Advanced Workshop
For Central Bankers
September 6-13, 2016

Markus Brunnermeier
Lawrence Christiano
Martin Eichenbaum
Jordi Gali
Simon Gilchrist
Anil Kashyap
Charles Manski
Giorgio Primiceri
Sergio Rebelo
Jeremy Stein

Northwestern University
Evanston, IL
This week-long workshop for central bank economists has two objectives. First, to expose participants to frontier models and techniques in monetary economics. Second, to foster discussion and exchange of ideas about applied monetary policy problems faced by different central banks.

The week is organized around lectures and computer-based assignments.

The workshop has been held annually since 2004. It has been attended, so far, by roughly 500 participants from 41 central bank institutions.

Participating Institutions

Central Banks: Armenia, Australia, Austria, Bangladesh, Brazil, Belgium, Canada, Colombia, Costa Rica, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, India, Italy, Israel, Japan, Korea, Malaysia, Mexico, Netherlands, Norway, Philippines, Poland, Slovakia, Spain, South Africa, Sweden, Switzerland and Uruguay.

Federal Reserve Banks: Atlanta, Boston, Cleveland, and Dallas, European Central Bank, the Bank of International Settlements, the Inter-American Development Bank, and the International Monetary Fund.
Course lectures

The workshop includes seven three-hour course lectures on the following topics.

Empirical methods in monetary economics,
Martin Eichenbaum

Alternative techniques to estimate and empirically evaluate models of the monetary transmission mechanism: (i) structural VARs identified with short run restrictions, longrun restrictions, and sign restrictions; (ii) fitting dynamic models to impulse response functions; (iii) maximum likelihood methods.

Specification, estimation, and analysis of monetary models,
Lawrence Christiano

Structural monetary models: the role of different frictions, such as sticky wages, sticky prices, working capital, and credit market imperfections. The use of Bayesian and other methods to estimate models and a review of recent developments in the use of models in the monetary policy process.

Open-economy models,
Sergio Rebelo

Parity conditions in dynamic open-economy models. Empirical evidence on sources of real exchange rate (RER) fluctuations. Modeling RER fluctuations. An empirical analysis of the failure of uncovered interest parity (UIP). Modeling deviations from UIP.

Macroeconomic forecasting
Girogio Primiceri

A comprehensive review of forecasting methods. Topics include VARs, dynamic factor models, robust Bayes inference, nowcasting, and long-run forecast uncertainty.

Macro-prudential regulation,
Anil Kashyap

An introduction to the principles underlying macroprudential regulation and an analysis of how macroprudential considerations alter the use of regulatory tools and the design of financial regulation.
Special-topic lectures

Jordi Gali (CREI): Labor markets and monetary policy.


Charles Manski (Northwestern University): Designing and using expectations surveys.

Simon Gilchrist (Boston University): Inflation dynamics during the financial crisis.

Jeremy Stein (Harvard University): Credit markets and the business cycle.

Practicum

The course lectures are complemented with afternoon sessions designed to provide participants with hands-on experience with the techniques presented.

Logistics

The workshop takes place at the James L. Allen Center, the home of Kellogg’s Executive Education Programs. The Center is located on the shores of Lake Michigan at Northwestern University’s Evanston campus.
Dates
The workshop will take place between Tuesday, September 6 and Tuesday, September 13, 2016. Participants are expected to arrive on Tuesday, September 6 and leave in the afternoon of Tuesday, September 13, 2016. Participants who are interested in attending the Optional Review Session on Tuesday, September 6, 2016 are expected to arrive on Monday, September 5, 2016. This optional session is devoted to a comprehensive tutorial on what you need to know about Matlab to be able to use the software employed in the course.

Schedule
A preliminary workshop schedule is attached.

Software and lecture materials
At the end of the workshop, participants receive all the lecture materials and programs used during the practicum sessions.

Price
The cost of the program is $6,900 per participant. The fee (payable in U.S. dollars) includes tuition, course materials, accommodations, social program, meals, coffee breaks, and receptions. Enrollment is confirmed only upon receipt of full payment.
Cancellations made before June 1st, 2016 are subject to a 25% fee.
Cancellations made after June 1st, 2016 are subject to the total charge.
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<thead>
<tr>
<th>Time</th>
<th>Tuesday</th>
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<th>Saturday</th>
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<tbody>
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<td>07/Sept</td>
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<td>7:30 AM to 9:00 AM</td>
<td>Breakfast, Allen Center</td>
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<td>9:00 AM to 10:30 AM</td>
<td><strong>Using VARs</strong> Martin Eichenbaum</td>
<td><strong>DSGE models</strong> Lawrence Christiano</td>
<td><strong>Model estimation</strong> Lawrence Christiano</td>
<td><strong>Financial frictions</strong> Lawrence Christiano</td>
<td><strong>Open-economy models</strong> Sergio Rebelo</td>
<td><strong>Forecasting</strong> Giorgio Primiceri</td>
<td><strong>Macro-prudential regulation</strong> Anil Kashyap</td>
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<td>10:30 AM to 10:45 AM</td>
<td>Coffee Break</td>
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<td>10:45 AM to 12:15 PM</td>
<td><strong>Using VARs</strong> Martin Eichenbaum</td>
<td><strong>DSGE models</strong> Lawrence Christiano</td>
<td><strong>Model estimation</strong> Lawrence Christiano</td>
<td><strong>Financial frictions</strong> Lawrence Christiano</td>
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<td><strong>Macro-prudential regulation</strong> Anil Kashyap</td>
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<td>12:15 PM to 1:30 PM</td>
<td>Lunch</td>
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<td>1:30 PM to 4:00 PM</td>
<td>Optional Matlab</td>
<td>Practicum Session</td>
<td>Practicum Session</td>
<td><strong>Chicago Architectural River Cruise (starts at 3:30 pm)</strong></td>
<td>Practicum Session</td>
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<td>4:00 PM to 4:15 PM</td>
<td>Coffee Break</td>
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<td>4:15 PM to 5:30 PM</td>
<td>Jordi Gali, Labor markets and monetary policy</td>
<td>Markus Brunnermeier, Financial frictions and monetary policy</td>
<td>Charles Manik Designing and using expectations surveys</td>
<td>Lawrence Christiano, Financial frictions</td>
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<td>5:30 PM to 6:30 PM</td>
<td>Dinner</td>
<td>Cocktails</td>
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<td>6:30 PM to 8:00 PM</td>
<td>Dinner</td>
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<td>Optional Dinner</td>
<td>Celebration dinner at Stained Glass (7:15 pm)</td>
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**Notes:**
- All events are subject to change.
- Check the official schedule for any updates.
- For more information, visit the Center for International Macroeconomics website.