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TBT Background Paper

TBT Specific Trade Concerns: What's the value?

This draft background paper was presented at the TBT Symposium "Easing Regulatory Bottlenecks", held on 14 October 2022. It represents work in progress and may be further refined or extended. It was written by Mateo Ferrero, Rainer Lanz, Devin McDaniels and Erik Wijkström. The opinions expressed in this paper are those of its authors. They are not intended to represent the positions or opinions of the WTO or its members and are without prejudice to members' rights and obligations under the WTO. Any errors are attributable to the authors. Comments on the draft paper should be submitted to tbt@wto.org by 15 November 2022.

TBT SPECIFIC TRADE CONCERNS: WHAT'S THE VALUE?

(Working document – for review and comments)

KEY POINTS:

While the work of the WTO in negotiating new trade rules (or adjudicating disputes) often catches headlines, the regular work of Members in implementing and monitoring existing Agreements is less known to the public. Such work, however, significantly contributes to ensuring a more transparent, predictable, and stable international trading system. The discussions of "specific trade concerns" (so-called STCs) is one important practice, first pioneered in the WTO TBT and SPS Committees, that helps to address (and often resolve) Members' trade frictions through cooperation at a technical level, building on the transparency obligations of the TBT and SPS Agreements administered by these two bodies. The practice of raising STCs, as a powerful tool for helping Members avoid lengthy and costly formal dispute settlement, has been increasingly and extensively used in recent years in the TBT Committee.

This briefing note introduces new analysis estimating the commercial and economic importance of discussions in the TBT Committee on STCs[1] addressing Members' proposed or adopted regulatory measures. The main findings are:

- each STC raised in the TBT Committee, on average, covers **USD 29 billion of imports** in the year it was first raised;
- over the 2002-2020 period, new STCs covered on average **USD 786 billion of imports per year**, representing **5.4% of global imports**.
- over the 2002-2020 period, new and previously-raised STCs together covered on average **USD 2,419 billion of imports per year**, representing **16.7% of global imports**.

1 INTRODUCTION

At the WTO, Members can raise STCs with respect to trade-related measures of other Members, a practice that originated in the WTO TBT and SPS Committees.[2] Even if their ultimate objectives are basically the same (resolve trade frictions), raising a matter in the TBT or SPS Committee is very different from addressing a matter under the formal WTO dispute settlement system. Discussions on STCs are not merely a "passive" transparency exercise in which Members simply inform others about upcoming regulatory measures. Rather, these discussions serve as a dynamic tool that allows Members to address, at a technical level, concerns and questions they have in respect of TBT measures proposed or adopted by other Members. Thus, raising a STC is more about dialogue, which promotes cooperation. But this is no ordinary dialogue. It is "dialogue with a purpose": i.e., that of addressing, and hopefully resolving, actual and concrete regulatory issues impacting consumers, companies, and society at large.

No wonder therefore why STCs have been increasingly used in the TBT Committee. Indeed, since 1995, WTO Members have raised more than 750 STCs in the TBT Committee, more than 71% of

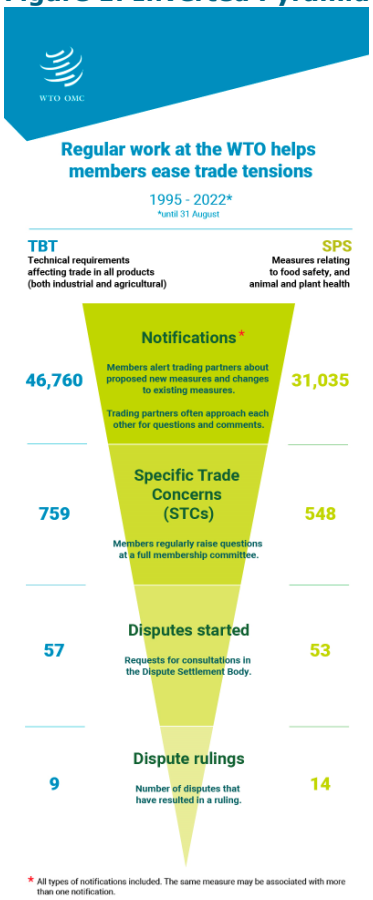
[1] Throughout this note, the term "STC" is used to refer to specific trade concerns raised in the TBT Committee, unless otherwise stated.

[2] In fact, the genesis of this practice goes back to 1980, when the GATT TBT Committee, in charge of administering the *Standards Code* (a GATT Tokyo Round plurilateral agreement), initiated its work. Even if not called as such at that time, these early GATT discussions have been considered the "'ancestors' of the current STCs'". See Marianna B. Karttunen, 'Transparency in the SPS and TBT Agreements: the real jewel in the crown' (2020), pp. 95-96. On the *Standards Code*, in general, see TBT Handbook (3rd edition), p. 9 (https://www.wto.org/english/res_e/booksp_e/tbt3rd_e.pdf).

these since 2010.[3] Members can raise STCs with respect to all types of products, as the TBT Agreement covers trade not only on industrial but also on agricultural products.[4]

As illustrated in Figure 1, STCs (in the TBT and SPS areas) are part of a multipronged process that helps to ease and resolve trade frictions. Key to the success of this process is the approach of allowing addressing any issues as early as possible along the regulatory lifecycle of the measure. This begins with the transparency process that requires Members to notify *draft* (as opposed to already adopted) technical regulations and conformity assessment procedures to the WTO for comment, opening opportunities for public consultations both at the *multilateral* and *domestic* levels. Any questions or lack of clarity can be often resolved through the comment process and exchanges with TBT Enquiry Points.

Figure 1: Inverted Pyramid



The vast majority of measures notified to the WTO do not give rise to trade problems, and thus do not result in any further steps of action being taken in the WTO. However, in the case of important trade problems that may arise, or risk to arise, Members sometimes decide to bring an STC to the TBT Committee. Most STCs (middle of the pyramid, Figure 1) are about *proposed* measures (i.e., measures that are not yet in force and can still be changed), around 70% of which were notified.[5] Many issues are brought and stay at the level of the TBT Committee. Some STCs are discussed at one or two meetings, at which point some form of progress or understanding is reached and the issue drops from the agenda. Other STCs are discussed over a period of several years. That said, very few measures notified to the TBT Committee are escalated to the formal WTO dispute settlement process (lower part of the pyramid). This illustrates the pre-emptive and dispute avoidance[6] function of the TBT Committee.[7]

2 PUTTING A NUMBER ON THE VALUE

At each meeting of the TBT Committee, WTO Members spend two full days discussing around 80 STCs. Why do Members devote so much time discussing these concerns? The fact that this tool is used – and increasingly so – suggests that there is a benefit to Members. But how to quantify this? Do these discussions effectively help to reduce trade frictions arising from different regulations?

Existing studies provide limited evidence about the impact of STCs discussions at the WTO on global trade. However, they do provide important general insights about the context in which these discussions take place. For instance, existing studies suggest that the average *ad valorem* equivalent of technical (TBT and SPS) measures amounts to 11%[8], and

[3] For descriptive statistics on STCs (numbers, graphs and specifics), see TBT Committee's annual reports. The latest is contained in document G/TBT/47 (for 2021). See also brief publication (for 2020).

[4] Article 1.3 of the TBT Agreement. A subset of regulations is covered by the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement). For a comparison of the two, see pages 12-16 of the TBT Handbook, here.

[5] TBT Measures need not be notified when they are in "accordance with" relevant international standards.

