

**UNIVERSITY OF TORONTO**  
**ECO475H1S**  
**APPLIED ECONOMETRICS II**  
**Winter 2017**

**TERM PAPER**

### **Aim of Project**

The main objective of the term paper is to provide students with the opportunity to explore an empirical question in economics using the tools learned in the course. In addition to cultivating econometric skills, the paper is designed to improve general research, data gathering, and writing skills. As a bonus, students may actually learn the answer to an interesting economic problem!

### **Joint Work**

Students are highly encouraged, but not required, to work in pairs or triple. The maximum “group size” is 3. If students work together, they will receive the same grade. **If you decide to work in a pair or triple, please email the Instructor and the TA the names and student IDs of the group by January 26<sup>th</sup>.** If serious problems arise between partners, the Instructor will sanction “divorce,” if requested by either party. Upon divorce, all existing work will be shared between partners, with each partner handing in a separate paper. This should be the last resort.

### **Time Line**

Jan 5 <sup>th</sup> - Jan 26 <sup>th</sup>	Prepare a Term Paper Proposal
Jan 27 <sup>th</sup>	Submit a Term Paper Proposal
Feb 3 <sup>rd</sup> Test	Receive feedback from the Instructor
March 2 <sup>nd</sup> and 9 <sup>th</sup>	Oral Presentation (in class) of the term paper
Feb 3 <sup>th</sup> -Apr 1 <sup>st</sup>	Prepare a term paper and submit it Apr 1 <sup>st</sup> .

### **Advising**

Students are encouraged to make use of both instructor’s and the TA’s office hours to discuss any specific issue related to their term papers. For STATA-related problems, please go to the TA’s office hours.

### **Paper Proposal**

#### **Format**

A paper proposal consists of three-pages text. The text should follow the following format: double spaced, 1-inch margins and 11 or higher point font. The tables, figures,

references, and data appendix do not count towards the 3-page limit.

### **Structure of the Text**

The text should elaborate what you write in the summary form. It at least should contain (1) research questions; (2) their relevance (why they can be important); (3) main regression; (4) specific data sources; (5) summary statistics of key variables (if possible); and (6) summary of at least three articles/books. At least two of them must come from “acceptable sources” (see below). These references must be carefully cited in accordance with standard manuals of style (e.g., Chicago Manual of Style).

### **Acceptable Sources**

- Article published in “high quality” economics journals. You can find a list of some economic journals on the page 692-93 of Wooldridge, *Introductory Econometrics. 4th edition*.
- NBER working papers, or other reputable working papers, are also acceptable sources.

### **Submission**

By the due date, students need to upload both the summary form and the text to the Blackboard. For students work in a pair or triple, only one of them needs to submit.

### **Evaluation**

Submitted proposals are evaluated within a week. Students will receive both evaluation forms (available at the Blackboard) and brief comments.

## **Term Paper**

### **Paper Length**

The paper is to be no longer than 15 pages of text (double spaced, 1 inch margins, 11 or higher point font) plus tables, references, and data appendix. In other words: the tables, figures, references, and data appendix do not count towards the 15-page limit.

### **Structure of the Term Paper**

- Introduction
  1. State and motivate research questions.
  2. Provide summary of relevant literature, your empirical model, data, main findings and limitation.
- Econometric model

Describe your dependent variable, independent variables, functional forms, estimation, methods (e.g., OLS, 2SLS), and underlying assumptions that justify the use of these methods.
- Data

Describe your dataset: source, coverage, unit of observations, summary statistics, etc.
- Results

- Report results. Provide interpretation.
- Conclusion
  - Summarize your findings.
- References
  - List all the references you mentioned in the paper.

Chapter 19 of Wooldridge, *Introductory Econometrics. 4 th edition*. provides an excellent discussion of the structure of empirical papers, as well as suggested strategies for choosing topics, finding data, and overall “management” of the project.

