

EE325 | Homework 4: Practical Exercise 1 | Due date: Thursday 2 November 2017, before the lecture begins.

Instruction

- 1) Use EVIEWS via vdi.econ.tu.ac.th to do the following assignment.
- 2) You may submit your work by using Microsoft Word. All tables and graphs can be directly copy from EVIEWS and paste to MS Word as shown in the tutorial session.
- 3) Any questions can be sent via pwrasai@gmail.com
- 4) Practice makes perfect.

Model 1: $wage = \beta_0 + \beta_1 educ + u$ (1)

where wage is expressed as a dollar level, and educ is expressed as a years level)

- a) Provide descriptive Statistics of the two variables: Mean, Max, Min and say a few word about each statistics.
- b) Use the command in EViews to estimate a wage equation in the form of model 1 above (this is called a “level-level” specification). Remember to include a constant in your specification.
- c) What is the coefficient on educ? Is it of the expected sign?
- d) Interpret this coefficient. How much does an extra year of education boost earnings? Be very precise with your language, especially when it comes to the units of education and earnings you are discussing.
- e) Is this a big or a small effect, in your opinion?
- f) Do you think the level-level specification is a reasonable one for exploring the relationship between education and wage? Why or why not?

Hint: β_1 suggests (implicitly) that an extra year of education, going from 4 years to 5, gives the same dollar boost, β_1 , as an extra year of education, going from 16 years to 17.

Model 2: $\log(wage) = \beta_0 + \beta_1 \log(educ) + u$ (2)

Use the ls command in EViews to estimate a wage equation in the form of equation (2) above (this is called a “log-log” specification). Remember to include a constant in your specification.

- a) What is the coefficient on educ? Is it of the expected sign?
- b) Interpret this coefficient. How much does a 1 percent increase in education boost earnings? Be very precise with your language, especially when it comes to the units you are discussing.
- c) Is this a big or a small effect?
- d) Do you think the log-log specification is a reasonable one for exploring the relationship between education and wage? Why or why not?

Note: to generate $\log(\text{wage})$, click on QUICK/GENERATE SERIES. There you will see a dialog box popping up, enter $\ln\text{wage}=\log(\text{wage})$. Use the same command to generate $\log(\text{edu})$.

