

Financial Econometrics I

Problem Set 7: Multivariate Time Series Analysis*

December 31, 2018

Learning objectives: After solving the following questions you should be able to

- (a) Understand the concept of weak/strict stationarity in the multivariate context.
- (b) Calculate and interpret auto-correlation matrices.
- (c) Know the specification and main properties of VAR models.
- (d) Fit VAR models, interpret estimation results, conduct basic model selection and diagnostics.
- (e) Test Granger and instantaneous causality and tell their difference.
- (f) Test cointegration and use Engle-Granger method for the inference for cointegration processes.

1. **FY Exercise 4.1**
2. **FY Exercise 4.2**
3. **FY Exercise 4.3**
4. **FY Exercise 4.5**
5. **FY Exercise 4.6**

*You can use two weeks to complete this homework, i.e., the deadline is January 14th, 2019.