

Econ 9431 Central Bank Policies

Spring 2022
MW 11am – 12:15pm
Online via Zoom

Instructor: Chao Gu
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Office hour: By appointment

In this course, we develop themes in monetary economics. In particular, we further our understanding of the functions of money and other means of payments in modern theories.

Reference book:

- [1] Rocheteau and Nosal, Money, Payments, and Liquidity, 2nd edition, MIT Press, 2017
- [2] Walsh, Monetary Theory and Policy, MIT Press, 2010
- [3] Friedman and Hahn, Editors, Handbook of Monetary Economics, North Holland, 2010.
- [4] Kareken and Wallace, Editors, Models of Monetary Economies, Minneapolis, Federal Reserve Bank of Minneapolis, 1980.

Course Requirements:

Grade will be determined by problem sets (25%), two presentations (25%), and the take-home final (50%).

Make-up Policy:

Make-up exams will generally not be given. A request for alternative arrangements must be in writing and must be accompanied by appropriate documentation for not taking the scheduled exam.

Course Canvas:

There is a course canvas to support the class (<https://missouri.instructure.com>). Course information, homework and announcements can be found on the course canvas.

Technical Skills Required

You are expected to have minimal technical skills such as using Zoom, Canvas, scanning and uploading documents. Having reliable access to the Internet is necessary.

Online Course Materials

All online contents of this class are copyrighted and are not to be shared or used outside of this class.

Course Outline:

1. Introduction

Samuelson, "What Classical and Neo-classical Monetary Theory Really Was," *Canadian Journal of Economics*, 1968, 1-15.

Cass and Shell, "In Defense of a Basic Approach," Kareken and Wallace (eds.), *Models of Monetary Economies*, 251-260.

Baumol, "The Transaction Demand for Cash: An Inventory Theoretic Approach," *Quarterly Journal of Economics* 66, 1952, 546-556.

Shell, "Notes on the Economies of Infinity," *Journal of Political Economy* 79, 1971, 1002-1011.

Lucas, "Equilibrium in a Pure Currency Economy," Kareken and Wallace (eds.), *Models of Monetary Economies*, 131-145.

Bewley, "The Optimal Quantity of Money," Kareken and Wallace (eds.), *Models of Monetary Economies*, 169-210.

Townsend, "Models of Money with Spatially Separated Agents," Kareken and Wallace (eds.), *Models of Monetary Economies*, 265-303.

2. Matching model of money

Kiyotaki, and Wright, "On Money as a Medium of Exchange," *Journal of Political Economy* 97, 1989, 927-954.

Trejos, and Wright, "Search, Bargaining, Money and Prices," *Journal of Political Economy* 103, 1995, 118-141.

Largos, and Wright, "A Unified Framework for Monetary Theory and Policy Analysis," *Journal of Political Economy* 113, 2005, 463-484.

3. Money and credit

Kocherlakota, "Money is Memory," *Journal of Economic Theory* 81, 1998, 232-251.

Kocherlakota and Wallace, "Incomplete Record-Keeping and Optimal Payment Arrangements," *Journal of Economic Theory* 81, 1998, 272-289.

Cavalcanti and Wallace, "Inside and Outside Money as Alternative Media of Exchange," *Journal of Money, Credit and Banking* 31, 1999, 443-457.

Kehoe and Levine, "Debt-constrained Asset Markets," *Review of Economic Studies* 60, 1993, 865-888.

Alvarez and Jermann, "Efficiency, Equilibrium, and Asset Pricing with Risk of Default," *Econometrica* 68, 2000, 775-798.

Gu, Mattesini, Monnet, and Wright. "Endogenous Credit Cycles." *Journal of Political Economy* 121, 2013, 940-965.

Gu, Mattesini and Wright. "Money and Credit Redux." *Econometrica* 84, 2016, 1-32.

4. Banking

Diamond and Dybvig, "Bank Runs, Deposit Insurance, and Liquidity," *Journal of Political Economy* 91 (1983), 401-419.

Berensten, Camera, and Waller, "Money, Credit and Banking," *Journal of Economic Theory* 135, 2007, 171-195.

Williamson, "Limited Participation, Private Money, and Credit in a Spatial Model of Money," *Economic Theory* 24, 2004, 857-875.

He, Huang, and Wright, "Money, Banking and Monetary Policy," *Journal of Monetary Economics* 55, 2008, 1013-1024.

Gu, Mattesini, Monnet, and Wright. "Banking: A New Monetarist Approach." *Review of Economic Studies* 80, 2013, 636-662.

5. Financial fragility

Diamond and Dybvig, "Bank Runs, Deposit Insurance, and Liquidity," *Journal of Political Economy* 91 (1983), 401-419.

Wallace, "Another Attempt to Explain an Illiquid Banking System: The Diamond and Dybvig Model with Sequential Service Taken Seriously," *Federal Reserve Bank Minneapolis Quarterly Review* 12, 1988, 3-16.

Wallace, "A Banking Model in which Partial Suspension is Best," *Federal Reserve Bank Minneapolis Quarterly Review* 14, 1990, 3-16.

Peck and Shell, "Equilibrium Bank Runs," *Journal of Political Economy* 111, 2003, 103-123.

Green and Lin, "Implementing Efficient Allocations in a Model of Financial Intermediation," *Journal of Economic Theory* 109, 2003, 1-23.

Andolfatto, Berentsen and Martin, “Money, Banking and Financial Markets,” *Review of Economic Studies*, forthcoming.

