A course on

Modeling and Forecasting Time Series

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Outline

The implementation of sound quantitative models for forecasting business and economic time series is of paramount importance for, to name a few, investments, capital allocation and budget projections. This course provides a comprehensive treatment of the theoretical concepts and modeling and forecasting techniques for time series. Though remaining technical, the course is applications-oriented and all methods are illustrated with detailed real life examples.

Contents

1. Econometric refreshments
2. Basis of time series analysis
3. Autoregressive models
4. Moving average models
5. AR(I)MA and seasonality
6. Elements of forecasting
7. Modeling and forecasting multiple variables: the VAR model
8. Modeling and forecasting multiple co-integrated variables: the VECM model
9. Modeling large panels of variables: the dynamic factor models:
10. Modeling volatility: an introduction

Practice

All lectures are accompanied with computer practice in Eviews with real macroeconomic data.

References

The reference books are *Applied Econometric Time Series* by Walter Enders (Wiley) and *Asset Price, Dynamics, Volatility and Prediction* by Stephen Taylor (Princeton University Press).

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