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Non-Tariff Measures and Agri-Food Trade: Assessment, Measurement, Impact

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Selected Paper prepared for presentation at the International Agricultural Trade Research Consortium's (IATRC's) 2015 Annual Meeting: Trade and Societal Well-Being, December 13-15, 2015, Clearwater Beach, FL.

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Non-Tariff Measures and Agri-Food Trade: Assessment, Measurement, Impact

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Background

“Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both” (UNCTAD 2010)

- NTM universe is diverse and large
 - Efforts by UNCTAD (TRAINS) and WTO collect and classify NTMs
 - TRAINS reports > 47,000 NTMs for the EU
 - WTO SPS Notifications: > 18,000 cumulative notifications (1995-2014)
- Without expert judgement or surveys of export firms it is difficult to synthesize info & discern economic importance of each measure whether justified or not

Chapter

Import measures

Technical measures

- A Sanitary and phytosanitary measures (SPS)
- B Technical barriers to trade (TBT)
- C Pre-shipment inspection and other formalities

Non-technical measures

- D Price control measures
- E Licenses, quotas, prohibition and other quantity control measures
- F Charges, taxes and other para-tariff measures
- G Finance measures
- H Anti-competitive measures
- I Trade-related investment measures
- J Distribution restrictions
- K Restrictions on post-sales services
- L Subsidies (excluding export subsidies)
- M Government procurement restrictions
- N Intellectual property
- O Rules of origin

Export measures

- P Export-related measures (including export subsidies)



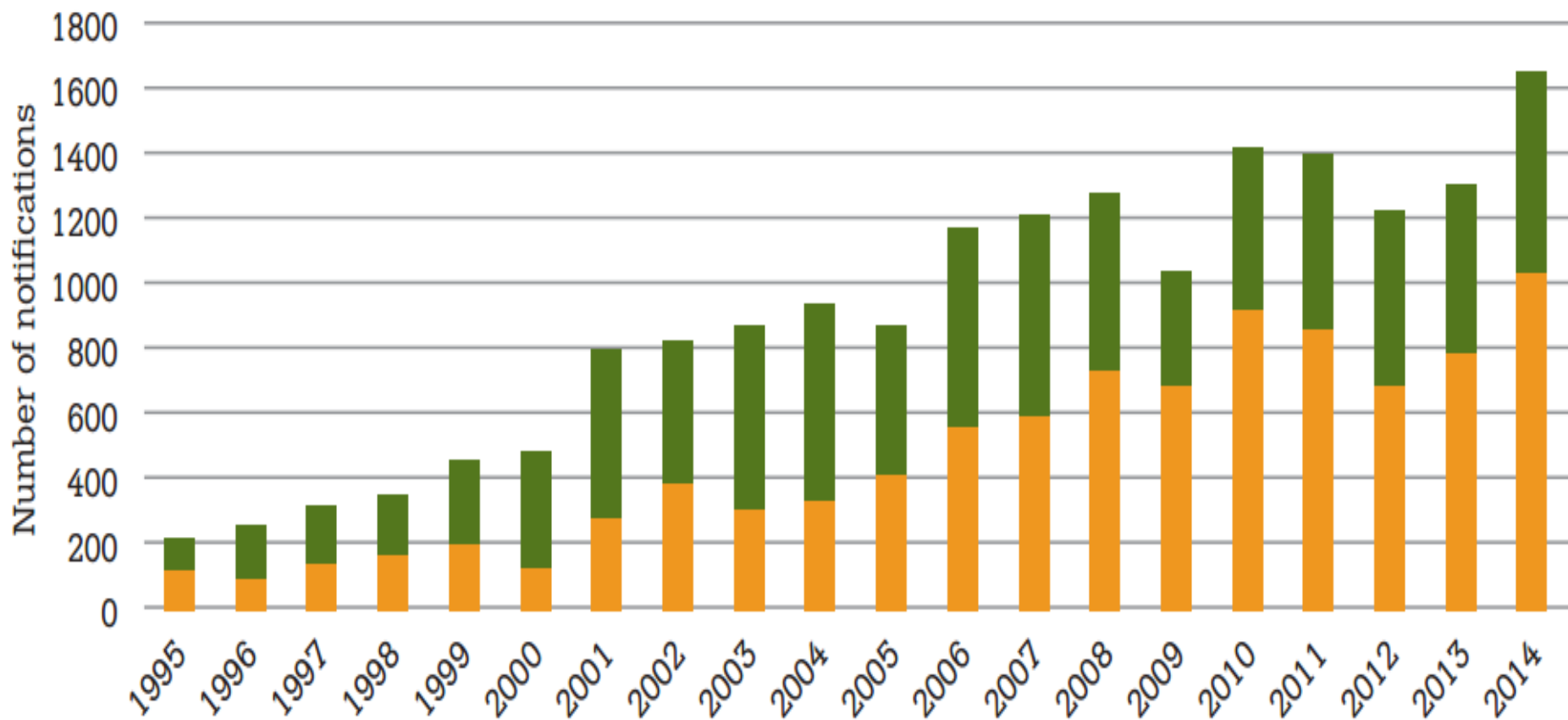
Source: WTO Secretariat, 2015

"Ensuring Safe Trading without unnecessary Restrictions"

