FINM3123 Introduction to Econometrics

Chapter 08

Class exercises

Multiple Choice Questions

1. Which of the following is true of heteroskedasticity?
   a. Heteroskedasticty causes inconsistency in the Ordinary Least Squares estimators.
   b. Population R^2 is affected by the presence of heteroskedasticty.
   c. The Ordinary Least Square estimators are not the best linear unbiased estimators if heteroskedasticity is present.
   d. It is not possible to obtain F statistics that are robust to heteroskedasticity of an unknown form.

2. Which of the following is true of the OLS *t* statistics?
   a. The heteroskedasticity-robust *t* statistics are justified only if the sample size is large.
   b. The heteroskedasticty-robust *t* statistics are justified only if the sample size is small.
   c. The usual *t* statistics do not have exact *t* distributions if the sample size is large.
   d. In the presence of homoscedasticity, the usual *t* statistics do not have exact *t* distributions if the sample size is small.

3. A test for heteroskedasticty can be significant if _____.
   a. the Breusch-Pagan test results in a large *p*-value
   b. the White test results in a large *p*-value
   c. the functional form of the regression model is misspecified
   d. the regression model includes too many independent variables

4. Weighted least squares estimation is used only when _____.
   a. the dependent variable in a regression model is binary
   b. the independent variables in a regression model are correlated
   c. the error term in a regression model has a constant variance
   d. the functional form of the error variances is known

5. The linear probability model contains heteroskedasticity unless _____.
   a. the intercept parameter is zero
   b. all the slope parameters are positive
   c. all the slope parameters are zero
   d. the independent variables are binary

True or False

6. The generalized least square estimators for correcting heteroskedasticity are called weighed least squares estimators.
7. Multicollinearity among the independent variables in a linear regression model causes the heteroskedasticity-robust standard errors to be large.