



NON-TARIFF MEASURES: EMERGING ISSUES AND RESEARCH FRONTIER

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Presentation Outlines:

- Introduction
- Effect of NTMs on Trade Cost
- Effect of NTMs on Poverty/Inequality and Food Security
- Strengthen "deeper" regional integration with respect to NTMs
- Implementation and Procedures Effect
- Conclusion

1. Introduction



Compared with tariff, NTMs is Less Transparent

- Broad definition of NTMs: SPS, TBT and PSI, price and quantity control measures, threat measures (e.g. antidumping and safeguards), and trade-related finance and investment measures.
- Unlike tariff, NTMs data are not expressed as numerical values but are often complex pieces of regulation.
- NTMs is fragmented and spread over a large number of government agencies which has different mandates.
 - Drafting regulations process is not inclusive, implementation is not clear.
 - There is no mechanism to periodically review regulations.
- Resulted on a negative impact on businesses - implementation costs, its financial and time-prolonging.

Impact of NTMs on Trade Cost and Competitiveness

- NTMs affect trade not only through their **inherent stringency**, but also through their **Fragmentation** (non-harmonization), **implementation and procedures**.
- The stringency effect is attributable to the increased cost of doing business due to the presence of NTMs.
 - Enforcement costs: effort to comply with NTMs
 - Sourcing costs: the switch from low-grade intermediate sources to high-grade
 - Process-adaptation costs: relate to capital requirements to meet the NTM standard
- The fragmentation effect of NTMs is the barrier between markets created by differing NTMs.

Emerging Issues on NTMs and Research Frontier



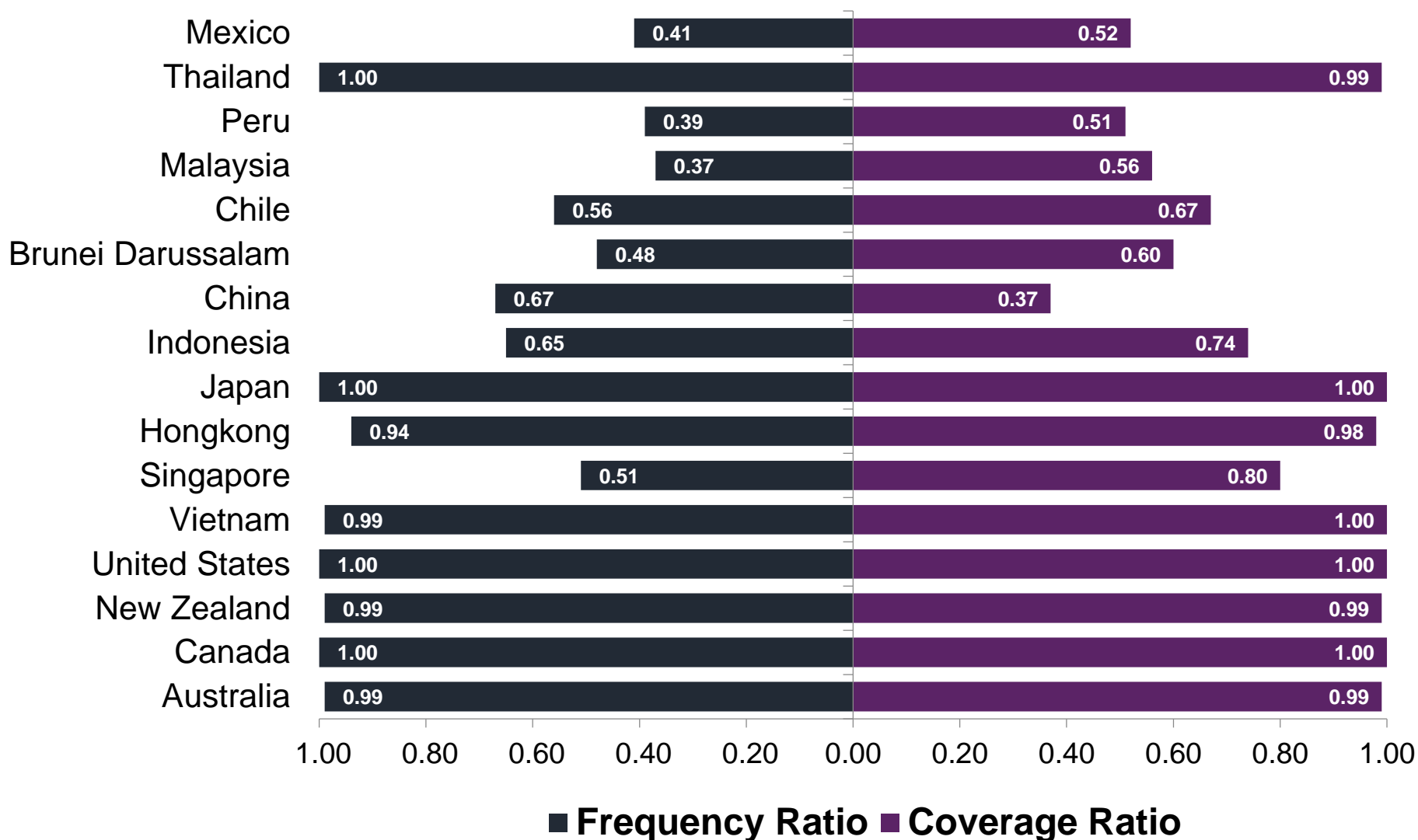
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2. Effect of NTMs on Trade Cost –Inherent Stringency

