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Domestic Institutions, Trade Disputes, and the Monitoring and Enforcement of International Law

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ABSTRACT

Why do some governments participate more actively in the enforcement of international law than others? In the context of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO), I argue that domestic institutions – and, specifically, the electoral rule – can account for these differences. Interest groups are frequently harmed when foreign governments violate international law and have compliance information, but they lack access to formal enforcement mechanisms, such as dispute settlement bodies. I identify two complementary effects of domestic institutions. Where domestic institutions increase the government's responsiveness to interest groups, the government is more likely to enforce international law on their behalf. In turn, because they expect that rule violations are more likely to be enforced, interest groups are more willing to contribute to the monitoring of international law. Hence, interest groups are more likely to provide the information necessary for enforcement, and governments are more likely to be aware of rule violations and to provide enforcement. Empirical evidence from the GATT/WTO is consistent with these propositions.

Monitoring and enforcement are crucial for successful international cooperation: violations have to be recognized and penalized (Barnett and Finnemore 1999; Dai 2002; Frieden and Martin 2003; Keohane 1984; Morrow 1994). Yet, uncovering violations, litigating them, and enforcing a ruling can be costly. Governments may lack information about violations entirely (Raustiala 2004); and even once rule violations are detected, governments frequently wait each other out, hoping that others shoulder the cost of enforcement (Johns and Pelc 2016). Why are some governments more actively participating in this process than others?

In the context of the multilateral trade institutions, the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO), I argue that domestic institutions offer an explanation for these differences. While enforcing international trade law creates a public good at the international

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level, it also creates concentrated benefits at the domestic level: exporting firms are affected by a foreign government's imposition of trade barriers, they are in the best position to gather information about rule violations, and they benefit directly from restoring compliance. Yet, exporting firms as nonstate actors cannot access the formal dispute settlement body of the GATT/WTO, which is a common feature of international agreements (Koremenos 2007). Instead, the government of a member state has to formally initiate the dispute settlement process. Thus, exporting firms as nonstate actors have to rely on their government to enforce international law on their behalf.

Governments vary systematically in their responsiveness to interest groups as a function of the country's domestic institutions, in particular with respect to trade policies (Rogowski 1987). I identify two complementary mechanisms through which domestic institutions influence the enforcement of international law. Where domestic institutions increase the government's incentives to provide targeted benefits to domestic interest groups, governments should be more likely to enforce international trade rules. In turn, anticipating that enforcement is more likely to be forthcoming, domestic interest groups should be more willing to invest in the monitoring of international law, which improves the chances of detecting rule violations in the first place. Domestic institutions that privilege interest groups, such as plurality rule (Grossman and Helpman 2005; Rickard 2010; Rogowski 1987), should therefore be associated with more dispute initiations and more information about rule violations.

Data from dispute initiations at the GATT/WTO as well as additional evidence are consistent with these expectations. Plurality rule is associated with three times as many dispute initiations as proportional representation, without an attendant decline in the quality of cases that are filed: despite filing more disputes, plurality rule is not associated with a lower – but instead with a significantly higher – likelihood of winning individual claims. The differences between electoral systems are most pronounced in countries with diversified exporting sectors, such that governments plausibly lack the ability to identify individual rule violations on all exported products. And short of filing trade disputes, plurality rule is also associated with raising more Specific Trade Concerns (STCs), which identify potential barriers to trade imposed by other governments and that, as nontariff barriers and behind-the-border measures, are characterized by high informational requirements. Thus, governments under plurality rule bring more cases to the dispute settlement body, and they also have more information about rule violations on cases that are not litigated.

The paper contributes to the literature on international cooperation by emphasizing how, in an explicitly state-centric international institution, nonstate actors – domestic interest groups – can be important participants in the monitoring and enforcement of international law; how the willingness of interest groups to engage in monitoring is contingent on the expectation

that the government enforces international law on their behalf; and how this involvement of nonstate actors creates an empirically testable link between domestic institutions and the rate at which governments participate in the enforcement of international law.

This argument offers a domestic explanation for differences in the participation of governments in the enforcement of international law, complementing theories that focus on features of international institutions. For instance, institutions with strong enforcement capacities encourage dispute settlement (Fang 2010), especially where international law provides a precise focal point (Huth et al. 2011). The theory resonates with the literature that finds domestic institutions to be an important determinant of government behavior in international relations (Bueno De Mesquita et al. 2003; Milner 1997), and reinforces existing arguments about the importance of domestic politics in trade disputes (Davis 2012; Davis and Shirato 2007; Pervez 2015).

The theory further builds on the literature on the role of nonstate actors in international cooperation. Domestic compliance constituencies, which provide monitoring (Dai 2002) and enforcement (Fearon 1994) of their own government's policies, have received attention in the literatures on human rights agreements (Simmons 2009), environmental agreements (Raustiala 1997), and trade agreements (Chaudoin 2014). The importance of nonstate actors in the context of the GATT/WTO in particular is well-known (Bown and Hoekman 2005; Brutger 2014; Dai 2002; Shaffer 2003a). I demonstrate that this role of nonstate actors translates into systematic differences in government behavior across countries.

Finally, I provide an example of divergent effects of domestic institutions in the context of international institutions: the same institutions that are typically associated with higher tariffs (Rogowski 1987) and more violations of global trade rules (Rickard 2010) are also associated with more active enforcement of free trade. While proportional representation is commonly expected to have a free trade bias, plurality rule creates more incentives for governments to defend a liberal international trading order on behalf of exporters in the context of trade agreements. Trade disputes, and trade agreements more generally, create concentrated benefits for exporters, just as protectionist trade policies create concentrated benefits for import-competing firms. For the literature on electoral institutions and trade policy, this implies that the previously unambiguous relationship between electoral institutions and average levels of protectionism breaks down in the context of trade agreements, where exporting firms have incentives to lobby for tariff cuts at home in exchange for market access abroad (Betz 2017) – there is nothing inherently protectionist about interest groups, and therefore nothing inherently protectionist about plurality rule.

Domestic Institutions and Trade Disputes at the GATT/WTO

The following discussion, based on a formal model that is discussed in the online appendix, emphasizes three points. First, monitoring by nonstate actors is endogenous to expectations about whether enforcement is forthcoming. Second, by shaping expectations about the enforcement of international law, domestic institutions affect the extent to which nonstate actors collect information about rule violations and provide such information to their government. Third, it follows that domestic institutions not only shape the government's willingness to enforce international law on behalf of nonstate actors, but also the amount of information available to the government, and therefore the rate of dispute initiations. In particular, where domestic institutions increase the government's responsiveness to interest groups, firms are willing to investigate more challenging cases, implying an increase in information and dispute initiations. Because it is driven by more information about foreign trade barriers, this increase in dispute initiations arises without a decline in the quality of disputes that are filed.

The emphasis on information provision by domestic interest groups, and on how the willingness of interest groups to obtain compliance information is shaped by domestic institutions, differs from several prominent models of trade disputes. These abstract from domestic politics and emphasize collective action problems at the international level (Johns 2012; Johns and Pelc 2016) or point to the domestic politics of the defendant country and emphasize how domestic political conditions vary over time (Chaudoin 2014) and across countries (Dai 2006). For instance, Chaudoin (2014) demonstrates how the timing of trade disputes is driven by interest group dynamics, focusing on interest groups in the defendant country: other governments will bring trade disputes against the United States when interest groups in the United States favor their own government's compliance. Similarly, Dai (2006) points out that domestic institutions have ambiguous effects on compliance, depending on the balance of interest groups in the defendant country. This focus on domestic compliance constituencies, which push their own government toward compliance, contrasts with the theory in this paper. Interest groups may not only force compliance onto their own government. They also provide information to their own government about rule violations by foreign governments, and by doing so can push their own government to force compliance onto foreign governments.

