

**NON-TARIFF MEASURES WEEK**  
**TRADE REGULATIONS AND VOLUNTARY SUSTAINABILITY STANDARDS**

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**Checking The Black Boxes of Trade**

**by**

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# Checking The Black Boxes of Trade

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# The Theory-guided Structure of Trade Data

**What economists postulate (s is seller; c is consumer):**

$$\text{Sales}_{sc} = \text{Supply potential}_s \times \text{Frictions}_{sc} \times \text{Demand potential}_c$$

$$\text{Demand potential}_c = \text{Expenditure}_c / \text{Sum}_s(\text{Supply potential}_s \times \text{Frictions}_{sc})$$

Supply potential<sub>s</sub> as well as Expenditure<sub>c</sub> are (known/postulated) functions of Frictions<sub>sc</sub>.

Most empirical and policy-consulting work goes to this church.

# The Theory-guided Structure of Trade Data

## Explaining sales (trade) data:

Frictions<sub>sc</sub> account for the lion's share in the variation (beyond Supply potential<sub>s</sub> and Demand potential<sub>c</sub>).

Frictions<sub>sc</sub> depend on on «nature» (geography, culture, history) and «policy» (tariffs, non-tariff barriers).

Many modellers forget about policy in Frictions<sub>sc</sub> altogether and, if not, they pursue a «dummy» approach.

# Dummies for Policy – Policy for Dummies?

**Most prominent example of policy dummies:**

Binary free-trade-area (FTA) indicator (e.g., WTO).

**Most prominent non-dummy variable:**

Bilateral or MFN tariffs.

**Problems:**

- Tariffs explain only little of Frictions<sub>sc</sub>.
- FTAs are hugely heterogeneous (not well measurable by «dummy»).
- Non-tariff policy barriers for long not well measured (excpt. Nicita & Co).

# What Is Needed?

## **One shocking difference between economics and physics:**

- many key concepts are residuals in economics (productivity; frictions; endowments);
- drastically different things are called/treated the same due to a lack of data.

## **What we need are measures, measures, measures:**

To find out how frictions affect sales (i.e., the value of facilitated market access) we need to

- fill the black box of  $\text{Frictions}_{sc}$  with light to see what is «actionable»;
- stop calling apples and oranges the same (with FTAs, with NTBs, etc.);
- respect the heterogeneity of the policy space across countries/sectors/time;
- consider heterogeneous responses to similar policies.