Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

| Student: | Vít Žáček |
|----------------------|---|
| Advisor: | Barbara Pertold-Gebicka |
| Title of the thesis: | Modelling of impact of COVID-19 restrictions on the labour market in the Czech Republic |

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Please provide a short summary of the thesis, your assessment of each of the four key categories, and an overall evaluation and suggested questions for the discussion. The minimum length of the report is 300 words.

Short summary

Vít Žáček uses the Czech Labor Force Survey data to investigate the heterogeneous effects of covid on employment in the Czech Republic. With the help of event-study analysis he shows that employment experienced a dip during the covid-affected quarters, but returned to the pre-covid trend in 2022. The most hardly hit group were employees in services and retail.

Contribution

The topic investigated by this thesis is highly relevant. There is no other complex analysis of the employment effects of the pandemic in the Czech Republic. Especially the heterogeneity analysis is very useful.

The final contribution of this thesis is, however, limited by its form. While many relevant results are presented, there is some confusion in interpretation.

Methods

Vít applies the event study design to estimate and visualize the evolution of employment and hours worked in the Czech Republic during (and before) the covid pandemic. This is an adequate approach. However, the presentation of the methodology is confusing.

For example, on page 26 we read: *"I calculated these coefficients using both the linear probability model and the event study".* Similarly, on page 38, we read: *"I examined changes in employment and number of hours worked using LPM, event study and probit models*". It sounds as if the event study was an estimation method, similar to OLS or probit. But in reality, the event study just defines the structure of the equation to be estimated, for example, by OLS or by probit.

It is also not clear why two alternative approaches are taken: one with dummies for just the six covid quarters (from 1Q 2020 to 2Q 20201) and one with dummies for all included quarters (with the first year omitted). These two approaches often lead to mixed results. I think this should be discussed in detail during the defense.

There are also other methodological issues. For example, the exclusion of the female dummy in Table 11 (even though it is present in equation 3) or writing: "I added an interaction term to assess how being a woman during COVID affected the probability of being employed. " (It should be: How differently covid pandemic hit women than men.).

When studying heterogeneity by age or by education group, the reference category has to be carefully chosen, and results should be interpreted accordingly. One cannot say, based on the presented results, that *"during 2021, there was a drop in the employment of this group*" (top of page. 56). The only thing we know is that employment of this group fell in comparison to the reference category. It could be caused by a drop in the employment of the middle-educated or by an increase in the employment of the low-educated.

Employment status by ISCO: how possible is not employed don't have ISCO?

Literature

Literature review is one of the best parts of the thesis. It is well-organized and summarizes the relevant literature on the topic.

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Manuscript form

The initial parts of the manuscript read quite well, but as the thesis progresses, it becomes more chaotic. Especially presentation and discussion of results would benefit from polishing. The tables are not well formatted and often have misleading or not explanatory titles. Some results subsections are not clear (for example, we do not know if models are estimated for each ISCO separately or what we see in tables are interaction terms), some provide wrong information (for example, ISCO does not define economic sectors, it defines occupations).

Overall evaluation and suggested questions for the discussion during the defense

This thesis has high potential with, unfortunately, poor execution. The text is chaotic, the interpretation of results is misleading, and the tables are not well-formatted. Cooperation with Vít was also chaotic. While Vít was very involved in the topic and strongly motivated to study the effects of covid, he was also very passive and worked highly irregularly. Most of the communication was by e-mail, and I only saw small pieces of the output (e.g. one graph). The final text of the thesis was produced at the very last moment, and there was no time for feedback. Still, Vít managed to prepare several interesting results. These are mainly the graphs (and tables in the appendix) with dummies for all quarters. They show a consistent story and, what is interestingly and important, document the effects of covid on different sub-groups of the population. With more careful interpretation, the thesis could have a real impact.

All in all, I think that the thesis fulfills the requirements for a master thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade E. This is because of all the weaknesses of the thesis, starting from its chaotic format, through inconsistent methodology presentation, to confusing interpretation,

The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

Suggested questions:

- 1. Why the results presented in Table 9 suggest that employment during covid was HIGHER than before covid, while in Figure 10 we see a DIP in employment during the covid period?
- 2. Is it possible that a person with ISCO code equal to, say, 2 is not employed? Does it explain why , the estimation with the employment dummy as an independent variable did not yield significant results." (p. 66)?

| CATEGORY | | POINTS |
|--|-------------------|--------|
| Contribution | (max. 30 points) | 17 |
| Methods | (max. 30 points) | 15 |
| Literature | (max. 20 points) | 15 |
| Manuscript Form | (max. 20 points) | 10 |
| TOTAL POINTS | (max. 100 points) | 57 |
| $GRADE \qquad (A - B - C - D - E - F)$ | | E |

SUMMARY OF POINTS AWARDED (for details, see below):

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NAME OF THE REFEREE: Barbara Pertold-Gebicka

DATE OF EVALUATION: 10.6.2024

Digitálně podepsáno (10.6.2024) Barbara Pertold-Gebicka

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.

METHODS: The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.

LITERATURE REVIEW: The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.

MANUSCRIPT FORM: The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.

Overall grading:

| TOTAL | GRADE |
|----------|-------|
| 91 – 100 | A |
| 81 - 90 | В |
| 71 - 80 | С |
| 61 – 70 | D |
| 51 – 60 | E |
| 0 - 50 | F |