To make the discussion more explicit, I consider the interaction between a government that can file a trade dispute at the dispute settlement body of the GATT/WTO and an exporting firm that is affected by a foreign government's rule violation. The dispute settlement body of the GATT/WTO adjudicates disputes between member states. If a government perceives a foreign government's policies to be in violation of GATT/WTO commitments, it can file a

dispute against a foreign government. If compliance is not achieved during the dispute settlement process, the dispute settlement body can authorize retaliatory actions, with the goal of forcing compliance upon the government in violation of its obligations (Hudec 2002). The dispute settlement body can only become active after a government files a complaint. Neither nonstate actors such as firms nor the GATT/WTO itself can initiate a trade dispute against a government.[1] This feature is common among international agreements. Only about one-third of international agreements with dispute settlement procedures give any role to nonstate actors (individuals, firms, or NGOs) in the dispute settlement process (Koremenos 2007; Koremenos and Betz 2013). Among these agreements, non-state actors are rarely able to initiate disputes.

The government can enforce international law by initiating a trade dispute; but to do so, it must be aware of rule violations. The government only considers initiating a dispute if it has sufficient evidence of a rule violation by a foreign government. For governments, it is difficult to identify policies that are in violation of GATT/WTO commitments and that are worth litigating. In 2014, countries exported on average more than 800 products, defined by six-digit Harmonized System tariff categories, to on average more than 50 countries (data from the World Integrated Trade Solutions). Many products are exported to several markets, exposing them to potential trade barriers by multiple governments. Moreover, each product can be affected by a multitude of policies, ranging from tariffs to behind-the-border measures, such as subsidies, regulations, or taxation; and these policies can be located at various levels of government, including policies at the federal level and substate legislation. For example, consider two cases litigated by the European Communities in recent years: in WTO case DS332, the European Communities challenged, in addition to federal laws, a law enacted by the Brazilian state Rio Grande do Sul concerning retreated tires; in WTO case DS263, the European Communities argued that several Korean shipyards benefited from debt restructurings that amounted to subsidies. For each individual country, potentially hundreds of policies violate GATT/WTO commitments in a way that impacts its trade. And while tariff barriers are relatively observable, other measures – nontariff measures and policies below the federal level – are more difficult to identify.

Collecting comprehensive compliance information therefore exceeds the limits of most governments' capacities, and governments are reluctant to invest in monitoring the policies of trade partners – a situation that resembles collective action problems in enforcement (Johns and Pelc 2016). Even centralized attempts at monitoring face challenges in collecting comprehensive compliance information (Betz and Koremenos 2016). The WTO's Trade

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[1]Understanding on Rules and Procedures Governing the Settlement of Disputes, 15th April 1994. Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401; 33 I.L.M. 1226(1994).

Policy Review Mechanism subjects all members to regular reviews, which rely on self-reported information from member states. These reviews take place every other year for the members with the largest shares of world trade (the European Communities, the United States, Japan, and China); for the majority of countries, reviews take place every six years. Given the high demands of these reviews, reform proposals considered even longer review intervals, raising questions about the effectiveness of this monitoring (Laird 1999). Considering that such centralized monitoring, which can rely on specialization and economies of scale, proves infeasible for providing comprehensive compliance information, it is almost certainly the case that individual governments lack the means and incentive to collect comprehensive compliance information.

More effective monitoring is likely to come from other sources. Those most adversely and most immediately affected by violations of GATT/WTO law tend to be foreign firms, predominantly exporting firms facing trade barriers imposed by foreign governments (Bown and Hoekman 2005) – as Shaffer puts it succinctly, "WTO law, while formally a domain of public international law, profits and prejudices private parties" (Shaffer 2003a: 3) Exporting firms experience the consequences of rule violations directly, and therefore have little difficulty detecting the effects of noncompliance. Moreover, these firms have financial incentives to identify the source of these effects and to push their government toward filing trade disputes. While the formal Trade Policy Review Mechanism polices member states on a regular basis, individual firms can alert their own government to noncompliance (Dai 2002; Raustiala 2004).

Thus, firms have advantages over governments and international institutions in identifying rule violations, and governments usually rely on exporting firms to obtain information on foreign trade barriers (Eckhardt and Dirk 2015). An exporting firm that is serving, or intending to serve, a foreign market may notice irregularities in market access as a consequence of a rule violation, which puts exporting firms in a convenient position for detecting noncompliance. Examples of such an irregularity are an increase in exacted tariff payments, new labeling requirements, new customs procedures, or a surge in the market share of competitors.

The firm may not know immediately whether these irregularities are the consequence of a violation of GATT/WTO commitments by the foreign government or whether they reflect, for instance, legal policy changes or market fluctuations. Thus, suppose the firm receives a signal ε, which represents the firm's initial assessment of whether the market access irregularity is due to the foreign government violating international law. This structure is similar to that described in Raustiala (2004): because they are directly affected by noncompliance, private actors likely have access to compliance information that is not available to the government. Even if the information available to private actors is not necessarily of better quality, "at a minimum,

private actors are clearly privy to different information than governments"
(Raustiala 2004: 406).

To determine whether the irregularity is driven by a rule violation, the
exporting firm can invest in uncovering legal evidence that supports the pre-
sence of a rule violation, which comes at a fixed cost. If the firm invests in
monitoring, it finds evidence that is sufficient for the government to consider a
dispute initiation with some probability, which is strictly increasing in ε. A
higher initial assessment maps onto a higher probability of finding sufficient
evidence that convinces the government of the merits of the case. For simple
tariff barriers, the firm is likely to find sufficient evidence of a violation –
comparing the applied tariff to the negotiated tariff commitments of the import-
ing government is a relatively straightforward exercise. For nontariff barriers, by
contrast, finding convincing evidence that the policy is inconsistent with inter-
national commitments is less likely a priori.

Uncovering sufficient evidence is neither guaranteed nor costless. Identifying a
violation can be complex and time consuming. A firm has to identify whether the
imposed trade barrier violates international trade law. Given the complexity of
GATT/WTO regulations, this can be a costly endeavor. Collecting evidence in
support of the claim that a foreign government's policy constitutes a violation of
GATT/WTO rules requires resources and expertise, and this pre-litigation
research is predominantly carried out and financed by private actors, not govern-
ments (Bown and Hoekman 2005). Exporting firms often hire law firms to collect
evidence and prepare submissions to their own government (Brutger 2014).
Steptoe & Johnson LLP, for instance, notes on its website that it represented "a
major European steel producer" and "leading companies in the distilled spirits
industry" in preparation of WTO disputes.[2] Another prominent law firm, Sidley
Austin LLP, notes that its lawyers assisted business clients "facing market access
barriers or unfair conditions of competition in foreign markets by successfully
integrating WTO arguments in their advocacy with governments" and counseled
private clients "on strategies for enforcing WTO commitments through WTO
dispute settlement"; the list of clients includes Airbus and AT&T.[3] The services of
law firms in such cases can include developing legal strategies, collecting informa-
tion, and preparing claims and written submissions on behalf of firms, as well as
presenting evidence to governments in order to trigger WTO disputes (Sacerdoti
2005) – services that certainly come at substantial legal fees.

