$$y_i = E\left(y_i/x_i\right) + \varepsilon_i$$

$$y_i = \beta_0 + \beta_1 x_i + \varepsilon_i$$

$$E\left(\varepsilon_i\right) = 0 \qquad VAR\left(\varepsilon_i\right) = \sigma^2$$

$$\beta_0, \beta_1, x$$

$$\varepsilon_i$$

$$x_i$$

$$Cov\left(\varepsilon_i, \varepsilon_j\right) = 0 \qquad si\ i \neq j$$

$$Cov\left(\varepsilon_i, x_i\right) = 0$$

$$\varepsilon_i \sim N\left(0, \sigma^2\right)$$