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Monday 7 – 9 (15:10 – 18:00)

Location: 三教 206

北京大学国家发展研究院

Peking University, NSD

宏观与货币经济学专题

Topics in Macro and Monetary Economics

Course Description

This is a graduate-level course in macroeconomics, with a focus on monetary economics. This course has two objectives. The first is to teach current topics and methods in macro and monetary economics. The second is to provide training of high-quality research. After teaching the essential elements of modern monetary economics, this course aims to bring students to the research frontier.

Due to its importance in macroeconomics and policy making, monetary economics has become one of the most theoretically developed and empirically tested fields. It therefore provides an opportunity for students to improve their theoretical, empirical and quantitative skills commonly used in macroeconomics research. We will study the fundamental work such as the classical New Keynesian models, evidence of wage and price rigidities, menu costs and information costs models. We will also introduce recent advances such as regional dynamics and variations, financial frictions, networks and the rising of market power. We will cover the Heterogeneous Agent New Keynesian (HANK) Models extensively.

Requirements & Grading

Students should complete the first year Ph.D. sequence. Students who have not taken these courses should talk to me to enroll in this course. Grading for this course:

Class Participation (30%): I will cover 2-3 papers every lecture. Read papers and write one two-page summary slides on each paper, one slide summarizing paper (contributions, methods, intuitions, findings etc.), one slide commenting paper (either a critique or an idea related to paper). The summary slides are due via email 7pm night before class. Students are also encouraged to ask questions and challenge me in class.

Presentations (30%): Students will formally present papers. The length is 30-45 minutes, depending on the number of enrolled students. The last lecture will be the proposal presentations

Research Proposal (40%): Each student meets individually with me to discuss research interests and potential research topics on April 12. Students write two-page proposal (12pt 1.5 spacing) due on April 26 at 8 am. Each student meets individually with me to discuss their preliminary results on May 17. The five-page proposal (12pt 1.5 spacing) due on June 14 at 8am.

Teaching Approach

- Give students a bird's eye view of the research topics and literature.
- Use toy models to deliver the key insights
- Focus in on a few important papers in detail. Students will present one paper.
- I will highlight the key tool and method in each lecture, so that students could learn the tools while they are studying the topics.
- Encourage students to develop research ideas
- Students learn how to communicate ideas to others

Textbooks

Woodford, Michael. *Interest and Prices: Foundations of a Theory of Monetary Policy*. Princeton University Press: Princeton NJ.

Gali, Jordi. *Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications*, 2nd Edition. Princeton University Press: Princeton, NJ.

Romer, David. *Advanced Macroeconomics*, 4th Edition, McGraw-Hill.

Miao, Jian Jun. *Economic Dynamics in Discrete Time*. 2014, MIT Press

Tentative Schedule

Topics		Week
Part I: Foundations of Modern Monetary Economics		
1	Introduction and facts	1
2	Classical Models	2
3	State Dependent Models	3
Part II: Heterogeneous Agent New Keynesian Models (HANK)		
4	Empirical Evidence in HANK	4
5	Consumption in HANK	5
6	Investment in HANK	6
	Student Presentation	7
Part III: Recent Developments		
7	Information Frictions	8
8	Regional Dynamics and Variations	9
9	The Rising of Market Power	10
10	Networks	11
11	Financial Frictions	12
	Student Presentation	13

Reading List (subject to change)

Introduction and facts (week 1)

Nakamura and Steinsson (2018). "Identification in Macroeconomics" *JEP*

Christiano, Lawrence J., Martin Eichenbaum, and Charles L. Evans. "Monetary policy shocks: What have we learned and to what end?" *Handbook of Macroeconomics* 1 (1999): 65-148.

Romer, Christina D., and David H. Romer. "Does monetary policy matter? A new test in the spirit of Friedman and Schwartz." *NBER Macroeconomics Annual 1989* Volume 4. MIT Press. 121-184.

Ben S. Bernanke, Jean Boivin, and Piotr Elias. "Measuring the Effects of Monetary Policy: A Factor-Augmented Vector Autoregressive (FAVAR) Approach." *The Quarterly Journal of Economics*, 120(1):387-422, 2005

Stock, James and Mark Watson (2001). "Vector Autoregressions." *JEP* 15(4) 101-115

Christiano, Lawrence, Martin Eichenbaum, and Charles Evans (2005). "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy." *JPE* 113(1): 1-45.

Romer and Romer (2004). "A New Measure of Monetary Shocks: Derivation and Implications." *AER* 94(4): 1055-1084.

Nakamura, Emi, and Jón Steinsson. "High-frequency identification of monetary non-neutrality: The information effect." *The Quarterly Journal of Economics* 133.3 (2018): 1283-1330.

Classical Models (week 2)

Textbooks: Gali Chapter 3, Romer Chapter 6, 7, Woodford Chapter 3,4

Taylor, John B. "Aggregate Dynamics and Staggered Contracts." *Journal of Political Economy* 88: 1-24, 1980.

