

# Advanced Workshop For Central Bankers

September 2-9, 2014

Markus Brunnermeier  
Lawrence Christiano  
Martin Eichenbaum  
Charles Evans  
Mark Gertler  
Anil Kashyap  
Sergio Rebelo  
Thomas Sargent  
Robert Shimer  
James Stock



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Northwestern University  
Evanston, IL

# Advanced Workshop For Central Bankers

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 400 participants from 41 central bank institutions.

## Participating Institutions

Central banks of: 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.



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## Course lectures

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

Empirical methods in monetary economics,

Martin Eichenbaum (Northwestern University)

Alternative techniques to estimate and empirically evaluate models of the monetary transmission mechanism: (i) structural VARs identified with short run restrictions, long run 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 (Northwestern University)

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 (Northwestern University)

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,

James Stock (Harvard University)

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 (University of Chicago)

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.



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## Special-topic lectures

There are six additional lectures on the following topics

Lecture 1: Monetary policy in a world with financial frictions,  
Markus Brunnermeier (Princeton)

Lecture 2: Outlook for U.S. monetary policy,  
Charles Evans (Federal Reserve Bank of Chicago)

Lecture 3: Forward guidance and monetary policy,  
Mark Gertler (New York University)

Lecture 4: Modeling inflation,  
Thomas Sargent (New York University)

Lecture 5: Modeling the labor market,  
Robert Shimer (University of Chicago)

## 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.



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## Dates

The workshop will take place between Tuesday, September 2 and Tuesday, September 9, 2014. Participants are expected to arrive on Tuesday, September 2 and leave in the afternoon of Tuesday, September 9, 2014. Participants who are interested in attending the Optional Review Session on Tuesday, September 2, 2014 are expected to arrive on Monday, September 1, 2014. 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 \$6,800 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, 2014 are subject to a 25% fee.

Cancellations made after June 1st, 2014 are subject to the total charge.



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## Advanced Workshop for Central Bankers Schedule, 2014

	02/Sep Tuesday	03/Sep Wednesday	04/Sep Thursday	05/Sep Friday	06/Sep Saturday	07/Sep Sunday	08/Sep Monday	09/Sep Tuesday
7:30 AM to 9:00 AM		Breakfast, Allen Center	Breakfast, Allen Center	Breakfast, Allen Center	Breakfast, Allen Center	Breakfast, Allen Center	Breakfast, Allen Center	Breakfast, Allen Center
9:00 AM to 10:30 AM		Using VARs Martin Eichenbaum	DSGE models Lawrence Christiano	Model estimation Lawrence Christiano	Financial frictions Lawrence Christiano	Open-economy models Sergio Rebelo	Forecasting James Stock	Macro-prudential regulation Anil Kashyap
10:30 AM to 10:45 AM		Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:45 AM to 12:15 PM		Using VARs Martin Eichenbaum	DSGE models Lawrence Christiano	Model estimation Lawrence Christiano	Financial frictions Lawrence Christiano	Open-economy models Sergio Rebelo	Forecasting James Stock	Macro-prudential regulation Anil Kashyap
12:15 PM to 1:30 PM		Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
1:30PM to 4:00 PM	Optional Matlab Review Session	Practicum Session	Practicum Session	Chicago Architectural River Cruise (starts at 3:30 pm)	Practicum Session	Modeling inflation Thomas Sargent	Practicum Session	
4:00 PM to 4:15 PM		Coffee Break	Coffee Break		Coffee Break		Coffee Break	
4:15 PM to 5:30 PM	Cocktails	Outlook for U.S. monetary policy Charles Evans	Financial frictions and monetary policy Markus Brunnermeier		Modeling the labor market Robert Shimer		Forward guidance and monetary policy Mark Gertler	
5:30PM to 6:30 PM	Dinner	Cocktails	Cocktails		Dinner		Cocktails	
6:30PM to 8:00 PM		Dinner	Dinner			Optional Dinner	Celebration dinner at Stained Glass (7:15 pm)	
					Show at Chicago Theater			



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