# **Advanced Macroeconomics II (20.855)**

Degree/study: Bachelor's degree degree in Economics / Administration and Business Management Year: 3<sup>rd</sup> and 4<sup>th</sup> Term: 3rd Number of ECTS credits: 5 credits Hours of student commitment: 125 hours Language or languages of instruction: Catalan (with readings in English) Teaching Staff: Jordi Galí (jgali@crei.cat, 23.413)

# 1. Introduction to the subject

The course provides an introduction to some of the main tools and models used in modern macroeconomic analysis. Its content focuses on the study of economic fluctuations and the role of economic policy in relation to these fluctuations.

## 2. Competences to be attained

General competences:

- Reading, understanding and interpretation of academic texts in Catalan, Spanish and English.
- The ability to coherently argue one's own positions.
- Independent reasoning with critical distance.
- The ability to apply the knowledge acquired flexibly and creatively.

Specific competences:

- Knowledge of the basic characteristics of economic fluctuations
- The ability to analyze the equilibrium of basic macroeconomic models.
- The ability to assess the empirical relevance of these models.

- The ability to interpret the evolution of the economy from the perspective of the models analyzed.

# 3. Contents

The course studies the following five topics and subtopics:

#### I. Economic Fluctuations: Concepts and Evidence

Trend and cycle. Cyclical component extraction methods. Analysis of the second moments of the cyclical component of macroeconomic variables (amplitude, persistence and correlation with GDP). The international business cycle. Changes over time in the levels of volatility. Possible explanations.

#### II. Real Models of the Economic Cycle and Fiscal Policy

The basic real model of the economic cycle without capital. The real model of the economic cycle with capital. Empirical implications and evidence. Criticism. The effects of fiscal policy: government spending and taxes. Ricardian equivalence. Dynamics of debt and deficits.

#### III. Monetary models of the Economic Cycle and Monetary Policy

The classic monetary model. Empirical evaluation. The basic neo-Keynsian model. The effects of monetary policy. Optimal design of monetary policy. Empirical evidence for monetary policy rules.

#### IV. Economic Fluctuations and the Labour Market

Macroeconomic unemployment models: efficiency wages, market power (unions, insiders/outsiders). The search and matching model. Empirical evidence on flows in the labour market. Unemployment determinants.

#### V. Economic Fluctuations and Financial Markets.

Modelling of imperfections in the financial markets. The investment accelerator. Implications for monetary policy. Financial crises: empirical evidence.

### 4. Assessment

Final exam: 80% Participation in seminars: 20% The same criteria apply to resit examinations.

### 5. Bibliography and teaching resources

#### 5.1 Basic Bibliography

This course does not have a reference textbook.

#### 5.2 Complementary Bibliography

1. Economic Fluctuations: Concepts and Evidence.

King, Robert G.and Sergio T. Rebelo (1999): "Resuscitating Real Business Cycles," in J.B. Taylor and M. Woodford eds., Handbook of Macroeconomics, volume 1B, 928-1002 (also NBER WP 7534).

Stock, James, and Mark W. Watson (1999): "Business Cycle Fluctuations in U.S. Macroeconomic Time Series," in J.B. Taylor and M. Woodford eds., Handbook of Macroeconomics, volume 1A, 3-64 (also NBER WP 6528).

Stock, James, and Mark W. Watson (2005): "Understanding Changes in International Business Cycle Dynamics," Journal of the European Economic Association, vol. 3, issue 5, 968-1006. Backus, David K., Patrick J. Kehoe (1992): "International Evidence on the Historical Properties of Business Cycles," American Economic Review 82, 864-888.

Stock, James H. and Mark W. Watson (2004): "Has the Business Cycle Changed? Evidence and Explanations," in Monetary Policy and Uncertainty: Adapting to a Changing Economy, Federal Reserve Bank of Kansas City.

International Monetary Fund: World Economic Outlook. Bank of Spain: Economic Bulletin La Caixa Studies Service: Monthly Report

2. Real Models of the Economic Cycle and Fiscal Policy

Romer, David (2006): Advanced Macroeconomics, third edition (New York: McGraw Hill), chapters 4 and 11

King, Robert G. and Sergio T. Rebelo (1999): "Resuscitating Real Business Cycles," in J.B. Taylor and M. Woodford eds., Handbook of Macroeconomics, volume 1B, 928-1002 (also NBER WP 7534).

Long, John B., and Charles I. Plosser (1983): "Real Business Cycles," Journal of Political Economy 91, no. 1, 39-69.

Prescott, Edward C. (1986): "Theory Ahead of Business Cycle Measurement," Quarterly Review 10, 9-22, Federal Reserve Bank of Minneapolis.

