BUDAPEST SCHOOL FOR CENTRAL BANK STUDIES

Courses 2016
Concept of training for central bankers

The Budapest School for Central Bank Studies, established by the Magyar Nemzeti Bank (the central bank of Hungary) in 2008, offers intensive weekly courses for central bank and government economists in macroeconomics, monetary economics, international economics, banking and financial economics and quantitative and econometric methods specifically tailored to the needs of public policy institutions. Interested academic participants are also welcome to attend. All courses are held in English.

The programme director is Professor Fabio Canova (BI Norwegian Business School), a world leading expert in the field of macroeconomics and quantitative methods, who has taught numerous courses in central banks and international institutions for almost two decades.

The two weeks in the Spring 2016 term (March 21-March 25 and March 29-April 1) are devoted to intermediate level courses. These courses cover essential topics in macroeconomics, monetary economics, international economics and quantitative methods in order to endow staff with diverse educational backgrounds with the fundamental tools of modern macroeconomics. The 2016 titles are The econometrics of financial markets and Empirical methods for the study of the monetary transmission mechanism. These courses are aimed at people with a Masters Degree, e.g. mid-career officials who want to refresh their general knowledge, and especially young staff members who desire a systematic
introduction to the language and working tools needed to do research-based policy work.

The two weeks in the **Summer 2016** term (June 27-July 1, and July 4-8) are devoted to **advanced** topic courses. These courses cover topics in macroeconomics, monetary economics, international economics and quantitative methods that build on the intermediate level courses and develop knowledge on a wide range of topics of interest to central bankers. The 2016 titles are Exchange rate Dynamics and Predictability, and Monetary and fiscal interactions in modern central banking analysis. These courses are directed at (i) staff who want to fill gaps in their knowledge about important macroeconomic issues, (ii) mid-career officials who want to re-establish links with the frontiers of current macroeconomic research, and (iii) anyone interested in refreshing or acquiring knowledge about recent developments in academic macroeconomics and their application in policy analysis and debates.

**Price of the courses**

A **1,200 euro fee per week** will be charged for the courses. A weekly session consists of five (or four) days with **twenty hours** of classes **per course**. The fee includes course materials and a social event. Computers with Matlab will be available, but participants are also encouraged to bring their own laptop with Matlab installed.
Organisation of the courses

The number of participants is limited to 30 per course. Spaces are allocated on a first come, first serve basis. Courses are held in the conference centre of the Magyar Nemzeti Bank in downtown Budapest, Hungary. Participants pay for their own travel and accommodation expenses, and meals. The Bank can provide assistance in arranging accommodation.

Application and further information

Please fill out the application form and return it by email to budapestschool@mnb.hu by 2 March 2016 for the Spring courses and by 5 June 2016 for the Summer courses. For the application form and for further information please email us, at budapestschool@mnb.hu, or visit the School's website at http://www.mnb.hu/en/research/budapest-school-for-central-bank-studies

We look forward to meeting you in the Budapest School for Central Bank Studies.
General outline:
The use of quantitative methods in financial markets has experienced an extraordinary growth over the past three and a half decades. Nowadays finance professionals routinely use sophisticated statistical techniques, many of which are at the frontier of academic research. The purpose of this course is to present some of the most important econometric methods usually employed in financial markets. In particular, it contains a thorough analysis of some of the statistical techniques applied to portfolio management, financial consulting, and risk control. In addition to the lectures, students will conduct empirical and Monte Carlo simulation exercises. Although the lectures will be to a large extent self-contained, some background in both Econometrics and Finance Theory at the graduate level would be convenient.

Topics covered:
- Mean-variance frontiers. GMM estimation and inference
- Inferences about Mean Variance Frontiers for Arbitrage Portfolios and Gross Returns
- Time series models of volatility.
- Beyond mean variance analysis
**Spring 2016 Week 2**

Empirical methods for the study of the monetary transmission mechanism  
March 29-April 1, 2016

**Fabio Canova** (BI Norwegian Business School)

**General Outline:**  
The course presents conventional methods which are used to study the transmission mechanism of conventional and unconventional monetary shocks, their effects on lending and deposit rates, on the real economy and their international repercussions. Examples and applications will be discussed. Forecasting and counterfactual analyses will also be studied

**Topics covered:**
- Structural Vector Autoregression.
- Factor models and FAVARS.
- Bayesian approaches to structural time series analysis.
- Panel models, Panel VARs and partial pooling
General outline:
The goal of the course is to provide an answer to the question: „Does anything forecast exchange rates, and if so which variables?“. It is well known that exchange rate fluctuations are very difficult to predict using economic models, and that a random walk forecasts exchange rates better than any economic model (the Meese and Rogoff puzzle). However, the recent literature has identified a series of fundamentals/methodologies that claim to have resolved the puzzle. This course provides a critical review of the recent literature on exchange rate and illustrates the new methodologies and fundamentals that have been recently proposed guided by an up-to-date, thorough empirical analysis. During the course, we analyze the most important and the most recent econometric models that have been used in the literature (including linear, nonlinear, ECM, factor and BMA models) and review the many techniques that have been used to evaluate predictive ability.