Chart 1: SPS notifications by WTO members

Developing countries

Developed countries





Literature

- NTM assessments are difficult but broad-based & case-study approaches have made significant headway
 - Broad-based approach
 - Moenius (2004) (bilaterally shared standards)
 - Disdier et al. (2008) (OECD NTMs)
 - EU Commission TTIP study (Bureau et al. (2014)) (WTO Notifications)
 - NTM impact project (Orden, Beghin, Henry 2012) (index of regulatory heterogeneity)
 - Case-study approach
 - Otsuki (2001) (Aflatoxin and groundnuts)
 - Wilson and Otsuki (2004) (chlorpyrifos (insecticide) on banana);
 - Wilson et al. (2003) (drug residues)
 - Peterson and Orden (2006) (Avocados)
 - Jayasinghe, Beghin and Moschini (2009) (US Corn seed exports)
 - Xiong and Beghin (2012) (Aflatoxins revisited);
 - Peterson et al. (2008); Grant et al. (2015) (phytosanitary issues & fruits and vegetables)



Other Trade Literature

- Stringency measures and heterogeneity indices
 - Li and Beghin (2014), Winchester et al. (2012), Grant, Peterson, and Hejazi (2015); Xiong and Beghin (2014) (MRLs), Beghin, Disdier, and Marette (2015)
- NTMs and CGE Assessments
 - TPP: Petri, Plummer, Zhai (2011), Disdier, Emlinger, and Foure (2015)
 - TTIP: Bureau et al. (2014), Beckman et al. (2015), ECORYS (2009)



Objectives of IATRC Commissioned Paper

- Review and Assessment:
 - Review the landscape & state of the art on the issue of NTMs
- Identification (blend of broad & case-study approaches):
 - *Targeted:* identify cross-cutting SPS/TBT issues based on “revealed” notifications
 - *Broad-based:* in terms of NTM types and commodity & country coverage
- Measurement:
 - Develop a framework to summarize and quantify revealed SPS restrictions since 1995.
 - Identify key NTM bottlenecks where international harmonization or equivalency of SPS or TBT measures would enhance market efficiency



A Method to Identify Measures

Revealed Trade Concerns - A Targeted Approach



The WTO Specific Trade Concerns (STC) Database

- WTO SPS Committee is a venue by which Members can bring attention to, discuss, and potentially resolve STCs
 - Not a formal dispute in any legal sense
 - Not even a precursor (only 43 total disputes have escalated out of STCs)
 - No obligation for members to raise a concern
- Committee allows members to exchange info on STCs and discuss implementation rules of SPS agreement
 - Members can “point fingers”
 - Or “reveal” strong signal that partner measures inconsistent with SPS agreement



4 Advantages of STC Database

1. Rich detail – bilateral, nature of measure, product coverage, members raising, maintaining, and supporting the concern, years concern active & date of resolution, time-varying, 1995-present
2. Revealed Concerns - policy-makers have little incentive to notify their own SPS measures but all kinds of incentive to notify “barriers” of its partners!
3. Shifts the focus from NTMs to NTBs – by focusing on concerns, Members elicit their prior that they have strong reasons to believe their partners’ SPS obligations are being violated
4. Improvement over Disputes and Notifications
 - 43 disputes underestimates > 380 revealed concerns
 - 18,000 SPS notifications makes it difficult to discern which measures are impediments to trade and thus of economic significance



Example Concerns



Sri Lanka cinnamon exports to EU



Case study

Resolving a trade concern: Cinnamon exports from Sri Lanka

In 2005 and early 2006, Sri Lanka raised a specific trade concern in the SPS Committee about the European Union's import restrictions on cinnamon exports from Sri Lanka.

The issue related to Sri Lanka's traditional practice of burning sulphur as a way of protecting cinnamon from possible fungi and insects. While this practice does not require direct application of sulphur on the cinnamon, it does leave some residue.

