

Financial Forecasting

M.Sc. in Finance – 2019/20 – 1st Semester

Instructors: 1. Nuno Crato ncrato@iseg.ulisboa.pt 105 Quelhas 4
2. Jorge Caiado jcaiado@iseg.ulisboa.pt 301 Quelhas 6

Office contact: By appointment

Classes: 1. Tuesdays: 18:00-21:00 AF22 (NC)
2. Thursdays: 19:30-22:30 AF21 (JC)

Textbook: Gloria Gonzalez-Rivera, *Forecasting for Economics and Business*, Pearson, 2013

Software: EViews, ISTM2000, or any other software with time series analysis and forecasting capability

Goals: To introduce the main topics in time series analysis and forecasting with an emphasis in financial applications. To develop time series forecasting basic practical ability.

Evaluation: Test 1 (15%), Test 2 (15%), Group Project (30%), and Final Exam (40%)
Special Exam (100%)

	Week	Topic	Text Chapters
1	Sep 17 / 19	Introduction to time series: trends, cycles, seasonality Forecasting: error and horizon, transformations	1 4.1-3
2	Sep 24 / 26	Stationarity, autocorrelation and partial autocorrelation.	3.1-4
3	Oct 01 / 03	White noise and MA processes	6.1-3
4	Oct 08 / 10	AR processes – TEST 1	7.1-2
5	Oct 15 / 17	ARMA and Seasonal ARMA processes	7.3
6	Oct 22 / 24	Deterministic and stochastic trends – unit roots	10.1-2
7	Oct 29 / 31	ARIMA and SARIMA forecasting – Groups final constitution	10.2
8	Nov 05 / 07	ARMA identification and selection – Case studies with EViews	8.2
9	Nov 12 / 14	ARMA forecasting, error criteria and measures – TEST 2	8.3, 9.1-2
10	Nov 19 / 21	Volatility, ARCH models	13.1-3, 14.1
11	Nov 26 / 28	GARCH – Case studies with EViews – Group projects submission	14.1
12	Dec 03 / 05	Group project presentations and discussion	
13	Dec 10 / 12	Group project presentations and discussion	