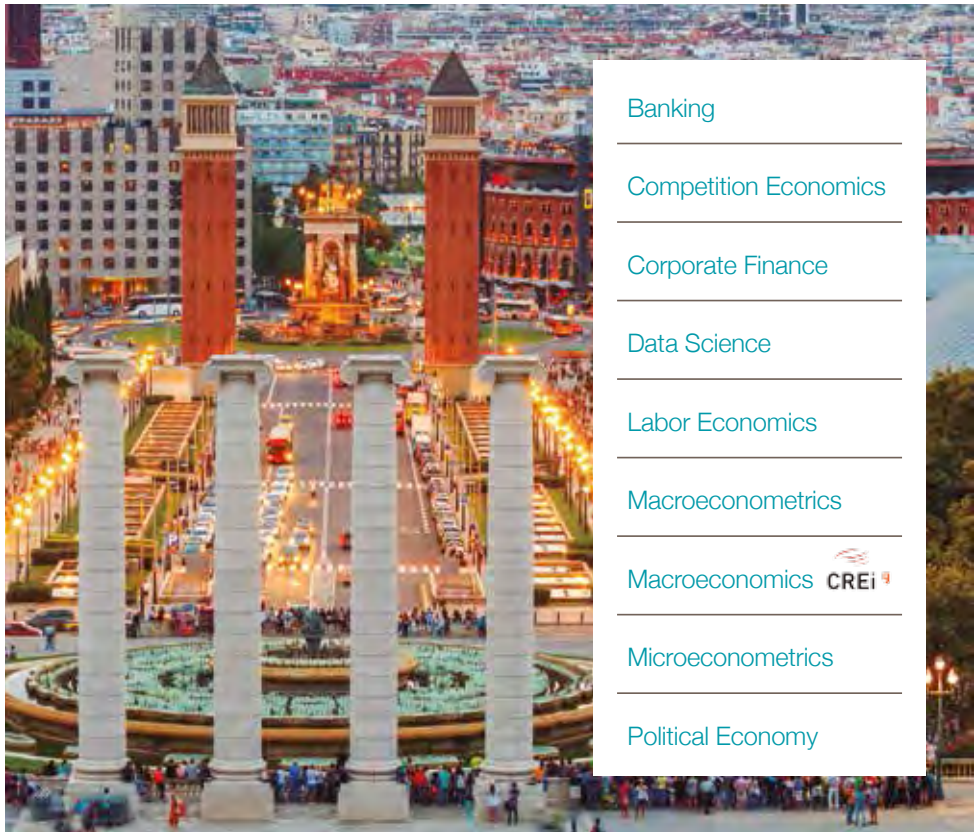


Barcelona Graduate School of Economics

# 10<sup>th</sup> Economics Summer School

Barcelona June 27 - July 8 2016



Banking

Competition Economics

Corporate Finance

Data Science

Labor Economics

Macroeconometrics

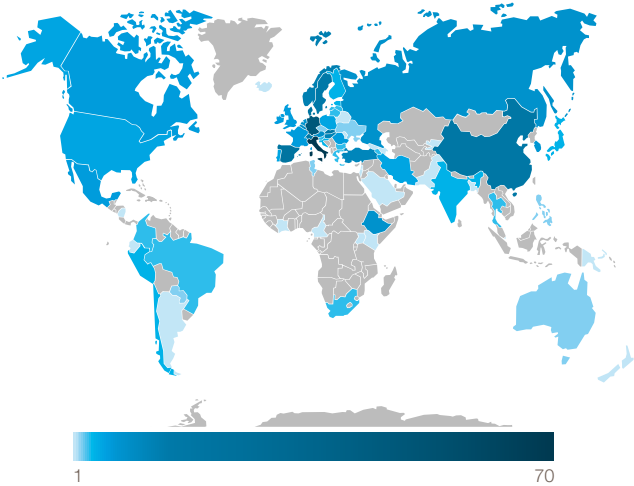
Macroeconomics 

Microeconometrics

Political Economy

# Participant Profile

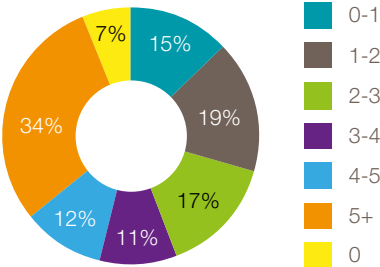
## Participant countries



### Top 10 countries

- Italy
- Germany
- Spain
- Denmark
- China
- Slovakia
- Sweden
- Switzerland
- Norway
- Hungary

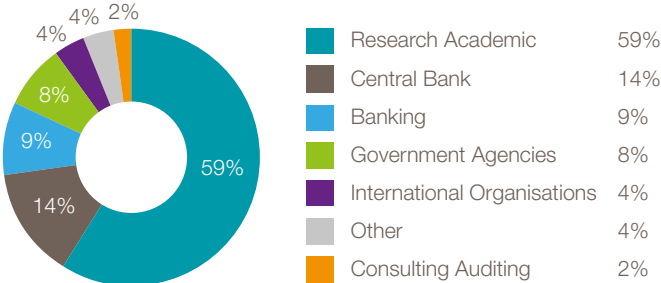
## Participants' years of experience



## Age and gender
























Average age	34 years
Female	41%
Male	59%

## Participants' sector



**Week 1 (June 27 - July 1)**

**Barcelona Economics Summer Schools 2016**

		9:00-11:00		11:30-13:30	13:30-15:00	15:00-16:15	16:15-17:15	17:15-18:15	18:15-19:15
Monday, June 27	Banking	Banking Theory	Coffee break	Empirical Banking - Applications					
	Macroeconometrics	Bayesian Time Series Methods: Intro		Empirical Time Series Methods: Intro	Modeling Time Series		Bayesian TS 	Empirical TS 	Modeling TS 
	Microeconometrics	Panel Data Linear Analysis		Econometrics of Cross-section Data		Panel Data 	Econometrics 		
	Political Economy	Political Agency and Accountability		Political Parties and Interest Groups					
	CREI Macroeconomics A	The Macroeconomics of Financial Globalization		Sovereign Debt Crises	Learning in Finance and Macroeconomics Government Inefficiency and Reform				
	CREI Macroeconomics B			Firms, Networks and Macroeconomic Fluctuations					
	Competition Economics	Economic Theory Tools for Competition Policy		Economic Theory Tools for Competition Policy					
	Corporate Finance	Theory of Corporate Finance		Empirical Corporate Finance					
Tuesday, June 28	Banking	Banking Theory	Coffee break	Empirical Banking - Applications		Paper Presentations			
	Macroeconometrics	Bayesian Time Series Methods: Intro		Empirical Time Series Methods: Intro	Modeling Time Series		Bayesian TS 	Empirical TS 	Modeling TS 
	Microeconometrics	Panel Data Linear Analysis		Econometrics of Cross-section Data		Panel Data 	Econometrics 		
	Political Economy	Political Agency and Accountability		Political Parties and Interest Groups					
	CREI Macroeconomics A	The Macroeconomics of Financial Globalization		Sovereign Debt Crises	Learning in Finance and Macroeconomics Government Inefficiency and Reform				
	CREI Macroeconomics B			Firms, Networks and Macroeconomic Fluctuations					
	Competition Economics	Economic Theory Tools for Competition Policy		Mergers and Abuse of Dominance					
	Corporate Finance	Theory of Corporate Finance		Empirical Corporate Finance					
Wednesday, June 29	Banking	Banking Theory	Coffee break	Empirical Banking - Applications		Paper Presentations			
	Macroeconometrics	Bayesian Time Series Methods: Intro		Empirical Time Series Methods: Intro	Modeling Time Series		Bayesian TS 	Empirical TS 	Modeling TS 
	Microeconometrics	Panel Data Linear Analysis		Econometrics of Cross-section Data		Panel Data 	Econometrics 		
	Political Economy	Political Agency and Accountability		Political Parties and Interest Groups					
	CREI Macroeconomics A	The Macroeconomics of Financial Globalization		Sovereign Debt Crises	Learning in Finance and Macroeconomics Government Inefficiency and Reform				
	CREI Macroeconomics B			Firms, Networks and Macroeconomic Fluctuations					
	Competition Economics	Mergers and Abuse of Dominance		Mergers and Abuse of Dominance					
	Corporate Finance	Theory of Corporate Finance		Empirical Corporate Finance					
Thursday, June 30	Banking	Banking Theory	Coffee break	Empirical Banking - Applications		Paper Presentations			
	Macroeconometrics	Bayesian Time Series Methods: Intro		Empirical Time Series Methods: Intro	Modeling Time Series		Bayesian TS 	Empirical TS 	Modeling TS 
	Microeconometrics	Panel Data Linear Analysis		Econometrics of Cross-section Data		Panel Data 	Econometrics 		
	Political Economy	Political Agency and Accountability		Political Parties and Interest Groups					
	CREI Macroeconomics A	The Macroeconomics of Financial Globalization		Sovereign Debt Crises	Learning in Finance and Macroeconomics Government Inefficiency and Reform				
	CREI Macroeconomics B			Firms, Networks and Macroeconomic Fluctuations					
	Competition Economics	Applied Methods for the Ec. Analysis of Com. Policy		Applied Methods for the Ec. Analysis of Com. Policy					
	Corporate Finance	Theory of Corporate Finance		Empirical Corporate Finance					
Friday, July 1	Banking	Banking Theory	Coffee break	Empirical Banking - Applications					
	Macroeconometrics	Bayesian Time Series Methods: Intro		Empirical Time Series Methods: Intro	Modeling Time Series		Bayesian TS 	Empirical TS 	Modeling TS 
	Microeconometrics	Panel Data Linear Analysis		Econometrics of Cross-section Data					
	Political Economy	Political Agency and Accountability		Political Parties and Interest Groups					
	CREI Macroeconomics A	The Macroeconomics of Financial Globalization		Sovereign Debt Crises	Learning in Finance and Macroeconomics Government Inefficiency and Reform				
	CREI Macroeconomics B			Firms, Networks and Macroeconomic Fluctuations					
	Competition Economics	Applied Methods for the Ec. Analysis of Com. Policy		Applied Methods for the Ec. Analysis of Com. Policy					
	Corporate Finance	Theory of Corporate Finance		Empirical Corporate Finance					