The EU's directive setting maximum residue levels for sulphur dioxide (SO₂) prevented Sri Lanka's cinnamon exports from entering the EU market. In raising the trade concern, Sri Lanka said that there was no international standard for sulphur

levels in cinnamon. Codex Alimentarius Commission was at that time in the process of considering the use of SO₂ as an additive but had not developed maximum permitted residue levels for SO₂ in cinnamon.

Following discussion in the SPS Committee, the Chair drew the matter to the attention of the Codex Commission, which subsequently adopted a standard establishing a maximum residue level for SO₂ in cinnamon. As a result, the EU decided to base its requirements on the Codex standard and by the end of 2006, Sri Lanka reported to the SPS Committee that this issue had been satisfactorily resolved.

Source: WTO (2015)

Example STCs

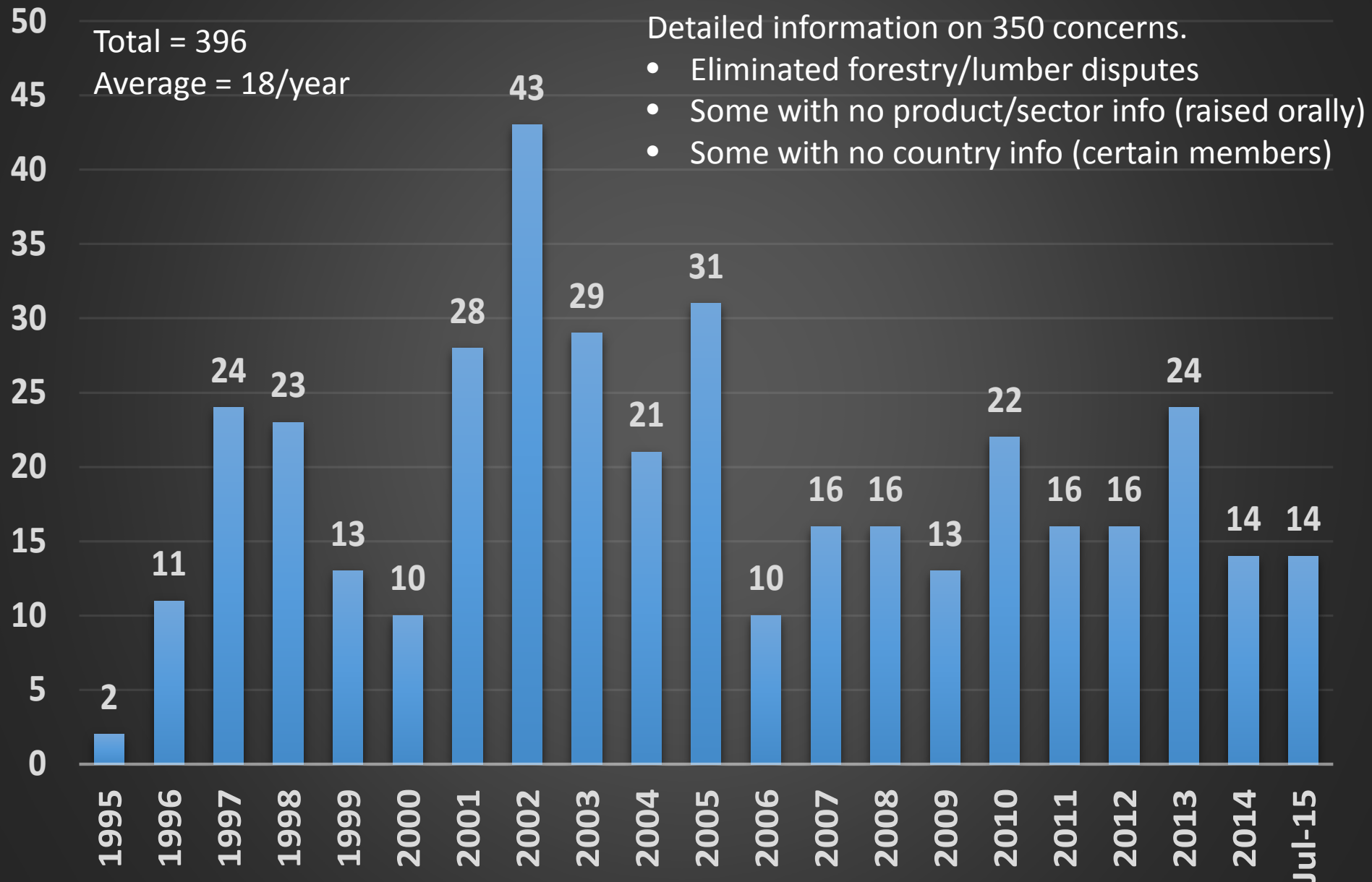
STC	Initiated	Resolved	Member Maintain	Members Raising/Supp	Issue
118 123	2002	Partially 2008	PAN, VEN	CAN, COL, CHL, USA	Discretionary import licenses and permits
197	2004	2013	EU	COL, BOL, BRA, CHL, Many others	Ocratoxin A tolerance (Coffee)
205	2005	2010	THA	USA, NZL, JPN	Public Health Regulation (High risk foods: milk pwd, beverages, fresh/frozen veg, infant foods)
225	2005	2006	JPN	IND	Fruit Fly interception, regional restrictions on Indian mangoes
251	2007	Not reported	CHN	USA	Unrealistic zero tolerance for pathogens on raw meat and poultry that are inconsistent with equivalent domestic standards
332	2012	Ongoing	JPN	ARG	Recognition of FMD-free regional zones in Northern Argentina
368	2013	Ongoing	RUS	UKR, KAZ	Presumed false labelling of confectionary products
396	Jul 2015	Ongoing	EU	USA, ARG, BRA, CAN, URY, PRY	GMO Import 'Opt-Out' Proposal without scientific evidence



