Peer-reviewing in international institutions: States’ activity in WTO Trade Policy Review Mechanism

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Abstract

This paper offers the first comprehensive quantitative study of World Trade Organization (WTO) member states’ activity in the Trade Policy Review Mechanism (TPRM), the WTO’s main monitoring body. It analyzes the written questions and oral declarations submitted by the WTO membership in all the 94 trade policy reviews (TPRs) in years 2009-2014. Descriptively, we find that both the ‘established’ and ‘rising’ powers are the most active members, but also that almost the entire membership is involved in reviewing activity at least to some extent. In terms of explanatory factors, we find the activity in TPRM to be most strongly associated with countries’ market size. However, countries’ general multilateral orientations, their domestic political regime (democracy) and their exposure to international trade also seem to impact on their activity patterns.

Keywords: Trade Policy Review Mechanism, World Trade Organization, reviewing, activity, monitoring, member states

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Introduction

Scholars dealing with international political economy and international institutions have been for some time seeking to systematically explain the variation in states’ participation in the Dispute Settlement Mechanism (DSM) of the World Trade Organization (WTO). Numerous quantitative studies are nowadays available that measure and account for this variation (for an overview, see e.g. Bernauer et al. 2012). They focus particularly on the question of when states initiate dispute proceedings. Several determinants of this initiation have been pointed out, primarily economic factors (e.g. Bown 2005; Sattler and Bernauer 2011), states’ power (e.g. Sattler and Bernauer 2011), legal capacity (Busch et al. 2009; Kim 2008), and the type of their domestic political regime (e.g. Busch 2000) (Davis and Shirato 2007).

In contrast, the existing comprehensive and explanatory findings on the states’ attitudes and behavior related to the WTO’s other main functions, in particular rule-making and monitoring, remain limited. On rule-making, comprehensive analyses of the GATT/WTO negotiation rounds of course pay some attention to member states’ negotiating positions (e.g. Croome 1995; Das 2005; Lee and Wilkinson 2007). Moreover, a non-negligible amount of contributions explores directly states’ positions and negotiation strategies (Conceição-Heldt 2011; e.g. Crump and Maswood 2007; Narlikar and Vickers 2009). Yet, the literature on states’ participation in rule-making essentially covers only the largest states and, in addition, does not engage in a more rigorous explanatory analysis.

So far the least advanced has been the academic study of states’ involvement in the WTO’s monitoring function. Research dealing explicitly with this function largely falls into two categories. First, a small number of contributions examined the formal design of the Trade Policy Review Mechanism (TPRM) as the central and comprehensive organization’s monitoring procedure (see e.g. Blackhurst 1988; Mavroidis 1991; Qureshi 1990). These contributions were largely written in the 1990s, at the time when the TPRM was beginning to operate, and thus limited their attention to the formal delimitation of the Mechanism and its potential evolution. Second, more recent literature also explores the practical functioning of monitoring and the related transparency efforts (e.g. Laird and Valdés 2012). However, it tends to offer primarily general descriptions of the Mechanism and does not seem to aim at a detailed empirical analysis of states’ involvement. The articles by Terry Collins-Williams and Robert Wolfe, and by Arunabha Ghosh, can be regarded as two partial exceptions (Collins-Williams and Wolfe 2010; Ghosh 2010). Yet, even those articles provide primarily a general description of state participation. They do not seek to systematically measure the participation of all the member states as a comprehensive group, and they do not attempt to systematically test possible explanatory efforts.
The lack of systematic findings on state attitudes to and behavior in the WTO is significant not only from an academic, but also from a policy-oriented perspective. Substantial changes have been occurring in the attitudes of states towards the WTO and the global trade regime in the recent period. In the times prior to the Uruguay round and particularly to the Doha round, it was primarily the industrialized countries that actively participated in negotiations. Nevertheless, the Doha Round, as yet the last negotiation round, witnessed the increasing ambitions of some of the newly industrialized states which formed influential bargaining coalitions (e.g. Narlikar 2003). The multipolarization of the WTO setting, based particularly on the increased status of the so-called BICs countries (Brazil, India, and China), is consequently listed by some observers among the alleged sources of the Doha Round failure (Jones 2012; e.g. Martin and Messerlin 2007). Simultaneously, a claim is also made that the key developed countries have already lost their long-term interest in advancing the cooperation within the WTO as the key advantages provided by a global trade liberalization have already been exploited (e.g. Andersson 2012). In line with these observations, the largest developed countries are transferring their liberalizing efforts from the WTO to preferential trade agreements (PTAs), as symbolized especially by the Transatlantic Trade and Investment Partnership (TTIP) negotiated between the United States (USA) and the European Union (EU). All these important changes in state behavior in relation to the WTO suggest that it is important to ask which states nowadays actually drive this organization and why.

In this paper, we contribute to diminishing the current gap in the knowledge on the states’ participation in the WTO by examining their participation at the WTO’s monitoring function. More specifically, the paper offers a descriptive as well as explanatory quantitative study of the variation in the reviewing activity of all the WTO member states. This activity essentially stands for the effort of the individual member states to assess the trade policies of the other member states within the organization’s formal monitoring procedures. In addition, the present analysis also contributes to the quantitative research on the functioning of international institutions, in particular on state involvement in those institutions (for an overview, see Hafner-Burton et al. 2008).

