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Report on PhD thesis by Ketevani Kapanadze

“Essays in Regional Economics and European Integration”

I am happy to provide an external report on the dissertation at hand. I published on closely related topics using similar data and methods.

The dissertation consists of three papers. All of them are empirical in nature and concern border effects in different settings. I like the research questions, data and methods a lot. All papers are innovative, address relevant questions in the field, and use proper and up-to-date methods. My general evaluation comes therefore right at the beginning. I think the dissertation meets the necessary standards for awarding a PhD degree. It both satisfies formal and content requirements and I recommend it for a defense.

Given that a I have read the papers in detail, I am happy to provide some more or less detailed comments. The comments do not intend to argue against the high quality of the papers, but I am happy to give advice on likely questions a referee at a journal might rise once the papers are submitted. The way I proceed is just to list questions comments as they came up while reading the papers.

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Paper 1:

- p.3 “To the best of my knowledge (...) have not yet been studied” is a strong claim. I would be more careful here, given that there a quite a lot of papers out there studying border effects of free trade agreements. By the way: one closely related recent (2023) paper is missing in the literature review: Adam et al. <https://doi.org/10.1111/ecin.13151>
- The paper might discuss in more details, why central European countries are relevant. I know the papers on the inner German border quite well. One relevant point is, that the GDR socialist government did not let market forces determine the spatial equilibrium. There were many policies until 1990 that favored midsize towns over pre-existing agglomeration centers. These towns started to shrink quickly in terms of population and economic activity in the free market environment. Therefore, the treatment in 1990 was not just “having changes in market access”, but these places also faced a significant change in economic policies that affect the spatial equilibrium. Along this line of reasoning, the author might provide more historical background information that helps the reader to understand the particularity of the central European regions under study. What makes this case so interesting?
- P.4: Effect size is large. I guess it is the accumulated effect. One might provide a number for the annual GDP loss, which is easier to compare to other policy changes. Would also be interesting to know something about the dynamics. Does the effect jump in immediately, or slowly (event study design), and does the loss stabilize after some years? Later, on p. 25 it seems that the effects are annually.
- P.6 top: What causes the heterogeneity? In the case of the German Czech border, this might heterogeneity might be driven by geography (mountains) and the fact that the sparsely populated border regions in Germany were already shrinking.
- P.8: I missed a short discussion of potential measurement error in regional GDP per capita. It is a number broken down from national accounts to distribute economic activity in space. The weights applied by the statistical offices are chosen in a way that may react to assumptions on how the economy behaves.
- P.12/13: The explanation of the SCM method is fine for the thesis version of the paper. I would shorten/skip it in the journal version.

- P.13. While thinking about proper treatment/control groups: Is the timing of the EU membership the right point in time to measure the treatment effect? Which EU policies have already been in place, e.g. free trade agreements, cohesion policies. Is it more a phase in over years to become a member or a shock? The way the paper argues, it sounds more like a shock. But is this convincing?
- P20: section 1.4.2. – is this relevant? I would shift it to the appendix.
- P24: The regressions include “control variables” at the regional level. Why include these if the RTE is already a causal estimate?
- P25: The author should provide a story for why external EU borders should react to inclusion be included in EU.
- P28: I think that the analysis of mechanism is very important, in particular given the large average effect. I suggest to elaborate more on this. Are the cross-border highways, rail lines, is there a common language, culture, etc. I would also suggest to think about the interaction effect with “services” and elaborate more on that.

Paper 2:

- I like this paper a lot!
- Given that the paper is concerned with inner city light intensities, I suggest to rerun the model using the data provided by Bluhm/Krause (2022): Bluhm Krause: <https://doi.org/10.1016/j.jdeveco.2022.102880>. There are relevant problems with blooming and top-coding of DMSP OLS data, which is in particular relevant in densely populated areas such as cities. The data by Bluhm and Krause tries to correct these issues. Would be very helpful for this project.

Paper 3:

- Motivation: Covid was a very special situation and create a nice experiment to study these border effects. Given the migration pressure, there is a least in Germany a big discussion going on to introduce border controls. Therefore, the results of the paper are not just interesting for pandemics, but also for the migration politics that are likely to be of high order in the near future. Might be an interesting selling point.
- 3.2.1. I would shift some of the details to the appendix.
- In the analysis, I missed a discussion of the parallel trends assumption. Given the high frequency of the data, I suggest to supplement the DIDs with an event study design.

Kind regards

Prof. Dr. Christian Leßmann

Dresden, 29. August 2023