

**Econ 702 Spring 2021  
Advanced Macroeconomics II  
Luminita Stevens**

Class: Fridays 1:00–2:30 pm, on Zoom  
Office Hours: By appointment  
Materials: On ELMS

**DESCRIPTION**

Economics 702 is the spring half of the Economics Department's two-semester sequence in Advanced Macroeconomics, intended for second-year Ph.D. students. This course focuses on monetary economics, from foundational work to recent advances.

- Foundational topics include evidence of short-run monetary non-neutrality, the New Keynesian Phillips Curve, optimal monetary policy, and the interaction between fiscal and monetary policy.
- Recent advances focus on theories of endogenous price rigidities, primarily based on information frictions and bounded rationality, evidence of deviations from the rational expectations hypothesis, conventional and unconventional monetary policy, and transmission mechanisms of monetary policy in economies with heterogeneous agents.

**PREREQUISITES**

ECON 601 and ECON 602. Students who have not taken these courses and students from other departments or years should talk to me to enroll in or audit this course.

**GRADING**

40% = Weekly written comments

60% = Project, evenly split between

Literature review identifying vulnerable results or assumptions [approx. 1,200 words]

Proposal + 3-5 references that operationalize the proposal [approximately 600 words]

Presentation of preliminary findings [5-7 slides + 15-minute presentation]

Paper draft [approximately 15 pages]

The goal of the project is to generate a preliminary research paper that you can finalize over the summer and turn in as your second year paper in September. Your first step is to choose an area of interest and conduct a focused literature review, identifying assumptions or results in this area that can be the targets of further inquiry. Your next step is to propose a research strategy to go after one specific weak link identified in your lit review. Further details will be discussed in class.

## TOPICS (SUBJECT TO CHANGE)

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<b>B. Evidence on Short-Run Monetary Non-Neutrality II .....</b>	<b>3</b>
<b>C. The New Keynesian Phillips Curve .....</b>	<b>4</b>
<b>D. Real Rigidities, Amplification &amp; Persistence .....</b>	<b>4</b>
<b>E. Monetary Policy: Theory &amp; Practice.....</b>	<b>4</b>
<b>F. Endogenizing Price Rigidities: Menu Costs and Micro Data .....</b>	<b>4</b>
<b>G. Endogenizing Price Rigidities: Information Frictions .....</b>	<b>5</b>
<b>H. Rational Expectations? Some Evidence .....</b>	<b>5</b>
<b>I. Models of Expectations Formation .....</b>	<b>6</b>
<b>J. Monetary Policy, Imperfect Information &amp; Bounded Rationality.....</b>	<b>7</b>
<b>K. The Zero Lower Bound &amp; Quantitative Easing.....</b>	<b>7</b>
<b>L. Forward Guidance, Imperfect Information &amp; Bounded Rationality .....</b>	<b>8</b>
<b>M. The Transmission Mechanism of Monetary Policy in Heterogeneous Monetary Models .....</b>	<b>8</b>
<b>N. State-Dependence and Path-Dependence in Monetary Policy Effectiveness .....</b>	<b>9</b>

## Practical Books

Adler, Mortimer J., and Charles Van Doren. *How to read a book: The classic guide to intelligent reading*. Simon and Schuster, 2014.

Belcher, Wendy L. *Writing your journal article in twelve weeks: A guide to academic publishing success*. Sage, 2009.

Goodson, Patricia. *Becoming an academic writer: 50 exercises for paced, productive, and powerful writing*. Sage, 2016.

### A. Evidence on Short-Run Monetary Non-Neutrality I

\* Cook, Timothy, and Thomas Hahn. "The effect of changes in the federal funds rate target on market interest rates in the 1970s." *Journal of Monetary Economics* 24.3 (1989): 331-351.

\* 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.

Goodfriend, Marvin, and Robert G. King. "The incredible Volcker disinflation." *Journal of Monetary Economics* 52.5 (2005): 981-1015.

Kuttner, Kenneth N. "Monetary policy surprises and interest rates: Evidence from the Fed funds futures market." *Journal of monetary economics* 47.3 (2001): 523-544.

Gürkaynak, Refet S., Brian Sack, and Eric T. Swanson. "Do Actions Speak Louder Than Words? The Response of Asset Prices to Monetary Policy Actions and Statements." *International Journal of Central Banking* (2005).

