

The Post-Recession Rise of Non-Tariff Measures

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Abstract

The decade since the end of the Great Recession of 2007–09, has been characterized by a rise in the number of non-tariff measures (NTMs). Increasing NTMs has occurred amid low and declining tariff levels, suggesting that NTMs have become an important policy instrument through which governments are impacting international trade flows. Notably, NTMs can serve legitimate purposes by ensuring consumer protections, for example. However, they can also be employed to protect domestic industries from import competition. Regardless of their intent, NTMs can impose compliance costs and restrict trade flows. The purpose of this paper is to compare the levels of NTMs during the decade preceding the Great Recession (1997–2007) and the decade following it (2008–18). Results of this analysis reveals that each of the three categories of NTMs (technical, non-technical, and export-related measures) increased by more than 200 percent during 2008–18 compared to the decade preceding the recession.

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Introduction

Non-tariff Measures (NTMs) refer to policy measures (other than customs tariffs) that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both.¹ They are broadly grouped into three categories: (1) technical, (2) non-technical (both of which are import-specific), and (3) export-related measures. Technical measures pertain to product-specific qualities, like safety, while non-technical measures refer to trade requirements, such as customs procedures.²

NTMs can impact trade directly or indirectly. For example import quotas (which restrict the volume of goods imported), import/export licenses, and permits impose direct limitations on trade. In contrast, other NTMs can indirectly affect trade quantities and prices by imposing additional compliance costs. Examples include regulations that are aimed at protecting public health and the environment.

NTMs that extend beyond these legitimate purposes (i.e. regulations that are redundant or unnecessarily complicated) can serve a protectionist purpose and limit market access for some exporters.³ However, NTMs can also facilitate trade, aligning the regulations of particular industries across countries with that of internationally recognized best practices, even as they raise compliance costs.⁴

As average global tariff rates continue to decline, the number of NTMs has risen, especially in the ten years following the end of the Great Recession of 2007–09. The purpose of this paper is to compare data on NTMs during this period with the decade preceding the recession and discuss areas for future research. The paper is divided into four sections.

The first section provides a primer on NTMs, defining and detailing the broad categories into which these measures are classified. Section 2 includes overviews of the Technical Barriers to Trade (TBT) Agreement and the Sanitary and Phytosanitary (SPS) Measures Agreement—two categories of technical measures addressed by separate World Trade Organization (WTO) agreements. In section 3, I review data on the post-recession increase in NTMs across all categories of measures presented in the first section. Data presented in this section is from the United Nations Conference on Trade and Development (UNCTAD). Part 4 concludes with a brief discussion of the possible implications of rising NTMs.

¹ UNCTAD, “UNCTAD TRAINS: The Global Database on Non-Tariff Measures,” 2017.

² ITC, “NTM Classification,” n.d.

³ Malouche, “Making Trade Policy More Transparent: A New Database of Non-Tariff Measures,” November 2013; UNCTAD, “Behind-the-Border Measures Shaping Trade Take Centre Stage,” October 5, 2018. In such instances, these measures are considered non-tariff barriers, which are a distinct subset of NTMs. UNCTAD, “UNCTAD TRAINS: The Global Database on Non-Tariff Measures,” 2017.

⁴ OECD, “Non-Tariff Measures,” February 2019.

NTMs: A Primer

Defined broadly, NTMs refer to all trade and trade-related policy measures (excluding tariffs) that could restrict or distort international trade in goods. NTMs have become increasingly prevalent, serving as an important policy instrument through which governments are impacting international trade flows.⁵ According to UNCTAD's classification system⁶, NTMs that affect imports are grouped into two categories: (1) technical measures and (2) non-technical measures, while export-related measures are grouped separately into a third category (table 1).

Table 1 UNCTAD list of NTMs

Import-related measures	Technical measures	A	Sanitary and Phytosanitary (SPS) measures
		B	Technical barriers to trade (TBT)
		C	Pre-shipment inspections and other formalities
	Non-technical measures	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 (excl. export subsidies)
		M	Government procurement restrictions
		N	Intellectual property
		O	Rules of origin
Export-related measures	P	Export-related measures	

Source: UNCTAD, "UNCTAD TRAINS: The Global Database on Non-Tariff Measures," 2017.

⁵ Malouche, "Making Trade Policy More Transparent," November 2013.

⁶ UNCTAD has been defining, classifying, and collecting data on NTMs since 2006. Through a multiagency effort called Transparency in Trade (TNT), the agency has amassed the most comprehensive information available on the extent of NTMs in 46 developing countries, as well as of developed economies such as the European Union and Japan. Malouche, "Making Trade Policy More Transparent," November 2013.

