

Practice 2 – Introduction to Econometrics (deadline: the day before next tutorial)

- 1) Describe briefly the methodology to be followed in econometrics.
- 2) A company wishes to estimate the demand for its product d_t according to its price p_t , using data from both variables for the last 120 months.

The following model is laid out, being u_t the random disturbance:

$$d_t = \alpha_0 + \alpha_1 p_t + u_t \quad t = 1, 2, \dots, 120.$$

- a) What is the expected sign for α_1 ? Why?
 - b) Interpret coefficients α_0 and α_1 given the econometric model above.
 - c) How would you interpret u_t ? Explain.
- 3) Propose, in a very simple way (as in 2), an econometric model to explain the link between the demand for coffee, coffee price, and the price of a substitute for coffee (tea, for example). Suppose you have 1000 companies for the year 2005.
- a) Which variables are independent and which dependent?
 - b) What is the expected sign of the coefficients?
 - c) What types of data are used?
- 4) Suggest a univariate model and then a multivariate model for the same dependent variable. Explain all the variables and justify their inclusion in the model. Name each of the "letters" and explain what they mean. What do you think will be the difference between the two models? To come up with both models try to be original but always keep in mind the underlying economic reasoning/theory (otherwise you might get the case of "spurious regression").