Time Series (Master 1)

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Lectures: Wednesday 15h30-18h30 (Room MC203).

The main goal of the course is to familiarize students with time series econometrics, in particular forecasting macroeconomic and financial time series. During the nine weeks of lectures, we will cover different topics. The assessment will be based on two home works (15% each) and a final exam (70%).

The topics that will be covered are:

1. Stationary Processes

2. ARMA Models

3. Modeling and Forecasting with ARMA Processes

4. Introduction to Non-stationary Time Series (Unit Root, Trend, Structural Breaks)

5. Unit Root Tests

6. VAR Models

7. Co-integration and Error Correction Models

8. Forecasting Time Series (in sample and out-of-sample)

References:
- Brockwell, P. and R. Davis: Introduction to Time Series and Forecasting, Springer.
- Diebold, F.: Elements of Forecasting, Thomson, South-Western.
- Hamilton, J. D.: Time Series Analysis, Princeton University Press.
- Stock, J. and M. Watson: Introduction to Econometrics, Addison Wesley.