Bauer, M., Swanson, E. , 2020. The Fed's response to economic news explains the 'Fed information effect'. NBER Working Paper 27013.

Cloyne, James, and Patrick Hürtgen. 2016. "The Macroeconomic Effects of Monetary Policy: A New Measure for the United Kingdom." *American Economic Journal: Macroeconomics*, 8 (4): 75-102.

### B. Evidence on Short-Run Monetary Non-Neutrality II

\* 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.

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

Caldara, Dario, and Edward Herbst. 2019. "Monetary Policy, Real Activity, and Credit Spreads: Evidence from Bayesian Proxy SVARs." *American Economic Journal: Macroeconomics*, 11 (1): 157-92.

Barakchian, S. Mahdi, and Christopher Crowe. "Monetary policy matters: Evidence from new shocks data." *Journal of Monetary Economics* 60.8 (2013): 950-966.

Gertler, Mark, and Peter Karadi. "Monetary policy surprises, credit costs, and economic activity." *American Economic Journal: Macroeconomics* 7.1 (2015): 44-76.

Jiménez, Gabriel, et al. "Hazardous times for monetary policy: What do twenty-three million bank loans say about the effects of monetary policy on credit risk-taking?." *Econometrica* 82.2 (2014): 463-505.

### **C. The New Keynesian Phillips Curve**

\* Woodford (2003) - Chapter 3, section 2

\* Christiano, Lawrence J., Martin Eichenbaum, and Charles L. Evans. "Nominal rigidities and the dynamic effects of a shock to monetary policy." *Journal of Political Economy* 113.1 (2005): 1-45.

### **D. Real Rigidities, Amplification & Persistence**

\* Rotemberg, Julio J., and Michael Woodford. "The cyclical behavior of prices and costs." *Handbook of macroeconomics* 1 (1999): 1051-1135.

Ball, Laurence, and David Romer. "Real Rigidities and the Non-neutrality of Money." *The Review of Economic Studies* 57.2 (1990): 183-203.

Kimball, Miles. "The Quantitative Analytics of the Basic Neomonetarist Model." *Journal of Money, Credit and Banking* 27.4 (1995): 1241-77.

Kryvtsov, Oleksiy, and Virgiliu Midrigan. "Inventories, markups, and real rigidities in menu cost models." *Review of Economic Studies* 80.1 (2013): 249-276.

Gopinath, Gita, and Oleg Itskhoki. "In search of real rigidities." *NBER Macroeconomics Annual* 25.1 (2011).

Nekarda, Christopher J., and Valerie A. Ramey. "The Cyclical Behavior of the Price-Cost Markup." (2020).

Anderson, Eric, Sergio Rebelo, and Arlene Wong. Markups across space and time. No. w24434. National Bureau of Economic Research, 2018.

### **E. Monetary Policy: Theory & Practice**

\* Woodford (2003), Chapter 4, sections 1, 2.1, 2.2, Chapter 6, sections 1,2,3 , Chapter 7

\* Clarida, Richard, Jordi Gali, and Mark Gertler. "Monetary policy rules and macroeconomic stability: evidence and some theory." *The Quarterly Journal of Economics* 115.1 (2000): 147-180.

\* Clarida, Richard, Jordi Gali, and Mark Gertler. "The Science of Monetary Policy: A New Keynesian Perspective." *Journal of Economic Literature* 37 (1999): 1661-1707.

Orphanides, Athanasios. "Monetary policy rules based on real-time data." *American Economic Review* 91.4 (2001): 964-985.

Benigno, Pierpaolo. "Optimal monetary policy in a currency area." *Journal of International Economics* 63.2 (2004).

### **F. Endogenizing Price Rigidities: Menu Costs and Micro Data**

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

\* Golosov, Mikhail, and Robert E. Lucas Jr. "Menu Costs and Phillips Curves." *Journal of Political Economy* 115.2 (2007): 171-199.

\* 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.

Gagnon, Etienne. "Price setting during low and high inflation: Evidence from Mexico." *The Quarterly Journal of Economics* 124.3 (2009): 1221-1263.

Alvarez, Fernando, et al. "From hyperinflation to stable prices: Argentina's evidence on menu cost models." *The Quarterly Journal of Economics* 134.1 (2019): 451-505.