If the government obtains sufficient evidence about a rule violation, either
on its own or from the exporting firm, it considers initiating a trade dispute.
In making this decision, the government has to consider the costs and
benefits of trade disputes. Trade dispute can have benefits for the country
as a whole, such as increasing access to foreign exchange (Betz and Kerner

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2016) or demonstrating resolve to international audiences for defending a country's trading rights (Davis and Shirato 2007). Filing a trade dispute also creates private benefits at the domestic level for an often small number of exporting firms. Disputes tend to affect a small number of firms in part because disputes tend to challenge trade barriers on few products, and in part because most goods are produced and exported by only few firms (Bernard and Jensen 1999; Melitz 2003). In turn, initiating a trade dispute on behalf of an exporting firm can be politically valuable to the government – because of increased lobbying contributions or because the dispute serves as a signal of support to an important constituent. The extent to which the government takes the domestic firm's interests into account when filing a trade dispute is denoted by α. The more responsive the government is to the support of domestic interest groups, relative to voter interests at large, the larger is α.

Disputes also come at a cost, both for litigating and potentially enforcing a ruling. The government's assessment of this cost, relative to the benefits of a dispute, is known to the government, but unknown to the exporting firm, which only knows its distribution. A dispute at the WTO can easily cost US $500,000 in legal fees alone (Bown and Hoekman 2005: 870), and more complex disputes total more than US$10 million. In a survey of delegations at the WTO, more than half of respondents reported the "high costs of litigation" among the reasons for not having filed a trade dispute (Busch et al. 2009: 18). While firms can contribute to cover these financial costs (Bown and Hoekman 2005; Brutger 2014), disputes may also raise diplomatic tensions and spur retaliation. This backlash can raise the costs of trade dispute initiations sufficiently to deter disputes (Busch et al. 2009).

While these litigation costs may at times be trivial from the government's perspective, they are not the only cost to a dispute. The rulings of dispute settlement bodies also may have to be enforced. Obtaining a favorable ruling is not always sufficient for inducing compliance. In some cases, the reputational costs of defying a ruling are substantial enough to induce compliance (Brewster 2013). At other times, however, the return to compliance occurs, if at all, only under (the threat of) enforcement. In the GATT/WTO, enforcement takes the form of a suspension of concessions, such that a government is allowed to impose trade barriers against products from the violating country. The necessity of imposing protectionist policies for enforcement implies a cost to the economy at large and to consumers and other users of imported goods in particular.

I first discuss the key equilibrium results; I then turn to specific empirical implications. In equilibrium, the government initiates the dispute if it obtains sufficient evidence and the benefits of a dispute offset the costs. The firm investigates the market access irregularity for sufficiently promising cases, that is, if $\varepsilon \geq \hat{\varepsilon}$, where $\hat{\varepsilon}$ is defined in the online appendix. If the firm receives an indication that it is sufficiently likely to obtain evidence of a rule violation

– if ε is sufficiently large – it will investigate further. The lower is the threshold $\hat{\varepsilon}$, the more likely the firm is to engage in the monitoring of international law. The following proposition summarizes the two key results.

Proposition 1: As the government's responsiveness to interest groups, α, increases, the government is more likely to initiate a dispute once it finds sufficient evidence of a rule violation. As a consequence, monitoring also expands: firms engage in monitoring for more challenging cases, and the government is more likely to have sufficient evidence for a dispute.
Proof. See online appendix.

Proposition 1 notes two separate effects of an increase in the government's responsiveness to interest groups: conditional on becoming aware of a rule violation, the government is more likely to enforce international law; because of that, interest groups are more willing to invest in the monitoring of international law, which increases the chances that the government becomes aware of rule violations. The first effect is straightforward. If α increases, the government internalizes the private benefits of trade disputes to a larger extent. The second effect is to elicit interest groups to uncover evidence of rule violations for a wider range of cases, and in particular in cases where the chances of finding sufficient evidence are lower. Consequently, the expected probability of uncovering rule violations increases, because the threshold $\hat{\varepsilon}$ decreases and more challenging cases are investigated. This second effect underscores that monitoring is conditional on the firm's expectations about whether the government will enforce international law on its behalf. Even if the probability of finding sufficient evidence for a dispute is relatively low, the firm is willing to investigate the case, because the threshold $\hat{\varepsilon}$ decreases in α.

These results establish a complementarity between the monitoring and enforcement of international law. The existing literature emphasizes that effective enforcement is dependent on effective monitoring: Without information about rule violations, there is nothing to enforce. Proposition 1 emphasizes a complementary relationship: Encouraging monitoring is dependent on effective enforcement – where nonstate actors expect that enforcement is not forthcoming, they have little incentive to provide monitoring. Moreover, Proposition 1 highlights that this additional enforcement takes a specific form: it encourages firms to investigate relatively more challenging cases. Thus, governments have information about potential rule violations for a wider range of cases, especially for cases with high informational requirements. Notably, this increase in dispute initiations is not driven by a higher willingness of the government to file bad claims that are likely to be lost for political reasons. Instead, the higher rate of dispute initiations arises because interest groups provide information on a wider range of cases, even where finding sufficient evidence is more challenging.

The model abstracts from a decision by the foreign government, which may attempt to hide noncompliance by implementing policies that are more difficult to discern as rule violations. If such obfuscation is sufficiently easy, or if the foreign government is sufficiently risk-averse, introducing a decision by the foreign government would not alter the main results, because the decision to obfuscate would be independent of α. Moreover, if obfuscation implies that the exporter perceives a lower chance of finding sufficient evidence, and therefore lower realizations of ε, it may be easier for the foreign government to prevent the detection of rule violations where α is small, which would reinforce the previous results: as long as ε remains under the threshold $\hat{\varepsilon}$, the exporter refrains from monitoring. Where α is smaller, the monitoring threshold $\hat{\varepsilon}$ is higher, such that it should be more feasible for the foreign government to implement policies that are unlikely to be investigated. By contrast, where α is larger, the monitoring threshold decreases, and the foreign government would need to exert more effort to prevent monitoring by the firm, which reduces its ability to obfuscate.

Proposition 1 implies systematic differences across countries. The literature, especially in the context of trade politics, has long recognized that governments differ in their responsiveness to interest groups according to their domestic institutions. At least since Rogowski (1987), this literature emphasizes the distinction between proportional representation and plurality rule. The small population size per district and the typically weaker parties under plurality rule enable interest groups to exert disproportionate influence (Grossman and Helpman 2005; Rickard 2010; Rogowski 1987). In particular, plurality rule increases the responsiveness of governments to concentrated interest groups; where interest groups are diffuse, proportional representation is likely more responsive (McGillivray 2004; Rickard 2012).

While this literature tends to focus on the interests of protectionist firms, similar arguments apply to exporting firms. Trade policies, and trade disputes especially, tend to have highly concentrated benefits. Most trade disputes cover a small number of products. A quarter of WTO disputes challenges policies affecting two or fewer products defined by six-digit Harmonized System categories (which distinguish, for instance, between "upright pianos" and "grand pianos"), covering less than US$5 million worth of imports a year (Bown and Reynolds 2014). Moreover, most products tend to be exported by a small number of firms in each country. Data from the Exporter Dynamics Database for 45 countries for years from 1997 through 2011 shows that the median number of exporters per product, again defined by six-digit Harmonized System categories, ranges from 1 to 3 for the majority of observations – thus, most potential trade disputes benefit a very small number of firms.