		9:00-11:00		11:30-13:30	13:30-15:00	15:00-16:15	16:15-17:15	17:15-18:15	18:15-19:15
Monday, July 4	Banking	Regulation of Banks and Risk Management	Coffee break	Empirical Banking - Methodological Aspects					
	Macroeconometrics	Bayesian Time Series Methods: Advanced		Empirical Time Series: Advanced	Bayesian Methods for DSGE Models		Bayesian: Advanced <sup>P</sup> Empirical: Advanced <sup>P</sup>	Bayesian Methods <sup>P</sup>	
	Microeconometrics	Quant Methods for Public Policy Evaluation		Dynamic and Non-Linear Panel Data Models		Quant Methods for Policy <sup>P</sup>	Dynamic and Non-Linear <sup>P</sup>		
	Labor	Lectures on the Economics of Education		Global Health		Worker Mobility in Globalized Markets			
	Political Economy	Economic Analysis of Electoral Politics		Economic Analysis of Electoral Politics					
	CREI Macroeconomics A	An Introduction to the New Keynesian Framework and its Monetary Policy ...		The Macroeconomics of Credit and Asset Bubbles	Finance, Firm Dynamics and The Business Cycle				
	CREI Macroeconomics B			Economic Growth and Inequality	Recent Developments in Forecasting		Forecasting <sup>P</sup>		
	Data Science	DS (Data Science Toolbox)			DS (Data Science Toolbox)				
Tuesday, July 5	Banking	Regulation of Banks and Risk Management	Coffee break	Empirical Banking - Methodological Aspects		Paper Presentations			
	Macroeconometrics	Bayesian Time Series Methods: Advanced		Empirical Time Series: Advanced	Bayesian Methods for DSGE Models		Bayesian: Advanced <sup>P</sup> Empirical: Advanced <sup>P</sup>	Bayesian Methods <sup>P</sup>	
	Microeconometrics	Quant Methods for Public Policy Evaluation		Dynamic and Non-Linear Panel Data Models		Quant Methods for Policy <sup>P</sup>	Dynamic and Non-Linear <sup>P</sup>		
	Labor	Lectures on the Economics of Education		Global Health	Paper Readings	Worker Mobility in Globalized Markets			
	Political Economy	Economic Analysis of Electoral Politics		Economic Analysis of Electoral Politics					
	CREI Macroeconomics A	An Introduction to the New Keynesian Framework and its Monetary Policy ...		The Macroeconomics of Credit and Asset Bubbles	Finance, Firm Dynamics and The Business Cycle				
	CREI Macroeconomics B			Economic Growth and Inequality	Recent Developments in Forecasting		Forecasting <sup>P</sup>		
	Data Science	DS (Data Science Toolbox)			DS (Data Science Toolbox)				
Wednesday, July 6	Banking	Regulation of Banks and Risk Management	Coffee break	Empirical Banking - Methodological Aspects		Paper Presentations			
	Macroeconometrics	Bayesian Time Series Methods: Advanced		Empirical Time Series: Advanced	Bayesian Methods for DSGE Models		Bayesian: Advanced <sup>P</sup> Empirical: Advanced <sup>P</sup>	Bayesian Methods <sup>P</sup>	
	Microeconometrics	Quant Methods for Public Policy Evaluation		Dynamic and Non-Linear Panel Data Models		Quant Methods for Policy <sup>P</sup>	Dynamic and Non-Linear <sup>P</sup>		
	Labor	Lectures on the Economics of Education		Global Health	Paper Readings	Worker Mobility in Globalized Markets			
	Political Economy	Economic Analysis of Electoral Politics		Democratization, Civil Conflict and Development					
	CREI Macroeconomics A	An Introduction to the New Keynesian Framework and its Monetary Policy ...		The Macroeconomics of Credit and Asset Bubbles	Finance, Firm Dynamics and The Business Cycle				
	CREI Macroeconomics B			Economic Growth and Inequality	Recent Developments in Forecasting		Forecasting <sup>P</sup>		
	Data Science	DS (Intro to ML for Recommender Systems)			DS (Intro to ML for Recommender Systems)				
Thursday, July 7	Banking	Regulation of Banks and Risk Management	Coffee break	Empirical Banking - Methodological Aspects					
	Macroeconometrics	Bayesian Time Series Methods: Advanced		Empirical Time Series: Advanced	Bayesian Methods for DSGE Models		Bayesian: Advanced <sup>P</sup> Empirical: Advanced <sup>P</sup>	Bayesian Methods <sup>P</sup>	
	Microeconometrics	Quant Methods for Public Policy Evaluation		Dynamic and Non-Linear Panel Data Models		Quant Methods for Policy <sup>P</sup>	Dynamic and Non-Linear <sup>P</sup>		
	Labor	Lectures on the Economics of Education		Global Health	Paper Readings	Worker Mobility in Globalized Markets			
	Political Economy	Democratization, Civil Conflict and Development		Democratization, Civil Conflict and Development					
	CREI Macroeconomics A	An Introduction to the New Keynesian Framework and its Monetary Policy ...		The Macroeconomics of Credit and Asset Bubbles	Finance, Firm Dynamics and The Business Cycle				
	CREI Macroeconomics B			Economic Growth and Inequality	Recent Developments in Forecasting		Forecasting <sup>P</sup>		
	Data Science	DS (Intro to ML for Recommender Systems)			DS (Advanced DS and ML Topics)				
Friday, July 8	Banking	Regulation of Banks and Risk Management	Coffee break	Empirical Banking - Methodological Aspects					
	Macroeconometrics	Bayesian Time Series Methods: Advanced		Empirical Time Series: Advanced	Bayesian Methods for DSGE Models		Bayesian: Advanced <sup>P</sup> Empirical: Advanced <sup>P</sup>	Bayesian Methods <sup>P</sup>	
	Microeconometrics	Quant Methods for Public Policy Evaluation		Dynamic and Non-Linear Panel Data Models		Quant Methods Paper Presentation			
	Labor	Lectures on the Economics of Education		Global Health	Paper Readings	Worker Mobility in Globalized Markets			
	Political Economy	Democratization, Civil Conflict and Development		Democratization, Civil Conflict and Development					
	CREI Macroeconomics A	An Introduction to the New Keynesian Framework and its Monetary Policy ...		The Macroeconomics of Credit and Asset Bubbles	Finance, Firm Dynamics and The Business Cycle				
	CREI Macroeconomics B			Economic Growth and Inequality	Recent Developments in Forecasting		Forecasting <sup>P</sup>		
	Data Science	DS (Advanced DS and ML Topics)			DS (Advanced DS and ML Topics)				

**Color Key**

BBSS  
BMASS  
BMISS  
BPSS  
BMSS-CREI  
BCSS  
BCFSS  
BLSS  
BDSSS

**Key**  
<sup>P</sup> Practical

# Economics Summer Schools at Barcelona GSE

The Barcelona Graduate School of Economics welcomes the summer with a diverse range of summer schools in economics and related fields.

These short summer programs are addressed to **researchers, professionals** and **graduate students** who want to improve their competences in specific fields of knowledge. **Renowned academics** and **leading practitioners** teach our summer school courses, which draw participants from all over the world.

## Practical Information

### Language

All Barcelona GSE Economics Summer Schools are taught in English.

### Location

Barcelona Economics Summer Schools are presented at Barcelona GSE Ciutadella facilities located within the University Pompeu Fabra (UPF) Ciutadella campus. The campus is located in downtown Barcelona, within walking distance of both the beach and the city's financial, cultural, and governmental centers.

## Registration Process

**Application Period Begins: February 2016**

**Application Deadline: 15 June 2016**

*After May 30, registration may not be guaranteed.*

Applications will be evaluated by the Barcelona GSE's Summer School Directors, and candidates will be informed of their acceptance decision on a rolling basis. At the conclusion of the Summer School program, participants will receive a certificate for the number of hours attended. Interested students should check with their universities to see if these hours are transferable into ECTS credits.

