

Opponent's Report on Dissertation Thesis

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Title of the Thesis:	Three Essays in Development Economics
Type of Defense:	DEFENSE
Date of Pre-Defense	October 14, 2020
Opponent:	Prof. Ing. Karel Janda M.A., Dr., Ph.D.

Address the following questions in your report, please:

- a) Can you recognize an original contribution of the author?
- b) Is the thesis based on relevant references?
- c) Is the thesis defensible at your home institution or another respected institution where you gave lectures?
- d) Do the results of the thesis allow their publication in a respected economic journal?
- e) Are there any additional major comments on what should be improved?
- f) What is your overall assessment of the thesis? (a) I recommend the thesis for defense without substantial changes, (b) the thesis can be defended after revision indicated in my comments, (c) not-defensible in this form.

(Note: The report should be at least 2 pages long.)

- a) Yes, I clearly recognize an original contribution of the author.
- b) Yes, the thesis is based on relevant references. This is particularly strong for the first paper since relevant references are a core issue for meta-analysis paper.
- c) Yes, I consider this thesis to be defensible at my home institutions (IES) without a need for any changes.
- d) Yes, the results of the thesis allow their publication in a respected economic journal. Actually first essay was already published in a very good economic journal - Journal of Economic Surveys, which is considered as Highly Regarded Journal (level A) by IES Journal Ranking. Second essay was published in Energy Policy, (level B) of IES Journal Ranking. This is a very appropriate field journal for that dissertation chapter. The third essay was invited for minor revision, by a journal Energy for Sustainable Development. And this minor revision was already executed by the authors and revised version was submitted to that journal in December 2020. So we could reasonable expect that by the time of dissertation defense this paper will be already accepted for publication by a journal Energy for Sustainable Development.
- e) I do not have any comments for improvements. I am fully satisfied with this dissertation thesis as it is submitted now.
- f) My recommendation is: (a) I recommend the thesis for defense without substantial changes.

The thesis is composed of 3 substantive chapters (chapters 2, 3, 4) dealing with economic development issues. The first paper (chapter 2), dealing with meta-analysis of a relation between economic growth and financial development is both in the topic and in the methodology very different from two remaining papers dealing with simulation of electricity transmission network in South Africa. However I still consider it fully O.K. to have these three papers as a PhD thesis.

The quotes at the introductory chapter (Chapter 1), which I recommended to remove were removed.

The first paper (Chapter 2) Financial Development and Economic Growth: A Meta Analysis provides an excellent quantitative (meta analysis) review of the empirical literature on the finance-growth nexus. It is focusing on two research questions:

- First one is a very obvious one: does financial development promote economic growth?
- Second one is: which types of financial structures are better in promoting economic growth?

This paper was published in 2015 in a very good economic journal - Journal of Economic Surveys, which is considered as Highly Regarded Journal (level A) by IES Journal Ranking, and it already gathered impressive number of citations (227 Google Scholar citations as of September 10, 2020). Out of the co-author team of this article (Valickova, Havranek, Horvath), Petra Valickova is clearly by a high margin leading author since this article is based on her 2012 IES diploma thesis, conducted under supervision of Roman Horvath, which received a distinction from the Dean of the Faculty of Social Sciences of Charles University for an extraordinarily good masters diploma thesis (and at the same time Petra Valickova also received a distinction from the Dean for excellent performance at the state exam).

In my pre-defense report I did not require any changes to be done in this Chapter 2.

The second paper (Chapter 3) The Costs of Providing Access to Electricity in Selected Countries in Sub-Saharan Africa is a nice policy paper combining good understanding of Petra Valickova of electricity provision issues both in general and in a particular Sub-Saharan context with a technical expertise in simulation modelling of energy sector. The main issue addressed by this paper is a quantification of economic cost of electrification of Sub-Saharan Africa as compared to current cost of alternative energy provision in this region.

The changes in the abstract which I recommended (removing Sustainable Development Goal reference and focusing on own research contribution of the authors) were done. Required unification of Annex/Appendix terminology was also executed.

In reaction to my comments about ELMOD and other models, Petra Valickova included a discussion of other energy modelling frameworks. This was a suitable improvement of the thesis.


My major comment, asking for inclusion of computer code used for core optimization model of this chapter, was executed – the computer code was added. I consider this to be an important contribution increasing the quality of this thesis (enabling possible replication and extensions).

I did not have any additional requirements for changes in this chapter.

The third paper (Chapter 4) Potential Gains from Regional Integration to Reduce Costs of Electricity Supply and Access in Southern Africa is based on the same optimization model and the same data as the second paper and therefore serves as a very natural extension of that paper. Since this paper was still in the process of submission to a journal, I asked for a few substantive changes in this chapter dealing with supply and demand side of the model used in the thesis. Based on this Petra Valickova added a brief discussion of trade-offs between the representation of supply and demand variations in the model and other related issues.

During the defense, Petra Valickova could talk a little about the issues of these trade-offs between the representation of supply and demand variations in the model. In particular she could explain the approach she used in the modelling of demand side of her model.

Petra Valickova sufficiently incorporated all my comments and suggestions into the current version of this thesis. Therefore I fully recommend her thesis to be accepted for the defense as it is without any need for further changes. And I recommend to award her the title of Ph.D. in economics.

Date:	March 18, 2021
Opponent's Signature:	
Opponent's Affiliation:	Prof. Ing. Karel Janda M.A., Dr., Ph.D. IES