

Reviews of ECONJOURNAL-D-23-00203R1

EXPLORING THE HETEROGENEOUS IMPACT OF TRADE AGREEMENTS ON
TRADE: DEPTH MATTERS

Round 1

Reviewer 1

The paper sets out to investigate a topical and interesting issue, which is of relevance as countries seek to implement policies that promote international trade. The author(s) employ a gravity model approach in the analyses. I have some comments the author(s) will need to address to bring the paper to a publishable standard.

Minor comments:

1. In the Introduction, end of paragraph 1, the author(s) use the term 'very recently'. However, this is not really so, as there has been some studies as far back as the early 2000s which is not 'very recent'.
2. To improve the readability of the paper, the author(s) should do well to split the current Introduction into an Introduction and a Literature Review.
3. In Section 2, Paragraphs 1 & 2, the author(s) should provide some specific justifications for 'using' the 2 papers i.e., Fontagne et al. (2021) and Breinlich et al. (2021). As it stands, no reasons have been provided to support the highlight the particular advantage they have over other existing studies.
4. In the current Section 2, in paragraph 2, the information is quite confusing i.e., mentions of COMESA (in Africa) and then EU enlargements without as much as giving any explanations as to what COMESA is, is not the best.
5. I recommend the current Section 2 be split into sub-sections. The portion before the 2nd paragraph on Page 9 starting with "To quantify the impact" will be a good place to have a split with a new sub-heading depicting Methods/Modelling Strategy.
6. Following Equation 1, the variables need to be described immediately after it and not as has been done some paragraphs after. It is confusing. In fact, that entire section needs some attention to make it more understandable as some acronyms are mentioned without really seeing where they come in e.g. Regional and Inter-regional; N-S PTA, N-N PTA, etc and these are not referred to again the paper, so one may ask why they are mentioned in the first place. It will be good to see how they are used in the Results tables.
7. In the Results section, the author(s) mention their use of the PPML estimator. However, this was not previously described i.e., features, the advantages and shortcomings e.g., Santos Silva and Tenreiro (2010) - see <https://www.sciencedirect.com/science/article/abs/pii/S0165176510000832?via%3Dihub> - show that PPML estimates may not exist if there is perfect collinearity for the subsample with positive observations of the dependent

variable, which is common in trade data where some countries do not trade in certain years or sectors. Further, Santos Silva and Tenreyro (2011) - see <https://www.stata-journal.com/article.html?article=st0225> - raise some criticisms that sensitivity to numerical problems can prevent estimation algorithms from locating the maximum and find PPML estimates that converge, and propose a STATA code to investigate if the PPML is appropriate. In short, some brief description and justification for the PPML approach will be helpful to the reader.

8. In the Conclusions section, it will be helpful for the author(s) to include some policy inferences to beef up the relevance of the results found. What do these findings about the role of depth tell the policymaker and how can they utilise it to improve the benefits of international trade.

Overall there is a lot of good material in the work the author(s) could highlight better to make it a very good publication.

Reviewer 2

This paper provides interesting insights about the trade effects of trade agreements. The analysis focuses on the impact of a relevant and recent feature of international trade: Increase in the depth of trade agreements. To measure depth, authors propose the use of indirect instead of direct measures. They use new statistical methods to address the high heterogeneity and number of provisions covered by trade agreements. Their results suggest that the depth of the agreements matters for increasing trade flows. I believe that this paper provides very interesting contributions to the relevant literature. The paper is very well written and easy to follow. Also, there are relevant implications: According to the authors, previous estimates of PTAs' partial effects are probably biased due to the omission of the level of depth of the agreements in the analysis. Below, I provide a few suggestions that hopefully may help to improve the manuscript. 1. Authors might consider the need to clarify the distinction between intensive and extensive margins of integration. They define extensive margin as the number of policy areas covered (?) (page 5/6). In page 5, they refer to the intensive margin as the specific commitments within a policy area (vertical depth). It is not clear to me if the manuscript explains clearly the relevance of this distinction and how it is linked to the empirical analysis. 2. Authors report a few relevant outcomes of their analysis. However, I think they should provide some tentative explanations for the results obtained, especially in those cases that seems to be counter-intuitive or difficult to understand. For example, and referring to the geographical scope of the agreements, they find that: "when the depth of these agreement is controlled for, regional but not interregional agreements boost trade". What could be a tentative explanation for this result? Something similar happens when authors report the effects of the "type of agreement by income levels of the trading partners". The results

show that in the case of North-North PTAs, their positive and statistically significant effects only take place when they are deep agreements. For North-South agreements, both deep and shallow PTAs boost trade flows (...) In the case of South-South PTAs, the elasticity of trade is not higher for deep agreements. Again, any tentative explanations for these outcomes?? Minor comments -Please clarify meaning of EIAs in footnote 2 (economic integration agreement). The definition appears later in page 5. -You might consider the need to modify the first sentence of the conclusions: "This paper examines the heterogeneity potential differential effect of both depth of the agreement and different types of PTAs on trade". I believe this is not exactly the story of the paper. I would rather emphasize the idea of heterogeneity in the impact of depth across different types of trade agreements.

Round 2

Editor

One reviewer suggested minor revision and the other one accept. I can see that the authors have tackled all comments. Hence, I don't see any need to send the paper back to the reviewers. The paper can now be finally accepted.