## Fees and discounts

Discount for participants taking more than one course (from any Summer School program):

2 courses	25% discount
3 courses	35% discount
4 courses	45% discount

### Notes about Summer School fees:

- **Early bird discount:** an additional 10% discount for **full payments** received on or before April 15.
- Reduced fee applies to PhD/Master students, returning summer school participants, Barcelona GSE students, and Barcelona GSE alumni.
- Fees for the first course vary by summer school program; please check summer school program pages for their fees.
- **Fees include any material required for the course as indicated, coffee breaks every day of the week, networking dinner on Tuesday, and farewell dinner on Thursday.**

You can register and check for all details on the Barcelona GSE Summer School in our website **[www.barcelonagse.eu/summerschools](http://www.barcelonagse.eu/summerschools)**. You can also contact **[summerschool@barcelonagse.eu](mailto:summerschool@barcelonagse.eu)** to request more information.

## Barcelona Banking Summer School (BBSS)

The **Barcelona Banking Summer School** offers a variety of courses taught by recognized experts in their fields. Summer courses cover recent developments in different areas of banking, including theoretical and empirical aspects of banking, banking regulation and supervision, financial markets and payment systems. During the courses, the faculty are available to discuss research ideas and projects with the program participants.

It is directed by **Xavier Freixas** (UPF and Barcelona GSE) and **José-Luis Peydró** (UPF and Barcelona GSE).

### Fees

Regular fee: **1200 €**

Reduced fee: **675 €**

### Course offering summer 2016

All courses are 10 hours long.

Course	Dates	Instructor
<b>Banking Theory</b>	June 27 - July 1	Xavier Freixas
<b>Empirical Banking - Applications</b>	June 27 - July 1	José-Luis Peydró
<b>Regulation of Banks and Risk Management in a Post-Crisis World</b>	July 4 - 8	Robert DeYoung
<b>Empirical Banking - Methodological Aspects</b>	July 4 - 8	Steven Ongena

### Instructors



**Xavier Freixas** is Dean of the Undergraduate School of Economics and Business Administration and Professor at Universitat Pompeu Fabra, Research Professor of the

Barcelona GSE, and Research Fellow at CEPR. He is Chairman of the Risk Based Regulation Program of the Global Association of Risk Professionals (GARP) and past president of the European Finance Association.



**José-Luis Peydró** is Professor at Universitat Pompeu Fabra and Barcelona GSE. His research on Banking and Systemic Risk has been published in the top journals in

Economics and in Finance. Professor Peydró has presented his research in top universities including Harvard, MIT, NYU, LSE, and LBS and in policy organizations such as the Federal Reserve Board, New York Fed, IMF, ECB, BIS, Bundesbank, and Bank of England.



**Dr. Robert (Bob) DeYoung** is the Capitol Federal Distinguished Professor in Financial Markets and Institutions at the University of Kansas School of Business. He

is also co-editor of the *Journal of Money, Credit and Banking*; a research program coordinator at the FDIC's Center for Financial Research; and an adjunct member of the economics faculty at the University of Limoges.



**Steven Ongena** is currently a Professor of Empirical Banking at CentER - Tilburg University in the Netherlands and a CEPR Research Fellow in Financial Economics. He is a member of TILEC, a NAKÉ and

CFS fellow, a steering committee member of the ECB-CFS Research Network, and an associate editor of MAB.

## Banking Theory

Instructor: Xavier Freixas

- To understand the role of imperfect information and the role of financial institutions in the economy
- To understand the specifics of banking
- To understand bank runs

### Selected Topics

- Why do financial intermediaries exist? (J.C. Rochet)
- The industrial organization approach (J.C. Rochet)
- The borrower-lender contract in asymmetric information
- Macroeconomic consequences of financial intermediation
- Individual bank runs and systematic risk

## Empirical Banking - Applications

Instructor: José-Luis Peydró

The objective of this course is to present empirical applications of relevant questions for both banking theory and policy, mainly related to Systemic Risk, Crises, Macroprudential and Monetary Policy. An important objective is to read and understand scientific papers in empirical banking.

### Course Outline

- Credit cycles
- Securities and credit registers; large datasets
- Fire sales, market and funding liquidity
- Bank capital and macroprudential regulation
- Risk-taking and credit channels of monetary policy
- Real effects of financial shocks
- Moral hazard vs. behavioral based risk-taking
- Secular stagnation, banking and debt crises
- Interbank contagion, bank runs and systemic risk
- Banking globalization
- Capital controls and capital flows to emerging markets
- Macro vs. micro prudential policy

## Regulation of Banks and Risk Management in a Post-Crisis World

Instructor: Robert DeYoung

The banking system is an essential—but unpredictably fragile—foundation for our market economies. To prevent this foundation from collapsing, we regulate banks more extensively than any other market sector. But our regulatory efforts have too often been unsuccessful. In this course, we examine the good and bad performance record of bank regulation and analyze the challenges facing bank regulation in the post-crisis world.

### Course Outline

The main issues and arguments will be based on bank regulations from both Europe and the US. Academic and government research studies will be presented to provide evidence in favor of, or opposed to, these regulations.

## Empirical Banking - Methodological Aspects

Instructor: Steven Ongena

The objective of this course is to read and understand scientific papers in empirical banking. To accomplish this objective, emphasis is placed on illustrating basic research methodologies used in empirical banking and learning the application of these methodologies to selected topics. The research methods that are specifically discussed in the class are cross-sectional research methods and the inter-temporal event study methodology. The topics that are covered include (but are not limited to) applications of Discrete Choice, Multinomial Logit, Duration, Simultaneous Equations and Event Study Methodology, and as an area of particular interest the Geography of Banking.

### Course Outline

- General methodologies
- Cross-sectional research methods
- Discrete Choice, Multinomial Logit, Duration, Simultaneous Equations
- Event Study Methodology
- Geography of Banking



## Barcelona Competition Economics Summer School (BCSS)

The **Barcelona Competition Economics Summer School** will be offered by the Barcelona Graduate School of Economics. The school consists of three separate blocks all of which have both teaching and research experience in their respective fields.

It is directed by **Juan-José Ganuza** (UPF and Barcelona GSE).

### Fees

Regular fee: **1800 €**

Reduced fee: **1000 €**

### Course offering summer 2016

Block	Dates	Instructor
<b>Economic Theory Tools for Competition Policy</b> (6h)	June 27 - July 1	Juan-José Ganuza
<b>Applied Methods for the Economic Analysis of Competition Policy</b> (8h)	June 27 - July 1	Christian Michel
<b>Mergers and abuse of dominance</b> (6h)	June 27 - July 1	Albert Banal

### Instructors



**Juan-José Ganuza** is Professor of Economics and Business at the UPF. Previously, he was visiting researcher at the University California Los Angeles, and Institut D'Economie

Industrielle (Toulouse). He has published in the main international economics journals in his research field (*RAND Journal of Economics*, *International Journal of Industrial Organization*, *Journal of Industrial Economics*, *Journal of Economics Management and Strategy*, etc) as well as in general interest economics journals (such as *Econometrica*), law journals (such as the *Journal of Legal Studies*), and business publications (such as *Management Science*).



**Albert Banal** is Associate Professor at the Universitat Pompeu Fabra, program director of the MSc in Corporate Finance and Banking at the UPF-Barcelona School of Management, affiliated Reader at City University London, visiting professor at the IFP-Energies Nouvelles in Paris and research fellow at the SP-SP Public-Private Sector Research Center at the IESE Business School. Previously, he has held teaching and research positions at the University of Western Ontario in Canada, Northwestern University in the US, University of Cambridge, UCL, and London Business School in the UK, and the University of Munich in Germany.



**Christian Michel** is Assistant Professor at UPF. In his research, he studies topics on the border between Empirical Industrial Organization and Organizational

Economics. A second strand of his research focuses on the consequences of consumer biases on market outcomes and the effectiveness of consumer protection policies.



## Economic Theory Tools for Competition Policy

Instructor: Juan-José Ganuza

It will focus on the usefulness of game theory and industrial organization to develop and to understand the models of imperfect competition that are crucial in the modern economic analysis of competition policy.

### Selected Topics

- Basic Game Theory Concepts: Dominant strategies, Nash Equilibrium, looking forward and backward induction, Perfect Subgame Nash Equilibrium.
- Static Competition: Competition in oligopoly (Bertrand model; Cournot model; Hotelling model and other product differentiation models)
- Dynamic Competition and collusion: Capacity-price games; Entry models, Cartel Enforcement and Factors facilitating tacit collusion.

## Applied Methods for the Economic Analysis of Competition Policy

Instructor: Christian Michel

This block will be taught by Christian Michel (UPF and Barcelona GSE). The block first focuses on methods and models specifically designed for the analysis of horizontal mergers and market power using both theory foundations and empirical techniques. The use of such methods will be demonstrated using real world data and previous competition policy cases. In the second part of the block, other applied competition policy topics are discussed. These range from the determination of damage payments in litigation cases to empirically assessing the effects of partial acquisitions and divestitures

### Selected Topics

- Basic tests of market power and merger policy theory
- Discrete choice demand models and modern methods to assess market power
- Applications to Competition Policy and Litigation

## Mergers and abuse of dominance

Instructor: Albert Banal

It will focus on analyzing the theory of horizontal mergers and the anti-competitive strategies that can be used by incumbent firms to protect their market power, like vertical restraints, exclusive contracts and predatory pricing

### Selected Topics

- Horizontal mergers theory
- Vertical mergers and restraints
- Exclusive contracts
- Predation
- Extensions and cases

## Barcelona Corporate Finance Summer School (BCFSS)

The **Barcelona Corporate Finance Summer School** offers an in-depth analysis of the current state of research in the main areas of empirical and theoretical corporate finance.