Impact of NTMs on Trade Cost

- Summarize incidence and Prevalence of NTMs:
 - Inventory measures: Frequency Index, Coverage Ratio, and Prevalence Score.
- Quantify the effect of NTMs on trade and welfare.
 - The most widely use method to analyze the effects of NTMs are (i) the price-gap method; (ii) the econometric method.
 - To quantify the effects of NTMs on quantities, translated into Ad Valorem Equivalents (AVEs) (rates of protection).

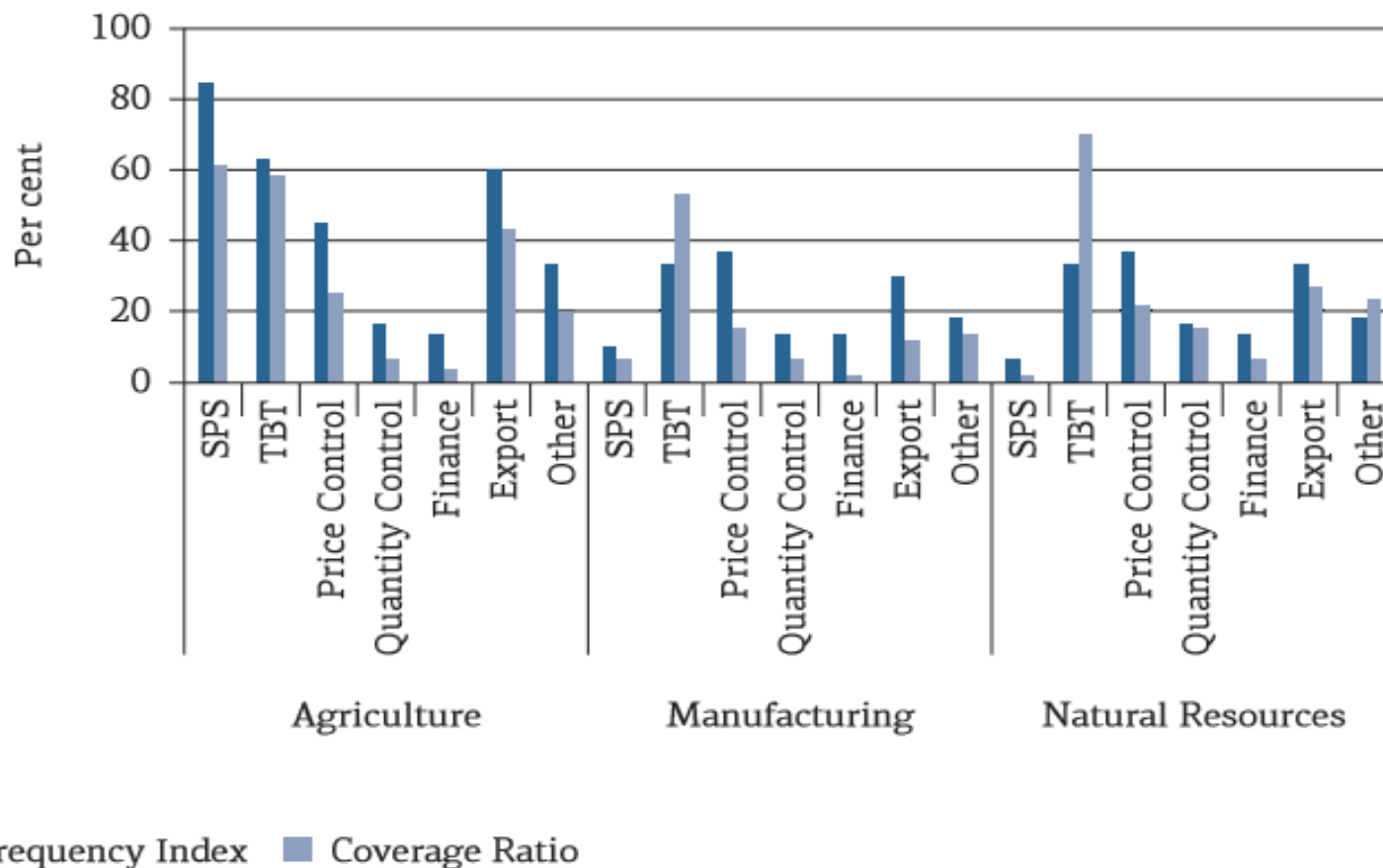
Most traded products are today covered by one measures or another (100% coverage ratio), APEC members



