

INTRODUCTION

The sixteenth edition of CREI's Barcelona Macroeconomics Summer School (BMSS 2014) will be held on the Ciutadella campus of Universitat Pompeu Fabra (UPF) in Barcelona, from June 30 to July 18, 2014. BMSS 2014 will offer a variety of courses taught by recognized experts in their fields. The courses will cover recent developments in different areas of macroeconomics, including growth, international finance and trade, and monetary policy. The courses are aimed at graduate students as well as faculty members or researchers willing to brush up their knowledge and expose themselves to the latest advances in academic research. During the summer school, faculty will be available for discussion of research ideas and projects, as well as the lectures' contents.

BMSS 2014 will take place on UPF's main campus, located in downtown Barcelona, at walking distance to the beach. In addition to the intellectual excitement, summer school participants are guaranteed to find in Barcelona cultural and entertainment events that suit every taste and pocket.

BMSS 2014 is organized by the *Center for Research in International Economics* (CREI), a research institute sponsored by the Generalitat de Catalunya and Universitat Pompeu Fabra, in fulfilment 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>

We look forward to meeting you in our Summer School!

COURSES

Week 1 June 30 – July 4

The Macroeconomics of Credit and Asset Bubbles

Instructor: Jaume Ventura

Selected Topics:

- Credit/asset bubbles and market efficiency
- A framework to study the macroeconomic effects of credit and asset bubbles
- Application (1): The 2000-01 stock market collapse and global imbalances
- Application (2): The 2007-08 financial crisis and the ongoing sovereign debt crisis in Europe

Dates: June 30 – July 4

Time: 9:00 – 11:00 h

Price: 750 Euros (Students: 500 Euros)

Growth, Distribution and Innovation

Instructor: Xavier Sala-i-Martin

Selected Topics:

- Estimating poverty and inequality using GDP, surveys and... satellite data!
- Does development aid work? Cross country evidence, Millennium Villages, Random Field Experimentation.
- The importance of technological progress in the history of economic growth: from Lucy to Zuckerberg

- Research and development versus non-research innovation
- The education revolution in a creative world
- What does Africa need to do to really be the next miracle?

Dates: June 30 – July 4

Time: 11:30 – 13:30 h

Price: 750 Euros (Students: 500 Euros)



Recent Developments in Forecasting

Instructor: Barbara Rossi

Selected Topics:

- Recent developments in forecasting methodologies (e.g. forecasting with many predictors)
- New methods for evaluating models' forecasts
- Application 1: How well can we forecast inflation and output growth?
- Application 2: Do reduced-form models forecast better than DSGE models?

Dates: June 30 – July 4

Time: 14:30 – 16:30 h

Price: 750 Euros (Students: 500 Euros)

Week 2 July 7 – 11

The Macroeconomics of Financial Globalization

Instructor: Alberto Martín

Selected Topics:

- Financial globalization: the facts
- Macroeconomic effects of financial globalization: conventional view and evidence
- Rethinking the convention: a workhorse model of capital flows and financial frictions
- Policy implications: the case for capital controls
- Causes and consequences of global imbalances

- Capital flows, the financial crisis of 2007-08, and Europe's banking woes.

Dates: July 7 – July 11

Time: 9:00 – 11:00 h

Price: 750 Euros (Students: 500 Euros)



Sovereign Debt Crises: Theory, Evidence and Europe

Instructor: Fernando Broner

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

Dates: July 7 – July 11

Time: 11:30 – 13:30 h

Price: 750 Euros (Students: 500 Euros)

International Trade and Macroeconomics

Instructor: Gino Gancia

Selected Topics:

- Technology, geography and trade: a quantitative analysis
- Offshoring, global supply chains and the rise of China
- Trade, global imbalances and the Great Recession
- Trade and labor markets: wage inequality and unemployment in a global economy

- International markets and national governments

Dates: July 7 – July 11

Time: 14:30 – 16:30 h

Price: 750 Euros (Students: 500 Euros)

Week 3 July 14 – 18

Sovereign Debt Crises: Concepts, History, and Policy Implications

Instructor: Hans Joachim Voth

Selected Topics:

- Is this time different? Sovereign lending and debt crises over the long run
- State capacity and the limits of debt servicing
- Austerity and social instability
- The price of default: investor returns from sovereign debt, 1850-2010

- Punishment vs. reputation in theory and practice
- Regulating stability: plans for a “New Financial Architecture”