The objective of the school is to bring students up to date on the current debate in theoretical corporate finance, and to illustrate the best practice for the analysis of empirical issues in corporate finance.

It is directed by **Filippo Ippolito** (UPF and Barcelona GSE).

### Fees

Regular fee: **1050 €**

Reduced fee: **650 €**

### Course offering summer 2016

All courses are 10 hours long.

Course	Dates	Instructor
<b>Theory of Corporate Finance</b>	June 27 - July 1	Filippo Ippolito
<b>Empirical Corporate Finance</b>	June 27 - July 1	Daniel Paravisini

### Instructors



**Filippo Ippolito** is Associate Professor at UPF and Director of the Barcelona GSE Master's Program in Finance. He is also Research Affiliate of CEPR.

Professor Ippolito's current work focuses on corporate debt and private equity. In 2014, a research team led by Prof. Ippolito was awarded the UCEIF Foundation Prize for their project, "Asset-liability correlated fragility in banks."

Prior to joining the UPF, Prof. Ippolito held positions at Università Commerciale L.Bocconi and Merton College, Oxford. He has also been Editorial Assistant at Oxford Analytica, Ltd. and Internal Auditor at Banca Monte dei Paschi (Siena).



**Daniel Paravisini** is an Associate Professor of Finance at the London School of Economics. He has a Ph.D. in economics from the Massachusetts Institute of

Technology, and has published his research on credit markets and institutions in the *Journal of Finance*, the *Review of Economic Studies*, *Management Science*, and the *Review of Finance*.

Professor Paravisini's research has received three times the Brattle Award, given to the best papers in Corporate Finance published in the *Journal of Finance* every year. He is a Co-Editor and Associate Editor of several leading journals in finance and economics and is a research associate of the Centre for Economic Policy Research and the Bureau for Research and Economic Analysis of Development.

## Theory of Corporate Finance

Instructor: Filippo Ippolito

### Course Objectives

The course provides an analysis of the key topics in corporate finance, including classic issues like the optimisation of capital structure in the presence of frictions, and payout policy, as well as topics that have received much attention lately, like the relation between liquidity management, credit lines and hedging, capital adjustment frictions, and optimal debt structure.

### Selected Topics

(for reference only; subject to change)

- Financial policy of the firm
- Optimal capital structure
- Classic frictions
- Collateral constraints
- Dynamic capital structure adjustments in the presence of frictions
- Target leverage, relative leverage and the cost of excessive leverage
- Optimal debt structure
- Debt specialisation and renegotiation costs
- Granularity of debt maturity
- Liquidity management, payout policy and hedging
- Cash holdings and taxation
- External finance premium and pre-cautionary cash
- Credit lines, commitment, drawdowns, covenant violations and revocations
- Hedging, cash holdings, collateral and leverage
- Payout policy

## Empirical Corporate Finance

Instructor: Daniel Paravisini

### Course Objectives

The course provides an introduction to the most common empirical methods used to answer counterfactual questions on Corporate Finance.

### Selected Topics

- Introduction  
The inference problem in corporate finance, randomized evaluations.
- Application: Financial constraint  
Econometric topics: Conditional Expectation Function, omitted variable bias, regression, cluster samples.  
Application: Investments
- The agnostic regression  
Econometric topics: Controlling for covariates, extrapolation and matching, discontinuities.  
Applications: securitization, mergers, internal governance
- Causal regressions 1  
Econometric topics: Conditional independence assumption, biases, bad controls.  
Application: Investments
- Causal regressions 2  
Econometric topics: Controlling for covariates, extrapolation and matching, discontinuities.  
Applications: securitization, mergers, internal governance
- Accounting for unobserved confounders  
Econometric topics: Difference-in-differences (estimation and inference).  
Applications: culture, external governance
- Instrumental Variables (IV)  
IV Mechanics (constant effects case).  
Application: Family firms

## Barcelona CREI Macroeconomics Summer School (BMSS-CREI)

The **CREI Macroeconomics Summer School** offers an overview of the current state of research in key areas of macroeconomics. Courses, which are taught by leading experts in their fields, cover recent developments in different areas of macroeconomics, including growth, international finance, sovereign risk, asset bubbles, monetary policy and forecasting. The courses are aimed at graduate students as well as more senior researchers and practitioners willing to brush up their knowledge and expose themselves to the latest advances in academic research. During the summer school, faculty are available for discussion of participants' research ideas, as well as the lectures' contents.

The Barcelona CREI Macroeconomics Summer School is jointly organized by the Barcelona GSE and the Center for Research in International Economics (CREI), a research institute sponsored by the Generalitat de Catalunya and Universitat Pompeu Fabra, in fulfillment of its aim to promote the dissemination of research in macroeconomics and related areas. Further information about CREI can be found at <http://www.crei.cat>

### Fees

Regular fee: **1050 €**

Reduced fee: **650 €**

### Course offering summer 2016

The School is composed of ten courses, which are distributed over two weeks. Courses can be taken individually or jointly

All courses are 10 hours long.

Course	Dates	Instructor
<b>The Macroeconomics of Financial Globalization</b>	June 27 - July 1	Alberto Martin
<b>Sovereign Debt Crises</b>	June 27 - July 1	Fernando Broner
<b>Firms, Networks, and Macroeconomic Fluctuations</b>	June 27 - July 1	Julian di Giovanni
<b>Learning in Finance and Macroeconomics</b>	June 27 - July 1	Albert Marcet
<b>Government Inefficiency and Reform</b>	June 27 - July 1	Giacomo Ponzetto
<b>An Introduction to the New Keynesian Framework and its Monetary Policy Applications</b>	July 4 - 8	Jordi Galí
<b>The Macroeconomics of Credit and Asset Bubbles</b>	July 4 - 8	Jaume Ventura
<b>Economic Growth and Inequality</b>	July 4 - 8	Gino Gancia
<b>Finance, Firm Dynamics and the Business Cycle: Theory and Empirical Evidence</b>	July 4 - 8	Andrea Caggese
<b>Recent Developments in Forecasting</b>	July 4 - 8	Barbara Rossi
<b>Recent Developments in Forecasting: Practicals *</b>	July 4 - 8	Barbara Rossi

\* Computer Lab Practicals Fees:

Regular fee: **550 €**

Reduced fee: **300 €**

## Instructors



**Alberto Martin** earned his PhD in Economics at Columbia University in 2005. Currently he is Senior Researcher at the Center for Research in International Economics (CREI), Adjunct Professor at Universitat Pompeu Fabra, Research Professor at the Barcelona GSE and Research Fellow at the CEPR. He has been Research Fellow and Senior Economist at the International Monetary Fund, consultant for the United Nations Development Programme, and economist in Argentina's Ministry of Economics. He was awarded a Fulbright Fellowship (2000), a Lamfalussy Fellowship from the European Central Bank (2011), and a Consolidator Research Grant from the European Research Council (2014). He is Member of the Editorial Board of the *Review of Economic Studies* and his work has appeared in the *American Economic Review*, the *Journal of Finance*, the *Journal of the European Economic Association* and the *Journal of International Economics*, among others. His research interests include macroeconomics, finance and international economics.



**Fernando Broner** earned his PhD in Economics at the Massachusetts Institute of Technology (MIT) in 2000. Currently he is Senior Researcher at the Center for Research in International Economics (CREI), Adjunct Professor at Universitat Pompeu Fabra (UPF), and Research Professor at the Barcelona GSE. He is also co-director of the Master Program in International Trade, Finance and Development at the Barcelona GSE, Research Fellow at CEPR, and co-editor of the *Journal of International Economics*. He has been Visiting Professor at MIT, advisor at the Bank of Spain's Division of International Economics, Visiting Scholar at the IMF and World Bank, and Assistant Professor at the University of Maryland. He was awarded a European Research Council Starting Grant in 2010. His research interests include international economics, finance, and macroeconomics.



**Julian di Giovanni** earned his PhD in Economics at the University of California, Berkeley in 2004. Currently he is Professor at Universitat Pompeu Fabra (UPF), Affiliated Professor at the Barcelona GSE, Research Associate at the Center for Research in International Economics (CREI), and Research Fellow at the CEPR. He worked for the Research Department of the International Monetary Fund from 2004-2013, and was a Visiting Assistant Professor at the University of Toronto in 2011-2012. He was recently awarded an International Incoming Fellowship (European Research Council Marie Curie Actions). His research interests include international economics and macroeconomics.



