Referee Report MS 3396

Impact of institutional and cultural distance on ASEAN’s trade efficiency

Summary
The main aim of this paper is to estimate the effect of cultural and institutional distance on trade efficiency for a sample of ASEAN countries over the period 2006-2016. Trade efficiency is defined as actual/potential trade, and it is estimated using the gravity model of trade in combination with a stochastic frontier approach. The main results show a negative effect of both distances on trade and recommends reducing these distances to achieve trade potentials.

Main comments
The paper topic is of interest for trade economists and policy makers, but it has to be considerably improved before being publishable. First, it needs to be reorganized and some sections have to be restructured. In particular, the abstract should be re-formulated to reflect the content of the paper and the focus on three—and not only two—target determinants of trade efficiency (freedom of trade). The first section is a mixture of introduction and literature review and it should be separated into two distinct sections. The second of which, should be better organized, and more to the point, than the actual introduction. The “Materials and Methods” section should be renamed Methodology, the actual name is misleading and a sub-section describing the variables and data sources is also missing.

There are several crucial issues that should be tackled before the paper is suitable for publication:

1) The main drawback of the paper is that the gravity model specification does not include several important factors that could be correlated with the error term: common border as well as connectivity, infrastructure endowments and other trade facilitation proxies, such as cost to import and cost to export (from Doing Business, The World Bank). Since those are important trade costs, if they are not included, and remain in the error term, you will indirectly attribute their influence on trade efficiency to cultural or institutional differences or to freedom of trade. Therefore, the gravity model should be estimated with those factors included.
2) The second major point is that you should clearly state why some factors are included in thegravity model and others are relegated to the second stage estimation of the trade efficiency. That is, why is cultural distance a determinant of trade efficiency and it is not included in thegravity model to estimate trade potential? Etc.

3) The third point is that to my view the three determinants of trade efficiency are possibly highlycorrelated and therefore the correlation matrix should be shown to justify that it is still possible toidentify separated effects.

4) Finally, some econometric issues have to be tackled: In the GMM estimation the AR (2) test shows a p-value lower than 0.10, this indicates autocorrelation and the errors should be made robust to it. Moreover, the Sargan test indicates that the instruments are marginally not valid, with a p-value below 0.10, and, in any case, the Hansen test results and not the Sargan should be reported if there is heteroskedasticity in the error term. Additionally, there is not test shown for weak instruments, those tests are obtained automatically when using the command in stata “xtreg2”. More importantly, since the dependent variable is obtained in a first step estimation the errors should be bootstrapped in the second step estimation.

5) There are grammatical mistakes and typos that should be corrected. A native speaker should proofread the paper before resubmitting.

Minor comments

1) Page 1: cultural difference, should be plural, replace by differences.


3) On page 3: The brackets containing “(model bc88 and model pl81) …(modelbc82…)should be deleted, those are not informative at all.

4) In page 4: the “common border” dummy should also be included in the specification of thegravity model.

5) All equations should be numbered.

6) Page 7: why the product of freedom trade is included and not the single variables in each country? It does not have a clear interpretation.
7) In many cases a space is missing before brackets, for example twice in the first paragraph of page 8.

8) In page 8, reference to a "η" term is made, please link it with the model in eq. (1).

9) Data section: please clarify whether intra-Asean trade is also included or not. It should definitely be included in the estimations, if it is not. Some variables are described and not included in the equations.