

# PRÁCTICO 11.2

## Ejercicio 2

$$Y_t = \beta_1 + \beta_2 X_t + \varepsilon_t$$

$$E(\varepsilon|X) \neq 0$$

1

	X	Y	Z.1	Z.2
X	13.4	21.9	-5.9	2.1
Y	21.9	53.4	5.8	2.9
Z1	-5.9	5.8	40.64	-1.44
Z2	2.1	2.9	-1.44	1.09

2

Z.1 ya que su correlación con X es mayor (en val. abs.).

3

$$\textcircled{1} X_t = \alpha_1 + \alpha_2 Z.1_t + v_t \quad \forall t=0, \dots, 9 \Rightarrow \text{obtengo } \hat{X}_t$$

$$\textcircled{2} Y_t = \beta_1 + \beta_2 \hat{X}_t + \varepsilon_t \quad \forall t=0, \dots, 9$$

$$\hat{\beta}_1 = 29.83 \quad \hat{\beta}_2 = -0.98$$

4

¡ah?

5

$$IC_{90\%}^{\beta_2} = \left[ \hat{\beta}_2 \pm \Phi^{-1}(0.95) \sqrt{\sigma_\varepsilon^2 [X'W(W'W)^{-1}W'X]^{-1}} \right] =$$

$$= [-21.8965; 81.5573]$$