[6] Sometimes STCs can even *supplement* the formal dispute settlement system. For instance, while the measure at issue in the *EC – Sardines* dispute lodged by Peru against the European Union (https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds231_e.htm) was never raised first as an STC, the discussions on the *implementation* of the Panel decision, by the EU, took place in the TBT Committee as an STC, and not, as it is normally the case, in the context of a formal "compliance" dispute panel. See STC n. 87 - *European Communities - Amendment to Regulation on Sardines* (Trade concern details - ePing SPS&TBT platform (epingalert.org).

[7] Further on this, see 'WTO TBT Committee and regulatory measures: prevention, not litigation', TBT@40 Dialogue Series (2 Sep. 2020) - https://www.wto.org/english/tratop_e/tbt_e/tbt_t40_20920_e.htm

[8] UNCTAD and the World Bank, 'The Unseen Impact of Non-Tariff Measures: Insights from a New Database' (2018). Available at The Unseen Impact of Non-Tariff Measures: Insights from a new database (unctad.org).

estimate that the economic cost of such measures can be up to 1.6% of global GDP, amounting to 1.4 trillion USD.[9] UNCTAD further estimates that reducing the regulatory divergence can reduce trade costs by 25%.[10] Other studies found that TBT measures affect around 40% of product lines and about 65% of world imports.[11] A study analysing WTO Members' TBT notifications and their links to trade in goods, found that over 92% of global goods exports can be linked to TBT notifications. Another study found around €83 billion worth of EU exports were facilitated by successful interventions by the EU in the WTO TBT Committee over the past decade.[12]

WTO Members do not consistently report about the resolution of STCs to the TBT Committee, and therefore existing studies provide only anecdotal evidence with respect to the number of STCs that have been settled.[13] Nor are there agreed metrics for how to assess resolution or progress in STC discussions. Various studies estimate that between 50-90% of TBT STCs were resolved, based on a number of assumptions about how long STCs were raised, and when they were removed from the agenda of the TBT Committee.[14] Some scholars presume that the STCs discussed in the TBT Committee were finally resolved in other fora, or measures that triggered STCs were subsequently subject to domestic legal proceedings.[15]

In this briefing note, we seek to build on this past work by enhancing understanding of how much trade is affected by TBT STC discussions. We do this by quantifying the value of trade covered by the measures subject to STCs in the TBT Committee, using the new WTO Trade Concerns Database.[16] By giving an estimation of the value of the trade flows covered by these STCs, this note seeks to shed light on the magnitude of trade flows that are potentially implicated in these discussions, and therefore their commercial and economic importance. As explained below, however, we do not seek to answer the question of how much trade is facilitated through the resolutions of STCs, as data on resolutions in the TBT Committee is currently limited.

2.1 Methodology

In order to approximate the value of trade that may be affected by regulatory measures subject to STCs, we focus on the imports of Members whose measures are being challenged in the STCs. Existing or draft TBT measures subject to STCs potentially affect imports from all trading partners, including those that have raised the STC.[17]

Available studies also suggest that the simple average ad valorem equivalent of non-tariff measures equals 12%. See H-L. Kee, A. Nicita and M. Olarreaga, 'Estimating Trade Restrictiveness Indices' (2009) The Economic Journal 119. See also UNCTAD and WTO, 'A Practical Guide to the Economic Analysis of Non-Tariff Measures' (2020).

[9] UN ESCAP, UNCTAD 'Asia-Pacific Trade and Investment Report 2019: Navigating Non-tariff Measures towards Sustainable Development' (2019). Available at: pdf FrontCover (unescap.org).

[10] See 7th Trade Policy Dialogue: Tear down this wall - Challenges with trade-related regulations | UNCTAD.

[11] UNCTAD and the World Bank, 'The Unseen Impact of Non-Tariff Measures: Insights from a New Database' (2018). Available at The Unseen Impact of Non-Tariff Measures: Insights from a new database (unctad.org). Some materials suggest that in 2014, for example, over 90% of global goods exports were linked to TBT notifications (WTO document G/TBT/GEN/215, 28 April 2017).

[12] L. Cernat and D. Boucher, "Multilateral cooperation behind the trade war headlines: How much trade is freed up?", CEPS Policy Insights 2021, available at: https://www.ceps.eu/wp-content/uploads/2021/02/PI2021-03_Multilateral-cooperation-behind-the-trade-war-headlines.pdf

[13] K. Possada, E. Ganne, R. Piermartini, 'The Role of WTO Committees through the Lens of Specific Trade Concerns Raised in the TBT Committee' (2022) World Trade Review, 21(4).

[14] K. Possada, E. Ganne, R. Piermartini, 'The Role of WTO Committees through the Lens of Specific Trade Concerns Raised in the TBT Committee' (2022) World Trade Review, 21(4); Henrik Horn, Petros C. Mavroidis, Erik N. Wijkström, 'In the Shadow of the DSU: Addressing Specific Trade Concerns in the WTO SPS and TBT Committees' (2013), 47, Journal of World Trade, Issue 4. See also Kateryna Holzer, 'Addressing Tensions and Avoiding Disputes: Specific Trade Concerns in the TBT Committee' (2019) 14 Global Trade and Customs Journal, Issue 3 and R. Wolfe 'Reforming WTO Conflict Management: Why and How to Improve the Use of "Specific Trade Concerns"' (2021) Journal of International Economic Law 23(4).

[15] Kateryna Holzer, 'Addressing Tensions and Avoiding Disputes: Specific Trade Concerns in the TBT Committee' (2019) 14 Global Trade and Customs Journal, Issue 3.

[16] www.tradeconcerns.wto.org.

[17] The analysis focuses on imports of the product(s) subject to the *measure* addressed in the STC because the discussion of STCs in the TBT Committee covers *measures*, meaning technical regulations and conformity assessment procedures (and the standards they are based on). Thus, the lens of the debate in the discussion is on the possible (and magnitude of) *impact of TBT measures on imports*. In this respect, in 1995 the TBT Committee adopted a recommendation clarifying the meaning of "*significant effect on trade*" as a concept that may refer, *inter alia*, to the effect on trade of TBT measures "in a specific product, group of products or products

The basis for the analysis is the new **WTO Trade Concerns Database**, which provides detailed information on STCs raised in the TBT Committee, including on the particular products that are regulated by the measures underlying the STCs. The relevant Harmonized System (HS) product codes are based on the notifications of Members which raise STCs, and this information is complemented by the Secretariat to fill information gaps and provide consistency. STCs can relate to products at different levels of detail in terms of HS classification, namely at the Chapter (2-digit codes), Heading (4-digit codes) or Subheading (6-digit codes) levels.[18] Furthermore, STCs in many cases relate to more than one product.

Using the information on HS codes, STCs are merged with the respective **value of imports in those products by the Member responding to STCs** using the UN Comtrade database.[19] We consider imports of that product(s) of that responding Member in a given year from all Members, rather than just those imports from the Members raising the STC, as TBT measures generally apply to products regardless of origin and therefore all this trade would be potentially affected by the measure at issue in the STC. As the HS 2002 classification is used as the basis for the analysis, STCs are merged with trade data over the period 2002-2020. Between 2002 and 2020, 595 STCs were raised in the TBT Committee, of which 516 could be assigned to at least one HS code and were therefore included in the analysis.

