

ECON 5061: Central Banking: Theory, Practice, and Recent Challenges

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Tuesday 6-9pm
<https://brightspace.carleton.ca/d21/home/57102>

1 Course Description

Monetary policy, and the macroeconomics that is at the heart of it, is as important as it has ever been. Its role in society has grown substantially since the Great Financial Crisis, and taken on further importance as a result of the COVID-19 pandemic. The goal of this course is to answer the question: what does it mean to build successful monetary policy? We will start with an introduction to macroeconomics. We will investigate the underlying theories central bankers use to understand the relationship between economic growth, unemployment, inflation, interest rates, and exchange rates in both the short and long run. We will review different economic theories including classical economics and Keynesian economics, as well as models such as the business cycle model and the aggregate supply/aggregate demand model.

The course will then analyze the role of monetary policy in stabilizing inflation and economic growth, what factors have played a role in the ability of central banks to reliably

hit their inflation targets since the early 1990s when inflation targeting became popular, and how that may change as we look into the future. We will look at the impact of demographics on monetary policy effectiveness, how monetary policy affects income inequality and what that means for its ability to hit the inflation target, Canada's booming housing market, the role of digital currencies, as well as what the COVID-19 pandemic will mean for the structure of the Canadian economy and how that relates back to monetary policy and the Bank of Canada.

2 Learning Goals

This course has three broad goals:

- To prepare students with basic macroeconomic principles to critically evaluate the arguments for and against fiscal and monetary policy proposals, with a focus on the latter.
- To provide students with familiarity of our important economic institutions, including the Bank of Canada.
- To give students the skills and knowledge in macroeconomics to prepare them for economics and policy-related jobs in the private and public sectors.

This course also has some specific goals:

- Students should be able to describe the qualitative effects of monetary policy (and, less so, fiscal policy) changes on the macroeconomy.
- Students should have a broad understanding of the financial system.

- Students should be able to apply the knowledge they have gained in this course to understand current economic events and what might lie ahead as they consider their own careers in policymaking.

3 Course Organization

Delivery

Online Synchronous course - to take place Tuesdays 6-9pm via Zoom, with mandatory attendance to live lectures. Instructors and students share information, ideas and learning experiences in a virtual course environment. Participation in synchronous courses requires students to have reliable, high-speed internet access, a computer, and a headset with a microphone. It is expected that students have a webcam and that it is turned on for class participation and discussions. Lecture slides will be posted on Carleton University's Brightspace website in advance of class. There will be no recordings.

Grading

The grading for this course will involve one presentation on one of the weekly readings, a 5-page briefing alongside a presentation meant to mimic the experience of sharing findings with a Deputy Minister/Governor, an end of term paper, and general class participation. There will be no final exam.

The breakdown is as follows:

Weekly reading individual presentations: 10%

- Once, over the course of the semester, students will be asked to choose a paper from the

reading list and present the primary question being answered, the methodology used, the data collected, the results, and the policy-related conclusions

5-page "Briefing to Deputy Minister/Governor": 20%

- Introduce the problem, what is happening in other jurisdictions, what are the takeaways for Canada, any research and results you performed, and next steps

Presentation of Briefing: 10%

End of term paper: 50%

- 10-15 page paper with well-articulated thesis statement, the existing academic literature on the topic and where your paper fits in, data/methodology, results and policy conclusions

General class participation: 10%

The 5-page briefing will be due in the middle of the term on February 15th, with the presentations on these briefings occurring over the two week period, March 1st and March 8th. The end of term paper will be due on April 12th, and it is recommended that students submit an introduction for their planned paper by the end of February for feedback.

Both the briefing and end of term paper must be submitted by the end of class the day they are due and can be sent via email. Late assignments will not be accepted, with extensions only granted for medical or compassionate grounds. Students should discuss any extension request with me before the submission deadline. Request for special consideration will require proper documentation.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

Preparation

Prepare for each lecture by reading the assigned materials in advance. The class is intended to be interactive, and your participation grade will be determined by your contribution to the discussion. A good strategy would be to review the lecture notes on Brightspace and read those papers marked with a *, while reading the optional ones as needed after class.