SPS and TBT are both the most common technical measures and the most prevalent NTMs.⁷ They include measures that are applied to ensure the safety of human or animal life from various risks. Examples include conformity assessment procedures concerning food or product safety (e.g. certification, testing and inspection). These technical measures are imposed by the importing country on the imports it receives, but also extend to exporters within the countries.⁸

As noted in table 1, UNCTAD classifies a second group of import-related measures as non-technical measures. The most common include pre-shipment inspections; non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions other than SPS or TBT measures; and price control measures.⁹ Measures that restrict exports (e.g. quotas and bans) are considered export-related NTMs.

Although the imposition of NTMs can often result in increased trade costs, their implementation does not necessarily imply discriminatory intent. For example, some NTMs can increase compliance costs, but nevertheless, facilitate trade by aligning the regulations of particular industries in countries with that of internationally recognized best practices.¹⁰ In the medical device industry, for example, divergences in standards exert a statistically significant negative impact on medical device trade.¹¹ Moreover, the adoption of certain measures can suggest a signal of quality to consumers.¹² On the other hand, many NTMs are implemented to assist domestic industries against import competition.¹³

Digital Trade and NTMs

The rise of the digital economy has led to a corresponding rise in NTMs covering digital goods. Digital goods are intangible products that are stored, delivered, or consumed in an electronic format. Examples include electronic books, internet radio, internet television, or downloaded music files. Global digital trade barriers can be categorized in two ways: (1) digital-specific measures (e.g. restrictions on cross-border data flows and forced data localization), and (2) traditional market access and investment measures that affect digital goods and services as well.¹⁴ The U.S. International Trade Commission (USITC) found that, within the first group, cross-border data flow measures are the most restrictive for U.S. firms with cross-border operations. Further, more than 120 countries require some form of data localization.¹⁵ Some of the leading countries imposing these types of requirements include Brazil, China, the EU, India, Indonesia, and Russia.

⁷ UNCTAD, “The Unseen Impact of Non-Tariff Measures: Insights From a New Database,” 2017.

⁸ UNCTAD, “International Classification of Non-Tariff Measures,” 2019.

⁹ UNCTAD, “TRAINS, The Global Database for Non-Tariff Measures,” n.d. (accessed November 15, 2019).

¹⁰ OECD, “Non-Tariff Measures,” February 2019.

¹¹ This is especially apparent when countries apply redundant or complicated conformity assessment procedures and technical regulations, the compliance of which can result in substantial time to market delays for exporting countries. Herman, “Competitive Conditions Affecting U.S. Exports of Medical Technology,” August 2018.

¹² OECD, “Tariffs are the Tip of the Iceberg: How Behind the Border Issues Impact Trade,” n.d. (accessed September 26, 2019).

¹³ World Bank, “Non-Tariff Measures—A Fresh Look at Trade Policy’s New Frontier,” 2012, 2.

¹⁴ USITC, “Global Digital Trade I: Market Opportunities and Key Foreign Trade Restrictions,” 275, August 2017.

¹⁵ These are a type of digital-specific measure that mandates all digital-trade related activities occur within a country’s borders. USITC, “Global Digital Trade I: Market Opportunities and Key Foreign Trade Restrictions,” 275, August 2017.

Currently, there are no multilateral trade agreements addressing digital trade; WTO agreements principally cover physical goods, services and intellectual property.¹⁶ However, several recent free trade agreements (FTAs) have addressed these barriers. For example, both the U.S.-South Korea FTA and the United States-Mexico-Canada Agreement include provisions that address nondiscrimination of digital products; prohibit customs duties; ensure commitments to maintaining open cross-border data flows, etc. Nevertheless, most efforts to quantify NTMs have not included digital goods. As such, the analysis in this paper principally refers to NTMs on tangible goods and services.

Technical NTMs Covered by WTO Agreements

The WTO has negotiated international agreements concerning TBTs and SPS measures. These agreements, respectively address member countries' obligations regarding the development and adoption of technical regulations, conformity assessment procedures and standards, with the aim of facilitating global trade.¹⁷ Both agreements require members to submit notifications to the respective Committees whenever any signatory country considers updating their regulatory practices in ways that may significantly depart from international standards and could impact trade.¹⁸ There are more than 200 different types of legal notification requirements and 24 broadly defined subject areas, the majority of which pertain to NTMs.¹⁹

These notifications enable partner countries to evaluate drafts of regulations and provide comments prior to implementation. Further, this process can serve as a means for trade partners to assess the potential impact of the measures and are encouraged as a means to promote transparency.²⁰ As discussed in the next two sections, TBT and SPS committee notifications over the past ten years have exceeded those observed in the ten years preceding the Great Recession, reaching new highs during 2018.²¹

¹⁶ CRS, "Digital Trade and U.S. Trade Policy," 17, May 21, 2019.

¹⁷ Some NTMs are not covered by the TBT Agreement, such as finance measures, distribution restrictions, or restrictions on post-sale services. Bacchetta, "How Much Light Do WTO Notifications Shed on NTMs?" 2012.

