

Advanced Time Series TopicsIV.3 Spurious Regression

There's an extraneous reason for correlation

IV.2 Testing For Unit roots

Unit root process w/ drift very different from one without

Unit root hypothesis

$$H_0: \rho = 1$$

$$H_a: \rho < 1$$

$$\Theta = \rho - 1$$

$$\Delta y_t = \alpha + \Theta y_{t-1} + e_t$$

asymptotic distribution of t statistic under H_0 is
Dickey-Fuller Distribution