These narrow benefits of trade disputes are clearly recognized in official communications. For instance, after the European Commission announced

measures in response to subsidies provided by the US government to Boeing, Boeing's European counterpart Airbus declared in a press statement in 2012 its "gratitude" to the European Commission for "taking consequential action."[4] More generally, as noted by a member of the WTO's Appellate Body, in many cases "the claimant state pursues the interest of a specific export sector, or of a distinct group of enterprises, if not of a named company. Indeed some disputes are generally known by the names of the firms directly involved or affected. One reads of the Fuji – Kodak and of the Havana Club cases" (Sacerdoti 2005: 129).[5]

While the decision to initiate a trade dispute is a decision by the executive, individual legislators, and therefore the electoral rule, can still matter for dispute initiations. One reason is that legislative bodies often have oversight functions over executive bodies. For instance, the International Trade Commission in the United States is tasked, among other things, with administering trade remedies for domestic industries harmed by imports. While the United States Congress, and individual members of it, cannot implement these policies, they nonetheless frequently intervene with the International Trade Commission, using their oversight powers, to influence decisions (Caddel 2014). Thus, legislators can function as access points that provide additional leverage for individual firms in their interactions with the executive and with government agencies (Ehrlich 2007). In parliamentary systems, the electoral fortunes of the executive are directly linked to the electoral rule for legislators; in presidential systems, the executive is dependent on the legislature to pass legislation and has incentives to provide policies to politically important constituents. Even though individual legislators cannot initiate trade disputes directly on behalf of their constituents, they can plausibly exert political pressure on the executive to initiate a dispute. Indeed, the distinction between plurality rule and proportional representation has been linked to violations of international trade commitments (Rickard 2010), even though the implementation of most violating measures falls under the purview of the executive. Plausibly, a similar dynamic plays out for trade disputes.

Several anecdotes illustrate the role of legislators in pushing for trade disputes. In January 2017, US dairymakers urged the US administration in a letter to challenge Canadian policies on milk pricing, which they argued displaced their exports to Canada. The letter was directed at several members of the executive, including the president and the (then nominee for) Trade Representative, but it was also sent to several members of Congress that

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[4]Sueddeutsche Zeitung, 7th September 2012.

[5]The need to potentially enforce rulings, which comes at a cost to importers and voters at large, suggests a second effect of plurality rule: As with economic sanctions (Pond 2017), enforcement through a suspension of concessions – effectively, protectionism – is beneficial to import-competing constituents. Where governments value narrow interest groups, they may be better able to absorb the costs of retaliation, because they are offset by the benefits to domestic interest groups that value (temporary) protectionism in the form of suspended concessions.

occupied important committee roles.[6] In addition to the lobbying by dairy organizations, the BBC reported in April 2017 that "[l]awmakers from dairy producing states like Wisconsin and New York [...] have been lobbying the president for months" to challenge the Canadian policies, illustrating the role of legislators in putting additional pressure on the executive.[7]

Similarly, in May 2014 the WTO ruled in favor of the United States in a case challenging Chinese duties on car imports. When announcing the ruling as a success for President Obama's administration, the United States Trade Representative "was flanked by Debbie Stabenow and Sandy Levin, two senior Democratic members of Congress from Michigan with close ties to US carmakers,"[8] who at a minimum claimed credit for the dispute initiation and plausibly pushed for it politically. For instance, Representative Levin, whose district is located at the center of the US car industry, notes on his website that he has "pressed both Republican and Democratic Administrations to pursue trade violations at the World Trade Organization."[9] In a speech at the Peterson Institute for International Economics, "echoing the views of the Detroit Three auto makers," Levin previously also challenged Japanese policies on car imports.[10] And, although less successful, in 2014, Chuck Schumer, the senior Democratic senator from New York, sent a letter to the United States Trade Representative, "asking him to launch a WTO challenge over Chinese cyber hacking."[11]

Systematic evidence on lobbying in the context of trade disputes shows similar dynamics (Ryu and Stone 2017): firms that are interested in the initiation of trade disputes not only lobby the executive, but also the legislature. Lobbying expenditures to political parties and individual candidates increase substantially for firms that benefit from trade disputes. As Ryu and Stone (2017) argue, this additional lobbying plausibly serves to persuade Congress members to influence decisions of the executive with respect to trade disputes.

In sum, trade disputes provide concentrated benefits to exporting firms, just as protectionist trade policies create concentrated benefits for import-competing firms. Because the electoral rule shapes the incentives of individual legislators and governments to respond to the interests of narrow interest groups, the electoral rule should be associated with dispute initiations.

H1: Plurality rule should be associated with more dispute initiations than proportional representation.

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[6]http://www.nasda.org/File.aspx?id=46981. Last accessed 22nd August 2017.
[7]BBC, "Canada hits back in dairy dispute with the US." 17th April 2017.
[8]Financial Times, "US claims victory over China in WTO car dispute." 23rd May 2014.
[9]https://levin.house.gov/issues/trade. Last accessed 22nd August 2017.
[10]https://levin.house.gov/us-lawmaker-seeks-tough-rules-japan-autos-trade-talks. Last accessed 22nd August 2017.
[11]Financial Times, "US claims victory over China in WTO car dispute." 23rd May 2014.

A second hypothesis speaks to the informational mechanism of the argument directly: the key mechanism linking monitoring by interest groups to more information by the government is that the threshold $\hat{\varepsilon}$ is lower under plurality rule than under proportional representation. Thus, firms under plurality rule should be more willing to investigate cases, and to uncover evidence of violations, on relatively complex issues where violations are more difficult to verify. The effect of increasing α is to expand the range of cases that are investigated.

Firms under plurality rule should therefore monitor cases for lower values of ε than firms under proportional representation. One interpretation is that governments under plurality rule should have more information about nontariff barriers than governments under proportional representation. Nontariff barriers are policies with high informational requirements: they often come in the form of regulations and domestic policies that, as behind-the-border measures, are more difficult to monitor on a regular basis and that often touch upon fundamentally domestic issues. Consequently, information about nontariff barriers is more difficult to communicate and to obtain than information about tariff barriers (Kono 2006). Nonetheless, nontariff barriers have directly observable consequences for exporting firms if they cause a decline in their exports.

This contrasts with simpler cases of noncompliance, such as raising tariffs above the bound tariffs to which a government committed during a negotiation round. The presence of a tariff increase is easily verified, and the tariff rate can readily be compared to a government's schedule of concessions. For instance, new regulations that cause exporting firms a drop in market share may be illegal under GATT/WTO commitments, but the determination of whether this is the case is more difficult than comparing two tariff rates. From the perspective of exporting firms, the chances of detecting sufficient evidence of noncompliance are lower for nontariff barriers than for tariff violations; and from the perspective of the government, obtaining information about these policies directly is difficult. Put differently, information about nontariff barriers is likely to come from affected interest groups, and governments under plurality rule should have better information about nontariff barriers imposed by foreign governments than governments under proportional representation.

H2: Plurality rule should be associated with more information about nontariff barriers than proportional representation

Empirical Evidence

To evaluate Hypothesis 1 – plurality rule should be associated with more dispute initiations – I rely on data on dispute initiations at the GATT and at the WTO; I turn to additional evidence for Hypothesis 2 below. Because Hypothesis 1 implies systematic differences across countries, the data set is organized by the country-year and limited to members of the GATT/WTO; members of the

European Communities and the European Union, which are subject to the common external trade policy, are omitted. The dependent variable captures the number of trade disputes initiated by a country in a given year, which is available from Reinhardt (1996) for the GATT and from Horn and Mavroidis (2011) for the WTO. I consider a dispute initiated when a country submits a request for consultations at the dispute settlement body.

Following the previous discussion, α is represented by whether the electoral system follows plurality rule or proportional representation. Data are available from the Database of Political Institutions (Cruz et al. 2015); the variable plurality rule is coded 0 for countries that use proportional representation and 1 for countries that use plurality rule. Mixed systems that rely on both plurality rule and proportional representation are coded as 0.5; omitting them from the sample or coding countries according to the electoral rule that is applied to the majority of seats does not alter the main results, as is reported in the online appendix. Nondemocratic states (with a polity score below seven, Marshall and Jaggers 2006) are omitted.[12] I consider alternatives to plurality rule, some of which expand the sample to nondemocracies, below.

