

studies and perspectives

Estimating the effects of
United States food safety and
agricultural health standards
on agro-food exports from
Latin America and the Caribbean

Raquel Artecona
Robert Grundke



ECLAC

studies and perspectives

11

Estimating the effects of United States food safety and agricultural health standards on agro-food exports from Latin America and the Caribbean

Raquel Artecona

Robert Grundke



ECLAC Office in Washington

Washington, D.C., December 2010

This document was prepared by Raquel Artecona, Economic Affairs Officer with the UN-ECLAC Washington Office and Robert Grundke, also with the UN-ECLAC Washington Office on a Carlo-Schmid-Program scholarship, funded by the German Academic Exchange Service (DAAD) and the Studienstiftung des Deutschen Volkes.

The views expressed in this document, which was reproduced without formal editing, are those of the authors and do not necessarily reflect the views of the Organization.

United Nations Publications

ISSN printed version: 1727-9909

ISBN: 978-92-1-121743-8

E-ISBN: 978-92-1-054-530-3

LC/L.3255-P

LC/WAS/L.112

Sales No.: E.10.II.G.60

Copyright © United Nations, October 2010. All rights reserved

Printed in United Nations

Applications for the right to reproduce this work are welcomed and should be sent to the Secretary of the Publications Board, United Nations Headquarters, New York, N.Y. 10017, U.S.A. Member States and their governmental institutions may reproduce this work without prior authorization, but are requested to mention the source and inform the United Nations of such reproduction.

Contents

Abstract	5
Introduction	7
I. Food safety and agricultural health standards and the agro-food exports	9
II. Methodology	13
III. Data	17
IV. Results	19
V. Conclusion	27
Bibliography	29
Annexes	31
Annex 1 FDA code equivalency with 3-digit SITC code	33
Annex 2 List of countries included in the study	34
Annex 3 Import price series by product category	35
Studies and perspectives series, Washington Office:	
Issues published	37

Tables

TABLE I.1	SHARE OF THE TOTAL NUMBER OF CUSTOMS REFUSALS BY REGION	10
TABLE I.2	LATIN AMERICA AND THE CARIBBEAN: SHARE OF SUBREGIONS IN TOTAL REFUSALS	10
TABLE I.3	LATIN AMERICA AGRIFOOD EXPORTS: MOST COMMON REASONS FOR REFUSAL BY UNITED STATES CUSTOMS	11
TABLE IV.1	REGRESSION RESULTS FOR MODELS USING 8 DISAGGREGATED SECTORS	20
TABLE IV.2	REGRESSION RESULTS FOR MODELS USING LN OF AGRICULTURAL GDP AND 8 DISAGGREGATED AGRICULTURAL SECTORS	22
TABLE IV.3	REGRESSION RESULTS FOR MODELS USING LN OF AGRICULTURAL GDP AND AGRICULTURAL SECTORS 1-8 AGGREGATED	23
TABLE IV.4	REGRESSION RESULTS FOR MODELS USING LN POPULATION AND AGRICULTURAL SECTORS 1-8 AGGREGATED WORLD DATA	25

Figures

FIGURE IV.1	RESIDUALS OF MODEL 1	21
FIGURE IV.2	RESIDUALS OF MODEL 2	23
FIGURE IV.3	RESIDUALS OF MODEL 3	25

Abstract

Food safety and agricultural health standards have become a mayor challenge for food exports from developing countries in the past few years (Jaffe & Henson, 2005; OECD, 2003; Josling, Roberts & Orden, 2004; Maskus & Wilson, 2001). As tariff rates were negotiated down in the context of the World Trade Organization (WTO) and in regional and bilateral trade agreements, international trade in agro-food products increased substantially and so did concerns over food safety and agricultural health in food importing countries. Several countries, including the U.S, started to pay closer attention to their food safety and agricultural health standards both domestically and for food imports. In the U.S., the tightening of standards was in part related to heightened concerns about bioterrorism (Jaffe & Henson, 2005). Increased consumer awareness of agro-food quality and agricultural health issues also played an important role, as indicated by the large number and strictness of private technical standards (Jaffe & Henson, 2005).

Although there is an extensive literature describing the general issues of food-safety and its potential effects on international trade, few studies have looked at the empirical question of what are the actual trade costs of an increase in the number, strictness and enforcement of food safety regulations. This document contributes to the literature by providing an innovative estimation of the effects of U.S. food safety and agricultural health standards in the agro-food exports of Latin America and the Caribbean, using the number of refusals at the U.S. border as a proxy for trade costs associated with tighter food safety standards and regulations. The analysis focuses on agro-food exports from Latin American countries to the U.S. market to estimate a gravity model with panel data for the years spanning from 1997 to 2009.

The main results are that technical standards and regulations are not significant determinants of Latin America and Caribbean agro-food exports to the U.S. Rather the size of the countries or their market potential in the food sector, as measured by the agricultural GDP, is the main determinant. Time specific factors such as oil prices and global economic conditions as well as population of the exporting country also play a role. This is consistent with the results obtained by Novy (2009), that the majority of U.S. trade growth over the period 1970-2000 was explained by income growth rather than by a decline in bilateral trade barriers. In addition, we found that using GDP as a measure of market potential in the agro-food sector is inadequate, because GDP includes services, most of which are non-tradables, and the value added of products other than those whose trade is relevant for our analysis. As a result, using GDP overestimates trade costs in the agro-food sector and underestimates the role of income as a determinant of trade (Novy, 2009).

Introduction

Food safety and agricultural health standards have become a major challenge for food exports from developing countries in the past few years (Jaffe & Henson, 2005; OECD, 2003; Josling, Roberts & Orden, 2004; Maskus & Wilson, 2001). As tariff rates were negotiated down in the context of the World Trade Organization (WTO) and in regional and bilateral trade agreements, international trade in agro-food products increased substantially and so did concerns over food safety and agricultural health in food importing countries. Several countries, including the U.S, started to pay closer attention to their food safety and agricultural health standards both domestically and for food imports. In the U.S., the tightening of standards was in part related to heightened concerns about bioterrorism (Jaffe & Henson, 2005). Increased consumer awareness of agro-food quality and health issues also played an important role, as indicated by the large number and strictness of private technical standards (Jaffe & Henson, 2005).

The increasing number and strictness of public and private technical standards implies rising compliance costs for agricultural

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_1586