Topics covered:
- Exchange rate dynamics
- Time series models of exchange rates
- Forecasting and evaluation
- Non-gaussianity, time variations, forecast combination.
Summer 2016 Week 4

Monetary and fiscal interactions in modern central banking analysis
July 4-8, 2016

Jesper Lindé (Stockholm School of Economics and Sveriges Riksbank)

General outline:
The course intends to introduce participants to key issues in monetary policy analyses taking into consideration fiscal policy issues. Key aspects of the transmission channels of monetary and fiscal policies in the workhorse in closed and open economy DSGE models will be examined. Great emphasis will be given to the practical implications for policy analysis and forecast scenario. A brief introduction (from the point of view of users) to estimation of structural models will be provided. At the end of the course participants will have a thorough understanding of fiscal and monetary interactions in models currently used in advanced central banks, both in closed and open economy settings, and will be able to use them for policy analysis.

Topics covered:
- A practitioners guide to Bayesian DSGE estimation
- Effects of fiscal policy in normal times and at the zero lower bound
- Effects of fiscal policy in currency unions
- International fiscal spillovers in currency unions.
- Impact of impaired credibility on the efficiency of fiscal consolidations
Some International Evidence on Output-Inflation Tradeoffs

This paper reports the results of an empirical study of real output-inflation tradeoffs, based on annual time-series from seventeen countries over the years 1951–67. These data are examined from the point of view of the hypothesis that average real stock prices are invariant under the rate of the presumption is that inferences on relevant, unobserved prices are optimally (or “rationally”) in light of the stochastic character of the econ

As I have argued elsewhere in my book, the theories developed along these lines will not place testable restrictions on the single equation. Then, they will not, for e

Instructors 2016

Enrique Sentana

Enrique Sentana has been Professor of Economics at CEMFI in Madrid since 1992. Prior to that, he was a lecturer at the LSE Economics Department. He is also affiliated with the LSE Financial Markets Group and the Centre for Economic Policy Research (CEPR). He holds a BSc in Economics from the University of Alicante, an MSc in Econometrics and Mathematical Economics from the London School of Economics and a PhD in Economics from the same institution.

He has served as editor of the Review of Economic Studies, co-editor of the Journal of Financial Econometrics and associate editor of several other journals. He has also been Scientific Organiser of the European Meetings of the Econometric Society, the Finance Forum and the Symposium of Economic Analysis, and has served as programme committee member of many other international conferences. He is a Fellow of the Econometric Society and former President of both the Spanish Finance Association and the Spanish Economic Association. He received the Rey Jaime I Prize awarded by the Fundacion Valenciana de Estudios Avanzados for highly significant scientific work in Economics in 2014.
He contributed to the development of multivariate dynamic factor models for time-varying volatilities and correlations, designing forward inference methods for them and analysing their asset pricing implications in theory and practice. He has also worked on the predictability of stock returns and exchange rates, volatility derivatives, inference methods for mean variance frontiers, identification tests of structural models and estimation by simulation. More recently, he has studied (conditional) distributions for financial returns, with applications to portfolio allocation, option valuation and risk management.

Recent publications:

Fabio Canova

Fabio Canova is Professor of Economics at BI Norwegian Business School, program director of the Budapest School of Central Bank Studies, Head of Training at the Florence School of Banking and Finance, Director of the International Association of Applied Econometrics, member of the scientific committee of the Euro Area Business Cycle network, a permanent research visitor at the European Central Bank and an editor of the Journal of Applied Econometrics.

In the recent past he has been program chair for the European Meetings of the Econometric Society 2014, a panelist of ANVUR in 2013, coeditor of the Journal of the European Economic Association from 2008 to 2013 and a referee for ERC, NSF, ESRC proposals. He has also held The Pierre Werner Chair at the European University Institute from 2012 to 2014, a ICREA research professorship at Universitat Pompeu Fabra from 2005 to 2012 and a chair in Monetary Economics at the University of Bern in 2008.