Early Tabulations

Slicing the Data

STC Notification - through July 2015





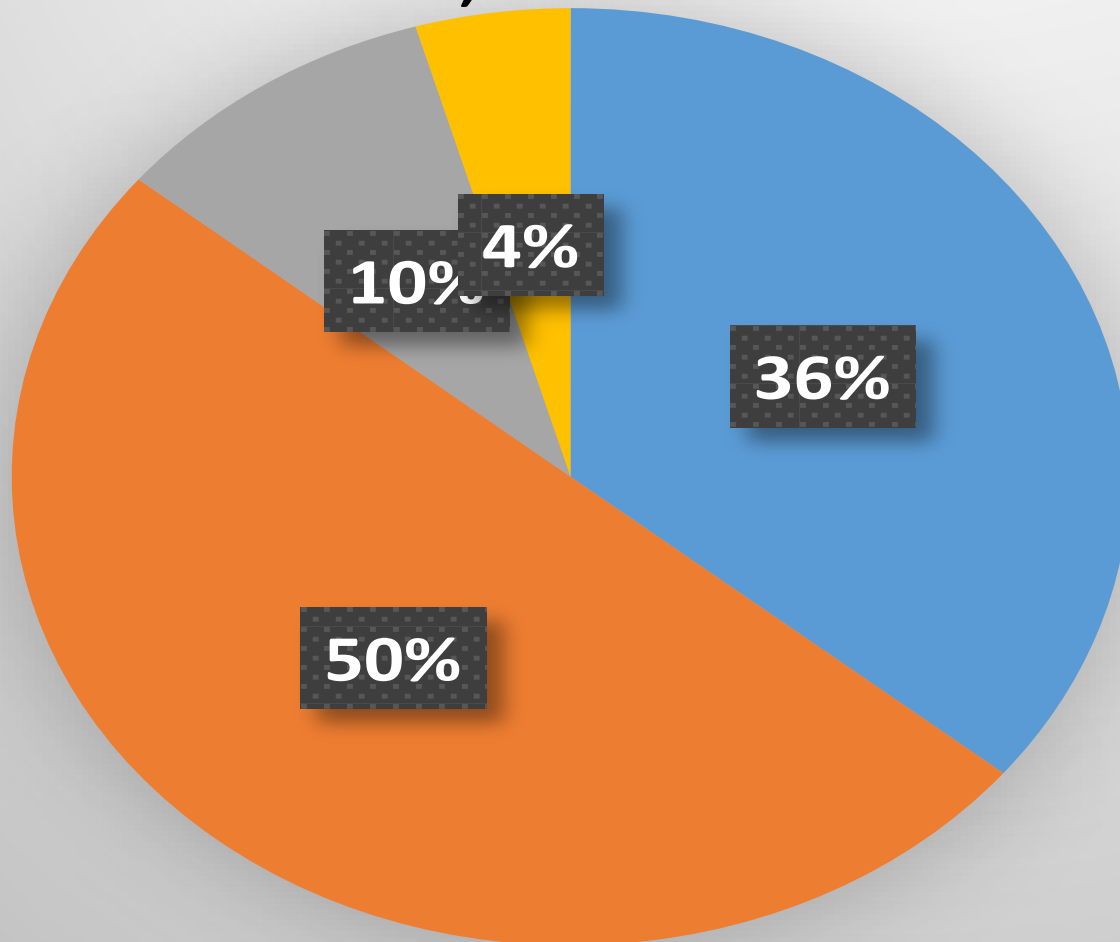
Notifications by SPS Subject Area

1. Animal Health
2. Food Safety
3. Plant Health
4. Other Concerns

STCs w/ Members & Supporting Members

N = 350

N = 2,326



Animal Health

Food Safety

Plant Health

Other Concerns



Categorizing NTM Types



NTM Types

NTM	Abbrev	Description/Example
1. Animal Disease Related	ADR	FMD, BSE, and applications of waste from infected animals on other sectors
2. Customs/Procedures, Certification, Licensing	CPR	Discretionary import licensing (VEN); Certification procedures (CAN); comment periods for new regulations (CHN)
3. Conformity Standards & Risk Assessment	CRA	Risk assessment for entry of queen bees (ARG)
4. Food Additives & Alterations	FAD	Benzoic acid in sauces (AUS); Genetic modification in cereals
5. Microbiological related	MICB	Salmonella; Campylobacter
6. Treatments	PHT	Cold/heat treatment, fumigation, pest-free zones
7. Plant Contamination	PLCT	Plant disease
8. Production & Process Requirements	PPR	Hygiene requirements, Grade A facilities, restrictions on hormones/beta agonist
9. Tolerances and Limits	TOL	Maximum residue limit (MRL) requirements