Caballero, Ricardo J., and Eduardo MRA Engel. "Price stickiness in Ss models: New interpretations of old results." *Journal of Monetary Economics* 54 (2007): 100-121.

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

Nakamura, Emi, and Jon Steinsson. "Monetary non-neutrality in a multisector menu cost model." *The Quarterly Journal of Economics* 125.3 (2010): 961-1013.

### **G. Endogenizing Price Rigidities: Information Frictions**

\* 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.

Nimark, Kristoffer. "Dynamic pricing and imperfect common knowledge." *Journal of Monetary Economics* 55.2 (2008): 365-382.

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.

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

Carlsson, Mikael, and Oskar Nordström Skans. "Evaluating microfoundations for aggregate price rigidities: Evidence from matched firm-level data on product prices and unit labor cost." *American Economic Review* 102.4 (2012): 1571-95.

Woodford, Michael. "Information-constrained state-dependent pricing." *Journal of Monetary Economics* 56 (2009): S100-S124.

Matějka, Filip. "Rationally inattentive seller: Sales and discrete pricing." *The Review of Economic Studies* 83.3 (2015): 1125-1155.

Stevens, Luminita. "Coarse pricing policies." *The Review of Economic Studies* 87.1 (2020): 420-453.

Afrouzi, Hassan. "Strategic Inattention, Inflation Dynamics and the Non-Neutrality of Money." (2020).

### **H. Rational Expectations? Some Evidence**

Mankiw, N.G., Reis, R. and Wolfers, J. (2003). "Disagreement about Inflation Expectations." In NBER Macroeconomics Annual 2003, ed. by M. Gertler, and K. Rogoff

Coibion, Olivier, and Yuriy Gorodnichenko. "What Can Survey Forecasts Tell Us about Information Rigidities?." *Journal of Political Economy* 120.1 (2012): 116-159.

- Coibion, Olivier, and Yuriy Gorodnichenko. "Information rigidity and the expectations formation process: A simple framework and new facts." *The American Economic Review* 105.8 (2015): 2644-2678.
- Coibion, Olivier, Yuriy Gorodnichenko, and Saten Kumar. "How do firms form their expectations? New survey evidence." *The American Economic Review* 108.9 (2018): 2671-2713.
- Fuhrer, Jeffrey C. "Intrinsic expectations persistence: Evidence from professional and household survey expectations." (2018).
- Cavallo, Alberto, Guillermo Cruces, and Ricardo Perez-Truglia. "Inflation expectations, learning, and supermarket prices: Evidence from survey experiments." *American Economic Journal: Macroeconomics* 9.3 (2017): 1-35.
- Drenik, Andres, and Diego J. Perez. "Price setting under uncertainty about inflation." *Journal of Monetary Economics* (2020).
- Malmendier, Ulrike, and Stefan Nagel. "Learning from inflation experiences." *The Quarterly Journal of Economics* 131.1 (2016): 53-87.
- Baqaei, David Rezza. "Asymmetric inflation expectations, downward rigidity of wages, and asymmetric business cycles." *Journal of Monetary Economics* (2019).
- Bordalo, Pedro, et al. "Overreaction in macroeconomic expectations." *American Economic Review* 110.9 (2020): 2748-82.
- Kohlhas, Alexandre N., and Ansgar Walther. "Asymmetric Attention." (2020).
- I. Models of Expectations Formation**
- Nerlove, Marc. "Adaptive expectations and cobweb phenomena." *The Quarterly Journal of Economics* 72.2 (1958): 227-240.
- Leibenstein, Harvey. "Allocative efficiency vs. "X-efficiency"." *The American Economic Review* (1966): 392-415.
- Evans, George W., and Seppo Honkapohja. "Learning as a rational foundation for macroeconomics and finance." *Rethinking expectations: The way forward for macroeconomics* 68 (2013).
- Milani, Fabio. "Expectations, learning and macroeconomic persistence." *Journal of Monetary Economics* 54.7 (2007): 2065-2082.
- Fuster, Andreas, David Laibson, and Brock Mendel. "Natural expectations and macroeconomic fluctuations." *Journal of Economic Perspectives* 24.4 (2010): 67-84.
- Goldstein, Daniel G., and Gerd Gigerenzer. "Models of ecological rationality: the recognition heuristic." *Psychological Review* 109.1 (2002): 75.
- Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer. "Diagnostic expectations and credit cycles." *The Journal of Finance* 73.1 (2018): 199-227.
- Woodford, Michael. "Macroeconomic analysis without the rational expectations hypothesis." *Annu. Rev. Econ.* 5.1 (2013): 303-346.
- Angeletos, George-Marios, and Zhen Huo. "Myopia and Anchoring." *American Economic Review* (forthcoming).