Source: 2016 UNCTAD NTM database, Calculated by Author

Note: Due to unavailable data, South Korea, Philippines, Taiwan, PNG, and Russia are not included in the analysis

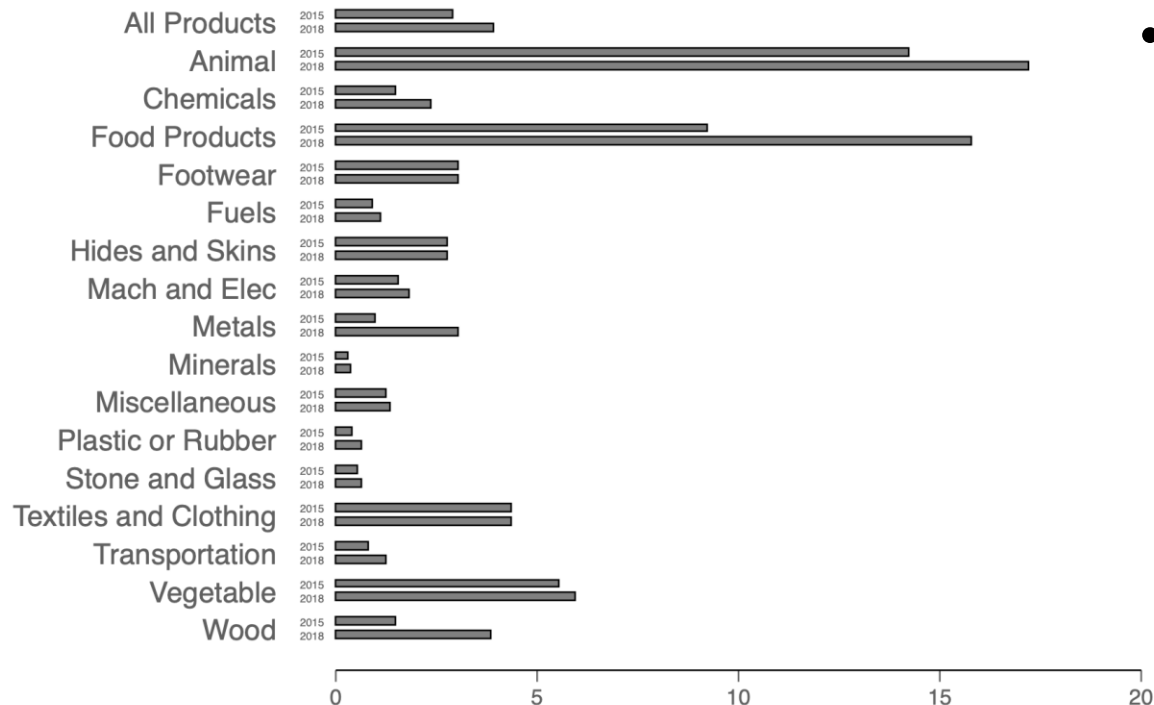
TBT affects trade more than other measures



Source: UNCTAD, 2018

Prevalence Score of Indonesian Imports, 2015 and 2018

- The prevalence score measures the average number of NTMs applied to a traded product.
- It does not measure stringency but provides some indication of the level of regulatory obligations that trade flows face.