**Albert Marcet** graduated in Economics at the Universitat Autònoma of Barcelona (1982) and earned his PhD in Economics at the University of Minnesota in 1987. He is an ICREA Research Professor at the Institut d'Anàlisi Econòmica, Axa Research Chair on Macroeconomics at the Barcelona GSE and Bank of Spain Professor. He has also been Professor at the London School of Economics (2009-2011), Universitat Pompeu Fabra (1990-2003) and Carnegie-Mellon University, Pittsburgh (1986-1992) and has been a Visitor at the ECB, London Business School, CEMFI (Madrid), the Federal Reserve Bank of Minneapolis and the Universitat Autònoma of Barcelona. His main areas of research are macroeconomics, fiscal policy, solution methods of dynamic models, financial economics and learning models.



**Giacomo Ponzetto** is Senior Researcher at CREI, Adjunct Professor at the UPF and Affiliated Professor at the Barcelona GSE. He received his PhD from Harvard University in 2009 and has been a Research Affiliate of CEPR since 2011. His research lies at the intersection of Political Economy and International and Regional Economics. He has written on political and legal institutions, on the political economy of trade policy, on federalism and political centralization, and on entrepreneurship and the spatial distribution of economic activity. His research has been published in the *Quarterly Journal of Economics*, *Journal of Economic Growth*, *Journal of Public Economics*, *Journal of Urban Economics*, and *Journal of Law, Economics, and Organization*.



**Jordi Galí** earned his PhD in Economics at the Massachusetts Institute of Technology (MIT) in 1989. Currently he is Director and Senior Researcher at the Center for Research in International Economics (CREI), Professor at Universitat Pompeu Fabra (UPF) and Research Professor at the Barcelona GSE. He has held academic positions at New York University and Columbia University. He has been a Visiting Professor at MIT. He is a Research Fellow at the CEPR, a Research Associate at the NBER, and a Fellow of the Econometric Society. He has served as a co-editor of the *Journal of the European Economic Association* and co-director of the CEPR International Macroeconomics Programme. In 2012 he served as President of the European Economic Association. Among other awards, Galí received the National Research Prize from the Government of Catalonia in 2011, and was co-recipient of the 2005 Yrjö Jahnsson Award. He is a regular consultant to the ECB, the Sveriges Riksbank and the Norges Bank. His research interests include macroeconomics and monetary theory.



**Jaume Ventura** earned his PhD in Economics at Harvard University in 1995. Currently he is Senior Researcher at the Center for Research in International Economics (CREI), Research Professor at the Barcelona GSE and Professor at Universitat Pompeu Fabra (UPF). Previously, he has held academic positions at the MIT and the University of Chicago. He has served as a co-director of the International Macroeconomics Programme of the CEPR and also as an editor of the *Economic Journal*. He is a Research Fellow at the CEPR, a Research Associate at the NBER, and a Fellow of the European Economic Association. He has served as a consultant to the IMF, the World Bank and the Inter-American Development Bank. His research interests include international economics and macroeconomics.



**Gino Gancia** earned his PhD in Economics at the Institute for International Economic Studies (Stockholm University) in 2003. Currently, he is Senior Researcher at the Center for Research in International Economics (CREI), an Adjunct Professor at the UPF, an Affiliated Professor at the Barcelona GSE and Research Fellow at the CEPR. He is Member of the Editorial Board of the *Review of Economic Studies* and Associate Editor of the *Journal of the European Economic Association*, the *Economic Journal* and the *Review of Economic Dynamics*. He has been a Visiting Scholar at MIT during 2001-2003 and has been awarded the 2009 Excellence Award in Global Economic Affairs (Kiel Institute for the World Economy) and the 2004 Young Economist Award (European Economic Association). His research interests include international trade theory, economic growth and macroeconomics.



**Andrea Caggese** earned his PhD in Economics at London School of Economics and Political Science in 2002. Currently he is Associate Professor at Universitat Pompeu Fabra (UPF), Affiliated Professor at the Barcelona GSE, and Research Associate at the Center for Research in International Economics (CREI). He is also the Director of the Master of Research in Economics, Finance and Management at the Department of Economics and Business at Universitat Pompeu Fabra (UPF). His work has appeared in the *Journal of Financial Economics*, the *Journal of Monetary Economics*, the *Economic Journal* and the *Review of Economic Dynamics*. His research interests include finance, investment theory and macroeconomics.



**Barbara Rossi** earned her PhD in Economics at Princeton University in 2001. Currently she is an ICREA Research Professor at Universitat Pompeu Fabra (UPF), Affiliated Professor at the Barcelona GSE, and Research Associate at the Center for Research in International Economics (CREI). She has held an academic tenured position at Duke University and visiting positions at University of California-Berkeley, UCSD and the Philadelphia Fed, among others.

She is a Research Fellow at the CEPR and a member of the CEPR Business Cycle Committee. She is currently an Associate Editor for the *Journal of Business and Economic Statistics*, the *Journal of Economic Dynamics and Control*, and the *Journal of Applied Econometrics*. She has been awarded two National Science Foundation grants.

## The Macroeconomics of Financial Globalization

Instructor: Alberto Martin

The last few decades have been characterized by the rise of financial globalization. In this course, we review the evidence on financial globalization and its macroeconomic effects, and contrast it with the predictions of standard economic theory. We then build a workhorse model of capital flows and use it to interpret the evidence and to shed light on current policy debates, such as the role of capital controls and the origins and implications of global imbalances.

### Selected Topics

- Macroeconomic effects of financial globalization: conventional view and empirical evidence
- Rethinking the convention: a workhorse model of capital flows and financial frictions
- Financial crises in the open economy: the case for capital controls
- Causes and consequences of global imbalances: the role of China
- Capital flows and Europe's banking woes: understanding the links

## Sovereign Debt Crises

Instructor: Fernando Broner

This course provides an overview of sovereign debt crises from theoretical, empirical and policy points of view. It covers both traditional and new theories that emphasize the interplay between international and domestic financial markets, and the relevant empirical evidence. It discusses the distinction between liquidity and solvency crises and the appropriate policy responses. The last part of the course is devoted to an analysis of the European crisis.

### Selected Topics

- What are the costs of sovereign default? Reputation and sanctions
- Market structure and defaults: secondary markets and collateral damage
- Rollover crises: lender of last resort and moral hazard
- Solvency crises: debt overhang, buybacks and restructuring
- Lessons for Europe

## Firms, Networks, and Macroeconomic Fluctuations

Instructor: Julian di Giovanni

This course first introduces students to recent models that study how shocks at the firm or sector level propagate through the economy and impact macroeconomic volatility. Empirical evidence is then presented, and techniques that employ large micro-datasets to study aggregate fluctuations are introduced. Finally, linkages in the open economy and the transmission of shocks across borders are studied.

### Selected Topics

- Firm/sector linkages and the transmission of shocks
- Empirical approaches for mapping micro shocks to macro fluctuations
- The globalization of production and cross-country interdependence
- Large firms and macroeconomic outcomes

## Learning in Finance and Macroeconomics

Instructor: Albert Marcet

This course reviews the role and applications of learning in finance and macroeconomics.

### Selected Topics

- Learning, expectations formation and convergence to rational expectations
- Optimal signal extraction and Kalman filter
- Monetary policy and learning: hyperinflations, stability of Taylor rules, explaining the US experience on monetary
- Fiscal policy, stability and fiscal sustainability under learning
- Stock price volatility
- Survey expectations



## Government Inefficiency and Reform

Instructor: Giacomo Ponzetto

The Great Recession has brought policy failures into the spotlight, especially within the European Union. Why do governments pursue inefficient policies? Why do they refrain from enacting desirable structural reforms? Why is macroeconomic stabilization delayed until acute crisis? This course seeks to answer these questions using the tools of political economics.

### Selected Topics

- Explaining regulation: market failure vs. rent-seeking
- Distributive conflict and inefficient policy bargains
- Political agency and imperfect government accountability
- The politics of structural reforms

## An Introduction to the New Keynesian Framework and its Monetary Policy Applications

Instructor: Jordi Galí

The course will provide an introduction to the New Keynesian model and its implications for monetary policy, with both a positive and a normative perspective.

### Selected Topics

- The basic New Keynesian model: Derivation and Properties
- Optimal monetary policy and simple policy rules
- Policy trade-offs: discretion vs. commitment
- Extensions and their policy implications

## The Macroeconomics of Credit and Asset Bubbles

Instructor: Jaume Ventura

This course develops a macroeconomic framework to think about the origins and effects of credit and asset bubbles. This framework is then used to shed light on current policy debates such as the role of macroprudential policy, the effects of capital controls, and the connection between bubbles, monetary policy and liquidity traps.

### Selected Topics

- Review of the empirical evidence
- The theory of rational bubbles
- Credit and asset bubbles in business cycle models
- Policy design (I): the role of a lender of last resort
- Policy design (II): international policy coordination

## Economic Growth and Inequality

Instructor: Gino Gancia

This course is centered on the following questions: Why and how do countries grow? What are the distributional consequences of growth? Why are some countries so much richer than others? What explains the Chinese growth miracle? The final part will focus on policy implications, including the effects of competition and redistributive policies on innovation, and how to make economic growth compatible with environmental conservation.