Angeletos, George-Marios, Zhen Huo, and Karthik Sastry. 2020. "Imperfect Macroeconomic Expectations: Evidence and Theory." In NBER Macroeconomics Annual 2020. Vol. 35. NBER.

Afrouzi, H., Kwon, S.Y., Landier, A., Ma, Y. and Thesmar, D., 2020. Overreaction and working memory (No. w27947). National Bureau of Economic Research.

## **J. Monetary Policy, Imperfect Information & Bounded Rationality**

\* Eusepi, Stefano, and Bruce Preston. "The science of monetary policy: An imperfect knowledge perspective." *Journal of Economic Literature* 56.1 (2018): 3-59.

Adam, Klaus. "Optimal monetary policy with imperfect common knowledge." *Journal of Monetary Economics* 54.2 (2007): 267-301.

Lorenzoni, Guido. "Optimal monetary policy with uncertain fundamentals and dispersed information." *The Review of Economic Studies* 77.1 (2010): 305-338.

Paciello, Luigi, and Mirko Wiederholt. "Exogenous information, endogenous information and optimal monetary policy." *The Review of Economic Studies* 81.1 (2014): 356-338.

Angeletos, George-Marios, and Jennifer La'o. "Optimal monetary policy with informational frictions." *Journal of Political Economy* 128.3 (2020): 1027-1064.

Melosi, Leonardo. "Signaling effects of monetary policy." *The Review of Economic Studies* 84.2 (2016):853-884.

## **K. The Zero Lower Bound & Quantitative Easing**

\* Krugman, Paul R., "It's Baaack: Japan's Slump and the Return of the Liquidity Trap," *Brookings Papers on Economic Activity* 1998-2: 137-206.

\* Eggertsson, Gauti B., and Michael Woodford. "The Zero Bound on Interest Rates and Optimal Monetary Policy." *Brookings Papers on Economic Activity* 1 (2003): 139-211.

Del Negro, Marco, Marc P. Giannoni, and Frank Schorfheide. "Inflation in the Great Recession and New Keynesian models." *American Economic Journal: Macroeconomics* 7.1 (2015): 168-196.

Eggertsson, Gauti B., and Michael Woodford. "Optimal monetary and fiscal policy in a liquidity trap." *NBER International Seminar on Macroeconomics 2004*. The MIT Press, 2006: 75-131.

Benhabib, Jess, Stephanie Schmitt-Grohé, and Martin Uribe. "Avoiding liquidity traps." *Journal of Political Economy* 110.3 (2002): 535-563.

Aruoba, S. Borağan, Pablo Cuba-Borda, and Frank Schorfheide. "Macroeconomic dynamics near the ZLB: A tale of two countries." *The Review of Economic Studies* 85.1 (2018):87-118.

Rognlie, Matthew. "What lower bound? Monetary policy with negative interest rates." Unpublished manuscript (2016).

\* Wallace, Neil. "A Modigliani-Miller Theorem for Open-Market Operations." *The American Economic Review*, vol. 71, no. 3, 1981, pp. 267-274.

Curdia, Vasco, and Michael Woodford. "The central-bank balance sheet as an instrument of monetary policy." *Journal of Monetary Economics* 58.1 (2011): 54-79.

Krishnamurthy, Arvind, and Annette Vissing-Jorgensen. "The effects of quantitative easing on interest rates: channels and implications for policy." *Brookings Papers on Economic Activity* (2011): 215-288.

Gagnon, Joseph., M Raskin, J. Remache, and B Sack. "Large-Scale Asset Purchases by the Federal Reserve: Did They Work?." *Economic Policy Review* (2011): 41.

Swanson, Eric T. "Measuring the effects of Federal Reserve forward guidance and asset purchases on financial markets." *Journal of Monetary Economics* (2020).

