12 Book Notes

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12.1 Properties of OLS w/ Serial Correlated Errors

12.1a Unbiasedness and Consistency

When data is weakly dependent, $\hat{\beta}_j$ are still consistent but not necessarily unbiased

12.1b Efficiency and Inference

When $\rho < 0$, ρ^j is negative when j is odd and positive when even

12.1c Goodness of Fit

12.1d Serial Correlation in the Presence of Lagged Dependent Variables

12.2 Testing for Serial Correlation

12.2a A t test for AR(1) Serial Correlation With Strictly Exogenous Regressors

12.2b The Durbin-Watson Test Under Classical Assumptions

12.2c Testing for AR(1) Serial Correlation Without Strictly Exogenous Regressors

12.2d Testing for Higher Order Serial Correlation

$H_0: \rho_1 = 0, \rho_2 = 0, \ldots \rho_n = 0$

12.4 Differencing and Serial Correlation