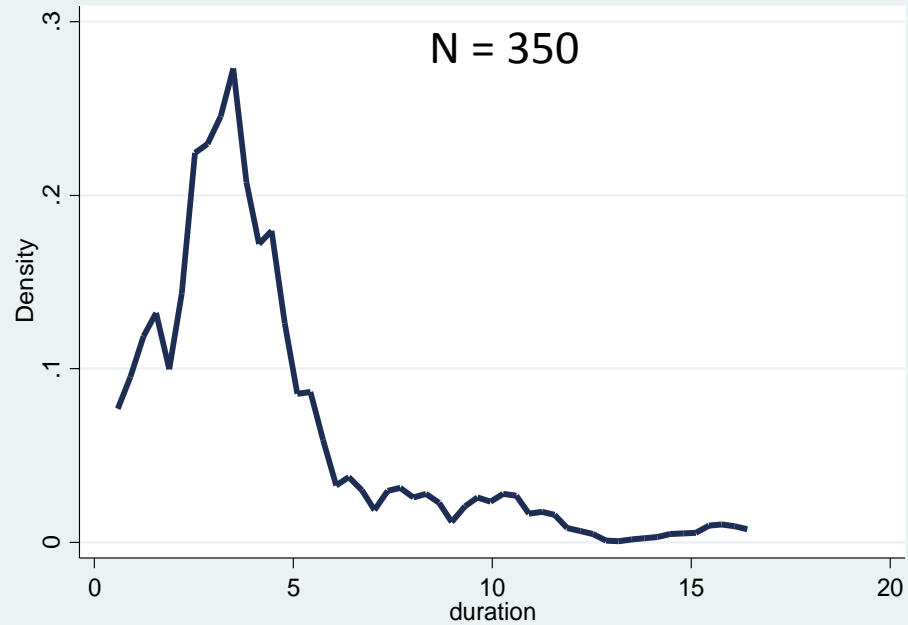


Duration of STCs

Density plot of:
Year resolved (incl. partially) – Year initiated

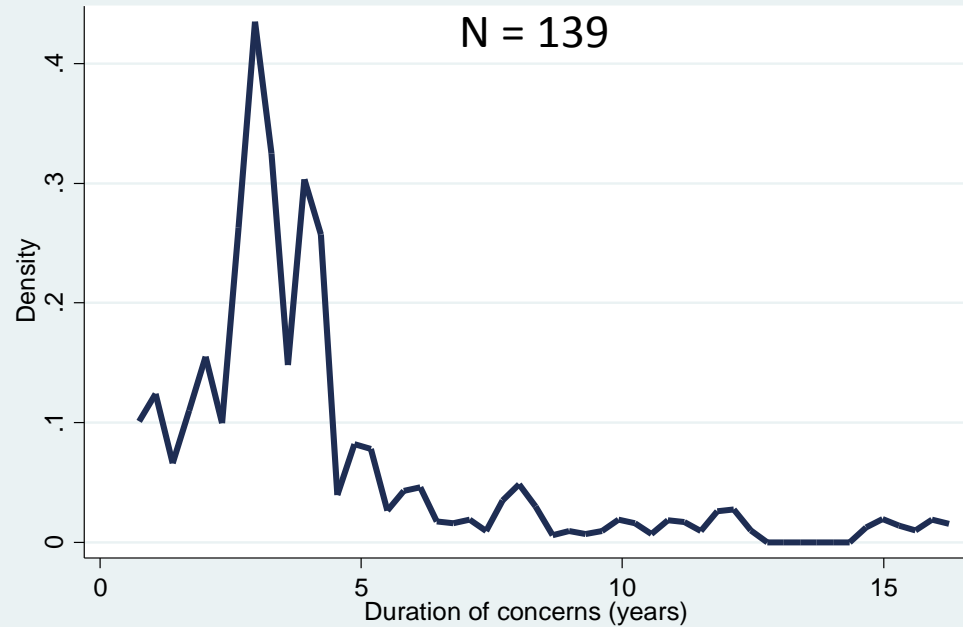
Overall

N = 350



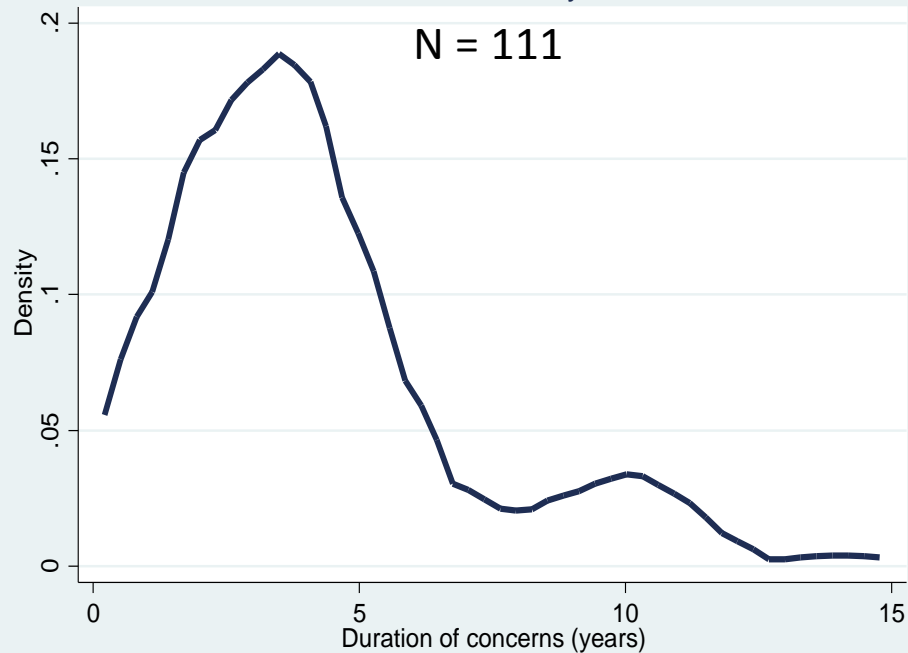
Animal Health

N = 139



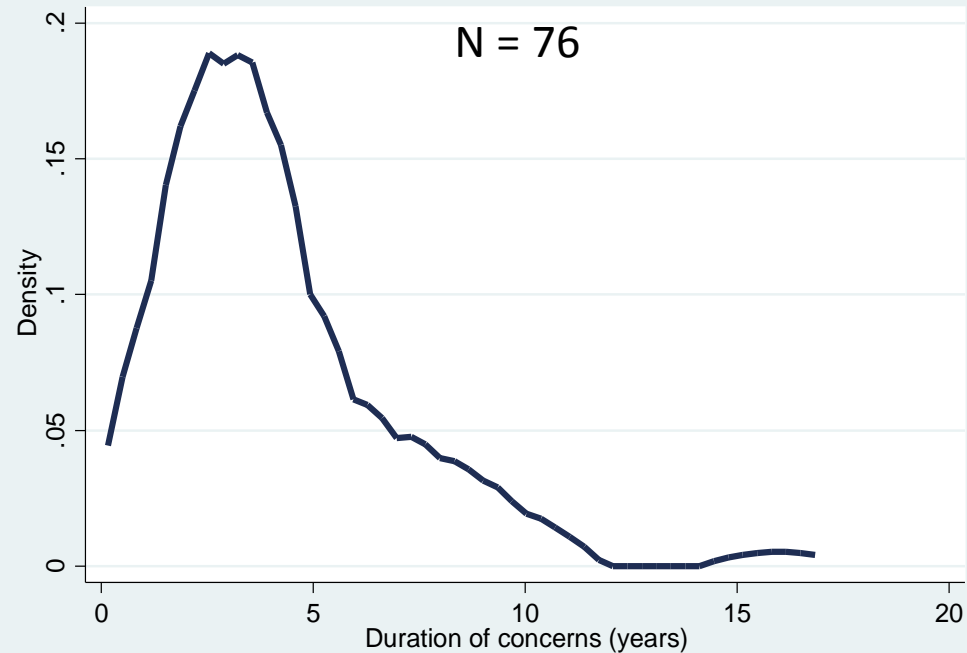
Food Safety

N = 111