Gu, Monnet, Nosal and Wright, “On the Instability of Banking and Other Financial Intermediation,” working paper.

6. Additional readings

Aruoba, “Money, Search and Business Cycles.” *International Economic Review* 52, 2011, 935-959

Aruoba, Waller, and Wright, “Money and capital,” *Journal of Monetary Economics* 58, 2011, 96-116.

Berentsen, Menzio, and Wright, “Inflation and Unemployment in the Long Run,” *American Economic Review* 101, 2011, 371-398.

Chiu, Davoodalhosseini, Jiang and Zhu, “Bank Market Power and Central Bank Digital Currency: Theory and Quantitative Assessment,” 2019, working paper.

Choi and Rocheteau, “Money Mining and Price Dynamics,” *American Economic Journal: Macroeconomics*, forthcoming.

Head, Liu, Menzio, and Wright, “Sticky Prices: A New Monetarist Approach,” *Journal of the European Economic Association* 10, 2012, 939-973.

Keister and Sanches, “Should Central Banks Issue Digital Currency?” 2020, working paper.

Lagos and Rocheteau. “Liquidity in Asset Markets with Search Frictions.” *Econometrica* 77, 2009, 403-26.

Lagos, Rocheteau and Wright. “Liquidity: A New Monetarist Perspective,” *Journal of Economic Literature* 55, 2017, 371-440.

Lester, Postlewaite, and Wright. “Liquidity, Information, Asset Prices, and Monetary Policy.” *Review of Economic Studies* 79, 2012, 1209-1238.

Li, Rocheteau, and Weill, “Liquidity and the Threat of Fraudulent Assets,” *Journal of Political Economy* 120, 2012, 815-846.

Rocheteau and Wright. “Money in Search Equilibrium, in Competitive Equilibrium, and in Competitive Search Equilibrium.” *Econometrica* 73, 2005, 175-202.

Sanches and Williamson. “Money and Credit with Limited Commitment and Theft.” *Journal of Economic Theory* 145, 2010, 1525-1549.

Williamson and Wright, "Barter and monetary exchange under private information," *American Economic Review* 84, 1994, 104-123.

Williamson. "Liquidity, Monetary Policy, and the Financial Crisis: A New Monetarist Approach." *American Economic Review* 102, 2012, 2570-2605.

Williamson and Wright. "New Monetarist Economics: Models." Benjamin Friedman and Michael Woodford, eds., *Handbook of Monetary Economics*. Volume 3A.

Williamson and Wright. "New Monetarist Economics: Methods." *Federal Reserve Bank of St. Louis Review* 92, 2010, 265-302.

Williamson, "Central Bank Digital Currency: Welfare and Policy Implications," 2019, working paper.

Academic Integrity

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor.

Accommodation of Disabilities

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible.

If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please establish an accommodation plan with the Disability Center (<http://disabilitycenter.missouri.edu>), S5 Memorial Union, 573- 882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for persons with disabilities, click on "Disability Resources" on the MU homepage.

Intellectual Pluralism

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the Departmental Chair or Divisional Director; the Director of the [Office of Students Rights and Responsibilities](http://osrr.missouri.edu/) (<http://osrr.missouri.edu/>); or the [MU Equity Office](http://equity.missouri.edu/) (<http://equity.missouri.edu/>), or by email at equity@missouri.edu. All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.

Academic Inquiry, Course Discussion and Privacy

University of Missouri System Executive Order No. 38 lays out principles regarding the sanctity of classroom discussions at the university. The policy is described fully in section 200.015 of the Collected Rules and Regulations. In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation under section 240.040 of the Collected Rules. All other students who record and/or distribute audio or video recordings of class activity are subject to discipline in accordance with provisions of section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Those students who are permitted to record are not permitted to redistribute audio or video recordings of statements or comments from the course to individuals who are not students in the course without the express permission of the faculty member and of any students who are recorded. Students found to have violated this policy are subject to discipline in accordance with provisions of section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Title IX

University of Missouri policies prohibit discrimination on the basis of race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, pregnancy, age, disability and protected veteran status. Discrimination includes any form of unequal treatment such as denial of opportunities, harassment, and violence. Sex-based violence includes rape, sexual assault, unwanted touching, stalking, dating/interpersonal violence, and sexual exploitation.

If you experience discrimination, you are encouraged (but not required) to report the incident to the MU Office for Civil Rights & Title IX. Learn more about your rights and options at civilrights.missouri.edu or call 573-882-3880. You also may make an anonymous report online.

Students may also contact the Relationship and Sexual Violence Prevention (RSVP) Center, a confidential resource, for advocacy and other support related to rape or power-based personal violence at rsvp@missouri.edu or 573-882-6638, or go to rsvp.missouri.edu.

Both the [Office for Civil Rights & Title IX](#) and the [RSVP Center](#) can provide assistance to students who need help with academics, housing, or other issues.

Mental Health

The University of Missouri is committed to supporting student well-being through an integrated network of care, with a wide range of services to help students succeed. The MU Counseling Center offers professional mental health care, and can help you find the best approach to treatment based on your needs. Call to make an appointment at 573-882-6601. Any student in crisis may call or go to the MU Counseling Center between 8:00 – 5:00 M-F. After hours phone support is available at 573-882-6601.

Visit our website at <https://wellbeing.missouri.edu> to take an online mental health screening, find out about workshops and resources that can help you thrive, or learn how to support a friend. Download Sanvello, a phone app that teaches skills and strategies to help you maintain good mental health. Log in with your Mizzou e-mail to unlock all the tools available through Sanvello at no cost to you.