### Selected Topics

- The world income distribution, capital and Neoclassical growth
- The economics of ideas: innovation and creative destruction
- Growth, technological change and inequality
- Explaining cross-country income differences and the Chinese growth miracle
- Policy Lessons: Competition, Redistribution and Environmental Policy

## Finance, Firm Dynamics and the Business Cycle: Theory and Empirical Evidence

Instructor: Andrea Caggese

The course will cover recent research exploring the relation between financial factors, firm dynamics, and aggregate fluctuations. It will consider theories and empirical studies that attempt to identify the causal link from financial frictions to firm investment, employment and innovation decisions at the micro-level, and their implications for both aggregate productivity and business cycle fluctuations. Applications include financial shocks and the 2007-2009 recession, and firm dynamics and the secular stagnation hypothesis.

### Selected Topics

- Finance and firm dynamics: the facts
- Entry, exit, and the aggregate implications of firm level financial frictions
- Finance, innovation, and productivity growth
- Credit, banking and business cycles: the basic framework
- Finance, firm dynamics and the business cycle: theory and applications

## Recent Developments in Forecasting

Instructor: Barbara Rossi

This course provides an up-to-date and thorough overview of forecast estimation and evaluation.

### Selected Topics

- Discuss tools used in state-of-the-art empirical research
- Lay out their econometric foundations in an accessible way
- Analyze selected recent works in forecast evaluation, with an emphasis on their empirical implications and analysis.

The applications will be discussed during the practical sessions (offered separately and available only for students registered for the class). The computer lab practicals will demonstrate the tests/methodologies presented in class using an empirical example throughout the course, namely forecasting inflation in the US.

## Recent Developments in Forecasting: Practicals

Instructor: Barbara Rossi

This 5 hours practical course is available only for students registered for the Recent Developments in Forecasting course. The computer lab practicals will demonstrate the tests/methodologies presented in class using an empirical example throughout the course, namely forecasting inflation in the US.

# Barcelona Data Science Summer School (BDSSS)

The main aim of the **Data Science Summer School** is to introduce participants to some of the tools and methods of Data Science.

The course will provide:

- A hands-on training on data warehousing,
- Statistical computing and computational machine learning.
- A good introduction to Machine Learning for Recommender Systems
- An introduction to some modern topics in Machine Learning, e.g Deep Learning.

It is directed by **Omiros Papaspiliopoulos** (ICREA-UPF and Barcelona GSE).

## Fees

Regular fee: **1800 €**

Reduced fee: **1000 €**

## Course offering summer 2016

Block	Dates	Instructor
<b>The Data Science toolbox</b> (8h)	July 4 - 8	Hrvoje Stojic
<b>Introduction to Machine Learning for Recommender Systems</b> (6h)	July 4 - 8	Alexandros Karatzoglou
<b>Advanced Data Science and Machine Learning Topics</b> (6h)	July 4 - 8	Alexandros Karatzoglou

## Instructors



**Alexandros Karatzoglou** is a Senior Research Scientist at Telefonica Research working on Machine Learning. Alexandros received his PhD in Machine

Learning from the Vienna University of Technology (TUWIEN). During his PhD he was a frequent visitor to the Statistical Machine Learning group at the ANU/NICTA in Canberra Australia. He has over 40 papers in the field and has won 3 best paper awards at the ACM RecSys and ECMLPKDD conferences. He has developed several ranking techniques for collaborative filtering, context-aware recommendation methods and techniques for recommendations in a social network. He is also the author of the core machine learning R package kernlab, and enjoys giving lectures on Machine Learning, Recommender Systems and R.



**Hrvoje Stojic** is a PhD candidate at UPF (GPEFM) and lecturer for course on Advanced Computational Methods in Master in Data Science (BGSE) program. His main research

interest is to understand cognitive processes that underlie human learning and decision making. This is an interdisciplinary topic that spans several disciplines and in his work he relies on machine learning methods such as reinforcement learning. He has been a frequent visitor to Max Planck Institute for Human Development in Berlin and University College London. He is experienced user of R and enjoys teaching data science tools and methods.

## The Data Science toolbox

Instructor: Hrvoje Stojic

This will be a hands-on session where a range of tools commonly used in Data Science will be introduced.

- Introduction to Python for Machine Learning & tools for Data, Pandas, scikit-learn, numpy through case studies
- Basic SQL (interfaces to R, Python, data extraction etc.)
- Introduction to R for Machine Learning and packages such as dplyr, tidyr, reshape2, ggplot2, through case studies

## Introduction to Machine Learning for Recommender Systems

Instructor: Alexandros Karatzoglou

- Memory based collaborative filtering
- Model-based collaborative Filtering, Matrix Factorization, Restricted Boltzmann Machines
- Context-aware collaborative Filtering, Tensor Factorization, Factorization Machines
- Learning to Rank for Collaborative Filtering
- Diversification
- Content-based recommendations

## Advanced Data Science and Machine Learning Topics

Instructor: Alexandros Karatzoglou

- Unsupervised Learning, k-means clustering, spectral methods, hierarchical clustering
- Gradient Boosted Models
- Deep Neural Networks, from Logistic Regression to Deep Belief Networks
- Convolutional Neural Networks
- Recurrent Neural Networks

## Barcelona Labor Economics Summer School (BLSS)

The **Barcelona Labor Economics Summer** School offers courses that will cover recent developments within the macro-labor and micro-labor contexts. In each course, both theoretical and empirical aspects will be covered as well as economic policy. These courses should be of interest to graduate students or academics who want to expand their knowledge in the area and to practitioners interested in understanding the fundamentals of these issues. During the courses, faculty are available to discuss research ideas and projects with the program participants.

It is directed by **Maia Güell** (University of Edinburgh).

### Fees

Regular fee: **1050 €**

Reduced fee: **650 €**

### Course offering summer 2016

All courses are 10 hours long.

Course	Dates	Instructor
<b>Lectures on the Economics of Education</b>	July 4 - 8	Derek Neal
<b>Global Health</b>	July 4 - 8	Alessandro Tarozzi
<b>Worker Mobility in Globalized Labor Markets: Causes and Consequences of Migration</b>	July 4 - 8	Joan Llull

### Instructors



**Derek Neal** is a Professor in the Department of Economics and the Committee on Education at the University of Chicago. Professor Neal's current research focuses on

the design of incentive systems for educators. His work explores the design flaws in current performance pay and accountability systems and also highlights the advantages of providing incentives through contests between schools.



**Alessandro Tarozzi** is Associate Professor at Universitat Pompeu Fabra. He is a member of Bureau for Research and Economic Analysis of Development (BREAD) and the

International Growth Center (IGC) India Research Network. He is Associate Editor of Journal of Development Economics. In 2012 he was granted an International Incoming Fellowship (IIF)-Marie Curie Actions by the European Commission.



**Joan Llull** is Assistant Professor at MOVE and UAB. Previously, he held visiting positions at University of Wisconsin-Madison, Bank of Spain, the Economic Bureau of the Spanish

Prime Minister, and University of Liverpool.

## Lectures on the Economics of Education

Instructor: Derek Neal

Four lectures given over five sessions explore both the demand for education and the supply of education. The supply lecture will cover most of the important policy debates in modern economies concerning the K-12 education policy. The course will draw on a number of outside readings and a set of draft chapters from a book I am writing.

### Course Outline

- Human Capital Models
- Empirical Impacts of Education
- Human Capital Spillovers
- Mechanism Design and the Public Funding of Education

## Global Health

Instructor: Alessandro Tarozzi

Health is a key form of human capital. Despite the massive gains in most human health indices during the past several decades, huge disparities remain, both within and across countries. Economic development and health are closely intertwined, but the causal link that goes from one to the other (and/or vice versa) is very hard to study rigorously in the data.

The primary aim of this course is to provide an introduction to some of the fundamental Global Health topics studied by development economists. The course will also cover a number of key methodological issues that are essential to study such topics empirically, including in the context of Randomized Controlled Trials.

## Worker Mobility in Globalized Labor Markets: Causes and Consequences of Migration

Instructor: Joan Llull

### Course Outline

Part I: Migration Decisions

- International migration decisions
  - Migration Decisions
  - Immigration Selection: The Roy Model
  - Empirical Evidence
- Structural estimation of models of internal migration

Part II: Economic consequences of immigration

- Wage effects of immigration
  - Effects on local labor markets
  - National level approaches
- Assimilation of immigrants

# Barcelona Macroeconometrics Summer School (BMaSS)

Macroeconometrics is an important area of research in economics. Time series methods for empirical macroeconomics have become very popular and widely used in the academia as well as in public and private institutions. The goal of the **Barcelona Macroeconometrics Summer School** is to offer courses covering a wide range of topics in macroeconometrics.

It is directed by **Luca Gambetti** (UAB and Barcelona GSE)

## Fees

Regular fee: **1250 €**

Reduced fee: **700 €**

## Course offering summer 2016

All courses are 10 hours long of lecture and 5 hours of practical time.

