

COLUMBIA UNIVERSITY
GRADUATE SCHOOL OF BUSINESS

Professor Frederic S. Mishkin Uris Hall 817 Extension: 4-3488 E-mail: fsm3@columbia.edu	Professor Jean Boivin Uris Hall 821 Extension: 4-9091 E-mail: jb903@columbia.edu
---	---

B9353:
EMPIRICAL METHODS IN
MONETARY ECONOMICS AND FINANCE

Fall 2004

Course Outline and Reading List

Note: * items are required readings and will eventually be in a packet of readings.

General references for time series analysis:

Hamilton, J.D. *Time Series Analysis*, Princeton University Press, (1994).

Watson, M.W. "Vector Autoregression and Cointegration", ch. 47 in R.F. Engle and D. McFadden (eds) *Handbook of Econometrics*, vol. 4, North Holland, New York, (1994).

I. Introduction: The Gauss-Markov Theorem, Granger Causality and Vector Autoregressions

*C.W.J. Granger, "Investigating Casual Relations by Econometric Models and Cross-Spectral Methods," *Econometrica*, vol 37, no. 3 (1969).

*R.E. Hall, "Stochastic Implications of the Life-Cycle -- Permanent Income Hypothesis: Theory and Evidence," *Journal of Political Economy*, vol 86, no. 6 (1978).

C.A. Sims, Money, Income and Causality," *American Economic Review*, vol 62, no. 4 (1972).

II. Exploiting Rational Expectations Orthogonality: Understanding Real Interest Rate Behavior

*E.F. Fama, "Short-Term Interest Rates as Predictors of Inflation", *American Economic Review* 65 (1975) pp. 269-82.

*F.S. Mishkin, "The Real Interest Rate: An Empirical Investigation", in K. Brunner and A. Meltzer, eds., *Carnegie-Rochester Conference Series on Public Policy*, Volume 15, pp. 151-200 and pp. 213-18, in packet.

F.S. Mishkin, "Are Real Interest Rates Equal Across Countries? An Empirical Investigation of International Parity Conditions", *Journal of Finance* 39 (July 1984) pp. 1345-1357.

R. Barsky, "The Fisher Hypothesis and the Forecastability and Persistence of Inflation", *Journal of Monetary Economics* 19 (1987): 3-24.

III. Univariate Models: Unit Roots and Trend and Cycle Decomposition

*J. Stock and M. Watson, "Variable Trends in Economic Time Series," *Journal of Economic Perspectives* (Summer 1988): 147-74.

J. Campbell and P. Perron, "Pitfalls and Opportunities: What Macroeconomists Should Know About Unit Roots," *NBER Macroeconomics Annual* 1991 6: 141-219 (includes discussion).

*C. Nelson and C. Plosser, "Trends and Random Walks in Macroeconomic Time-Series," *Journal of Monetary Economics* 10 (1982): 139-62.

*M. Baxter and R.G. King, "Measuring Business Cycles. Approximate Band-Pass Filters for Economic Time Series", NBER working paper no. 5022, (1995).

F.S. Mishkin, "Is the Fisher Effect for Real? A Reexamination of the Relationship Between Inflation and Interest Rates," *Journal of Monetary Economics*, (October 1992).

P. Perron, "The Great Crash, the Oil Price Shock and the Unit Root Hypothesis", *Econometrica* 57, 1361-1401.

Hamilton, J.D. *Time Series Analysis*, Princeton University Press, (1994). Ch. 15, 16 and 17.

J.H. Stock, "Unit Roots, Structural Breaks and Trends", ch. 46 in R.F. Engle and D. McFadden (eds) *Handbook of Econometrics*, vol. 4, North Holland, New York, (1994).

G.W. Schwert, "Effects of Model Specification on Tests for Unit Roots in Macroeconomic Data,"

Journal of Monetary Economics 20 (1987): 73-103.

J. Y. Campbell and N.G. Mankiw, "Are Output Fluctuations Transitory?", *Quarterly Journal of Economics* (1987), vol. CII, pp. 857-80.

IV. Multivariate models: VAR and Cointegration

*C.A. Sims, "Macroeconomics and Reality", *Econometrica* 48 (1980) pp. 1-48.

R.F. Engle and C.W.J. Granger, "Cointegration and Error Correction: Representation, Estimation and Testing", *Econometrica* (March 1987): 251-76.

Mark W. Watson, "Vector Autoregressions and Cointegration," in R.F. Engle and D.L. McFadden, *Handbook of Econometrics* (Elsevier Science B.V.: Amsterdam, 1994), pp. 2844-2915.

*R.G. King, C.I. Plosser, J.H. Stock and M.W. Watson "Stochastic Trends and Economic Fluctuations", *American Economic Review* (1991), pp. 819-840.

*Stock, James H. and Mark W. Watson, "Vector Autoregression," *Journal of Economic Perspectives* (2002).

