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**World Trade Organization**

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**THE ROLE OF WTO COMMITTEES THROUGH THE LENS OF SPECIFIC TRADE  
CONCERNS RAISED IN THE TBT COMMITTEE**

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# **The role of WTO Committees through the lens of Specific Trade Concerns raised in the TBT Committee<sup>1</sup>**

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**Abstract:**

In this paper we provide some evidence of the common claim that STCs improve transparency and monitoring as well as help mitigate trade conflicts.

We analyse the content of 555 STCs raised in the TBT committee in the period 1995-2018. We find that: (i) STCs are used to acquire new and higher quality information than that provided merely by notifications; (ii) STCs are used as a monitoring tool, thus making members more accountable; and (iii) STCs facilitate the resolution of trade concerns non-litigiously. By reviewing existing literature, we provide evidence that all this is important because transparency and monitoring reduce trade costs, improve regulatory practices and build and sustain trust.

We also indicate the potential for some reforms to improve the efficiency of the system. These include: introducing a reporting system on the outcome of STCs, use of STCs raised in committees to fill the gap of missing notifications, systematic use of the STC mechanism at the stage of draft measures, building-in the dispute settlement system the requirement to raise the matter and discuss it within the relevant committee before filing a formal dispute settlement case.

**Keywords:** Transparency, WTO reform, Monitoring, Value of WTO, Good Governance, Dispute Settlement, Negotiations.

**JEL Classification:** F02, F13, F53, F55.

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## 1 INTRODUCTION

Transparency and monitoring have become an increasingly important feature of the global trading system. The WTO's system of mere notification requirements has progressively been complemented by a system of regular and systematic review of measures and policies adopted by its members.<sup>3</sup> These reviews take place through the reports written by the Secretariat and WTO members and through the regular work of WTO committees. WTO committees provide a forum where members can exchange information about measures that affect trade, discuss the implementation and the interpretation of WTO rules.

Current discussions around WTO reforms have renewed attention over the role of WTO committees and bodies in enhancing transparency and monitoring as well as in resolving trade tensions non-litigiously. Information exchange taking place in the committees and discussions over concerns countries raise with each other's measures (laws, regulations or practices) are in fact the first step to diffuse conflicts. Concerns can be resolved in committees' discussions without ever being raised as formal disputes.

Our paper aims to enhance understanding of the benefits of transparency and monitoring, in general, and of the role of WTO committees and bodies in strengthening transparency and monitoring and in resolving trade tensions non-litigiously.

To this purpose, we focus on specific trade concerns (STC) raised in the work of the TBT committee. The STC mechanism developed in the TBT committee has caught the attention of Members in the context of current discussions on WTO reform and is viewed by some as an example of good practice that could be used in other committees. A WTO Member recently tabled a discussion paper on good practices in the TBT Committee to encourage a discussion on whether the practices and tools used in the TBT Committee might also be useful for other WTO committees and bodies.

Existing studies on the effectiveness of the STCs' system have shown that STCs cover a wide range of issues (WTO, 2020a), that the number of formal disputes are only a small share of the STCs, and that STCs in turn are a small share of the comments raised through the national enquiry points (WTO and OECD, 2019). The EU, for example, raised as STCs only about 20% of the comments on notification it filed through national enquiry points of other members (Karttunen, 2020).

In our research, we explore deeper the data on STCs raised in the TBT committee. We analyse the content of 555 STCs raised in the TBT committee from March 1995 to March 2018 with a view to evaluating the performance of the STC mechanism as a transparency and monitoring tool. We try to answer the following two questions: How does the STC mechanism relate to the other transparency and monitoring instruments of the TBT agreement, including the TBT requirement to notify measures at a draft stage (thereafter referred to as the ex-ante notification requirement)? How and to what extent does the STC mechanism enhance transparency and monitoring and contribute to resolving trade disputes non-litigiously?

We establish three important findings: First, we provide evidence that the STC mechanism in the TBT Committee enhances transparency by providing new and more in-depth information that would have otherwise been available only with notification. Second, the system makes Members more accountable for their measures and encourages them to adopt good regulatory practices, by allowing officials to discuss issues related to the interpretation and implementation of the rules. Third, the STC mechanism facilitates the resolution of trade concerns non-litigiously, especially by allowing for ex-ante notification. In fact, STCs raised at the draft stage of a new domestic regulation are less likely to escalate to a formal dispute than STCs raised on adopted measures.

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<sup>3</sup> After the creation of GATT, new notifications requirements were agreed as early as the 1950s-1960s. Other transparency provisions were included in the various agreements entered into force at the establishment of the WTO in 1995. In parallel, the monitoring function of the WTO evolved. In 1979, the Understanding on Notification, Consultation, Dispute Settlement and Surveillance established "a regular and systematic review of developments in the trading system" (paragraph 24), which was circulated through Secretariat notes. This traction for enhanced surveillance subsequently led to the establishment of the Trade Policy Review (TPR) Mechanism, which replaced the Secretariat notes. The onset of the global financial crisis in September 2008 triggered the search for a trade monitoring mechanism to counter protectionist pressure and to ensure adherence to WTO rules (Pedersen et. al, 2018). As a result, since 2008, the WTO Secretariat prepares four trade monitoring reports every year, two for the full WTO membership (i.e. a report on trade-related developments and an overview of developments in the international trading environment) and two for the G20 (i.e. the joint WTO-OECD-UNCTAD monitoring reports on G20 trade and investment measures).

The rest of the paper is organised as follows. The next section discusses the economic rationale for transparency and monitoring. Section 3 reviews the content of 555 STCs raised in the TBT Committee between 1995 and 2018. We look at four aspects of STCs (the topic discussed, the duration of the discussion, the type of document under discussion and the outcome of the discussion). Section 4 assesses the effectiveness of the discussions in the committee in terms of transparency, monitoring and their success in diffusing trade disputes. Section 5 concludes.

## **2 THE ECONOMIC RATIONALE FOR TRANSPARENCY AND MONITORING**

Let us first clarify some terminology. This paper discusses internal transparency and monitoring. Internal transparency refers to the mechanism through which member countries exchange information among themselves about the measure they take at the national level. Internal transparency is carried out through notifications and publication requirements spelled out across WTO agreements. Transparency has other dimensions, which are not addressed in this paper. External transparency refers to the relationship between the WTO and civil society (Perez-Esteve, 2012; Wolfe, 2003). It refers to the practice of keeping the public informed of the WTO's work and activities. External transparency may also include the relationship between a national government and civil society, that is, the feedback that members receive at the national level from their stakeholders. Transparency can also be seen as an aspect of good regulatory practices. In particular, the WTO Glossary defines transparency as the "degree to which trade policies and practices, and the process by which they are established, are open and predictable". This definition covers both regulatory transparency and procedural transparency. Regulatory transparency refers to the incorporation of transparency principles into national administrative law. It includes the availability of information on countries' trade regulations (Collins Williams and Wolfe, 2010; OECD, 2009; Wolfe, 2013). It also covers operational transparency, that is, the way domestic measures are implemented. Procedural transparency refers to the way policy decisions are taken, including the scope for public consultations and access to independent adjudication, as well as the publication and notification of measures and the establishment of enquiry points (WTO, 2012).

Monitoring involves the tracking of trade-related developments, trade policies and measures, whether or not notified to the WTO. Monitoring covers issues related to compliance but leaves it to WTO Members to judge whether particular actions conform to WTO rules. Often, monitoring relies on internal transparency outputs, i.e. information issued through notifications and publication requirements spelled out across WTO agreements. WTO monitoring practices include the Trade Policy Review Mechanism, multiple WTO Secretariat's independent reports, and multilateral discussions in WTO committees, whereby Members clarify, discuss and monitor each other's practices and regulations.

### **2.1 Transparency and monitoring reduce trade costs**

Traditional international trade theory usually assumes that trade partners have perfect information and has, therefore, little to say about transparency of trade regimes and international trade agreements (WTO, 2012). It considers that traders incur no transaction costs to acquire or process information. However, trade regimes are by nature complex and heterogeneous across countries, leading to imperfect information and frictions which make gathering and processing trade information difficult and costly. Transparency and monitoring play a key role in facilitating trade by reducing search and transaction costs. They provide greater access to market and regulatory information thereby allowing economic operators to better allocate their resources in conducting their business operations.

Information frictions affecting trade have been an increasing area of focus in recent years. Empirical literature has shown that lack of information about the demand in the destination market and murky regulation can be an important obstacle to trade and gains from trade. For example, Steinwender (2014) shows that information delays cause inefficiencies and reduce trade and welfare. She used the construction of the transatlantic telegraph connection in the 19th century as a milestone from which communication speed increased to look at the price differences between identical goods in different locations before and after the introduction of the telegraph. She found that the mean and volatility of the price difference fell after the introduction of the telegraph and estimated that this improved flow of information increased exports and welfare. Welfare gains were roughly equivalent to abolishing a 6% ad valorem tariff. In short, the elimination of information delays enables producers and exports to better anticipate the demand and, therefore, to better plan their level of production and export.

Looking at the fishing industry, Jensen (2007) shows that the introduction of a search technology on mobile phones improved fisherman welfare, by enabling them to observe prices at any of the numerous markets spread out along the coast while being at sea. Increased access to information enabled them to better allocate their resources resulting in welfare gains.

Focusing on information frictions in the search of legal and regulatory frameworks, Van Tongeren (2009) demonstrates that lack of regulatory transparency can have the same economic effects as protectionism, lowering competition and increasing cost. It increases costs of production (for example, when a stricter environmental regulation requires more costly production processes) or of compliance (for example, conformity assessment and certification costs or other administrative costs). Lejárraga and al. (2013) found that each additional transparency commitment negotiated in a Regional Trade Agreement is associated with an increase in bilateral trade flows of more than one percent.