Dates: July 14 – July 18

Time: 09:00 – 11:00 h

Price: 750 Euros (Students: 500 Euros)

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

Instructor: Andrea Caggese

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 cycles: the basic framework
- Finance, firm dynamics and the business cycle: theory and applications to the 2007-2009 recession

Dates: July 14 – July 18

Time: 11:15 – 13: 15 h

Price: 750 Euros (Students: 500 Euros)

Firm, Trade, and Aggregate Fluctuations

Instructor: Julian di Giovanni

Selected Topics:

- Macroeconomic volatility and international trade
- Business cycle comovement and international trade
- Sectoral input-output linkage and the transmission of shocks
- Firms, Zipf's Law, and granular fluctuations
- The role of firm- and sector-level shocks in generating aggregate fluctuations

Dates: July 14 – July 18

Time: 14:15 – 16: 15 h

Price: 750 Euros (Students: 500 Euros)

Labor Markets and Monetary Policy

Instructor: Jordi Galí

Selected Topics:

- Introducing unemployment in New Keynesian models
- Unemployment and the design of monetary policy
- The return of the wage Phillips curve
- Sources of unemployment fluctuations
- The gains from wage flexibility

Dates: July 14 – July 18

Time: 16:30 – 18:30 h

Price: 750 Euros (Students: 500 Euros)

BIOGRAPHICAL SKETCHES

Fernando Broner earned his PhD in Economics at the Massachusetts Institute of Technology (MIT) in 2000. Currently, he is a Senior Researcher at the Center for Research in International Economics (CREI) and an Adjunct Professor at Universitat Pompeu Fabra (UPF). He is also Co-Director of the MSc. in International Trade, Finance and Development at the Barcelona Graduate School of Economics and a Research Fellow at CEPR. 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 has served as an associate editor of the *Journal of International Economics*. He was awarded a European Research Council Starting Grant in 2010. His research interests include international economics, finance, and macroeconomics.

Selected publications:

- "Sovereign Debt Markets in Turbulent Times: Creditor Discrimination and Crowding-Out Effects", (with A. Erce, A. Martin, and J. Ventura), *Journal of Monetary Economics*, forthcoming.
- "Why do Emerging Economies Borrow Short Term?" (with G. Lorenzoni and S. Schmukler), *Journal of the European Economic Association*, 11(S1), 67-100, 2013.
- "Globalization and Risk Sharing", (with J. Ventura), *Review of Economic Studies*, 78(1), 49-82, 2011.
- "Sovereign Risk and Secondary Markets", (with J. Ventura and A. Martin), *American Economic Review*, 100(4), 1523-1555, 2010.
- "Discrete Devaluations and Multiple Equilibria in a First Generation Model of Currency Crises," *Journal of Monetary Economics*, 55(3), 592-605, 2008.
- "When in Peril Retrench: Testing the Portfolio Channel of Contagion," (with G. Gelos and C. Reinhart), *Journal of International Economics*, 69(1), 203-230, 2006.



Andrea Caggese earned his PhD in Economics at London School of Economics and Political Science in 2002. Currently he is an Associate Professor at Universitat Pompeu Fabra (UPF), an Affiliated Professor at Barcelona Graduate School of Economics, and a 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.

Selected publications:

- "Financing Constraints, Firm Dynamics, Export Decisions, and Aggregate Productivity", (with V. Cuñat) *Review of Economic Dynamics*, 16(1), 177-193, 2013.
- "Entrepreneurial Risk, Investment and Innovation", *Journal of Financial Economics*, 106(2), 287-307, 2012
- "Financing Constraints and Fixed Term Employment Contracts", (with V. Cuñat), *Economic Journal*, 118 (533), 2013-2046, 2008.
- "Testing Financing Constraints on Firm Investment Using Variable Capital", *Journal of Financial Economics*, 86, 683-723, 2007.
- "Financing Constraints, Irreversibility and Investment Dynamics", *Journal of Monetary Economics*, 54, 2102-2130, 2007.



$$\delta = \frac{1 - \sqrt{1 - 4\beta a^2}}{2a\beta} \in (0, 1)$$

Julian di Giovanni

earned his PhD in Economics at the University of California, Berkeley in 2004. Currently he is an Associate Professor at Universitat Pompeu Fabra (UPF), an Affiliated Professor at Barcelona Graduate School of Economics, a Research Associate at the Center for Research in International Economics (CREI), and a 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.



