Department of Economics
Hong Kong University of Science and Technology

Economics 5260
Macroeconomic Theory II
Spring 2025

Lecture: Prof. Jenny Xu
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Time and Venue: Tuesdays 9:00-12:50 pm

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Course Description and Objectives:

This is an advanced macroeconomics theory course for Ph.D. students, with special emphasis on monetary theory and policy. The objective of this course is to introduce you to current research on monetary macro modeling, models with nominal rigidities, and monetary policy analysis. We will talk about the empirical and theoretical results that the literature has converged upon and cover the needed analytical techniques along the way.

Pre requisites

This course is for Ph.D student in Economics and also available to other students as permitted by the regulations. Students are also expected to have completed Econ 5250 or equivalent courses that covers DSGE models and dynamic optimization.

Program Intended Learning Goals: PG, MPhil, PhD

1. Students will have up-to-date and in-depth knowledge in Economics, leading to independent substantive scholarly research.

1.1. Demonstrate a sound grasp of the literature in Economics.

1.2. Apply their knowledge in Economics to solve related business problems in an innovative fashion.

2. Students will have an in-depth understanding of contemporary business and organizational issues, within the field of Economics.

2.1 Demonstrate a broad based knowledge of core business functions.

2.2. Integrate functional knowledge to solve business problems within the field of Economics.

3. Students will be equipped to perform all aspects of the role of faculty in academia, including pedagogical skills.

3.1. Teach independent courses or lead lab/tutorial sessions effectively.

3.2. Present their discipline knowledge clearly to layman.

Course Intended Learning Outcomes (CILOs) and Mapped PILOs:

<u>Upon successful completion of this course, you should be able to:</u>

1. Have an up-to-date and in-depth knowledge of advanced macroeconomics, especially monetary economics. Understand the important questions of monetary economics and the main components of business cycle and monetary theories. (PILO # 1)
2. Grasp the advanced mathematical and quantitative tools to understand the important macroeconomic research questions discussed in the literature; (PILO # 1.1)
3. Apply the concepts, principles, and models learnt in this course to analyze economic phenomena and the current macroeconomic events and its impact on the business environment and the economy; (PILO # 2.2)
4. Develop new research questions independently based on the literatures and current macroeconomic phenomenon; and carry out research independently to address these questions; (PILO # 1.2)
5. Apply monetary theories and models to understand and evaluate the effects of monetary policies, possible effects and causes of recent financial crisis, and financial and monetary policies that may stabilize fluctuations. (PILO # 2.2)
6. Think critically and creatively when making effective economic decisions and policy suggestions supported by macroeconomic theories and analytical and quantitative techniques. (PILO # 2.1, #3.2)
7. Communicate effectively in oral and written English; (PILO # 3.1, SILO # 3.2)

8. Demonstrate proficiency in using mathematical, quantitative and empirical tools in conducting economics research; (PILO # 3.1, #2.2)
9. Locate, gather, and analyze data using appropriate information technology, software and systems. (PILO # 1.2, #3.2)

Teaching Approach

This course is primarily delivered through lectures, tutorials, and class discussion.

Teaching and Learning Activities	**Roles in the Course**	**Course Learning Outcome addressed**
Lectures with in-class discussions	Explain key concepts and models to students	1, 2, 3, 4, 5, 6, 7, 8,9
Homework assignments	Practice problem solving, data collection and apply models to analyze economic issues	1,2,3,5 ,7,8,9
Literature Review (Ph.D students only)	Understand research questions, practice critical review on papers	1,2,3,4,6,7,8
Class Presentation	Understand important papers, presentation skills	1,2,6,7,8,9
Exams	Problem solving and understanding of course materials	1,2,3, 5,7,8

Required Textbook:

There is no single source that could usefully act as a textbook for the whole course.

For the first half of this course, the **require textbook** is *Walsh, Carl, Monetary Theory and Policy, 4/e, MIT Press, 2017.* For the rest of this course, we will focus on journal articles and working papers that will be listed in the course outline.
Other ***useful reference*** includes:

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

Gali, Jordi, Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework, Princeton University Press, 2008.

Syllabus

The syllabus for the course is below. Some articles may be added at a later date.

1. Empirical evidence on Money, Prices, and Output

Walsh, Chapter 1

Leeper, Sims, and Zha, 1996 ``What Does Monetary Policy Do?", Brookings Papers on Economic Activity;

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 Macroeconomics (NBER working paper 6400).