## **2.2 Transparency and monitoring improve regulatory practices<sup>4</sup>**

Transparency and monitoring are key determinant of good regulatory practices (GRP), and there is evidence that GRP foster trade and economic growth.

Transparency allows that the interests of all relevant stakeholders are taken into account while designing and implementing government measures. Lack of transparency or monitoring creates opportunities for the inappropriate exercise of official discretion and for collusion. In their study on trade facilitation in Asia and the Pacific, the ADB and UNESCAP (2013) found that lack of transparency created opportunities for collusion between customs officials and traders where agents extract rent from traders. Because it allows all stakeholders to be treated equally, regulatory transparency ensures a level playing field as well as fair and equal conditions for competition.

Transparency also provides governments with the opportunity to improve their policies and practices in light of the comments received from interested stakeholders. Governments can tap into the technical knowledge and legal expertise of different stakeholders about trade policies and practices. At the WTO, discussions in the TBT Committee (included in the thematic sessions) enable Members to exchange best practices in terms of trade policies while designing trade-related measures. This enables WTO Members to design, draft and implement measures in a less trade restrictive manner.

Moreover, transparency and monitoring contribute to the protection of consumers' interests. The need to restore consumers' confidence in public authorities and food producers has led to an increase in transparency in the operation of the supply chain (Böcker and Hanf, 2000; Mazzocchi et al., 2008; WTO, 2012). Public and private food safety standards, for instance, have proliferated as tools to guarantee such levels of transparency (Henson and Humphrey, 2010; WTO, 2012). Conformity assessment procedures for verifying that products conform with certain requirements give confidence to consumers. Thus, transparency and monitoring mechanisms give consumers greater certainty as to the quality of products they purchase.

There is evidence that GRP foster trade. De Groot et al. (2004) found that an increase in regulatory quality of one standard deviation from the mean leads to an estimated increase of 16 to 26% in trade. Their study also finds that lower corruption results in 16 to 34% extra trade. Increasing the overall quality of institutions by one standard deviation above its mean level would raise bilateral exports by 44%, and bilateral imports by 30%. The quality of institutions appears to influence not only the quantity of trade, but also its quality. By embedding cross-country institutional differences affecting contract enforceability in a general equilibrium model of trade, Levchenko (2007) shows that higher institutional quality in the exporting country is associated with a higher degree of trade specialization in complex products, i.e. products that are institutionally intensive due to the need to contract for intermediate goods.

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<sup>4</sup> Good regulatory practices represent the set of rules, procedures and institutions introduced by a government for the express purpose of developing, administering and reviewing regulation (OECD and WTO, 2019).

## **2.3 Transparency and monitoring build and sustain trust, which is a key driver of trade cooperation**

Transparency and monitoring build and help sustain a trusting and predictable environment among nations. This enhances adherence to rules, including WTO rules, and guarantees that the cooperation equilibrium reached through WTO rules is stable. Lack of transparency or monitoring creates uncertainty, which affects predictability and trust among nations potentially leading to prisoner's dilemma situations where both parties are motivated by the fear of what the other might do – each party has an incentive to defect from their agreed upon strategy, fearing the other might do so. Lack of predictability and trust can thus result in beggar-thy-neighbour policies. In the absence of cooperation and trust, both parties may end up with the less preferred equilibrium outcome (WTO, 2007).

Empirical studies have demonstrated that countries with greater transparency enjoy greater technical assistance and cooperation (Lejárraga, 2013) and are more likely to be invited to form trade agreements and to be granted preferential market access (Baccini, 2008 and 2012). In addition, policy predictability and credibility boosts investors' confidence and raises long-term capital, thereby stimulating investment and economic growth (François, 2001).

## **3 STCs IN THE TBT COMMITTEE**

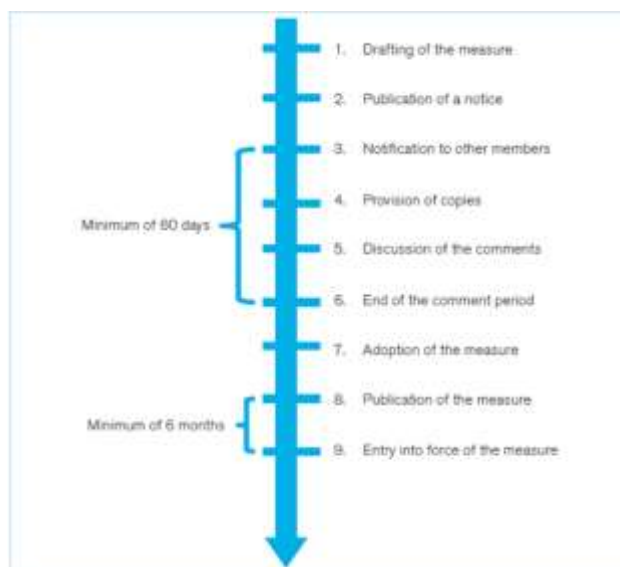
### **3.1 What is the process?**

The TBT (and the SPS) Agreements include various transparency provisions, one of which is a requirement that Members notify draft measures that are likely to be trade restrictive and that are not in accordance with the technical content of existing relevant international standards (Article 2 of the TBT Agreement and Annex B of the SPS Agreement – thereafter referred to as the ex-ante notification requirement). This requirement is a novelty and only exists in the TBT and SPS Agreements.

The ex-ante notification requirement allows Members to submit comments on draft measures being notified and encourages the Member concerned to take these comments into account when designing and implementing TBT measures. In practice, such comments are often submitted bilaterally.

Figure 1 illustrates the process resulting from this ex-ante notification requirement. First, Members are required to publish a notice, before notification, specifying their intentions to introduce a measure. Second, Members must notify their draft measures whenever these draft measures are not in accordance with relevant international standards and if these measures may have a significant effect on international trade (Article 2.9.2 of the TBT Agreement). Notifications are meant to be done at an early stage, when amendments can still be introduced, and comments taken into account. From 1995 to 2017, 96% of TBT notifications were made on the basis of this ex-ante notification requirement (WTO, 2019a). The remaining 4% correspond to notifications of technical regulations made under urgent circumstances (Article 2.10) or measures introduced by local governments (Article 3.2). Third, Members are required to discuss and take into account concerns on their notified-draft measures received through their enquiry point. Fourth, adopted measures are to be published before their entry into force in order to facilitate governments and traders to become acquainted with them.

**Figure 1 – Notification and publication procedures in the TBT and SPS Agreements**



**Source:** WTO, 2018a.

Another transparency and monitoring instrument, which was developed through practice in the TBT and SPS Committee, is the so-called specific trade concerns mechanism (STCs).<sup>5</sup> Such concerns were originally raised under the agenda item entitled "Statements on Implementation and Administration of the Agreement".<sup>6</sup> STCs became a formal and stand-alone agenda item in 2004 only under the name of "Specific Trade Concerns". The STC mechanism consists of formal queries to a Member to obtain further information about that Member's action or inaction, and in some cases, to encourage the Member concerned to change its behaviour. STCs are given a unique identifier to facilitate the tracking of issues raised over time. Over the years, efforts have been made to improve the efficiency of STC discussions held at the TBT Committee.<sup>7</sup>

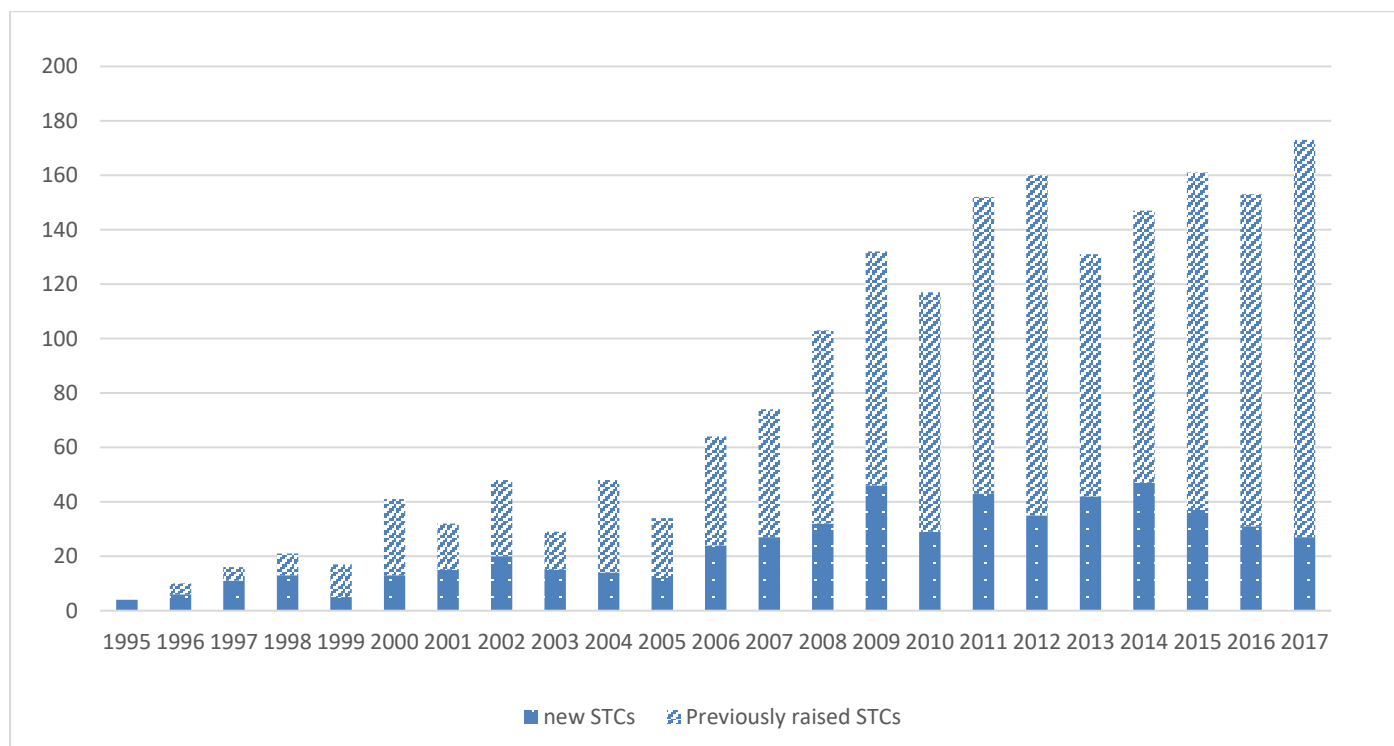
Use of the STC mechanism has grown over time. As shown in Figure 2, the number of STCs raised has increased in the second decade (2006-2017) compared to the first ten years of existence of the WTO and of the STC mechanism.