To measure the reviewing activity of WTO member states, we examine their input into the TPRM in the years 2009 – 2014. This period corresponds to the standard six-year cycle of the Mechanism, according to which each WTO member state should be reviewed at least once every six years. The selected period hence enables us to evaluate the reviewing effort of each member state in potentially all possible cases, i.e. vis-à-vis all the other WTO members. In order to reach a valid quantification of reviewing activity, the paper considers both types of states’ input into the Mechanism, i.e. their written questions as well as their declarations made at the sessions of the Trade Policy Review Body (TRPB). In the given period, altogether 94 reviews took place, in which 119
members have been reviewed and in which 2870 declarations have been delivered and 1836 sets of written questions submitted. The considerable size of the newly created dataset capturing these activities thus enables a very robust comparison of the WTO members’ input. To explain the identified inter-state variation in reviewing activity, the paper tests the effects of a number of determinants. These determinants draw on previous research on states’ attitudes to trade policy, and to international institutions, as well as on their behavior in the DSM as the only well-explored area of state involvement in the WTO. The coherence and explanatory power of the selected factors is enhanced by their subsuming under three general explanatory categories represented by 1) economic factors, 2) political power and capacities, and 3) political interests and institutions.

Descriptively, we find that a vast majority of WTO members is at least somewhat active in the TPRM, although most of the activity is concentrated in the hands of relatively few members. Additionally, we find only a marginal dominance of established powers over the so-called rising powers. In terms of the explanatory factors considered, we find the amount of activity to be strongly correlated with reviewing states’ market size, but also with general multilateral orientations of the member states, their domestic political regime types, and partly also their exposure to international trade. The combination of these factors provides for a comprehensive account of who drives the WTO and the global trade regime, at least when it comes to its everyday business in its monitoring pillar.

In the first section of the paper we provide a brief description of the TPRM and the monitoring function of the WTO, conceptualize the states’ reviewing activity in TPRM, and outline the different explanatory factors considered. In the second section, we provide a descriptive account of states’ activity. In the third section, the results of the explanatory analysis are presented. We conclude with a review and an outline of some implications of our findings and of avenues for further research.

1. Reviewing Activity and Its Determinants

1.1. How States Participate in WTO monitoring

Monitoring belongs to the key functions through which international institutions support the credibility of interstate cooperation, together with dispute settlement or enforcement (Dai 2002; Joachim et al. 2007, pp. 8–9; Rittberger and Zangl 2006, p. 108). In this context, monitoring refers to the process of gathering and evaluating the information relevant to interstate cooperation. In a narrower sense, it concentrates on the member states’ implementation of the institution’s agreements or their compliance with its rules. Yet, in other cases, its scope may be more extensive and comprise the broader compliance environment of the member states, the institution’s effectiveness, or just the dissemination of relevant information in a more general sense.
Monitoring usually relies on some standard activities, namely reporting, reviewing, and verification (Dai 2002; Jo 2008; Joachim et al. 2007, pp. 8–9; Seibel 2013). First, reporting stands for a regular submission of reports to an overseeing institution. Reports usually deal with the implementation and compliance outcomes of concrete member states. They are provided by the monitored states themselves or by other actors. Second, reporting can be accompanied by reviewing. In a reviewing process, state representatives or experts assess the submitted reports and may also advice a particular course of action to the reviewed state. Finally, some international institutions also engage in on-site verification of state activities.

In line with this general setting, monitoring also constitutes one of the key functions of the WTO. Its often pronounced aim is to ensure the transparency of the global trade regime, understood as the availability of a sufficient amount of information about national trade policies (see e.g. Collins-Williams and Wolfe 2010). In the WTO, transparency goes beyond the monitoring activities carried out inside of the organization. It also rests on the publication of trade-related laws and other national regulations by member states. WTO agreements also require their signatories to publish particular information about specific trade measures, e.g. quantitative restrictions or import licenses. This mirrors the fact that an obligation of states to provide the information about their policies belongs to one of the fundamental norms of the multilateral trade system, together with norms such as non-discrimination or reciprocity (Hoekman and Kostecki 2009, pp. 40–46).

Monitoring is carried out inside the WTO at two distinct levels, consisting of 1) the WTO General Council committees and 2) the TPRM, taking place within the Trade Policy Review Body (TPRB), which itself is a specific formation of WTO General Council. The Council committees monitor the implementation of WTO agreements by the member states, as well as their trade policies, in their respective sectoral domains, for example agriculture or services (see e.g. Collins-Williams and Wolfe 2010). In contrast, the TPRM provides the space for a comprehensive reviewing involving practically all the spheres of the organization’s authority. The central aim of TPRs is to supply information on the member states’ trade policies (Ghosh 2010; Laird 1999, p. 741; World Trade Organization 1995). The Mechanism also enables the evaluation of the conformity of those policies with the rules associated with the WTO, as those rules often serve as the assessment criteria employed in the trade policy reviews (TPRs) (Karlas and Parízek 2016; Laird and Valdés 2012; Qureshi 1990; State representative D 2015; State representative F 2015). On the other hand, the reviews strictly speaking do not consider the states’ implementation of specific WTO agreements or rules, or their compliance with such

\[2\] Apart from those principles, norms, and rules, the TPRM assesses trade policies on the basis of their economic efficiency (WTO Secretariat Representative 2015).
agreements and rules (even though this element does not completely abstain either), and the findings made in TPRs do not have any legal repercussions.

The frequency of the reviewing of individual member states depends on their share on the world trade volume. For this purpose, individual countries are divided into three categories with the following review frequency: 1) China, the EU, Japan, and the USA are reviewed every two years; 2) the next 16 member states are reviewed every four years; and 3) the remaining member states are reviewed every six years.\(^3\) In 2014, the total number of the TPRs conducted since their beginning exceeded 400.

Let us now turn to how states participate in the WTO monitoring system. In a nutshell, they take part in both reporting and reviewing in the individual Council committees as well as in the comprehensive setting of the TRPM. With regard to reporting to the Council committees, the member states have a duty to notify the WTO about the measures that they adopt and that have something to do with the organization’s treaties or that affect the other member states (Collins-Williams and Wolfe 2010). Notifications exist in three variants, as one-time, regular, and ad hoc. The overall number of concrete notification obligations exceeds approximately 170. In addition, states also submit additional reports to the Council committees. In the TPRM, a state regularly provides a standard report at the occasion of its review (Laird and Valdés 2012, pp. 468–476).

