

Economics 742a Reading List and Lecture Plan

Adam Guren, Spring 2021

Three Topics:

1. Micro Variation in Macro (6 Lectures)
2. Aggregate Nominal Rigidity and Micro Price Adjustment (2 Lectures + 1 Bonus Lecture)
3. Heterogenous Agent New Keynesian Models (5 Lectures)

Course Outline:

1. Introduction, Micro Data in Macro
2. Regional Shocks and Evolutions
3. Household Balance Sheets, Deleveraging, and Monetary Policy
4. Firm Credit, Collateral, and Monetary Policy; Credit and the Great Recession
5. Fiscal Multipliers, Aggregation I
6. Aggregation II
7. Aggregation III
8. State-Dependent Pricing and (S,s) Models
9. Evidence On Price Adjustment and Refined (S,s) Models
10. HANK 1: The Heterogenous Agent New Keynesian Model
11. HANK 2: MPCs and Redistribution; Cyclical Income Risk
12. HANK 3: Investment and HANK
13. HANK 4: Durables and Mortgages in HANK
14. HANK 5: New Microdata on Heterogeneity and HANK
15. BONUS LECTURE (After L9): Persistence and Real Rigidity

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.
 - One paper will be used for the summary slides assignment – see web site. Often these will be more recent papers meant to get you thinking at the frontier rather than the most seminal papers.

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 very carefully. Read the 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*.
- Regional Dynamics and Variation
 - ** Blanchard and Katz (1992). “Regional Evolutions.” *BPEA*.
 - ** Yagan (2019) “Employment Hysteresis From the Great Recession.” *JPE*.
 - * 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*.
 - Howard (2020) “The Migration Accelerator: Labor Mobility, Housing, and Aggregate Demand.” *AEJ: Macro*.
 - Suarez-Serrato and Zidar (2016) “Who Benefits from State Corporate Tax Cuts? A Local Labor Market Approach with Heterogenous Firms.” *AER*.
 - Saiz (2010) “The Geographic Determinants of Housing Supply.” *QJE*.
 - Palmer (2015) “Why did So Many Subprime Borrowers Default During the Crisis: Loose Credit or Plummeting Prices?” WP.
 - * Guren, McKay, Nakamura, and Steinsson (2021). “Housing Wealth Effects: The Long View.” *Restud*.
 - Chodorow-Reich (2020) “Regional Data in Macroeconomics: Some Advice For Practitioners” *JEDC*.
- Households, Debt Overhang, and the Debt-Deleveraging Channel (Mian and Sufi)
 - * Mian and Sufi (2011) “Housing Price, Home Equity-Based Borrowing, and the U.S. Household Leverage Crisis.” *AER*.
 - ** Mian and Sufi (2014) “What Explains High Unemployment? The Aggregate Demand Channel.” *Emca*.
 - ** Mian, Sufi, and Rao (2013) “Household Balance Sheets, Consumption, and the Economic Slump.” *QJE*.
 - Mian and Sufi (2009) “The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis.” *QJE*.
 - Guerrieri and Lorenzoni (2017) “Credit Crises, Precautionary Savings, and the Liquidity Trap.” *QJE*.
 - Jones, Midrigan, and Phillipon (2018) “Household Leverage and the Recession.” WP.
 - Eggertson and Krugman (2012) “Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach.” *QJE*.
- Households and Monetary Policy

- * Di Maggio, Kermani, Keys, Piskorski, Ramcharan, Seru, and Yao (2017) “Monetary Policy Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Deleveraging.” *AER*.
- * Ganong and Noel (2020). “The Effect of Debt on Default and Consumption: Evidence from Housing Policy in the Great Recession.” *AER*.
- * Beraja, Fuster, Hurst, and Vavra (2019). “Regional Heterogeneity and Monetary Policy.” *QJE*.
- Firms and Monetary Policy
 - Richardson and Troost (2009) “Monetary Policy Intervention Mitigated Banking Panics During the Great Depression: Quasi-Experimental Evidence from a Federal Reserve District Border, 1929-1933.” *JPE*.
 - Kashyap and Stein (2000) “What Do a Million Observations on Banks Say About the Transmission of Monetary Policy?” *AER*.
 - Jimenez, Ongena, Peydro, and Saurina (2012). “Credit Supply and Monetary Policy: Identifying the Bank Balance-Sheet Channel with Loan Applications.” *AER*.
 - Jimenez, Ongena, Peydro, and Saurina (2014) “Hazardous Times for Monetary Policy: What Do 23 Million Loans Say About the Impact of Monetary Policy on Credit Risk Taking?” *Emca*.
 - Jimenez, Mian, Peydro, and Salas (2020). “The Real Effects of the Bank Lending Channel.” *JME*.
- 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*.
 - Hochfellner, Montes, Schmalz, and Sosyura (2015) “Winners and Losers of Financial Crises: Evidence From Individuals and Firms.” WP.
 - 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 (2020) “The Loan Covenant Channel: How Bank Health Transmits to the Real Economy.” WP.
 - 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*.
 - Amity and Weinstein (2017) “How Much Do Bank Shocks Affect Investment? Evidence From Matched Bank-Firm Loan Data.” *JPE*.
- 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.” WP.
 - Stumpner (2019) “Trade and the Geographic Spread of the Great Recession.” *JIE*.
 - Guren, McKay, Nakamura, and Steinsson (2019). “What Do We Learn From Cross-Sectional Empirical Estimates in Macroeconomics?”
 - ** Wolf (2020) “The Missing Intercept: A Demand Equivalence Approach.” WP.
 - ** Herreño (2020) “The Aggregate Effects of Bank Lending Cuts.” WP.

