Quantification of the economic impact of EU aflatoxin standards on developing and transition countries’ exports applying gravity model

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Abstract

The research employs gravity equation method using the dataset generously made available by T. Otsuki of the World Bank to explain trade patterns between developed (EU, USA, Japan) on the one side and transition and developing countries on the other side and to determine the effect of Western (as aflatoxin standards on transition countries’ exports of cereals. The combination of a gravity model with econometric estimates is potentially useful approach to identify the role of regulations in foregone trade. Our study differs in from the previous work of Otsuki et al. (2001) and Wilson & Otsuki (2001) in that we apply Hausman test of specification after fixed- and random-effects models, and provide an evidence for the viability of the latter model.

Background

Globalization raised the importance of food safety and quality concerns. Developed countries implement precautionary food regulation policies to protect their affluent consumers from unsafe food imported from developing and transition countries. The countries are strongly encouraged by the World Trade Organisation (WTO) to adopt internationally recommended standards, but they are also allowed to implement policies, setting even stricter standards. The alarming number of trade disputes at WTO however evidences cases of abuse of such policies. The fear is that the denoted traditional trade barriers could be substituted and even surpassed by Food Regulatory Measures (FRM). While claims on protectionist nature of FRM is valid in principle, there is little empirical evidence about their economic effects.

Table 1: Model Coefficients

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<th>Dep. Var.</th>
<th>Logafla</th>
<th>loggnppcim</th>
<th>loggnppcex</th>
<th>logdist</th>
<th>dt97</th>
<th>dt98</th>
<th>dasean</th>
<th>dcol</th>
<th>deu</th>
<th>dnafta</th>
<th>dmerco</th>
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<td>0.019</td>
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Method

The research employs gravity equation method using the dataset generously made available by T. Otsuki of the World Bank to explain trade patterns between developed (EU, USA, Japan) on the one side and transition and developing countries on the other side and to determine the effect of Western (as aflatoxin standards on transition countries’ exports of cereals. The combination of a gravity model with econometric estimates is potentially useful approach to identify the role of regulations in foregone trade. Our study differs in from the previous work of Otsuki et al. (2001) and Wilson & Otsuki (2001) in that we apply Hausman test of specification after fixed- and random-effects models, and provide an evidence for the viability of the latter model.

Table 2: Results of Hausman Specification Test

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References

