Course Outline - DRAFT
"Topics in Financial Macroeconomics"

Instructor
Axelle Arquié
axelle.arquie@eui.eu

Course Information:
Macroeconomics, half credit class
Spring 2016 - 10 hours
Course location, meeting times and days: TBD

Course Overview

This class is intended for students interested primarily in Macroeconomics but with a curiosity for financial topics. The general objective is to introduce a theoretical framework that allows to analyze macroeconomic issues in the presence of financial frictions inside modern general equilibrium models. The accent will therefore be put on macroeconomic modeling that gives a role to financial frictions. The class will be mainly devoted to theory although we might discuss some empirical evidence. The aim is to fully understand a number of theoretical mechanisms rather than to conduct an exhaustive literature review.

The recent financial crisis of 2007/2008 has demonstrated that most macroeconomic models, especially the ones used by Central Banks, were ignoring financial intermediaries, whereas, far from being a neutral veil, they actually seem to matter at the macro level. Therefore, it has renewed interest in the question of the impact of financial markets and intermediaries on the economy. A new literature has then developed, building on existing models of macroeconomics already integrating some financial distortions and on older ideas not yet formalized in a modern general equilibrium framework.

In this literature, the question of policy design is of particular relevance. Possible policies will therefore be discussed in the various theoretical settings discussed in class: banking and financial regulation, conventional and unconventional monetary policy, macro prudential policies.

Course Material and Format

For each topic, we will study a selection of the most relevant papers by going quite in details into the modeling. We will also discuss existing or possible extensions. The class material will include the following: papers (a list will be provided), slides prepared for the lecture (that I will give to students), and two textbooks.

Topics

1. Micro-foundations of financial intermediation: a brief review

   This topic will be part of the introduction of the class and will be a mere reminder. We will review which externalities can explain the existence of financial intermediaries, and which inefficiencies they in turn create. Possible regulation will be discussed (deposit insurance, capital ratios etc.).

   Examples of papers: Diamond and Dybvig (1983), Allen and Gale (2004)

2. Amplification and persistence of financial shocks: credit market frictions

   This topic focuses on the implication of micro collateral constraints on the economy at the macro level. First, the financial accelerator mechanism in its earliest formulation by Bernanke and Gertler (1995) will be reviewed. Second, the credit cycle idea developed by Kiyotaki and Moore (1997) will be exposed. Finally we will explore a more recent literature which explicitely incorporates financial intermediaries as a source of frictions - which the previous literature had not done, focusing on the impact of collateral constraints without explicitly modeling banks. Possible policies such as unconventional monetary policy will be examined.

   Examples of paper: Bernanke, Gertler, Gilchrist (1999) (and related Townsend 1979), Kiyotaki and Moore (1997), Gertler and Kiyotaki (2010)

3. Constraints to (heterogenous) households' portfolio allocation: liquidity

   This topic will focus on how households' portfolio allocation can be relevant for macroeconomics. First, we will study limited asset participation, i.e. the fact that some households cannot hold financial assets or can so only at a cost. The implication of the demand of money (as initially formulated by Baumol and Tobin) on the economy in the presence of this friction will be discussed. Second, we will explore the literature on hand-to-mouth households and fiscal policy (Kaplan and Violante 2014) and how this framework can be extended to monetary policy.

   Examples of papers: Alvarez and Lippi (2009, 2014), Kaplan and Violante (2014), Ragot (2014)

4. The Shadow Banking Sector

   In a first more microeconomic approach, this topic will focus on why the shadow banking sector can be considered as having a specific role, different from the one of traditional banks - as considered in standard theory of financial intermediation. Second, we will examine some recent attempts at integrating a shadow banking sector in macroeconomic models in order to understand the mechanisms through which it can impact the economy. Related regulations issues will be discussed.

   Examples of papers: Moreira and Savov (2014)

Note that the final program might be subject to change.

Assessment

Grading will be based on two exercises:

- *Written referee report or oral presentation (40%)*

  Each student will be asked to either prepare a written referee report on a paper related to this literature, or to make a critical oral presentation, depending on the size of the class. The objective is to train students to assess a research paper in a critical and rigorous manner, thereby helping them for their own research.

- *Research project (60%)*

  Each student will be asked to develop a research idea, inspired by the topics tackled in class. It could be an extension of an existing model motivated by either a theoretical need or an empirical evidence. Three aspects will be assessed. First, the research question must be precisely defined and its expected contribution carefully identified in the literature. Second, the motivation should be clearly exposed and justified. Third, a theoretical framework designed to answer the question should be described in details.

You will find here a provisional list of references that will be completed and adjusted before the class.

References

[1] Franklin Allen and Douglas Gale. Financial Intermediaries and Markets. *Econometrica*, 72(4):1023–1061, 07 2004.

[2] Fernando Alvarez and Francesco Lippi. Financial Innovation and the Transactions Demand for Cash. *Econometrica*, 77(2):363–402, 03 2009.

[3] Ben S. Bernanke and Mark Gertler. Inside the Black Box: The Credit Channel of Monetary Policy Transmission. *Journal of Economic Perspectives*, 9(4):27–48, Fall 1995.

[4] Ben S. Bernanke, Mark Gertler, and Simon Gilchrist. The financial accelerator in a quantitative business cycle framework. In J. B. Taylor and M. Woodford, editors, *Handbook of Macroeconomics*, volume 1 of *Handbook of Macroeconomics*, chapter 21, pages 1341–1393. Elsevier, 1999.

[5] Douglas W Diamond and Philip H Dybvig. Bank Runs, Deposit Insurance, and Liquidity. *Journal of Political Economy*, 91(3):401–19, June 1983.

[6] Mark Gertler and Peter Karadi. A model of unconventional monetary policy. *Journal of Monetary Economics*, 58(1):17–34, January 2011.

[7] Gary Gorton and Andrew Winton. Financial intermediation. In G.M. Constantinides, M. Harris, and R. M. Stulz, editors, *Handbook of the Economics of Finance*, volume 1 of *Handbook of the Economics of Finance*, chapter 8, pages 431–552. Elsevier, 2003.

[8] Gary B. Gorton. *Slapped by the Invisible Hand: The Panic of 2007*. Number 9780199734153 in OUP Catalogue. Oxford University Press, 2010.

[9] Greg Kaplan and Giovanni Violante. A Model of the Consumption Response to Fiscal Stimulus Payments. *Econometrica*, 82(4):1199–1239, July 2014.

[10] Nobuhiro Kiyotaki and John Moore. Credit Cycles. *Journal of Political Economy*, 105(2):211–48, April 1997.

[11] Arvind Krishnamurthy. Collateral constraints and the amplification mechanism. *Journal of Economic Theory*, 111(2):277–292, August 2003.

[12] Xavier Ragot. The case for a financial approach to money demand. *Journal of Monetary Economics*, 62(C):94–107, 2014.

[13] Robert M. Townsend. Optimal contracts and competitive markets with costly state verification. *Journal of Economic Theory*, 21(2):265–293, October 1979.