Selected Publications:

- "The Global Welfare Impact of China: Trade Integration and Technological Change," (with A. Levchenko and J. Zhang), *American Economic Journal: Macroeconomics*, forthcoming.
- "Firm Entry, Trade, and Welfare in Zipf's World," (with A. Levchenko), *Journal of International Economics*, 89(2), 283-296, 2013.
- "Country Size, International Trade and Aggregate Fluctuations in Granular Economies," (with A. Levchenko), *Journal of Political Economy*, 120(6), 1083-1132, 2012.
- "Power Laws in Firm Size and Openness to Trade: Measurement and Implications," (with A. Levchenko and R. Rancière), *Journal of International Economics*, 85(1), 42-52, 2011.
- "Putting the Parts Together: Trade, Vertical Linkages, and Business Cycle Comovement," (with A. Levchenko), *American Economic Journal: Macroeconomics*, 2(2), 95-124, 2010.
- "Trade Openness and Volatility," (with A. Levchenko), *Review of Economics and Statistics*, 91(3), 558-585, 2009.

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 and Research Professor at the Barcelona Graduate School of Economics. 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. His research interests include macroeconomics and monetary theory.

Selected Publications:

- "Monetary Policy and Rational Asset Price Bubbles", *American Economic Review*, forthcoming
- *Unemployment Fluctuations and Stabilization Policies: A New Keynesian Perspective*, Cambridge (MA): The MIT Press, 2011.
- *Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton (NJ): Princeton University Press, 2008.
- "Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment", (with O. Blanchard), *American Economic Journal: Macroeconomics*, 2(2), 1-30, 2010.
- "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?" *American Economic Review*, 249-271, 1999.
- "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory", (with R. Clarida and M. Gertler), *Quarterly Journal of Economics*, 115(1), 147-180, 2000.



Gino Gancia earned his PhD in Economics at the Institute for International Economic Studies (Stockholm University) in 2003. Currently, he is a Senior Researcher at the Center for Research in International Economics (CREI), Affiliated Professor at the Barcelona Graduate School of Economics and a 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* and the *Economic Journal*. 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.



Selected publications:

- “Competing Engines of Growth: Innovation and Standardization”, (with D. Acemoglu and F. Zilibotti), *Journal of Economic Theory*, 147, 570-601, 2012.
- “Trade, Markup Heterogeneity and Misallocations”, (with P. Epifani), *Journal of International Economics*, 83, 1-13, 2011.
- “Openness, Government Size and the Terms of Trade”, (with P. Epifani), *Review of Economic Studies*, 76, 629-668, 2009.
- “The Skill Bias of World Trade”, (with P. Epifani), *Economic Journal*, 118, 927-960, 2008.
- “North-South Trade and Directed Technical Change”, (with A. Bonfiglioli), *Journal of International Economics*, 76, 276-296, 2008.
- “Increasing Returns, Imperfect Competition and Factor Prices”, (with P. Epifani), *Review of Economics and Statistics*, 88, 583-598, 2006.

$$\delta = \frac{1 - \sqrt{1 - 4\beta a^2}}{2a\beta} \in (0, 1)$$

Alberto Martin earned his PhD in Economics at Columbia University in 2005. Currently, he is a Senior Researcher at the Center for Research in International Economics (CREI), an Adjunct Professor at Universitat Pompeu Fabra (UPF) and a Research Professor at the Barcelona Graduate School of Economics. He is also Research Affiliate at the CEPR. He has been a Visiting Scholar at the International Monetary Fund, a consultant for the United Nations Development Programme, and an economist in Argentina’s Ministry of Economics. He has received the Lamfalussy Research Fellowship (European Central Bank) and the Fulbright Fellowship. His work has appeared in the *American Economic Review*, the *Journal of Economic Theory* and the *Journal of International Economics*, among others. His research interests include macroeconomics, finance and international economics.



Selected publications:

- “International Capital Flows and Credit Market Imperfections: A Tale of Two Frictions”, (with F.Taddei), *Journal of International Economics*, 89(2), 441-452, 2013.
- “Understanding Bubbly Episodes”, (with V. Carvalho and J. Ventura), *American Economic Review P&P*, 102(3), 95-100, 2012.
- “Economic Growth with Bubbles”, (with J. Ventura), *American Economic Review*, 102(6), 3033-3058, 2012.
- “Theoretical Notes on Bubbles and the Current Crisis”, (with J. Ventura), *IMF Economic Review*, 59(1), 6-40, 2011.
- “Sovereign Risk and Secondary Markets”, (with F. Broner and J. Ventura), *American Economic Review*, 100(4), 1523-1555, 2010.
- “A Model of Collateral, Investment, and Adverse Selection”, *Journal of Economic Theory*, 144(4), 1572-1588, 2009.