- The animal and food sector is the most heavily regulated

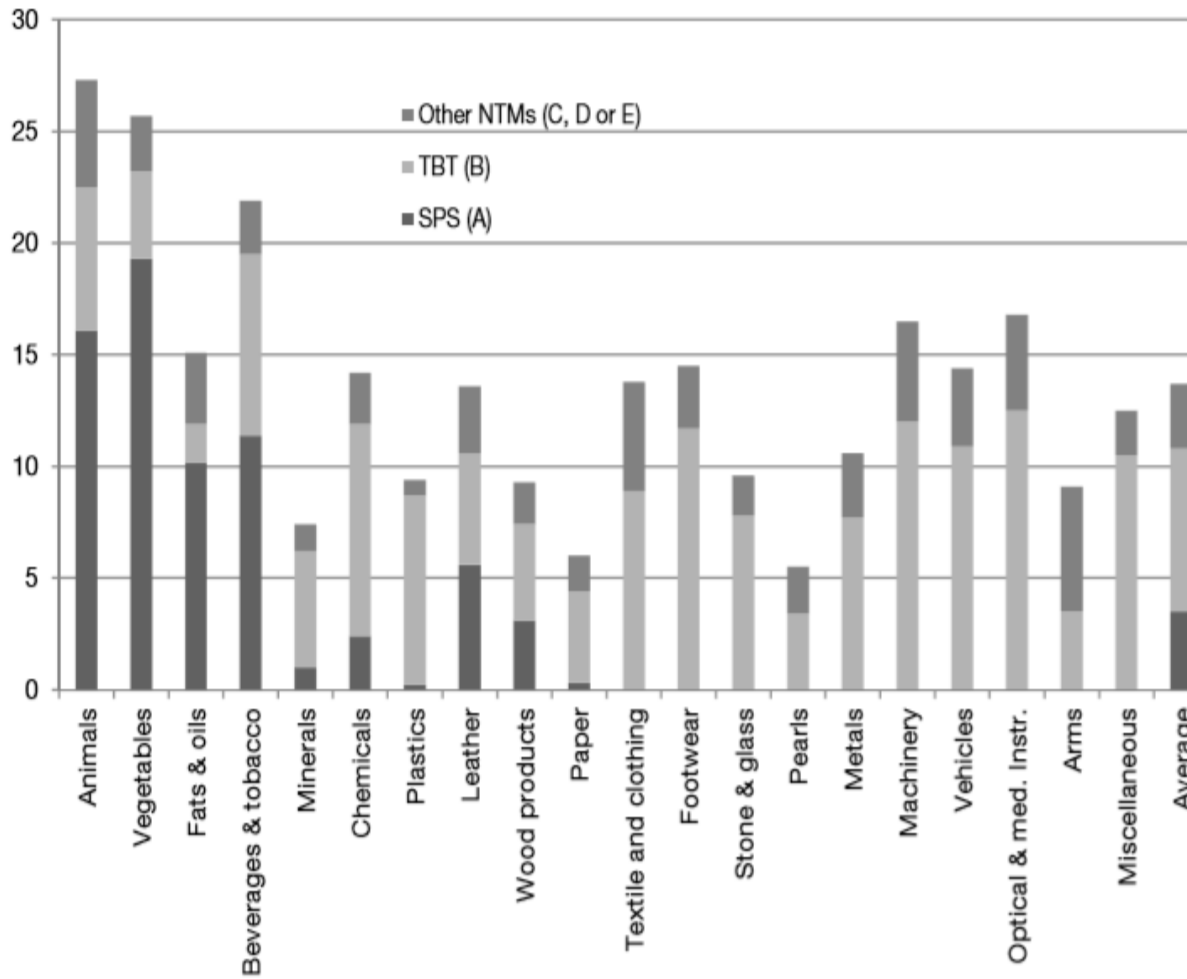
Quantifying the Impact of NTMs and Its Discriminatory Effects - AVEs

- Major Research Questions on Trade Effects of NTMs:
 - (1) How do specific types of NTMs affect imports and exports?
 - (2) Are developing countries small-medium sized firms more sensitive to NTMs?
 - (3) How are particular sectors/products affected by NTMs?

Major Research Questions on Trade Effects of NTMs:

- (1) How do specific types of NTMs affect imports and exports?
 - The magnitude of the trade effects may vary.
 - The trade-restricting effects of SPS and technical measures is dominant, especially on the agriculture and food sector.
 - Among the various studies examining the specific type of NTMs are Li & Beghin (2012), Bown & Crowley (2013) and Grundke and Moser (2014), Swinnen & Vandemoortele (2011), Foletti (2011), Ferro et al (2015), Fasarella et al (2011).

Combined AVEs (SPS, TBT, Others) by Sector



- SPS measures tend to be more constraining for food products
- TBT measures are more obstructive in the equipment and machinery sectors.
- Other measures such as quantity controls (E) or price control measures (D) are less present nowadays, so their impact is less important

Source: Cadot, et al (2015)

Major Research Questions on Trade Effects of NTMs:

(2) Are developing countries small-medium sized firms more sensitive to NTMs?

