Introduction

The primary objective of the course is to link modelling and empirical issues in modern macroeconomics. In the first part we study recent developments in dynamic stochastic general equilibrium (DSGE) modelling. Given their prominent role in current macro models, particular attention will be devoted to the role of frictions and rigidities. Next, we show how DSGE models can be estimated using state-of-the-art econometric methods. At the end of the course, students should have a clear understanding of the link between macroeconomic models and econometric techniques. The techniques discussed in this course constitute the basis required to carry out empirical research in modern macroeconomics. They are at the core of the toolkit used by macroeconomists in central banks.

Contact information

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Learning material

Miscellaneous resources

- Notes for Presentations
- Presentation 1: Sticky prices vs. Sticky Information, by O. Coibion
- Presentation 2: Monetary Policy Rules, by R. Clarida, J. Gali and M. Gertler (you can skip section 4)

Bibliography

The syllabus gives you a list of articles relevant for research in this field. There is no required textbook. Below is a list of books that will be of much help. Carl Walsh's book provides a comprehensive overview of many of the topics covered. Obstfeld and Rogoff's book is a useful reference for how to apply many mathematical result we will use in solving DSGE models. Its Ch. 10 also goes over the open economy models we cover in class. Hamilton's book is a good reference for the mathematical and statistical tools used in the course.


Assignments and examinations
Evaluation will be based on students presentations of research papers from the literature, and a final exam. We will have lab sessions, where we will go together over problem sets. This should help you familiarize with solving DSGE models, interpreting their results, understanding how to build models to answer economic questions. To benefit fully from the lab sessions, you need to make an effort and try to solve the problem sets before coming to class. You are encouraged to solve problem sets jointly. They are also intended to suggest exercises which will train you to apply macroeconomic tools in the same way as you will be required to do in the exams - and in the future as researchers and professional economists. (%)

Lab 1 (%)
- **LAB 1 - Thursday, January 20**

Lab 2 (%)
- **LAB 2 - Monday, January 31**

Plagiarism
Please consult the acts and gestures that are considered plagiarism or another academic violation, along with the applicable procedure and sanctions, which range up to suspension and even expulsion from HEC. Violations are analyzed based on the facts and circumstances, and sanctions are applied accordingly. Learn more about plagiarism

List of themes

**Theme 1 : Money and output: real effects of monetary policy through nominal rigidities**

**Description**

*Introduction: VAR evidence on the impact of business cycle shocks and monetary policy*
- Walsh, (2003), Ch. 1.

1. **MONOPOLISTIC COMPETITION AND MARKUP VARIATION IN MODELS WITH PREDETERMINED PRICES**
- Walsh, (2003), Ch. 5.3
- Obstfeld and Rogoff, (1996), Ch. 10

2. **NOMINAL PRICE RIGIDITIES: MODELS WITH QUADRATIC COST OF PRICE ADJUSTMENT**

3. **NOMINAL PRICE RIGIDITIES: MODELS WITH STAGGERED PRICE ADJUSTMENT**
- Walsh, (2003), Ch. 5.5, Ch 6
- Taylor, J., (1998), "Staggered price and wage setting in Macroeconomics", NBER wp 6754
- Woodford, (2002), Ch. 3.
4. STEADY STATE PRICE DISTRIBUTION AND INFLATION DYNAMICS UNDER ALTERNATIVE MODELING ASSUMPTIONS: CONFRONTING THE DATA


Theme 2: Microeconomic evidence on nominal rigidities

Description


Theme 3: New Keynesian models of the monetary transmission: empirical applications

Description

1. WHAT DRIVES INFLATION. THEORETICAL AND EMPIRICAL CONCEPTS OF THE OUTPUT GAP

- Woodford, M., (2002), Ch.3

2. STRUCTURAL ESTIMATION OF THE NEW KEYNESIAN PHILLIPS CURVE WITH GMM


3. TAYLOR RULE ESTIMATION WITH GMM. INSTRUMENT RULES AND OPTIMAL POLICY

- Walsh, (2003), Ch. 10.
- - (1999), Monetary Policy Rules, NBER.
- Woodford, M., (2002), Ch.4

4. STICKY PRICES VS. STICKY INFORMATION: EMPIRICS

Theme 4: Reduced form models of the business cycle: Vector Autoregressions

Description

1. STRUCTURAL VAR IDENTIFICATION STRATEGIES

2. EVIDENCE FROM US DATA. THE LIQUIDITY EFFECT. THE PRICE PUZZLE

Theme 5: DSGE models - design, estimation and use in policy analysis

Description

1. VAR AS REDUCED FORM OF DSGE MODELS
   - Gali, Jordi and Pau Rabanal (2004), "Technology Shocks and Aggregate Fluctuations: How Well Does the RBC Model Fit Postwar U.S. Data?"

2. KALMAN FILTERING AND ML ESTIMATION OF DSGE MODELS

3. AN ESTIMATED MODEL OF A SMALL OPEN ECONOMY: THE CANADIAN CASE
4. POLICY ANALYSIS IN MEDIUM-SCALE DSGE MODELS

Monetary economics. Quite the same Wikipedia. Just better. Monetary economics is a branch of economics that provides a framework for analyzing money in its functions as a medium of exchange, store of value, and unit of account. It considers how money, for example fiat currency, can gain acceptance purely because of its convenience as a public good.[1] It examines the effects of monetary systems, including regulation of money and associated financial institutions[2] and international aspects.[3]. Empirical determinants and measurement of the money supply, whether narrowly, broadly, or index-aggregated, in relation to economic activity[10]. Empirical determinants of the demand for money. The empirical results support the hypothesis that both policy decision and communication factors are required to adequately capture the financial market reactions to monetary policy news. By applying a text mining approach focused on phrases that appear in press conferences on policy meeting days, we find that the communication factors identified are characterized by the policy intentions and preferences of the central bank. Suggested Citation. Masahiko Shibamoto, 2016. "Empirical Assessment of the Impact of Monetary Policy Communication on the Financial Market," Discussion Paper Ser