

北京大学国家发展研究院研究生课程

货币政策与金融稳定专题

Topics in Monetary Policy and Financial Stability

Course Syllabus

Fall 2019

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COURSE DESCRIPTION

Monetary policy has the ability to shape all economic interactions in a way that no other policy does. All transactions in the modern economy are indexed to currency in some way. The money supply, exchange rates, and reserve requirements all impact the way economic actors operate. However, the recent experience of the Great Recession has raised questions in monetary policy surrounding the limits to this power. At the same time, new methods to address these challenges have been developed, but are yet to be rigorously evaluated. Moreover, some countries are considering expanding the role of the central bank to include the macro-prudential regulation of financial markets.

This course will cover advanced topics in monetary policy and financial stability for graduate students. The course has two parts. The first part will introduce a fairly detailed study of the “New Keynesian” approach to macroeconomics and the implications of this framework for the use of monetary policy and fiscal policy to stabilize business cycle fluctuations. We will start from a classical monetary model and a stylized New Keynesian Model, and then cover some applications of the basic models, including unemployment fluctuations in the new Keynesian model, related empirical tests, monetary and fiscal interactions, liquidity trap and quantitative easing. The second part of the course will focus on topics in banking and financial markets which are useful for understanding the global financial crisis and the resulting global recession. We will also introduce recent researches on monetary policy in China at the end of this course.

PREREQUISITE

Knowledge of economics at the level of advanced macroeconomics and econometrics is assumed.

GRADING

- **Replications (30%):** This course has two assignments of replicating published articles in order to make students learn modeling, computational and empirical skill.
- **Refereeing an article (20%):** Pick up an unpublished article, subject to my approval, and write a detailed referee report.
- **Final Homework (40%)**
- **Class Attendance and Participation (10%)**

REFERENCES

Gali: Galí, Jordi. Monetary policy, inflation, and the business cycle: an introduction to the new Keynesian framework and its applications. Princeton University Press, 2015 (second edition).

Woodford: Woodford, Michael (2003): Interest and Prices: Foundations of a Theory of Monetary Policy, Princeton University Press (Princeton, NJ).

Walsh: Walsh, Carl E. (2010): Monetary Theory and Policy, Third Edition, MIT Press (Cambridge, MA)

COURSE CONTENT (chapters and articles with * will be covered in class)

Part I: New Keynesian Monetary Economics

Lecture 1 (1 week): Introduction and a classical monetary model

1. *Gali Chapter 1-2

Lecture 2 (1.5 weeks): The Basic New Keynesian Model

2. *Gali Chapter 3

Lecture 3 (1.5 weeks): Monetary policy design in the new Keynesian model

3. *Gali Chapter 4
4. Clarida, R., J. Gali, and M. Gertler (1999), "The Science of Monetary Policy: A New Keynesian Perspective", Journal of Economics Literature, 37, 1661-1707

5. Romer, David, and Christina Romer. 2000. "Federal Reserve Information and the Behavior of Interest Rates." *The American Economic Review* 90(3): 429–57.

Lecture 4 (1 week): Monetary policy tradeoffs: discretion versus commitment

6. *Gali Chapter 5
7. *Barro, Robert J., and David B. Gordon. 1983. "Rules, Discretion, and Reputation in a Model of Monetary Policy." *Journal of Monetary Economics* 12: 101–21.
8. *Isabel Correia, Juan Pablo Nicolini and Pedro Teles, 2008, "Optimal Fiscal and Monetary Policy: Equivalence Results", *Journal of Political Economy*, Vol. 116, No. 1 (February 2008), pp. 141-170
9. Taylor, John B. 1993. "Discretion Practice versus Policy Rules in Practice." *Carnegie-Rochester Conference Series on Public Policy* 39: 195–214.