Besides the **number of STCs**, two main indicators are used to describe imports covered by measures raised in STCs, namely the **average import value of STCs** as well as the "**coverage ratio**" of STCs. The coverage ratio refers to the share of imports covered by STCs in global imports (of all merchandise or of a particular sector). Hence, the coverage ratio illustrates the relative importance of STCs by capturing the share of global trade in a particular product that is potentially affected.

In the aggregation of imports covered by STCs, double counting of import values is avoided. If the same HS code is covered by more than one STC of the responding Member in a given year, it is only counted once. Similarly, if STCs of a responding Member cover imports at different levels of aggregation (HS 2-digit, HS 4-digit, HS 6-digit) in a given year, only the import value of the most aggregate HS code is considered.

The analysis takes into account that many STCs are raised more than once over a number of years by presenting the above indicators for **(i) new STCs only** as well as **(ii) new and previously raised STCs together**. In the case of *new* STCs, only imports in the year when the STC was raised for the first time are considered. For *previously raised* STCs, imports of all years from the first time until the last time when the STC was raised are considered. Here, the duration of the STC, i.e., number of years it has been raised, can have a large impact on the imports covered. Looking at new STCs can help better understand trends in STCs, while both new and previously raised STCs together can provide a more comprehensive view on the aggregate value of imports that is potentially affected by STCs.

There are some important **limitations** to this analysis. First, we do not aim to quantify the *actual* trade impact of the measures underlying STCs. In other words, we do not assess how much trade was impacted due to the introduction of a TBT measure raised as an STC, by comparing how trade flows changed over time. For many STCs, which are in relation to draft measures, such an analysis

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in general" and that, when assessing the *significance* of such effects on trade, elements that could be taken into consideration include *inter alia*: "the value or other importance of imports in respect of the importing and/or exporting Members concerned, whether from other Members individually or collectively"; "the potential growth of such imports", and "difficulties for producers in other Members to comply with the proposed technical regulations." Further, the recommendation states that the concept of a significant effect on trade should include "both import-enhancing and import-reducing effects on the trade of other Members, as long as such effects are significant". WTO Secretariat Note, 'Decisions and Recommendations Adopted by the WTO Committee on Technical Barriers to Trade Since 1 January 1995', WTO Document G/TBT/1/Rev.14 (24 September 2019), Section 6.3.1.2, p. 26 (entitled "Significant effect on trade of other Members"). See also Panel Report, *Australia – Tobacco Plain Packaging*, paras. 7.1077-7.1088 (observing that this TBT Committee recommendation "suggests that when considering the effects of a technical regulation (including whether the technical regulation has a *limiting* effect on trade), consideration might be given to 'the value or other importance of imports in respect of the importing and/or exporting Members concerned', as well as 'both import-enhancing and import-reducing effects on the trade of other Members.'").

[18] The TBT Agreement covers all products (industrial and agricultural), but not services. TBT Agreement, opening paragraph to Annex 1 and *Explanatory Note*, Annex 1.2.

[19] https://comtrade.un.org

would be moot since there wouldn't be any measurable actual trade impacts, just potential impacts. Moreover, data limitations and lack of counterfactual would not allow to isolate in a meaningful way the trade impact of discussing an STC in the TBT Committee. Rather, we are concerned with the overall value of trade covered by measures subject to STCs. Second, we cannot assess the degree to which trade is facilitated through the outcome of STC discussions at the TBT Committee. In other words, we do not consider the resolutions of STCs in our analysis, due to limited data available at present in the TBT Committee. While there is a practice of reporting resolutions of STCs in the SPS Committee, this practice has only recently developed in the TBT Committee, and a handful of resolutions have been reported over the past several years. As this data is not representative historically, we do not take it into account here. Third, the imputed trade value is closely linked to the HS product coverage of STCs, available through the Trade Concerns Database. In cases where the product coverage of certain measures is difficult to ascertain, this may under- or overestimate the import value covered by STCs.

2.2 Observations

2.2.1 What is the value of trade covered by discussions of STCs?

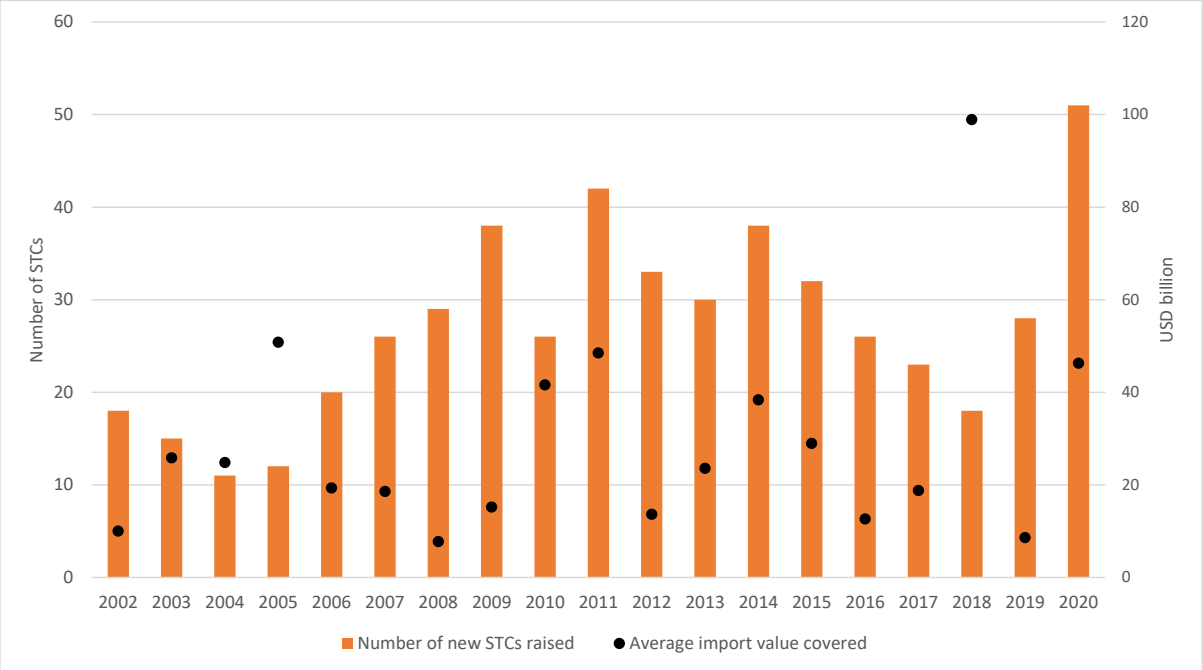
There is an overall upward trend in the number of STCs discussed in the TBT Committee.[20] On average, Members raised 38 new STCs per year between 2011 and 2020, as compared to 24 new STCs per year between 2002 and 2010. In total, Members raised 54 new and previous STCs in 2002, 150 new and previous STCs in 2011, and 257 new and previous STCs in 2021.

To assess the value of trade covered by measures subject to these discussions, we start by looking at the **number of *new* STCs included** in our sample. Figure 2 shows (left scale) that between 2002 and 2020, 516 new STCs were raised (an average of 27 STCs per year, with the highest number in 2020 at 51 STCs). As in the overall trend, our sample shows a general upward trend in the number of new STCs.

From here, is also possible to consider the **value** (USD billion) of imports covered by STCs (represented by the dots in Figure 2, right scale). Between 2002 and 2020, the 516 new STCs included in our sample covered on average USD 29 billion of imports per STC. The relatively large range of average imports covered per STC – i.e., from USD 8 billion (in 2008) to USD 99 billion (in 2018) – reflects differences in the products covered, including their aggregation level, and the market size of responding Members subject to STCs in any given year.