Wu, J.C., and F. D. Xia, 2016, “Measuring the Macroeconomic Impact of Monetary Policy at the Zero Lower Bound.” Journal of Money, Credit, and Banking 48(2-3), 253-29120

* Olivier Coibion, Yuriy Gorodnichenko and Saten Kumar, 2018, “How Do Firms Form Their Expectations? New Survey Evidence” ***American Economic Review*** 108(9), 2671-2713.

* Anna Cieslak and Andreas Schrimpf (2019). “Non-monetary news in central bank communication ”, Journal of International Economics 118, pp. 293–315.

* Emi Nakamura & Jón Steinsson, 2018. "High-Frequency Identification of Monetary Non-Neutrality: The Information Effect," The Quarterly Journal of Economics, Oxford University Press, vol. 133(3), pages 1283-1330.

* Eric T. Swanson, 2021. "Measuring the Effects of Federal Reserve Forward Guidance and Asset Purchases on Financial Markets," Journal of Monetary Economics 118 (2021) 32-53.

* Jarociński, Marek, and Peter Karadi. 2020. "Deconstructing Monetary Policy Surprises—The Role of Information Shocks." *American Economic Journal: Macroeconomics*, 12 (2): 1-43**.**

* Bauer, Michael D., and Eric T. Swanson. 2023. "An Alternative Explanation for the "Fed Information Effect"." *American Economic Review*, 113 (3): 664-700**.**

Eric T. Swanson, and Vishuddhi Jayawickrema, 2024, “Speeches by the Fed Chair Are More Important Than FOMC Announcements: An Improved High-Frequency Measure of U.S. Monetary Policy Shocks”, working paper.

2. Dynamic General Equilibrium Monetary Models

2.1 Money-in-Utility Model (Walsh Chapter 2)
2.2 Money and Transaction: Cash-in-Advance Model (Walsh Chapter 3)

Woodford, M. Interest and Prices

3. Money in the Short Run: Portfolio Rigidities

3.1 Limited Participation Model

Walsh, Chapter 5
Woodford, Chapter 3

Alvarez F., A.Atkeson and P. J. Kehoe, " Money, Interest Rates, and Exchange Rates with Endogenously Segmented Markets", Journal of Political Economy, 2002, pp. 73-112

*Alvarez, F., Atkeson, A., & Kehoe, P. J. (2009). Time-Varying Risk, Interest Rates, and Exchange Rates in General Equilibrium. *The Review of Economic Studies*, *76*(3), 851–878.

Christiano, L. M. Eichenbaum, and C. Evans, "Sticky Price and Limited Participation Models: A Comparison", European Economic Review, 1997, 41, 1201-1249.

4. Money in the Short Run: Nominal Price and Wage Rigidities

4.1 CKM model and Calvo Model
4.2 Time dependant Model and State dependant Model

Walsh, Chapter 7

Ball L. and D. Romer, 1990, "Real Rigidities and the Non-Neutrality of Money", Review of Economic Studies.

Calvo, "Staggered Prices in a Utility Maximizing Framework", *Journal of Monetary Economics*, 1983, 12, 383-98.

Taylor, J. (1999),"Staggered Price and Wage Setting in Macroeconomics", in Taylor and Woodford, eds. Handbook of Macroeconomics, Chari, V.V., P.J. Kehoe and E. McGratten, “Sticky Price Models of the Business Cycle: Can the Contract Multiplier Solve the Persistence Problem?", *Econometrica*, 2000, 68, 1151-1179.

Christiano, L., M. Eichenbaum, and C. Evans "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy", *Journal of Political Economy*, 2005.

Mankiw N. G., and R. Reis ``Sticky Information Versus Sticky Prices: A Proposal to Replace the New Keynesian Phillips Curve", 2003, *Quarterly Journal of Economics*.

*Nakamura E. and J. Steinsson “Five Facts About Prices: A Reevaluation of Menu Cost Models”, 2008, *Quarterly Journal of Economics* 123(4), 1415-1464

* Klenow, Peter J. and Oleksiy Kryvtsov “State-Dependent or Time-Dependent Pricing: Does it Matter for Recent U.S. Inflation? ”, 2008, *The Quarterly Journal of Economics*, 123(3), 863–904

*Nakamura E. and J. Steinsson “Price Rigidity: Microeconomic Evidence and Macroeconomic Implications”, 2013, *Annual Review of Economics*, 5, 133-163, 2013.