Barbara Rossi

earned her PhD in Economics at Princeton University in 2001. Currently she is an ICREA Professor at Universitat Pompeu Fabra (UPF), an Affiliated Professor at Barcelona Graduate School of Economics, and a 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 Berkeley University, 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.



Selected Publications:

- "Advances in Forecasting under Model Instability", in G. Elliott and A. Timmermann (eds.), *Handbook of Forecasting*, Volume 2, Amsterdam: Elsevier, forthcoming.
- "Forecasting in Macroeconomics", (with R. Giacomini), in N. Hashimzade and M. Thornton (eds.), *Handbook of Research Methods and Applications in Empirical Macroeconomics*, Cheltenham (UK): Edward Elgar Publishing Ltd, forthcoming.
- "Can Exchange Rates Forecast Commodity Prices?", (with Y. Chen and K. Rogoff), *Quarterly Journal of Economics*, 125(3), 1145-1194, 2010.
- "Out-of-Sample Forecast Tests Robust to Choice of Window Size", (with A. Inoue), *Journal of Business and Economic Statistics*, 30(3), 432-453, 2012.
- "Detecting and Predicting Forecast Breakdowns", (with R. Giacomini), *Review of Economic Studies*, 76(2), 669-705, 2009.

Xavier Sala-i-Martin

earned his PhD in Economics at Harvard University in 1990. Currently he is Professor in the Department of Economics at Columbia University, and a Visiting Professor at Universitat Pompeu Fabra (UPF). He has been an Associate Professor at the Department of Economics at Yale University and a Visiting Professor at Harvard University. He has also taught at Universitat Pompeu Fabra, Harvard University, New York University, Yale University and the International Monetary Fund, among other places. He is senior economic adviser to the World Economic Forum (WEF), author of the Global Competitiveness Report of the WEF, Research Associate at the NBER and has been consultant for the World Bank and the International Monetary Fund. In 2006 he was the President of FC Barcelona. His research interests include economic growth, macroeconomics, public finance and social security, health and population economics, and monetary economics.

Selected publications:

- "The World Distribution of Income: Falling Inequality and Convergence, Period", *Quarterly Journal of Economics*, 121(2), 351-397, 2006.
- "Determinants of Long-Term Growth: A Bayesian Average of Classical Estimates (Bace) Approach", (with G. Doppelhofer and R. Miller), *American Economic Review*, 94(4), 813-835, 2004.
- "The Economic Tragedy of the XXth Century: Growth in Africa", (with E.V. Artadi), in *African Competitiveness Report of the World Economic Forum*, 2003.
- *Economic Growth*, (with R. Barro), 2nd Edition The MIT Press, (Cambridge, MA), 2003.
- "Health Investment Complementarities under Competing Risks", (with W. Dow and T. Philipson), *American Economic Review*, 89(5), 1358-71, 1999.



Jaume Ventura earned his PhD in Economics at Harvard University in 1995. Currently he is a Senior Researcher at the Center for Research in International Economics (CREI), a Research Professor at the Barcelona Graduate School of Economics and a 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.

Selected publications:

- “Economic Growth with Bubbles”, (with A. Martin), *American Economic Review*, 102(6), 3033-3058, 2012.
- “Bubbles and Capital Flows”, *Journal of Economic Theory*, 147(2), 738-758, 2012.
- “Theoretical Notes on Bubbles and the Current Crisis”, (with A. Martin), *IMF Economic Review*, 59(1), 6-40, 2011.
- “Sovereign Risk and Secondary Markets”, (with F. Broner and A. Martin), *American Economic Review*, 100(4), 1523-2555, 2010.
- “Comparative Advantage and the Cross-section of Business Cycles”, (with A. Kraay), *Journal of the European Economic Association*, 5(6), 1300-1333, 2007.
- “The Dot-Com Bubble, the Bush Deficits, and the US Current Account”, (with A. Kraay), in *G7 Current Account Imbalances: Sustainability and Adjustment*, R. Clarida (ed.), University of Chicago Press, 2007.



$$\begin{bmatrix} x_t \\ \pi_t \end{bmatrix} = \omega_a [\mathbf{I} - \rho_a \mathbf{A}_T]^{-1} \mathbf{B}_T \Delta a_t + \omega_g [\mathbf{I} -$$