**WEEK 9: SUNDAY NOVEMBER 8 before 10 pm**

**DATA REPORT - REGRESSION**

**UPLOAD THE REGRESSION TABLES TO PROPER DROPBOX IN MyLS**

**This REGRESSION REPORT must include the following:**

**COVER PAGE**

1. A tentative and interesting title for the paper.
2. Your name and student identification number.

**INTRODUCTION**

* + A **FIFTH** pass at formulating your **RESEARCH QUESTION**.
  + **MOTIVATION:** Why is your topic **INTERESTING**? Avoid stating personal reasons.

**METHODOLOGY, REGRESSION EQUATION AND HYPOTHESES**

1. **Methodology:**
   * Typically Ordinary Least Squares (OLS) regression
   * If using **different econometric technique** specify and describe technique and why it is useful for your analysis
   * If using **fixed effects** describe why the use of fixed effects is required in your study. **Explain** what the fixed effects variables are capturing.
2. If following an article in literature review
   * refer to it here and specify what you are adding to study
3. **Empirical specification:**
   * Explanation/description on how specification chosen
   * Specify regression equation using **EQUATION EDITOR** to type the equation
   * Better to give **ACRONYMS** to the variables in equation (but may get long) rather than .
   * Use subscripts for variables that vary over time () or that vary by individual or by country or province.() or both
   * These regression equations may include lag terms or quadratic terms if the effect of the variables is non-linear.
   * If using lagged variables explain why lags are required. Below variable is lagged one period.
4. Describe **SIGN** of coefficients. Relate these signs to **hypotheses being tested.**
5. Assumptions made on **ERROR TERM**.
6. Will you have issues related to **multi-collinearity, heteroscedasticity** **and autocorrelation?** If any of these problems exist, how can you fixed then after you do the regressions, i.e., how can these problems be addressed?

**REGRESSION ANALYSIS**

1. You will run **MORE** regression specifications than you will include in report.
2. Summarize regression results in **TABLES (see table in the next page)**
3. For each regression in table need (see sample table below)

* Coefficients
* Identify with **STARS** significance level of coefficient (1%, 5% or 10%)
* In parenthesis below give t-statistic or p-value. Explain what these values mean in general terms

1. You may have **more than one table of results**.
2. **FOOTNOTES** in each table **IDENTIFYING SIGNIFICANCE LEVELS**.
3. Tables must be **SINGLE SPACED.**
4. The regression table should look more or less like this sample table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 2: Regression results (Dependent variable, no. obs if same for all regressions)** | | | | | |
| Variable names | Regression 1 | Regression 2 | Regression 3 | Regression 4 | Regression 5 |
| most important explanatory variable | 0.9977 \*\*\*  (t-stats/p-value) | 0.9931 \*\*\*  (0.15) | 0.9761 \*\*\*  (0.22) | 0.9531  (1.15) | 0.8937  (1.15) |
|  |  | 3.126 \*\*  (2.21) | 3.326 \*\*  (2.21) | 3.818 \*\*  (2.21) | 3.056 \*\*  (2.21) |
|  |  |  | 0.2667 \*\*  (0.15) | 0.2811 \*\*  (0.18) | 0.1811  (0.19) |
|  |  |  |  |  | 2.1716 \*\*\*  (0.21) |
| Fixed effects (if any) | Yes or No | Yes or No | Yes or No | Yes or No | Yes or No |
|  |  |  |  |  |  |
| No. obs if **vary** by regression |  |  |  |  |  |
| or adjusted |  |  |  |  |  |

\*\*\*\* means significant at the 1% level; \*\* means significant at the 5% level; \* means significant at the 10% level

**Note that you can create this table using STATA. You were taught how to do this in your econometric courses. A file with the instructions on how to do this will be available in MyLS under content.**

1. A **FIRST DRAFT** of **commenting on your results IN BULLET FORM**.

* **Discuss** your findings.
  + **Discuss and interpret significance of most important variables** included in your analysis
* **INTERPRET AND QUANTIFY YOUR RESULTS:** For example, a 1% increase in variable increases the dependent variable by 2%.
  + If the increase in is too small, try increasing  **by 1 STANDARD DEVIATION** and see what effect it has on , this calculation will have to be done manually using the regression coefficient for this variable.
* Talk **ONLY** about the most important results. You will not have time to discuss all of your results.

**CONCLUSION**

What you **LEARNED** from your analysis.

* 1. Summarize your findings.
  2. If you find that the coefficients were not statistically significantly different from zero for some variable, give a plausible explanation why this is the case.