Lecture 5 (1 week): Unemployment fluctuations in the new Keynesian model

10. *Gali Chapter 6

Lecture 6 (2 weeks): Empirics

11. *A review of VAR and SVAR
12. *Romer, Christina D, and David H Romer. 1989. "Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz." *NBER Macroeconomics Annual* 4:121–84.
13. *Christiano, L., M. Eichenbaum and C. Evans. "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy," *Journal of Political Economy*, 2005.
14. Christiano, L., M. Eichenbaum and C. Evans. "Monetary Policy Shocks: What Have We Learned, and To What End," in Taylor and Woodford (eds.), *Handbook of Monetary Economics*, 1999.
15. Gali and Gertler, *Inflation Dynamics: A structural Econometric Analysis*," *JME* 1999.
16. DeJong, " A Bayesian Approach to Dynamic Macroeconomics ", *Journal of Econometrics* 2000.
17. Canova and Sala, *Back to Square One: Identification Issues in DSGE Models*," *JME* 2009.
18. Fernandez-Villaverde, *The Econometrics of DSGE Models*," 2010.
19. Christiano, L., M. Eichenbaum and R. Vigfusson. "Assessing Structural VARs," *NBER Working Papers* 12353, 2006

Part II: Frictions in Banking and Financial Markets

General Readings:

20. *Adrian, Tobias, Paolo Colla and Hyun Song Shin (2012), Which Financial Frictions? Parsing the Evidence of the Financial Crisis 2007-9, NBER Macroeconomics Annual 2012, Volume 27, edited by Acemoglu, Parker, and Woodford.
21. Haldane, Andrew (2010), The \$100 Billion Question, Bank of England.
22. Rosenblum, Harvey (2011), Choosing the Road to Prosperity: Why We Must End Too Big to Fail – Now, Federal Reserve Bank of Dallas Annual Report.
23. Korinek, Anton (2015), Thoughts on DSGE Macroeconomics, October 2015, working paper prepared for Joe Stiglitz's festschrift conference.

Lecture 7 (1 week): Bank runs, and bailouts

24. *Diamond, Douglas W., and Philip H. Dybvig. 1983. "Bank Runs, Deposit Insurance, and Liquidity." *Journal of Political Economy* 91(3)
25. *D.W. Diamond, A.K. Kashyap, Chapter 29 - Liquidity Requirements, Liquidity Choice, and Financial Stability, Editor(s): John B. Taylor, Harald Uhlig, *Handbook of Macroeconomics*, Elsevier, Volume 2, 2016, Pages 2263-2303
26. *Tirole (2011): Illiquidity and all its friends, *Journal of Economic Literature*.
27. *Egan, Mark, Ali Hortaçsu, and Gregor Matvos. "Deposit competition and financial fragility: Evidence from the us banking sector." *American Economic Review* 107.1 (2017): 169-216.
28. Buchak, Greg, et al. The limits of shadow banks. No. w25149. National Bureau of Economic Research, 2018.
29. Gorton and Metrick (2009): Securitized banking and the run on repo, NBER working paper.
30. Stiglitz, Joseph. 2009. "A Bank Bailout That Works." *The Nation*: 1–8.
31. Dam, Lammertjan and Michael Koetter. 2012. "Bank Bailouts and Moral Hazard: Evidence from Germany." *The Review of Financial Studies* 25(8): 2343-2380.
32. Holmstrom H. and J. Tirole, (1998), "Private and Public Supply of Liquidity", *Journal of Political Economy*, 106, 1-40.
33. Diamond, D. (1991) "Monitoring and Reputation: The Choice between Bank Loans and Directly Placed Debt", *Journal of Political Economy*, 99, 689-721.

34. Diamond D. and R. Rajan (2001), "Liquidity Risk, Liquidity Creation, and Financial Fragility: A Theory of Banking", *Journal of Political Economy*, 94, 691-719.
35. Shin, Hyun Song. 2009. "Reflections on Northern Rock : The Bank Run That Heralded the Global Financial Crisis." *The Journal of Economic Perspectives* 23(1): 101–20.
36. Gale D. and M. Hellwig (1985), "Incentive Compatible Debt Contracts: The One-Period Problem". *Review of Economic Studies*, 52, 647-663.
37. Diamond D.(1984), "Financial Intermediation and Delegated Monitoring", *Review of Economic Studies*, 51, 393-414.
38. Leland H. and D. Pyle (1977) "Informational Asymmetries, Financial Structure, and Financial Intermediation", *Journal of Finance*, 31, 371-387.
39. Aghion P. and P. Bolton (1992), "An Incomplete Contracts Approach to Financial Contracting", *Review of Economic Studies*, 59