Moving from reporting to reviewing, WTO members can participate again both in the Council committees and in the TPRM. At the former platform, state representatives consider the submitted notifications, together with other reports that the member states provide (Collins-Williams and Wolfe 2010; State representative A 2015; State representative C 2015; State representative E 2015; WTO Secretariat Representative 2015). Using those notifications and reports as the basis, they may pose their questions to the reviewed state, again within the specific sectoral domain of the given Committee.

In the TPRM, during the comprehensive TPRs, the member states may use two specific tools to assess the policy of the reviewed state: written questions and oral declarations delivered during the TPRB meeting (Laird and Valdés 2012, pp. 468–476; State representative B 2015; State representative C 2015; State representative D 2015; State representative F 2015). Both these tools react to two reports, one provided by the reviewed state itself and one by the WTO Secretariat. The WTO membership receives both the reports in advance of the review meeting, and the states may use them, together with other available information, e.g. from their businesses, to formulate their questions to the reviewed state. They submit those questions in a written form before the review.

\(^3\) Nonetheless, a longer period may be fixed for the least-developed countries (LDCs).
meeting or as additional follow-up questions at the actual meeting. Also, during the meeting the member states deliver their declarations in which they assess the trade policy of the reviewed state.

1.2. Reviewing activity

In line with the discussion above, we define reviewing activity, in the WTO context, as a process of evaluating information on the behavior of WTO member states relevant to the multilateral trade regime (henceforth ‘regime-relevant behavior’). Given the enormous amount of the relevant data, we focus our analysis on the reviewing activity carried out by states within the TPRM and will not deal with their reviewing in the Council committees. There are two main reasons for this choice. First, the TPRM reviews trade policies in a comprehensive manner and reveals all thematic (sectoral) concerns of the member states. In this sense, it is by far the most suitable level to consider when we aim at a comprehensive mapping of the WTO members’ reviewing activity. Second, unlike individual Committees, the TPRM uses a standardized reviewing format applicable uniformly across different trade policy areas.

The cases analyzed in this paper are the individual WTO member states and their reviewing activity in the TPRM in the years 2009 – 2014. These six years formed the most recent six-year period of reviews that had been finalized at the moment when our research started. Here, we should recall that each member state should be reviewed at least once in every six years. Yet, it has been reported repeatedly that this prescribed cycle is not followed and some members fail to open their review on time (Ghosh 2010, p. 446; Laird 1999, p. 761). In the period covered by our study, 119 WTO members underwent the review, meaning that 14 have not been reviewed in spite of the prescribed cycle. Out of the larger states, five have been reviewed twice in the given period and the EU, China, and the USA three times, following the two year period for the largest states.

To measure the degree of the reviewing activity among the individual member states, we have collected quantitative evidence about both the written questions submitted and the declarations delivered during the TPRs. For each, we considered both their frequency and their length. More detailed information on the operationalization of reviewing activity follows in the next section of the paper on descriptive statistics. One thing that still needs to be accomplished at this point is to underline that our quantitatively oriented analysis does not anyhow simplify or distort the overall amount of reviewing activity even though it omits the content and the qualitative dimensions of this activity. On the one hand, it might seem that additional, qualitative indicators, possibly based on a content analysis of state reviewing input, could enrich the assessment of their activity. However, such an analysis is not possible for a longer range of TPRs. Each year, states pose approximately 6000
questions in the reviews and their subsequent declarations annually contain, on the average, 4000 paragraphs. For a six-year period, this would equal to roughly 36000 questions and 24000 paragraphs – an amount that simply cannot be subjected to a human-based, manual coding.

Fortunately, we are at a position to claim that a content-based analysis of state reviewing input is not necessary. As part of our longer-term research on WTO monitoring, we have also conducted a large-scale manual content analysis of all state declarations made in the TPRB during the years 2013 and 2014, covering in total 1043 declarations (see Karlas and Parízek 2016). In order to assess to what extent the content of states’ input may modify their overall reviewing activity, we examined three qualitative dimensions of their declarations, namely their depth, scope, and critical reviewing. In this way, we explored to what extent the statements made by individual states at TPRB sessions were concrete, comprehensive, and critical. We found that the pointed out qualitative indicators very strongly correlate with the quantitative indicators capturing the frequency and length of the written questions submissions and oral declarations delivery (with r coefficients always exceeding 0.8 and usually also 0.9). In other words, those states that are more active in quantitative terms are also, at the aggregate level, relatively more concrete, comprehensive, and critical in their assessment of others’ policies. As a result, we can make an empirically substantiated conclusion that our quantitative measurement reflects the degree of reviewing activity accurately.