*Gorodnichenko, Y. and M. Weber, 2016 “ Are Sticky Prices Costly? Evidence from the Stock Market”, A*merican Economic Review*, 106(1): 165-199.

5. Optimal Monetary Policy with Sticky Prices: New Keynesian Monetary Economics

Walsh, Chapter 8
Woodford, Michael, Interest and Prices:

Clarida, R., J. Gali, and M. Gertler, `”The Science of Monetary Policy: A New Keynesian Perspective", 1999, Journal of Economic Literature;

Khan, A., King R.G., and A. Wolman, “Optimal Monetary Policy", 2003 Review of Economic Studies;

King, R. G., A. Wolman, “What Should Monetary Policy Do When Prices are Sticky?", in Taylor, J.B. (ed) 1999, Monetary Policy Rules;

Erceg, C. D. Henderson, and A. Levin “Optimal Monetary Policy with Staggered Price and Wage Contracts", 2000, Journal of Monetary Economics;

Ireland, P. “The Role of Countercyclical Monetary Policy", 1996, Journal of Political Economy;

*Bilbiie, F. O. 2008, “Limited asset markets participation, monetary policy and (inverted) aggregate demand logic," Journal of Economic Theory, 140(1): 162- 196.

*Gali, Jordi, 2018, "The State of New Keynesian Economics: A Partial Assessment," Journal of Economic Perspectives, Summer.

*Kaplan, G., Moll, B. and Violante, G. 2018, "Monetary policy according to HANK," American Economic Review, 108(3): 697-743.

*Bilbiie, Florin O. , 2024, "Monetary Policy and Heterogeneity: An Analytical Framework", forthcoming, Review of Economic Studies.

*Bilbiie, Florin O. ,T. Monacelli and R. Perotti, 2024, " Stabilization vs. Redistribution: The Optimal Monetary-Fiscal Mix", forthcoming, Journal of Monetary Economics

6. Time Consistency and Policy (optional, if time permits)

Walsh, Chapter 6

Albanesi, S. V. V. Chari and L. Christiano, "Expectations Traps and Monetary Policy", 2003, Review of Economic Studies

Barro, R. G. and D. Gordon, "A Positive Theory of Monetary Policy in a Natural Rate Model", 1983, Journal of Political Economy.

Calvo, G, "On the time-inconsistency of Optimal Policy in a Monetary Economy," 1978, Econometrica 46, Pg. 1411-1428.

Ireland, P. "Sustainable Monetary Policies", 1997, Journal of Economic Dynamics and Control,

Lucas, R.E. and N. Stokey, "Optimal Fiscal and Monetary Policy in an Economy without Capital", 1983, Journal of Monetary Economics.

7. Financial Markets and Monetary Policy

Walsh Chapter 10

Bernanke, B. S., and M. Gertler. 1989. ‘‘Agency Costs, Net Worth, and Business Fluctuations.’’ American Economic Review 79(1): 14–31.

Bernanke, B. S., and M. Gertler ,1995. ‘‘Inside the Black Box: The Credit Channel of Monetary Policy Transmission.’’ Journal of Economic Perspectives 9(4): 27–48.

Bernanke, B. S., M. Gertler, and S. Gilchrist, 1999. ‘‘The Financial Accelerator in a Quantitative Business Cycle Framework.’’ In Handbook of Macroeconomics, ed. J. B. Taylor and M. Woodford. Vol. 1C, 1341–1393. Amsterdam: North-Holland.

Bernanke, B. S., M. Gertler, and S. Gilchrist. 1996. ‘‘The Financial Accelerator and the Flight to Quality.’’ Review of Economics and Statistics 78(1): 1–15.

Carlstrom, C. T., and T. S. Fuerst ,1997. ‘‘Agency Costs, Net Worth, and Business Fluctuations: A Computable General Equilibrium Analysis.’’ American Economic Review 87(5): 893–910.

Kiyotaki, N., and J. Moore. 1997. ‘‘Credit Cycles.’’ Journal of Political Economy 105(2): 211–248.

Gertler, Mark & Karadi, Peter, 2011. "A model of unconventional monetary policy," Journal of Monetary Economics, Elsevier, vol. 58(1), pages 17-34, January

*Jermann, Urban, and Vincenzo Quadrini. 2012. "Macroeconomic Effects of Financial Shocks." *American Economic Review*, 102(1): 238-71.

*Coibion, Gorodnichenko, and Wieland , 2012. “The Optimal Inflation Rate in New Keynesian Models: Should Central Banks Raise Their Inflation Targets in Light of the Zero Lower Bound?”, *Review of Economic Studies*, 79 (4): 1371-1406.

