

(Preliminary draft)

THE UNSEEN IMPACT OF NON-TARIFF MEASURES:

Insights from a new database



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The calculated indicators of the disaggregated ad valorem equivalents will be made publicly available for use by researchers and policymakers at i-tip.unctad.org and wits.worldbank.org.

1. Introduction

Non-tariff measures inhabit the grey zone where trade policy meets national regulation. They are generally defined as policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade. While tariffs are relatively transparent and have been regularly compiled into public databases, non-tariff measures are not always easy to identify and have only been sporadically collected for relatively few countries. With new data, this report sheds new light on the usage and impact of NTMs.

Most traded goods are affected by non-tariff measures. The majority of NTMs are regulatory measures while traditional trade measures such as quotas and non-automatic licensing are now less common. Since most regulations apply equally to domestic products, NTMs affect most of the products that we encounter in our daily lives: packaging requirements and limits on the use of pesticides ensure safe food; restrictions on toxins in toys protect our children; mandatory voltage standards for household plugs enable regional mobility; and emission standards for cars limit climate change.

While tariffs are clear in their intent, the role of NTMs is less straightforward. On the one hand, many regulatory NTMs are indispensable for sustainable development. They aim to protect human, animal or plant health as well as the environment. These objectives are at the core of social and environmental sustainability policies and the measures are legitimate tools in countries' efforts to achieve the Sustainable Development Goals. On the other hand, NTMs can also raise costs and create hurdles for trade and economic development. Private sector surveys indicate that technical regulations as well as related processes pose a significant challenge for trade.

This report confirms firms' perception and shows that NTMs today have a bigger influence on trade than tariffs. The availability of information is a key challenge that also magnifies other challenges, such as the national streamlining of NTMs and regulatory cooperation at the regional and multilateral level to reduce any adverse effects of NTMs. Until recently, systematic information about NTMs was not available for a significant number of countries and a significant share of world trade.

To remedy this gap, UNCTAD and the World Bank launched the "Top 25 Markets"-project in 2014 to collect NTM data for countries that represent a significant share of world trade. In particular, NTM data now covers large importers that serve as main destination markets for developing countries. This information allows us to support exporters in developing country and to assess the development implications of NTMs. Other regional and international organisations also contributed to the data collection.¹ As of December 2017, the data covers 109 countries and 90 per cent of world trade. It has been made publicly available, both at the World Integrated Trade Solution (WITS at wits.worldbank.org) and at UNCTAD's Trade Analysis Information System (TRAINS at i-tip.unctad.org).

The report is structured as follows. Section 2 of this report describes the methodology that governs the data collection of the NTM database. The conversion of textual information from laws and regulations into a systematic database was achieved with the International Classification of NTMs developed by the Multi Agency Support Team (MAST). The classification is a comprehensive list of all possible NTMs disaggregated into 178 detailed measure codes. For the NTM database, almost 15,000 regulations were analysed in depth and registered with the corresponding NTM codes, affected products and countries, the date of entry, and additional descriptive information. A standardized collection approach ensures a high level of comparability.

Section 3 presents some stylized facts on NTMs usage. Developed countries regulate in general more products and a higher share of imports than least-developed and developing countries. Agricultural products are more often regulated than manufactures and natural resources. Agricultural products are also more intensively regulated, i.e. many distinct measures are applied to agri-food imports while there are fewer measures applied to manufactured products. The use of export-related measures is also widespread. Almost 40 per cent of all exports are subject to at least one export measure. The indicators are made available at a disaggregated country and product level.

¹ For more information, see partners and donors at unctad.org/ntm.

Section 4 measures the impact of NTMs on trade by estimating their ad valorem equivalents (AVEs). In order to make NTMs and tariff comparable, AVEs express the impact of NTMs in terms of a tariff with the same effect. We show that in almost all sectors NTMs are more important than tariffs. This is particularly the case for agricultural products, but also for wood products, machinery and other manufactures. Technical measures (SPS and TBT) matter more in high-income countries than in middle income countries. They also constitute a relatively high trade barrier in low-income countries despite the fact that the number of measures is relatively lower. This could indicate a less efficient implementation of the technical regulations in the low-income countries. In general, traditional trade policy measures such as quotas and price measures constitute a higher barrier to trade in low-income countries than in middle and high-income countries.

Most NTMs are applied in a de jure non-discriminatory manner equally to domestic and all foreign producers. Yet, they have different effects on different countries and exporters. Low-income countries face on average higher AVEs on their exports than high-income countries. The reasons include costs of compliance, which are often higher for lower income countries as well as the composition of their export baskets which tend to consist of more agricultural and apparel products. This finding has important development implications. The AVEs will be made available at a disaggregated product and country pair level for further analysis.

This report and the underlying databases provide a rich source of information for policymakers, trade negotiators and the private sector. It shows that if policymakers care about sustainable development, they need to care about NTMs. The publicly available data and indicators allow tailor-made analysis that can underpin regulatory cooperation and NTMs streamlining to the benefit of social, environmental and economic development.

2. Identifying non-tariff measures

2.1. Definition and classification of non-tariff measures

Recognizing the proliferation and increasing importance of NTMs, UNCTAD has actively worked on the topic since the 1980s. Given the scarcity of available information, UNCTAD began to identify and classify NTMs in 1994. In 2006, UNCTAD established the Group of Eminent Persons on Non-Tariff Barriers (GNTB) and a Multi-Agency Support Team (MAST).² Their main purpose was to develop a definition and classification to facilitate the collection, quantification and understanding of NTMs.