Topic 2: Aggregate Nominal Rigidity and Micro Price Adjustment

- Overviews
 - Klenow and Malin (2010) “Microeconomic Evidence on Price Setting.” *Handbook of Monetary Economics*.
 - ** Nakamura and Steinsson (2013) “Price Rigidity: Microeconomic Evidence and Macroeconomic Implications.” *Annual Review of Economics*.
- Evidence For Monetary Non-Neutrality
 - * Christiano, Eichenbaum and Evans (1999) “Monetary Policy Shocks: What Have We Learned and To What End?” *Handbook of Macroeconomics*.
 - * Romer and Romer (2004) “A New Measure of Monetary Shocks: Derivation and Implications.” *AER*.
 - Romer and Romer (1989) “Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz.” *NBER Macroeconomics Annual*.
 - Mankiw (2001) “The Inexorable and Mysterious Tradeoff Between Inflation and Unemployment.” *EJ*.

- Fuhrer (2011) “Inflation Persistence.” *Handbook of Monetary Economics*.
- * Nakamura and Steinsson (2018) “High Frequency Identification of Monetary Non-Neutrality: The Information Effect.” *QJE*.
- Evidence on Price Adjustment
 - * Bils and Klenow (2004) “Some Evidence on the Importance of Sticky Prices.” *JPE*.
 - ** Nakamura and Steinsson (2008) “Five Facts About Prices: A Reevaluation of Menu Cost Models.” *QJE*.
 - ** Klenow and Kryvtsov (2008) “State Dependent or Time Dependent Pricing: Does it Matter for Recent U.S. Inflation.” *QJE*.
 - Gagnon (2009) “Price Setting During Low and High Inflation: Evidence from Mexico.” *QJE*.
 - Alvarez, Gonzales-Rozada, Neumeyer, and Beraja (2019) “From Hyperinflation to Stable Prices: Argentina’s Evidence on Menu Cost Models.” *QJE*.
 - Eichenbaum, Jaimovich and Rebelo (2011) “Reference Prices, Costs, and Nominal Rigidities.” *AER*.
- Theory of Price Adjustment: (S,s) Models
 - Math Reference: Dixit and Pindyck (1994) *Investment Under Uncertainty*.
 - Sheshinski and Weiss (1977) “Inflation and Costs of Price Adjustment.” *RESTUD*.
 - * Caplin and Spulber (1987) “Menu Costs and the Neutrality of Money.” *QJE*.
 - Caplin and Leahy (1991) “State-Dependent Pricing and the Dynamics of Money and Output.” *QJE*.
 - Dotsey, King and Wolman (1999) “State Dependent Pricing and the General Equilibrium Dynamics of Money and Output.” *QJE*.
 - ** Golosov and Lucas (2007) “Menu Costs and Phillips Curves.” *JPE*.
 - * Caballero and Engel (2007) “Price Stickiness in Ss models: New Interpretations of Old Results.” *JME*.
 - ** Midrigan (2011) “Menu Costs, Multi-Product Firms, and Aggregate Fluctuations.” *Emca*.
 - Gertler and Leahy (2008) “A Phillips Curve with an Ss Foundation.” *JPE*.
 - Alvarez and Lippi (2014) “Price Setting With Menu Cost for Multi-Product Firms.” *Emca*.
 - Alvarez, Le Bihan and Lippi (2016) “The Real Effects of Monetary Shocks in Sticky Price Models: A Sufficient Statistic Approach.” *AER*.
 - Blanco and Baley (2017) “Firm Uncertainty Cycles and the Propagation of Nominal Shocks.” *AEJ: Macro*.
- Persistence and Strategic Complementarity
 - Cooper and John. 1988. “Coordinating Coordination Failures in Keynesian Models.” *QJE*.
 - ** Ball and Romer (1990) “Real Rigidities and the Non-Neutrality of Money.” *RESTUD*.
 - Kimball (1995) “The Quantitative Analytics of the Basic Neomonetarist Model.” *JMCB*.
 - * Basu (2005). “Comment on: ‘Implications of State-Dependent Pricing for Dynamic Macroeconomic Modelling.’”