Basu, Susanto, John Fernald, and Miles Kimball (2006): "Are Technology Improvements Contractionary?" American Economic Review, vol. 96, no. 5, 1418-1448.

Galí, Jordi (1999): "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?" American Economic Review, vol. 89, no. 1, 249-271.

Prescott, Edward C. (1986): "Why do Americans work so much more than Europeans?"

Quarterly Review 28 (1), 2-13, Federal Reserve Bank of Minneapolis.

Baxter, Marianne and Robert King (1993): "Fiscal Policy in General Equilibrium," American Economic Review 83, no. 3, 315-334.

Galí, Jordi, J. David López-Salido and Javier Vallés (2007): "Understanding the Effects of Government Spending on Consumption," Journal of the European Economics Association, vol. 5, issue 1, 227-270.

Galí, Jordi, and Roberto Perotti (2003): "Fiscal Policy and Monetary Integration in Europe," Economic Policy, vol. 37, 535-572.

International Monetary Fund: Fiscal Monitor

3. Monetary models of the Economic Cycle and Monetary Policy

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

Walsh, Carl E. (2010): Monetary Theory and Policy, third edition, MIT Press.

Taylor, John B. (1998): "An Historical Analysis of Monetary Policy Rules," in J.B. Taylor ed., Monetary Policy Rules, University of Chicago Press.

Woodford, Michael (2008): "The Case for Forecast Targeting as a Monetary Policy Strategy," Journal of Economic Perspectives, vol. 21, no. 4., 3-24.

European Central Bank (2004): The Monetary Policy of the ECB, Frankfurt.

Federal Reserve Board (2005): The Federal Reserve System: Purposes and Functions (Washington, D.C.)

European Central Bank: Monthly Bulletin

Federal Reserve Board: Monetary Policy Report to the Congress (February/July)

4. Economic Fluctuations and the Labour Market

Romer, David (2006): Advanced Macroeconomics, third edition (New York: McGraw Hill), chapter 9.

Pissarides, Christopher A. (2000): Equilibrium Unemployment Theory, second edition, MIT Press.

Elsby, Michael, Bart Hobijn and Aysegul Sahin (2012): "Unemployment Dynamics in the OECD," Review of Economics and Statistics, forthcoming.

Elsby, Michael, Bart Hobijn and Aysegul Sahin (2010): "The Labor Market in the Great Recession," Brookings Papers on Economic Activity, Spring 2010 (see also 2012 update). OECD, Employment Outlook.

5. Economic Fluctuations and Financial Markets.

Kindleberger, Charles (1989): Manias, Panics and Crashes: A History of Financial Crises, Basic Books, New York.

Reinhart, Carmen M. and Kenneth S. Rogoff (2009): This Time is Different. Eight Centuries of Financial Folly, Princeton University Press.

Bean, Charles (2009): "The Great Moderation, the Great Panic, and the Great Contraction," Schumpeter Lecture, EEA Congress, Barcelona.

Bernanke, Ben S. (2010): "On the Implications of the Financial Crisis for Economics," speech 9/24/2010.

Symposium on "Early Stages of the Credit Crunch," Journal of Economic Perspectives, Winter 2009.

Symposium on "Macroeconomics after the Financial Crisis," Journal of Economic Perspectives, Fall 2010.

Federal Reserve Bank of Kansas City: Economic Policy Symposium (2008-2010) European Central Bank: Financial Stability Review

Bank of Spain: Financial Stability Report

Bank for International Settlements: Annual Report, Quarterly Review

#### 5.3. Teaching Resources

The teacher uses slides in class, and these are posted on the website.

## 6. Methodology

The teacher gives 20 theoretical lessons to the whole group (30 hours). This is complemented by six seminars in which the students solve questions and exercises that have already been submitted, with the active participation of students.

### 7. Schedule of activities

Week 1: Theoretical lesson 8 April Theoretical lesson 9 April Seminars Week 2: Theoretical lesson 15 April Theoretical lesson 16 April Week 3: Theoretical lesson 22 April Seminars Week 4: Theoretical lesson 29 April Theoretical lesson 30 April Seminars Week 5: Theoretical lesson 6 May Theoretical lesson 7 May Week 6: Theoretical lesson 13 May Theoretical lesson 14 May Seminars Week 7: Theoretical lesson 21 May Week 8: Theoretical lesson 27 May Theoretical lesson 28 May Seminars Week 9: Theoretical lesson 3 June Theoretical lesson 4 June Week 10: Theoretical lesson 10 June Theoretical lesson 11 June Seminars

Final exam: June 20, 9-11 am

Resit examination: date to be determined