Calvo, Guillermo, "Staggered Prices in a Utility-Maximizing Framework," *Journal of Monetary Economics* 12: 383-398, 1983.

State Dependent Models (week 3)

Bils, Mark, and Peter J. Klenow. "Some evidence on the importance of sticky prices." *Journal of Political Economy* 112.5 (2004): 947-985.

Nakamura, E. and Steinsson, J. (2013). Price rigidity: Microeconomic evidence and macroeconomic implications. *Annu. Rev. Econ.*, 5(1):133–163.

Nakamura, Emi, and Jón Steinsson. "Five facts about prices: A reevaluation of menu cost models." *The Quarterly Journal of Economics* 123.4 (2008): 1415-1464.

Klenow, P. J. and Kryvtsov, O. (2008). State-dependent or time-dependent pricing: Does it matter for recent us inflation? *The Quarterly Journal of Economics*, 123(3):863–904.

Midrigan, Virgiliu. "Menu Costs, Multi-Product Firms, and Aggregate Fluctuations." *Econometrica* 79.4 (2011): 1139-1180.

Klenow and Malin (2010) "Microeconomic Evidence on Price Setting." *Handbook of Monetary Economics*.

Nakamura, Emi, and Jón Steinsson. "Monetary Non-Neutrality in a Multi-Sector Menu Cost Model." *The Quarterly Journal of Economics* 125.3 (2010): 961-1013.

Vavra, Joseph. "Inflation dynamics and time-varying volatility: New evidence and an ss interpretation." *The Quarterly Journal of Economics* 129.1 (2014): 215-258.

Alvarez, Gonzales-Rozada, Neumeyer, and Beraja (2019) "From Hyperinflation to Stable Prices: Argentina's Evidence on Menu Cost Models." *QJE*.

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*.

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*.

Alvarez, Le Bihan and Lippi (2016) "The Real Effects of Monetary Shocks in Sticky Price Models: A Sufficient Statistic Approach." *AER*

Empirical Evidence in HANK (week 4)

Kaplan, G., Violante, G. L., & Weidner, J. (2014). *The wealthy hand-to-mouth* (No. w20073). National Bureau of Economic Research.

Wong (2019). "Refinancing and the Transmission of Monetary Policy to Consumption." *WP*.

Berger, Milbradt, Tourre, and Vavra (2020). "Mortgage Prepayment and Path-Dependent Effects of Monetary Policy." *WP*.

Cloyne, Ferreira, and Surico (2020). "Monetary Policy When Households Have Debt: New Evidence on the Transmission Mechanism." *RESTUD*.

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." *Econometrica*.

Fagereng, Holm, Moll, and Natvik (2020). "Savings Behavior Across the Wealth Distribution: The Importance of Capital Gains." *Econometrica*.

Fagereng, Holm, and Natvik (2020). "MPC Heterogeneity and Household Balance Sheets." *AEJ: Macro* forthcoming.

Consumption in HANK (Week 5)

Kaplan, Greg, Benjamin Moll, and Giovanni L. Violante. "Monetary policy according to HANK." *The American Economic Review* 108 (2018):697-743.

Auclert, A. (2019). Monetary policy and the redistribution channel. *American Economic Review*,

Bilbiie, Florin. (2020) "The New Keynesian Cross", *JME*

Broer, Hansen, Krusell, and Orberg (2020). "The New Keynesian Transmission Mechanism: A Heterogenous-Agent Perspective." *RESTUD*.

Gali (2018). "The State of New Keynesian Economics: A Partial Assessment." *JEP*.

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.

Investment in HANK

McKay, Nakamura, and Steinsson (2016). "The Power of Forward Guidance Revisited." *AER*.

Werning (2015). "Incomplete Markets and Aggregate Demand." WP.

Bilbiie (2019). "Monetary Policy and Heterogeneity: An Analytical Framework."

Acharya and Dogra (2020). "Understanding HANK: Insights From a PRANK." *Econometrica*.

Broer, Hansen, Krusell, and Orberg (2020). "The New Keynesian Transmission Mechanism: A Heterogenous-Agent Perspective." *RESTUD*.

Investment in HANK (Week 6)

Kekre and Lenel (2020). "Monetary Policy, Redistribution, and Risk Premia." WP.

Ottobello and Winberry (2020). "Financial Heterogeneity and the Investment Channel of Monetary Policy." *Econometrica*.

Dreschel (2020). "Earnings-Based Borrowing Constraints and Macroeconomic Fluctuations." WP.

Jeenas (2019). "Firm Balance Sheet Liquidity, Monetary Policy Shocks, and Investment Dynamics." WP.

Cloyne, Ferriera, Froemel, and Surico (2019). "Monetary Policy, Corporate Finance, and Investment." WP.

Bilbiie, F. O., Känzig, D., & Surico, P. (2020). Capital and Income Inequality: An Aggregate-Demand Complementarity.