- Nakamura and Zerom (2010) “Accounting For Incomplete Pass-Through.” *RESTUD*.
- * Guren (2018) “House Price Momentum and Strategic Complementarity.” *JPE*.
- * Basu (1995) “Intermediate Goods and Business Cycles: Implications For Productivity and Welfare.” *AER*.
- Carvalho (2006) “Heterogeneity in Price Stickiness and the Real Effects of Monetary Shocks.” *BE Journal of Macroeconomics*.
- ** Nakamura and Steinsson (2010) “Monetary Non-Neutrality in a Multi-Sector Menu Cost Model.” *QJE*.
- Chari, Kehoe, and McGrattan (2000) “Sticky Price Models of the Business Cycle: Can the Contract Multiplier Solve the Persistence Problem?” *Emca*.
- * Klenow and Willis (2016). “Real Rigidities and Nominal Price Changes.” *Economica*.
- * Bils, Klenow, and Malin (2012). “Reset Price Inflation and the Impact of Monetary Policy Shocks.” *AER*.
- * Gopinath and Itskhoki (2011). “In Search of Real Rigidities.” *NBER Macroeconomics Annual*.
- Kryvtsov and Midrigan (2012) “Inventories, Markups, and Real Rigidities in Menu Cost Models.” *RESTUD*.
- Mongey (2019) “Market Structure and Monetary Non-Neutrality.” WP.
- International Evidence
 - * Gopinath and Itskhoki (2010) “Frequency of Adjustment and Exchange Rate Pass Through” *QJE*.
 - Gopinath, Itskhoki, and Rigobon (2010) “Currency Choice and Exchange Rate Pass-Through.” *AER*.
 - Berger and Vavra (2014) “Volatility and Pass Through.” WP.
 - Amiti, Itskhoki, and Koenigs (2014) “Importers, Exporters, and Exchange Rate Disconnect.” *AER*.
 - * Amiti, Itskhoki, and Koenigs (2019) “International Shocks, Variable Markups, and Domestic Prices” *Restud*.
 - * Atkeson and Burstein (2008) “Pricing to Market, Trade Costs, and International Relative Prices.” *AER*.
- Time Variation
 - Vavra (2014) “Inflation Dynamics and Time-Varying Volatility: New Evidence and an Ss Interpretation.” *QJE*.
 - Gilchrist, Schoenle, Sim, and Zakrajsek (2017) “Inflation Dynamics During the Financial Crisis.” *AER*.
 - Klepacz (2020). “Price Setting and Volatility: Evidence From Oil Price Volatility Shocks.” WP.

Topic 3: 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*.
 - * 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
- Solution Methods
 - * Auclert, Bardoczy, Rognlie, and Straub (2020). “Using the Sequence-Space Jacobian to Solve and Estimate Heterogenous-Agent Models.” WP.
 - 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 (2016). “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 (2019). “Unemployment Insurance in Macroeconomic Stabilization.” WP.
- Mortgages, Durables, and HANK
 - * Wong (2019). “Refinancing and the Transmission of Monetary Policy to Consumption.” WP.
 - * Eichenbaum, Rebelo, and Wong. (2019). “State Dependent Effects of Monetary Policy: The Refinancing Channel.” WP.
 - ** Berger, Milbradt, Tourre, and Vavra (2020). “Mortgage Prepayment and Path-Dependent Effects of Monetary Policy.” WP.
 - * Greenwald (2018). “The Mortgage Credit Channel of Macroeconomic Transmission.” WP.
 - Cloyne, Ferreira, and Surico (2020). “Monetary Policy When Households Have Debt: New Evidence on the Transmission Mechanism.” *RESTUD*.
 - ** McKay and Wieland (2020). “Lumpy Durable Consumption Demand and Limited Ammunition of Monetary Policy.” WP.
 - * Berger and Vavra (2015). “Consumption Dynamics During Recession. *Emca*.
- Investment and HANK
 - ** Kekre and Lenel (2020). “Monetary Policy, Redistribution, and Risk Premia.” WP.
 - * 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 (2020). “Earnings-Based Borrowing Constraints and Macroeconomic Fluctuations.” WP.
 - * Jeenas (2019). “Firm Balance Sheet Liquidity, Monetary Policy Shocks, and Investment Dynamics.” WP.
 - Cloyne, Ferreira, Froemel, and Surico (2019). “Monetary Policy, Corporate Finance, and Investment.” WP.
- Unemployment and HANK
 - ** Ravn and Sterk (2020). “Macroeconomic Fluctuations With HANK and SAM: An Analytical Approach. *JEEA*.
 - Cho (2020). “Unemployment Risk and Business Cycles.” WP.
 - * Graves (2020). “Does Unemployment Risk Affect Business Cycle Dynamics?” WP.
- 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 (2020). “The Transmission of Monetary Policy Under the Microscope.” 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*.
 - Fagereng, Holm, Moll, and Natvik (2020). “Savings Behavior Across the Wealth Distribution: The Importance of Capital Gains.” *Emca*.
 - Fagereng, Holm, and Natvik (2020). “MPC Heterogeneity and Household Balance Sheets.” *AEJ: Macro* forthcoming.
- Misallocation and Monetary Policy
 - ** Baqaee, Farhi, and Sangani (2021). “The Supply-Side Effects of Monetary Policy.” WP.
 - Baqaee and Farhi (2020). “The Darwinian Returns To Scale.” WP
 - Baqaee and Farhi (2020) “Productivity and Misallocation in General Equilibrium.” *QJE*.