Lecture 8 (1 week): Agency cost

40. *Bernanke, Ben and Mark Gertler, "Agency Costs, Net Worth and Business Fluctuations." *American Economic Review*, March 1989.
41. *Kiyotaki N. and J. Moore (1997), "Credit Cycles" *Journal of Political economy*, 105, 211-248.
42. *Kiyotaki, Nobuhiro, and John Moore. 2012 (2018 updated). "Liquidity, Business Cycles, and Monetary Policy." *National Bureau of Economic Research Working Paper* 17934.
43. Stiglitz, Joseph and Andrew Weiss (1981), "Credit Rationing in Markets with Imperfect Information," *American Economic Review*, 71(3), pp. 393-410.
44. Townsend, Robert M. (1979), "Optimal Contracts and Competitive Markets with Costly State Verification," *Journal of Economic Theory* 21, pp. 265-293.
45. Akerlof, George A. and Paul M. Romer (1993), *Looting: The Economic Underworld of Bankruptcy for Profit*, *Brookings Papers on Economic Activity* 1993(2), pp. 1-73.
46. Carlstrom C. and T. Fuerst (1997) "Agency Costs, Net Worth and Business Fluctuations: A Computable General Equilibrium Analysis", *American Economic Review*, 87, 893-910.
47. Bernanke, Gertler and Gilchrist (1999): *The financial accelerator in a quantitative business cycle framework*, *Handbook of Macroeconomics*.
48. Christiano, Lawrence J., Roberto Motto, and Massimo Rostagno. 2014. "Risk Shocks." *American Economic Review* 104 (1): 27–65.

49. Brunnermeier and Pedersen (2009): Market liquidity and funding liquidity, *Review of Financial Studies*.

Lecture 9 (1 week): Externalities and Amplification

50. *Greenwald, Bruce and Joseph E. Stiglitz (1988), Externalities in Economies with Imperfect Information and Incomplete Markets, *Quarterly Journal of Economics* 101(2), pp. 229-264.
51. *Dávila, Eduardo, and Anton Korinek. "Pecuniary externalities in economies with financial frictions." *The Review of Economic Studies* 85.1 (2018): 352-395.
52. Jeanne, Olivier and Anton Korinek (2010), "Excessive Volatility in Capital Flows," *American Economic Review* 100(2), pp. 403-407.
53. Lorenzoni, Guido (2008), "Inefficient Credit Booms," *Review of Economic Studies* 75(3), pp. 809-833.
54. Korinek, A. and Simsek, A., 2016. Liquidity trap and excessive leverage. *American Economic Review*, 106(3), pp.699-738.

Lecture 10 (1 week): Financial intermediation in DSGE models

55. *Gertler, M., & Kiyotaki, N. (2010). Financial intermediation and credit policy in business cycle analysis. In *Handbook of monetary economics* (Vol. 3, pp. 547-599). Elsevier.
56. *Mark Gertler and Nobuhiro Kiyotaki, 2015. "Banking, Liquidity, and Bank Runs in an Infinite Horizon Economy," *American Economic Review*, American Economic Association, vol. 105(7), pages 2011-2043, July.
57. *Monika Piazzesi, Ciaran Rogers and Martin Schneider, 2019, "Money and banking in a New Keynesian model", Stanford University
58. *Brunnermeier and Sannikov (2014): A macroeconomic model with a financial sector, *American Economic Review*.
59. *Wang, Yifei, et al. "Bank market power and monetary policy transmission: Evidence from a structural estimation." Available at SSRN 3049665 (2018).
60. Gertler, Mark, and Peter Karadi. "A model of unconventional monetary policy." *Journal of Monetary Economics* 58.1 (2011): 17-34.
61. Winston W. Dou, Andrew W. Lo, Ameya Muley, Harald Uhlig, 2017, *Macroeconomic Models for Monetary Policy: A Critical Review from a Finance Perspective*
62. Brunnermeier, Eisenbach and Sannikov (2012): *Macroeconomics with financial frictions: a survey*, NBER working paper.

