***EViews* Exercises for Chapter 10**

**EXAMPLE 10.1: GARCH models for the $/£ exchange rate**

This example uses the workfile dollar.wf1. The estimates of the AR(1)-GARCH(0,0) model presented in the first column of Table 10.1 are obtained with the command

ls d(dollar) d(dollar(-1))

The AR(1)-GARCH(1,1) model estimates shown in the second column are then obtained by clicking ***Estimate*** in the ***Stats*** equation view and selecting ‘ARCH – Autoregressive Conditional Heteroskedasticity’ as the Estimation Method. Click on ‘Options’ and select ‘Bollerslev-Wooldridge’ as ‘Covariance Method’ to obtain QML estimated standard errors. The estimates shown in the third column are obtained by repeating the procedure with d(dollar(-1)) deleted from the Mean Equation specification. Including dollar(-1) in this specification will provide the unit root test. Changing the ARCH order to 2 will estimate the GARCH(2,1) model and changing the GARCH order to 2 will estimate the GARCH(1,2) model.

The conditional standard error shown in Figure 10.1 is obtained by clicking ***Proc/Make GARCH Variance Series…*** in the ***Stats*** view of the AR(1)-GARCH(1,1) equation. This produces the conditional variance series garch01. To obtain the conditional standard error issue the command

genr cond\_se = @sqrt(garch01)

To estimate with non-Gaussian errors, select an alternative Error Distribution in the ‘Estimation’ window and to estimate an IGARCH model select the IGARCH option in the Restriction box.

**EXAMPLE 10.2: Forecasting the $/£ exchange rate**

This uses the ‘pure’ GARCH(1,1) model. To obtain the forecasts and conditional standard errors, click ***Forecast***, provide names for the forecasts and standard errors and select the forecast sample as ‘10820 10920’.