This is a field course in the monetary side of macroeconomics. A field exam will be offered in this field in August 2018 to satisfy in part the requirements for the Second Examination.

**Learning goals and outcomes**

- Students will learn a major part of the modern literature on monetary theory and policy at the Ph.D. level.
- The “standard” topics include basic instruments and rules, money in utility and variants, money in the New Keynesian model, money and public finance, and monetary transmission.
- Special emphasis will be put on inflation and price level targeting in the context of the NKM model.
- Students will initiate, complete, and present results of research projects involving DSGE models.

Comment: many (not all) of these topics below have been introduced in Macro I (introduction of these topics is the purpose of Macro I). Where the monetary topics were introduced in Macro I they appear here at an advanced level.

The basic textbook for this class will be Walsh, C. E. (2017), *Monetary Theory and Policy, 4th Edition*, the MIT Press. I also will be using some parts of Gali, J. (2015), *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton Univ. Press. There will be class projects, which will include problems as well as derivations of expressions in the text. There will be a final examination which probably should not require much special preparation for students who have followed the class carefully up to the date of the examination. Finally, there is a semester term paper which will involve simulating a DSGE model. Details follow.

The Graduate Center no longer provides free, take-home copies of Mathematica. However, Maple 17 can be obtained free from the CUNY Portal. MATLAB is available from the
Graduate Center, and Dynare is free-download. You will need to become at least moderately proficient in the use of one or the other in order to complete the projects. It is important to get this started early in order to avoid delays in completing the paper.

**DSGE (or DGE) Projects**

In classes February 13 and/or March 2 the preliminary instructions in Dynare/MATLAB will be issued.

The objective of the projects is to learn about the construction and interpretation of DSGE models. The assignment is to choose a paper from the literature, (a) analyze the parameterization/calibration used in the paper; (b) simulate the model; (c) analyze the sensitivity of the model to its calibrated values.

You can select paper you like, subject to the instructor’s approval. If you are advanced, and with the instructor’s approval, you do some original work. Some dates/deadlines:

Declaration of topic deadline – February 27  
Short presentations (10 minutes) of topics – March 13  
Class presentation of paper (30 minutes) – May 8, 15  
Deadline for submission of final paper – May 24

Here are some ideas of papers to look at:


Some papers I came across recently:


Papers on “targeting”:


**Assessment**

Student performance will be evaluated by graded examination and project. The weights for the final grade will consist of

- final examination – 50%
- DSGE project including presentations– 40%
- other homework and assignments – 10%

**Course Outline and Reading List**  
(Class dates are estimates.)

I. **Monetary policy: indicators, instruments, target issues** (Jan 30, Feb 6)

   References:
   Text pages: *Walsh*, Chapter 11, especially pp. 513-529; 533-543; 547-555.
   FOMC Minutes, September 2007 and December 2013
   Poole (1980) (*You should have already mastered this*).
   Friedman (1990) *should be read over quickly as a general (and now historical) survey*.
   Bernanke, Ben, and Illian Mihov (1998): *the econometrics are interesting, but the main purpose here is the specification of the reserve markets, also discussed in Walsh, 11.4 (pp. 533-543) and 11.5 (547-555).*

II. **Updates on the demand for money, introduction to Dynare/MATLAB** (Feb 13, Feb 27)

   **Note: declaration of paper topic by February 27.**

   We will review the “money in utility” model as exposited by Walsh. Also, we will develop the “shopping time” model as in Walsh 3.

   References:
   Text pages: *Walsh*, Chapter 2 (pp. 33-61), Chapter 3 (pp. 91-106).
   Sidrauski (1967)
   Brock (1974)
We will solve and discuss Problems 1 and 2 in Walsh pp. 87-88.
We will introduce Dynare/MATLAB for future use.

III. Time consistency in monetary and fiscal policy (Mar 6, Mar 13)

Note: March 13 start short (15 minutes) project presentations.

a. Quick review of Barro and Gordon (1983)
   References: Walsh, Chapter 7, pp. 271-283
b. Solutions to inflation bias
   References: Walsh 7, pp. 283-323
   Backus and Driffill (1985)

IV. New Keynesian Model and money in NKM (Mar 20, Mar 27, April 10)

Texts: Walsh Chapter 8, Gali Chapter 5.
Students are expected already to know the elements of this model from Macro I.
There will be a short review with “highlight” slides. The main emphasis in this
course will be on simulating it and the following particular issues:

a. Different levels of inflation commitment.

   References:
   Inter alia, an important (but only partial) reference will be Walsh
   (chapter 8), pp. 352-366.
   Walsh (2003) – “speed limit” article
   Clarida, Gali, Gertler (1999)

   (See also targeting papers listed in the introduction.)

a. Some problems and a recent challenge to the NKM model. Cochrane
(2011) has written an important article challenging usefulness of the
workhorse” NKM on two grounds: the Taylor rule cannot be statistically
identified, and besides, the model does not actually yield unique solutions
in theory. We will take time to analyze this article.
   References:
   Cochrane(2011)

b. Comments on zero bound and trend inflation.
   References:
   Walsh, Chapter 4, pp. pp. 256-257; p. 336; p. 343.
   Woodford (2012)
   Kiley (2004)
   Ascari (2007)
V. **Money and public finance** (April 17, Apr 24)
   a. Budget accounting, balance, and some “unpleasant monetarist arithmetic”
      References:
      Walsh, Chapter 4, pp. 135-162
      Sargent and Wallace (1981)
   b. The fiscal theory of the price level
      References:
      Walsh, Chapter 4, pp. 162-170
      Leeper (1991)
   c. Optimal taxation and seigniorage
      References:
      Walsh, Chapter 4, pp. 170-174, p. 191.
      Phelps (1973)
   d. Fiscal multipliers in DSGE
      References:
      Woodford (2011)

VI. **Monetary Transmission** (May 1, May 8)

   **Note:** May 8 start project presentations. (30 minutes each).

   a. Credit Rationing
      References:
      Walsh, 10.5, pp. 477-492.
      Jaffee, Dwight and Joseph Stiglitz. (1990)
   b. Financial Acclerators, etc.
      References:
      Walsh, Chapter 10.6, pp. 502-508
      Boivin, Kiley, Mishkin (2010)
      Bernanke, Ben; Mark Gertler; Simon Gilchrist. (1996)
      Bernanke, Ben S.; Mark Gertler (2001)

VII. **Complete presentations** (May 8, May 15)

   **Note:** deadline for paper submission is May 24.
REFERENCES


*Bernanke, Ben, and Illian Mihov. “Measuring Monetary Policy,” The Quarterly Journal of Economics, August 1998, pp. 869-902. The econometrics are interesting, but the main purpose here is the specification of the reserve markets.