63. Christiano, L., M. Rostagno, and R. Motto (2010, May). Financial factors in economic fluctuations. Working Paper Series 1192, European Central Bank.
64. Gilchrist, Simon, and Egon Zakrajsek. 2012. "Credit Spreads and Business Cycle Fluctuations." *American Economic Review* 102 (4): 1692–1720.
65. Freixas, X., A. Martin, and D. Skeie (2011). Bank liquidity, interbank markets, and monetary policy. *Review of Financial Studies* 24 (8), 2656-2692.
66. He, Z. and A. Krishnamurthy (2013). Intermediary asset pricing. *American Economic Review* 103 (2), 732-70.
67. He, Z. and A. Krishnamurthy (2012, October). A macroeconomic framework for quantifying systemic risk. Working Paper Research 233, National Bank of Belgium.
68. Dewachter, H. and R. Wouters (2012, October). Endogenous risk in a dsge model with capital-constrained financial intermediaries. Working paper research, National Bank of Belgium.

Lecture 11 (1 week): Heterogeneity, Reallocation, and Redistribution Effects

69. *Gomes, Joao, Urban Jermann, and Lukas Schmid. "Sticky leverage." *American Economic Review* 106.12 (2016): 3800-3828.
70. *Guerrieri, Veronica, and Guido Lorenzoni. "Credit crises, precautionary savings, and the liquidity trap." *The Quarterly Journal of Economics* 132.3 (2017): 1427-1467.
71. *Eisfeldt, A. L. and A. A. Rampini (2006, April). Capital reallocation and liquidity. *Journal of Monetary Economics* 53 (3), 369-399.
72. Thomas, C. (2008, July). Search and matching frictions and optimal monetary policy. *Journal of Monetary Economics* 55 (5), 936-956.
73. Algan, Y. and X. Ragot (2010, April). Monetary policy with heterogeneous agents and borrowing constraints. *Review of Economic Dynamics* 13 (2), 295-316.
74. Gornemann, N., K. Kuester, and M. Nakajima (2012). Monetary policies with heterogeneous agents. Technical report.
75. Eisfeldt, A. L. and A. A. Rampini (2008, January). Managerial incentives, capital reallocation, and the business cycle. *Journal of Financial Economics* 87 (1), 177-199.
76. Shourideh, A. and A. Zetlin-Jones (2012). External financing and the role of financial frictions over the business cycle: Measurement and theory. Technical report.

Lecture 12 (2 weeks): Monetary Policy in China

77. *Chen, Kaiji, Jue Ren, and Tao Zha. The Nexus of Monetary Policy and Shadow Banking in China. No. w23377. National Bureau of Economic Research, 2017. Forthcoming, American Economic Review
78. *Chang, Chun, Zheng Liu, and Mark M. Spiegel. "Capital controls and optimal Chinese monetary policy." *Journal of Monetary Economics* 74 (2015): 1-15.
79. Chen, Kaiji, Patrick Higgins, Daniel F. Waggoner, and Tao Zha. China pro-growth monetary policy and its asymmetric transmission. No. 2016-9. Working Paper, Federal Reserve Bank of Atlanta, 2016.
80. Chang, Chun, Zheng Liu, Mark M. Spiegel, and Jingyi Zhang. "Reserve requirements and optimal Chinese stabilization policy." Federal Reserve Bank of San Francisco, 2016.
81. Chen, Kaiji, Jue Ren, and Tao Zha. What we learn from China's rising shadow banking: Exploring the nexus of monetary tightening and banks' role in entrusted lending. No. w21890. National Bureau of Economic Research, 2016.
82. Chen, Kaiji, and Yi Wen. "The great housing boom of China." *American Economic Journal: Macroeconomics* 9.2 (2017): 73-114.
83. Chang, Chun, Kaiji Chen, Daniel F. Waggoner, and Tao Zha. "Trends and cycles in China's macroeconomy." *NBER Macroeconomics Annual* 30, no. 1 (2016): 1-84.