¹⁸ Integrated Trade Intelligence Portal (I-TIP) Goods provides detailed information on the application of NTMs applied by WTO members, including TBT and SPS notifications. For more information, visit <https://i-tip.wto.org/goods/default.aspx?language=en>.

¹⁹ The 24 subject areas are: agriculture, anti-dumping, balance-of-payments, customs valuation, enabling clause, government procurement, import licensing, Trade-Related Aspects of Intellectual Property Rights (TRIPS), import restriction, Trade-Related Investment Measures (TRIMS), maritime transport, reverse notifications, pre-shipment inspection, quantitative restrictions, Preferential Trade Agreements, rules of origin, safeguards, SPS, state trading, tariffs, subsidies and countervailing duties, technical barriers to trade, textiles and clothing, and services. Bacchetta, "How Much Light Do WTO Notifications Shed on NTMs?" 2012.

²⁰ Notably, there are no penalties for failing to report relevant notifications to the respective committees. Malouche, "Making Trade Policy More Transparent," November 2013.

²¹ These notifications are also useful in estimating the pervasiveness of NTMs, which can be calculated from two indices: (1) NTM coverage ratio and (2) the NTM frequency index. The coverage ratio represents the share of trade value subject to NTMs (i.e. trade that is linked to at least one WTO member's notification at the HS-4 level) and the frequency index reflects the presence or absence of NTMs; it reveals the share of imported products that are impacted by one or more NTM. The NTM coverage ratio on imports for the countries that were tracked was 72 percent as of 2015—the most recent year for which these data were available—while the frequency ratio was 43 percent. For exports, both calculations were lower; coverage ratio was 27 percent and the frequency ratio was 22 percent. Okun-Kozlowicki, "Standards and Regulations: Measuring the Link to Goods Trade," 2016; UNCTAD,

It is important to note that these notifications do not necessarily constitute barriers to trade, nor do they suggest discriminatory intent by themselves. For example, some TBT Committee notifications are initiated in response to growing public preferences for greater regulatory transparency and are intended to ensure safety from health and environmental hazards; nearly half (45 percent) of TBT Committee notifications over the past twenty years concerned “product safety”.²²

The TBT Agreement and Committee Notifications

The WTO TBT Agreement (1995) aims to facilitate global trade and improve production efficiencies. In particular, it identifies the three types of measures:

- Standards: a document approved by a recognized body that provides for common and repeated use, rules, guidelines, or characteristics for products or related processes and production methods. Compliance is voluntary. As such, standards are not notified to the TBT Committee and are, therefore, not considered policy measures.²³
- Technical regulations: mandatory conformity assessment procedures and other technical requirements that affect goods trade. Examples include the listing of specific product characteristics, labeling requirements, production processes, and testing.²⁴
- Conformity assessment procedures: any procedure used directly or indirectly to determine that relevant requirements in technical regulations or standards are fulfilled. Examples include certification, testing, quality system registration, and inspection. They may be voluntary (i.e. conducted by a private or nonprofit testing body) or government mandated (i.e. government regulations to ensure that technical regulations are fulfilled).

In particular, the TBT Agreement aims to (1) ensure that regulations and standards do not unnecessarily restrict trade and (2) encourage the adoption of international standards and conformity assessment procedures.²⁵

Over the past ten years, annual notifications to the TBT committee have expanded by 220 percent to 2,085 during 2009–18 (figure 1). Developing economies were the principal drivers of this trend (figure 2). The regions most associated with these notifications were the Middle East, Asia, and Africa (figure 3). The most active notifying members during this period included the United States, the EU, as well as China, Saudi Arabia, the United Arab Emirates, and Brazil; each of these countries ranked among the top ten in each year between 2009 and 2018.²⁶

“The Trade and Development Impact of Non-Tariff Measures: Insights from a New Database,” 2017. WITS, “Non-Tariff Measure (NTM) Summary,” n.d. (accessed September 25, 2019).

²² WTO, TBT Information Management System, n.d. (accessed September 17, 2019).

