

Test Name:	Tests For:	Hypothesis:	Corrected Using:	Data Type:
Breuch Godfrey	Serial correlation	<b>Null Hypothesis:</b> No serial correlations up to six lags (observed in the data)  <b>Alternative Hypothesis:</b> There is a serial correlation	Newey West →  Dynamic Model →	Cross-Sectional  Time Series
White Test	Heteroskedasticity	<b>Null Hypothesis:</b> Homoscedasticity  <b>Alternative Hypothesis:</b> heteroskedasticity	Huber-White Correction	Cross Sectional
ARCH Test	Heteroskedasticity		ARCH/GARCH model (maximum likelihood, not OLS)	Time Series
Chow Test	Breakpoints (Given Date)	<b>Null Hypothesis:</b> parameters (betas) are the same in the two subsamples  <b>Alternative Hypothesis:</b> at least one parameter (beta) changes	Exclude breakpoints from data	Time Series  <i>Normal Distribution</i>
Multiple Breakpoint Test / Quandt Andrews Breakpoint Test	Breakpoints (Unknown)	<b>Null Hypothesis:</b> No breaks over the whole sample period in the betas of any of the variables including the intercept  <b>Alternative Hypothesis:</b> There is at least one breakpoint in the sample	Exclude breakpoints from data	Time Series N > 150

Test Name:	Tests For:	Hypothesis:	Test-Stat
F-Test	Significance	<p><b>Null Hypothesis:</b> <math>\beta_1, \beta_2, \beta_3, \beta_x</math> are all simultaneously equal to zero, ceteris paribus.</p> <p><math>\beta_1 = 0, \beta_2 = 0, \beta_3 = 0, \dots \beta_x = 0</math></p> <p><b>Alternative Hypothesis:</b> At least ONE of the betas is different to zero.</p> <p><math>\beta_1 \neq 0</math> OR <math>\beta_2 \neq 0</math> OR <math>\beta_3 \neq 0, \dots</math> OR <math>\beta_x \neq 0</math></p>	$F = \frac{R^2 / (k - 1)}{(1 - R^2) / (T - k)}$ $F = \frac{N - k}{m} \left[ \frac{RRSS - URSS}{URSS} \right] \sim F_{m, N - k}$
T-Test	Significance	<p><b>Null Hypothesis:</b> Beta = 0 <math>\beta = 0</math></p> <p><b>Alternative Hypothesis:</b> Beta is different from zero <math>\beta \neq 0</math></p>	$T = \frac{\beta \text{ Coefficient}}{\beta \text{ Standard Error}}$