1.3. Determinants

To identify the possible determinants of the variation in reviewing activity, we proceed from three particular bodies of literature that individually deal with the political economy of trade policy (for an overview, see e.g. Milner 1999), quantitative analysis of international institutions (e.g. Hafner-Burton et al. 2008), and state activity in the DSM (for an overview, see e.g. Bernauer et al. 2012). Our research finds a relevant inspiration in all these three bodies of scholarship, given that we analyze state activity in a global organization devoted to trade. Moreover, these different bodies of literature are marked by two considerable similarities. First, they build on the assumptions of the rational choice approach to politics and highlight the role of actors’ preferences and their external strategic and institutional environment. Second, all the three bodies of research are oriented at a systematic, empirically oriented analysis. The scholars associated with them primarily try to explain significant empirical outcomes while drawing on statistical methods. Even though their work is theoretically informed, it is, in the first place, structured along concrete explanatory variables rather than paradigms.
To carry out a meaningful discussion of the selected explanatory variables, we (re-)establish their affinity with several more general explanatory categories. Overall, the paper subsumes the identified explanatory variables into the following three general categories: 1) economic factors, 2) political power and capacities, and 3) political interests and institutions. Starting with the first category, we should bear in mind that the ultimate goal of the WTO monitoring, including the TRPM, is to limit the room for unilateral and protectionist trade policies and to support the compliance with multilateral, liberally oriented trade rules. Due to this, one might expect the countries that benefit most from liberal trade policies and from the existence of the multilateral trade regime to be the most active in reviewing the trade policies of their peers. We use four concrete variables representing economic factors and having a potentially positive relationship with reviewing activity, namely trade dependence, trade openness, the level of economic development, and the economic size. First of all, a relatively higher trade exchange is likely to motivate the country to support the multilateral trade regime and thus also to be more active in the TPRM (Ehrlich 2007, p. 592; Kim 2008, p. 671; Rickard 2010, p. 9; Sattler and Bernauer 2011). Likewise, an open trade policy will provide a country with an incentive to support the liberal regime due to its integration into the world economy. In addition, it signals a country’s general support for a liberal trade policy. The literature on the political economy of trade policy also contains a claim that more developed countries are likely to benefit more from an open trade (Hankla and Kuthy 2013; Milner and Judkins 2004, p. 106).

We should note that, due to its cross-cutting nature, we include the country’s economic size in two categories: in this category of economic factors and in the following category concerning political power and capacities. For a long time, it has been argued that it is smaller countries that have a stronger interest in open trade (Hankla and Kuthy 2013; e.g. Katzenstein 1985; Mansfield et al. 2007, p. 419; Saksena and Anderson 2008, p. 489). Yet, even the reversed relationship has a theoretical backing, whereby countries with larger markets can be more interested in constructing more rigid trade institutions and consequently also advance an international oversight over national trade policies (Baccini et al. 2015, p. 768). Furthermore, economic size can be regarded as an indisputable indicator of the country’s power (e.g. Sattler and Bernauer 2011).

The next explanatory category underlines political power differentials and capacities. The focus on the difference in power stems from a basic empirical observation according to which larger countries seemed, generally speaking, to be more active than smaller countries in the past in the WTO. A theoretical reasoning behind this observation would be that larger countries with more resources have also more resources that they can spend on their participation in international institutions (Kim 2008, p. 670). An additional justification could be that powerful states have a higher chance of imposing their will even in multilateral institutions, and this may also spur them to act. The political
power can be approximated by the size of the country’s population (Camyar 2012, p. 401; Milner and Kubota 2005, p. 123) and by its economic size. With regard to capacities, we will examine the effects of the government effectiveness (Davis and Bermeo 2009, p. 1043; Kim 2008) and also the size of the Geneva diplomatic mission.

Moving to the final category, from yet another perspective reviewing activity should not so much be determined by specific trade- and WTO-related factors, but instead would likely result from the state’s political interests and institutions. In this understanding, state’s activity would be proportional to its interest in the maintaining and reinforcement of the contemporary multilateral order built primarily by the USA and the other Western developed democratic states. We use three variables to capture this general interest in the existing multilateral order: the degree of a political-military cooperation with the USA (e.g. Gowa 1995; Mansfield et al. 2007, p. 419), membership in international organizations (Bernauer et al. 2010) and the number of the country’s foreign diplomatic missions.

Concerning political institutions, we include in our analysis the type of political regime. There seems to be a wide consensus in the literature that support for the free trade regime increases with the level of democracy, primarily due to a conformity between the interest of the median voter and a liberal character of the trade policy (Mansfield et al. 2002). The effects of democracy were also confirmed by some of scholars dealing with the DSM (e.g. Busch 2000). In line with this, we would expect democratic countries to be more active in the TPRM. To be sure, more variables could be added to our analysis. Nevertheless, we believe this list contains a diverse set of theoretically rooted factors, providing for a rich but still coherent explanatory framework.

2. Activity in TPRM in 2009-2014: Descriptive results
In this section, we present the core descriptive insights regarding WTO members’ activity in TPRM in 2009-2014. We first provide a more comprehensive description of the newly created dataset and outline in detail how we measure states’ activity; then we proceed to the presentation of our results.

2.1 Dataset description and activity operationalization
The dataset used comprises 94 reviews that took place between January 1st, 2009, and December 31st, 2014. All the documents have been obtained from the publicly accessible database of documents maintained by the WTO; the documents we used carry the signs WT/TPR/M/ in the WTO documents system. Overall 2870 declarations have been delivered in the 94 TPRs; 1836 times a
member has raised one or more written questions. On average, a reviewed member received written questions from 16 peers (standard deviation sd=11) and an oral declaration during the TPRB meeting from 33 members (sd=20). The high values of standard deviations indicate a great deal of variation in attention paid to the individual WTO members. Indeed, the largest members are typically addressed with declarations by above 70 WTO members, while some of the smallest ones may only receive as few as 15 declarations and be asked questions by perhaps only 4 or 5 members.

Some of the states undergo the review jointly, so the overall number of states reviewed (at least once) in the given period, 119, is higher than the number of reviews. Examples include the so-called Pacific Island Members, members of the Organization of Eastern Caribbean States, but also for instance Liechtenstein reviewed together with Switzerland. In our analysis we consider each such case as a separate review. During the processing of the documents, when it was possible to determine clearly to which state the particular written questions or parts of oral declarations are addressed, such text was only ascribed to the one particular state. When this was not possible to determine or when comments and questions explicitly addressed the whole group undergoing the joint review, the text was counted repeatedly for all the group members. On average the length of the text of the declarations delivered during a single review amounts to 85000 characters, approximately 15000 words. The average length of the questions submitted, together with the written answers, is approximately 350000 characters, so approximately 60000 words.  