Course	Dates	Instructor
<b>Bayesian Time Series Methods: Introductory</b>	June 27 - July 1	Gary Koop
<b>Empirical Time Series Methods for Macroeconomic Analysis: Introductory</b>	June 27 - July 1	Luca Gambetti
<b>Modeling Non-stationary and Non-linear Time Series</b>	June 27 - July 1	Laura Mayoral Gabriel Pérez-Quirós
<b>Bayesian Time Series Methods: Advanced</b>	July 4 - 8	Dimitris Korobilis
<b>Empirical Time Series Methods for Macroeconomic Analysis: Advanced</b>	July 4 - 8	Luca Gambetti
<b>Bayesian Methods for DSGE Models</b>	July 4 - 8	Kristoffer Nimark

## Instructors



**Gary Koop** is a Professor in the Department of Economics at the University of Strathclyde. He received his PhD from the University of Toronto in 1989. He

has held university posts in the UK, the US and Canada. His research interests lie in the field of Bayesian econometrics with a particular focus on macroeconometrics. He has a wide range of publications of theoretical and empirical work within this field. He has written several textbooks including Bayesian Econometrics and Bayesian Econometric Methods.



**Laura Mayoral** is a Barcelona GSE affiliated professor and works at the Institute for Economic Analysis (IAE) since 2006. Before joining the institute she was Assistant Professor

and Ramón y Cajal Fellow at Universitat Pompeu Fabra and Universitat Autònoma de Barcelona. She has also been visiting professor at New York University (Abu Dhabi), the Paris School of Economics and the Department of Economics of the University of Gothenburg.





**Luca Gambetti** is Associate Professor of Economics at UAB. He is a research fellow of MOVE (Markets, Organizations and Votes in Economics) and an extern member of RECent. He has received a research grant from Ramon Areces Foundation for his project “Heterogeneous Consumers and Public Expenditure Shocks.”



**Dimitris Korobilis** (PhD, University of Strathclyde) is an associate professor of Economics at the University of Glasgow, Adam Smith Business School. He has been a PostDoctoral Fellow at the Center for Operations Research and Econometrics (CORE) in Belgium, a visiting researcher at the Deutsche Bundesbank, and a visiting assistant professor at the University of Rennes 1.



**Gabriel Pérez-Quirós** has a B.A. in Economics from Universidad de Murcia (1989), Master in Economics and Finance from CEMFI (1991), and PhD in Economics from the University of California San Diego (1996). He is currently the Unit Head of Macroeconomic Research at the Research Department of the Bank of Spain. He previously worked on business cycle research at the Federal Reserve Bank of New York and the European Central Bank..



**Kristoffer Nimark** was Researcher at the Center for Research on International Economics (CREI), Adjunct Professor at Universitat Pompeu Fabra, and Affiliated Professor of the Barcelona GSE until 2014. Previously he was a Visiting Assistant Professor at New York University and Senior Research Manager at the Reserve Bank of Australia.

## Bayesian Time Series Methods: Introductory

Instructor: Gary Koop

This is a course in introductory Bayesian econometrics with a focus on models used in empirical macroeconomics. It begins with a brief introduction to Bayesian econometrics, describing the main concepts underlying Bayesian theory and seeing how Bayesian methods work in the familiar context of the regression model. Computational methods are of great importance in modern Bayesian econometrics and these are discussed in detail.

### Course Outline

- Bayesian Basics
- Bayesian Model Averaging and Model Selection
- Bayesian State Space Modelling

## Empirical Time Series Methods for Macroeconomic Analysis: Introductory

Instructor: Luca Gambetti

The objective of the course is twofold. First, to present some of the most popular time series models designed to analyze the propagation mechanisms and measure the effects of macroeconomic shocks. In particular we will cover Structural Vector Autoregressive models as well as several extensions like the Factor Augmented VAR, Smooth transition VAR, Threshold VAR and Time-Varying Coefficients VAR. The second objective is to discuss some recent applications of these models in macroeconomics.

### Course Outline

- Structural VAR (SVAR) models
- Structural VAR (SVAR) models: Applications
- Factor Augmented VAR (FAVAR)
- Threshold VAR (TVAR) and Smooth Transition VAR (STVAR)
- Time-Varying Coefficients Models

## Modeling Non-stationary and Non-linear Time Series

Instructors: Laura Mayoral and Gabriel Pérez-Quirós

The goal of this course is to introduce some popular non-stationary and non-linear time series models that have been found to be effective at modeling macroeconomic and financial time series data.

### Selected Topics

- Linear models for nonstationary data. Integration and fractional integration. Univariate and panel unit root tests, non-stationary dynamic factor models.
- Cointegration and Fractional cointegration.
- Measuring persistence. Impulse response functions and related methods. Aggregation and persistence.
- Non-linear methods. Markov Switching and Threshold models.
- Univariate and multivariate analysis
- Dynamic non linear factor models
- Real time assessment of recession probabilities

## Bayesian Time Series Methods: Advanced

Instructor: Dimitris Korobilis

The main aim of this course is to provide a thoughtful understanding of Bayesian methods in the analysis of macroeconomic time series. The emphasis throughout this course is on Bayesian estimation and computation. We will focus on the Gibbs sampler which allows us to estimate a large class of models (e.g. Markov Switching models, time-varying parameter VARs, dynamic factor models, stochastic volatility models).

### Course Outline

- Introduction: Monte Carlo integration, Gibbs sampling, Bayesian inference. An example: the Bayesian regression
- Bayesian Multivariate Models: panel VAR, large Bayesian VAR
- State space models: Bayesian Dynamic Factor Model and Stochastic volatility models
- Time-Varying Parameters VAR with applications
- Regime switching VAR with applications

## Empirical Time Series Methods for Macroeconomic Analysis: Advanced

Instructor: Luca Gambetti

This is the continuation of the first week course "Empirical Time Series Methods: Introductory" but can be taken independently.

The course represents an advanced course in macroeconomic analysis with empirical time series models. The starting point is to illustrate the problem of non-fundamentalness, a problem that can arise in SVAR models because of a gap between the information set of the econometrician and that of the agents.

### Course Outline

- Non-fundamentalness and non-invertibility in SVAR models
- Structural models with large cross-section
- Structural models with large cross-section: Applications
- Empirical models under imperfect information
- Empirical models under imperfect information: Application

## Bayesian Methods for DSGE Models

Instructor: Kristoffer Nimark

The objective of the course is to teach student how to use state of the art Bayesian methods to estimate and analyze modern macroeconomic models. The course will cover the most popular methods to construct posterior estimates of structural model parameters and probability intervals for arbitrary model outputs (such as impulse response functions and variance decompositions).

### Course Outline

- Macro models as data generating processes
- State Space Models and Likelihood based estimation
- Bayesian Estimation of DSGE models
- Bayesian analysis of DSGE models
- Structural empirical models of news, noise and imperfect information





Graduate School of Economics

## MASTER IN **COMPETITION AND MARKET REGULATION**

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- Economic theory, especially in the areas of microeconomics, industrial economics, information economics, game theory and strategic behavior.
- Mastery of fundamentals of competition law and its sources.
- Understand theory and models of regulation and in particular the basic regulatory framework of the main industrial sectors.
- Present cases in public, developing specific skills for discussion and arguments from different points of view.
- Write technical reports based on the combination of real data analysis, analysis of relevant economic literature and its own criteria.



Graduate School of Economics

# MASTER IN **MACROECONOMIC POLICY AND FINANCIAL MARKETS**

[www.barcelonagse.eu/masters](http://www.barcelonagse.eu/masters)



- Econometric techniques required for a state-of-the-art applied analysis.
- Numerical methods and simulation techniques useful in quantitative macroeconomics and in policy design and evaluation.
- Ability to write technical and executive reports and the skills to publicly communicate and discuss research work.



# Barcelona Microeconometrics Summer School (BMiSS)

The increasing availability of individual data from surveys has led not only to a significant growth in the number of academic jobs of an empirical nature using this type of information but also to a greater number of studies commissioned by public and private institutions in which this type of data is used.

The characteristics of this type of data are such that statistical and econometric techniques appropriate for their treatment have a specific nature, generally differentiated from those appropriate for time series data.

It is directed by **Sergi Jiménez-Martín** (UPF and Barcelona GSE).

## Fees

Regular fee: **1200 €**

Reduced fee: **675 €**

## Course offering summer 2016

All courses include 10 hours of lecture time and 5 hours of practical time.

Course	Dates	Instructor
<b>Panel Data Linear Analysis</b>	June 27 - July 1	Badi Baltagi
<b>Econometrics of Cross-section Data with Applications</b>	June 27 - July 1	Jaume Garcia-Villar
<b>Quantitative Methods for Public Policy Evaluation</b>	July 4 - 8	Stephan Litschig
<b>Dynamic and Non-linear Panel Data Models</b>	July 4 - 8	Sergi Jiménez-Martín J.M. Labeaga

## Instructors



**Badi Baltagi** is currently Distinguished Professor of Economics at Syracuse University and Part-time Chair in Economics at the University of Leicester. He holds a PhD. in Economics from the University of Pennsylvania. He is Senior

Research Associate at the Center for Policy Research at Syracuse University and is a Research Fellow at several other institutions.



**Stephan Litschig** (PhD, Columbia University) is a Post-Doc Researcher at the Institute for Economic Analysis (IAE-CSIC) and a Barcelona GSE Affiliated Professor. His research interests include development, public, and political economics, and microeconometrics.