Information frictions (Week 7)

Mankiw, N. Gregory, and Ricardo Reis. "Sticky information versus sticky prices: a proposal to replace the New Keynesian Phillips curve." *The Quarterly Journal of Economics* 117.4 (2002): 1295-1328.

Reis, Ricardo. "Inattentive producers." *The Review of Economic Studies* 73.3 (2006): 793-821.

Woodford, Michael. "Imperfect common knowledge and the effects of monetary policy." In P. Aghion, R. Frydman, J. Stiglitz, and M. Woodford, eds. *Knowledge, Information and Expectations in Modern Macroeconomics*, Princeton: Princeton University Press 2002: 25-58.

Sims, Christopher A. "Implications of rational inattention." *Journal of Monetary Economics* 50.3 (2003): 665-690.

Maćkowiak, Bartosz, and Mirko Wiederholt. "Optimal sticky prices under rational inattention." *The American Economic Review* 99.3 (2009): 769-803.

Angeletos, G. M., & Lian, C. (2018). Forward guidance without common knowledge. *American Economic Review*, 108(9), 2477-2512.

Angeletos, George-Marios, and Zhen Huo. "Myopia and Anchoring", (2020)

Auclert, A., Rognlie, M., & Straub, L. (2020). *Micro jumps, macro humps: Monetary policy and business cycles in an estimated HANK model* (No. w26647). National Bureau of Economic Research.

Regional Dynamics and Variations (Week 8)

Blanchard and Katz (1992). "Regional Evolutions." *BPEA*.

Yagan (2019) "Employment Hysteresis From the Great Recession." *JPE*.

Hazell, J., Herreño, J., Nakamura, E., & Steinsson, J. (2020). *The slope of the Phillips Curve: evidence from US states* (No. w28005). National Bureau of Economic Research.

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*.

Saiz (2010) "The Geographic Determinants of Housing Supply." *QJE*.

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*

Beraja, Hurst, and Ospina (2019) "The Aggregate Implications of Regional Business Cycles." *Emca*.

Beraja (2019) "A Semi-Structural Methodology for Policy Counterfactuals." *JPE*.

Carvalho, Nirei, Saito, and Tahbaz-Salehi (2021) "Supply Chain Disruptions: Evidence from the Great East Japan Earthquake." *WP*.

Wolf (2020) "The Missing Intercept: A Demand Equivalence Approach." *WP*.

Herreño (2020) "The Aggregate Effects of Bank Lending Cuts." *WP*.

The Rising of Market Power (Week 9)

De Loecker, J., Eeckhout, J., & Unger, G. (2020). The rise of market power and the macroeconomic implications. *The Quarterly Journal of Economics*, 135(2), 561-644.

Mongey, S. (2019). Market structure and monetary non-neutrality.

Wang, O., & Werning, I. (2020). *Dynamic Oligopoly and Price Stickiness* (No. w27536). National Bureau of Economic Research.

Networks (Week 10)

Acemoglu, Daron, Ufuk Akcigit, and William Kerr (2015), "Networks and the macroeconomy: An empirical exploration." In National Bureau of Economic Research Macroeconomics Annual (Martin Eichenbaum and Jonathan Parker, eds.), volume 30, MIT Press, Cambridge, MA.

Acemoglu, Daron, Vasco Carvalho, Asuman Ozdaglar and Alireza Tahbaz-Salehi (2012) "Network Origins of Aggregate Fluctuations." *Econometrica*, 80, 1977–2016.

Rubbo, Elisa (2020). "Networks, Phillips Curves, and Monetary Policy"

Pasten, Ernesto, Raphael Schoenle, and Michael Weber. "The propagation of monetary policy shocks in a heterogeneous production economy." *Journal of Monetary Economics* (2019).

Baqae, David, and Emmanuel Farhi. 2018. "Macroeconomics with Heterogeneous Agents and Input-Output Networks."

Baqae, David, and Emmanuel Farhi. Forthcoming. "Productivity and Misallocation in General Equilibrium." *Quarterly Journal of Economics*

Baqae, David, and Emmanuel Farhi. 2019. "The Macroeconomic Impact of Microeconomic Shocks: Beyond Hulten's Theorem." *Econometrica* 87 (4): 1155-1203.

Financial frictions (Week 11)

Gilchrist, S., Schoenle, R., Sim, J., and Zakrajšek, E. (2017). Inflation dynamics during the financial crisis. *American Economic Review*, 107(3):785–823.

Ottoneo, Pablo, and Thomas Winberry. "Financial heterogeneity and the investment channel of monetary policy." No. w24221. National Bureau of Economic Research, 2018.

Wang, Oliver. "Banks, low interest rates, and monetary policy transmission" (2020)

Brunnermeier, Markus and Yann Koby. (2019) "The Reversal Interest Rate"

Balloch, Cynthia and Yann Koby. (2019) "Low Rates and Bank Loan Supply: Theory and Evidence from Japan"