In order to assess states’ activity, we consider whether and how frequently they at all participate in the declarations delivery and written questions submissions and, if they do so, the length of the text they have submitted. Hence, we operationalize activity as consisting of:

1. The number of the sets of written questions (SWQ), capturing the participation in the posing of written questions, where a reviewing state scores 1 always when it asks in the given TPR at least one question and 0 otherwise;
2. The length of the body of the text of the written questions (LWQ) measured in number of characters;
3. The number of declarations (NOD), capturing the participation in declarations delivery, where a reviewing state scores 1 always when it delivers an oral declaration during the TPRB meeting and 0 otherwise;

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4 Due to the extreme amount of empirical data we have not separated in the text of the written questions the questions from the answers, and count the number of characters of the entire exchange between the reviewing and reviewed state. A detailed study of a small sample of questions and answers revealed, at the aggregate level, a high correlation between questions and answers length, validating our approach.
4. The length of the body of the text of the oral declarations (LOD) measured in number of characters.

It turns out empirically that the participation rates correlate relatively closely with the lengths of the texts, within the respective categories of declarations and written questions. Nevertheless, as we discuss further below, there are interesting deviations from this pattern worth detecting and exploring.

In constructing our activity indicator, we first construct four relative measures expressing the abovementioned four dimensions of activity. Each of these measures is based on the given state’s share on the overall activity by all WTO members combined, in the given review. In other words, for each of the four indicators we establish as our benchmark the total sum of the given activity we are interested in, and calculate what share of this total was contributed by every single state. Therefore, for any activity \( k \) of the four types we have just identified, the value of the indicator for state \( i \) is defined as the amount of that activity by the state, divided by the sum across all \( N=133 \) WTO members in the given review, as stated in the following formula:

\[
activity_{indicator_i} = \frac{activity^k_i}{\sum_{i=1}^{N} activity^k_i} \times 100.
\]

Such a construction of the indicators is elegant in that for each state we obtain its percentage share on the volume of activity performed by the entire WTO membership combined. Hence, the indicators have a very natural substantive meaning. At the same time, by constructing the indicators in this way we are able to provide a unified framework that allows for an easy aggregation of the indicators, where our resulting activity index (AI) is an average of these four partial indicators. The written questions indicators (indicators SWQ and LWQ) have the same weight, together 50%, as indicators NOD and LOD pertaining to the declarations delivered during the meetings, and each of the four indicators carries the same weight of 0.25. The overall activity index for state \( i \) is then defined as:

\[
AI_i = \frac{SWQ_i + LWQ_i + NOD_i + LOD_i}{4}
\]

The index can, in principle, range from 0 to 100, but since it reflects the percentage share of activity of individual states on the sum across all of them, we can rather expect the values to be in units.

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\(^5\) For the purpose of the calculation of the indicators’ values, we ignore the fact that some countries could have participated in all 94 reviews, while for instance the EU, which was itself three time a subject of the review, only in 91. There is no obvious way how to incorporate this fact into the calculations and the difference its inclusion would introduce is perfectly negligible with regard to the overall results.
2.2 Core descriptive results

Let us now turn to the key results of our descriptive analysis, the ranking of WTO members according to their activity as measured by the AI. Table 2 shows the TOP25 most active WTO states with their values of AI as well as of the individual indicators.

<table>
<thead>
<tr>
<th></th>
<th>Reviewer</th>
<th>Questions</th>
<th>Questions length</th>
<th>Declarations</th>
<th>Declarations length</th>
<th>Activity index (AI)</th>
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<td>6.17</td>
<td>13.94</td>
<td>4.06</td>
<td>6.48</td>
<td>7.66</td>
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<tr>
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<td>11.01</td>
<td>4.06</td>
<td>7.9</td>
<td>7.28</td>
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<td>3</td>
<td>CAN</td>
<td>5.95</td>
<td>7.61</td>
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<td>4.86</td>
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<td>2.5</td>
<td>2.05</td>
<td>2.67</td>
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<td>14</td>
<td>TUR</td>
<td>3.19</td>
<td>1.81</td>
<td>2.32</td>
<td>2.3</td>
<td>2.41</td>
</tr>
<tr>
<td>15</td>
<td>CHL</td>
<td>3.03</td>
<td>1.94</td>
<td>2.08</td>
<td>1.66</td>
<td>2.18</td>
</tr>
<tr>
<td>16</td>
<td>SGP</td>
<td>3.05</td>
<td>1.52</td>
<td>2.12</td>
<td>1.89</td>
<td>2.14</td>
</tr>
<tr>
<td>17</td>
<td>ECU</td>
<td>2.65</td>
<td>2.51</td>
<td>1.84</td>
<td>1.41</td>
<td>2.1</td>
</tr>
<tr>
<td>18</td>
<td>HKG</td>
<td>2.98</td>
<td>0.89</td>
<td>1.94</td>
<td>2.48</td>
<td>2.07</td>
</tr>
<tr>
<td>19</td>
<td>THA</td>
<td>3.48</td>
<td>1.87</td>
<td>1.56</td>
<td>1.08</td>
<td>2</td>
</tr>
</tbody>
</table>
Let us highlight several interesting observations about the obtained results. First, the most active WTO member in 2009-2014 is the EU, with $AI_{EU} = 7.7$ (meaning it takes 7.7% of the overall amount of activity). The EU is closely followed by the USA (7.3) and by Canada (5.6). These three traditional WTO powers (all members of the original ‘Quad’) are followed by three rising powers, namely China, Brazil and India, all with the value of the index between 4 and 5. These figures suggest that, perhaps unsurprisingly, there is a large amount of variation in WTO members’ activity. If all the 133 members were equally active, they would each score $AI = \frac{100}{133} = 0.75$. In fact, this value is very close to the actual mean score $\overline{AI} = 0.752$. As indicated in the table, however, the EU and the USA both exceed this theoretical score ten times. Also the large standard deviation of the index $sd(AI) = 1.39$ indicates that states vary in their activity very strongly.