NTMs were defined as 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, 2009). This concept of NTMs is distinctly neutral. There is no a-priori judgement regarding the impact on trade or welfare, nor the legality of a measure. As this broad definition comprises a wide array of policies, the subsequent step of the MAST was the development of a common language on NTMs: an internationally agreed and recognized classification. The classification is the foundation for data collection and, ultimately, more transparency and a better understanding of NTMs.

The MAST classification of NTMs, version 2013, (UNCTAD, 2015) has 16 chapters of different measure categories (table 1, left). Chapters A to O refer to import-related NTMs, whereas chapter P covers measures that countries impose on their own exports. Another essential distinction is made between technical measures (chapters A, B and C) and non-technical measures (chapters D to O).

Technical measures comprise SPS and TBT measures and related pre-shipment requirements. These measures are imposed for objectives that are not primarily trade-related: for example, human, plant and animal

² Besides UNCTAD, these include the Food and Agricultural Organization (FAO), the International Monetary Fund (IMF), the International Trade Centre (ITC), the Organization for Economic Cooperation and Development (OECD), the United Nations Industrial Development Organization (UNIDO), the World Bank and World Trade Organization (WTO).

health, and the protection of the environment. Even if equally applied to domestic producers, they nevertheless regulate international trade and are thus considered NTMs.

Non-technical measures cover a wide array of policies, including traditional trade policies such as quotas and non-automatic licences (chapter E), price controls and para-tariff measures (chapter F) and contingent trade protective (chapter D) measures such as anti-dumping duties. The full list is presented in table 1.

Each chapter is further broken down into more detailed measures types (example of SPS measures, table 1, right). The tree structure allows for a fine-grained classification of measures. For example, the SPS chapter (A) consists of 34 NTM codes at the finest level of detail. In total, the MAST classification has 178 disaggregated codes.

Table 1: MAST classification of non-tariff measures

Import-related measures		Technical measures		<p>Tree structure, for example:</p> <p>A Sanitary and phytosanitary (SPS) measures</p> <p>A1 Prohibitions/restrictions of imports for SPS reasons</p> <p>A11 Temporary geographic prohibition (...)</p> <p>A2 Tolerance limits for residues and restricted use of substances (...)</p> <p>A3 Labelling, marking, packaging requirements (..)</p> <p>A4 Hygienic requirements (...)</p> <p>A5 Treatment for the elimination of pests and diseases</p> <p>A51 Cold/heat treatment</p> <p>A52 Irradiation (...)</p> <p>A6 Requirements on production/post-production processes (...)</p> <p>A8 Conformity assessment</p> <p>A81 Product registration</p> <p>A82 Testing requirement</p> <p>A83 Certification requirement</p> <p>A84 Inspection requirement</p> <p>A85 Traceability requirement</p> <p>A851 Origin of materials and parts</p> <p>A852 Processing history (...)</p> <p>A86 Quarantine requirement</p> <p>A89 Other conformity assessments</p>
		Non-technical measures		
		A	Sanitary and phytosanitary (SPS) measures	
		B	Technical barriers to trade (TBT)	
		C	Pre-shipment inspections and other formalities	
		D	Contingent trade-protective measures	
		E	Non-automatic licensing, quotas, prohibitions and quantity-control measures	
		F	Price-control measures, including additional taxes and charges	
		G	Finance measures	
		H	Measures affecting competition	
		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-related measures	P	Export-related measures	

Source: Authors' illustration based on UNCTAD (2015)

Even with 178 distinct types of measure, data analysis involves a significant generalization of the complexity and differences between NTMs, particularly SPS measures and TBT. For product-specific trade negotiations and export decisions, an in-depth review of full-text regulatory documents is necessary. The NTM database also provides direct access to the complete regulations. Still, the classification of measures and affected products provides useful entry point for a wider assessment of the prevalence and impact of NTMs for a comparative perspective across countries and sectors, and for narrowing down of priorities.

2.2. Data collection process

On the basis of the MAST classification, UNCTAD leads an international effort, in close collaboration with the World Bank and other partners, to collect comprehensive data on NTMs. Country coverage and data quality are rapidly increasing, particularly after further improving the data collection approach in 2012 and expanding collaboration with many regional and national partners.

Data on official NTMs are collected by extensively reading and analysing national legislative documents, such as laws, decrees or directives. As mentioned before, this material includes behind-the-border technical regulations that apply to domestic as well as foreign products. The same data collection and classification methodology is used in all countries.

The first step is to establish a national team that will work with UNCTAD staff to collect the data. The team may comprise government officials, think tanks and independent experts. The team is trained through UNCTAD's online course on NTM data collection and in face-to-face workshops. The training courses build national capacity on NTM classification, product classification and on a consistent and comparable data collection approach described in the UNCTAD Guidelines to Collect Data on Official NTMs.³

The actual data collection process starts with the identification of sources of regulatory information in each country. All relevant documents are then obtained from these sources. Much effort is devoted to ensure that the data is comprehensive and covers all NTMs applied on imports/exports. Each document and regulation is registered with extensive bibliographical information to ensure that information can be traced back to its source.

Once a relevant regulation is identified and registered, each specific provision is classified into one of the 178 NTM codes -- along with detailed measure descriptions and further descriptive information. One regulation can contain several different measures, for example, a required maximum residual limit of pesticides as well as a respective inspection requirement. For each measure, the affected countries and products are also classified in detail.⁴ To ensure consistency, UNCTAD carries out extensive quality control during and at the end of the data collection process.

Globally, data collectors have reviewed hundreds of thousands of pages of regulatory documents. The database now contains 14 561 different regulations that comprise 50 511 distinct measures. Figure 1 shows that SPS measures and TBT are, by far, the most common measures.

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