Office Hours

Virtually - Thursdays 10am - 11am, or send me an email to set up another time (jkronick@cdhowe.org).

Accommodation

Carleton University has updated the policy on academic accommodations. Please see the updated statements here students.carleton.ca/course-outline/.

Academic Integrity

Please be aware that plagiarism is serious offence at Carleton and should be recognized and avoided. For further information on how to do so, please see “Academic Integrity and Offenses Conduct” at <https://carleton.ca/economics/courses/writing-preliminaries/academic-integrity-and-offenses-of-conduct/>.

The University Academic Integrity Policy defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This includes reproducing or paraphrasing portions of someone else’s published or unpublished

material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- failing to acknowledge sources through the use of proper citations when using another's work and/or failing to use quotations marks.

Plagiarism cannot be resolved directly by the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course or even suspension or expulsion from the University.

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copyright protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective author(s).

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).

4 Course Material

A textbook will not be mandatory. Parts of lectures for Topics 1-3 will be based off of Robert E. Hall and Marc Lieberman's *Macroeconomics: Principles and Applications* for those interested - but it is not necessary to purchase. We will focus on hybrid economics and policy papers, many of them C.D. Howe Institute papers. Most will be publicly available. Those that are not will be posted on Brightspace.

5 Course Outline

Topic 1: Macroeconomics review

- Macroeconomic Goals and Methodology
- Measuring a Nation's Income
- Measuring Unemployment

- Measuring the Price Level and Inflation

Topic 2: Models of the Economy in the Short and Long Run

- Classical economics
- The business cycle model
- Keynesian economics
- Government budget constraints and fiscal policy multipliers
- Aggregate supply/aggregate demand models

Readings

1. *Gali, Jordi. 2018. "The State of New Keynesian Economics: A Partial Assessment." *Journal of Economic Perspectives*. Vol. 32, No. 3. Summer.
<https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.32.3.87>
2. *Samuelson, Paul. 1978. "The Canonical Classical Model of Political Economy." *Journal of Economic Literature*. Vol. 16, No. 4, 1415-1434. December.
3. *Yellen, Janet L. and George A. Akerlof. 2006. "Stabilization Policy: A Reconsideration." *Economic Inquiry*. Vol. 44, Issue 1, 1-22. January. http://www4.fe.uc.pt/jasa/m_i_2010_2011/stabilizationpolicyreconsideration.pdf
4. Bernanke, Ben S. 2004. *The Great Moderation*. Speech at the meetings of the Eastern Economic Association, Washington, D.C. February 20.
<https://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm>

5. Blinder, Alan S. 1988. "The Fall and Rise of Keynesian Economics." *Economic Record*. Vol. 64, Issue 4, 278-294. December.
http://jpk.pku.edu.cn/course/hgjx/reading/20_7.pdf
6. Mankiw, Gregory N., David Romer, and David N. Weil. 1992. "A Contribution to the Empirics of Economic Growth." *Quarterly Journal of Economics*. Vol. 107, No. 2, 407-437. May.
https://eml.berkeley.edu/~dromer/papers/MRW_QJE1992.pdf
7. Roberts, John M. 1995. "New Keynesian Economics and the Phillips Curve." *Journal of Money, Credit and Banking*. Vol. 27, No. 4, Part 1, 975-984. November.
8. Woodford, Michael. 2008. "Convergence in Macroeconomics: Elements of the New Synthesis." *American Economics Journal: Macroeconomics*. Vol. 1, No. 1, 267-79. January.
http://www.columbia.edu/~mw2230/Convergence_AEJ.pdf

Topic 3: Introductions to Central Banks and Monetary Policy

- Money, Banks, and Central Banks
- Money, Growth and Inflation
- The Objectives of Monetary Policy

Readings

1. *Ragan, Christopher. 2010. *Why Monetary Policy Matters: A Canadian Perspective*. Bank of Canada Books and Monographs. July. IN PARTICULAR, CHAPTER 4.
https://www.bankofcanada.ca/wp-content/uploads/2010/10/ragan_paper.pdf

