Regime switching and mixed frequency models in EViews

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Linear regression and ARIMA models are the primary tools for econometric and statistical analysis in time series. There is, however, considerable evidence that nonlinear modelling is more appropriate, especially in the analysis of financial and macroeconomic relationships that are subject to regime change.

This workshop provides a comprehensive introduction to two advanced econometric methodologies that in recent years have gained wide popularity in modelling and forecasting time series data: *switching regression* models and *mixed data sampling* models.

Traditional approaches to time series analysis, assume constant parameters over time. There is however very strong evidence that economic relationships do change over time, according to observable or unobservable states**. Regime switching models** are linear regression models with nonlinearities arising from discrete changes in regime. Taking a "learning-by-doing" approach we aim to present the tree classes of most popular regime switching models: Threshold regression models, Smooth Transition models and Markov switching models. Dynamics specifications are discussed for all three classes through the use of lagged dependent variables as explanatory variables and through the presence of auto-correlated errors. The workshop employs plenty of financial and macroeconomic data. Forecasting applications of threshold univariate models are presented and discussed in depth. Participants will gain with the know-how on a wide range of regime switching models and the ability to identify which one to use for a specific modelling and forecasting purpose.

Traditional approaches to time-series estimation and forecasting in economics require that the variables be of the same frequency. This often causes a problem since most macroeconomic data is reported at different intervals and frequencies. **Mixed-Data Sampling (MIDAS)** is a method of estimating and forecasting from models where the dependent variable is recorded at a lower frequency than one or more of the independent variables. Unlike the traditional aggregation approach, MIDAS uses information from every observation in the higher frequency space. The workshop provides a comprehensive introduction to MIDAS modelling and forecasting in EViews. Taking a "learning-by-doing" approach, we discuss in depth MIDAS regression models employing plenty of macoreconometric data examples and a constant stream of examples and applications. Forecasting with MIDAS models is disused in depth. Participants leave with a sound know-how on MIDAS regression modelling, testing and forecasting and the ability to use them for their own research purpose.