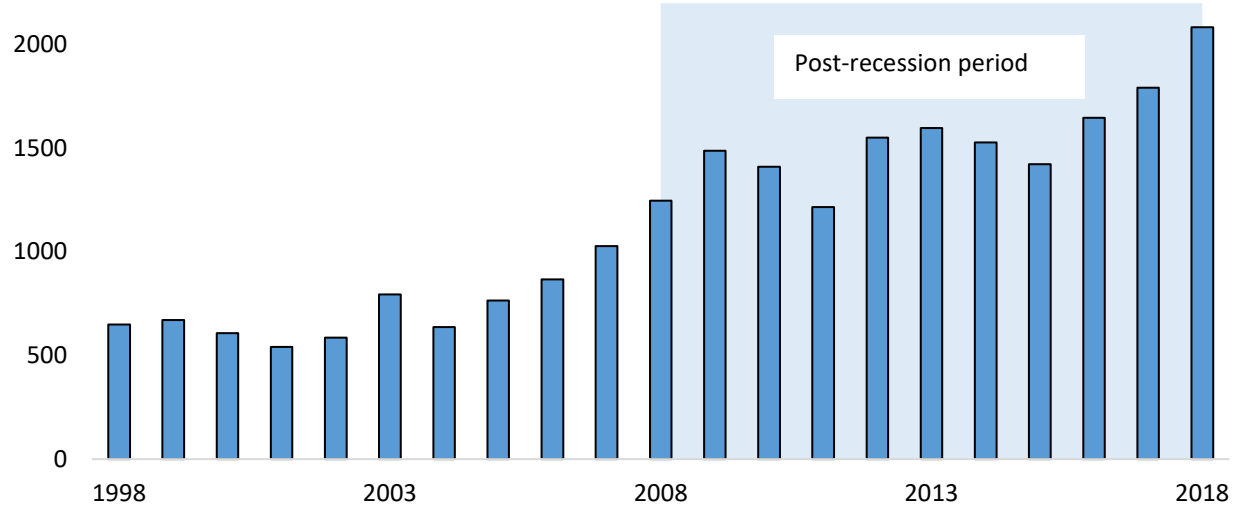
²³ Further, the TBT definition of standards differs from other bodies such as the International Organization for Standardization or the National Institute of Standards and Technology.

²⁴ WTO, “Agreement on Technical Barriers to Trade, Annex 1, Terms and Their Definitions for the Purposes of this Agreement”; WTO, “Technical Information on Technical Barriers to Trade,” n.d. (accessed September 25, 2019).

²⁵ WTO, “Technical Barriers to Trade,” n.d.

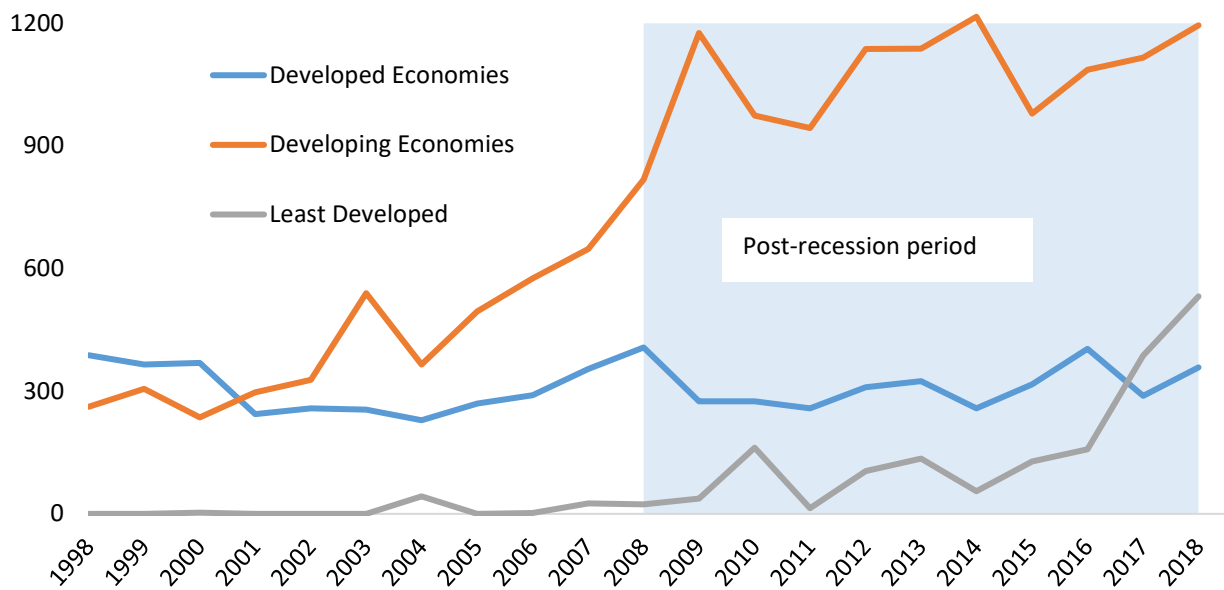
²⁶ WTO, “TBT Information Management System,” n.d. (accessed September 26, 2019).

