

## Research Project

### ECON 4230 Intermediate Econometric Theory

#### I. Proposal (15 pts) – Due Beginning of Class on Thursday, February 22

The research proposal serves two purposes: (1) it forces you to carefully think through the goals and methods of the project; and (2) it allows me to provide more thoughtful feedback. Without carefully thinking through the goals and methods, it is easy to waste valuable time heading down unproductive paths.

The proposal must involve “economic” theory and empirical application. The written proposal is to be no more than two double-spaced pages. Assume your audience has little-to-no training in economic theory or econometrics, using easy to understand terminology to describe your project. Use equations sparingly and write the proposal in a narrative form. Below is a suggested outline for the proposal:

##### Suggested Outline of the Proposal

- A. Title of the Paper
- B. Introduction (include the hypothesis you wish to test)
- C. Econometric Model
  1. Dependent and Independent Variables
  2. Other Data Information (i.e., data source, missing data, measurement error, etc.)
  3. Algebraic Representation of the Model
- D. Conclusion (briefly explain the intended contribution of your paper)

If you are having a difficult time coming up with a suitable project, some of the following methods may be of help. (1) Visit with faculty members (including me!) in the department and ask if they have any ideas for projects that they have not had time to pursue; (2) Peruse through recent copies of academic journals such as the *American Economic Review* or the *Journal of Economic Perspectives* for interesting topics. (3) Pick up the *Wall Street Journal* or your local paper and look for interesting economic problems that have yet to be fully addressed.

#### II. Paper (70 pts) – Due Beginning of Class on Thursday, April 26

The format of the research paper is flexible. It is common in economics for scholarly papers to include five sections: introduction, model, data, results and conclusion. The paper is to be no more than five double-spaced, typewritten pages (excluding appendices). You will be rewarded for clarity and using proper grammar.

##### Suggested Outline of the Paper

- A. Title Page (not included in the page count)
- B. Introduction
  1. State the objective of your project
  2. Provide a motivation for why your project is interesting

C. Brief Literature Review

D. Model

1. Identify the dependent and independent variables
2. Algebraic representation of the model
3. State the main hypothesis to test
4. Expected signs of the coefficients
5. Econometric issues
  - (a) Functional Form
  - (b) Multicollinearity
  - (c) Serial Correlation
  - (d) Heteroskedasticity
  - (e) Simultaneity/Endogeneity
  - (f) etc.

E. Data

1. Definitions of the variables
2. Data sources
3. Frequency and/or sample size
4. Data problems (i.e., mis-measurement, missing observations, etc.)

F. Empirical Results

1. Include a summary of output (do not cut and paste directly from R or STATA!)
2. Include all test statistics and conclusions from hypothesis testing
3. Describe results from hypothesis tests and consistency with the expected signs
4. Discuss economic significance of the coefficients and intuition for the results

G. Conclusion

1. Summarize significance and shortcomings of the research
2. Discuss any extensions

**III. Presentation and Review (15 pts) – Week of April 30 – May 5**

Each student is required to present the findings of his/her research to the class. Each paper will be given 20 minutes – 10 minutes for the presentation, 5 minutes for the review, and 5 minutes for general Q & A. This amount of time is similar to what is allowed for presentations at economic conferences.