

BOSTON COLLEGE

DEPARTMENT OF ECONOMICS

Econometrics Comprehensive

EC823

Spring 2013

Answer all questions. They are equally weighted.

1. Write an essay describing the use of instrumental variables estimators in economics, including the various types of estimators (e.g., 2SLS, IV-GMM, LIML) and their strengths and weaknesses. Discuss the diagnostic tests that should be applied to verify that IV estimates are consistent.
2. Write an essay describing the use of quantile regression techniques in economics. Discuss their pros and cons vis-a-vis OLS and nonlinear least squares methods, including the property of equivariance.
3. Write an essay discussing the concepts of ARCH, GARCH and multiple-equation GARCH models in economics and finance. Describe the context in which these models may be used and the advantages of explicitly modeling this aspect of time series behavior.