**José María Labeaga** is professor of Economics at the UNED, Research Affiliated at UNU-MERIT, Maastricht University.



**Jaume Garcia-Villar** is a professor at the Universitat Pompeu Fabra. He is chairman of the Social Sciences Committee for Lecturers and Colaboradores, Agència de la Qualitat Universitaria, Generalitat de Catalunya. He received his PhD from the London School of Economics and Political Science (1985). He was President of the Spanish National Statistics Institute from 2008 until 2011.



**Sergi Jiménez-Martín** is Associate Professor at Universitat Pompeu Fabra and Affiliated Professor at the Barcelona GSE. He received his PhD from the Universitat Pompeu Fabra in 1994. He is currently Chair of the FEDEA-La

Caixa Economia de la Salut y Hábitos de Vida. He is also a member of the Scientific Council of Applied Economic Perspectives and Policy as well as Cuadernos Económicos de ICE.

## Panel Data Linear Analysis

Instructor: Badi Baltagi

This course considers methodological and substantive issues concerning the analysis of panel data. It starts by reviewing basic panel data models emphasizing the benefits and limitations of panel data over time series or cross-section data. Basic estimation and testing methods for random and fixed effects models are reviewed and illustrated using empirical applications using Stata and EViews.

### Course Outline

- Basic Review of Panel Data Methods: Estimation and Test of Hypotheses
- Simultaneous Equations and Endogeneity in Panel Data Models
- Dynamic Panel Data: introduction
- Nonstationary Panels

## Econometrics of Cross-section Data with Applications

Instructor: Jaume Garcia-Villar

The use of survey data is becoming a common practice among economists and social scientists both at academic and professional level. The main characteristic of this data is that it contains qualitative information, making the use of the regression model not suitable when we deal with models where the dependent variable is either a choice or a status or where the dependent variable only takes non negative values and a significant percentage of the observations are zeroes.

### Course Outline

- Discrete Choice Models (I)
- Discrete Choice Models (II)
- Limited-Dependent Variable models (I)
- Duration models

## Quantitative Methods for Public Policy Evaluation

Instructor: Stephan Litschig

The objective of this course is to introduce the main approaches used in the evaluation of public policies: randomized evaluations, natural experiments, the regression discontinuity design, selection on observables and difference-in-differences. The course presents strengths and weaknesses of each approach in terms of internal and external validity.

### Course Outline

- Randomized Evaluations (Experiments)
- Natural or Quasi-Experiments and the Problem of Weak Instruments
- Regression Discontinuity Designs
- Selection on Observables (regression control and matching)
- Difference-in-Differences
- Work-in-progress Presentations by Participants

## Dynamic and Non-linear Panel Data Models

Instructors: Sergi Jiménez-Martín and J.M. Labeaga

This course provides up-to-date coverage of dynamic panel data models, discrete choice panel data models as well as censored panel data models and the estimation of dynamic panel data models subject to selection. Apart from a review of relevant theory, the focus of the course is on the practical application of these models to various data contexts: large  $T$  – small  $N$ ; small  $T$  – large  $N$ , unbalanced panels, rotating panels and pseudo panels constructed from cohort data.

### Course Outline

- Linear Panel Data Models
  - Introduction to panel data
  - Dynamic linear panel data models
- Non-Linear Panel Data Models
  - Censored panel data models
  - Sample selection panel data models
- Discrete choice panel data models



## Barcelona Political Economy Summer School (BPSS)

The **Barcelona Political Economy Summer School** offers courses on different topics in Political Economy and is taught by leading experts in the field.

The courses cover theoretical and empirical aspects and are designed to provide students and researchers with knowledge of the most recent developments in the field. During the courses, instructors are available to discuss research ideas and projects with the program participants

It is directed by **Patricia Funk** (UPF and Barcelona GSE - on leave) and **Giacomo Ponzetto** (CREI, UPF and Barcelona GSE)

### Fees

Regular fee: **1050 €**

Reduced fee: **650 €**

### Course offering summer 2016

Course	Dates	Instructor
<b>Political Agency and the Selection of Politicians</b>	June 27 - July 1	Gianmarco León Giacomo Ponzetto
<b>Political Parties and Interest Groups</b>	June 27 - July 1	James M. Snyder, Jr
<b>Economic Analysis of Electoral Politics</b>	July 4 - 6	Patricia Funk Giacomo Ponzetto
<b>Democratization, Civil Conflict, and Development</b>	July 6 - 8	Gerard Padró i Miquel

### Instructors



**Gianmarco León** is Juan de la Cierva Researcher at Universitat Pompeu Fabra. His research focuses on political economics in developing countries and more broadly on development economics. Current research projects includes studying voter's behavior in Peru, examining how voters react to different monetary (dis-)incentives to vote and how social networks influence voting decisions.



**James M. Snyder, Jr** is the Leroy B. Williams Professor of History and Political Science in the Department of Government at Harvard University. He is a Research Associate at the National Bureau of Economic Research, and a Fellow of the American Academy of Arts and Sciences.



**Patricia Funk** is Associate Professor at Universitat Pompeu Fabra. Previously, she was Visiting Assistant Professor at the Stockholm Institute of Transition Economics at Stockholm School of Economics and Visiting Scholar at University of Chicago.



**Giacomo Ponzetto** is Researcher at CREI and Ramon y Cajal Researcher at UPF. He has been a Research Affiliate of CEPR since 2011. He is a recipient of the BBVA Foundation Grant for Researchers, Innovators and Cultural Creators.

Professor Ponzetto is associate editor of the *Journal of the European Economic Association*.



**Gerard Padró i Miquel** received his PhD at the Massachusetts Institute of Technology and taught at Stanford University. He is co-director of the State Capabilities Programme in the International Growth Centre, a Research Fellow at the National Bureau of Economic Research, Research Affiliate at the Centre for Economic Policy Research and a co-editor of the *Journal of Development Economics*.

## Political Agency and the Selection of Politicians

Instructors: Gianmarco León and Giacomo Ponzetto

The objective of the course is to provide students with a critical overview of recent contributions in two topics of key relevance in the current debate in political economics: political agency and accountability, and the selection of politicians and bureaucrats.

### Course Outline

- The Theory of Political Agency
- Voter Information and Political Decentralization
- Government Accountability
- Politics and the Media
- Politicians' Motivations and Selection

## Political Parties and Interest Groups

Instructor: James M. Snyder, Jr

This course will examine the various ways political parties and interest groups influence the political process, focusing especially on electoral outcomes and voter behavior, legislative decision making, and policy outcomes. The course has two parts, one primarily on political parties and one on interest groups. In both parts the topics and readings will contain a mix of theory and empirics.

### Course Outline

- Political parties I - Party labels as ideological brands and informational cues
- Political parties II - Party organizations and political careers
- Political parties III - Parties and distributive politics
- Interest groups I - Basic pressure group models and evidence
- Interest groups II - Recent theory and developments

## Economic Analysis of Electoral Politics

Instructor: Patricia Funk and Giacomo Ponzetto

The objective of this course is to analyze critically the most recent research on electoral politics. The first part of the course will consider the seminal question in the economics of electoral representation. The second part of the course will look in detail at the impact of specific policies and institutional arrangements.

### Course Outline

- Preference Aggregation through Voting
- Voter Rationality and Incentives to Vote
- Voting Laws and Voter Turnout
- Franchise Extensions
- Affirmative Action in Politics
- Direct Democracy

## Democratization, Civil Conflict, and Development

Instructor: Gerard Padró i Miquel

The objective of this course is to critically examine recent contributions to the political economy of developing countries. The first part of the course will look at the recent literature on the origin of political, economic and social institutions. The second part of the course will look at two instances of institutional failure: civil conflict and corruption.

### Course Outline

- Democratization and Institutional Reform
- Institutional Persistence and the Weight of History
- Ethnic Politics: theory and evidence
- Civil Conflict: theory and evidence
- Corruption in Developing Countries



Graduate School of Economics

# MASTER IN **ECONOMICS OF PUBLIC POLICY**

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- A rigorous understanding of economic theory behind the design and evaluation of public policies.
- Ability to apply state-of-the-art empirical tools to evaluate public policies.
- An understanding of institutional frameworks in which
- public policies are designed and implemented.
- Ability to write technical and non-technical reports
- on public policy.

Barcelona GSE Summer School

2017

June 26 - July 7

Save the Date



The **Barcelona Graduate School of Economics** is one of the leading schools in postgraduate economic education promoting cutting-edge research and world-class international graduate programs in economics and related fields. The School enjoys close collaboration with its founding academic institutions (Universitat Pompeu Fabra, Universitat Autònoma de Barcelona, CSIC and CREI) in teaching and research as well as in the shared use of resources.

The Barcelona GSE offers one-year, full-time master programs that prepare students for doctoral study and provide solid training for top jobs both in the public and private sector. All programs are taught in English.

### The Master programs offer is:

- Competition and Market Regulation
- Data Science
- Economics
- Economics of Public Policy
- Finance
- International Trade, Finance, and Development
- Macroeconomic Policy and Financial Markets

The Barcelona GSE also offers intensive, targeted short courses for researchers, professionals and graduate students.

### Intensive Courses:

- Quantitative Methods for Competition Analysis
- Systemic Risk and Prudential Policy
- Energy Economics: Current methods and Policy challenges
- Unconventional Monetary Policy



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### Contact us:

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