

Assumptions Checklist

Assumption	How assumption is tested/determined	If test statistic - Value	Significance (p-value)	Assumption met? Yes or No
Pre-Regression	Normality of Data and random sampling.			Yes or No
IID (Error terms (Resids) are independent, and identically distributed)	Durbin-Watson's d test. Null = no autocorrelation. SPEC test in SAS.			Yes or No
Linear Relationship	Scatterplot			Yes
Outliers' assessment	Exploratory statistics (PP and QQ plot). Standardized values > 3.29 = outliers			Yes
Independence of residuals (no autocorrelation)	Durbin-Watson's d test. Null = no autocorrelation. Not valid for small sample sizes.	1.765	Critical value range 1.76-1.78 (n=200) OR $1.5 < d < 2.5$	Yes (accept null)
Homoscedasticity	Goldfeld-Quandt test (Excel); Visual inspection of Resids scatterplot. SPEC test in SAS.			Yes
Residuals are normally distributed	Histogram, P-P or Q-Q plot			Yes