Practice 3 – Introduction to Econometrics (deadline: the day before next tutorial)

1) A researcher wishes to estimate the demand for labor l_t on the real wages w_t using data from both variables for the 15 largest EU countries in 2010.

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

$$l_i = \alpha_0 + \alpha_1 w_i + u_i \quad i = 1, \dots, 15.$$

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.

2) Propose, in a very simple way (as in 2), an econometric model to explain the link between the income of people, their education level, and their job market experience. Suppose you have 10,000 individuals for the year 2010.
a) Which variables are independent and which dependent?
b) How would you define these variables?
c) What is the expected sign of the coefficients?
d) What types of data are used?

3) Suggest a model (only theoretically, as above) which can suspiciously lead to a "spurious" result. Explain. Then suggest the same model (that is, same dependent variable) but strongly supporting your arguments with the use of theory.