J.H. Cochrane and A.M. Sbordone, "Multivariate Estimates of the Permanent Components in GNP and Stock Prices", *Journal of Economics Dynamics and Control* (1988), pp. 255-296.

V. Structural Vector Autoregressive (VAR) Models: The Effects of Monetary Policy Shocks

*Bernanke, B. and I. Mihov, "Measuring Monetary Policy," *Quarterly Journal of Economics* Vol. 113, No. 3. (August 1998): 869-902.

*Christiano, L.J., Eichenbaum M. and C.L. Evans, "Monetary Policy Shocks: What Have We Learned and to What End?" in John Taylor and Michael Woodford, eds. *Handbook of Macroeconomics* Elsevier Science Ltd, 1999).

*Cochrane, John H. 1998. "What do the VARs Mean?: Measuring the Output Effects of Monetary Policy." *Journal of Monetary Economics*. 41:2, pp. 277-300.

*Faust, Jon. 1998, "The Robustness of Identified VAR Conclusions About Money." *Carnegie-Rochester Conference Series on Public Policy*, 49, pp. 207-244.

*Rudebusch, G. "Do Measures of Monetary Policy in a VAR Make Sense?" *International Economic Review* 39 (November 1998): 943-48.

- R.J. Barro, "Unanticipated Money Growth and Unemployment in the United States", *American Economic Review*, (1977) vol 67, no. 2: 101-115
- F.S. Mishkin, *A Rational Expectations Approach to Macroeconometrics: Testing Policy Ineffectiveness and Efficient Markets Models*. (Chicago: University of Chicago Press for The National Bureau of Economic Research, 1983).
- B. Bernanke, "Alternative Explanations of the Money-Income Correlation", Carnegie-Rochester Conference Series, Vol. 25 (Autumn, 1986): 49-99.
- Christiano, L.J., Eichenbaum M. and C.L. Evans, "Identification and the Effects of Monetary Policy Shocks," in M.I. Blejer, Z. Eckstein, Z. Hercowitz and L. Leiderman, eds., *Financial Factors in Economic Stabilization and Growth* (Cambridge University Press: Cambridge, U.K. 1996), pp. 36-74.
- Strongin, S., "The Identification of Monetary Policy Disturbances: Explaining the Liquidity Puzzle," *Journal of Monetary Economics*, vol 35, no. 3 (August 1995), pp. 463-97.
- Blanchard O.J. and D. Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances", *American Economic Review* 79, pp. 655-673.
- Evans, C.L. and K.N. Kutner, "Can VARs Describe Monetary Policy?" in *Topics in Monetary Policy Modelling* (Basle: Bank for International Settlements, 1998): 93-109.
- King, R. and M. Watson, "The Postwar Phillips Curve: A Revisionist History," *Carnegie-Rochester Conference Series on Public Policy*, vol 41 (December 1994), pp. 157-219.
- Gali, J., "How Well Does the ISLM Model Fit Postwar U.S. Data?" *Quarterly Journal of Economics*, vol 107, no. 2 (May 1992), pp. 709-38.
- Leeper, E. Sims, C.A. and T. Zha, "What Does Monetary Policy Do?" *Brookings Papers on Economic Activity* (1996:2), pp. 1-78.
- Bernanke, B., Gertler M., and M. Watson, "Systematic Monetary Policy and the Effects of Oil Price Shocks," *Brookings Papers on Economic Activity*, (1997:1), pp. 91-158 (including discussion).
- Faust, Jon and Eric M. Leeper. 1997. "When Do Long-Run Identifying Restrictions Give Reliable Results?" *Journal of Business and Economic Statistics*. 345 ? 353.
- Pagan, Adrian R. and John C. Robertson. 1998. "Structural Models of the Liquidity Effect." *The Review of Economics and Statistics*. 80, pp. 202 ? 217.

Shapiro, Matthew and Mark W. Watson. 1988. "Sources of Business Cycle Fluctuations," *NBER Macroeconomics Annual*: 111-48.

Uhlig, Harald. 1999. "What are the Effects of Monetary Policy on Output? Results from an Agnostic Identification Procedure," manuscript, CentER, Tilburg University.

VI. Structural VAR: Recent Developments

-- Large amount of data:

*Bernanke, Ben S., Jean Boivin and Piotr Elias, 2002, "Measuring the Effects of Monetary Policy: A Factor-Augmented Vector Autoregressive (FAVAR) Approach", mimeo Columbia University.

Bernanke, Ben S. and Jean Boivin. 2002. "Monetary Policy in a Data-Rich Environment," *Journal of Monetary Economics* (Forthcoming)

Stock, James H. and Mark W. Watson 2002. "Diffusion Indexes," *Journal of Business Economics and Statistics* (Forthcoming)

-- High Frequency Identification of VARs:

J. Faust, E. Swanson and J. Wright (2002), "Identifying VARs based on high frequency futures data", manuscript, FRB.

Kuttner, K.N. (2001), "Monetary Policy Surprises and Interest Rates Evidence from the Fed Funds Future Market", *Journal of Monetary Economics* 47, pp. 523-44.