Has has taught classes in numerous universities and given professional courses at the Bank of England, Riksbank, Bank of Italy, Bundesbank, ECB, Bank of Spain, Bank of Portugal, Bank of Hungary, Bank of Argentina, Banco do Brazil, Banco de Peru, South African Central Bank, Central Bank of Indonesia, Swiss National Bank, Banco de Mexico, Banco
de La Republica de Colombia, Banco de Venezuela, Bank of Israel, Monetary and Banking Institute of Iran, Waifem, Central Bank of Chile, Central Bank of Korea, Bank of Albania, at the EABCN, at the Central Bank program in Genzersee, the IMF, the EU commission, the UK Foreign Office and UK treasury, among others. He has held consultancy positions with the Bank of England, the ECB, the Bank of Italy, the Bank of Spain, The Norges Bank and the IMF.

He has published over 85 articles in international journals and his graduate textbook, Methods for Applied Macroeconomic Research, has been published in 2007 by Princeton University Press and translated in Chinese in 2010.

Recent publications
• A general algorithm for estimating structural VARs (with F. Perez-Forero), Quantitative Economics, 6(2), 2015
• Choosing the variables to estimate singular DSGE (with C. Matthes and F. Ferroni), Journal of Applied Econometrics, 29, 1099-1117, 2014.
• The Dynamics of U.S. Inflation: Can Monetary Policy Explain the Changes?, (with F. Ferroni), Journal of Econometrics, 167(1), 47-60, 2011
Barbara Rossi

Barbara Rossi is an ICREA professor of Economics at Universitat Pompeu Fabra. She previously has been an Associate Professor with tenure at the department of Economics at Duke University, after earning her Ph.D. from Princeton University. She is a CEPR Fellow, is a member of the CEPR Business Cycle Dating Committee and a Director of the International Association of Applied Econometrics. She has also been visiting researcher at the University of California—Berkeley, the University of Montreal, UC San Diego, the Federal Reserve Banks of Atlanta and Philadelphia, Norges Bank, Bank of France, and ENSAE-CREST.

Professor Rossi specializes in the fields of time series econometrics, applied international finance and macroeconomics. Her current research focuses on forecasting and macroeconometrics. She has published her research findings in the Review of Economic Studies, Quarterly Journal of Economics, and other top journals. Her research has been awarded two National Science Foundation, a Marie Curie and an ERC grants.

She has presented her findings at a variety of professional conferences and meetings, including the Econometric Society Meetings, the NBER-NSF Time Series Conference,
the SED meetings, the Joint Statistical Meetings, the NBER, as well as the AEA meetings.

She serves as the editor of the Journal of Applied Econometrics and as an associate editor of Quantitative Economics, and is the Program Chair for the 2016 Econometric Society European Summer Meetings.

Recent publications
Jesper Linde

Jesper Linde defended his PhD-thesis in empirical macroeconomics at the Stockholm School of Economics in 1999. Between 1999-2006, he worked in the research department at Sveriges Riksbank, and during 2006-2008 was head of the modelling unit at the monetary policy department. In 2008, he took up the position as Section chief for the Trade and Financial Studies section in the Division of International Finance at the Board of Governors of the Federal Reserve System (in Washington D.C.). In the fall of 2014, Linde returned to the Riksbank as Head of Research. Since January 2015, Linde is also part-time associate professor at the Stockholm School of Economics.

Linde’s main research interests are applied macroeconomics and credit risk modelling. Linde has published papers in leading academic journals like the American Economic Review, Journal of the European Economic Association, Journal of Monetary Economics, Journal of International Economics, and in the Journal of Banking and Finance. He has received an outstanding referee award from several journals, including the American Economic Review and the Journal of Economic Dynamics and Control, and is since 2014 an associate editor of the Scandinavian Journal of Economics. Linde has also taught courses in monetary economics in the PhD student program in Stockholm, and been faculty opponent on PhD dissertations at various universities.
Recent publications:


Magyar Nemzeti Bank
Budapest School for Central Bank Studies
Courses 2016

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A question and some replies to it from the evaluation forms

‘Would you recommend the school/course to a colleague?’

Replies:

− I would definitely recommend this school.

− Absolutely. This course is excellent.

− Yes, the instructor was very good.

− The organization was good and the topic was interesting.

− Yes, because very serious programme, interesting and we learn a lot.

− Definitely yes. It is very useful for the working agendas in our institution.

− Yes. Because the course is very useful for central bank staff doing empirical economics.

− I would strongly recommend it to our colleagues.

− Yes, because of its added value, level and because it is very ‘up-to-date’.

− Yes, it was useful, instructor was great in terms of teaching these advanced topics, real good.