

$$\ln(\text{scrap}^*) = \beta_0 + \beta_1 \text{grant} + \varepsilon$$

$$\ln(\text{scrap}) = \ln(\text{scrap}^*) + v$$

$$\ln(\text{scrap}) = \beta_0 + \beta_1 \text{grant} + \varepsilon + v$$

grant 和 v 负相关。

$$\hat{\beta}_1 \rightarrow \beta_1 + \frac{\text{cov}(\text{grant}, v)}{\text{var}(\text{grant})}$$