

## Economics 212: Monetary Theory and Policy

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Stanford University  
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### BRIEF COURSE DESCRIPTION

This course is the third quarter of a three quarter sequence in macroeconomics for first year Ph.D. students in economics. It focuses on modern monetary theory and policy.

Modern monetary theory is closely related to empirical observations on aggregate time series—inflation, unemployment, interest rates, money, and credit. This means that knowledge of time series econometrics—including the use of vector auto-regressions—is essential for understanding monetary economics. For this reason we will start the course with a brief review of time series econometrics and its applications to monetary issues using actual data and hands-on empirical exercises. Later in the course we will consider how microeconomic evidence is used to test various monetary theories.

The use of rational expectations in models with price and wage rigidities is also fundamental to modern monetary theory and policy. Hence, the second part of the course will review methods for solving and analyzing rational expectations models with wage/price rigidities. We will study and apply both analytical methods and numerical algorithms.

With this technical background, we then consider classic topics in monetary theory. We will read and discuss some of the original papers on key topics—money demand, the welfare costs of inflation, the Lucas critique, time inconsistency, staggered price and wage setting, optimal policy rules—tracing the developments over the whole modern period. We then go on to consider recent developments relating to the term structure of interest rates, regime switching, and the recent financial crisis.

More than any thing else, the idea of monetary policy as a policy rule is what distinguishes modern from earlier monetary theories. The first chapter, entitled “The Return of Policy Rules,” <<http://www.pupress.princeton.edu/chapters/s7603.pdf>> of Michael Woodford’s book, *Interest and Prices*, provides a good introduction to this way of thinking about policy. Policy rules will come up again and again in the course.

The course assumes knowledge of basic undergraduate macroeconomic models and principles of money and banking. The required readings for the course are all on line. Several required empirical and model solution exercises will make use of the time series analysis program *EViews*. The *EViews Users Guide* provides a summary reference for the time series techniques.

## LECTURES AND READINGS

### **1. Observing and Measuring Monetary Phenomena I: Univariate Issues**

Cecchetti, Stephen, Peter Hooper, Bruce Kasman, Kermit Schoenholtz, and Mark Watson (2007) "Understanding the Evolving Inflation Process"  
<<http://research.chicagogsb.edu/gfm/docs/2007USMPF-Report.pdf>>

### **2. Observing and Measuring Monetary Phenomena II: Multivariate Issues**

Stock, James and Mark Watson (2001), "Vector Autoregressions," *Journal of Economic Perspectives*, Vol. 15, No. 4 101-115.  
<JSTOR>

### **3. The Impact of Monetary Policy in Forward Looking Models: Univariate Issues**

Taylor, John B. (1993), *Macroeconomic Policy in a World Economy*, pp 1-16.  
<<http://www.stanford.edu/~johntayl/MacroPolicyWorld.htm>>

### **4. The Impact of Monetary Policy in Forward Looking Models: Multivariate Issues**

Taylor, John B. (1993), *Macroeconomic Policy in a World Economy*, pp 17-31.  
<<http://www.stanford.edu/~johntayl/MacroPolicyWorld.htm>>

### **5. Money Supply, Money Demand, and the Welfare Cost of Inflation**

Teles, Pedro and R. Zhou, (2005) "A Stable Money Demand: Looking for the Right Aggregate," *Economic Perspectives*, Federal Reserve Bank of Chicago, 1Q, pp. 50-63  
<[http://www.chicagofed.org/publications/economicperspectives/ep\\_1qtr2005\\_part4\\_teles\\_zhou.pdf](http://www.chicagofed.org/publications/economicperspectives/ep_1qtr2005_part4_teles_zhou.pdf)>

Lucas, Robert E, Jr, (2000), "Inflation and Welfare," *Econometrica*, Vol. 68, No. 2, March, pp. 247-274.  
<JSTOR>

### **6. Econometric Policy Evaluation and the Lucas Critique**

Lucas, Robert E. (1976), "Econometric Policy Evaluation: A Critique," *Carnegie-Rochester Conference Series on Public Policy*, Volume 1.  
<JSTOR>

### **7. Time Inconsistency**

Kydland, Finn and Edward Prescott (1977), “Rules Rather than Discretion: The Inconsistency of Optimal Plans,” *Journal of Political Economy*, pp. 619-637.  
<JSTOR>

### **8. Staggered Wage and Price Setting**

Taylor, John B. (1980) “Aggregate Dynamics and Staggered Contracts” *Journal of Political Economy*, 1980, pp. 1-16  
<JSTOR>

Taylor, John B. (2006), “Thirty Five Years of Model Building for Monetary Policy Evaluation: Breakthroughs, Dark Ages, and a Renaissance,” *Journal of Money Credit and Banking*  
<<http://www.stanford.edu/~johntayl/ThirtyFiveYearsRev1.pdf>>

### **9. Staggered Wage and Price Setting Models Face the Facts: Macro and Micro**

Luca, Guerrieri (2006), “Inflation Persistence of Staggered Contracts” *Journal of Money, Credit, and Banking*. Earlier working paper at  
<<http://www.federalreserve.gov/pubs/ifdp/2002/734/default.htm>>

Klenow, Peter and Oleksiy Kryvtsov (2005), “State Dependent versus Time Dependent Pricing: Does It Matter for Recent U.S. Inflation,”  
<<http://www.klenow.com/KK.pdf>>

### **10. Monetary Policy Rules and Their Implications**

Taylor, John B. (1993), “Rules versus Discretion in Practice,” *Carnegie Rochester Conference Series in Public Policy*, pp. 195-214  
<<http://www.stanford.edu/~johntayl/Papers/Discretion.PDF>>

Judd, John and Bharat Trehan (1995), “Has the Fed Gotten Tougher on Inflation?” *Weekly Letter*, Federal Reserve Bank of San Francisco, Number 95-13, March 31  
<<http://www.frbsf.org/publications/economics/letter/1995/el1995-13.pdf>>

Poole, William (2006) “The Fed’s Policy Rule,” *Review* Federal Reserve Bank of St. Louis, January/February, pp. 1-12  
<<http://research.stlouisfed.org/publications/review/06/01/Poole.pdf>>

### ***11. Optimality and Monetary Policy Rules***

Ball, Lawrence (1999) "Efficient Rules for Monetary Policy," *International Finance*, Vol. 2, No. 1, pp. 63-83.  
<JSTOR>

Woodford, Michael (2001), "The Taylor Rule and Optimal Monetary Policy," *American Economic Review, Papers and Proceedings*, Vol. 91, No. 2, (May) pp. 232-237  
<JSTOR>

### ***12. Alternative Monetary Regimes and Regime Change***

Davig, Troy and Eric Leeper (2007), "Generalizing the Taylor Principle" *American Economic Review*, Vol. 97, No3, (June); also NBER Working Paper No. 11874, December 2005 <<http://www.nber.org/papers/w11874>>

### ***13. Macro-Finance Models***

Smith, Josephine M. and John B. Taylor (2008), "The Long and the Short End of the Term Structure of Policy Rules,"  
<<http://www.stanford.edu/~johntayl/SmithTaylor27Nov07.pdf>>

### ***14. From the Great Moderation to the Crisis of 2007-2008***

Bernanke, Ben (2004) "The Great Moderation" Eastern Economic Association, (Feb)  
<<http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm>>

Friedman, Milton (2006), "Tradeoffs in Monetary Policy," in David Laidler's festschrift.  
<<http://www.stanford.edu/~johntayl/CommensOnMiltonFriedman'sLaidlerFestschriftPaperRevised.doc>>