1 Review of Univariate Time Series Analysis

1.1 Stationary and Integrated Stochastic Processes
1.2 ARIMA Processes
1.3 Estimation of ARIMA Models
1.4 Model Specification
1.5 Model Diagnostics
1.6 Forecasting
1.7 ARCH/GARCH Processes

Literature: Lütkepohl (2004), Hamilton (1994, Ch 3-5, 17)

2 Vector Autoregressive Models

2.1 VAR Processes
2.2 Forecasting
2.3 Granger-causality Analysis
2.4 Impulse Response Analysis
2.5 Estimation of VAR Models
2.5.1 OLS/GLS/ML Estimation of VARs
2.5.2 GLS Estimation of Restricted VARs
2.5.3 Bayesian Estimation
2.6 Specification of VAR Models
2.7 Model Diagnostics
2.8 Uses of Estimated VARs

Literature: Lütkepohl (2005, Chapters 2-5)
3 Cointegrated VAR Processes

3.1 Cointegration

3.2 VECMs

3.3 Estimation of VECMs

3.3.1 Multivariate Unit Root Asymptotics

3.3.2 OLS Estimation of the Cointegrated VAR(1) Model

3.3.3 Other Estimators of the Cointegrated VAR(1) Model

3.3.4 Estimation of General VECMs

3.4 Specification of VECMs

3.5 Model Diagnostics

3.6 Forecasting

3.7 Granger-causality Analysis

3.8 Impulse Response Analysis

Literature: Lütkepohl (2005, Chapters 6-8)

4 Structural Vector Autoregressive Analysis

4.1 SVARs with Restrictions on Impact Effects

4.1.1 The A-Model

4.1.2 The B-Model

4.1.3 The AB-Model


4.2 Identification Through Long-Run Restrictions

4.2.1 Blanchard-Quah Model

4.2.2 Structural VECM


4.3 The Sign Assignment Problem

Literature: Lütkepohl (2013b)
4.4 Sign Restrictions

4.5 Identifying SVARs via Changes in Volatility

4.6 Special Topics
Literature: TBA

References