Country size and wealth are associated with electoral institutions and trade openness; and they account for a country's ability to engage with international institutions. I therefore include the log of gross domestic product (GDP) and GDP per capita as control variables. Because larger trade volumes increase opportunities to pursue trade disputes, and trade openness has been linked to electoral institutions, I include the logged value of a country's exports and of a country's imports as control variables. All control variables are obtained from the World Bank. To control for the possibility that some governments or electoral institutions are more inclined to support exporting firms and therefore have more active trade policies, I also include a count of a country's trade agreements, PTAs (Dür et al. 2014). To account for aggregate trends in dispute initiations, all models include a year polynomial of degree three (omitting the year polynomial or replacing it with other time trends does not affect the results, as is shown in the online appendix).[13]

The main sample includes 81 countries between 1975 and 2014, for a total of 1,458 observations. This sample accounts for a total of 507 trade disputes at the GATT/WTO (without the restriction to democratic countries where data on the electoral rule is available, and excluding the European Union, the sample would contain 569 trade disputes). The top half of Figure 1 indicates, shaded in gray, the countries included in the sample. In the online appendix,

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[12]If the polity score is not available, which is the case for many smaller countries such as Barbados, Belize, and Iceland, I include the country if it has competitive executive and legislative elections according to the coding of Cruz et al. (2015); excluding them from the sample does not alter the results.

[13]To avoid reporting coefficients of 0.00, GDP per capita, trade agreement membership, and previous disputes are divided by 10.

Nominal and effective sample
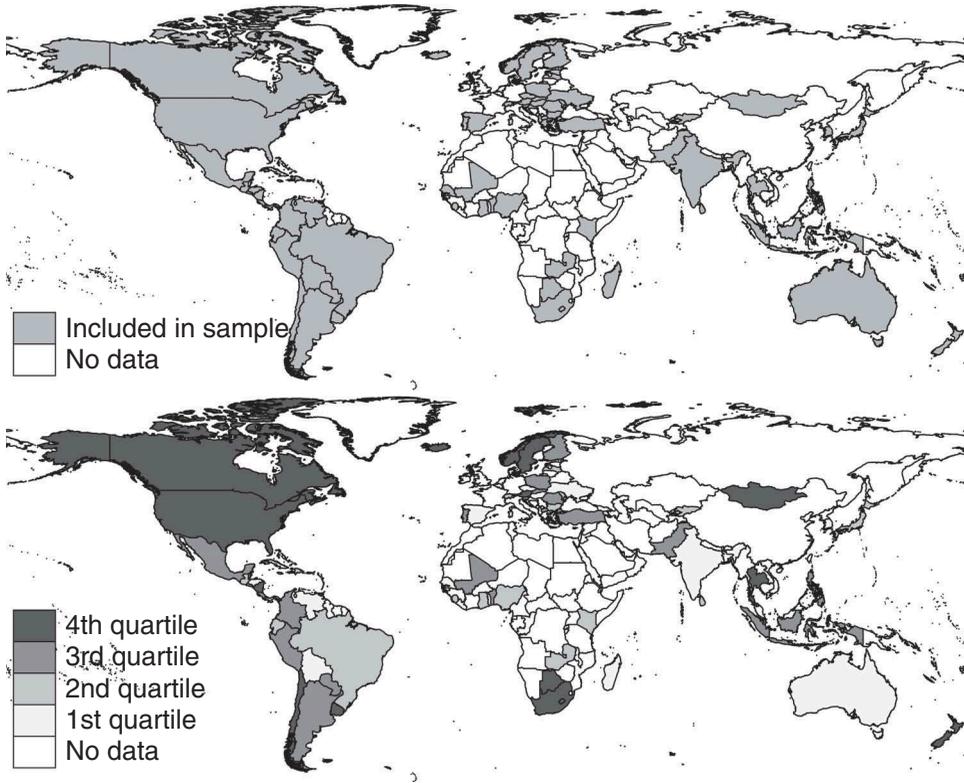
Figure 1. Nominal sample (top map) and effective sample (bottom map), calculated from regression weights following Aronow and Samii (2016). In the nominal sample, countries shaded in gray are included in the analysis; other countries are not included. In the effective sample, darker shades correspond to larger regression weights.

I report the countries included in the analysis, the years for which data are available, and the coding of the electoral rule for each country.

I estimate negative binomial models to accommodate the dependent variable, which is a count ranging from 0 to 17 with overdispersion (with the unconditional variance being more than three times larger than the mean). Standard errors are clustered by country to account for interdependence among observations from the same country; additional results below account for temporal dependence explicitly. I also report cross-sectional results, with one observation per country, by averaging over years.

Column 1 in Table 1 includes the previously mentioned control variables and shows that plurality rule is associated with more dispute initiations. The coefficient on plurality rule is statistically significant, with a *p*-value of less than .001. The differences between countries with plurality rule and with proportional representation are substantial. Countries characterized by plurality rule initiate about .54 disputes per year, while

Table 1. GATT/WTO dispute initiations.

	(1)	(2)	(3)	(4)	(5)
Plurality rule	1.08***	0.97***	1.05***	1.11***	1.03***
	(0.27)	(0.28)	(0.32)	(0.29)	(0.27)
Log GDP	0.68***	0.63***	0.65***	0.64***	0.61***
	(0.17)	(0.17)	(0.22)	(0.18)	(0.17)
GDP per capita	−0.20***	−0.22***	−0.15**	−0.15**	−0.15***
	(0.06)	(0.07)	(0.07)	(0.08)	(0.05)
Log exports	0.42**	0.46**	0.26	0.34*	0.47**
	(0.19)	(0.19)	(0.29)	(0.18)	(0.20)
Log imports	−0.46*	−0.46*	−0.27	−0.56	−0.44
	(0.27)	(0.27)	(0.49)	(0.35)	(0.27)
PTAs	0.31*	0.29*	0.23	0.31*	0.44**
	(0.18)	(0.16)	(0.14)	(0.17)	(0.21)
Previous disputes		0.03			
		(0.03)			
Economic complexity			−0.10		
			(0.15)		
Log products				0.43*	
				(0.24)	
Log markets				−0.04	
				(0.39)	
Executive elections					0.02
					(0.20)
Partisanship					0.02
					(0.08)
Constant	−19.4***	−18.8***	−43.9***	−21.0***	−19.0***
	(1.85)	(2.02)	(10.96)	(4.93)	(1.98)
Year polynomial	Yes	Yes	Yes	Yes	Yes
Number of obs.	1,458	1,458	843	1,171	1,194
Number of countries	81	81	57	75	69

Coefficient estimates and standard errors. Negative binomial regression, standard errors clustered by country. Year polynomial of degree three included but not reported. Dependent variable: number of GATT/WTO dispute initiations.
*** Significant at 1%, ** significant at 5%, * significant at 10%.

proportional representation results in about .18 disputes per year. Plurality rule is associated with three times as many disputes per year as proportional representation.[14]

Columns 2–5 report models that include additional control variables. First, through past dispute initiations, governments acquire expertise and experience with the procedural aspects of the dispute settlement system, which facilitate future disputes (Davis and Bermeo. 2009). Previous dispute initiations also effectively capture unobserved country characteristics related to dispute initiations. Column 2 therefore includes a variable for the sum of a country's dispute initiations in previous years up to the year in question. The marginal effect for the electoral rule decreases slightly, but remains positive and statistically significant at the 5% level: proportional representation is associated with .21 disputes per year, while as before plurality rule is associated with .56 disputes per year.

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[14]All predicted values and marginal effects reported in the following are calculated at observed sample values.