Figure 1 New notifications to the TBT Committee post-recession, 1998–2018

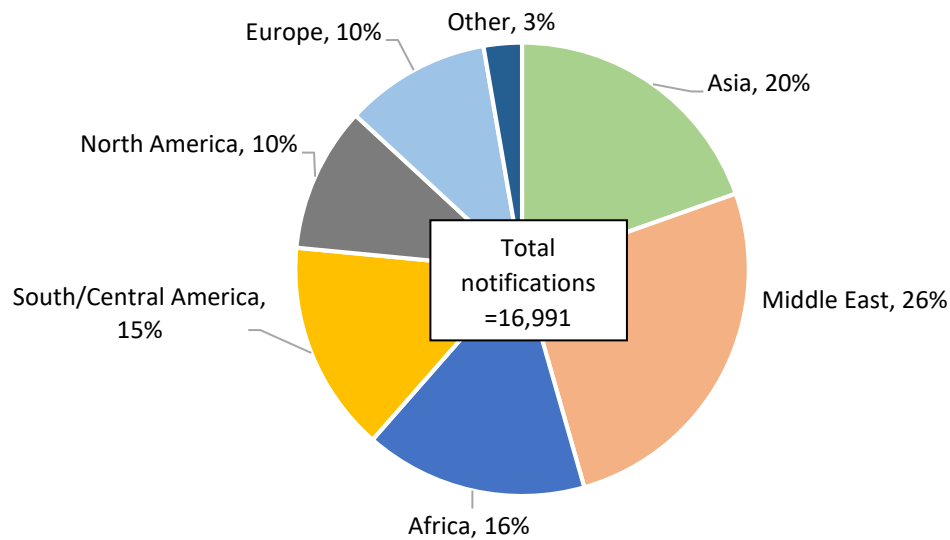


Source: WTO, TBT Information Management System, n.d. (accessed September 17, 2019).

Figure 2 New notifications to the TBT Committee by economic development status, 1998–2018



Source: WTO, TBT Information Management System, n.d. (accessed September 17, 2019).

Figure 3 TBT Committee notifications by region, 2008–18

Source: WTO, TBT Information Management System.

The SPS Agreement and Committee Notifications

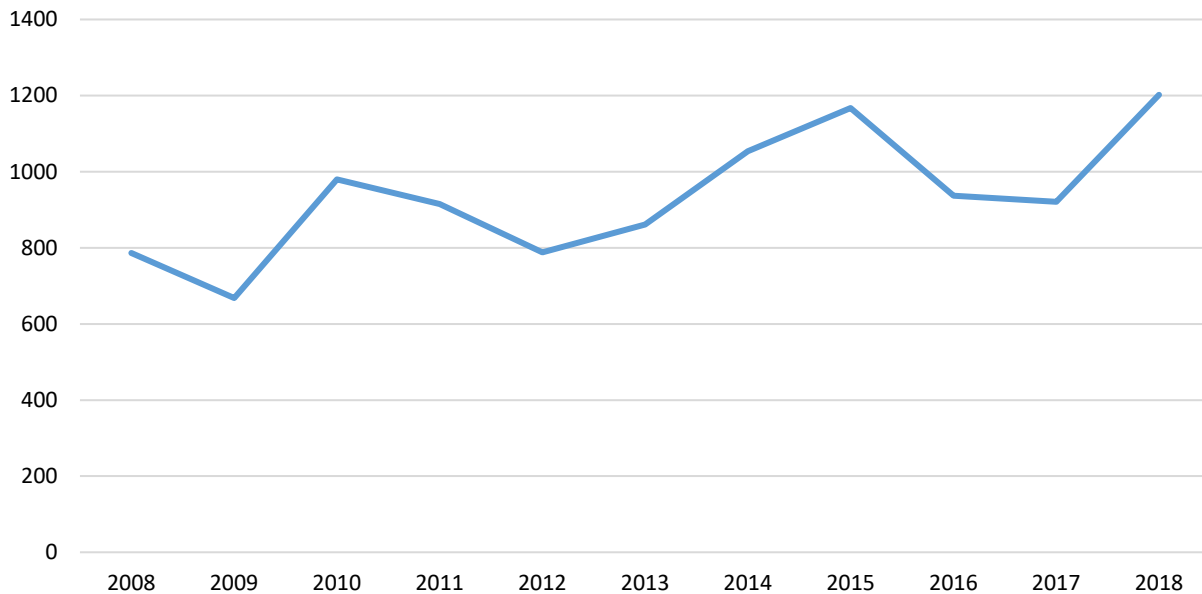
The WTO SPS Agreement (1995) covers the various measures directed towards food safety and animal and plant health standards. Its overall aim is to ensure that these measures address food safety without serving a protectionist purpose. Much like in the case of the TBT Agreement, the SPS Agreement acknowledges the rights for countries to implement their own measures while encouraging countries to adopt international best practices to the extent that such approaches are available.²⁷

Further, countries are permitted to implement measures that impose more stringent standards than other countries, provided there is a scientific basis for such decisions, reflect an appropriate assessment of risks, and is consistently applied.²⁸ SPS Committee notifications have been fluctuating over the past ten years, but reached a new high of 1,202 during 2018 (figure 4) and grew by 53 percent over this period. In contrast, during the ten years preceding the Great Recession, SPS notifications averaged about 520 and peaked at 811.²⁹

²⁷ WTO, “Understanding the WTO Agreement on Sanitary and Phytosanitary Measures,” May 1998.

