

Robustified Hausman's Test

Pavel Plát, Department of Mathematics, The Faculty of Nuclear Sciences and Physical Engineering, The Czech Technical University

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The presentation deals with testing of independence of explanatory variables and disturbances in the context of robust regression. The least weighted squares estimator (LWS) and the estimator based on the instrumental weighted variables (IWS) are presented and a way of robustification of the Hausman's test is proposed. We consider the null hypothesis of the uncorrelated random disturbances e and explanatory variables X , against the alternative of correlation between e and X . Under the null hypothesis the both estimators (LWS , IWS) are consistent and asymptotically normal. The covariance matrix estimators for both LWS and IWS are proposed and used for the definition of the test statistic of the generalized Hausman's test.