

Econometrics

Lecture 9: Extension of Simple Regression: Functional Forms III Solutions

1. In a double log or log-log regression equation, what does β_2 measure?

β_2 measures the elasticity of Y with respect to X. It gives the proportionate change in y with respect to proportionate change in X.

$$\beta_2 = (\Delta Y / \Delta X) * (X / Y)$$

2. Absolute growth rates are measured by which of the following functional forms?
a. **Linear Trend** b. Reciprocal c. log-lin d. Regression through origin
3. Give two examples of reciprocal models in Economics.

Phillips curve; Engels Curve

4. **Reciprocal** models take the asymptote or limit value that the dependent variable Y will take when the value of the X variable increases indefinitely.
5. The underlying economic theory can suggest a particular functional form. **True**/False