- The quantification of the trade impact of NTMs on developing countries has dramatic implications due to the substantial technological, financial constraints, and insufficient market access they already face.
- The trade-effects vary, given the heterogeneity in trade structure and characteristics of the trade policy measures across countries.
- Exports from developing countries are more likely to be negatively affected by NTMs, compared with similar exports from developed countries.

Major Research Questions on Trade Effects of NTMs:

- Among the various studies examining distortionary effects of NTMs are Disdier et al. (2008), Essaji (2008), Xiong and Beghin (2015), Fontagné et al. (2015), Nicita and Murina (2017), and Nicita and Seiermann (2017), Fontagen et al (2005), Ghodsi et al (2017), Otsuki et al (2001), Wilson and Otsuki (2004), Chen et al (2008), Henson & Loader (2001), Gebrehiwet et al (2007), Hoekman & Nicita (2008), Ronen (2017), and Beverelli et al (2015).
- All these studies find that regulatory burdens have a disproportionate effect on export capacities of low-income countries and smaller firms.

Major Research Questions on Trade Effects of NTMs:

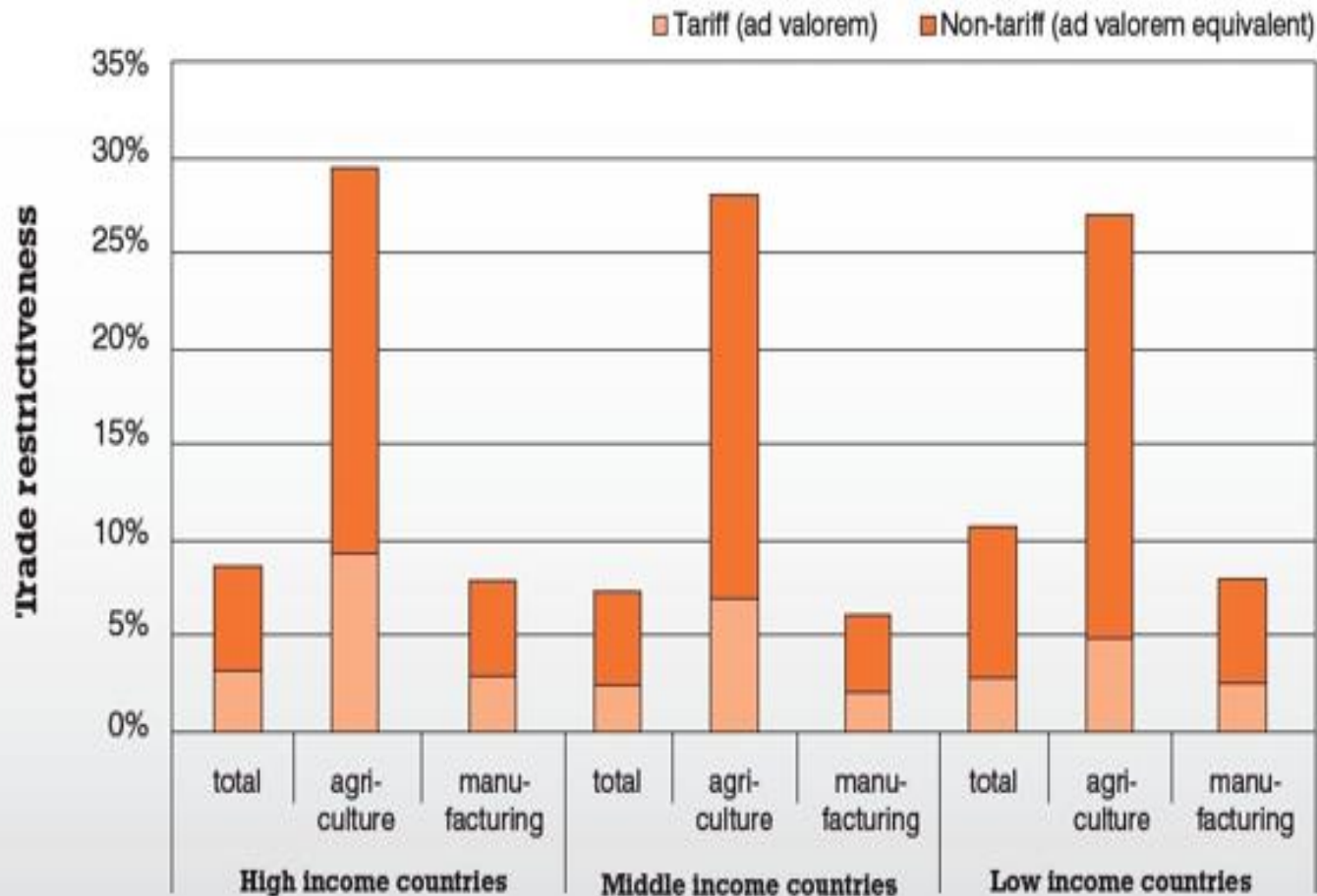
(3) How are particular sectors/products affected by NTMs?

