

Report on Bachelor Thesis

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

Student:	Jan Žiačík
Advisor:	PhDr. Lucie Bryndová
Title of the thesis:	The COVID-19 measures: Impact on economies and mitigating spread of the disease

OVERALL ASSESSMENT:

Short summary

The thesis topic is related to the COVID-19 pandemic. It aims to explore the restrictive measures and voluntary activity reduction effect on economic growth in countries around the world, and, second, it explores the restrictive measures' effect on the COVID-19 transmission looking at the stringency levels of their implementation. The author combines datasets collected during the pandemic surge (Oxford COVID-19 Government Response Tracker, COVID Data Tracker, and WHO website) with that of the economic outlooks (OECD data, USA data).

What I find particularly interesting are the conclusions on the impact of individual restrictive measures on the infection transmission, conditioned by the measures' implementation stringency level. The thesis suggests that most commonly used restrictive measures work, i.e. have impact on decreasing the number of new cases, only if introduced with a sufficiently high level of stringency. Interestingly, stay-at-home order and public gatherings limitation seem to work also with a lower level of stringency implementation, which has an important policy consequences.

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.

The author states he is following earlier works to explore the overall restrictive measures' impact on economic growth, yet including a longer observational period in the analysis. In the second part of the thesis, the author employs individual restrictive measures and aims to assess their impact (1) on economic growth, and (2) on the infection transmission. According to the author, there has not been much literature on these issues available yet, especially regarding point (1). The thesis thus expands the available knowledge on these issues, which are critical in light of potential further stages of the COVID-19 pandemic that may still emerge. In this regard, there is a value added of the thesis, particularly regarding the effect of individual NPIs on economic growth, but also given the findings on the necessity to implement selected restrictive measures with sufficient stringency.

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 sufficiently analysed.

While in the beginning the author planned to explore the effect of the speed of restrictions' implementation, after the literature search he switched to exploring the stringency level of individual NPIs, which proved to be a better focus of his analysis. The author employed two different datasets for the different parts of the analysis, using data from 96 countries and US states, quarterly data in one of the datasets and 14-day data in the second dataset (on individual NPIs' effect). He used the Oxford COVID-19 Government Response Tracker database to derive his own variables and proxies to capture the individual NPIs, their stringency level of implementation, and their effect. Panel data analysis was performed for both parts of the thesis' analysis, using fixed effect models and time dummies. Robustness checks were performed.

Literature

The author quotes relevant literature in a proper way and the thesis demonstrates author's full understanding of it, including the recent literature on the COVID-19 topic and similar studies focusing on similar research questions. The literature review also shows author's knowledge of the available world-wide datasets related to the restriction measures implemented in reaction to the pandemic. Also, the author builds his methodological approach using existing studies and demonstrates their detailed knowledge.

Manuscript form

The thesis is clearly structured and in terms of the structure it reads well – a reader is navigated through the text in a proper manner. The thesis deals with two specific issues so a specific chapter is

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devoted to each of them explaining the methodology and data for the particular analysis part, and later the results are also presented separately for each part.

The English language gets sometimes confusing, perhaps due to the overutilisation of comas in some palces. The thesis disposes of a proper academic format for graphs and tables and disposes with a complete bibliography. In certain cases, the tables would benefit from including a note to them explaining the variables' abbreviations (for instance table 5.1) – this is, however, only a matter of how to make the thesis more comfortable to read.

The thesis captures author's development in his approach to the analysis and explains in detail how the final variables were obtained and what led to their choice.

Overall evaluation and suggested questions for the discussion during the defense

Suggested questions for the discussion during the defense:

- Discuss your findings on non-pharmaceutical measures' impact on virus transmission – are they in line with your original hypothesis?
- Studies from the pandemic's begging found the fear from the pandemic to translate into voluntary reduction in economic activity, and thus to be a significant factor for economic development (instead of the NPIs). How do you explain that later analyses, including yours, have arrived to a different conclusion? Compare your findings on effects of individual NPIs on infection transmission and NPIs on economic growth with findings of the earlier studies.
- Do you think that choosing a different proxy for seriousness of the epidemic (than number of deaths caused by Covid-19 per 100 000 inhabitants) would lead to a different conclusion regarding the issue of voluntary lowering of consumption?

Overall, I evaluate the thesis as very good, with clear value added, demonstrating author's good knowledge of the topic and the relevant literature, and including proper analysis of the issues in question.

The results of the Urkund analysis do not indicate significant text similarity with other available sources. The author actively consulted the thesis with his supervisor and showed high ability to reflect on earlier drafts with continuously improving the thesis during the drafting process.

In my view, the thesis fulfils the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, and I recommend it for the defence and suggest a grade B.

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

CATEGORY	POINTS
Contribution (max. 30 points)	25
Methods (max. 30 points)	27
Literature (max. 20 points)	20
Manuscript Form (max. 20 points)	17
TOTAL POINTS (max. 100 points)	89
GRADE (A – B – C – D – E – F)	B

NAME OF THE REFEREE: PhDr. Lucie Bryndová

DATE OF EVALUATION: May 27, 2021

Digitálně podepsáno (27.5.2021):

Lucie Bryndová

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	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F