Second, the results demonstrate a relatively very active role of the rising powers in the TPRM, showing that the system is by no means run by the established powers, typically OECD members (cf. Stephen 2014). The high scores achieved by China, Brazil and India correspond to similar findings in the dispute settlement pillar of the WTO (Vickers 2012). Interestingly, the near top position of China in TPRM is in line with the accounts that see China as one of the very few critical WTO members (Wolfe 2015), but at the same time also in contrast to its rather less prominent public stance during the Doha negotiations, especially when compared to Brazil and India (Efstathopoulos 2012; Hopewell 2015). In addition to these three powers, a number of economically dynamic countries are also present at the top of the rankings, including Mexico (no. 9), Turkey (no. 17), or Thailand (no. 19), as well as countries with not particularly sizable economies but with a major trading focus, such as Taiwan (no. 11) and Singapore (no. 16). The top of the ranking includes several countries that are surprising to us, especially Colombia (no. 10), Ecuador (no. 17), and Costa Rica (no. 21). The ranking

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<tbody>
<tr>
<td></td>
<td>PAK</td>
<td>2.6</td>
<td>0.96</td>
<td>2.22</td>
<td>1.99</td>
</tr>
<tr>
<td>21</td>
<td>CRI</td>
<td>2</td>
<td>2.69</td>
<td>1.53</td>
<td>1.07</td>
</tr>
<tr>
<td>22</td>
<td>NGA</td>
<td>0.22</td>
<td>0.03</td>
<td>3.03</td>
<td>3.77</td>
</tr>
<tr>
<td>23</td>
<td>CHE</td>
<td>1.95</td>
<td>1.9</td>
<td>1.32</td>
<td>1.37</td>
</tr>
<tr>
<td>24</td>
<td>NZL</td>
<td>2</td>
<td>1.17</td>
<td>1.63</td>
<td>1.53</td>
</tr>
<tr>
<td>25</td>
<td>IDN</td>
<td>1.86</td>
<td>1.71</td>
<td>1.32</td>
<td>0.84</td>
</tr>
</tbody>
</table>

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6 Mexico and Turkey are also OECD members, but they are often characterized as dynamically rising rather than established economic powers, falling under the 'MINT' or 'Next Eleven' labels.
naturally ‘omits’ all EU members that are included as a single entity constituted by the EU, represented by the European Commission.

Our third observation is that a number of states one would intuitively expect to score high show in fact low activity. This is the case for example for South Africa (no. 36, AI=0.6). Given that Russia only accessed the WTO in 2012, in the TPRM the BRICS group thus effectively reduces to BIC. In this connection, we should note that only one African country, Nigeria (no. 22, AI=1.76) scores in the TOP25 list. Similarly, no Arabic countries are present at the top of the list, the first being Morocco (no. 34, AI=0.62), with Saudi Arabia ranking 38th (AI=0.5).

Finally and perhaps not surprisingly, there are WTO members who have not taken part in the TPRM through any indicators observed here, in the given period. There are altogether nine members (7% of WTO membership) who have not participated in TPRM at all, and there are another 18 members (13%) who have only taken part indirectly through ‘their’ group which took part in the TPRM also on their behalf. This is the case notably for some African and Africa-Caribbean-Pacific (ACP) countries, who on several occasions have been represented by the respective chairs of their groups but who have themselves never taken part directly. In the analysis such participation counts, but the scores are always divided by the number of the group members, giving each of such indirect participations only very small weight. Overall, however, as many as 106 out of the 133 WTO members (80%) took part in the TPRM activities directly, making at least one declaration or posing at least one written question. These results contrast to some extent with evidence about the period 1995-2007 presented by Ghosh, who reports that even among relatively large players participation is rather rare (Ghosh 2010, p. 443).

Figure 2a shows the overall distribution of the activity index. The indicator has a heavy positive skew, with the vast majority of WTO members achieving between 0 and 1% on the overall activity in the TPRM. The darker section of the leftmost bin in the histogram shows the nine WTO members who have not taken part in the TPRM activities at all in the given period, neither directly, nor via a representation by a members’ group. Figure 2b shows the indicator after logarithmic (natural log) transformation, which is the variable used in the explanatory analysis.

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7 The orientation at BICs, rather than BRICS, is present also in much current literature on the role of the rising powers in the global trade regime (e.g. Nölke et al. 2015).
8 For instance, the ACP group has 62 WTO members, meaning that participation only via group chair has a weight of as little as 1.6% of a standard individual participation.
Even though in general the four indicators forming the composite index correlate mutually very strongly (all mutual Pearson coefficients are higher than 0.8, most higher than 0.9), there is an interesting difference between the indicators related to written questions and those concerning oral declarations. Namely, the activity in written questions tends to be much more concentrated in the hands of the few states with the highest overall activity. To illustrate the point, the six top scoring states account for almost 50% of all the text length of written questions, as compared to 23% of the text length of the declarations. We ascribe this difference to the fact that the written questions tend to be quite substantive and technical, while making a declaration may require a relatively low resource investment from the member states. Hence, while many states are ready to engage with the reviewed member through a declaration during the TPRB meeting, fewer are willing or able to invest resources into the collection of more technical and substantive information that would be necessary for a formulation of a meaningful written question.