- The greater trade restricting impact of NTMs is found in the agricultural goods. In manufactured products, the trade effect of NTMs varies widely across sectors and products.
- Studies confirm that exporters of the agricultural sector, are mostly concerned about SPS standards and requirements; and conformity assessment procedures.
- These standards often differ by country, it makes the compliance costs even larger, as it is multiplied by the number of the export markets.

Major Research Questions on Trade Effects of NTMs:

- Among the various studies examining this issues are Kee et al. (2009), Hoekman & Nicita (2008), Giordani et al. (2014), Andriamananjara et al. (2004), Moenius (2004), Blind (2001), Ronen (2017), Anders & Caswell (2009), Fontagné et al. (2005), and Gruebler et al. (2016).

The Impact of NTMs, by Sector and Country



Source: UNCTAD, 2012

Emerging Issues on NTMs and Research Frontier



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3. Effect of NTMs on Poverty/Inequality and Food Security

NTMs and Poverty Reduction

- NTMs contribute to raising the cost of living for consumers in the country imposing them, effects that are felt unequally along the income distribution.
- Estimated AVEs of NTMs can be combined with household-survey data in order to assess the contribution of each product-measure pair on household expenditure.
- When the price of a good rises, under the effect of an NTM or any other price-raising shock, consumers switch away from that good toward cheaper ones.
- An NTM that raises the price of a given product by, say, 10 per cent, will not raise consumer expenditure by as much.

NTMs and Poverty Reduction

- José-Daniel Reyes and Sinéad Kelleher (2015)
 - Streamline NTMs (rationalizing the processes related to SPS measures affecting beef, bread and pastries, chicken meat, and dairy products) in Guatemala would likely reduce poverty.
 - This would reduce domestic prices and, thus, make the basic consumption basket more affordable.
 - Reducing the cost and time required to obtain sanitary registries, could reduce the urban extreme poverty rate from 5.07% to 4.91%.
 - This would mean lifting approximately 20,000 people out of extreme poverty in urban areas in Guatemala.

NTMs and Poverty Reduction

- Marks (2017) concluded that the costs of NTMs made living cost in Indonesia is 7.4 percent higher.
- If the rice NTM were ended, the cost of living would only be 4.7 percent higher.
- If all NTMs, subsidies, and excise taxes were ended, the cost of living would be only 2.9 percent higher with tariffs and export taxes than under free trade.

Effect of NTMs on Food Security

- At the Second International Conference on Nutrition, held in Rome, Italy, in 2014 - access to healthy and nutritious food has held to be a basic right (Uyttendaele et al., 2016).
- The relation between food security and the protection of food safety has different implications.
 - Compliance with food safety regulations contributes to food security - prevention and reduction of foodborne diseases, higher efficiency in food production, lower food losses and waste and better conditions for market access to producers that fulfill requirements.
 - Compliance with food safety requirements is often related to an increase in costs, making it difficult for some producers. It lead some types of food producers, such as family farms, to suffer.

| Effect of NTMs on Food Security

- There are not much research on investigating the impact of NTMs on Food Security.
- Example: *Boza, Rivers and Rozas (2014)*. Implications of Non-Compliance with Technical Non-Tariff Measures - The Case of Chilean Food Related Export Refusals at the United States Border.