Multiplying the number of new STCs by the average STC-covered import value gives the overall import value covered by STCs in a given year. Over the period 2002 to 2020, the average annual import value covered by new STCs was USD 786 billion, ranging from a low of USD 181 billion in 2002 to a high of 2,360 USD billion in 2020.

Figure 2. Number of new STCs, and imports covered by an STC on average, 2002-2020



2.2.2 How do the numbers change if we look at both new and previously raised STCs?

Trade is potentially affected not only by measures subject to new STCs, but also by previously raised STCs which have been raised for the first time in previous years and subsequently raised again, often for several years. To gain a more comprehensive picture of the value of trade potentially covered, it is therefore important to consider both new and existing STCs. The number of previous

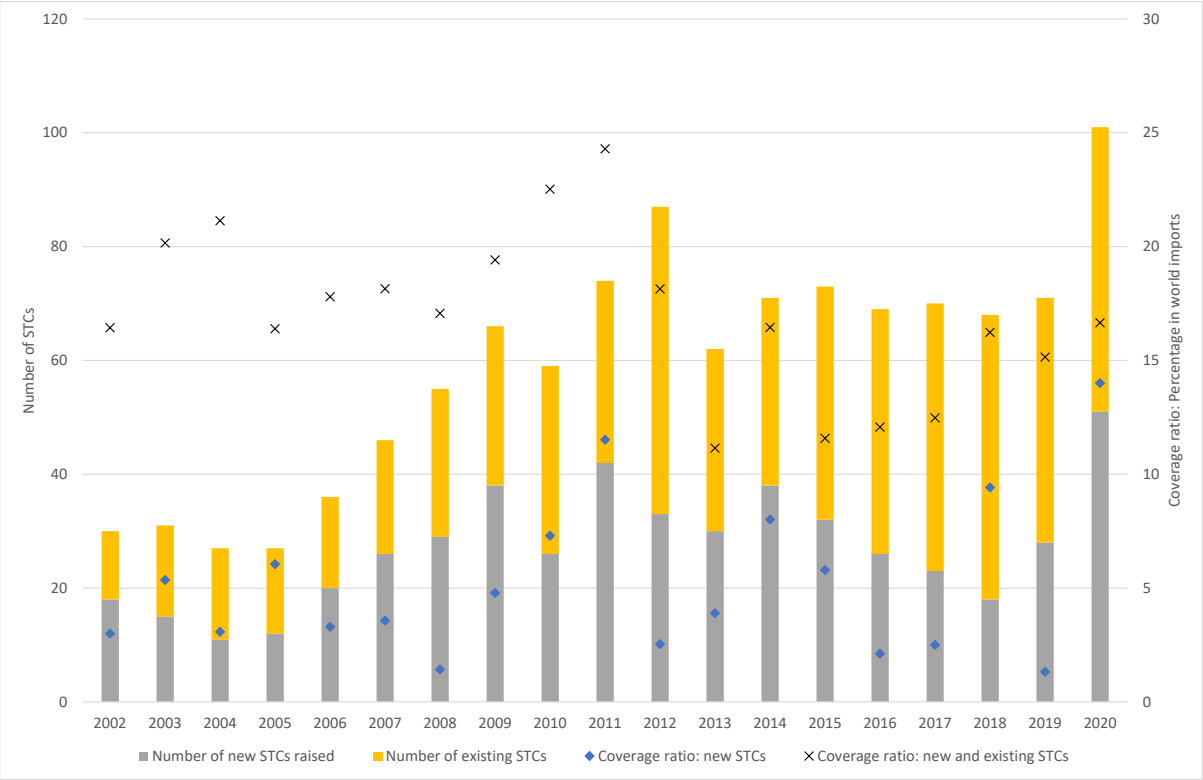
[20] G/TBT/47

STCs discussed in the Committee has increased significantly between 2002 and 2020 and outweighs the number of new STCs by several times in recent years (Figure 3). The larger number of previously raised STCs as compared to new STCs reflects that Members often raise the same STC multiple times over the years.

New and previously raised STCs covered 16.7% of average global merchandise imports during 2002-2020, representing an average annual import value of USD 2,419 billion. The coverage ratio reached a high of 24% in 2011 and a low of 11% in 2013. In contrast, new STCs covered only 5.4% of average global merchandise imports since 2002 (representing USD 786 billion of average annual imports as mentioned above).

In 2020, new and previously raised STCs captured about 17% of the value of global imports, only slightly above the coverage ratio of new STCs (14%). The small difference in the two coverage ratios in 2020 can be explained, at least partly, by the fact that new and previously raised STCs cover to a certain extent the same products and hence the same trade flows.

Figure 3. Number and coverage ratio of new and previously raised STCs, 2002-2020

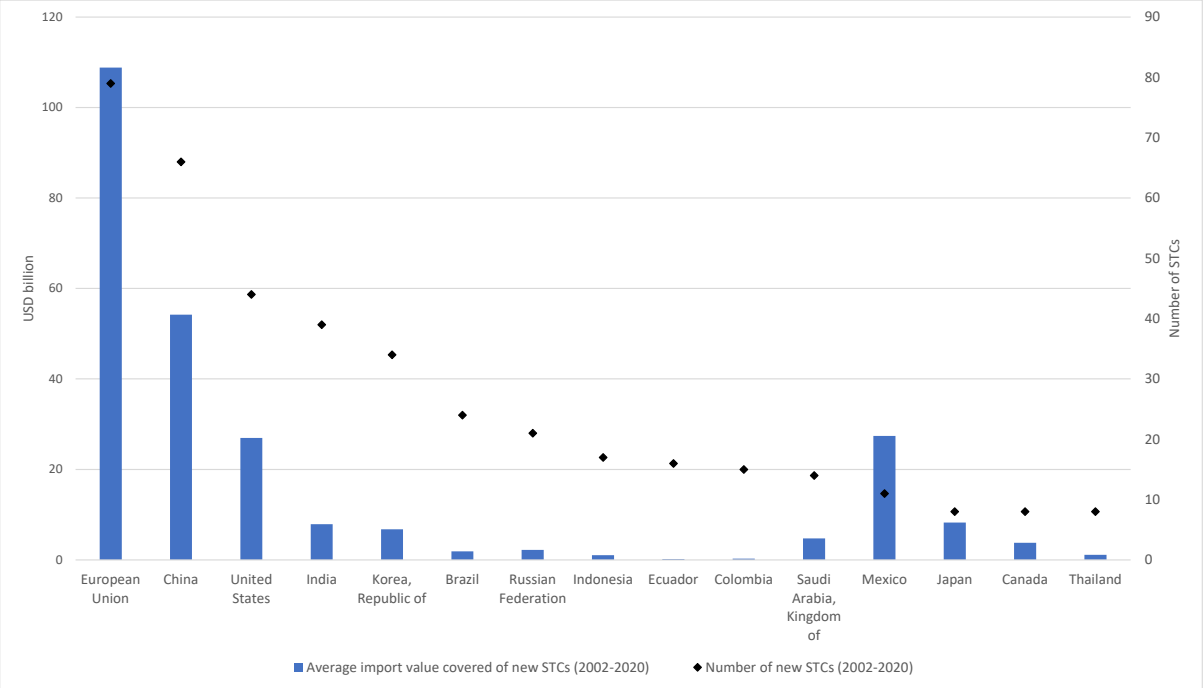


2.2.3 Which Members are most frequently responding to STCs?

Between 2002 and 2020, three Members are most frequently responding to STCs raised by other Members (Figure 4): the European Union (79 STCs), China (66 STCs) and the United States (44 STCs). Given their respective market sizes, it is not surprising that they are also the top three countries in terms of average value of imports covered by STCs. Over the 2002-2020 period, the average STC raised against the European Union covered USD 109 billion of imports, compared to the average STC-covered imports of USD 54 billion for China and USD 27 billion for the United States.

