

Abstract

This report studies whether regression applied to stationary and non-stationary time series could result in spurious outcomes. We prove that in the context of time series linear regression, t-statistics of ordinary least square estimators are not useful in deciding the significance of independent variable. To study the slope coefficients, AR(1) time series are regressed onto each other and the simulation results indicate that our hypothesis is valid. A promising transformation method is then proposed to improve on the problem of spurious outcomes.