Emerging Issues on NTMs and Research Frontier



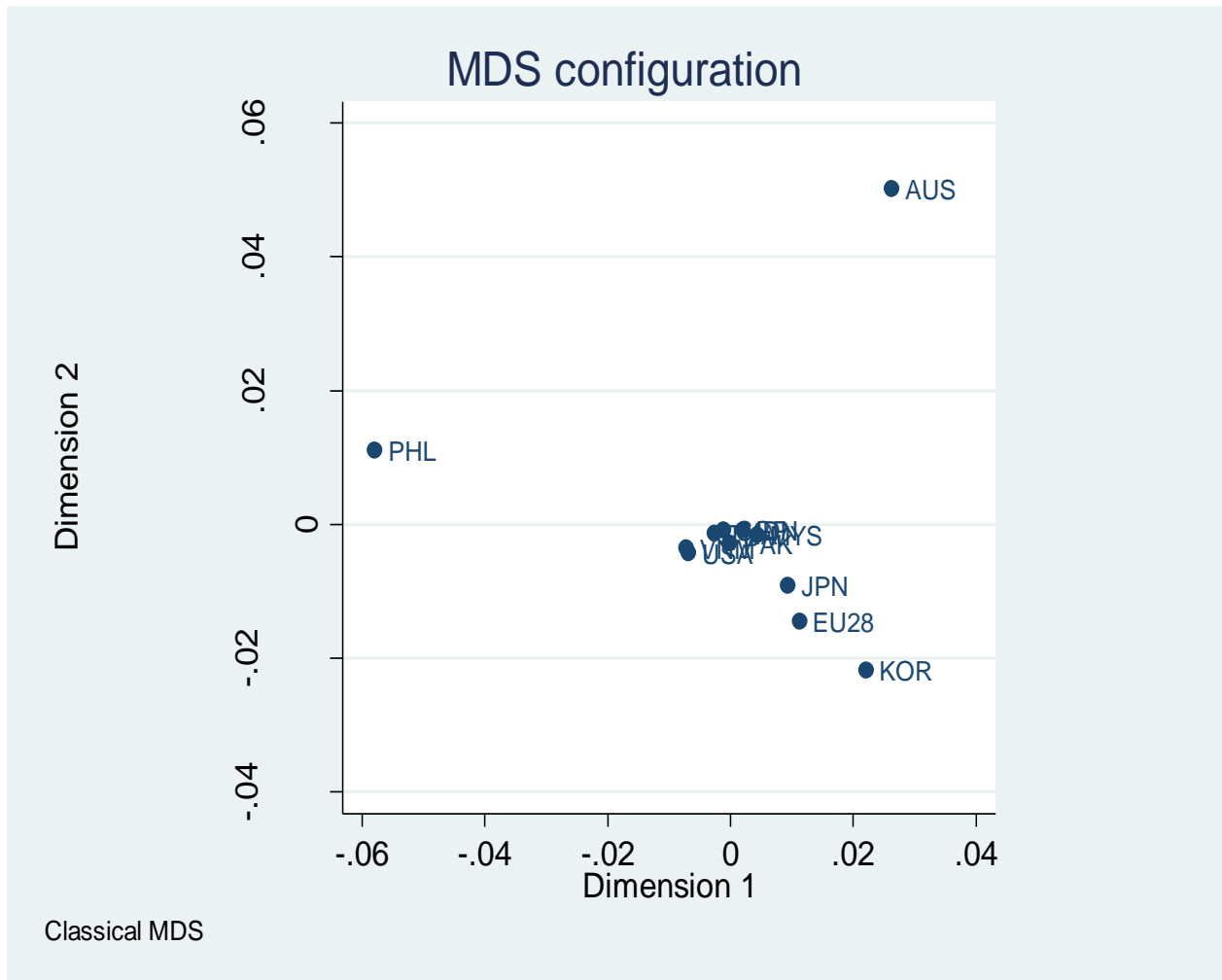
4. Strengthen "deeper" regional integration with respect to NTMs

- Three approaches:

1. "regulatory distance"

- To visualize different regulatory structures
- It indicates % at which the combinations of product-NTMs in two countries are not the same.
- Lower index indicates the more similar regulatory framework of the two countries
- It is normalized by the grand total of product-NTM combinations, it lies between zero and one and is typically a small number.

Regulatory convergence/divergence



- RD between Indonesia and its main FTA/CEPA partners
- There is a “core” of countries with similar NTM patterns at the product level.
- A sort of common pattern of NTM regimes.

Source: Author Calculation

2. *Assessment of regulatory stringency*

- The distance in regulatory stringency explores differences between NTMs even within the same NTM code.
- This requires a case study analysis of full-text regulations.
- Product and/or country specific analysis
- Cadot et al, (2015), Ven (2017)

