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Joint Vienna Institute / IMF Institute

Course on Macroeconomic Forecasting (JV10.14)

Vienna, Austria

April 21– May 2, 2014

Reading List

Session	Topic
L–1	**Overview of Macroeconomic Forecasting** Pagan, Adrian, 2002, "What is a Good Macroeconomic Model for a Central Bank to Use?" Comments presented at the conference, *Macroeconomic Models for Monetary Policy*, sponsored by the Federal Reserve Bank of San Francisco and the Stanford Institute for Economic Policy Research (March 1-2). Available via: http://www.frbsf.org/economics/conferences/0203/comments.pdf *Supplementary:* IMF Institute, 2010, "Chapter 1: Basic Empirical Methods," in *Introduction to Financial Programming* (Washington: International Monetary Fund).
W–1	**Workshop: Introduction to Forecasting Using EViews** EViews 7 User's Guide I, 2009, Chapter 2 "A Demonstration," (Irvine, CA: Quantitative Micro Software, LLC), pp. 13–32. EViews 7 Users Guide II, 2009, Chapter 22 "Forecasting from an Equation," and Chapter 34 "Models," pp. 111–138 and pp. 511–562 (Irvine, CA: Quantitative Micro Software, LLC). *Supplementary:* EViews 7 Users Guide I, 2009, Chapters 3–6, pp. 33–154 (Irvine, CA: Quantitative Micro Software, LLC).
L–2	**Properties of Time Series Data I: Stationarity, Box Jenkins ARIMA Models** Enders, Walter, 2010, "Chapter 2: Stationary Time-Series Models," in *Applied Econometric Time Series* (New York: John Wiley & Sons, 3rd ed.), pp. 49–120.
L–3	**Properties of Time Series Data II: Non-stationarity and Unit Roots** Enders, Walter, 2010, "Chapter 4: Models with Trend," in Applied Econometric Time Series (New York: John Wiley & Sons, 3rd ed.), pp. 181–271. *Supplementary:* Dickey, D.A., and Fuller, W. A., 1979, "Distribution of the Estimators for Autoregressive Time Series with a Unit Root," Journal of the American Statistical Association, Vol. 74, pp. 427¬–431. Elder, J., and P.E. Kennedy, 2001, "Testing for Unit Roots: What Should Students be Taught?" Journal of Economic Education, Vol. 32, No. 2, pp. 137–46.

Session	Topic
L–3	Fuller, W.A., 1976, "Introduction to Statistical Time Series", John Wiley & Sons, New York. Hacker, R.S. and Hetemi-J, A., 2010, "The Properties of Procedures Dealing with Uncertainty about intercept and Deterministic Trend in Unit Root Testing," CESIS Working Paper Series, 214. Kwaitkowski, D., Phillips P. C. B., Schmidt, P. and Y. Shin, 1992, "Testing the Null Hypothesis of Stationarity against the Alternative of a Unit Root," Journal of Econometrics, Vol. 54, pp. 159–178. Perron, P., 1998, "Trends and random walks in macroeconomic time series," Journal of Economic Dynamics and Control, Vol. 12, No. 12, pp. 297–332 Phillips, P., 1986, "Understanding Spurious Regressions in Econometrics," Journal of Econometrics, Vol. 33, pp. 311–40. Phillips, P., 1987, "Time Series Regression with a Unit Root," Econometrica, Vol. 55, No. 2, pp. 227–301.
L–4	**Cointegration I – Single Equation Estimation, Error Correction Models, and Forecasting** *Supplementary*: Yule, G. U., 1926, Why do we Sometimes get Nonsense-Correlations between Time-Series?-A Study in Sampling and the Nature of Time-Series *Journal of the Royal Statistical Society*, Vol. 89, No. 1. pp. 1-63. Phillips, P.C.B., 1986, Understanding Spurious Regressions in Econometrics, *Journal of Econometrics*, 33, 311-340. Park , J.Y. , 1992, Canonical Cointegrating Regressions, *Econometrica*, Vol. 60, No. 1, pp. 119-143
L–5	**Evaluating Regression Models** Enders, Walter, 2010, Chapter 4: in *Applied Econometric Time Series* (New York: John Wiley & Sons, 3rd ed.), pp. 227–234. *Supplementary*: Maddala, G.S. and I. Kim, 1998, Part IV: *in Unit Roots, Cointegration, and Structural Change* (Cambridge), pp 387-486. Perron, P., 1989, The great crash, the oil price shock, and the unit root hypothesis. *Econometrica* 57, 1361–1401. Perron, Pierre, 2005, *Dealing with Structural Breaks*. Boston University – Department of Economics – Working Papers Series WP2005-017.

