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Quantification of the Economic Impact of EU Aflatoxin Standards on Developing and Transition Countries' Exports Applying Gravity Model

NUNE KHACHATRYAN¹, JÜRGEN ZEDDIES², HEINRICH SCHUELE², ARMEN KHACHATRYAN³

¹University of Hohenheim, International Agricultural Trade and Food Security, Germany

²University of Hohenheim, Analysis, Planning and Organisation of Agricultural Production, Germany

³University of Hohenheim, Farming and Rural Systems in the Tropics and Subtropics, Germany

Abstract

Globalisation 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 dwindled traditional trade barriers could be substituted and even surpassed by Food Regulatory Measures (FRM). While claims on protectionist nature of FRM are valid in principle, there is little empirical evidence about their economic effects. The question of quantification of trade impact of FRM is absolutely essential for the new trade agenda. This problem is on focus of trade policy debate for developing countries, yet it is not considered seriously for transition countries. Such a research for these recently liberalised markets gains a special significance due to their active participation in world trade. Their exports to developed countries include cereals, fruits and vegetables, which are especially exposed to natural toxin (e.g. aflatoxin) hazards and often face stringent food standards.

This research aims at understanding the role of developed countries' aflatoxin standards in dynamics of exports from developing and transition countries, by assessing the trade patterns and quantifying the effects on trade between 13 importing (developed) countries and 25 exporting (developing and transition) countries. The study adopts the principles of the Gravity Equation Model. The results of cross-country analysis prove the hypothesis that the stringency level of food regulations on aflatoxin is negatively associated with trade flows from developing and transition countries.

Particularly, our findings evidence that adopting a worldwide standard for aflatoxin B1 based on current international guidelines could increase the cereal and nut trade among model countries by about \$US 6,5 billion compared to 1998 levels.

The results of the research will assist international policy makers in designing new global trade agenda.

Keywords: Food chain, food safety and quality