<sup>5</sup> Other Committees use a question and answer approach to address issues related to the administration and implementation of their respective agreement.

<sup>6</sup> The TBT Agreement does not explicitly create an STC mechanism. However, Article 13.1 of the TBT Agreement states that: "The Committee shall [...] meet as necessary, but no less than once a year, *for the purpose of affording Members the opportunity of consulting on any matters relating to the operation of this Agreement or the furtherance of its objectives*" [emphasis added], thereby creating a legal basis for STCs to be raised.

<sup>7</sup> In 2009, WTO Members agreed on information to be provided by Members raising STCs and on procedures and deadlines for adding STCs to the agenda of meetings. The 2018 newly revised procedures set the deadline for submitting STCs on the agenda at 20 calendar days before meetings in order to give Members more time to prepare. The 2018 revised procedures also recommend that Members provide information on whether the STC they are raising is related to a draft or to an adopted measure.

**Figure 2 - New and previously-raised STCs, 1995-2017<sup>8</sup>**



### 3.2 What are STCs about?

How the ex-ante notification requirement and the STC mechanism relate to each other, and what does the STC mechanism bring that the ex-ante notification requirement does not provide?

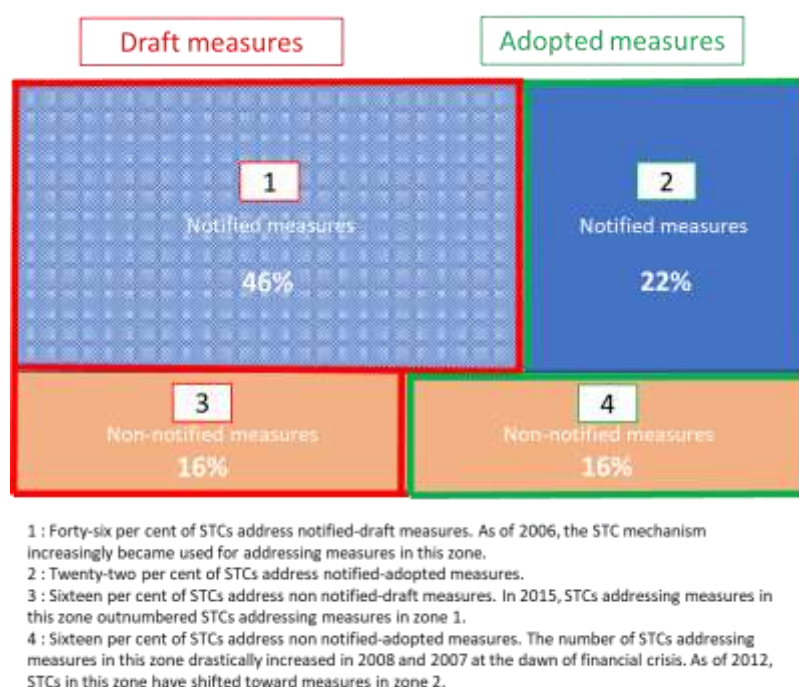
STCs can be raised for measures that have been notified or not notified at WTO as well as for measures that are in their draft stage or have been already adopted by the country concerned. Figure 3 shows the share of STCs over the period 1995-2017 according to the status of the measure. Interestingly, close to half (46%) of STCs raised over the review period related to draft measures notified under the ex-ante notification requirement. In addition, 32% are STCs on non-notified measures (including measures already adopted) and 22% are STCs on measures that have been notified after their adoption (late notifications).

Figure 3 also shows that the STC mechanism significantly relies on the ex-ante notification requirement (Article 2.9.2 of the TBT Agreement) but goes beyond it and largely complements it. The fact that 54% of STCs are on measures that are not notified at the draft stage shows : (i) that a large part of TBT measures are either notified late or not notified (that is the ex-ante notification requirement is only partially implemented by WTO member); and that (ii) the STCs mechanism is key to enforce implementation and monitoring of measures.

<sup>8</sup> New STCs refer to new trade concerns raised at a TBT Committee meeting in a given year. Previously-raised STCs refer to concerns already raised at previous TBT Committee meetings and raised again in the given year. Distinguishing between new and previously raised STCs gives a more accurate reflection of the number of concerns actually discussed in the TBT Committee. For instance, if an STC was raised three times before being resolved, it will be counted three times: one time as a new STC at the date at which it was raised for the time and twice as a previously raised STC. Before the introduction of this counting methodology in 2016, the TBT Committee would have counted this three-time-raised STC only one time (i.e. as a new STC).



**Figure 3 – STCs by status of the measure**



The size of each square reflects the share of each type of measure among all measures challenged through STCs from 1995 to 2017

The following two STCs illustrate two examples of concern related to adopted measures or to request the notification of a non-notified draft measure.

Adopted measures: "The representative of the United States pointed out that the Korean National Tax Service published an official notice under the number 2011-17 on 11 July 2011 requiring both, imported and domestic whiskey bottles to have a radio frequency identification tag or an RFID. *The US invited Korea to notify this measure to the WTO and to establish a reasonable period of time for comments by interested parties*". (The STC ID is 329. See paragraph 46 of the document G/TBT/M/55).

Non-notified draft measures: "The representative of the European Union noted that the purpose of the draft Protocol was to support the implementation of **Malaysian compulsory standard MS 1500 of 2009 on "halal food preparation, production, handling and storage, general guidelines", making the standard, in effect, a technical regulation; it should, hence, have been notified in accordance with Malaysia's WTO transparency obligations**. The EU therefore invited Malaysia to also notify this mandatory standard to the WTO and make it freely available to economic operators." (The STC ID is 317. See paragraph 135 of the document G/TBT/M/54) .

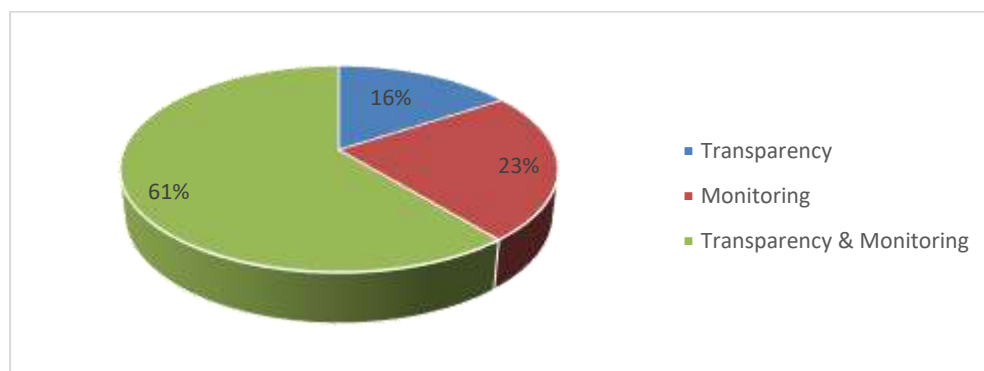
Another important piece of information to assess the effectiveness of STCs as a transparency and monitoring tool is to understand what type of concerns countries raise through STCs.

We distinguish two type of specific trade concerns: STCs that aim at collecting information (thereafter referred to as "transparency-related STCs") and STCs that query the legal consistency of a measure (thereafter referred to as "monitoring-related STCs"). Box 1 further describes the classification method followed in this paper.

We understand that in a broad sense any question, including a question that asks merely to notify a measure is a way to enhance the implementation of the commitments. In fact, most STCs include both transparency and monitoring considerations, as shown in Figure 4. Nevertheless, we make this distinction and use a narrower definition of transparency and monitoring STCs to be able to argue

more persuasively that STC do enhance the flow of information, they do enhance government accountability and finally that they mitigate the risk for commercial conflicts.

**Figure 4 – Share of STCs by type of issue**



### **Box 1: Classification of the content of STCs**

We classify STCs into two categories: transparency- and monitoring-related STCs depending on the type of concern (e.g. a request for more information or a compliance issue, respectively), independently of whether the issue relates to a technical regulation or conformity assessment. In a few instances, STCs can also address issues other than transparency or monitoring issues, such as concerns about special and differential treatment, technical assistance, non-product related processes and product methods or intellectual property. Since this paper focuses on transparency and monitoring issues, we do not cover these other issues.

#### **TRANSPARENCY ISSUES**

Transparency issues comprise five types of concerns, as follows:

- **A request for notification** can be made after the publication of a notice indicating the intention of a government to design a new measure (like in the first example below). The request for notification can also be made due to a lack of notification (see second example).

"The representative of the United States pointed out that the Korean National Tax Service published an official notice under the number 2011-17 on 11 July 2011 requiring both, imported and domestic whiskey bottles to have a radio frequency identification tag or an RFID. **The US invited Korea to notify this measure to the WTO and to establish a reasonable period of time for comments by interested parties**". (The STC ID is 329. See paragraph 46 of the document G/TBT/M/55).

