**Free University Berlin, School of Business and Economics**

**Winter Semester 2022/2023**


**Topics in Empirical Macroeconomics, Monetary Policy and Macro-Finance**

**Dr. Kirstin Hubrich (Federal Reserve Board)**


The purpose of this course is to familiarize participants with some frontier techniques of modeling and forecasting in the context of topics of relevance for central banks. The course will demonstrate how advanced time series methods, including regression-based methods, vector autoregressive and factor models, can be used to address important empirical questions for monetary policy making, including modelling and forecasting inflation, as well as analyzing the effects of financial developments for economic outcomes and the transmission of financial shocks, and how macroeconomic developments influence financial markets. While a substantial fraction of the class time will be devoted to learn about the relevant estimation, inference and forecasting techniques, the course will emphasize how financial stability and monetary policy questions can be addressed using those methods. In this context the class will also cover the role of heterogeneity and nonlinearities. Reviewing the analysis of micro-level financial and nonfinancial firms' balance sheet data as well as regional and sectoral data will provide insights from a micro, regional and sectoral perspective complementing the macro-perspective.

The term paper will provide students with the opportunity to gain experience in empirical analyses based on relevant data sets using the econometric software package EVIEWS and/or using MATLAB or R code.

**Course requirements:** Graded or ungraded confirmation of course participation will be based on a term paper (100%).

**Course prerequisites**: "Macroeconomic analysis", "Econometric Analysis"

**Course material:** The course will not cover one particular textbook, but draw on several books and papers, see examples in the list below.

**Course language:** English

**Contact:** kirstin.hubrich@gmail.com

*Books:*

Clements, M. P. and D. F. Hendry (1998), "Forecasting Economic Time Series", Cambridge University Press, Cambridge

Diebold, F.X. (2007) "Elements of Forecasting", Fourth Edition, Thomson, South-Western, USA

Koop, G. (2003), Bayesian Econometrics, Wiley, New York.

Lütkepohl, H. (2007), "Introduction to Multiple Time Series", Springer-Verlag, Heidelberg, Germany


*Articles:*

Claessens, Stijn and M Ayhan Kose (2018), Frontiers of macrofinancial linkages, BIS Papers 95

Hendry, David F. and Kirstin Hubrich (2011), 'Combining disaggregate forecasts or combining disaggregate information to forecast an aggregate', Journal of Business and Economic Statistics, 29(2): 216-227.

Hubrich, Kirstin and Tetlow, Robert J. (2015), 'Financial stress and economic dynamics: The transmission of crises', Journal of Monetary Economics, March 2015, Volume 70: 100–115

Hubrich, Kirstin and Dan Waggoner (2022), The transmission of financial shocks and the leverage of financial institutions: An endogenous regime switching framework, *Finance and Economics Discussion Series,* Federal Reserve Board

Stock, J.H. and Watson, M. (1999), Forecasting Inflation, Journal of Monetary Economics, Vol. 44 (2)