

Report on Bachelor / Master Thesis

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

Student:	Josefína Schusterová
Advisor:	Doc. Julie Chytilová, Ph.D.
Title of the thesis:	The impact of the Covid-19 pandemic and other factors on road traffic safety in the Czech Republic

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

Short summary

The bachelor thesis of Josefína Schusterová focuses on the effect of Covid-19 pandemic on road traffic safety in the Czech Republics. This is a very important and timely question. In order to study it, she constructed a dataset using a combination of detailed data obtained from various sources (including data about road traffic accidents, weather conditions, Covid-19 situation), covering the time periods before Covid-19 and during various stages of the pandemic. This rich dataset allows the author to test a set of clearly specified hypotheses. She finds interesting results, not only in terms of total number of traffic accidents, but also in terms of various types of accidents.

Contribution

The author provides a contribution to the existing literature which studies the effects of Covid-19 pandemic on road traffic and traffic safety. This stream of literature is, given the context, very fresh and growing. Josefína studied in detail the related studies from different countries and built on their methodological approach. At the same time, her work is perhaps the first comprehensive analysis of this type in the Czech Republic. She was able to put together very detailed data which allowed her to study not only the overall effect of the pandemic, but also the effects on various types of accidents. In addition, she was able to study a longer period during the pandemic, allowing her to study effects not only at the very beginning of the pandemic, but also during later stages. This is a nice and useful contribution for a bachelor thesis.

What I also liked about the topic is that ex ante it is very unclear what the effect of the pandemic on road traffic safety should be. On one hand, the road traffic intensity has been much lower, motivating one to expect fewer accidents. On the other hand, as Josefína describes in the thesis, there are several reasons why the number of accidents might have increased, such as more space for driving faster, higher prevalence of mental health problems potentially leading to riskier driving, more alcohol and drugs use, etc.

Methods

The author constructed a new dataset, combining three types of detailed data coming from various sources: (i) data about the number and type of traffic accidents, (ii) data about Covid-19 situation such as lock-down, number of Covid-19 cases, deaths, etc., and (iii) weather data. Unfortunately, data about road traffic intensity, which would be useful in the analysis, was not available and could not be included. The author uses appropriate econometric methods to analyze the data. When doing so, she followed the approach established by previous studies which focus on similar topics. The authors tests an extensive set of hypotheses, which are clearly formulated and nicely and carefully linked to the existing literature.

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Literature

It is obvious that the author invested significant effort in studying the related literature and has a sound knowledge of the relevant studies. The thesis provides a nice and useful overview of the literature which is clearly structured and includes also recent contributions to the relevant literature.

Manuscript form

The thesis reads well and is written in good English. The text is well-structured. The text is rather long, but a reader who is interested in the topic can find a comprehensive overview and detailed results in the text. One minor comment is that the tables could be at some places better organized (for example, in Section 3.2 there are many small tables which could be merged into a single table which would communicate the information more directly).

Overall evaluation and suggested questions for the discussion during the defense

To sum up, I believe the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University. I recommend the thesis for the defense and suggest grade A.

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

Suggested questions for the discussion during the defense:

- On page 53, hypothesis 1.2, you argue that higher values of indicators of Covid-19 pandemic (such as number of cases, deaths, etc.) can lead to lower traffic volume due to increased concerns of the people that there would be a new lock-down period. However, one may also argue for the opposite. If people believe that soon there will a lock-down, do you expect them to be driving less (why?) or more (perhaps in order to manage to organize things, visit friends and places before a lock-down is imposed)?
- If you could obtain some types of data which were not available, which ones would you use and how would it help you to further improve the analysis?

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	28
<i>Methods</i> (max. 30 points)	29
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	18
TOTAL POINTS (max. 100 points)	95
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: Julie Chytilová

DATE OF EVALUATION: August 11, 2022

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