"The representative of the United States raised an issue regarding Malaysian requirements for hologram stickers on pharmaceutical products. It was the US understanding that on 26 June 2004, Malaysia's Ministry of Health had announced that it had approved implementation of a directive requiring the use of hologram stickers on pharmaceuticals, over-the-counter medications and certain herbal products. **That regulation had never been notified as a proposal under the TBT Agreement and Members had therefore not been given an opportunity to comment.** The US government and industry had raised the issue with their Malaysian counterparts, and, in fact, implementation had been delayed on two separate occasions. Nevertheless, it was now scheduled for 5 May 2005. While the representative of the United States welcomed the cooperation that Malaysia had shown, she remained of the view that **a notification needed to be made under the TBT Agreement**". (The STC ID is 119. See paragraph 10 of the document G/TBT/M/35).

- **A request for translation**, as follows:

"Australia also asked Viet Nam to provide an official translation of the proposed Decree 40 in order to allow WTO Members to become acquainted with this technical regulation". (The STC ID is 349. See paragraph 37 of the document G/TBT/M/57).

- **A request for an update** can be made after the submission of comments with a view to obtaining a response to such comments. Likewise, a request for an update can be made to monitor how a Member manages the resolution of a concern raised.

"The representative of the United States stated that **comments had been submitted** prior to the last meeting, which went into detail on many questions and concerns, including the treatment of abbreviations, illustrations on labels, registration numbers, certain font requirements, and implementation periods. He **asked for an update on the process for taking these, and other concerns, into account in the publication of the final measure.**"(The STC ID is 263. See paragraph 46 of the document G/TBT/M/53).

"The representative of New Zealand was particularly concerned about the discussion between the Commission and Cyprus with respect to the application for the "special reserve". She reminded the Committee that **New Zealand had raised issues on the matter of traditional terms use for some time.** Regarding the special reserve application, New Zealand had been assured by the Commission that it expected to resolve the matter in the near future. **She requested an update on the matter.**" (The STC ID is 39. See paragraph 124 of the document G/TBT/M/52).

- **A request for clarification** can be made to obtain technical information about a measure, the objectives for the adoption of a measure, and/or information related to the implementation of a measure.

"The representative of Barbados drew the Committee's attention to Brazil's new draft technical regulation outlining minimum quality requirements for spirituous beverages, notified in G/TBT/N/BRA/160, on 3 September 2004. Her delegation, in conjunction with the governments of the Dominican Republic, Jamaica, and Trinidad and Tobago on 13 October 2004 had submitted written comments to the Brazilian authorities on this new draft. They had also requested that Brazil suspended the implementation of the new draft technical regulation for a reasonable interval, so that amendments accommodating the concerns raised could be made. She believed that this new regulation in its current form would have significant adverse effects on trade in distilled spirits on Caribbean rum producers. Generally, her delegation's concerns were similar to those raised in relation to G/TBT/N/BRA/135. More specifically on G/TBT/N/BRA/160, **she sought clarification on: (i) why a definition for rum and other distilled spirits had not been included in the new draft technical regulation; (ii) the technical aspects in the new draft regulation concerning the distillation processes, and the absence of language on fermentation; and, (iii) the content outlined in the new draft regulation on aged sugar cane.**"(The STC ID is 102. See paragraph 88 of the document G/TBT/M/34).

"The representative of the United States requested **clarification on the rationale for these measures and their relationship with the EC's environmental and health objectives so that the consistency with international obligations could be assessed.**" (The STC ID is 35. See paragraph 41 of the document G/TBT/M/22).

"The representative of China expressed concern about the use of certain hazardous substances in electrical and electronic equipment. He **requested information on the status of implementation of RoHS** (it was implemented in 2003) **and on how the European Union monitored the state of compliance of enterprises.** He also requested **clarification on the conformity assessment procedure after RoHS and how it conducted market surveillance and government supervision and if there was any difference between the procedures of different**

**European Union member States".** (The STC ID is 35. See paragraph 165 of the document G/TBT/M/54).

- **A concern about a too short time to comment** can be made when Members are not provided enough time to comment on notified measures. The timeframe for the submission of comments should be at least of 60 days.

"The representative of the European Communities noted that at the beginning of 2006, China had made the above-mentioned TBT notifications after the adoption of the corresponding technical regulations. He stressed that the transparency provisions laid down in Articles 2.9.2 and 5.6.2 of the TBT Agreement provided that a notification of a proposed technical regulation or conformity assessment procedure should be made at an early appropriate stage, when amendments could still be introduced, and comments taken into account. In particular, **the notifications related to the Wireless Local Area Network (WLAN) products (G/TBT/N/CHN/187 to 189) were dated 31 January 2006 and the corresponding measures' date of entry into force was 1 February 2006, thereby preventing WTO Members from the possibility to assess the relevant documents and provide comments.**" (The STC ID is 103. See paragraph 32 of the document G/TBT/M/38).

- **A concern about a too fast implementation** can be made when the time between the notification of a measure and its implementation is so short that a Member could not take into account comments submitted by other Members. Likewise, if the time between the publication of an adopted measure and its implementation is too short, governments and traders cannot adapt to new requirements.

"While New Zealand welcomed the delay provided for the implementation of the Regulation, it was **disappointed at the short time period between publication and notification of the amending Regulation 316/2004 and its implementation, which was not sufficient for Members' comments to be taken into account in accordance with Article 2.9 of the TBT Agreement.** Furthermore, many of New Zealand's concerns had not been addressed by Regulation 316/2004 and a written response had never been received." (The STC ID is 39. See paragraph 54 of the document G/TBT/M/33).

## **MONITORING ISSUES**

Members use the STC mechanism to raise monitoring issues, i.e. issues related to compliance with international standards or with national treatment and MFN obligations, and issues related to unnecessary barriers to trade or to the rationale the measures concerned. These issues are further described below.

- **Compliance with international standards** (Article 2.4 or 5.5 of the TBT Agreement). Members use the STC mechanism to ensure that Members use and respect the **technical content of existing relevant international standards** in designing and implementing their TBT measures.

"The representative of the European Communities was concerned about a proposal from Korea regarding safety criteria on 47 different products, in particular with respect to proposed requirements on tires and safety glass for road vehicles. The European Communities informed the Committee that Korea was a signatory party to the UNECE Agreement of 1958 and that the UNECE regulation Number 43 was about safety glass and the regulation Number 30 concerned tires. These two UNECE regulations were considered to be international standards, and, therefore, in line with Article 2.4 of the TBT Agreement, **Korea was invited to adopt a specification of those standards instead of adopting specifications which were purely of national origin**". (The STC ID is 158. See paragraph 12 of the document G/TBT/M/41).

"The representative of the European Communities referred to the proposed revision of the US standards for grades of olive oil and olive pomace oil. Written comments had been submitted to the United States, which pointed out that some of the items covered by the proposed standards, such as aspect, colour, odour and flavour were

requirements or limits of certain chemical components in the oil were **not in line with the Codex standards for olive oil and olive pomace oils**. She invited the United States to provide a written reply to the comments and looked forward to continued discussion on this issue". (The STC ID is 210. See paragraph 17 of the document G/TBT/M/46).

- **Compliance with national treatment and MFN obligations** (Article 2.1 or 5.1 of the TBT Agreement). Members use the STC mechanism to raise concerns about violations of national treatment and/or MFN obligations with respect to other Members' TBT measures.

"The representative of the United States remained concerned by what seemed to be a wide- spread effort by China to impose "secure and controllable" requirements, largely based on the Multi-Level Protection Scheme (MLPS) system, on ICT products. The United States said that the MLPS was inflexibly prescriptive and could restrict the ability of consumers to purchase technologies established as safe everywhere else in the world. Additionally, in the view of the United States, **the requirements raised national treatment concerns by mandating domestic IP and equipment usage in sectors deemed "critical"**. This was of particular concern given the extensive scope of projects classified as level 3 or above. The United States hoped that China would take into account all stakeholder comments made on the draft standards related to MLPS, but more broadly, encouraged China to adopt international standards instead of creating country-specific ones" (The STC ID is 534. See paragraph 2.220 of the document G/TBT/M/74).

- **Issues related to unnecessary barriers to trade and/or to the rationale of TBT measures concerned** (Article 2.2 or 5.1.2 of the TBT Agreement). Complaints include, for instance: (i) a measure that hurts trading partners unnecessarily; (ii) a measure that appears to be more trade restrictive than necessary; (iii) the burdensome nature of a measure; (iv) concerns about the costs resulting from a measure; and (v) the scientific rationale of a draft measure that is not solid enough.

"The Japanese representative emphasized that the procedure for conformity assessment should be fully consistent with the TBT Agreement and other WTO agreements, including Article 5 of the TBT Agreement and the general principle of national treatment. **He stated that Japan was concerned that Thailand's conformity assessment procedure was very complicated and created unnecessary obstacles in the distribution of steel products**. He noted that discussions between Japanese steel importers and TISI for clarifying the procedure had been conducted in Bangkok. However, it was Japan's understanding that work had not been sufficiently developed" (The STC ID is 230. See paragraph 140 of the document G/TBT/M/50).

## 4 THE EFFECTIVENESS OF STCs

### 4.1 The STC mechanism enhances transparency

In our strict definition transparency relates to the increased flow of information. Here are two ways in which our data support the claim that STCs do enhance transparency.

First, STCs bring to the public attention new measures. As shown in Figure 3, 32% of STCs are on non-notified measures. STCs raised on non-notified measures (whether transparency or monitoring related) act as a sort of **reverse notification**, permitting a minimum level of transparency on measures on which we would not have had information otherwise.