Plant Health

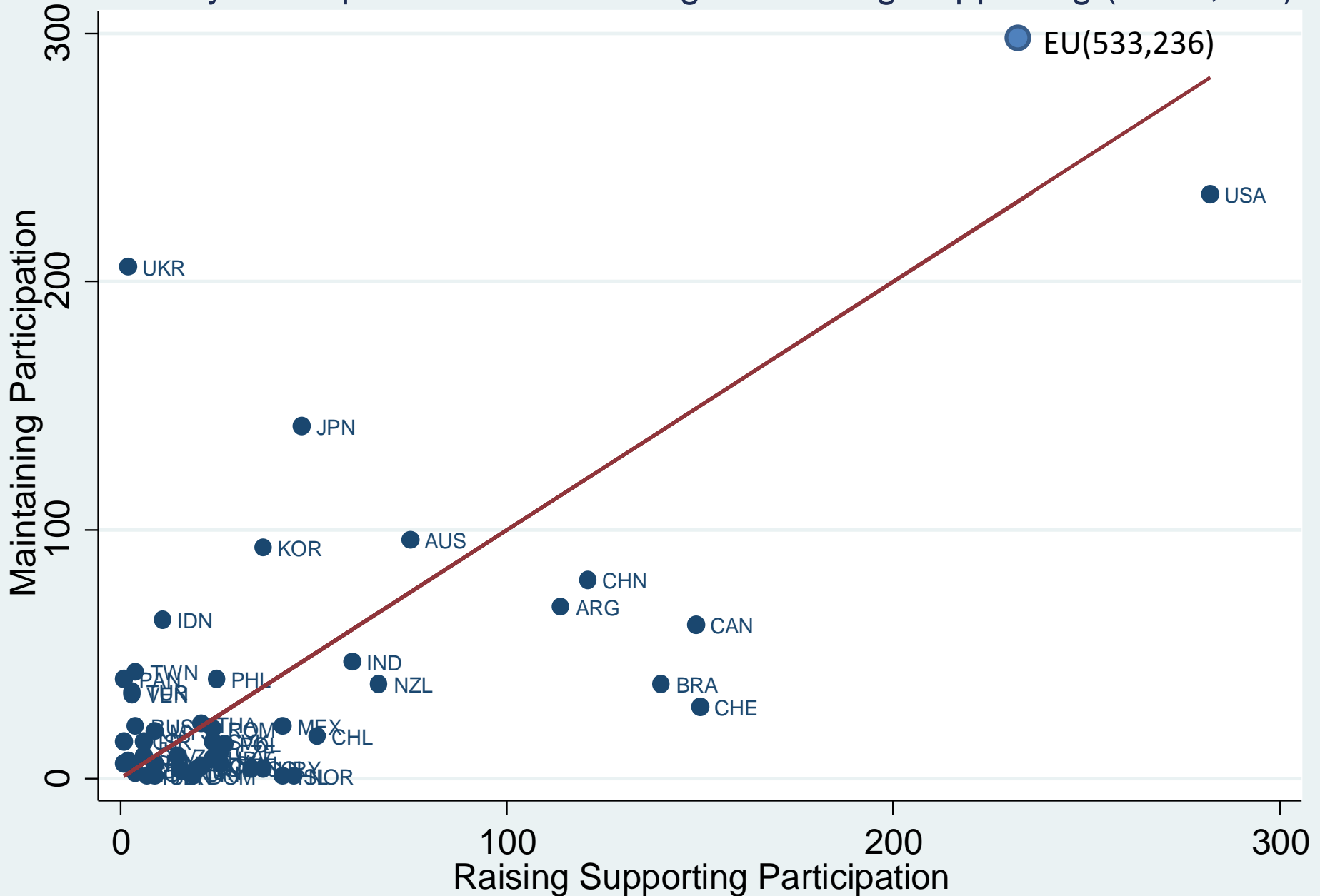
N = 76



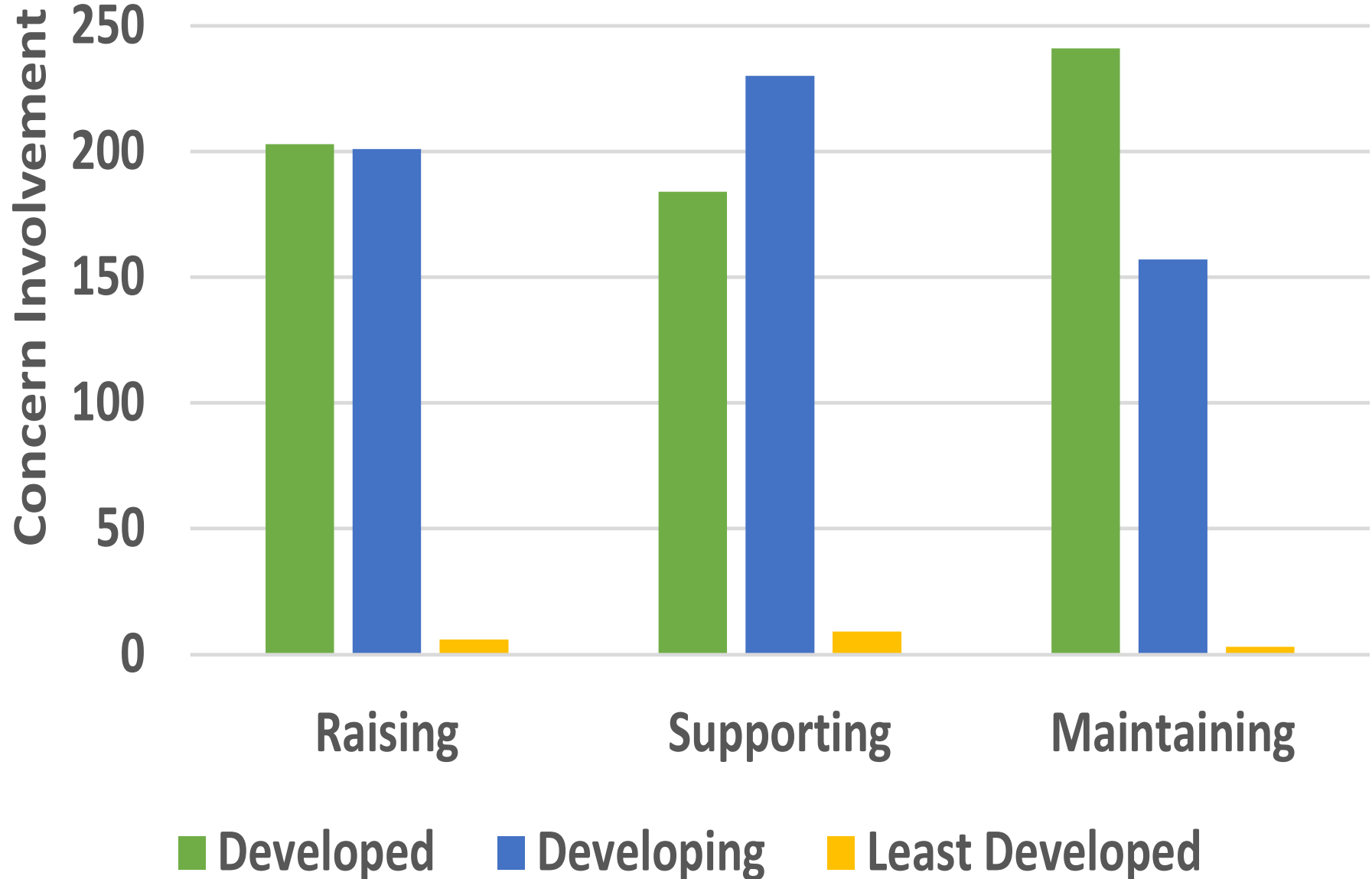


Countries Involved (Prolific “complainers” & “maintainers”)

Country Participation as Maintaining vs. Raising/Supporting (N = 2,326)



STCs by Economic Development (UN Classification)





Conclusions & Next Steps

1. Members have raised ~400 SPS concerns since 1995 (larger for TBT)
2. STCs reveal important information on NTBs (vs. NTMs) that would otherwise be missed when collecting dispute data or WTO notifications of SPS
 - Many STCs cite non-notification of SPS measures
3. SPS committee important venue to clarify and resolve trade conflicts (approx. 40% of concerns reported as resolved)

Next Steps

1. Incorporate measures of “severity” of concern using number of times concern subsequently raised (some > 10 times)
2. From tabulations to quantification. How to quantify the trade restrictiveness of “revealed” SPS concerns?