Lecture 13 (1 week): Monetary Policy and Financial Stability (More readings)

84. *Hanson, Samuel G, Anil K Kashyap, and Jeremy C Stein. 2011. "A Macroprudential Approach to Financial Regulation." *Journal of Economic Perspectives* 25(1): 3–28.
85. * Farhi, Emmanuel, and Iván Werning. "A theory of macroprudential policies in the presence of nominal rigidities." *Econometrica* 84, no. 5 (2016): 1645-1704.
86. *Mark Gertler, Nobuhiro Kiyotaki, Andrea Prestipino, 2019, "Credit Booms, Financial Crises and Macroprudential Policy"
87. *Moritz Lenel, Monika Piazzesi and Martin Schneider, 2019, "The short rate disconnect in a monetary economy"
88. Alejandro Van der Ghote, 2018 "Coordinating Monetary and Financial Regulatory Policies", European Central Bank
89. Tobias Adrian and Fernando Duarte, 2017, "Financial Vulnerability and Monetary Policy", Federal Reserve Bank of New York Staff Reports, no. 804
90. Lim, C et al. 2011. "Macroprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences."

91. Bank for International Settlements (2014), Re-thinking the Lender of Last Resort, BIS Papers No 79
92. Benes, Jaromir and Michael Kumhof (2012), "The Chicago Plan revisited", IMF Working Paper 12/202
93. Smets, Frank (2013), "Financial stability and monetary policy: How closely interlinked?", Sveriges Riksbank, Economic Review 2013(3), 121-160

Additional Topics

Topic 1: Monetary and fiscal interactions

1. * Canzoneri, M., Cumby, R., & Diba, B. (2010). The interaction between monetary and fiscal policy. In Handbook of monetary economics (Vol. 3, pp. 935-999). Elsevier.
2. Woodford (2011): Simple analytics of the government expenditure multiplier, AEJ: Macroeconomics.
3. Christiano, Eichenbaum and Evans, When is the Government Spending Multiplier Large," JPE 2011.
4. Favero and Monacelli, Fiscal Policy Rules and Regime (In)Stability: Evidence from the U.S," 2005.
5. Cochrane, Determinacy and Identification with Taylor Rules," JPE 2011.
6. Leeper, Eric (2016), "Should central banks care about fiscal rules?", NBER Working Paper 22800
7. Reis, Ricardo (2017b), "Can the central bank alleviate fiscal burdens?", NBER Working Paper 23014
8. Sims, Christopher (2016), "Fiscal policy, monetary policy and central bank independence", Jackson Hole Symposium, Federal Reserve Bank of Kansas City
9. Woodford, Michael (2013), "Forward guidance by inflation-targeting central banks", Sveriges Riksbank, Economic Review 2013(3), 81-120

Topic 2: Liquidity trap and quantitative easing

10. *Eggertsson, Gauti, and Paul R. Krugman. 2012. "Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach." Quarterly Journal of Economics: 1469–1513.
11. *Werning (2012): Managing a liquidity trap: Monetary and fiscal policy, MIT working paper.

12. *Vissing-Jorgensen, Annette, and Arvind Krishnamurthy. 2011. "The Effects of Quantitative Easing on Interest Rates: Channels and Implications for Policy." *Brookings Papers on Economic Activity* (Fall): 215–87.
13. *Galí, Jordi. "The State of New Keynesian Economics: A Partial Assessment." *Journal of Economic Perspectives—Volume 32, Number 3—Summer 2018—Pages 87–112*
14. Blinder, Alan S. 2010. "Quantitative Easing : Entrance and Exit Strategies." *Federal Reserve Bank of St. Louis Review* 92(6): 465–80.
15. Mckay, Alisdair, Emi Nakamura, and Jon Steinsson. 2014. "The Power of Forward Guidance Revisited."
16. Eggertsson, Gauti and Michael Woodford (2003), "The zero bound on interest rates and optimal monetary policy", *Brookings Papers on Economic Activity* 34(1), 139-211
17. Buitier, Willem H, and Nikolaos Panigirtzoglou. 2003. "Overcoming the Zero Bound on Nominal Interest Rates with Negative Interest On Currency: Gesell's Solution." *The Economic Journal* (113): 723–46.