L–6	**Forecast Uncertainty and Forecast Evaluation** Enders, Walter, 2010, "Chapter 5: Multiequation Time-Series Models," in *Applied Econometric Time Series* (New York: John Wiley & Sons, 3rd ed.), pp. 272–355. Eviews 7 Users Guide II, 2009, Chapter 5, "Forecasting from an Equation", pp.139–186, (Irvine, CA: Quantative Micro Software, LLC). *Supplementary*: Lutkepohl, H. and M. Kratzig, 2004, Chapter 2, pp. 70–72, and Chapter 3, pp. 140–144, "*Applied Time Series Econometrics*", Cambridge University Press, UK. Clark, T., and K. West, 2007, "Approximately Normal Test for Equal Predictive Accuracy in Nested Models", *Journal of Econometrics*, Vol. 138, pp 291–311. Diebold, Francis X.,. and R. Mariano, 1995, "Comparing Predictive Accuracy:", *Journal of Business and Economic Statistics*, Vol. 13, pp. 253–63. Granger, C. and P. Newbold, 1976, "Forecasting Transformed Series", *Journal of the Royal Statistical Society,* Vol. 38, pp. 189–203.
L–7	**Vector Autoregression (VAR), Structural VAR Models, Impulse Response Functions (IRFs)** *Supplementary*: Granger, C. W. J. (1969). "Investigating Causal Relations by Econometric Models and Cross-spectral Methods". *Econometrica* **37** (3): 424–438 Lucas, Robert, 1976, "Econometric Policy Evaluation: A Critique". In Brunner, K.; Meltzer, A. *The Phillips Curve and Labor Markets*. Carnegie-Rochester Conference Series on Public Policy **1**. New York: American Elsevier. pp. 19–46. Sims, C.A., 1980, Macroeconomics and Reality, *Econometrica*, Vol. 48, No. 1, pp. 1-48. Sims, C.A., 1986, Are Forecasting Models Usable for Policy Analysis? *Federal Reserve Bank of Minneapolis Quarterly Review*, 3-16. Blanchard and Quah, 1989, The Dynamic Effects of Aggregate Demand and Supply Disturbances , *American Economic Review*, 79, 655-673.
L–8	**Cointegration II: Johansen Methodology** Enders, Walter, 2010, "Chapter 6: Cointegration and Error-Correction Models," in *Applied Econometric Time Series* (New York: John Wiley & Sons, 3rd ed.), pp. 385–405. Eviews 7 Users Guide II, 2009, Chapter 21 "Cointegration Testing", pp. 139–186 (Irvine, CA: Quantitative Micro Software, LLC). *Supplementary*: Lutkepohl, H. and M. Kratzig, 2004, Chapter 3, "*Applied Time Series Econometrics*", Cambridge University Press, UK. Hamilton, J.D., 1994, Chapter 19 "Time Series Analysis", *Princeton University Press*, Princeton, New Jersey.

