**Final Paper**

# Instructions

1. For your final paper, you are required to carry out an empirical project on a topic of your choosing using a method other than cross section analysis.
2. This paper is worth 20% of the total points for the course and is due on or before **11:00 pm on Sunday, December 12**. Late submission will be available for another 5 hours but papers that are submitted late, even by moments, will receive a 1-point penalty on the score for every late hour they intrude upon. For example, a paper that is 3 minutes late will incur a 1-point penalty. A paper that is 1 hour and 1 minute late will incur a 2-point penalty. No papers will be accepted beyond five hours past the deadline. There is an **extra-credit opportunity** if you submit your final paper earlier than the deadline. This early submission extra-credit reward will be a 0.5 points of extra credit per 24-hours submitted early, measured each day at 11:00 pm -- up to a total of 2 points, corresponding to 4 days early. Regardless of extra credit, the maximum score for the paper will be 20, and it will be graded in half-point increments. The length of the body of the paper is required to be 1,000 to 2,000 words, not including the abstract and bibliography. It should be double-spaced and submitted in MS Word format. You are encouraged to include charts and/or tables, each with its own title and caption. The TAs and instructors are available to discuss your paper during office hours, but not by email. They will not read your paper before submission.

**Dsa**

1. You can pursue any topic of interest, but you must make sure there is data available, and get your topic and data plan, including some example data, approved before you start fully developing it. It is important to know your topic is manageable so you can finish it on time. Submit your selected topic, and notes on data availability with some example data, to the appropriate blackboard folder by **Sunday, November 7 at 11:00 pm** for approval, and 0.5 homework points. You are encouraged to submit before the deadline, and receive early review and approval. Note that once your topic and data plan is approved, you are free to change your topic and/or data plan at any time without additional approval, while keeping your approved plan in reserve to return to if necessary. Also note that you should plan on investigating a causal effect of interest, and that your investigation should certainly contain more than one right-hand-side variable, most likely including a variety of control variables. One simple ARIMA model alone is not sufficient, rather it should be extended in some way.
2. In selecting your topic, you can use one of these options:
   1. **[Option#1]** You can come up with an original topic of interest but make sure that there is data for it, and that you have access to the data.
   2. **[Option#2]** You can choose a topic from the existing literature and try to replicate what has been done. If you can, you might improve on what has been done. However, no software program files of the authors should be used.
   3. **[Option#3]** You can pick one of the suggested topics that are listed at the end of some texts (e.g., Wooldridge) after making sure there is data availability.

1. The main goal of this project is to encourage students to formulate a clear and researchable economic inquiry and testable hypothesis, review a few related literature findings that you would reference, identify data sources and appropriate processes of data analysis, carry out the relevant empirical analysis, and write the paper.
2. The basic outline will be as follows:

* First the **title, abstract** and **introduction** part of your paper. It should **introduce** the issue and how it matters in contemporary life. In this section of your project, you should discuss the background of your research problem as to why it is important and also clearly define the purpose/aim/objective of your chosen topic.
* Next you should discuss what type of data is required. How it is collected? From which sources it will be gathered? Why this particular information is needed in your research? Present some descriptive statistics of your gathered data (i.e., graphs, tables, means, variance etc.) [Possible section titles: **Data** or **Data and Variable Description**]
* Next you should discuss what type of data analysis is appropriate. You are required to use a method other than cross-section analysis. Why is this particular method needed for your research? What variables will you include? What are you testing by using this model/method? You should explain what kind of data transformation or changes have been used before the data analysis? Why were these transformations needed? What is the purpose of using a particular data or transformed data in line with your paper’s objectives? [Possible section titles: **Methodology** or **Method of Data Analysis**]
* Next you should discuss the findingsof your analysis and answer the research topic that you selected to address. How is your result different or similar from previously done similar papers? What are some of the external and internal validity threats related to your paper? [Possible section titles: **Results** or **Empirical Analysis**]
* Finally, you should **conclude** the paper, and possibly offer thoughts for future research or thoughts about policy recommendation based on your findings. These are sometimes referred to as reflections on your research.
* **References** cited in the paper should follow standard modes of citation. You may make your own choice about which generally-recognized citation format to use.
* You are expected to use a software package that can produce the appropriate version of robust standard errors, not excel, and use those robust standard errors in your paper.
* **Your software code or evidence of software usage must be submitted in order to consider your submission complete and ready for grading.**

