

EC 613:
Dynamic Aspects of Turkish and International Financial Markets

Spring 2014

SYLLABUS

(last updated: March 19, 2014)

Stock prices, as well as commodity prices, fluctuate from day to day. A dynamic analysis of the amount and pattern of this volatility can give clues about the development of market structure over time. Methods and models for this aim will be provided in this course, and their limitations will be discussed. Instead of focusing on one market or asset in isolation, it is also possible to analyze the interplay of several markets. To this end, we develop a network perspective to study return-to-volatility spillovers from one market to another. As an example, we see that the Turkish equity market has become much more connected to international markets during the past decade, with certain exceptions.

Many empirical examples will be given; computations will be carried out in the free software environment R (www.R-project.org). The prerequisite is an introductory course in econometrics — students should be familiar with linear regression.

Contents:

1. Introduction (Some projects from our recent research; some remarks about data)
2. Analyzing price changes: some aspects
3. Univariate ARMA models
4. VAR models
5. Connectedness: introduction
6. Connectedness: further network aspects
7. GARCH models

Grading:

Participation:	50%
Project:	50%

Literature:

- ENDERS, W.: *Applied Econometric Time Series*, 3rd edition. Wiley, 2009.
- KLEIBER, C., & ZEILEIS, A.: *Applied Econometrics with R*. Springer, 2008.
- MILLS, T.C. & MARKELLOS, R.: *The Econometric Modelling of Financial Time Series*, 3rd edition. Cambridge University Press, 2008.
- TSAY, R. S.: *Analysis of Financial Time Series*, 2nd edition. Wiley, 2005.
- VENABLES, W.N. & RIPLEY, B.D.: *Modern Applied Statistics with S*, 4th edition. Springer, 2003.
- Further references will be given in the lectures.