

# Democratic Differences: Electoral institutions and compliance with GATT/WTO agreements

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A growing body of literature argues that democracies are more likely to comply with international agreements than authoritarian states. However, substantial variation exists in the compliance behaviour of democracies. How can this variation be explained? The same mechanism that links regime type to compliance, namely electoral competition, also explains variation in compliance amongst democracies. This is because the nature of electoral competition varies across democratic electoral systems. An analysis of democratic GATT/WTO member countries from 1980 to 2003 reveals that countries with majoritarian electoral rules and/or single-member districts are more likely to violate GATT/WTO rules than those with proportional electoral rules and/or multi-member districts.

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## **Introduction**

A growing body of literature argues that democracies are more likely to comply with international agreements than authoritarian states (e.g. Gaubatz, 1996; Mansfield, Milner and Rosendorff, 2002; Smith, 1996). Such arguments often point to the potential deterrent effect of democratic elections. Voters are believed to punish leaders who violate international agreements by voting against them in the next election. This makes it costly for democratically elected leaders to breach international agreements; doing so reduces their chance of staying in office (McGillivray and Smith, 2000). Electorally minded leaders in democratic states therefore comply with international agreements to maximize their chances of re-election, according to conventional wisdom. The implication is that democratic states violate international agreements less frequently than authoritarian states.

However, significant variation in compliance behaviour exists amongst democracies. While some consistently comply with international agreements, others habitually violate them. In fact, the most frequent violators of agreements negotiated within the framework of the World Trade Organization (WTO) are high-functioning democracies with strong, credible opposition parties and regular competitive elections. This poses a puzzle for existing theories of democratic compliance, particularly those that place primary importance on the deterrent effects of competitive elections. If elections deter non-compliance, as conventional wisdom suggests, why do some democratically elected leaders violate international agreements more often than others?

Significant and important variation in electoral competition exists amongst democratic states. This variation results from the different ways in which democratic leaders are elected and helps to explain why some democracies violate international

agreements more often than others. In majoritarian systems, politicians need 50 percent plus one of the votes in their electoral district to win (re)election and parties need to win a majority of the districts to win control of the legislature. This engenders candidate-centred competition in which narrow interests have substantial political influence (e.g. Carey and Shugart, 1995; Persson & Tabellini, 2003). In contrast, proportional electoral rules (PR) engender party-centred competition. In these systems, parties work to maximize their share of the national vote and therefore respond to relatively broad interests.

Compliance with international agreements often benefits broad segments of the country's population; frequently at the expense of narrow groups. Virtually all international agreements have distributive consequences that make some voters better off and others worse off (Tomz, 2002). For example, the World Trade Organization's Agreement on Subsidies and Countervailing Measures makes consumers better off by restricting the use of subsidies. Subsidies targeted to individual industries or firms are explicitly banned by Articles 1 through 9.<sup>i</sup> These international restrictions increase economic efficiency and reduce costs to consumers. Consumers, a large segment of most countries' populations, benefit from compliance with these international agreements. However, narrow segments of the population, such as domestic producers, are arguably made worse off by compliance with this agreement. Narrow producer groups, such as individual firms and industries, can no longer earn rents via lucrative government subsidies. Given this, domestic producers tend to favour non-compliance with this international agreement because violations serve their own self-interest.

This is an important point – one that has been largely overlooked in existing studies of international compliance. If voters' preferences for compliance are not

uniform, then the effect of democratic elections on compliance is ambiguous. It will depend critically on the electoral incentives facing politicians and the pattern of voter support for compliance. If, for example, compliance benefits broad-based groups such as consumers, then politicians in proportional rule countries have greater electoral incentives to comply with the agreement. This is because the best electoral strategy for politicians and parties in proportional rule systems is to appeal to broad segments of the population to maximize the party's vote share (e.g. Carey and Shugart, 1995; Persson & Tabellini, 2003). Vote share determines the number of seats a party will control in the country's legislature. By maximizing its vote share, a party maximizes its power in the legislature and its chances of being in government. This implies that amongst democracies, those with proportional electoral rules are relatively more likely to comply with international agreements that benefit the greater good (i.e. broad segments of a country's population), such as the GATT/WTO restrictions on narrow transfers.

