Chapter 11: A Regression User's Handbook

In this chapter:

1. A table with directions/references explaining how to view the checkpoint items displayed in *UE*, Table 11.1, p.391.
2. A table with directions/references explaining how to check for econometric maladies identified in *UE*, Table 11.2, p.393.
3. Exercise

How to observe checkpoint items displayed in *UE*, Table 11.1	
Checkpoint	**How to observe in EViews**
X, Y	Displaying the spreadsheet view of a group of variables
Degrees of Freedom (df)	To calculate the degrees of freedom for *EQ01*: enter the following formula in the command window, and press **Enter**: *=EQ01.@REGOBS-EQ01.@NCOEF* and view the df on the status line in the lower left of the screen
Coefficient (β-hat$_k$)	EViews Estimation Output table
t-Statistic (t)	EViews Estimation Output table
R-squared (R^2)	EViews Estimation Output table
Adjusted R-squared (R-bar^2)	EViews Estimation Output table
F-statistic (F)	EViews Estimation Output table
Durbin-Watson stat (DW)	EViews Estimation Output table
Residual (e_i)	Displaying the actual, fitted, residual, and a plot of the residuals, Graphing to detect heteroskedasticity
S.E. of regression (SEE)	EViews Estimation Output table
Total sum of squares (TSS)	To calculate the total sum of squares for a variable named *Y*: enter the following formula in the command window, and press **Enter**: series *SQUAREDERROR=(Y-@MEAN(Y))*^2. After that enter the following formula in the command window, and press **Enter**: =@SUM(*SQUAREDERROR*). The TSS can be viewed on the status line in the lower left of the screen.
Sum squared resid (RSS)	EViews Estimation Output table
Std. Error (of coefficients) {SE(β-hat$_k$)}	EViews Estimation Output table
Estimated first-order autocorrelation coefficient (ρ-hat))	Using regression to estimate ρ, the first order serial correlation coefficient
Simple correlation coefficient (r_{12})	Displaying the simple correlation coefficients between all pairs of variables in a group
Variance inflation factor (VIF)	Calculating Variance Inflation Factors

How to check for econometric maladies identified in *UE*, Table 11.2	
What's wrong	**How to check in EViews**
Omitted variable	Adding or deleting variables to/from an OLS model in EViews
Irrelevant variable	Adding or deleting variables to/from an OLS model in EViews
Incorrect functional form	Chapter 7 Specification: Choosing A Functional Form
Multicollinearity	Chapter 8: Multicollinearity
Serial correlation	Chapter 9: Serial Correlation
Heteroskedasticity	Chapter 10: Heteroskedasticity

Exercise:

UE 11.7.2, pp. 406-407:

Step 1. Open the EViews workfile named *House11.wf1*.
Step 2. Select **Objects/New Object/Equation** on the workfile menu bar, enter *YOUR EQUATION SPECIFICATION HERE WITH THE DEPENDENT VARIABLE FIRST FOLLWOED BY C AND A LIST OF THE INDEPENDENT VARIABLE CHOSEN FOR EACH SPECIFICATION* in the Equation Specification: window, and. click **OK**.
Step 3. Check your results for each specification, following the outline printed in *UE*, p. 407 (refer to the tables above for guidance on how to perform each step).