#### **L. Forward Guidance, Imperfect Information & Bounded Rationality**

\* Woodford, Michael. "Methods of policy accommodation at the interest-rate lower bound." *Proceedings-Economic Policy Symposium-Jackson Hole*. Federal Reserve Bank of Kansas City, 2012.

Del Negro, Marco, Marc P. Giannoni, and Christina Patterson. "The forward guidance puzzle." FRB of New York Staff Report 574 (2012).

Campbell, Jeffrey R., Charles L. Evans, Jonas DM Fisher, Alejandro Justiniano. "Macroeconomic effects of federal reserve forward guidance." *Brookings Papers on Economic Activity* (2012): 1-80.

Andrade, Philippe, Gaetano Gaballo, Eric Mengus, and Benoit Mojon. "Forward guidance and heterogeneous beliefs." *American Economic Journal: Macroeconomics* 11, no. 3 (2019): 1-29.

Wiederholt, Mirko. "Empirical properties of inflation expectations and the zero lower bound." Goethe University Frankfurt mimeo (2015).

Angeletos, George-Marios, and Chen Lian. "Forward guidance without common knowledge." *American Economic Review* 108.9 (2018): 2477-2512.

Farhi, Emmanuel, and Iván Werning. "Monetary policy, bounded rationality, and incomplete markets." *American Economic Review* 109.11 (2019): 3887-3928.

Gabaix, Xavier. 2020. "A Behavioral New Keynesian Model." *American Economic Review*, forthcoming

García-Schmidt, Mariana, and Michael Woodford. "Are low interest rates deflationary? A paradox of perfect-foresight analysis." *American Economic Review* 109.1 (2019): 86-120.

Gaballo, Gaetano. (2016) "Rational Inattention to News: The Perils of Forward Guidance." *American Economic Journal: Macroeconomics*, 8(1): 42-97

Michelacci, Claudio, and Luigi Paciello. "Ambiguous policy announcements." *The Review of Economic Studies* 87.5 (2020): 2356-2398.

#### **M. The Transmission Mechanism of Monetary Policy in Heterogeneous Monetary Models**

\*Werning, Iván. Incomplete markets and aggregate demand. NBER WP No. w21448. 2015.

Auclert, Adrien. "Monetary policy and the redistribution channel." *American Economic Review* 109.6 (2019)



Bilbiie, Florin O. "Limited asset markets participation, monetary policy and (inverted) aggregate demand logic." *Journal of Economic Theory* 140.1 (2008): 162-196.

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

Gornemann, Nils, Keith Kuester, and Makoto Nakajima. "Doves for the rich, hawks for the poor? Distributional consequences of monetary policy." (2016 working paper).

Coibion, O., Gorodnichenko, Y., Kueng, L., & Silvia, J. (2017). Innocent Bystanders? Monetary policy and inequality. *Journal of Monetary Economics*, 88, 70-89.

Cloyne, James, Clodomiro Ferreira, and Paolo Surico. "Monetary policy when households have debt: new evidence on the transmission mechanism." *The Review of Economic Studies* 87.1 (2020): 102-129.

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

Holm, Martin Blomhoff, Pascal Paul, and Andreas Tischbirek. "The Transmission of Monetary Policy under the Microscope." Federal Reserve Bank of San Francisco, 2020.

#### **N. State-Dependence and Path-Dependence in Monetary Policy Effectiveness**

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

Beraja, Martin, et al. "Regional heterogeneity and the refinancing channel of monetary policy." *The Quarterly Journal of Economics* 134.1 (2019): 109-183.

Berger, D., Milbradt, K., Tourre, F., & Vavra, J. (2020). Mortgage Prepayment and Path-Dependent Effects of Monetary Policy.

Eichenbaum, Martin, Sergio Rebelo, and Arlene Wong. "State Dependent Effects of Monetary Policy: The Refinancing Channel." (2019).

Greenwald, Daniel. "Firm debt covenants and the macroeconomy: The interest coverage channel." Manuscript, July (2019).

McKay, Alisdair, and Johannes F. Wieland. "Lumpy Durable Consumption Demand and the Limited Ammunition of Monetary Policy." (2020).

Mian, Atif R., Ludwig Straub, and Amir Sufi. Indebted demand. No. w26940. National Bureau of Economic Research, 2020.