3. Explanatory analysis

In this section, we report the results of our explanatory analysis. We present altogether five multiple regression (OLS) models, the first three reflecting the three broad categories of explanatory factors presented earlier, the latter two capturing synthetic models. A number of the variables included is heavily positively skewed, with few members with very high values and many members with low values, suggesting the use of logarithmic transformation. All the models were subjected to standard
Whenever a possible problem occurs, we report it and provide results after a suitable remedy is applied. Table 2 summarizes the five models.

<table>
<thead>
<tr>
<th></th>
<th>AI (log)</th>
<th>AI (log)</th>
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<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Trade exposure (log)</td>
<td>0.143 (0.298)</td>
<td>0.585∗ (0.306)</td>
</tr>
<tr>
<td>GDP per capita (log)</td>
<td>-0.039 (0.102)</td>
<td>-0.087 (0.124)</td>
</tr>
<tr>
<td>Applied tariff (log)</td>
<td>-0.020 (0.032)</td>
<td>-0.017 (0.042)</td>
</tr>
<tr>
<td>GDP (log)</td>
<td>0.678*** (0.074)</td>
<td>0.479** (0.163)</td>
</tr>
<tr>
<td>Population (log)</td>
<td>0.193 (0.158)</td>
<td></td>
</tr>
<tr>
<td>Gov. effectiveness</td>
<td>0.423∗ (0.249)</td>
<td></td>
</tr>
<tr>
<td>Geneva mission (log)</td>
<td>-0.011 (0.270)</td>
<td></td>
</tr>
<tr>
<td>USA vote affinity</td>
<td>0.235 (0.576)</td>
<td>-0.829 (0.621)</td>
</tr>
<tr>
<td>IOs number</td>
<td>0.035∗ (0.014)</td>
<td>0.034** (0.012)</td>
</tr>
<tr>
<td>Diplomatic missions (log)</td>
<td>1.279*** (0.237)</td>
<td>-0.294 (0.351)</td>
</tr>
<tr>
<td>Polity IV</td>
<td>0.075** (0.029)</td>
<td>0.064* (0.027)</td>
</tr>
<tr>
<td>Trade exposure (log) (std.)</td>
<td>0.122∗ (0.071)</td>
<td></td>
</tr>
<tr>
<td>GDP (log) (std.)</td>
<td>0.670*** (0.079)</td>
<td></td>
</tr>
<tr>
<td>IOs number (std.)</td>
<td>0.267** (0.095)</td>
<td></td>
</tr>
<tr>
<td>Polity IV (std.)</td>
<td>0.163** (0.061)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-18.327*** (2.465)</td>
<td>-16.422*** (2.124)</td>
</tr>
<tr>
<td>Observations</td>
<td>121</td>
<td>112</td>
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<tr>
<td>R²</td>
<td>0.594</td>
<td>0.599</td>
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<tr>
<td>Adjusted R²</td>
<td>0.580</td>
<td>0.584</td>
</tr>
</tbody>
</table>

Note: 'p<0.1; *p<0.05; **p<0.01; ***p<0.001; standard errors in brackets, robust standard errors in brackets in models, 3 and 5

In each of the models, we check for multicollinearity calculating the variance inflation factor. Multicollinearity is tested for with the Durbin-Watson test. Heteroskedasticity is checked with the use of the Breusch-Pagan test.
Model 1 includes the four variables representing various economic factors. *Trade exposure* is measured as the ratio of exports to GDP, the level of economic development is assessed using *GDP per capita*. The variable *Applied tariff* reflects the average applied tariff weighted by commodities volumes. The data on all these three variables, as well as on GDP, have been collected from the World Bank Databank (World Bank 2015). We expect *Trade exposure*, *GDP per capita* and *GDP* to have a positive effect on state activity in TPRM and *Applied tariff* level to have a negative effect. Of all the variables included, only market size measured in GDP shows a significant effect, in the expected positive direction. In later models, when other covariates are included, also the variable *Trade exposure* shows statistical significance, but as we discuss later, *GDP* as a measure of market size turns out to be the predictor with strongest explanatory power.

In models 2 and 3 we move to the political factors. In Model 2, political power and members’ capacities are considered. Variables *GDP* and *Population* are used to depict the gross power of the states, relevant in the area of international trade. ¹⁰ *Government effectiveness* score of the Worldwide Governance Indicators is used to approximate domestic administrative capacities. The size of country *Geneva mission* is used as a control approximating administrative capacities directly available to the state representation in Geneva. The data have been collected from the so-called ‘blue book’ of Geneva diplomatic contacts. ¹¹ The variable capturing *GDP* size shows a statistically significant effect, in spite of its correlation with some of the other variables included. Government effectiveness shows association at a 10% significance level.

Model 3 includes the variables concerning political preferences and institutions. First, we approximate foreign policy orientations with the *vote affinity* of the given state to the USA, in the United Nations General Assembly. ¹² Second, we include the *number of IOs* a state is a member of as a proxy for its general interest in multilateralism and institutionalized cooperation, using data from the Correlates of War project (Pevehouse et al. 2004). ¹³ Third, we use the number of *diplomatic missions*, globally, to approximate the states’ general interest and readiness to participate in international affairs. ¹⁴ Finally, turning to the domestic level, we include the *Polity IV* index as a measure of

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¹⁰ Data on population are from the World Bank (2015).
¹¹ The variable contains all diplomatic staff in Geneva, not only those assigned to the WTO. This is suitable, as especially small members tend to assign one member of staff to more than one IO. The blue book (or formally publication ‘Missions permanentes auprès des Nations Unies à Genève’) is available at http://www.unog.ch/80256EE600582E34/(httpPages)/847EEBA0FBF05A98C125791F002986B67?OpenDocumen t (accessed 5.4.2016). In our case edition No. 113 has been used.
¹² USA is given the maximum value of affinity of 1. The data used have been assembled by Gartzke, the dataset *The Affinity of Nations: Similarity of State Voting Positions in the UNGA* is available at http://pages.ucsd.edu/%7Eeegartzke/datasets.htm (accessed 7. 1. 2016).
¹³ The dataset (version 2.3) is available at http://www.correlatesofwar.org/data-sets/IGOs/international-organization-v2.3 (accessed 10.2.2016).
¹⁴ The DIPCON Database, v. 3.0, has been used (Rhamey et al. 2013).
With the exception of the USA vote affinity all variables show a significant effect in the expected direction, meaning that more activity in TPRM is associated with more extensive membership of states in IOs, with the number of diplomatic missions the states maintain, and with democratic countries. In Model 3 Breusch-Pagan test reveals heteroscedasticity, hence robust instead of regular standard errors are reported.