Emerging Issues on NTMs and Research Frontier

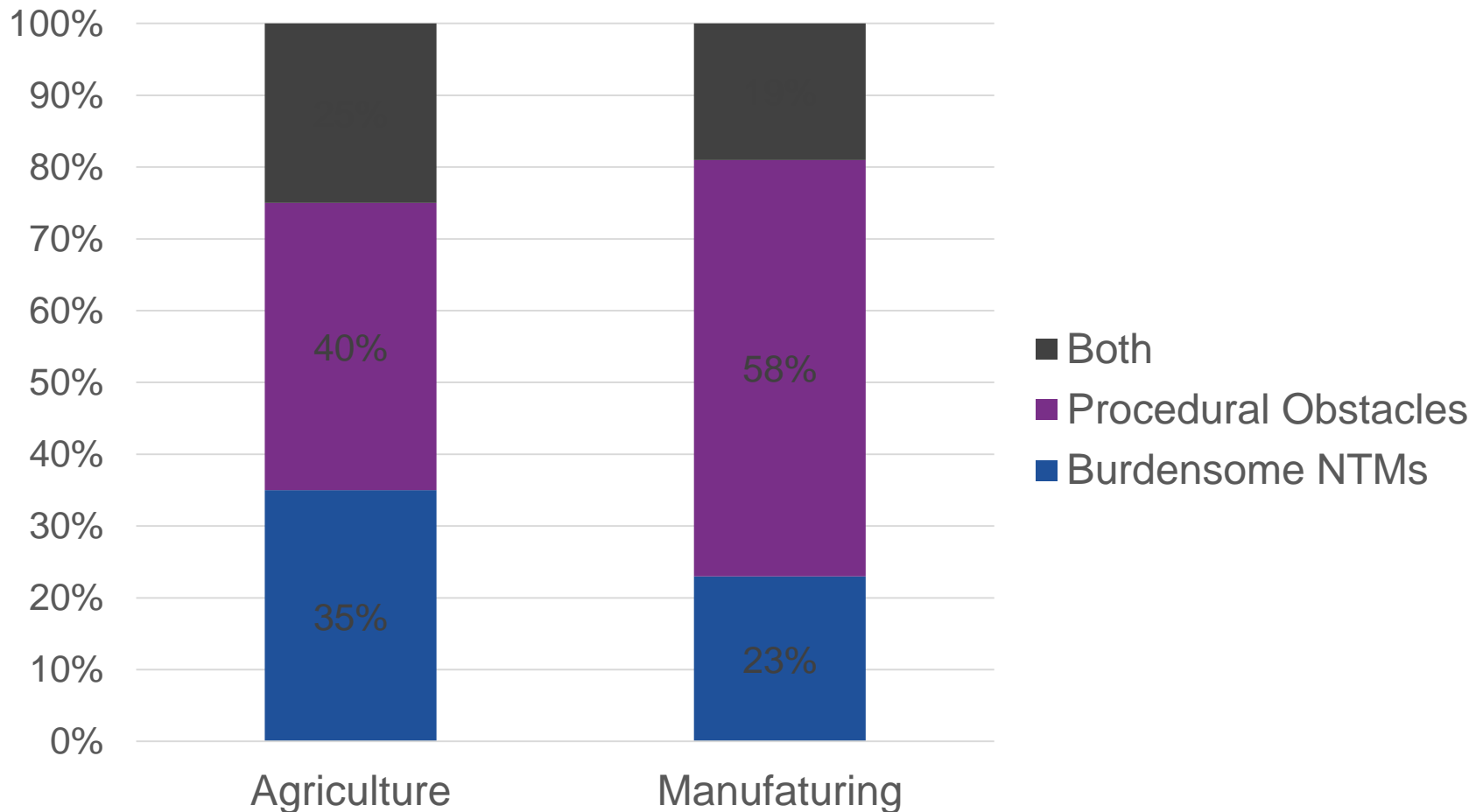


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5. Implementation and Procedures Effect

Procedural Obstacles has created more problems for exporters than Burdensome NTMs

Issues related to NTMs for exporters



Procedural Obstacles and Burdensome NTMs

- The most Burdensome NTMs applied by partner countries is conformity assessment, ROO, and technical measures.
- Burdensome NTMs applied by home country to export is export inspection, licensing and permit to export, certification requirement.
- Procedural obstacles related to NTMs applied to export: time constraint, informal or unusual high payment, and administrative burden related to regulation.

Conclusion

- NTMs increase trade costs for exporting countries to meet the regulatory requirements, including the costs associated with conformity assessment and certification.
- These costs will be higher when exporters have to meet different requirements for different markets.
- The presence of NTMs can be the source of regional or international collaboration that can help countries to achieve better situation through reducing the trade distortionary impact of NTMs.
- NTMs can be trade-distorting when the “regulatory distance” between an exporting country and its market countries is large.
- Reducing the regulatory distance among trade partners is the way to achieve the better situation.



Thank You