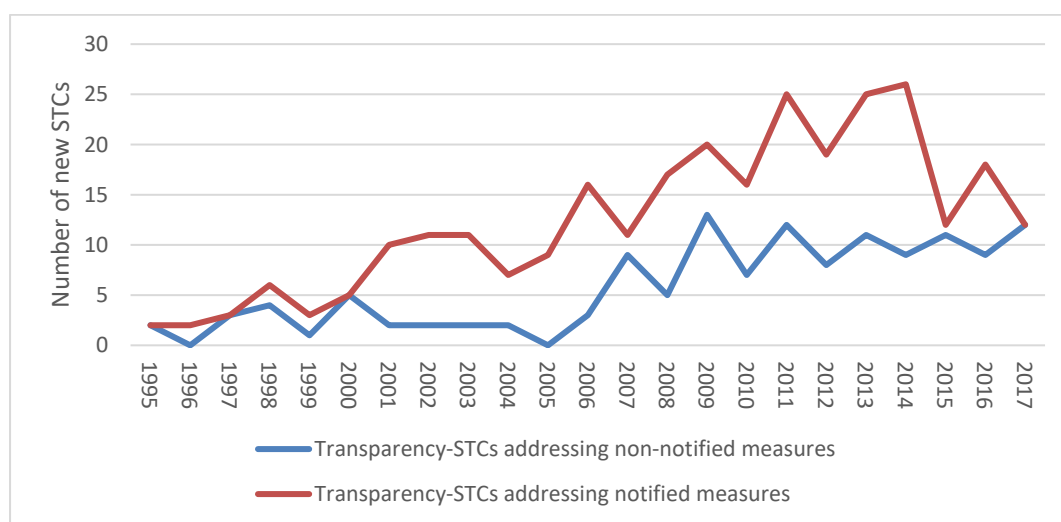
In particular, transparency-STCs often (27%, as shown in Figure 6) are **requests for notifications** – usually to remind Members to notify their draft measures in accordance with the ex-ante notification requirement, and to request updates – usually to remind Members to respond to comments submitted bilaterally.

The following STC is an example of a request for an update:

"The representative of the United States stated that **comments had been submitted** prior to the last meeting, which went into detail on many questions and concerns, including the treatment of abbreviations, illustrations on labels, registration numbers, certain font requirements, and implementation periods. He **asked for an update on the process for taking these, and other concerns, into account in the publication of the final measure**"(The STC ID is 263. See paragraph 46 of the document G/TBT/M/53).

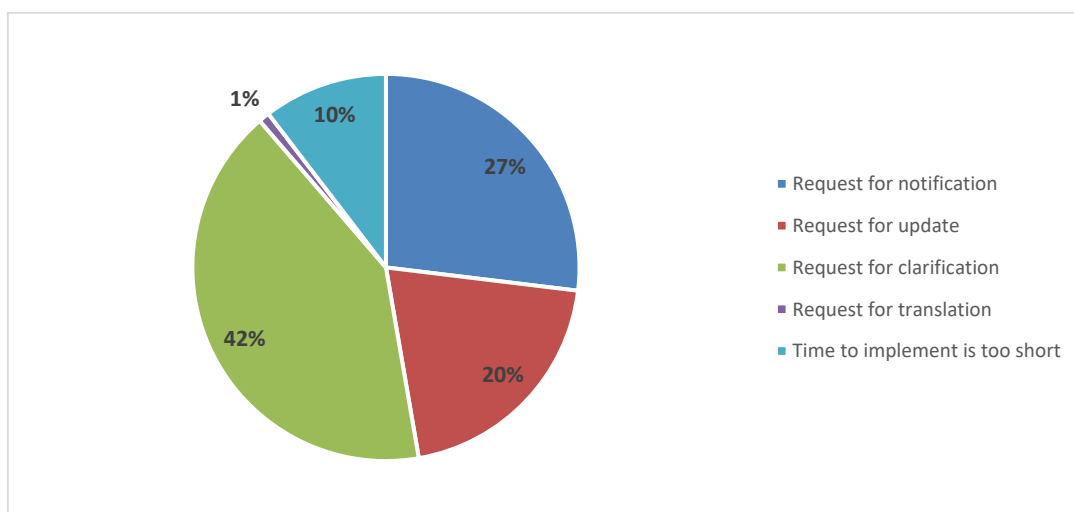
Second, STCs improve the **quality of information** already available. There is a substantial share of STCs that are merely related to transparency (16% as shown in Figure 4). Importantly, a larger number of transparency-STCs relate to notified measures (Figure 5). This would seem to suggest that the (ex-ante) notification requirement on its own does not provide a sufficient level of transparency.

**Figure 5 – Transparency-STCs by status of notification, 1995-2017**



In particular, the fact that 42% of transparency-STCs concern requests for clarification indicates that information provided by notifications, in particular the quality of such information, is not sufficient (see Figures 6). The quality of notifications is one of the issues on the agenda of current WTO reform discussions. A recent WTO reform proposal suggests that the WTO Secretariat could make more qualitative assessment on notifications in order to make them more informative.

**Figure 6 - Transparency-STCs by issue**



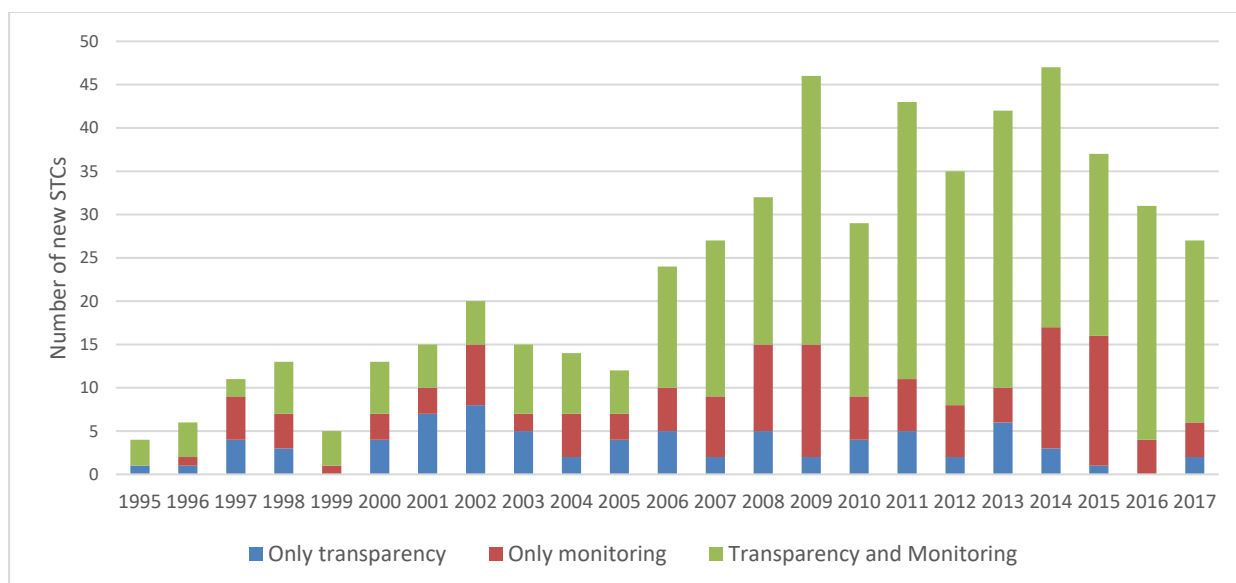
The following STC is an example of a request for clarification:

"The representative of Barbados drew the Committee's attention to Brazil's new draft technical regulation outlining minimum quality requirements for spirituous beverages, notified in G/TBT/N/BRA/160, on 3 September 2004. Her delegation, in conjunction with the governments of the Dominican Republic, Jamaica, and Trinidad and Tobago on 13 October 2004 had submitted written comments to the Brazilian authorities on this new draft. They had also requested that Brazil suspended the implementation of the new draft technical regulation for a reasonable interval, so that amendments accommodating the concerns raised could be made. She believed that this new regulation in its current form would have significant adverse effects on trade in distilled spirits on Caribbean rum producers. Generally, her delegation's concerns were similar to those raised in relation to G/TBT/N/BRA/135. More specifically on G/TBT/N/BRA/160, **she sought clarification on: (i) why a definition for rum and other distilled spirits had not been included in the new draft technical regulation; (ii) the technical aspects in the new draft regulation concerning the distillation processes, and the absence of language on fermentation; and, (iii) the content outlined in the new draft regulation on aged sugar cane.**" (The STC ID is 102. See paragraph 88 of the document G/TBT/M/34).

#### 4.2 The STC mechanism makes Members more accountable for their measures and encourages them to adopt good regulatory practices

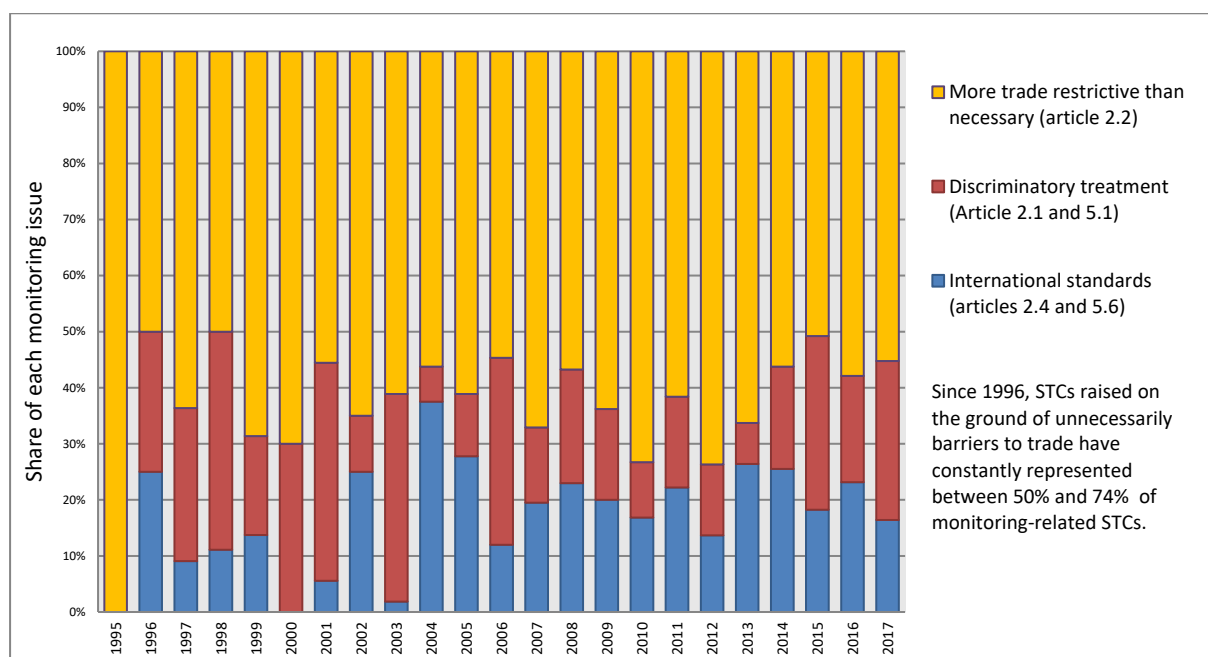
Overall, 24% of all STCs raised between 1995 to 2017 only addressed monitoring issues and 60% of all STCs addressed monitoring issues in addition with transparency issues. The proportion of STCs addressing monitoring issues, i.e. issues related to unnecessary barriers to trade and/or the rationale of the measure concerned, has increased significantly over the years as shown in Figure 7. This section analyses these monitoring issues with a view to assessing the role of the STC mechanism's monitoring function.

