

$$I_{\frac{2}{n}} := \begin{cases} 1, & \text{wenn K.S. Vorh. ist } 2/n \\ 0, & \text{sonst} \end{cases}$$

$$I_{\frac{1}{n}} := \begin{cases} 1, & \text{wenn K.S. Vorh. ist } 1/n \\ 0, & \text{sonst} \end{cases}$$

$$z = 1/2 \quad \rightarrow \quad g_0(z) = \beta_0$$

$$z = 1/n \quad \rightarrow \quad g_0(z) = \beta_0 + \beta_1$$

$$z = 1/n \quad \rightarrow \quad g_0(z) = \beta_0 + \beta_2$$

$$E(\ln Y | X, Z) =$$

$$\left( \beta_0 + \beta_1 \bar{I}_{z/n} + \beta_2 \bar{I}_{1/n} \right) + \left( \gamma_0 + \gamma_1 \bar{I}_{z/n} + \gamma_2 \bar{I}_{1/n} \right) \ln X$$

$$= \beta_0 + \beta_1 \bar{I}_{z/n} + \beta_2 \bar{I}_{1/n} + \gamma_0 \ln X + \gamma_1 \bar{I}_{z/n} \ln X + \gamma_2 \bar{I}_{1/n} \ln X$$

$$E(Y|X=1, Z=1) - E(Y|X=0, Z=1)$$

$$[\gamma_0 + \gamma_1]$$

$$- \left[ E(Y|X=1, Z=0) - E(Y|X=0, Z=0) \right]$$

$$[\gamma_0]$$

$$\underline{E(Y|X)} = E \left[ \underbrace{E(Y|X, Z)}_{X^*} \mid \underbrace{X}_{f(X^*)} \right] \quad vi$$

$$= E \left[ g_0(Z) + g_1(Z) \cdot X \mid X \right]$$

$$= E \left[ g_0(Z) \mid X \right] + E \left[ g_1(Z) \mid X \right] \cdot X$$

$$= E \left[ \beta_0 + \beta_1 Z \mid X \right] + E \left[ \gamma_0 + \gamma_1 Z \mid X \right] \cdot X$$

$$= \underbrace{(\beta_0 + \beta_1 E(Z))}_{\beta_0 + \beta_1 E(Z)} + \underbrace{(\gamma_0 + \gamma_1 E(Z))}_{\gamma_0 + \gamma_1 E(Z)} \cdot X$$

$$E(\ln y | X, z) = (\beta_0 + \beta_1 z + \beta_2 z^2) + (\gamma_0 + \gamma_1 z + \gamma_2 z^2) \cdot \ln X$$

$$'' \quad + \gamma_0 \cdot \ln X + \gamma_1 z \cdot \ln X + \gamma_2 z^2 \cdot \ln X$$