4084 Macro Econometrics: Forecasting and Macroeconometric Modelling in Theory and Practice

Michael Hauser, Thomas Url

SS 2014, Monday 17:00-18:30, TC.4.13, and computer lab rooms in D2.

Announced for DrP in majors Volkswirtschaftslehre and Spezielle Statistik. You will find further information at: http://vvz.wu.ac.at/cgi-bin/vvz.pl?C=S&LANG=DE&S=14S&LV=3&L2=S&L3=S&T=&L=Url&I=&JOIN=AND.

Compulsory reading: Diebold(1998), Granger (2007).

Compulsory Topics:

Seasonal Adjustment and Outlier Detection in Time Series,
Seasonal Adjustment, Outlier Detection, Calendar Effects
Ref.: Bell – Monsell (1992), Kaiser – Maravall (2000), Australian Bureau of Statistics (2005), Ghysels – Osborn (2001.)
Software: http://forum.europa.eu.int/irc/dsis/eurosam/info/data/demetra.htm.

Time Series Forecasting, univariate
Estimating and Forecasting Autoregressive Moving Average Models
Ref.: Harvey (1981) Ch. 2 pp. 21-53 und Ch. 5.1-5.6 pp. 120-139, Kennedy (1998) Ch. 17, p. 263-287, Brockwell and Davis (2002) Ch. 2-3,5.

Macroeconometric Modeling: Alternative Approaches
Overview and Comparison of multivariate models
Ref.: Garratt et al. (2006), Ch. 1-2, p. 1-33, Fair (2009), Kilian (2011).

Optional Topics:

Forecasting and Policy Analysis with Bayesian Vector Autoregression Models
Estimating and forecasting with Vector Autoregression Models
Ref.: Charemza – Deadman (1997) Ch. 6, Litterman (1984, 1986), Sims – Zha (1998), Koop (2013).

Forecasting with Large Scale Macroeconometric Models,
Properties of large scale models using either the US-model of Ray Fair or the WIFO-Macromod for Austria to do Forecasts
Ref.: Baumgartner et al. (2004), Fair (2006), Fair (2009).

Software: http://fairmodel.econ.yale.edu/main2.htm.

Dynamic General Equilibrium Models
Modeling and forecasting with New Keynesian Real Business Cycle Models
Ref.: Smets – Wouters (2003), Garrat et al.(2006), Chp. 3, DeJong – Dave(2007), Fernandez-Villaverde (2009).

A Long-run Structural Model of the UK
Modeling and forecasting with Vector Cointegrated Autoregressive Models
Ref.: Garratt et al. (2006), p. 171-223, Gaggl et al. (2009).

Economic Forecasting in a Changing World
Modeling and forecasting structural breaks
Ref.: Clement – Hendry (2008), Reinhart – Rogoff(2008), Claessens et al. (2008), Rivas – Quiros (2012).

GARCH - Theory and Application of Modelling Volatility
Modeling and forecasting structural breaks
Ref.: Tsay (2010), Ch. 3 and 10.

Daten: http://faculty.chicagobooth.edu/ruey.tsay/teaching/fts3/.

References

Australian Bureau of Statistics, An Introductory Course on Time Series Analysis, Canberra, 2005.

Baumgartner, J., Breuss, F., Kaniovski, S., "WIFO-Macromod – An Econometric Model for the Austrian Economy", WIFO-Working Paper No. 241, 2004.

Bell, W., R., Monsell, B., C., "X-11 Symmetric Linear Filters and their Transfer Functions", Bureau of the Census Statistical Research Division Research Report Series No. RR 9215, Bureau of the Census, Washington DC, 1992.

Brockwell, P.J. and Davis, R.A., "Introduction to Time Series Analysis and Forecasting", Springer, 2002.

Charemza, W., W., Deadman, D., F., "New Directions in Econometric Practice", 2nd Ed., Edward Elgar, Cheltenham, 1997.