### **Submission**

By the due date of the term paper, students need to

- Upload a term paper to both the Blackboard and turnitin.com.
- Upload a zip file that contains data and programs that generate final results to the Blackboard. It must be possible for us to replicate your results with the data and the programs.

### **Evaluation**

Submitted term papers will be evaluated by 1-100 scale. Students will receive both evaluation forms (will be available at the Blackboard) and brief comments.

### **Plagiarism**

Plagiarism is a serious problem (in general) with university writing. Obviously, if we detect this form of academic dishonesty, we deal with it severely. Even “inadvertent” plagiarism is penalized. You should familiarize yourself with the rules regarding the citation of sources, etc. A style manual (e.g., Chicago Manual of Style) may be useful. On this note, while I encourage you to do your papers on topics related to work in other courses, **it is a serious academic offence to hand in the same piece of work for credit more than once**. Students have gotten into trouble from this in the past. Make sure that there are significant differences between the papers handed in to different courses, even when they deal with the same topic. To reduce the possibility of “inadvertent” plagiarism, the university’s writing support services provide an online article “how not to plagiarize”. The link to this page is shown in the Black Board. To help deter plagiarism, and to catch it when it occurs, all papers must be submitted through turnitin.com. As noted in the syllabus: Students must submit this assignment by the due date to Turnitin.com for a textual similarity review. Note the disclaimer: “Instructions on how to upload papers to Turnitin.com can be found at <http://www.turnitin.com>. The instructor will let students know the course ID and the password once they become available. Students who do not agree with the submission of their paper to Turnitin.com must contact the Instructor in the first week of this course.”

## **Useful Tips**

### **Data Sources**

There is a bounty of data available for these projects. I suggest you begin by exploring the web for interesting economic data (given a particular topic of interest), unless you

already have a topic. If you are using a common databank (like CANSIM) you **MUST** use the most recent data available. The instructor put a list of some useful starting points in the Black Board. You **CANNOT** use data straight out of the textbook (i.e., from the Wooldridge textbook website). However, you can use augmented versions of these data (subject to my approval).

### **Possible Topics**

You have considerable freedom in choosing a topic. However, it must satisfy (at least) two criteria:

- It has economic content (and I interpret this broadly);
- It must be feasible. Data availability will govern whether you can actually “answer” a question.

I encourage you to choose micro subject rather than macro one since I will not cover macro techniques in that course. However, you are free to choose macro subject. An interesting strategy in choosing a topic is to select a published article that uses one data set, and replicate it with another (perhaps Canadian) data set. Many journals contain data archives for published papers that make replication easier now than in the past. The suggested book references provide interesting applications which could give you some interesting ideas.

While you **CANNOT** use data from the textbook in your paper, you may wish to pursue one of the recommended topics outlined in Chapter 19, Wooldridge, *Introductory Econometrics* or build on problems/examples in the textbook (but with different data).

### **Writing**

If you have not written essays before, or feel that you are very weak in this area, I suggest that you take advantage of the university’s writing labs and facilities. A starting point is the university’s writing resource guide: <http://www.writing.utoronto.ca/home>.

### **Some advice about common pitfalls**

- Keep it simple. Use fancy econometrics techniques such as instrumental variable estimator only when there is a very good reason to do so.
- There are limits to how much time and energy you can spend collecting data. Collecting an original data set is a worthy scholarly enterprise, but it’s not what I’m looking for in this course.
- Don’t just present the empirical results. Interpret them. What do they mean? Are they statistically significant? Are they economically significant?
- Don’t leave the paper until the last minute. Start immediately. You should have your data collected or at least identified before you hand in your proposal. Make sure you develop your programming skills by doing the problem sets. The weekend before the paper is due is not the time to learn STATA.
- Writing is a **VERY** important component of this assignment. Don’t ignore writing until you have finished your computer work. You’ll find that when you write up your results and try to explain them that many problems/issues will come to your attention.