Columns 3 and 4 account for a country's economic structure. Column 3 includes a control variable for the complexity of a country's economy, obtained from Hausmann et al. (2014). Column 4 includes control variables for the logged number of products a country is exporting and for the number of logged export markets. Both variables are available from the World Integrated Trade Solutions database. Inclusion of the variable restricts the sample to years after 1995. Column 5 includes a dummy variable to indicate years in which executive elections are held and a variable for the executive's partisanship; both variables are obtained from Cruz et al. (2015). Both partisanship and electoral calendars have been linked to trade policy and dispute initiations, and also may correlate with the electoral system. The positive, significant coefficient on the electoral rule remains in all models.

The online appendix shows that the association between plurality rule and dispute initiations is robust to the inclusion of several control variables, among them (i) exchange rate overvaluation, which may trigger dispute initiations as a compensation to exporting firms; (ii) the exchange rate regime, which may be a function of the electoral rule and, by affecting monetary policy, may affect the attractiveness of alternative policy levers; (iii) the GDP growth rate, since governments may be tempted to blame poor economic performance on foreign governments, and trade disputes provide one particularly visible means of doing so; (iv) world economic growth, which if negative may cause a protectionist turn and thereby increase opportunities for dispute initiations; (v) an indicator for divided government and a variable for the number of veto players; and robust (vi) to dropping Japan or the United States, which are leading initiators of trade disputes at the GATT/WTO, from the sample. Additional robustness checks are reported in the following.

Exposure to Rule Violations

Countries are not evenly exposed to rule violations. If plurality rule encourages exports (for instance, through export credits or other subsidies), these countries would be exposed to more potential rule violations, which would explain a higher rate of dispute initiations. The models including control variables for the number of export markets and the number of exported products account for this alternative explanation. Another strategy is to leverage that the negative binomial model allows modeling different exposure rates explicitly. The results, presented in the online appendix, are robust to this modification.

Alternative Estimation Methods

The main independent variable displays little within-country variation. The previous results account for this with clustered standard errors,

Table 2. GATT/WTO dispute initiations: alternative estimators.

	(1)	(2)	(3)	(4)	(5)
	OLS	LDV	GMM	Logit	PML
Plurality rule	0.40***	0.96***	1.18***	1.09***	1.18***
	(0.13)	(0.26)	(0.27)	(0.34)	(0.16)
Log GDP	0.24*	0.61***	0.66***	0.74***	0.63***
	(0.12)	(0.16)	(0.16)	(0.21)	(0.10)
GDP per capita	0.09	−0.20***	−0.22***	−0.18*	−0.21***
	(0.09)	(0.06)	(0.06)	(0.10)	(0.05)
Log exports	−0.12	0.45**	0.47**	0.16	0.48***
	(0.14)	(0.19)	(0.19)	(0.26)	(0.15)
Log imports	0.02	−0.46*	−0.48*	−0.16	−0.45**
	(0.13)	(0.26)	(0.27)	(0.34)	(0.20)
PTAs	0.13**	0.31*	0.23	0.42*	0.25***
	(0.05)	(0.16)	(0.16)	(0.25)	0.09
Lagged disputes		0.08***	0.36***		
		(0.02)	(0.12)		
Constant	−3.71***	−18.1***	−19.9***	−21.5***	−19.7***
	(1.05)	(1.89)	(1.82)	(2.41)	(1.32)
Year polynomial	No	Yes	Yes	Yes	Yes
Number of obs.	81	1,457	1,457	1,458	1,458
Number of countries	81	81	81	81	81

Coefficient estimates and standard errors. (1) Ordinary least squares (OLS), cross section of countries, heteroskedasticity-robust standard errors. (2) Negative binomial model, lagged dependent variable (LDV), standard errors clustered by country. (3) Generalized Method of Moments (GMM), lagged dependent variable, standard errors clustered by country. (4) Logit model, standard errors clustered by country. (5) Penalized maximum likelihood (PML). In all models except model 1 (cross section), year polynomial of degree three included but not reported. Dependent variable: number of GATT/WTO dispute initiations.
*** Significant at 1%, ** significant at 5%, * significant at 10%.

which effectively address these "repeated" measurements that would otherwise inflate t-statistics and deflate p-values. Table 2 presents several additional results. For the results in column 1, I collapse the data set to a cross section of countries by averaging the variables over the sample period and estimating a linear regression with robust standard errors. Plurality rule is associated with .40 more trade disputes than proportional representation, which is an increase of more than 180% compared to the sample mean.

Additional models return to the time-series cross section. Column 2 includes the lagged dependent variable (that is, the number of disputes initiated by a country in the past year) and presents estimates from a negative binomial regression with standard errors clustered by country (this differs from the model in Table 1, column 2, which used the sum of past disputes). The drawback with this approach is that the expected value of disputes in the current period becomes a nonlinear function of disputes in a previous period. Column 3 therefore estimates a linear feedback model with GMM.[15] The results are similar to the previous results.

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[15]The model is $y_{i,t} = \rho y_{i,t-1} + \exp(x'_{i,t}\beta) + e_{i,t}$, where i denotes the country, t the time period, x is the vector of independent variables (the electoral rule, the control variables, and time trends), and y is the number of disputes.

Too Frequent or Too Rare Disputes

The variable on trade disputes has two notable characteristics. First, some country-years are characterized by an unusually high number of trade disputes. Column 4 replaces the dependent variable with a dummy variable, coded 1 for years in which a government initiated at least one dispute and 0 otherwise.

The second concern is the opposite: the small number of trade disputes implies a large number of country-years with no trade disputes at all. Such coarse data can result in biased coefficient estimates, a problem that is reinforced with a binary independent variable (as is the case here). To address the problem of coarse data, I rely on the penalized maximum likelihood estimator proposed by Firth (1993). The estimator introduces an additional term into the likelihood function, which has two advantages. First, the penalization term removes the first-order bias from the coefficient estimates, which in small data sets can bring a substantial reduction in bias. Second, by effectively adding a small number to each observation (where this "small number" is estimated from the data), the excess zeros are removed. I implement a version of the penalized maximum likelihood estimator by applying it to the Poisson distribution and obtain coefficient estimates through iteratively reweighted least squares. The results, reported in column 5, are robust to this estimation method.

Which Countries Explain These Results?

The effect of the electoral rule on trade disputes is not constant across countries, and the extent to which the electoral rule is predicted by the included control variables likewise differs across countries. The coefficient estimate obtained from a multiple regression model masks these differences. To gain a better understanding of the source of the average effects, I follow Aronow and Samii (2016) and calculate the regression weights of each country that give rise to the "effective sample." These weights indicate, for each country, the contribution to the overall coefficient estimate. Countries with larger weights make larger contributions, countries with smaller weights are contributing less. These weights are a function of the variable on the electoral rule and of the included control variables. Intuitively, the weights indicate to what extent the electoral rule is predicted by the control variables. Countries where the electoral rule is poorly predicted by the covariates provide more variation and therefore account for a larger fraction of the results.

To report the results, the top of Figure 1 displays the nominal sample used for the results reported in column 1 of Table 1, where countries in the sample are shaded gray. The bottom of Figure 1 reports the effective sample derived from the regression weights, dividing the sample into four quartiles.

Countries with darker shades contribute more to the coefficient estimate, thus indicating the main sources of the association between plurality rule and dispute initiations. The top contributing countries are Chile, Canada, and Iceland; the United States is fifth on the list. The regression weights displayed in Figure 1 suggest no immediately obvious pattern. While some of the wealthier countries, such as the United States and New Zealand, are accounting for a large portion of the results, other wealthy countries, such as Korea and Australia, are relatively irrelevant. Likewise, countries that initiate disputes frequently appear close to the top of the list, such as the United States, but also near the bottom, such as India. In sum, the regression weights displayed in Figure 1 suggest that the main results are certainly driven more by some countries than by others, but the results do not seem to be driven by a particular set of countries, such as exceptionally active litigants.

