**ARCH**

1. The volatility is present.
2. Unit root test:

**Dickey-Fuller test:**

H0: Has unit root

t-stats > 5% t-stats ------- Cannot reject null

1. Estimation

DV c DV(-1) ------- LS

Check Hetroskarcity ------ ARCH ------- Obs\*R^2 < 0.05 ---------reject null

So, ARCH (1) is present.

1. Estimation

DV c DV(-1) ------- ARCH

Check for Significant probability

Write the equations

1. Diagnostic Test

Since ARCH takes too many lags to pass ARCH LM test this makes the model over fitted, over-estimated and non-parsimonious

**GARCH**

1. The volatility is present.
2. Unit root test:

**Dickey-Fuller test:**

H0: Has unit root

t-stats > 5% t-stats ------- Cannot reject null

1. Estimation

DV c DV(-1) ------- ARCH-------Garch (1)

Check Hetroskarcity ------ ARCH ------- Obs\*R^2 < 0.05 ---------reject null

So, ARCH (1) is present.

**VAR**

1. Unit root test:

**Dickey-Fuller test:**

H0: Has unit root

t-stats > 5% t-stats ------- Cannot reject null