L–8	*Supplementary*: Johansen, Soren, 1992, "Determination of cointegration rank in the presence of a linear trend", *Oxford Bulletin of Economics and Statistics*, Vol. 54, pp. 383-397. Johansen, Soren, 1995, "Likelihood-based Inference in Cointegrated Vector Autoregressive Models", *Oxford University Press*, UK. Johansen, Soren, 1988, "Statistical Analysis of Cointegration Vectors," *Journal of Economic Dynamics and Control*, Vol. 12, No. 2–3, pp. 231–254. Hamilton, J.D., 1994, Chapter 19 "Time Series Analysis", *Princeton University Press*, Princeton, New Jersey. Johansen, Soren, 1988, "Statistical Analysis of Cointegration Vectors," *Journal of Economic Dynamics and Control*, Vol. 12, No. 2–3, pp. 231–254.
L–9	**Vector Error Correction Models: Formulation, Hypothesis Testing, and Forecasting** *Supplementary*: Pesaran, M.H., Y. Shin, 1997, An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis,Department of Applied Economics, University of Cambridge, England
L–10 **L–11**	**State Space Representation of Dynamic Models; and** **Forecasting and Smoothing Using the Kalman Filter** EViews 7 Users Guide II, 2009, Chapter 33 "States Space Models and the Kalman Filter," pp. 487–510 (Irvine, CA: Quantitative Micro Software, LLC). *Supplementary*: Boulware, Karl David, Walter Enders, and Jared Lavant, 2010, *Manual to Accompany: Applied Econometric Time Series (3rd Edition), by Walter Enders*, pp. 43–63. Available via: http://cba.ua.edu/assets/docs/wenders/supplement-manual_aets-ed-3.pdf Aruoba, S. Boragan, Francis X. Diebold, and Chiara Scotti, 2009, "Real-Time Measurement of Business Conditions," *Journal of Business & Economic Statistics*, Vol. 27, No. 4 (October), pp. 417–427. Prepublication draft of paper available via: http://econweb.umd.edu/~aruoba/research/paper13/paper13.html Diebold, Francis X., and Canlin Li, 2006, "Forecasting the Term Structure of Government Bond Yields," *Journal of Econometrics*, Vol. 130, No. 2 (February), pp. 337–364. Available via: http://www.ssc.upenn.edu/~fdiebold/papers/paper49/Diebold-Li.pdf Durbin, J., and S.J. Koopman, 2012, "Time Series Analysis by State Space Methods," Oxford Statistical Science Series No. 38, 2nd Edition.
L–12	**Combining Forecasts from Different Sources** Stock, James H., and Mark W. Watson, 2004, "Combination Forecasts of Output Growth in a Seven-Country Data Set," *Journal of Forecasting*, Vol. 23, No. 6, pp. 405–430. Prepublication draft of paper available via: http://www.princeton.edu/~mwatson/papers/apf_4.pdf *Supplementary*: Clemen, Robert, 1985, "Combining Forecasts: A Review and Annotated Bibliography," *International Journal of Forecasting*, Vol. 5, No. 4, pp. 559–583.

L–12	Hansen, Bruce E., 2007, "Least Squares Model Averaging," *Econometrica*, Vol. 75, No. 4, pp. 1175–1189. Timmerman A., 2006, *Handbook of Economic Forecasting*. Aiolfi, Capistran and Timmerman, 2010, *Forecast Handbook*, Oxford. Aiolfi and Favero, 2003, *Journal of Forecasting.* Clemen, 1989, *International Journal of Forecasting*, Vol. 5, pp. 559–581. Granger and Newbold, 1973, *Journal of Econometrics.* Granger and Ramanathan, 1984, *Journal of Forecasting*, Vol. 3, pp. 197–204. Makridakis, S. and Hibon, 2000, *International Journal of Forecasting.* Vol. 16, pp. 451–476. Stock and Watson, 2001, in *R.F. Engle and H. White*, eds., Festschrift in Honor of Clive Granger, pp. 1–44.
L–13	**Modeling and Forecasting Volatility: The ARCH Model and its Descendants** Enders, Walter, 2010, "Chapter 3: Modeling Volatility," and "Chapter 7: Nonlinear Time-Series Models," in Applied Econometric Time Series (New York: John Wiley & Sons, 3rd ed.), pp. 121–180 and pp. 428–487. *Supplementary:* Bollerslev, Tim, 1986, "Generalized Autoregressive Conditional Heteroskedasticity," Journal of Econometrics, Vol. 31, No. 3, pp. 307–327. http://econ.duke.edu/~boller/Published_Papers/joe_86.pdf
L–14	**Modeling Strategies and Policy Analysis: Inflation in Australia** de Brouwer, Gordon, and Neil R. Ericsson, 1998, "Modeling Inflation in Australia," Journal of Business and Economic Statistics, Vol. 16, No. 4, pp. 433–449. Working paper version available via: http://www.federalreserve.gov/pubs/ifdp/1995/530/ifdp530.pdf *Supplementary:* Ericsson, Neil R., Julia Campos, and Hong-Anh Tran, 1990, "PcGive and David Hendry's Econometric Methodology," Revista de Econometria, Vol. 10, No. 1, pp. 7–117.
L–15	**Practical Considerations for Implementing Macro Forecasting Procedures** No reading assigned.