Additional evidence: export diversification

The effect of plurality rule should be most pronounced where governments lack the incentive or ability to collect information about rule violations. The effect of monitoring by firms, and therefore the effect of α, disappears where governments are sufficiently likely to be aware of rule violations themselves. For instance, the banana regime of the European Union caused estimated losses to Ecuador of approximately US$500,000 a day; banana exports account for about a third of Ecuador's exports (Davis and Bermeo. 2009). The Ecuadorian government was acutely aware of these consequences of the European Union's trade policies, not least because losses on such dimensions pose problems for the balance-of-payments, with the attendant implications for foreign currency reserves, exchange rate management, and debt repayment. Given the importance of banana exports to Ecuador's government, additional information provided by Ecuadorian banana producers about the European Union's policies was therefore likely to be of little additional use. Where a country's exports are diversified, violations on individual products are less costly to the country as a whole. Governments are therefore less likely to be aware of rule violations and should be more dependent on information provided by firms. By contrast, where the government draws large direct benefits from defending their trading rights, the involvement of interest groups is less important.

I rely on two measures of export diversification. First, I use export market concentration, obtained from the United Nations Conference on Trade and Development. The variable theoretically can range from 0 to 1. In the sample, it ranges from .04 to .84, where higher values indicate less diversified export markets. For instance, in 2010, the United States has a score of .08; Mexico has a score of .15; and Botswana has a score of .60. I interact this variable with the electoral rule. The results, reported in the online appendix, conform with expectations. The marginal effect of plurality rule is positive and

significant for countries with diversified export markets; it remains positive and statistically significantly different from zero for about 70% of the observations. However, as exports become more concentrated, the effect of plurality rule declines and, for those observations with the highest levels of export concentration, loses statistical significance. The negative, statistically significant interaction term remains when including the previous control variables.

Second, I use the definition of advanced economies of the International Monetary Fund, which considers the level of industrialization and export diversification. The categorization has other advantages as well. These countries are most likely to have the experience and resources to pursue trade disputes for political reasons. Moreover, the variable helps control for legal capacity, which should be similar among high-income countries. I interact the variable for whether a country qualifies as an advanced economy with the electoral rule. The results, reported in the online appendix, show that the positive effect of plurality rule is most pronounced for advanced economies, where plurality rule initiates .80 more disputes than proportional representation; for other countries, the effect is less than a third of the size, with an increase in the number of disputes under plurality rule of .23.

Additional Evidence: Legal Quality

If plurality rule initiates more trade disputes, but does not gain more information about disputes from interest groups, the legal quality of initiated cases should decrease with the number of dispute initiations and therefore be lower under plurality rule. By contrast, if plurality rule obtains more information about rule violations from interest groups, the increase in dispute initiations should not result in an attendant decrease in the quality of cases.

To evaluate whether the legal quality of cases declines under plurality rule, I rely on Horn and Mavroidis (2011), who provide data on the outcome of each legal claim within a WTO case on which a panel ruled. From this, I create three dependent variables. First, I calculate the percentage of all claims within a case that a plaintiff wins.[16] The resulting variable has substantial variation, with a mean of .70 and a standard deviation of .32. Second, I calculate the median outcome of the claims in each dispute, which results in a variable coded 1 if more than half the claims in the dispute are won; in 74% of disputes that reached the panel stage, at least half the claims are won. Third, I consider the number of legal claims in a dispute, because filing a large number of legal claims is sometimes viewed as indicative of lower legal merits (Pelc 2014).

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[16]Each case in the sample has between 1 and 130 legal claims, with an average of 20. Because I can only consider claims on which a panel ruled, the measure is only available for disputes that reach the panel stage. A majority of cases never reaches the panel stage, such that the following results are based on a nonrandom sample of WTO cases, with few indications about the sign of the resulting bias.

I include control variables for log GDP, GDP per capita, log imports, and log exports. For the dependent variable that is a ratio, I use a fractional logit model (Papke and Wooldridge 1996), which takes into account that the variable is a ratio and therefore bounded between 0 and 1. I estimate logit models for the binary dependent variable, and negative binomial regression models for the number of legal claims. Standard errors are clustered by country.

As reported in Table 3, plurality rule is associated with a higher proportion of legal claims that are won, with a higher probability of winning the majority of claims, and with more targeted disputes that include fewer legal claims. Plurality rule results in an increase in the share of legal claims that are won from 38% to 81%; in an increase in the probability of winning at least half the claims from 32% to 87%; and in a decrease in the number of legal claims from 51 to 12. The results strengthen, in size and statistical significance, when adding further control variables. First, I include the number of previous disputes, because experience increases a government's familiarity with the system and therefore its odds of winning claims. Second, I control for disputes in which the United States or the European Union are defendants, because WTO panels may refrain from ruling against them (Brutger and Morse 2015). The results provide support for the argument that plurality rule is associated with better information about rule violations: if plurality rule was only associated with more dispute initiations, but not more information by interest groups, the legal quality of claims should deteriorate, rather than remain unaffected, let alone improve.

The Role of Information: STCs

Under plurality rule, interest groups should be more likely to investigate cases where rule violations are difficult to identify; consequently, governments under plurality rule should be more aware of potential noncompliance with respect to nontariff barriers to trade (see Hypothesis 2). To evaluate this hypothesis, I turn to government filings of STCs, which can be raised by governments with the Technical Barriers to Trade (TBT) Committee and with the Sanitary and Phytosanitary (SPS) Committee. STCs identify potential violations of WTO commitments by a government's trading partners in the form of nontariff barriers and represent a request for more information; but they fall short of formal trade disputes.

Moreover, STCs pertain to complex policies with unusually high informational requirements. They are frequently applied as behind-the-border measures and often based on legislation from subnational units. Because exporters can be less certain whether these measures violate WTO commitments, they should be associated with a lower ex ante probability of finding sufficient evidence for a dispute, and therefore lower values of ε. While tariffs are relatively easy to observe – requiring a comparison between the applied

Table 3. Legal quality of disputes.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Proportion won			Median case won			Number of claims		
Plurality rule	1.83***	1.12**	1.18**	3.00***	2.29**	2.44***	−0.78***	−0.98***	−0.97***
	(0.53)	(0.54)	(0.54)	(0.91)	(0.95)	(0.93)	(0.17)	(0.19)	(0.19)
Log GDP	0.47	0.20	0.21	0.56	0.30	0.33	−0.11	−0.20	−0.19
	(0.31)	(0.29)	(0.30)	(0.46)	(0.46)	(0.46)	(0.15)	(0.14)	(0.14)
GDP per capita	0.22**	0.17*	0.16*	0.44***	0.40**	0.37**	0.08*	0.07	0.07*
	(0.09)	(0.10)	(0.09)	(0.16)	(0.18)	(0.16)	(0.05)	(0.04)	(0.04)
Log exports	0.37	0.59	0.69	−0.12	−0.002	0.22	−0.04	−0.01	−0.08
	(0.58)	(0.60)	(0.55)	(0.81)	(0.85)	(0.76)	(0.15)	(0.15)	(0.16)
Log imports	−1.43**	−1.39**	−1.48**	−1.50*	−1.35	−1.56*	0.19	0.24	0.27
	(0.58)	(0.64)	(0.63)	(0.86)	(0.88)	(0.82)	(0.25)	(0.23)	(0.22)
Previous disputes		0.08**	0.06**		0.07	0.05		0.02**	0.03***
		(0.03)	(0.03)		(0.05)	(0.05)		(0.01)	(0.01)
US/EU plaintiff			−0.26			−0.55			0.22
			(0.20)			(0.36)			(0.15)
Constant	455**	471**	453**	212	210	170	−218**	−236**	−213*
	(221.76)	(222.48)	(215.51)	(350.06)	(353.89)	(340.08)	(103.83)	(110.49)	(118.32)
Year polynomial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of obs.	160	160	160	160	160	160	161	161	161
Number of countries	27	27	27	27	27	27	27	27	27

