



Techniques for Assessing the Trade Effects of Standards in the Agro-Food Sector



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[http://www.oecd.org/dataoecd/35/22/4143
0327.pdf](http://www.oecd.org/dataoecd/35/22/41430327.pdf)



Standards have an ambiguous impact on international trade

- They may facilitate trade by providing product information to consumers and contribute to the achievement of the imposing country's social and technical objectives.
- They may be restrictive and hamper trade, especially if they discriminate against foreign producers.

A minimum standard may be considered to excessively restrict trade “when it exceeds what a [social] planner would impose if all producers were local.” (Fischer and Serra, 2000)



Impacts of standards: *ex post* and *ex ante*

- **Ex post:** observed changes in trade that can be attributed to standards
- **Ex ante:** predicts the likely impact of a regulatory change before it is introduced

Scope of the work

Consistent with WTO terminology:

- Mandatory
- Imposed by governments or their mandated institutions
- Both content-attribute and process-attribute standards

Product and process standards

Type	Target	Examples
Product standards	Maximum level/ban	Pesticide/herbicide residue, drug residues, additives and contaminants
	Packaging	Size, material, treatment of material
	Grading/classification	Wheat classes, meat classes, fruit classes
	Labelling	Label of ingredients; other labels
Process standards	Product-related	Requirements for inputs (GMO, hormones)
		Handling/storage requirements
		Hygiene and sanitary requirements
		Pest control measures
	Non product-related	Labour conditions
		Animal welfare
		Environmentally friendly/organic production
		<u>Tracability</u>
	Quality management/assurance systems (HACCP, ISO, GAP)	

Frequency and coverage measures

- + : Simple
- - : Assumption that the greater the number of restrictions and/or the broader their application, the more restrictive impact on trade

Frequency and coverage measures most widely used

- PERINORM
- Trade Restrictiveness Index (IMF, World Bank)
- Notifications under SPS and TBT
- WTO disputes
- TRAINS



Ex post analysis: gravity models

- Trade explained by distance between two countries, and their size
- Standards often modeled using dummy variables or coverage ratios or explicit requirements (maximum residue levels)
- Scope and product coverage differs

Standards as tariff equivalents

- NTMs restrict imports either through prohibition (e.g., in the case of a quota) or by raising transactions costs
- The domestic price of the importing (imposing) country is therefore higher than the world price
- This price “wedge” determines the impact of the standard.

Supply and demand shifts

Standards effect producers through:

- Additional production costs (e.g., labelling, certification, new production techniques)
- Encourage upgrading of facilities

Standards effect consumers through:

- Higher product quality and more information

Market segmentation models

- In practice, products are not homogeneous, as assumed in the models covered previously: Producers seek to differentiate their products
- Standard may provide consumers with a choice over product quality



Matching quantification strategy to standard type

1. Is the standard likely to have a significant impact on trade and/or welfare?
2. What are the characteristics of the standard? Is it the level of the standard or its design that is likely to drive its impact?
3. What are the characteristics of the product subject to the standard? In particular, what is the degree of product heterogeneity?

A Review of Methods for
Quantifying the Trade Effects of
Standards in the Agri-Food
Sector,
OECD Trade Policy Working
Paper no. 79, Paris, 2008.



Matching quantification strategy to standard type

Ex post	Ex ante
Focus on trade effects of standard	Focus on welfare effects of standard
Simple content-attributes	Complex or process-attributes
Simple discriminatory standard	Distribution of costs and benefits of regulation
Consumer preference less of an issue	Welfare issues depending on consumer preference
Less product differentiation	Greater product differentiation