Cochrane, J.H. and M. Piazzesi (2002), "The Fed and Interest Rates: A High Frequency Identification", *American Economic Review Papers and Proceedings*, forthcoming.

-- VAR and Dynamic Stochastic General Equilibrium (DSGE) models:

*Gali, Jordi and Pau Rabanal (2004), "Technology Shocks and Aggregate Fluctuations: How Well Does the RBC Model Fit Postwar U.S. Data?"
(http://www.econ.upf.edu/crei/people/gali/pdf_files/gr04ma.pdf)

*Chari, V.V., P. Kehoe and E. McGrattan (2004), "Are Structural VARs Useful Guides for Developing Business Cycle Theories"
(<http://woodrow.mpls.frb.fed.us/research/economists/vvc.html>)

Boivin, Jean and Marc Giannoni (2003), "Has Monetary Policy Become More Effective?" NBER Working Paper #9459.

Christiano, Lawrence J., Martin Eichenbaum, and Charles L. Evans. 2001. "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy."

Rotemberg, Julio J., and Michael Woodford (1997), "An Optimization-Based Econometric Framework for the Evaluation of Monetary Policy," NBER Macroeconomics Annual 1997, 297-346.

VII. Historical-Econometric Methods

*C. Romer and D. Romer, "Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz," *NBER Macroeconomics Annual* (1989), pp. 121-183.

*J. Huizinga and F.S. Mishkin, "Monetary Policy Regime Shifts and the Unusual Behavior of Real Interest Rates", *Carnegie-Rochester Conference Series on Public Policy* 24 (Spring 1986) pp. 231-74, in packet.

Hoover, K.D. and S.J. Perez, "Post Hoc Ergo Propter Hoc Once More: An Evaluation of 'Does Monetary Policy'" *Journal of Monetary Economics*, vol 34, no. 1 (August 1994), pp. 47-73.

M. Friedman and A.J. Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton: Princeton University Press, 1963).

VIII. Historical Approach: Financial Crises

*Bernanke, B.S. (1983). "Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression," *American Economic Review* 73: 257-76.

*F.S. Mishkin, "Asymmetric Information and Financial Crises: A Historical Perspective," in R. Glenn Hubbard, ed., *Financial Markets and Financial Crises* (University of Chicago Press: Chicago, 1991): 69-108.

*F.S. Mishkin, "Understanding Financial Crises: A Developing Country Perspective," in Michael Bruno and Boris Pleskovic, eds., *Annual World Bank Conference on*

Development Economics 1996 (World Bank: Washington D.C. 1996).

*J. Hahn and F.S. Mishkin, "The Korean Financial Crisis: An Asymmetric Information Perspective," *Emerging Markets Review*, Vol.1, #1 (2000): 21-52.

C.W. Calomiris, "Financial Factors in the Great Depression," *Journal of Economic Perspectives*, 1993, vol. 7, no. 2, pp. 61-85.

IX. Case Study Approach: Monetary Policy Strategy

*F.S. Mishkin, "International Experiences with Different Monetary Policy Regimes," *Journal of Monetary Economics*, Vol. 43, #3 (June 1999): 579-606.

*F.S. Mishkin and M. Savastano, "Monetary Strategies for Emerging Market Countries: Lessons from Latin America," mimeo. June 2001, a shortened version of which was published in *Journal of Development Economics*, 66, 2 (December 2001): 415-444.

*F.S. Mishkin and K. Schmidt-Hebbel, "One Decade of Inflation Targeting in the World: What Do We Know and What Do We Need to Know?" in Norman Loayza and Raimundo Soto, eds., *Inflation Targeting: Design, Performance, Challenges* (Central Bank of Chile: Santiago 2002): 117-219.

*G. Calvo and F.S. Mishkin, "The Mirage of Exchange Rate Regimes for Emerging Market Countries," *Journal of Economic Perspectives*, Vol. 17, No. 4 (Fall 2003): 99-118.

B. Bernanke and F.S. Mishkin, "Central Bank Behavior and the Strategy of Monetary Policy: Observations from Six Industrialized Countries," *NBER Macroeconomics Annual*, 1992, pp. 183-228.

F.S. Mishkin and A. Posen, "Inflation Targeting: Lessons from Four Countries," *Economic Policy Review*, vol. 3, #3 (August 1997): 9-110.

Ben S. Bernanke, Thomas Laubach, Frederic S. Mishkin and Adam S. Posen, *Inflation Targeting: Lessons from the International Experience* (Princeton University Press: Princeton, 1999)

F.S. Mishkin, "Can Central Bank Transparency Go Too Far?" forthcoming in Reserve Bank of Australia, *The Future of Inflation Targeting*.