Report on **Bachelor / Master Thesis**

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

Student:	**Ondřej Zelený**
Advisor:	**Mgr. Petr Polák, M.Sc., Ph.D.**
Title of the thesis:	**Technology-driven unemployment: A meta-analysis**

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

Short summary

The thesis has a clear objective: to find out what the scientific literature, as a whole and net of various biases, has to say regarding the effect of technological advancement on unemployment (related to fears of AI robots replacing human labor). The author uses the techniques of meta-analysis. He finds evidence of publication bias and also heterogeneity: for example, one eminently plausible result is that replacing human labor with technology is typically more difficult for skilled workers.

Contribution

Because no modern meta-analysis on this topic exists, I believe the contribution of the thesis is solid. One way we can measure contribution is to ask whether a paper based on the thesis could be published in an international journal. I believe that, in this case, the answer is yes – after some significant revisions the paper could be published, for example, in Applied Economics.

Methods

The thesis uses standard (linear) meta-analysis methods. More advanced, non-linear methods are not used, but that is perhaps too much to ask of a bachelor's thesis. I appreciate the use of IV estimator in meta-analysis. But the results are weird and in contrast to the rest of the analysis (p. 17). Is the instrument strong? Do the confidence intervals take into account confidence strength?

Literature

In a way, literature is the topic of the thesis, since it's a meta-analysis. No problem here. But in general, I think the thesis should place much more weight on the importance of identification in this literature. For some meta-analyses, this is not a problem and an a priori constant weight can be placed on different papers (e.g., if you study an effect of IQ on income, IQ, if properly measured, is most likely exogenous, so a simple OLS can be fine). But here identification is the key. It's not enough to weight studies by their reported precision. In particular, you find that IV estimates bring results much more negative compared to OLS estimates. That's very important and you should stress the IV results.

Manuscript form

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The thesis is typeset nicely in LaTeX and written in competent English. I don't understand why light green is used for figures: it is barely visible and not very pleasant to the eye. Use blue instead.

Overall evaluation and suggested questions for the discussion during the defense

In my view, the thesis fulfills the requirements for a bachelor's thesis at the IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade B. The results of the plagiarism software analysis do not indicate significant text similarity with other available sources. For suggested questions, see the methods section above.

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

CATEGORY	POINTS
Contribution (max. 30 points)	27
Methods (max. 30 points)	23
Literature (max. 20 points)	18
Manuscript Form (max. 20 points)	18
TOTAL POINTS (max. 100 points)	**86**
GRADE (A – B – C – D – E – F)	B

NAME OF THE REFEREE: Prof. PhDr. Tomáš Havránek, Ph.D.

DATE OF EVALUATION: 7.8.2023   Digitally signed, Tomas Havranek

_____
                                        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