2. *White, William R. 2012. “Ultra Easy Monetary Policy and the Law of Unintended Consequences.” Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute Working Paper No. 126. September.
<https://www.dallasfed.org/~media/documents/institute/wpapers/2012/0126.pdf>
3. Brouillette, Dany, Julien Champagne, and Julien McDonald-Guimond. 2020. *Potential output in Canada: 2020 reassessment*. Staff Analytical Note. Bank of Canada. October.
<https://www.bankofcanada.ca/2020/10/staff-analytical-note-2020-25/>
4. Monetary Policy Core Functions - All Explainers (bottom of page)
<https://www.bankofcanada.ca/core-functions/monetary-policy/>

Topic 4: Monetary Policy in the Real World - Session 1

- What prevented Canada from hitting the inflation target post-Great Financial Crisis?
- A review of demographics, inequality, narrow industry growth as possible explanations

Readings

1. *Champagne, Julien, and Rodrigo Sekkel. 2018. “Changes in Monetary Regimes and the Identification of Monetary Policy Shocks: Evidence from Canada.” *Journal of Monetary Economics*. Vol. 99, 72-87. November.
<http://www.bankofcanada.ca/2017/09/staff-working-paper-2017-39>
2. *Kronick, Jeremy and Steve Ambler. 2018. *Faulty Transmissions: How Demographics Affect Monetary Policy in Canada*. C.D. Howe Institute Commentary. March.

- <https://www.cdhowe.org/public-policy-research/faulty-transmissions-how-demographics-affect-monetary-policy-canada>
3. *Kronick, Jeremy and Farah Omran. 2019. *Inflation after the Crisis: What's the Story?* C.D. Howe Institute e-brief. July.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_293.pdf
 4. *Kronick, Jeremy and Francisco Villarreal. 2020. *Monetary Policy, Income Inequality, and Inflation - What's the Link?*. C.D. Howe Institute e-brief. January.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_300.pdf
 5. Cravino, Javier, Ting Lan, and Andrei A. Levchenko. 2018. "Price Stickiness along the Income Distribution and the Effects of Monetary Policy." Research Seminar in International Economics. The University of Michigan. Discussion Paper No.661.
https://alevchenko.com/Cravino_Lan_Levchenko.pdf
 6. Friedrich, Christian and Marc-Andre Gosselin. 2015. "Inflation Dynamics in the Post-Crisis Period". Bank of Canada Review (Spring): 1-12.
<https://www.bankofcanada.ca/wp-content/uploads/2015/05/boc-review-spring15-friedrich.pdf>
 7. Friedrich, Christian. 2016. "Global Inflation Dynamics in the Post-Crisis Period: What Explains the Twin Puzzle?" *Economic Letters*. 142: 31–3
<https://www.bankofcanada.ca/wp-content/uploads/2014/08/wp2014-36.pdf>
 8. Imam, Patrick. 2015. "Shock from Graying: Is the Demographic Shift Weakening Monetary Policy Effectiveness?" *International Journal of Finance and Economics*. 20: 138–154.

<https://www.imf.org/en/Publications/WP/Issues/2016/12/31/>

[Shock-from-Graying-Is-the-Demographic-Shift-Weakening-Monetary-Policy-Effectiveness](#)

9. Jorda, Oscar. 2005. "Estimation and inference of impulse responses by local projections." *American Economic Review*. Vol. 95, No. 1, 161–182.

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.2283&rep=rep1&type=pdf>

Topic 5: Monetary Policy in the Real World - Session 2

- What are the big monetary policy issues post-COVID-19?
- A review of elevated balance sheets, uneven recovery, booming housing markets, modern monetary theory

Readings

1. *Ambler, Steve and Jeremy Kronick. 2020. *Canadian Monetary Policy in the Time of COVID-19*. C.D. Howe Institute e-brief. October.

https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/E-brief_307.pdf

2. *Omran, Farah and Mark Zelmer. 2021. *Deficits Do Matter: A Review of Modern Monetary Theory*. C.D. Howe Institute Commentary. March.

https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_593.pdf

3. *Witmer, Jonathan, and Jing Yang. 2016. "Estimating Canada's Effective Lower Bound." *Bank of Canada Review* Spring, 3–14.