Coefficient estimates and standard errors. (1–3) DV: proportion of won claims. GLM, standard errors clustered by country. (4–6) DV: majority of claims won. Logit, standard errors clustered by country. (7–9) DV: number of legal claims. Coefficients for "previous disputes" multiplied by 10. Negative binomial regression, standard errors clustered by country. ***Significant at 1%, ** significant at 5%, * significant at 10%.

tariff rate and the WTO commitments of the government in question – nontariff barriers are more difficult to identify and more challenging to evaluate for their conformity with legal commitments. Governments have little incentive, and rarely the capacity, to police these inherently domestic policies of trading partners. Consequently, identifying violations is more difficult, heightening the need to gain information from private actors. And because raising STCs does not trigger a formal dispute settlement process, a higher number of STCs reflects that governments have more information about rule violations, even if not all of those cases are litigated.

These features make STCs suitable for evaluating the informational aspect of the argument. Data on STCs are published by the WTO. I rearrange the data to obtain a count of STCs raised by each country in each year between 1995 and 2011. As in the case of WTO dispute initiations, the European Union and the United States are the most active participants. However, participation is broader than for trade disputes. STCs have been raised by more than 100 WTO members, for a total of more than 600 STCs. This broader coverage and more frequent usage overcomes some of the limitations of the sparse data on dispute initiations.

Table 4 replicates the models from Table 1, with STCs in place of disputes as the dependent variable. The models include the same set of control variables as before, and I again estimate negative binomial models, with standard errors clustered by countries.

The results in Table 4 show that plurality rule is associated with more STCs than proportional representation. Substantively, the effects are sizeable. Based on column 1, plurality rule is associated with more than twice as many STCs per year: proportional representation is associated with about 0.93 STC per year, whereas plurality rule raises 1.94 STCs per year. The effect of the electoral rule is statistically significant at the 5% level. Columns 2–5 report that the result is robust to including the same control variables as those in Table 1: the positive, significant effect of plurality rule remains after controlling for dispute initiations, economic complexity, the number of export products and markets, and when including control variables for election years and government partisanship.

The result on dispute initiations, shown in column 5, is particularly notable: conditional on formal dispute initiations, plurality rule is associated with the filing of more STCs – the informational advantage of plurality rule is present even when explicitly controlling for the higher propensity to file trade disputes. Plurality rule files more formal trade disputes and, additionally, has more knowledge about the presence of policies with high informational requirements.

The online appendix reports that these results are also robust to the inclusion of the other control variables that were considered for trade disputes: the exchange rate value and regime, the GDP growth rate, world economic growth, an indicator for divided government, and a variable for the number of veto players; the results are also robust to dropping the United States.

Table 4. The role of information: STCs.

	(1)	(2)	(3)	(4)	(5)
Plurality rule	0.74***	0.57**	0.82***	0.85***	0.74***
	(0.22)	(0.23)	(0.24)	(0.25)	(0.24)
Log GDP	0.94***	0.82***	0.89***	0.86***	0.82***
	(0.20)	(0.22)	(0.23)	(0.20)	(0.22)
GDP per capita	0.08	0.06	0.10*	0.09*	0.06
	(0.05)	(0.05)	(0.06)	(0.05)	(0.07)
Log exports	0.74**	0.86**	0.64**	0.53*	1.04***
	(0.30)	(0.36)	(0.29)	(0.30)	(0.25)
Log imports	−1.31***	−1.34***	−1.10**	−1.15***	−1.47***
	(0.38)	(0.39)	(0.45)	(0.37)	(0.33)
PTAs	0.26*	0.23*	0.26**	0.28**	0.26*
	(0.13)	(0.12)	(0.12)	(0.13)	(0.13)
Previous disputes		0.05			
		(0.04)			
Economic complexity			−0.18		
			(0.15)		
Log products				−0.19	
				(0.27)	
Log markets				1.36**	
				(0.54)	
Executive elections					0.19
					(0.15)
Partisanship					−0.04
					(0.07)
Constant	−87.0***	−82.4***	−89.4***	−81.9***	−77.6***
	(9.18)	(10.92)	(9.25)	(9.29)	(8.02)
Year polynomial	Yes	Yes	Yes	Yes	Yes
Number of obs.	821	821	720	805	654
Number of countries	71	71	57	70	61

Coefficient estimates and standard errors. Negative binomial regression, standard errors clustered by country. Year polynomial of degree three included but not reported. Dependent variable: number of STCs raised with SPS/TBT committees.
*** Significant at 1%, ** significant at 5%, * significant at 10%.

Conclusion

Some of the most enduring questions in the institutionalist literature surround the question of how monitoring and enforcement can be provided. The literature emphasizes two mechanisms, domestic constituencies and state-to-state enforcement. This paper suggests a complementarity between these two mechanisms: effective enforcement by governments is crucial for effective monitoring by domestic constituents. Interest groups may push their own government to force compliance onto foreign governments. But they have little incentive to provide compliance information if their own government is unlikely to respond. If domestic politics encourages governments to be more active in initiating disputes, it encourages domestic interest groups to be more active in the monitoring of international law.

More generally, the argument underscores the close relationship between the monitoring and enforcement of international law. It is well understood that effective enforcement is contingent on obtaining compliance information –

without information about rule violations, there is nothing to enforce. Obtaining compliance information is, likewise, contingent on enforcement – without enforcement, interest groups have less incentive to engage in monitoring. Thus, monitoring by nonstate actors is endogenous to expectations about whether enforcement is forthcoming by the government. The argument has broader implications for explaining the activities of nonstate actors across institutions and issue areas: where international law is sufficiently precise to allow for a shared understanding between actors about what constitutes rule violations, and where international institutions provide for credible enforcement mechanisms, nonstate actors should be more likely to get involved, because they have better prospects of influencing government behavior.

While the enforcement of international law can have positive externalities for third countries, at least at the GATT/WTO disputes tend to be settled in a discriminatory fashion (Kucik and Pelc 2013). These effects of different participation rates compound. Disputes allow governments "to effectively shape the law's interpretation and application over time to their advantage" (Shaffer 2003b: 11), which shifts the distributional consequences of an agreement away from the originally negotiated agreement. If some domestic institutions facilitate the involvement of interest groups in the enforcement of international law, some countries enjoy an advantage in defending their trading rights and shaping the interpretation of international law over time; and, knowing that their government is more likely to come to their support, it allows exporting firms to access more markets. Differences in the dispute behavior of governments, driven by different domestic institutions, may have long-lasting consequences for both the development of international law and the creation of economic linkages over time.

Finally, the paper presumes a shared understanding between the government and the interest group of what constitutes sufficient evidence for a dispute. This is plausibly the case in the context of the international trade institutions, with extensive legal language in the underlying agreement texts and rulings. Yet, it implies systematic differences in the involvement of nonstate actors across international institutions. Where the legal language is insufficiently precise to allow for a shared understanding of what constitutes rule violations, nonstate actors should be reluctant to invest in monitoring the agreement. Agreements that lack precise language and clear legal commitments may be less effective because they reflect the unwillingness of governments to subject themselves to clear (Downs et al. 1996); but they also are less effective because they reduce the incentives of nonstate actors to participate in monitoring and enforcing these agreements. The informal involvement of nonstate actors, emphasized in this paper, thus reinforces differences in agreement design.

Acknowledgments

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