Claessens, S., Kose, A., Terrones, M., E., „What Happens During Recessions, Crunches, and Busts?", CEPR Discussion Paper No. 7085, Centre for Economic Policy Research, London, 2008.

Clement, M.P., Hendry, D.F., "Economic Forecasting in a Changing World", Capitalism and Society, 3, 2008(2).

Colander, D., "Economists, Incentives, Judgment, and the European CVAR Approach to Macroeconometrics", Economics, Vol. 3, 2009-9

DeJong, D.N. with Dave, C., "Strucrural Macroeconometrics", Princeton University Press, 2007.

Diebold, F.X.,"The Past, Present, and Future of Macroeconomic Forecasting", Journal of Economic Perspectives, 12, 1998, 175-192.

Fair, R., "The US-Model Workbook", mimeo Yale University, 2006, downloadable at http://fairmodel.econ.yale.edu/main2.htm.

Fair, R., "Has Macro Progressed?", Cowles Foundation Discussion Paper No. 1728, Cowles Foundation for Research in Economics, Yale University, New Haven, 2009, downloadable at http://cowles.econ.yale.edu/P/cd/cfdpmain.htm.

Gaggl, P., Kaniovski, S., Prettner, K., Url, T., The short and long-run interdependencies between the Eurozone and the USA, Empirica, 36, 2009, 209-227.

Garratt, A., Lee, K., Pesaran, H., M., Shin, Y., "Global and National Macroeconometric Modeling: A Long-Run Structural Approach"

Fernandez-Villaverde, J., The Econometrics of DSGE Models, Penn Institute for Economic Research Working Paper No. 09-008, Vol. 9, No. 3, 05/15/2009.

Ghysels, E., Osborn, D., R., The Econometric Analysis of Seasonal Time Series, Cambridge University Press, Cambridge, 2001.

Harvey, A., C., "Time Series Models", Philip Allan, Hemel Hempstead, 1981.

Kaiser, R., Maravall, A., "Notes on Time Series Analysis, ARIMA Models and Signal Extraction", Bank of Spain Working Paper No. 0012, Madrid, 2000, http://www.bde.es/informes/be/docs/dt0012e.pdf.

Kennedy, P., "A Guide to Econometrics", 4th Ed., Blackwell, Oxford, 1998.

Kilian, L., Structural Vector Autoregressions, CEPR Discussion Paper No. 8515, London, 2011.

Korobilis, D., VAR Forecasting Using Bayesian Variable Selection, Journal of Applied Econometrics, 28(2) 2013, 204-230.

Koop, G., Forecasting with Medium and Large Bayesian VARS, Journal of Applied Econometrics, 28(2) 2013, 177-203.

Litterman, R., B., "Forecasting and Policy Analysis with Bayesian Vector Autoregression Models", Federal Reserve Bank of Minneapolis Quarterly Review, 1984, 30-41.

Litterman, R., B., "Forecasting with Bayesian Vector Autoregressions - Five Years Later", Journal of Business and Economic Statistics, 4, 1986, 25-38.

Reinhart, C.M., Rogoff, K.S.,"Is the 2007 US Sub-Prime Financial Crises so Different? An International Historical Comarison", American Economic Review: Papers and Proceedings, 98:2, 339-344.

Rivas, M., D., G., Quiros, G., P., The Failure to Predict the Great Recession. The Failure of Academic Economics? A View Focussing on the Role of Credit, CEPR Disc. Paper No. 9269, London, 2012.

Sims, C., A., Zha, T., "Bayesian Methods for Dynamic Multivariate Models", International Economic Review, 39, 1998(4), 949-968.

Smets, F., Wouters, R., "An Estimated Dynamic Stochastic General Equilibrium Model of the Euro Area", Journal of the European Economic Association, 1(5), 2003, 1123-1175.

Tsay, R., S., Analysis of Financial Time Series, Wiley, Chichester, 2010.