**Figure 7– The proportion of STCs addressing monitoring issues has been growing**



Two conclusions can be drawn from the analysis of monitoring-STCs. First, as monitoring promotes accountability, the prevalence of monitoring issues in STCs suggests that the STC mechanism plays an important role in making Members more accountable for their trade measures. Since most monitoring-STCs (63% on average) address unnecessary trade restrictions of TBT measures (see Figure 8), this accountability function likely leads Members to design, adopt and implement less trade restrictive measures and to take into account comments and concerns of their trading partners.

**Figure 8 - Monitoring-STCs primarily address trade restrictiveness of measures**



Second, TBT Committee discussions on STCs likely facilitate the design and implementation of domestic trade policies that are compliant with TBT rules. It can therefore be argued that the STC mechanism encourages good regulatory practices. These two conclusions are further developed below.

#### Accountability

The STC mechanism enhances Members' accountability for their trade measures in two ways.

First, the STC mechanism encourages the Member introducing a measure to justify the objectives, necessity and non-discriminatory nature of its trade measures. *A contrario*, in the WTO dispute settlement mechanism, the complaining Member has to prove non-compliance of another Member's measure with a specific covered agreement. The following STC illustrates how a Member can use the STC mechanism to express concerns regarding compliance of a measure with the TBT agreement.

"The Japanese representative emphasized that the procedure for conformity assessment should be fully consistent with the TBT Agreement and other WTO agreements, including Article 5 of the TBT Agreement and the general principle of national treatment. **He stated that Japan was concerned that Thailand's conformity assessment procedure was very complicated and created unnecessary obstacles in the distribution of steel products.** He noted that discussions between Japanese steel importers and TISI for clarifying the procedure had been conducted in Bangkok. However, it was Japan's understanding that work had not been sufficiently developed". (The STC ID is 230. See paragraph 140 of the document G/TBT/M/50).

Second, the STC mechanism allows to bring an alleged compliance concern to the attention of all Members of the TBT Committee. Peer pressure makes Members more accountable for their trade measures. Other Members may support the concern raised by a Member and ask additional questions. As already noted, Members also use the STC mechanism to make known to the full membership that compliance concerns have already been shared bilaterally with the concerned Member. By doing so, they likely increase the likelihood of a response to the said concerns.

"The representative of Indonesia **requested that the EU respond to its written enquiry sent the EU TBT Enquiry Point on 25 June 2016**". (The STC ID is 513. See paragraph 2.309 of the document G/TBT/M/70).

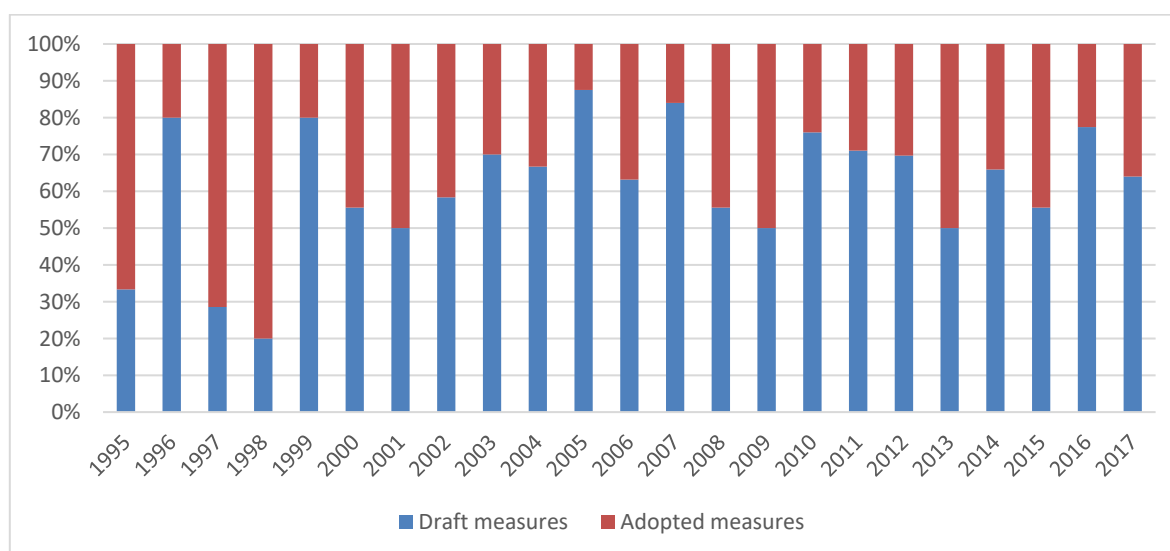


### Good regulatory practices (GRP)

The STC mechanism encourages Members to adopt GRP in two ways. First, the STC mechanism influences the design of draft measures with a view to rendering them less trade restrictive and/or non-discriminatory. Indeed, monitoring-STCs primarily address draft measures (62% of all monitoring issues), as shown in Figure 9. At the drafting stage, concerns raised under the ex-ante notification requirement or as part of the broader STC mechanism can still be taken into account in the design of TBT measures. As noted earlier, the STC mechanism goes beyond the ex-ante notification requirement and makes it possible for Members to raise comments and concerns on non-notified draft measures.

Second, the STC mechanism nurtures collective knowledge on how to implement TBT rules, thereby facilitating implementation of domestic trade policies. It provides a basis for cooperation through the sharing of experience and of scientific and technical knowledge (OECD and WTO, 2019). International regulatory cooperation resulting from STC discussions can also take the form of technical assistance. In some instances, STCs led to the provision of technical assistance and advice to facilitate the compliance with a newly adopted TBT measure (Holzer, 2018). For instance, in the STC about the European Union's chemicals regulation governing registration, evaluation, authorisation and restriction of chemicals (REACH), the EU responded to the continuous concerns of its trading partners through the adoption of additional measures, to assist small and medium-sized enterprises to comply with REACH requirements and the provision of technical assistance and advice to developing countries.

**Figure 9 - Monitoring-STCs primarily address draft measures**



### **4.3 The STC mechanism facilitates the resolution of trade concerns non-litigiously**

Several authors have argued that WTO committees have an important role in mitigating trade conflicts and brought in support of this claim the fact that formal WTO disputes are a small number compared to all notifications and trade concerns raised in committees (Wolfe, 2005). Here we use the classification of STCs in the TBT committee that we have introduced in this paper to provide additional and stronger evidence in support of this argument.

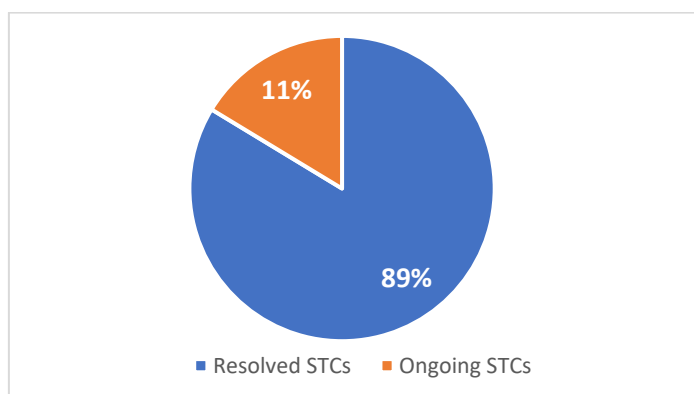
There are four facts that support the claim that the STC mechanism is effective in resolving trade tensions non-litigiously.

First, the vast majority of STCs is resolved without escalating into a formal dispute. As shown in Figure 10, out of the 535 STCs raised from March 1995 to March 2018 and that did not result in a formal dispute, 475 STCs (89%) were presumably resolved non-litigiously.<sup>9</sup> Only 11% of STCs are

<sup>9</sup> Note that Members do not report the settlement outcomes of STCs in the TBT Committee. We assume that an STC is "resolved" when it has not been raised for at least 24 months. This is consistent with the 2012 World Trade Report (2012), but it is slightly different from the methodology adopted by Wijkstrom et al. (2012) who consider resolved STCs as those being raised at least 3 times in the TBT committee and

ongoing. While these Figures do not necessarily indicate whether an STC has been definitely resolved, they provide anecdotal evidence that an important proportion of the STCs discussed in the TBT Committee are no longer on the agenda. One can assume that some form of progress has been achieved and that positive developments have occurred – but it could also be that Members pursued the issue through other means or in other fora (OECD and WTO, 2019).

