The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

SCHOOL OF ECONOMICS
ECON 4008 APPLIED MICROECONOMETRICS
2019/20

GROUP PROJECT:
Attempt either Project A or Project B

Submission deadline: **May 14, 2020 at 3pm**

The word limit for this project is 3000. This limit does not include appendices where unedited regression outputs, exploratory data analysis (if any) and Stata commands (do file) should be left

PROJECT A

The aim of this project is to estimate the impact of foreign direct investment (FDI) on some firm level outcome variables using propensity score based estimators. You will use the non-experimental dataset ***FDI_project.dta*** for this purpose**.**

In the dataset, FDI2016 is a non-random treatment variable which indicates which firm received foreign direct investment. The variable FDITYPE2016 further gives FDI by type (type tab FDITYPE2016 for more information). On the other hand, variables indexed by 2017 are outcome variables. You can choose one to work with one or more outcome variables (e.g. the impact of FDI on employment and wages.

Variable indexed by 2015 are possible pre-treatment as conditioning covariates. You can use. As you see fit, any combination and transformation of these variables (e.g. take a squared term TFP or interact the ownership dummies with exporting intensity.

The report of your analysis should be structured as follows:

Section 1: [weight 10%]

Provide a brief and selective literature review (maximum five papers) of studies looking at the relationship between FDI and firm level performance- focusing on econometric methodology issue.

Section 2: [weight 15%]

Provide a discussion of the most important features of the data; describe any interesting patterns or correlations in the data and provide some summary statistics/graphs of the variables of interest. If you have performed any data cleaning exercises (e.g. you have excluded some observations) or carried out any data transformations (e.g. "unlogging" the wage variables).

Section 3: [weight 40%]

Explain very briefly your econometric approach to evaluate the casual effects of FDI on the outcome variables of choice (you can assume that the readers know the basic principles of propensity score based estimators). You are encouraged to estimate more than one model and probe the sensitivity of your findings to alternative model specifications. Write a report on your main findings, indicating which of the estimators, if any, you would you prefer most in the context of this exercise, and why?

Section 4: [weight 25%]

Try to answer the question whether your conclusions from Section 3 change if you re-estimate the casual effects of FDI by type of FDI? You are encouraged to consider alternative models to estimate the propensity scores, as well as experiment with different estimators.

Section 5: [weight 10%]

This is a summary and conclusion section where you should give an overall evaluation of your work including possible shortcomings.

Appendix: The output from Stata and the code you used in your study.

Project B:

You are asked to conduct a replication of ANY study published in ***American Economic Review*** *or* American ***Economic Journal: Applied Economics*** from 2015 onwards that uses differences-in-differences estimation strategy to identify some causal effects.

For most but by no means all articles, the relevant journal website will provide the data and code used by the author(s). Clearly, your choice of article should be based depend on the availability of these data and codes in Stata (although you can use any other software of your choice; e.g. R). Please note that the aim is to replicate the main econometric analysis (diff-in-diff in this case) of the papers and NOT all of their analysis!

The report of your replication effort should be structured as follows:

Section 1 {weight 10%]:

A non-technical summary of the paper you seek to replicate

Try to explain in your own words the context of the article, identify its main research questions and why it is interesting to answer them; the data used by the study, and its main conclusions.

Section 2 [weight 15%]:

Explain briefly the estimation method(s) adopted by the paper laying out the main assumptions method(s) depend on. If appropriate, make a comment as to whether you think these assumptions are likely to be met by the data.

Section 3 [weight 60%]:

Report your effort at replicating at least one of the main results in the paper, and your attempt at investigating the sensitivity of these results to alternative approaches such as (i) the inclusion or exclusion of certain variables; (ii) estimations on different subsamples; (iii) or even a different modelling approach if you believe difference-in-differences is not quite the best method to use in the present context.

Section 4 [weight 15%]:

A brief conclusion explaining how close you have come to replicating the results. If you have not been close enough at replicating the results, try to explain as to why this

might be the case. Ideally you should also make a judgment as to how credible the causal claims made by the paper are in light of your replication study.

Appendix: The output from Stata and the code you used in your replication effort.

Some SUGGESTED papers for the replication studies in case you need it:

Ang, Desmond. 2019. "Do 40-Year-Old Facts Still Matter? Long-Run Effects of Federal Oversight under the Voting Rights Act." *American Economic Journal: Applied Economics*, 11 (3): 1-53.DOI: 10.1257/app.20170572

Chen, Shuo, and Xiaohuan Lan. 2017. "There Will Be Killing: Collectivization and Death of Draft Animals." *American Economic Journal: Applied Economics*, 9 (4): 58-77.

Diamond, Rebecca, Tim McQuade, and Franklin Qian. 2019. "The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco." *American Economic Review*, 109 (9): 3365-94.DOI: 10.1257/aer.20181289

Fadlon, Itzik, and Torben Heien Nielsen. 2019. "Family Health Behaviors." *American Economic Review*, 109 (9): 3162-91.DOI: 10.1257/aer.20171993

Harasztosi, Peter, and Attila Lindner. 2019. "Who Pays for the Minimum Wage?" *American Economic Review*, 109 (8): 2693-2727.DOI: 10.1257/aer.20171445

Further guidelines:

a. A group should consist of a maximum of 6 students.
b. Students are responsible for forming their own group, and for this purpose a group sign-up list is set up on the module page via Moodle.
c. Each member of a group will receive the same mark for the group project unless representations are received in writing from *all* group members requesting an unequal mark allocation.
d. Students who do not join a group of appropriate size and who do not inform the module convenor of the same by March **29, 2020** will receive a mark of zero for the coursework unless they submit an individual coursework.
e. Whilst any case for an unequal allocation of marks may be submitted with a group project, no case for an unequal allocation of marks from any group member can be considered once a project has been marked.
f. Students who report that they have been unable to join a group of appropriate size, or who leave a group and are unable or unwilling to join another will have to undertake a substantial piece of individual coursework in lieu of the group project. Please email me if you are going to submit an individual coursework stating (i) the reason why you can't be part of group, and (ii) which of the two projects you want to work on.
g. As explained in the module information document, coursework submission should be made in electronics format only.

Criteria for Marking

Good marks will be awarded for projects that have the following qualities:

- ❑ Accurate results.
- ❑ Evidence of critical thought and analysis.
- ❑ Evidence of reading beyond the lecture material and main textbooks.
- ❑ Logical structure.
- ❑ Good standard of sentence construction, grammar and presentation.

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