Models 4 and 5 give results of a synthetic analysis whereby all the three categories of predictors are combined. First, in Model 4 all the variables are included, with the exception of the Population, Government effectiveness, and Geneva mission variables. The first drops out due to the inclusion of both GDP and GDP per capita, as their perfect linear combination, the latter two are excluded due to high correlation with the level of economic development and with GDP size, respectively. In this synthetic model the variable Diplomatic missions misses the standard statistical significance threshold, but at the same time Trade exposure reaches the 10% significance level. Overall, hence, there are four variables showing a significant effect on states’ activity in TPRM: GDP, the number of IOs a state is a member of, the domestic political regime (Polity IV index), and partially also Trade exposure.

Making use of the fact that a natural logarithmic transformation has been used for the dependent variable, we can interpret the substantive effects sizes in the following way. First, a 10% increase in trade exposure is associated with a 2.5% (per cent, not percentage points) increase in activity. Second, a 10% increase in the size of the economy is associated with approximately a 3.3% increase in activity. Third, a unit increase in the number of IOs a state is a member of is associated with 3.5% increase in activity. Finally, a unit rise on the Polity IV scale of democracy (ranging from -10 to 10) is associated with a 6.6% increase in activity in TPRM. The model shows a very solid explanatory power, explaining two thirds of variation in the dependent variable. Variables GDP and Number of diplomatic missions are mutually correlated, leading to multicollinearity, but the variable GDP still keeps its high statistical significance.

For the ease of interpretation of the relative weights of the respective covariates, we include in Table 2 also Model 5 that includes the four core explanatory identified in Model 5, but scaled to standard deviations, hence providing standardized beta coefficients. This enables a direct comparison of the relative explanatory power of the individual variables in the regression model. We see that by far the most substantively significant effect is delivered by the variable capturing states’ market size, GDP, where one-standard-deviation increase in the size of country GDP is associated with a 0.67-standard-

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15 The Polity IV: Regime Authority Characteristics and Transitions Dataset, version 2014 has been used. The updated dataset is available at: http://www.systemicpeace.org/inscrdata.html (accessed 5. 7. 2016).

16 For an overview of the interpretation methods for log-transformed regression, see Benoit (2011).
deviation increase in activity. A one-standard-deviation increase in the number of IOs a state is a member of is associated with a 0.27-standard-deviations rise in activity. Finally, for the trade exposure and Polity IV variables, there a one-standard-deviation increase is associated approximately with a 0.12 and 0.16 rise in activity, respectively. This indicates that the cross-cutting factor of country GDP is the strongest predictor. At the same time, the other political and economic covariates also contribute an important share of explanatory power. Hence, none of the three categories of predictors identified above – economic factors, political power and capacities, and political interests and institutions – seems to account for the observed variation on its own.

Conclusions

In this text, we have presented the first systematic mapping of the activity of WTO member states in TPRM, the WTO’s core mechanism for monitoring and reviewing of its members’ regime-relevant policies. We find that most WTO members participate in TPRM at least somewhat, as only around 20% of the WTO membership failed to take part in reviewing activities directly, and around 7% altogether, hence participating neither directly, nor indirectly, through their group. At the same time, a group of members is markedly more active than the rest, with European Union and the United States scoring highest. These two members, together with Canada, are closely followed by China, Brazil and India, suggesting a close to equal position of the traditional and the rising powers.

On the individual level, we find the states’ activity in TPRM to be associated with their economy size, in terms of GDP, with their multilateral orientations, with domestic political regime, and partly also with exposure to global trade flows. GDP size carries the most explanatory weight. At the same time, especially the states’ multilateral orientations, approximated with the number of IOs a state is a member of, also deliver sizable explanatory power. Overall, hence, we arrive at a composite explanatory account, where none of the variables included is on its own able to account for the cross-state differences in activity, and where economic factors, power differentials, and political institutional forces play their part.

We believe that the analysis presented in this paper opens the space for further research efforts, mapping more robustly the activity of states in the WTO and in other international organizations. In the context of the WTO, further quantitative explanatory work in other fields than the DSM could considerably enrich our understanding of how the global trade regime operates, what factors influence WTO members’ behavior, and how the WTO meets its current challenges. In the monitoring pillar in particular, future research may consider prolonging the time period covered by empirical data, obtaining a more long-term perspective on who runs the WTO on the everyday basis.
Beyond the trade regime, interesting insights could be obtained if the framework presented here could be applied also to other major IOs, enabling a structured comparison.

Our research has implications for our understanding of the everyday operations of the WTO and of the functioning of the global trade regime, pointing to a relatively high degree of engagement in the regime by many of its members. We also shed new light on the position of the rising powers in the global trade regime, as they seem to engage with the regime’s monitoring mechanism to a similar degree as the established powers. Furthermore, our analysis paints a colorful picture in which a mixture of economic, power-political, and institutional factors helps us explain why states act in the WTO the way they do.

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