²⁸ WTO, “Understanding the WTO Agreement on Sanitary and Phytosanitary Measures,” May 1998.

²⁹ WTO, SPS Information Management System, 2019.

Figure 4 SPS Committee notifications, 2008–18

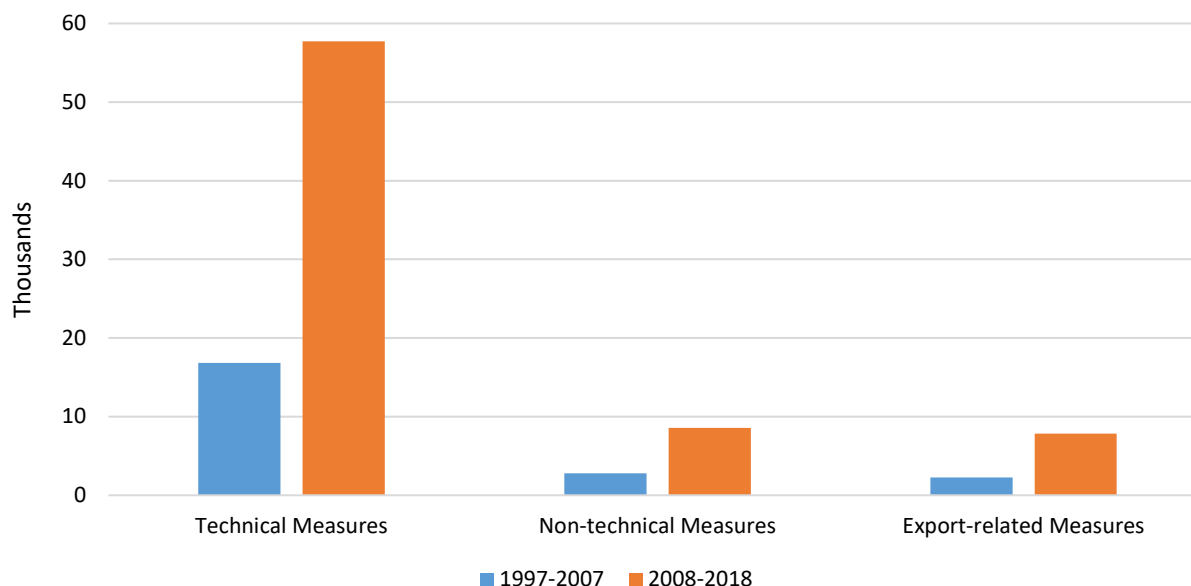
Source: WTO, SPS Information Management System. <http://spsims.wto.org/en/PredefinedReports/NotificationsSubmittedPerYearPage#>

Post-recession Rise of NTMs

In the decade since the end of the Great Recession, NTMs have grown as a leading policy instrument through which governments are impacting international trade flows.³⁰ During the past decade (2008–18), each of the three categories of NTMs (technical, non-technical, and export-related measures) implemented increased relative to the previous ten year period (1997–2007) (figure 5). Collectively, SPS and TBT measures accounted for three-quarters of the NTMs that entered into force during the 2008–18. During both periods, Asia remained the principal driver of NTMs, accounting for nearly 40 percent of the implemented measures, followed by Latin America with roughly 30 percent of the share.³¹

³⁰ Niu, “Non-tariff and Overall Protection: Evidence Across Countries and Over Time,” November 2018; Malouche, “Making Trade Policy More Transparent,” November 2013.

³¹ UNCTAD, TRAINS The Global Database on Non-Tariff Measures (accessed November 15, 2019).

Figure 5 The number of NTMs that entered into force during 1997–2007 and 2008–18, by category

Source: UNCTAD, TRAINS The Global Database on Non-Tariff Measures (accessed November 15, 2019).

