

$$4. C = a \cdot P^b = a \cdot e^{b \cdot \ln P}$$

$$\underbrace{\ln(C)}_z = \underbrace{\ln(a)}_{\alpha_1} + b \cdot \underbrace{\ln(P)}_{\alpha_2} \quad \left(\frac{1}{2}\right)$$

$$A = \begin{pmatrix} | & \ln(0,111) \\ | & \ln(0,428) \\ | & \vdots \\ | & \vdots \end{pmatrix}, \quad A \cdot \alpha \approx z$$

$$A^t A \cdot \alpha = A^t z \quad \left(\frac{1}{2}\right)$$

$$A^t A \approx \begin{pmatrix} 7 & 1,882 \\ 1,882 & 11,93 \end{pmatrix}, \quad A^t z \approx \begin{pmatrix} 3,572 \\ 8,360 \end{pmatrix}$$

$$\dots \Rightarrow \alpha \approx \begin{pmatrix} 0,3362 \\ 0,6479 \end{pmatrix} \quad \left(\frac{1}{2}\right)$$

$$a = e^{\alpha_1} \approx 1,3996 \approx 1,400 \quad \left(\frac{1}{2}\right)$$

$$b = \alpha_2 = 0,6479$$

$$C \approx 1,400 \cdot P^{0,6479}$$