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|  | **RESEARCH PAPER GRADING RUBRIC** | | | | | |
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| **WEIGHTS** | **Criteria** | **Below Expectation** | **Need Improvement** | **Satisfactory** | **Exceeds Expectations** | **SCORE** |
| **5%** | **Title and Abstract** Is the title clear? Is the abstract an appropriate length? Does it summarize the paper well? | Student has no project title. The paper has no abstract | The paper has a title and abstract. The abstract is long and less concise. It doesn't summarize the paper well. | Paper has a title and abstract. It is short and concise. The abstract summarizes the paper well. It omits few key aspects of the paper. | The title is clear. The paper has abstract. It is short and concise. It does summarize the paper well. It includes all key aspects of the paper. | 1 |
| **10%** | **Introduction** Does it contain the objective(s) of the paper? Does it have the testable hypothesis? Does it have background motivation? Roadmap? | Student has no project introduction. | The paper has an introduction section. It is either too long, or too short to provide key info. The paper’s objective(s) are not clear. | The paper has an introduction section. It is neither too long nor too short to provide key info. The paper’s objective(s) are somewhat clear. It has some background information. | The paper has an introduction section. It is neither too long nor too short to provide key info. The paper’s objective(s) are clear. It has enough background information. | 2 |
| **15%** | **Data/Info Collection:** What type of information/data is needed? What are the data sources? What are the pros and cons of data of these sources? Has the student clearly defined each variable and their transformations? | Student loses focus. Information is not accurate or complete. | Student uses the minimal number of sources. Information, though interesting, frequently does not relate to questions. | Student efficiently determines the appropriate sources for information and contemplates using multiple, varied sources. Most information relates directly to the questions. | Student utilizes a variety of resources and only the information that answers the essential question is used. Search strategies are revised as information is located or could not be found. | 3 |
| **10%** | **Methodology:** What are the model variables included? Which are control variables, dependent variable, independent variables, and variables of interest? What model does the author chose? Why? Is it the right model? | Student doesn't determine any appropriate method for analyzing information and addressing the research objectives. | Student vaguely determines the method of analasis and addressing the research objectives. However, the proposed method doesn't relate directly to the research questions. | Student accurately determines the appropriate method for analyzing information and addresses the research objectives. The proposed method relates directly to the research questions. | Student accurately determines the appropriate method for analyzing information and addressing the research. The proposed method relates directly to the research questions. Alternative methods are proposed. | 2 |
| **15%** | **Result/empirical analysis:** Student understands the estimation technique(s) being used? What is the main finding of the paper? Do the results make sense? Do the author's interpretations of the result make sense? | No clear discussion or presentation of estimation strengths and limitations, main findings, and their interpretations. | There is some discussion or presentation of estimation strengths and limitations, main findings, and their interpretations. But it needs improvement as it is ambiguous. | There is a clear discussion or presentation of estimation strengths and limitations, main findings, and their interpretations. But it lacks robustness checks. | There is a clear discussion or presentation of estimation strengths and limitations, main findings, and their interpretations. And it includes robustness checks. | 3 |
| **5%** | **Conclusion:** Does it tell you what the research question was? The main findings? Future research plans? Or Limitations of the paper as confessed by the author? | No conclusion at all | There is conclusion but it doesn't reflect the paper correctly. It lacks details and needs improvement. | The conclusion clearly outlines the objective(s) of the paper, the sample data and periods, the methods used, and main findings. | The conclusion clearly outlines the objective(s) of the paper, the sample data and periods, the methods used, and main findings. It also includes reflection in the form of identifying (again) limitations, policy recommendations and/or future research agenda. | 1 |
| **5%** | **Citing Information:** Does the paper properly cite all referenced materials? Is there a concern for plagiarism? | Sources are not cited at all. | Proper format is followed although several errors are apparent. | Proper format is followed. Student lists most of the components in correct form. | Proper format is exact. No errors are evident. | 1 |
| **5%** | **Process of Research:** Does the student understand and have command of the research process? Was the process reasonable? | Student is disorganized, does not have a research strategy and does not use time effectively. | Student needs considerable teacher help to organize research. Some steps are missing in the plan. | Student works within the time frame and develops a system to organize information. Requires some instructor help. | Time management skills are excellent. Student develops a clear method to organize information and makes revisions in plan when needed. | 1 |
| **15%** | **Readability (Idea flow, grammar usage, spelling check):** Does it need professional editing? | The essay is difficult to read. It lacks flow of idea, has notable grammar errors, and more than a few spelling errors. | The essay is readable. But it lacks flow of idea, has less grammar errors, and fewer spelling errors. | The essay is not difficult to read. It doesn't lack flow of ideas, has less grammar errors, and only rare spelling errors. | The essay is clearly readable. It has clear flow of ideas, has no grammar errors, and spelling errors. | 3 |
| **15%** | **Software Usage:** Does the student have command of the software that they have chosen to use? Is their code understandable? | The student does not submit code, or it is not readily readable. | The student’s code is readable but not particularly organized. | The student’s code is readable and organized. It accomplishes the calculation and communication requirements. | The student’s code is clear and organized. It can easily be understood and displays a capable command of the software. | 3 |
| **100%** |  |  |  |  |  | 20 |