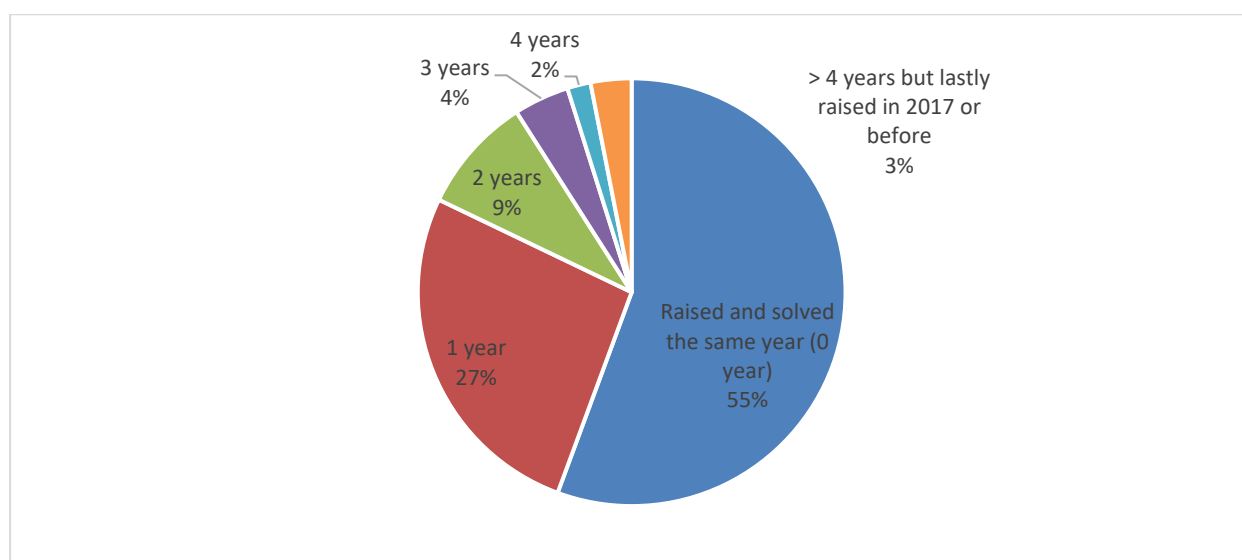
**Figure 10 – Most (88%) of STCs have been resolved**



**Note:** This Figure does not necessarily mean that STCs are definitely resolved. Members can decide to withdraw a STC from the Committee's agenda because they consider that pursuing discussions is not worthwhile and can live with an unresolved underlying issue. Rather, this Figure provides anecdotal evidence that STCs can help resolve trade frictions.

Second, concerns raised in the TBT committees appear to be resolved quickly. Among the 475 resolved STCs, 82% were resolved within one year or less, meaning that after having been raised during one year or less, they have not been raised again for a period of at least 24 months, as illustrated in Figure 11.

**Figure 11 - STCs are mainly resolved within one year or less**



Third, only a small share of STCs were subsequently raised as a formal dispute. Since 1995, out of 555 concerned, only 20 ended up in disputes (there were 22 TBT-related formal disputes preceded by STCs, because some concerns ended up in more than one formal dispute). Among these

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subsequently not raised for at least 12 months. These authors consider that STCs that are raised less than 2 times do not underlie a trade tension, but rather a need for clarification. Since a few STCs were raised once in the TBT Committee before escalating into a WTO dispute, we decided to include STCs raised a few times in the analysis.

20 disputes, there are only 7 fully-fledged disputes<sup>10</sup> ending with Panel and Appellate Body reports (and two panel reports under appeal). STCs turning into a fully-fledged dispute are therefore scarce.

Fourth (and our key contribution), STCs raised at draft stage of new technical regulation measures are less likely to end up as a formal WTO dispute. As shown in Table 1, while 5% of STCs raised on adopted TBT measures have led to a dispute, only 2% of STCs related to draft TBT measures resulted in a formal dispute.

The reason is intuitive. When concerns are raised on drafts, it is easier for the legislator or regulator to adapt a measure and take concerns into account. This points to the critical role played by the ex-ante notification requirement in supporting the effectiveness of the STC mechanism in resolving trade disputes non-litigiously. By requiring that Members notify their draft measures, the ex-ante notification requirement, increases the likelihood of potential concerns being addressed at an early stage, before the measure is adopted, thereby contributing to the effective use of the STC mechanism as a tool to resolve disputes non-litigiously.

**Table 1 – Share of STCs followed by a dispute**

	DRAFT MEASURES	ADOPTED MEASURES
Number of STCs	289	266
Share of STCs followed by a dispute	2% (7 STCs)	5% (13 STCs)

**Note:** The difference between the number of TBT-related disputes (22 disputes) and the number of STCs preceding TBT disputes (20 STCs) is due to the fact that some concerns discussed under one STC identifier lead to several and distinct WTO disputes. This is the case of DS434, DS435, DS441, DS458 and DS467, all of which concerned *Australia – Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*. These disputes were discussed under the same STC number (STC 304). Although some concerns discussed under different STC identifiers led to one WTO dispute only (as was the case with DS135 *European Communities – Measures affecting Asbestos* which was discussed under three different STC numbers (STC 12, 22 and 25), taking these situations into account leads to an overall number of disputes that is higher than the number of STCs (22 vs 20)).

Finally, the fact that some concerns did end up in a dispute does not need to be interpreted as evidence of the failure of the STCs system rather as evidence of the fact that these were particularly difficult cases. The statistics in Table 2 help support this claim. Table 2 shows the legal outcome of all 54 TBT related disputes and compare the outcome for the 22 disputes preceded by STCs and the 32 that were not.

Table 2 shows that very few (18%) of these disputes ended at the consultation stage. Rather, most of them (68%), including all fully-fledged TBT-related disputes, were resolved after the adoption of the Panel report or the Appellate Body's report, including three which were resolved after a compliance review under Article 21.5 of the DSU. These three disputes are the only disputes out of the 54 TBT-related disputes that underwent a compliance review. In contrast, the 32 disputes that were not preceded by STCs largely (20 out of 32) ended at the request for consultation stage.

<sup>10</sup> A "fully fledged TBT-related dispute" is a dispute that focuses primarily on TBT and went through the whole dispute process (Wijkström et al., 2012).

**Table 2- What was the legal outcome of TBT-related disputes?**

	TBT-related disputes not preceded by an STC	TBT-related disputes preceded by an STC
Total	32	22, among which 5 were fully-fledged disputes
Request for consultation & mutually agreed solution	20	4 (18%)
Panel established	3	3 (14%)
Panel/Appellate Body report adopted	9	15 (68%), among which 5 were fully-fledged

These different patterns point to the fact that the unresolved STCs case that ended up as dispute were particularly difficult cases. Holzer (2018) puts forward two explanations: One is the fact that some of the STCs preceding TBT-related disputes were strongly backed by public opinion, making the WTO Members concerned reluctant to cooperate in lifting or modifying their measures (Holzer, 2018). For instance, the public perception of health risks associated with asbestos made the European Union unwilling to lift or adjust its measures at the request of other WTO Members in the STC *EC - Asbestos*. Another one is that some of the STCs preceding TBT-related disputes involved Members encountering a general deterioration of trade and political relations between themselves (Holzer, 2018). The Bans on Specific Products, which is linked to 5 STCs, started with a ban on confectionary products, and then grew into a series of bans on products of other exporting industries. Had political tensions between the two Members been resolved, these STCs might have been resolved.

Another important lesson that these statistics suggest is that it may be efficient to build-in the system the need to go through a discussion of the concern within the relevant committee before filing a formal dispute settlement case.

## 5 CONCLUSION

This paper provides a new way to read key facts about STCs in TBT. We look at four features of STCs (the topic discussed, the duration of the discussion, the type of document under discussion and the outcome of the discussion) to show how the STC mechanism contributes to more transparency and better monitoring and to the effective administration and implementation of the TBT Agreement.

Our analysis provides support for three key findings (summarized in Figure 12):

- First, STCs enhance transparency by making available to all membership information not notified as well as providing better quality and complementary information on notified measures.

In fact, STCs raised on non-notified measures are 32% of all STCs. They act as a sort of reverse notification, guaranteeing a minimum level of transparency by making information available that would have otherwise not been known.

Forty-six per cent of transparency- STCs concern notified draft measures, suggesting that the (ex-ante) notification requirement on its own does not provide a sufficient level of information and points to the de facto complementarity of these two tools.

Greater access to information has a significant economic value. It reduces information search costs thus increasing efficiency and making it easier for firms to trade. In the context of TBT measures, it may also help countries to develop measures compatible to those adopted by their trading partner, thus reducing unnecessary barriers to trade.

- Second, STCs make Members more accountable for their measures and encourages them to adopt good regulatory practices. The STC mechanism promotes accountability in two ways.

First, because it encourages the Member introducing a measure to justify its legal consistency, it is more accessible to WTO members lacking legal capacity than the WTO dispute settlement system which requires the complaining Member to justify the legal basis of its claim. Second, STCs can be used to bring compliance issues to the attention of the full WTO membership in the TBT committee thereby de-incentivizing the adoption of restrictive and/or discriminatory measures and increasing the likelihood of a response to concerns.