Starred Readings By Lecture

1. Introduction (January 26)
 - a. Class Discussion: Nakamura-Steinsson, Huber
 - b. ** Nakamura-Steinsson, Huber
2. Regional Shocks and Evolutions (January 28)
 - a. **: Blanchard-Katz, Yagan
 - b. *: Autor-Dorn-Hanson, Adao-Kolesar-Morales, Guren-McKay-Nakamura-Steinsson
3. Household Balance Sheets, Deleveraging, and Monetary Policy (February 2)
 - a. Summary Slides: Mian-Sufi-Rao and Mian-Sufi (2014 EMCA), together
 - b. **: Mian-Sufi-Rao, Mian-Sufi (2014 EMCA),
 - c. *: Mian-Sufi (2011), Di Maggio et al., Ganong-Noel, Beraja-Fuster-Hurst-Vavra
4. Credit, Collateral, and Monetary Policy; Credit and the Great Recession (February 4)
 - a. Summary Slides: Khwaja-Mian or Chodorow-Reich (choice)
 - b. ** Khwaja-Mian, Chodorow-Reich
 - c. *: Peek-Rosengren, Chaney-Sraer-Thesmar
5. Fiscal Multipliers, Aggregation I (February 9)
 - a. Summary Slides: Nakamura-Steinsson
 - b. **: Nakamura-Steinsson
 - c. *: Shoag, Suarez Serrato-Wingender, Chodorow-Reich
6. Aggregation II (February 11)
 - a. Summary Slides: Beraja-Hurst-Ospina
 - b. **: Herreño or Wolf (your choice)

- c. *: Mian-Sufi (2014), Carvalho-Nirei-Saito-Tahbaz-Salehi, Wolf, Herreño
- February 16: No Class (Monday Schedule)
- February 18: Presentations (start at 8:30)
7. State-Dependent Pricing and (S,s) Models (February 23)
 - a. Summary Slides: Golosov-Lucas
 - b. **: Golosov-Lucas
 - c. *: Caplin-Spulber, Bils-Klenow
 8. Evidence On Price Adjustment and Refined State-Dependent (February 29)
 - a. Summary Slides: Midrigan
 - b. **: Nakamura-Steinsson, Klenow-Kryvstov, Midrigan
 - c. *: Caballero and Engel, Alvarez-Le Bihan-Lippi
 9. HANK 1: The Heterogenous Agent New Keynesian Model (March 2)
 - a. ** Reading Group Paper 1: Kaplan-Moll-Violante
 - i. 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: Auclert- Bardoczy-Rognlie-Straub, Other Methods Papers
 10. HANK 2: MPCs and Redistribution; Cyclical Income Risk (March 4)
 - a. ** Reading Group Paper 1: Auclert
 - i. Related Papers: Doepke-Schneider, Werning
 - b. ** Reading Group Paper 2: Ravn-Sterk
 - i. Related Papers: Werning, Graves
 11. HANK 3: Investment and HANK (March 9)
 - 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
 12. HANK 4: Durables and Mortgages in HANK (March 11)
 - 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
 13. HANK 5: New Microdata on Heterogeneity and HANK, Misallocation and Monetary Policy (March 16)
 - a. ** Reading Group Paper 1: Holm-Paul-Tischbirek
 - i. Related Papers: 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
 14. BONUS LECTURE: Persistence and Real Rigidity
 - a. **: Ball-Romer, Nakamura-Steinsson
 - b. *: Basu, Klenow-Willis, Bils-Klenow-Malin, Gopinath -Itskhoki, Amity-Itskhoki-Koenigs, Atkeson-Burstein, Guren