The aggregate trends in imports covered by STCs as presented in Figures 2 and 3 reflect, to a large extent, STCs raised against these three Members. For example, China, the European Union, and the United States together account for around 90% of annual imports covered by new STCs since 2002.

Figure 4. Number and average imports of new STCs by responding Member, 2002-2020

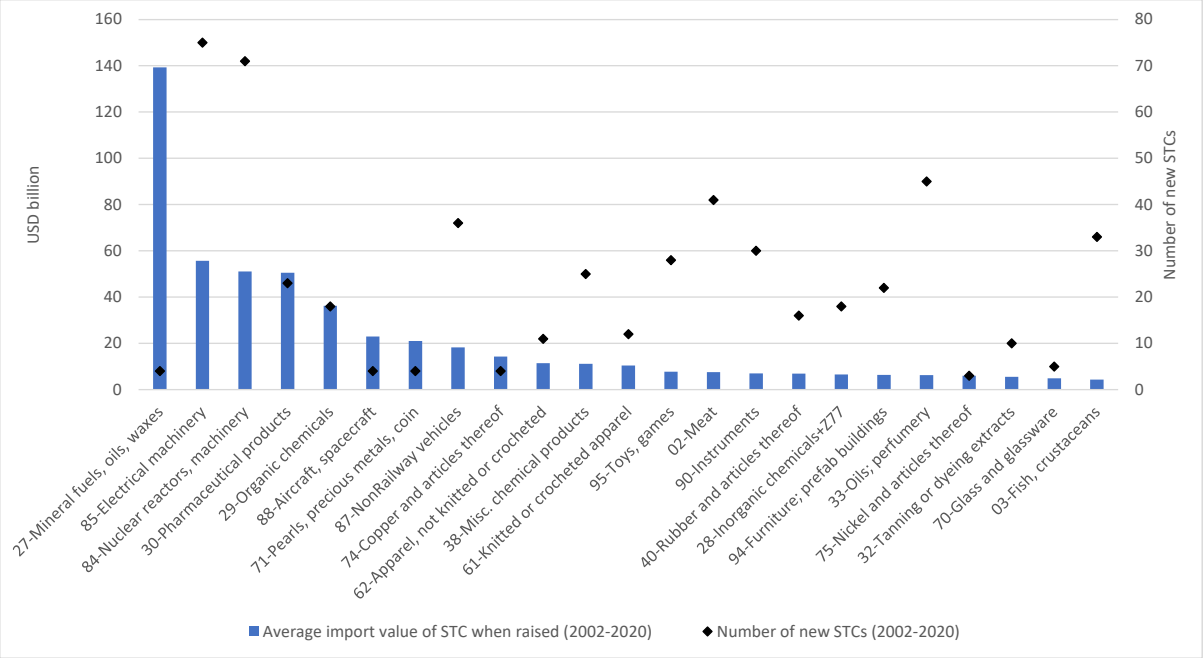


2.2.4 Which products (by HS Chapter) covered by STCs are most significant in value terms?

Four STCs relating to ***mineral fuels*** (HS Chapter 27) covered on average yearly imports close to USD 140 billion in the years when they were first raised, by far the highest average value per STC among all product groups under the analysis (Figure 5). New STCs relating to ***electrical machinery*** (HS Chapter 85), ***machinery*** (HS Chapter 84) and ***pharmaceuticals*** (HS Chapter 30) each covered on average more than USD 50 billion of imports during the same period.

As the sectors like electrical machinery and machinery are characterised, not only by a high import value per STC, but also by a high number of STCs, it is in these two sectors where new STCs covered the most significant overall value of imports between 2002 and 2020, i.e., 75 STCs related to electrical machinery covered USD 4,178 billion of imports and 71 STCs related to machinery covered USD 3,627 billion of imports. Taken together, STCs relating to electrical machinery and machinery account for around 10% of the number of STCs, but for 52% of the aggregate import value of new STCs.

Figure 5. Number and average imports of new STCs by HS Chapter, 2002-2020



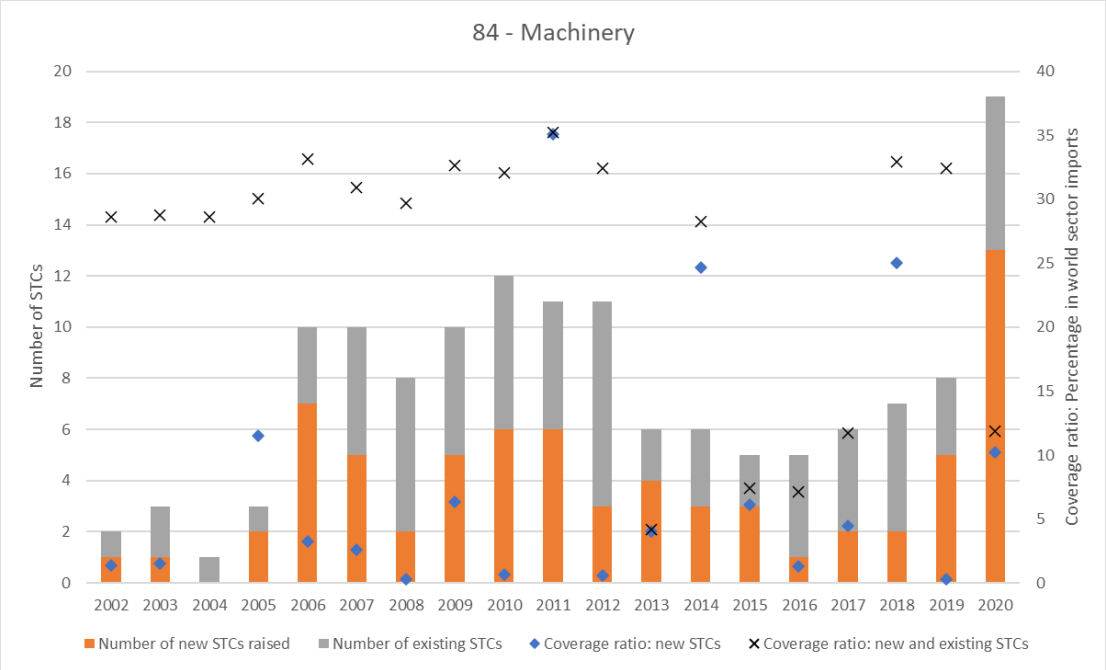
2.2.5 A closer look at key sectors frequently covered by STCs

2.2.5.1 Machinery (HS Chapter 84)

Machinery products (HS chapter 84) discussed in TBT STCs include computers and other automatic data processing machines, air conditioners, clothes washing machines and dryers, dishwashers, refrigerators, electrical lamps, and so forth. Over the 2002-2020 period, new and previously raised STCs covered on average **a *quarter* of global machinery trade**, with the coverage ratio reaching a high of 35% in 2011 and a low of 4% in 2013 (Figure 6).