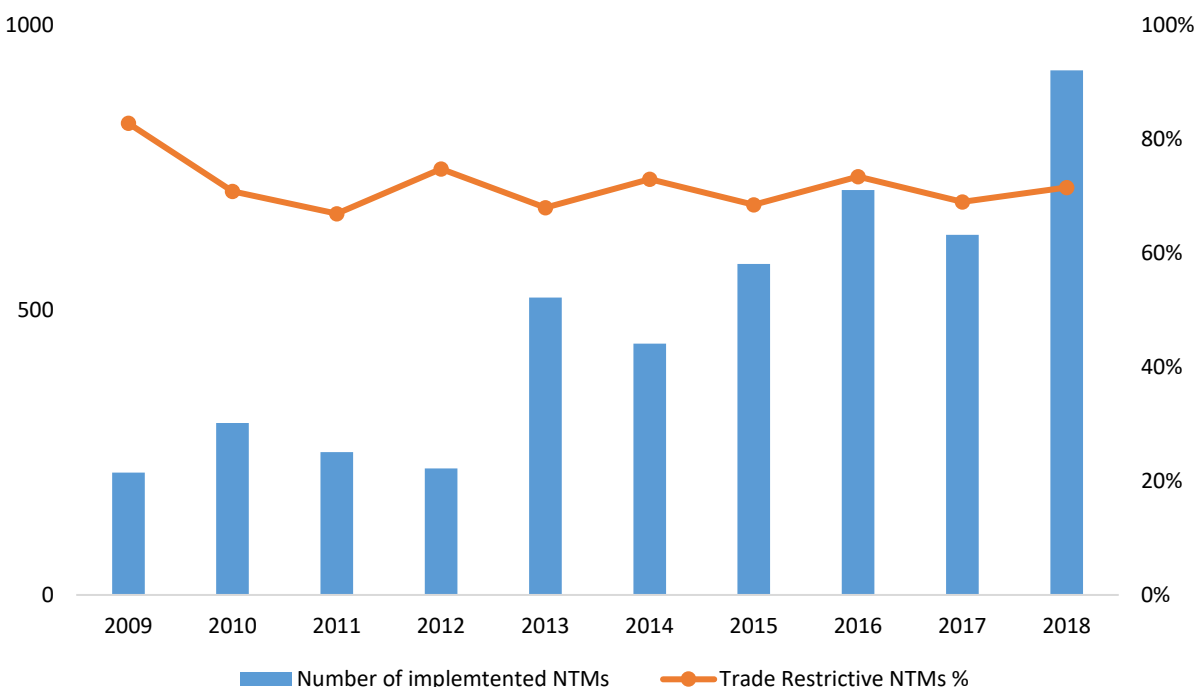
As previously stated, the implementation of NTMs does not necessarily suggest discriminatory intent or reflect efforts to deliberately restrict trade. However, according to Global Trade Alert (GTA)³², roughly three-quarters of implemented NTMs during 2009–18 were trade-restrictive (figure 6). Despite the prevalence of technical measures implemented during this period, as discussed above, GTA’s estimates reveal that non-technical, import-related measures, especially contingent trade-protective measures and subsidies (excluding export subsidies) were the most trade-restrictive measures over this period (table 2).

Further, a separate analysis conducted by the WTO revealed that during 2017–19, the coverage of new import-restrictive trade measures from WTO members reached record highs; 2018 coverage levels were more than seven times higher than in the previous year.³³ The trend continued into 2019, with trade coverage of import-restrictive measures reaching the second-highest value on record.³⁴ It should be noted that this analysis included both tariffs and NTMs.

³² Since June 2009, GTA has been tracking NTMs, providing information on state interventions affecting trade in goods and services. Notably, the database is not specific to NTMs and includes other policy instruments that can affect trade. GTA categorizes these various measures as either “harmful” (i.e. trade restrictive) or “liberalizing” (i.e. trade facilitating). GTA, “About Global Trade Alert,” n.d. (accessed September 25, 2019). It should be noted, that comparisons to the number of NTMs implemented that are presented from UNCTAD do not match the numbers reported by GTA. This could be due to the fact that GTA did not begin reporting these data until June 2009, while data from UNCTAD is available over a much longer period.

³³ Notably, liberalizing measures were implemented as well, but had half the coverage of trade-restrictive measures during 2018. WTO, “Report Shows Sharp Rise in the Coverage of Trade-Restrictive Measures from WTO members,” December 11, 2018; WTO “Trade-Restrictive Measures Continue at Historically High Level,” July 22, 2019.

³⁴ WTO “Trade-Restrictive Measures Continue at Historically High Level,” July 22, 2019.

Figure 6 Trade restrictive NTMs that were implemented as a share of total NTMs implemented, 2009–18

Source: GTA, “Total Number of Implemented Interventions,” n.d. (accessed September 17, 2019).

