

Regression Analysis (Econometric)

① Theory Law of Demand : $Q = f(P)$

② Mathematic Model

$$Q = \beta_0 + \beta_1 P$$

③ Econometric Model

$$\underline{Q} = \beta_0 + \beta_1 \underline{P} + e \Rightarrow Y = \beta_0 + \beta_1 X + e$$

④ Observe Data $\Rightarrow Q \ \& \ P$

⑤ Estimate Parameter
OLS

$$\beta_1 = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})}{\sum_i (x_i - \bar{x})^2}$$