In 2020, 13 new STCs (against 13 responding Members[21]) were raised, twice the number of new STCs raised in any previous year. However, these covered a relatively small share of world machinery imports (10%) in 2020, which can partly be explained by the fact that STCs during this year were not raised against measures adopted by the European Union or the United States, the world's two largest markets for machinery products.

Figure 6. Number and coverage ratio of STCs relating to machinery, 2002 2020

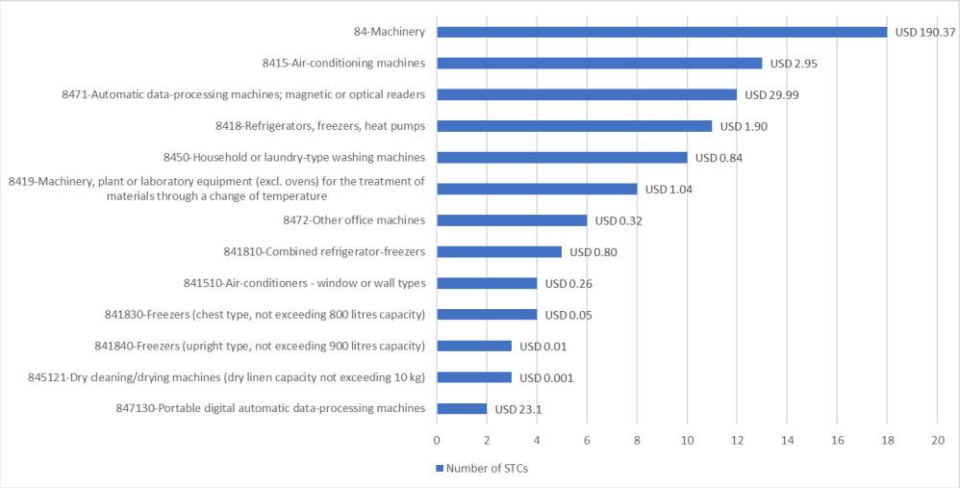


[21] Armenia, Bangladesh, Chile, China, Colombia, France, Kazakhstan, Kyrgyz Republic, Russian Federation, Kingdom of Saudi Arabia, United States, Viet Nam and Zimbabwe.

During the 2002-2020 period, 18 STCs[22] (raised against 8 Members[23]) related to the HS Chapter 2-digit level of machinery products, covering an average import value of USD 190 billion in the years they were raised (Figure 7). These STCs, which cover trade in all types of machinery products, are the main contributors to the high coverage ratios of these products in different years.

At the same time, STCs relating to more disaggregated products also covered relatively large import values. For example, 12 STCs[24] (raised against eight Members[25]) relating to automatic data-processing machines (HS 8471) covered on average about USD 30 billion of imports value, while two STCs[26] relating to portable digital automatic data-processing machines (HS 847130) covered on average USD 23 billion of imports value.

Figure 7. Number and average imports in USD billion of new STCs for selected machinery products, 2002-2020



[22] Korea - Proposed Act for Resource Recycling of Electrical/Electronic Products and Automobiles (ID 134); India - Electrical products (ID 156); China - WAPI standard requirements (ID 237); Mexico - Energy Labelling Measures (Law for Sustainable Use of Energy, 28 November 2008; Regulation of the Law for Sustainable Use of Energy, 11 September 2009; National Program for Sustainable Use of Energy 2009-2012, 27 November 2009; and Catalogue of equipment and appliances used by manufacturers, importers, distributors and marketers that require mandatory inclusion of energy consumption information, 10 September 2010) (ID 314); European Union - Draft Commission Regulation implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans (ID 321); China - GB/T xxxx-xxxx, Information Security Technology -- Office Devices Security and YD/T xxxx-xxxx, High spectrum efficiency and high throughput wireless LAN technical requirements (ID 327); India - Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order, 2012 (ID 367); India - Proposed Amendment to 2008 Hazardous Waste Law (ID 373); Mexico - Draft Mexican Official Standard PROY-NOM-032-ENER-2013: Maximum electrical power limits for equipment and appliances requiring standby power. Test methods and labelling (ID 406); European Union - Standard on safety of household and similar electrical appliances (EN60335-1:2012) (ID 450); China - Banking IT Equipment Security Regulation (ID 457); China - Insurance Regulatory Commission (CIRC) Information and Communication Technology Regulation (ID 489); India - E-waste (Management) Rules, 2016 (ID 515); European Union - Regulation of the European Parliament and of the Council laying down rules and procedures for compliance with and enforcement of Union harmonization legislation on products and amending relevant regulations (ID 565); Kingdom of Saudi Arabia - Saber Conformity Assessment Online Platform / Saleem Product Safety Program (ID 615); Bangladesh - Hazardous Waste (E-waste) Management Rules, 2019 (ID 620); China - Commercial Cryptography Administrative Regulations (ID 644); France - New legislative requirements about index of repairability of electrical and electronic equipment (ID 657)

[23] Bangladesh, China, European Union, France, India, Republic of Korea, Mexico, Kingdom of Saudi Arabia.

[24] China - Administration on the Control of Pollution Caused by Electronic Information Products (ID 122); European Communities - Ecodesign requirements for energy-using products (EuP Directive) (ID 123); Japan - Amendment to the Enforcement Order of the Law for the Promotion of Effective Utilization of Resources (ID 139); China - Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products (ID 154); China - Unified charges for telecom terminals (ID 155); China - Green Dam Youth Escort internet filtering software (ID 236); Brazil - Disposition (Portaria) nº 371, December 29th 2009 and Annex; INMETRO approves Conformity Assessment Requirements for Security of Electronic Appliances (ID 299); India - E-Waste (Management and Handling) Rules 2010 (ID 310); Korea - Amendment to Radio Waves Act 1/2011 (RRA) (ID 312); European Union - Radio Equipment Directive (ID 525); Russian Federation - Law No. 425 - on Amending Article 4 of Russian Federation Law "On Protecting Consumer Rights" (ID 612); Viet Nam - Draft Circular replacing the Circular No.05/2019/TT-BTTTT dated 9 July 2019 specifying the list of products and goods with unsafe capability under management responsibility of Ministry of Information and Communications (ID 621)

[25] Brazil, China, European Union, India, Japan, Republic of Korea, Russian Federation and Viet Nam.

[26] *European Union - Radio Equipment Directive* (ID 525) (USD 45 billion in 2017), and *Indonesia - Labelling Regulations* (Ministry of Trade Regulation 62/2009 and 22/2010) (ID 279) (USD 1 billion in 2010).

