

# MICROECONOMETRIA — LABORATORIO 2 Bis

EKC - SUNE, DTA

$$y = \log \left( \frac{CO_2}{PDP} \right)$$

$$X = \log \left( \frac{GDP}{PDP} \right)$$

SUNE

$$y_{it} = \alpha_i + \beta_{2i} x_{it} + \beta_{3i} x_{it}^2 + u_{it}$$

↑                      ↑                      ↑

$i = 1 \dots N = 3$

$t = 1 \dots T = 146$

$$\text{GEN } X12 = X1^{^2}$$

$$\text{GEN } X22 = X2^{^2}$$

$$\text{GEN } X32 = X3^{^2}$$

LIST  $y_1$   $x_1$   $x_{12}$

SUREG ( $y_1$   $x_1$   $x_{12}$ ) ( $y_2$   $x_2$   $x_{22}$ )

( $y_3$   $x_3$   $x_{32}$ ), CORR

↳ SURE Nonlinearities

# SURVE NON RISTRETTO

$$y_{1t} = \alpha_1 + \beta_{21} x_{1t} + \beta_{31} x_{1t}^2 + u_{1t}$$

$$y_{2t} = \alpha_2 + \beta_{22} x_{2t} + \beta_{32} x_{2t}^2 + u_{2t}$$

$$y_{3t} = \alpha_3 + \beta_{23} x_{3t} + \beta_{33} x_{3t}^2 + u_{3t}$$

$$\beta_{21} = \beta_{22} = \beta_{23}$$

$$\beta_{31} = \beta_{32} = \beta_{33}$$

SURVE RISTRETTO  $\neq$  OLS

## Dichotomische Verfolgung:

$$\text{CONSTRAINT 1} \quad [y_1]x_1 = [y_2]x_2$$

$$\text{CONSTRAINT 2} \quad [y_2]x_2 = [y_3]x_3$$

$$\text{CONSTRAINT 3} \quad [y_1]x_{12} = [y_2]x_{22}$$

$$\text{CONSTRAINT 4} \quad [y_2]x_{22} = [y_3]x_{32}$$

SUNEG  $(y_1 \ x_1 \ x_{12}) \ (y_2 \ x_2 \ x_{22})$

$(y_3 \ x_3 \ x_{32})$ , CONST(1 2 3 4)

PRESAIDENDO DALLI ASPETTI "DIMENSIONALI" (N vs T),

IL MODELLO SUNE RISPONDE A TUTTI I PARAMOSTRI  $\beta$  SONT  
CONVUNI COINCIDE CON IL MODELLO PANSBL A EFFETTO FISSO



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↓  
MODELLO PANEL CON EFFETTO FISSI

DATASET : PANEL1.DTA