*Eric Sims and Jing Cynthia Wu, 2021, “Evaluating Central Banks’ tool kit: Past, present, and future”, Journal of Monetary Economics 118, 135-160.

* Bhattarai Saroj, Christopher J. Neely, 2022, “An Analysis of the Literature on International Unconventional Monetary Policy”, ***Journal of Economic Literature*** 2022, 60(2), 527–597

8. Money and the Open economy (optional, if time permits)

Walsh, Chapter 9

Obtsfeld, M. and K. Rogoff , “Exchange Rate Economics: Redux” 1995, Journal of Political Economy.

Chari, V. V., P.J. Kehoe, and E. McGratten, “Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?”, 2002, Review of Economic Studies.

Obstfeld, M. and K. Rogoff, “Global Implications of Self-Oriented Monetary Policy", 2002, Quarterly Journal of Economics.

Devereux, M. and C. Engel, “Monetary Policy in the Open Economy Revisited", 2003, Review of Economic Studies.

Gali, J. and T. Monacelli, "Optimal Monetary Policy in an Open Economy", 2005, Review of Economic Studies.

*Clarida, R., Gali, J. and Gertler M. 2002, \A Simple Framework for International Monetary Policy analysis," Journal of Monetary Economics, 49(5), 879-904.

*Engel, Charles, 2012, "Currency Misalignments and Optimal Monetary Policy: A Reexamination," American Economic Review 101, 2796-2822.

* Corsetti, Giancarlo, Martin Bodenstein, and Luca Guerrieri, previously CEPR DP 14359 February 2020, The elusive gains from inward-looking monetary policy, forthcoming at *Review of Economic Studies*

*Auray Stéphane, Michael B. Devereux, and Aurélien Eyquem, 2024, "Trade Wars, Nominal Rigidities, and Monetary Policy", Review of Economic Studies, 1-43

*Devereux, Michael B., Charles Engel, and Steve Pak Yeung Wu, 2024 "Collateral Advantage: Exchange Rates, Capital Flows, and Global Cycles", working paper

Remark*:* Depending on our progress, we may or may not cover all these topics. Time constraints will force us to deviate at times.

Presentation Schedule:

You can choose to present a paper with a "*" mark in the syllabus or any paper related to this course, subject to my approval. Please let me know by March 31st, 2025.

Notes: Ph.D students will present individually, and M.Sc students will present in groups of two-three students.

Evaluation

There will be a set of assignments (20%), a presentation (5%), a mid-term (35%), and a final exam (40%).

1. There will be four Problem Sets, each worth 5% of your final grade. They will be posted on the Canvas course website. The problem sets evaluate your ability to understand the theoretical knowledge discussed in the lecture and apply them to analyze economic questions (CILOs 1, 2, & 3), as well the empirical methodology and analysis (CILOs 8 & 9). Problem sets should be handed in on or before the due date. To ensure the timely posting of the answer keys**, no late problem sets will be accepted.**

2. Midterm is scheduled in class**.** There will be no make-up midterm exams. If for any reason you cannot take the exam, please let me know in advance and the weight for the midterm will be shifted to the final.

   The midterm and final exams assess your ability to use the knowledge covered in the course to analyze economic questions and address economic problems (CILOs 1, 2, & 3).

3. Exams are closed book and closed notes. You can request a review of the grade within two weeks after the exam is returned to you. After that period grades can NOT be revised.

Rubrics for Final Grade

Grade	Short Description	Elaboration
A	Excellent Performance	Students demonstrate a strong grasp of course materials, effectively utilize tools discussed, excel in problem sets, and perform exceptionally on exams. They exhibit exceptional analytical skills, critical thinking, and effective participation in class discussions.
B	Good Performance	Students exhibit a solid understanding of course materials, proficient use of tools, and competent completion of problem sets. They show commendable analytical skills, effective critical thinking, and participation in class discussions.
C	Satisfactory Performance	Students demonstrate an adequate understanding of course materials, satisfactory use of tools, and completion of problem sets. They display acceptable analytical skills and participation in class discussions.
D	Marginal Pass	Students show limited understanding of course materials, inconsistent use of tools, and incomplete performance in

		problem sets. Their participation in class discussions is minimal.
F	Fail	Students display a lack of understanding of course materials, inadequate use of tools, and unsuccessful completion of problem sets. They show little to no participation in class discussions.