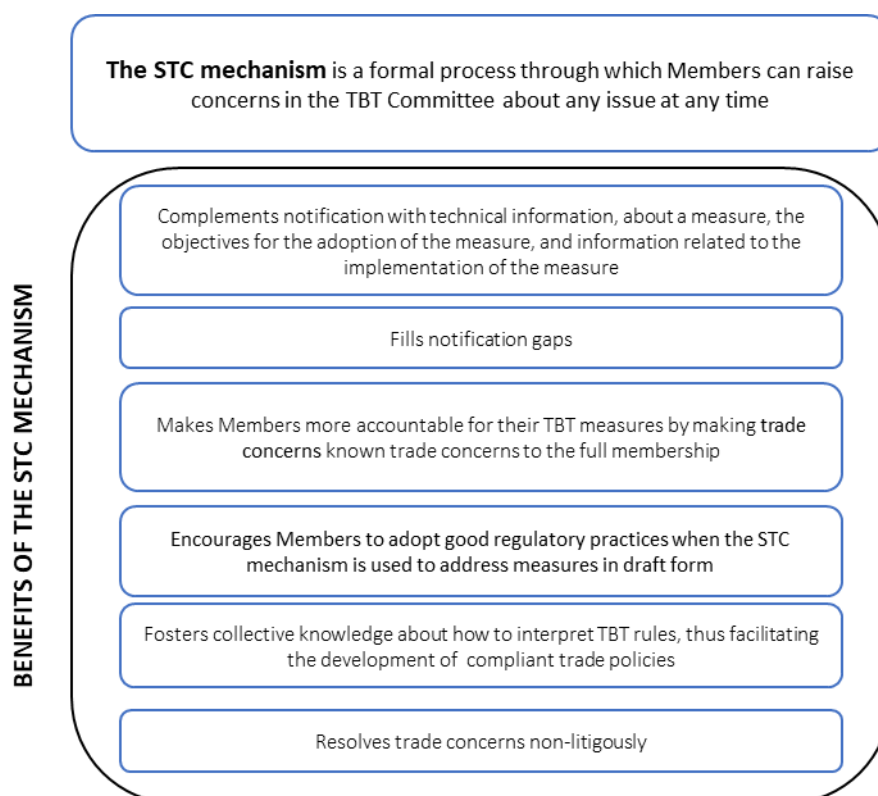
The STC mechanism can also contribute to the adoption of good regulatory practices because it allows Members to address measures at a draft stage, when comments and concerns can still be taken into account, and because it helps to build collective knowledge about how to interpret TBT rules, both of which facilitate the design and implementation of less trade restrictive and discriminatory non-tariff measures.

Greater accountability and adoption of good regulatory practices contribute to the reduction of trade barriers, as well as to enhanced predictability of the trading environment and to greater trust among Members, both of which are key drivers of trade growth and trade cooperation.

- Third, STCs contribute to the resolution of trade concerns non-litigiously. Our analysis suggests that the STC mechanism is both efficient and quick in resolving trade disputes non-litigiously. We also find that STCs are more effective in resolving trade tensions non-litigiously when they are raised at the stage of draft measures, which points to the critical role played by the ex-ante notification requirement in supporting the effectiveness of the STC mechanism in addressing trade disputes.

By preventing the escalation of trade tensions into WTO disputes, which are costly and undermine trade relationships, the STC mechanism helps to build and sustain trust among WTO Members. In the current context of increased pressure on the WTO dispute settlement system, the STC mechanism provides an interesting alternative mean to resolve trade tensions non-litigiously. In turn, this trusting environment likely stimulates trade cooperation.

**Figure 12 – The benefits of the STC mechanism**



One limit of our analysis of the benefits of the STC mechanism in the TBT Committee is the absence of information about the effective resolution of an STC. Nevertheless, it does help us to provide some guidance as to actions that could be considered to further improve the STC mechanism and more generally the administration of trade concerns in other committees.

First, introducing a reporting system on the outcome of STCs would permit to know whether STCs have led to changes in trade policies and/or to the non-litigious resolution of trade concerns. A better assessment of the STC mechanism's efficiency could be provided if WTO Members could report the outcome of STCs raised in the TBT Committee, as they do in the SPS Committee.

Second, STCs raised in committees could be used to fill the gap of missing notifications. This would help maintain a more up-to-date database of measures adopted.

Third, a more systemic use of the STC mechanism at the stage of *draft* measures would likely result in a higher resolution rate of trade concerns.

Last but not least, it may be important to build-in more generally in the dispute settlement system the need to first raise the matter and discuss it within the relevant committee before filing a formal dispute settlement case - although we are aware that one challenge of adopting an STC system in other committees is that it may be less effective if the agreement does not allow for the notification of draft regulations. This is the advantage of the STC process in the TBT Committee.

## BIBLIOGRAPHY

Albornoz, F., H. Calvo-Pardo, G. Corcos, and E. Ornelas (2010), "Sequential Exporting", *CEP Discussion Paper*, London: Centre for Economic Performance of the London School of Economics.

Anderson, James, and Douglas Marcouiller (2002), "Insecurity and the Pattern of Trade: An Empirical Investigation", *Review of Economics and Statistics*, Vol. 84, Issue 2, pp. 342-52.

Asian Development Bank (ADB) and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2013), *Designing and Implementing Trade Facilitation in Asia and the Pacific*, Manila, Philippines: Asian Development Bank.

Bacchetta, M., Richtering, J. and Santana, R. (2012), "How Much Light Do WTO Notifications Shed on NTMs?", in Cadot, O. and Malouche, M. (eds), "Non-Tariff Measures: a Fresh Look at Trade Policy's New Frontier", Washington, D. C. and London: World Bank and Centre for Economic Policy Research (CEPR).

Baccini (2008), *Cheap Talks and Transparency: Explaining the Bilateral Trade Agreements with the EU*. Unpublished work. New York: Center for Political Economy at the New York University.

Baccini, L. (2012), Cheap talk: Transaction costs, quality of institutions, and trade agreements. *European Journal of International Relations*, (July), 1-39.

Collins-Williams, T. and Wolfe, R. (2010) "Transparency As a Trade Policy Tool: the WTO's Cloudy Windows", *World Trade Review* 9[04], 551-581.

Francois, J., & Manchin, M. (2007), "Institutions, infrastructure, and trade", *World Bank Policy Research Working Paper* No. 4152, pp. 1-38.

Freund, C. and D. Winhold (2004), The Effect of the Internet on International Trade, *Journal of International Economics*, No. 62, pp. 171-89.

Holzer, K (2018), "Addressing tensions and avoiding disputes: specific trade concerns in the TBT Committee", WTO Working Paper ERSD-2018-11, Geneva: World Trade Organization (WTO).

Jensen, R. (2007) *The Digital Divide: Information (Technology); Market Performance, and Welfare in the South Indian Fisheries Sector*. *Quarterly Journal of Economics* CXXII[3], 879-924.

Karttunen, M. B. (2020) *Transparency in the WTO SPS and TBT Agreements: The Real Jewel in the Crown*. Cambridge: Cambridge University Press.

Lejárraga, I. (2013), 'Multilateralising Regionalism. Strengthening Transparency Disciplines in Trade', OECD Trade Policy Papers No. 152, Paris: Organisation for Economic Co-operation and Development (OECD).

Lejárraga, I. and Shepherd, B. (2013), 'Transparency in Regional Trade Agreements: Quantitative Evidence', TAD/TC/WP(2012)20/REV1, Paris, Organisation for Economic Co-operation and Development (OECD).

Levchenko, Andrei (2007), "Institutional Quality and International Trade", *Review of Economic Studies*, Vol. 74, No. 3, pp. 791-819.

Organisation for Economic Co-operation and Development (OECD) (2009), "Removing Barriers to SME Access to International Markets", Paris: OECD publication.

Organisation for Economic Co-operation and Development (OECD) and World Trade Organization (2019), "Facilitating Trade Through Regulatory Cooperation: the case of the WTO's TBT and SPS Agreements and Committees", Paris and Geneva: OECD and WTO publication.

Van Tongeren, F, (2009), 'Transparency in the Design of Non-Tariff Measures and the Costs of Market Entry: Conceptual Framework', Working Paper TAD/TC/WP(2009)33, Paris: Organisation for Economic Co-operation and Development (OECD).

Perez-Esteve, M. (2012), "WTO Rules and Practices for Transparency and Engagement With Civil Society Organizations", Staff Working Paper ERSD-2012-14, Geneva, World Trade Organization (WTO).

Steinwender, C. (2014), 'Information Frictions and the Law of One Price: "When States and the Kingdom Became United"', Working Paper No. 190, Vienna: Oesterreichische Nationalbank.

Wolfe, R. (2003) *Regulatory Transparency, Developing Countries, and the Fate of the WTO*. World Trade Review 2[3], 157-182.

Wolfe, R. (2013), 'Letting the Sun Shine at the WTO: How Transparency Brings the Trading System to Life', Staff Working Paper ERSD-2013-03, Geneva: World Trade Organization (WTO).

World Trade Organization (WTO) (2007) *World Trade Report 2007. Six Decades of Multilateral Trade Cooperation. What Have We Learnt?*, Geneva: WTO.

World Trade Organization (WTO) (2012) *World Trade Report 2012. Trade and Public Policies: a Closer Look at Non-Tariff Measures in the 21st Century*, WTO, Geneva.

World Trade Organization (WTO) (2018a) "WTO TBT Enquiry point guide: Making Transparency Work", Geneva: WTO.

World Trade Organization (WTO) (2018b) "GATT Disputes: 1948-1995, Volume 1", Geneva: WTO.

World Trade Organization (WTO) (2019a) "WTO Information Management System of the TBT Committee", Geneva: WTO.

World Trade Organization (WTO) (2019b) Twenty-Fourth Annual Review of the Implementation and Operation of the TBT Agreement, G/TBT/42, Geneva: WTO.

World Trade Organization (WTO) (2020) Twenty-Fifth Annual Review of the Implementation and Operation of the TBT Agreement, G/TBT/44, Geneva: WTO

World Trade Organization (WTO) and Organisation for Economic Co-operation and Development (OECD) (2019) *Facilitating Trade through Regulatory Cooperation: The Case of WTO's TBT/SPS Agreements and Committees*. Geneva: WTO

Wijkström Erik, Henrik Horn, and Petros C. Mavroidis (2012) "In the Shadow of the DSU: Addressing Specific Trade Concerns in the WTO SPS and TBT Committees", Working Paper No. 960, Research Institute of Industrial Economics: Stockholm.

Peter Pedersen, Antonia Diakantoni, Carlos Perez del Castillo, Amaliia Mkhitarian (2018) "WTO Trade Monitoring Ten Years on Lessons Learned and Challenges Ahead", WTO Working Paper, World Trade Organization (WTO): Geneva.