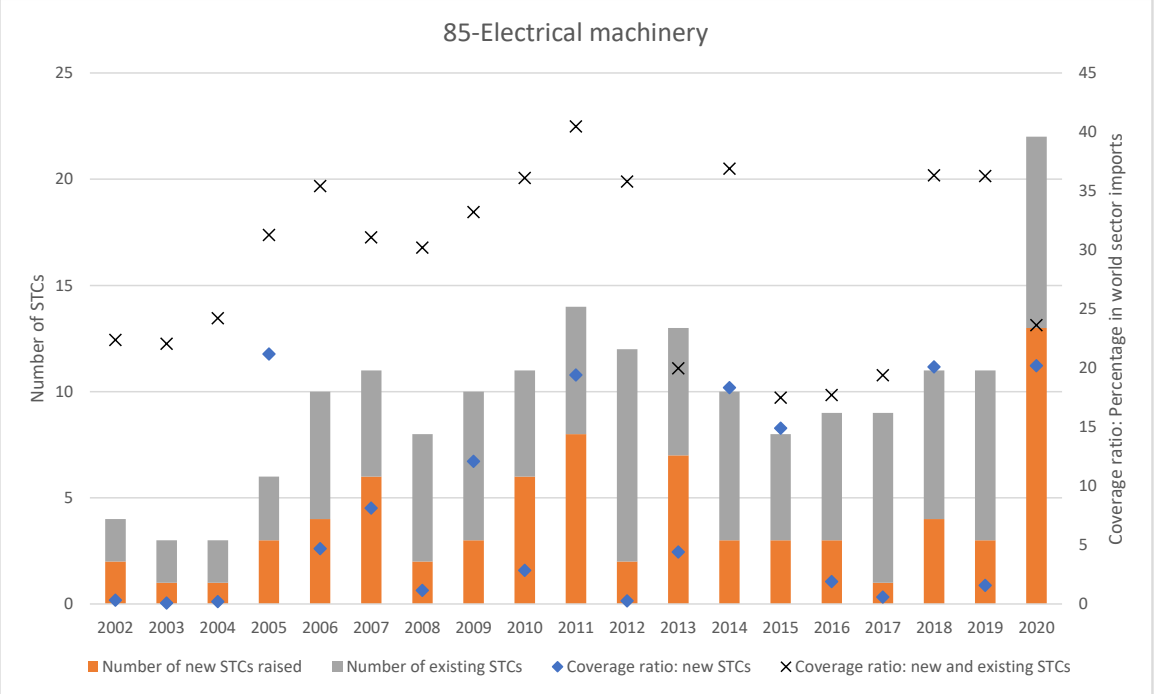
Note: The number of STCs and import values reflect only STCs that specifically refer to the respective HS codes. No aggregation between different HS levels was done.

2.2.5.2 Electrical Machinery (HS Chapter 85)

The share of global trade in electrical machinery covered by STCs is significant. Electrical machinery products (HS chapter 85) discussed in TBT STCs include ITC products, mobile phones, solar panels and other photovoltaic equipment, lithium batteries, televisions, electrical transformers and static converters, and so forth. Over the 2002-2020 period, new and previously raised STCs covered on average 29% of global imports in electrical machinery, with the coverage ratio reaching a high of around 40% in 2011 and a low of 17% in 2015 (Figure 8).

Similar to other product groups, a high number of new STCs were raised in 2020. These 13 STCs (raised against 12 Members[27]) covered 20% of world imports in electrical machinery in 2020, which was the highest coverage ratio of new STCs since 2005. Imports covered by the STC *"China - Commercial Cryptography Administrative Regulations"* (ID 644) were the main contributor to the high coverage ratio in 2020 as this STC related to the entire HS Chapter 85.

Figure 8. Number and coverage ratio of STCs relating to electrical machinery, 2002-2020

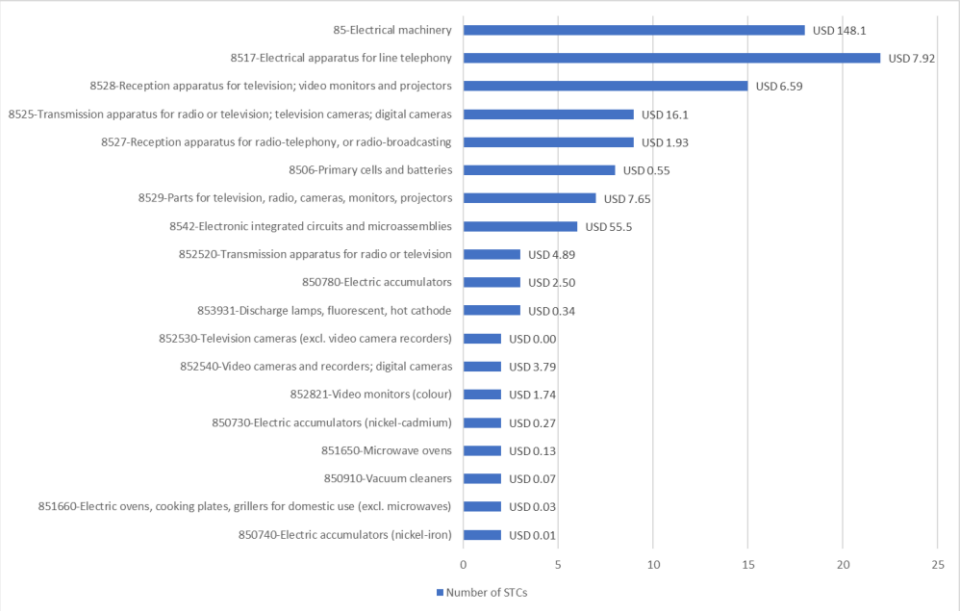


[27] Armenia, Bangladesh, China, Colombia, European Union, France, India, Kazakhstan, Kyrgyz Republic, Russian Federation, Viet Nam and Zimbabwe.

During the 2002-2020 period, 18 STCs[28] (raised against 14 Members[29]) related to the entire HS Chapter, covering an average import value of USD 148 billion in the years they were raised. As for other product groups, these STCs that cover the entire HS Chapter 85 can explain the high coverage ratios observed for the electrical machinery category.

At the HS 4-digit level, a relatively large number of STCs relate to HS 8517 "Electrical apparatus for line telephony" (22 STCs raised against 10 Members), and HS 8528 "Reception apparatus for television; video monitors and projectors" (15 STCs raised against 13 Members), covering on average USD 7.9 billion and USD 6.6 billion of imports value, respectively. The highest average import values covered by STCs (USD 55.5 billion) is attributed to HS 8542 "Electronic integrated circuits and microassemblies" (six STCs raised against four Members[30]).

Figure9. Number and average imports in USD billion of new STCs for selected electrical machinery products, 2002-2020



Note: The number of STCs and import values reflect only STCs that specifically refer to the respective HS codes. No aggregation between different HS levels was done.

[28] Korea - Proposed Act for Resource Recycling of Electrical/Electronic Products and Automobiles (ID 134); India - Electrical products (ID 156); China - WAPI standard requirements (ID 237); China - Requirements for information security products, including, inter alia, the Office of State Commercial Cryptography Administration (OSCCA) 1999 Regulation on commercial encryption products and its on-going revision and the Multi-Level Protection Scheme (MLPS) (ID 294); Mexico - Energy Labelling Measures (Law for Sustainable Use of Energy, 28 November 2008; Regulation of the Law for Sustainable Use of Energy, 11 September 2009; National Program for Sustainable Use of Energy 2009-2012, 27 November 2009; and Catalogue of equipment and appliances used by manufacturers, importers, distributors and marketers that require mandatory inclusion of energy consumption information, 10 September 2010) (ID 314); China - GB/T xxxx-xxxx, Information Security Technology -- Office Devices Security and YD/T xxxx-xxxx, High spectrum efficiency and high throughput wireless LAN technical requirements (ID 327); India - Electronics and Information Technology Goods (Requirements for Compulsory Registration) Order, 2012 (ID 367); India - Proposed Amendment to 2008 Hazardous Waste Law (ID 373); Chile - Safety for Printers and Energy Efficiency for Printers (ID 403); Mexico - Draft Mexican Official Standard PROY-NOM-032-ENER-2013: Maximum electrical power limits for equipment and appliances requiring standby power. Test methods and labelling (ID 406); European Union - Standard on safety of household and similar electrical appliances (EN60335-1:2012) (ID 450); China - Insurance Regulatory Commission (CIRC) Information and Communication Technology Regulation (ID 489); United Arab Emirates - Control scheme to restrict the use of hazardous materials in electronic and electrical devices (ID 496); India - E-waste (Management) Rules, 2016 (ID 515); European Union - Regulation of the European Parliament and of the Council laying down rules and procedures for compliance with and enforcement of Union harmonization legislation on products and amending relevant regulations (ID 565); Kingdom of Bahrain, State of Kuwait, Qatar, Kingdom of Saudi Arabia, Oman, United Arab Emirates, Yemen - GCC Technical Regulations for the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (ID 572); China - Commercial Cryptography Administrative Regulations (ID 644); France - New legislative requirements about index of repairability of electrical and electronic equipment (ID 657)