Table 2 Trade Restrictive NTMs Applied, by Share and Number 2009–18

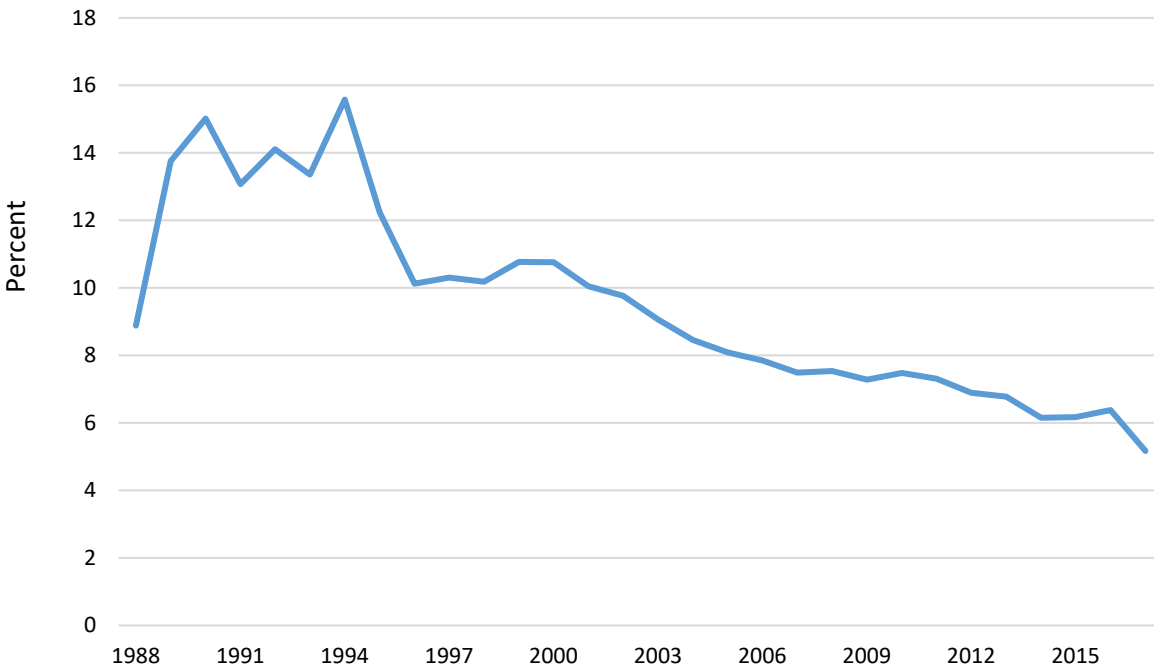
NTM	Type of Measure	Share (%)	Number
Contingent trade-protective measures	Import-related	27	1,256
Subsidies (excl. export subsidies)	Import-related	25	1,190
Export-related measures (incl. export subsidies)	Export-related	14	678
Other	Import-related	34	1,586
Total number of restrictive NTMs			4,710

Source: GTA.

Note: Of the NTMs included in the “other” category, all but three of the 959 interventions were import-related measures; the others were TBT (2) and SPS (1).

Recent attention paid to NTMs has followed roughly three decades of substantial reductions in average tariff levels across both industrialized and developing countries; UNCTAD estimates that NTMs now exert a greater influence on trade than tariffs.³⁵ This is especially evident post-recession, as tariff liberalization has persisted during this time—average world tariff rates declined from 7.2 percent to 5.1 percent during 2009–17 according to the World Bank (figure 7).

³⁵ UNCTAD, “The Unseen Impact of Non-Tariff Measures,” 9, 2018.

Figure 7 Average world tariff rates, 1988–2017

Source: The World Bank, “Tariff rate, applied, simple mean, all products, n.d. (accessed September 24, 2019). <https://data.worldbank.org/indicator/TM.TAX.MRCH.SM.AR.ZS?end=2017&start=1988&view=chart>.

Conclusion

The ten years since the end of the Great Recession has been characterized by the rise in the number of NTMs. At the same time, tariffs have continued to trend downward, making NTMs a significant policy instrument affecting international trade flows. This carries a few potential implications. First, unlike tariffs, which exert a relatively easy to measure impact on trade, NTMs are considered less transparent in affecting trade both directly and indirectly.³⁶ As a result, it can be difficult to discern between measures that are discriminatory and those that are beneficial.

Another distinction between the effects of NTMs and tariffs on trade is the possible effect on global supply chains, which can be disrupted by the imposition of NTMs. This is especially evident in industries that operate under strict quality control procedures where sudden changes in conformity assessment procedures or technical regulations could temporarily restrict market access for exporters.

Finally, NTMs are estimated to be on average three times more costly than tariffs,³⁷ which suggests that NTMs may discourage trade more so than tariffs alone. Areas for further research could include an analysis of the role that rising NTMs in the post-recession period has played in the widely observed

³⁶ UNCTAD, “The Unseen Impact of Non-Tariff Measures: Insights from a New Database,” 5, 2017; TNT, “About TNT,” 2011. Contrary to tariffs, NTMs cannot be easily measured by numbers, as they are the product of legal texts that can be interpreted in various ways. Cadot, “Streamlining Non-Tariff Measures,” 2012.

³⁷ Peters, “Session 1-The Rise of NTMs,” March, 2019.

stagnation in global trade during this period.³⁸ In addition, efforts to catalogue trade-restrictive NTMs would be advantaged by including an assessment of digital goods.

³⁸ CEPR, “The Global Trade Slowdown: A New Normal?” 2015.

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