-Wolf
13. HANK 6: Behavioral HANK
    a. ** Reading Group Paper 1: Farhi-Werning
        i. Related Papers: Gabaix, Pfauti-Seyrich
    b. ** Reading Group Paper 2: Laibson-Maxted-Moll
        i. Related papers: Rigato