<https://www.bankofcanada.ca/wp-content/uploads/2016/05/boc-review-spring16-witmer.pdf>

4. Kelton, Stephanie. 2020. *The Deficit Myth: Modern Monetary Theory and the Birth of the People's Economy*. Hachette Book Group.
5. Mitchell, William. 2010. "Modern Monetary Theory and Inflation – Part 1." *Bill Mitchell – Modern Monetary Theory Blog*, 7 July.
<http://bilbo.economicoutlook.net/blog/?p=10554>.
6. Mitchell, William. 2019. "A Response to Greg Mankiw – Part 2." *Bill Mitchell – Modern Monetary Theory Blog*, 24 December.
<http://bilbo.economicoutlook.net/blog/?p=43961>.

Topic 6: Canada's Housing Market

- What are the trends in the Canadian housing market compared with other advanced economies?
- What should the goal of housing market policy be? Affordability? Stability? Both?
- How effective have policies to date been at achieving these goals?

Readings

1. *Dachis, Benjamin and Vincent Thivierge. 2018. *Through the Roof: The High Cost of Barriers to Building New Housing in Canadian Municipalities*. C.D. Howe Institute Commentary. May.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Friday%20Commentary_513.pdf
2. *Drehmann, Mathias, Mikael Juselius, and Anton Korinek. 2017. "Accounting for Debt Service: The Painful Legacy of Credit Booms." BIS Working Paper 645. Basel: Bank for International Settlements. <https://www.bis.org/publ/work645.pdf>

3. *Kronick, Jeremy and Steve Ambler. 2020. *Predicting Financial Crises: The Search for the Most Telling Red Flag in the Economy*. C.D. Howe Institute Commentary. February.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_564.pdf
4. *Kronick, Jeremy and Steve Ambler. 2021. *The Impact of Monetary Policy on Financial Stability*. C.D. Howe Institute e-brief. March.
https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_313.pdf
5. Duprey, Thibaut, and Tom Roberts. 2017. “A Barometer of Canadian Financial System Vulnerabilities.” Staff Analytical Note 2017-24. Ottawa: Bank of Canada.
<https://www.bankofcanada.ca/2017/12/staff-analytical-note-2017-24/>
6. Glaeser, Edward, Joseph Gyourko, and Albert Saiz. 2008. “Housing Supply and Housing Bubbles.” *Journal of Urban Economics* 64: 198–217.
<https://dash.harvard.edu/bitstream/handle/1/2962640/housing%20supply.pdf>

Topic 7: Digital Currencies

- What are digital currencies, and how do private versus central bank digital currencies differ?
- What are the economic implications of both private and central bank digital currencies?
- What considerations are policymakers/regulators internalizing in deciding how to proceed with digital currencies?

Readings

1. *Auer, Raphael and Rainer Bohme. 2021. “Central bank digital currency: the quest for minimally invasive technology.” BIS Working Paper No 948.
<https://www.bis.org/publ/work948.pdf>
2. *Jiang, Janet Hua. 2020. *CBDC Adoption and Usage: Some Insights from Field and Laboratory Experiments*. Bank of Canada Staff Analytical Note. June.
<https://www.bankofcanada.ca/2020/06/staff-analytical-note-2020-12/>
3. *Zelmer, Mark, and Jeremy Kronick. 2021. *Two Sides of the Same Coin: Why Stablecoins and a Central Bank Digital Currency Have a Future Together*. C.D. Howe Institute Commentary. November.
https://www.cdhowe.org/sites/default/files/2021-12/Commentary_613.pdf
4. Carney, Mark. 2021. *The Art of Central Banking in a Centrifugal World*. Andrew Crockett Memorial Lecture. BIS.
https://www.bis.org/events/acrockett_2021_speech.pdf
5. Digital ID and Authentication Council of Canada. 2018. *The Economic Impact of Digital Identity in Canada*. May.
[https://diacc.ca/wp-content/uploads/2018/05/
Economic-Impact-of-Digital-Identity-DIACC-v2.pdf](https://diacc.ca/wp-content/uploads/2018/05/Economic-Impact-of-Digital-Identity-DIACC-v2.pdf)
6. Murray, John. 2019. *Central Banks and the Future of Money*. C.D. Howe Institute Commentary. April.
<https://www.cdhowe.org/public-policy-research/central-banks-and-future-money>