[29] Kingdom of Bahrain, Chile, China, European Union, France, India, Republic of Korea, Kuwait, Mexico, Oman, Qatar, Kingdom of Saudi Arabia, United Arab Emirates and Yemen.

[30] China, European Union, India and Republic of Korea.

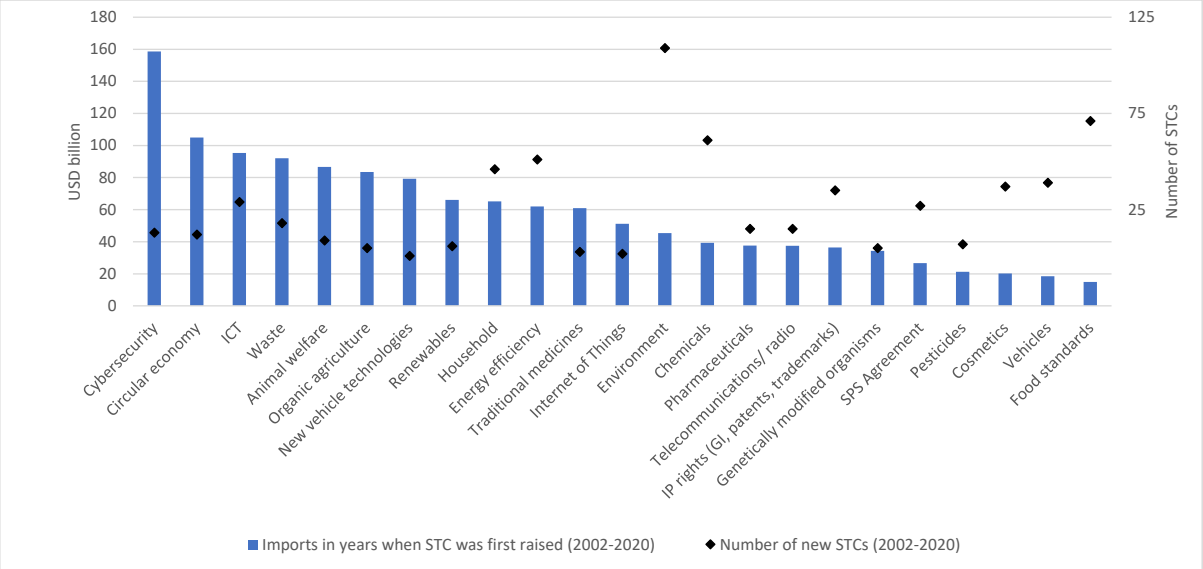
2.2.6 Which topics are most significant?

Another way of assessing the issues and sectors affected by STCs is through the keywords assigned in the Trade Concerns Database. These keywords are assigned to STCs by the Secretariat, drawing from a list of keywords used in WTO databases. Keywords can help to capture the range of certain STCs which may not have clearly assigned HS codes, for instance because the measures are general, or very broad in scope. In terms of keywords, the highest number of STCs relate to measures that aim at protecting the environment (109 new STCs). This is followed by food standards (71 new STCs) and regulations on chemicals (69 new STCs) (Figure 10, right scale).

By value, average imports per STC are highest for the topics of cybersecurity (USD 159 billion), circular economy (USD 105 billion) and information and communications technology (ITC) (USD 95 billion).

Differently, aggregate import values are highest for STCs related to the topics of the environment (109 STCs covering aggregate imports of USD 4,947 billion), energy efficiency (51 STCs covering imports of USD 3,159 billion) and household products (46 STCs covering imports of USD 2,998 billion).

Figure 10. Number and average imports of new STC by topic, 2002-2020



Note: Keywords are not mutually exclusive, and therefore one STC can relate to a number of keywords.

3 CONCLUSIONS

A significant value of global trade is potentially affected, both in absolute and relative terms, by measures subject to STCs discussed in the TBT Committee. In the year when an STC is first raised, the average STC covers 29 billion USD of imports. At the aggregate level, STCs that are raised in a particular year, both new and previously raised, cover an annual average of USD 2,419 billion of imports. This corresponds to 16.7% of global merchandise trade that could potentially be ensnared by regulatory bottlenecks and to which Members working in the TBT Committee can contribute to finding solutions.

The aggregate trends in imports covered by STCs are driven by a few Members against which STCs are raised and a few sectors. Three most frequently responding Members - China, the European Union, and the United States - account for around 90% of annual imports covered by new STCs, while two sectors - machinery and electrical machinery - account for more than a half (52%) of all imports covered by STCs.

However, this should not overshadow the fact that STCs involve many Members, both on the responding and the raising side, as well as a broad spectrum of products at different levels of aggregation. While a number of STCs might only cover a small value of trade at the global level, the trade covered can still be important in relative terms, at the country-level or sector-level.

This is only part of the story, of course. The fact that a measure, for example, relating to imports of food products into the European Union, is discussed at the WTO as an STC does not automatically mean that its imports has necessarily been affected – or hindered by such a measure. The figures do, however, give an indication of the magnitude of trade flows that are potentially affected, and on which cooperation in the TBT Committee can meaningfully facilitate trade. Moreover, they can provide important information and learning opportunities for other Members that are considering similar measures, leading to better regulatory outcomes. To the extent that discussions in the TBT Committee facilitate these import flows so as to ensure that they are not unnecessarily hindered, this type of cooperation is beneficial and can positively impact a significant value of world trade.

This study has offered some figures that show the commercial significance of the implementation and monitoring work of the TBT Committee. Through this work, Members have made an important contribution to avoiding disputes and promoting regulatory coherence and cooperation. These efforts play an unsung role in the WTO canvas, bringing the everyday trade and regulatory challenges of businesses to a multilateral forum for answers and solutions.

Efforts to improve the efficiency of the STC discussion could help further finetune this trade easing mechanism and improve understanding of how much trade it facilitates. As most STCs relate to notifications, improving information on the product coverage of notifications as available through ePing can help enhance information about the trade value at issue in STC discussion. In cases where STCs do not relate to notifications, Members could be encouraged to report on the product coverage of measures they are raising as STCs, to better identify potentially affected products. Members could also be encouraged to regularly report on progress on resolving STCs, not only on an *ad hoc* basis at meetings of the Committee, but also through a periodic reporting process. As the number of STCs discussed grows each year, Members may need to find ways to further focus and streamline the discussion, using tools like eAgenda, without losing the substance of the discussion or limiting the opportunity for all Members to be heard.