In contrast, democracies with plurality (or majoritarian) electoral rules are relatively more likely to violate GATT/WTO restrictions on narrow transfers. By providing narrow transfers, politicians can target benefits to constituents in their geographically-defined district thereby increasing their chances of re-election (e.g. Persson & Tabellini, 2003). Parties competing in two-party majoritarian systems can use narrow transfers to target benefits to key electoral districts. To win control of the legislature, a party competing in a two-party majoritarian system needs to win a majority of the seats (electoral districts). To achieve this, parties use narrow transfers to target benefits to those districts where they are likely to have the greatest impact on the party's electoral success.<sup>ii</sup> In this way, the provision of narrow transfers maximizes the chances of electoral success for parties and politicians competing in

majoritarian systems. The implication is that democracies with majoritarian electoral rules are more likely to violate GATT/WTO restrictions on narrow transfers, as compared to proportional rule democracies, because narrow transfers provide unique electoral benefits in majoritarian systems.

Instances of non-compliance with GATT/WTO restrictions on narrow transfers amongst democratic member countries from 1980 to 2003 are analyzed here to assess the empirical validity of this argument. Consistent with expectations, majoritarian democracies are found to be more likely to violate GATT/WTO restrictions on narrow transfers, as compared to proportional rule democracies, holding all else equal. This finding is robust to the inclusion of numerous control variables and model specifications.

The main theoretical implication of this research is that the effect of democracy on compliance with international agreements is conditional rather than direct. The consequences of democratic accountability depend critically on a country's electoral institutions and voters' interests. Democracy makes compliance more likely when a state's electoral institutions privilege those voters that prefer compliance. In contrast, democracy makes compliance less likely when the electoral institutions advantage voters that favour non-compliance. This provides a possible explanation for the observed but previously unexplained variance in compliance amongst democratic states. Interestingly, the same mechanism that links regime type to compliance, namely electoral competition, also explains variation in compliance amongst democracies.

This has important theoretical implications for some of the key debates in International Relations including, for example, the degree to which the causes of international political and economic trends are to be found at the domestic or

international level (Frieden and Lake, 2000). While some International Relations scholars rule out explanations of international phenomena by reference to internal characteristics of the nation-state (e.g. Waltz, 1979), others argue that national concerns can override global considerations. This research supports the latter view. A democratic state's compliance with international agreements depends critically on two key internal characteristics: electoral institutions and voters' preferences over compliance. The implication is that both the state (i.e. political institutions) and society play a significant role in countries' foreign economic policies and their compliance with international agreements.

The remainder of the paper is organized in six parts. Section 2 briefly discusses the GATT/WTO restrictions on narrowly targeted transfers. Section 3 lays out the theoretical argument as to why some democracies violate international agreements more often than others. Section 4 describes the empirical tests of the theoretical expectations derived in the previous section. The results of the empirical tests are discussed in Section 5 and Section 6 concludes the paper.

### **Context**

Restrictions on narrow transfers have long been the focus of multilateral negotiations because they are believed to cause significant economic distortions. As early as the Tokyo Round of 1979, narrowly targeted subsidies were regulated by GATT Articles VI, XVI and XXIII.<sup>iii</sup> Since then, restrictions on narrow transfers have been strengthened and expanded. The WTO Agreement on Subsidies and Countervailing Measures (Articles 1 through 9) explicitly bans government subsidies targeted exclusively to individual industries or firms. Furthermore, the use of narrowly targeted transfers is implicitly restricted by other GATT/WTO rules that require general reductions in trade barriers and open market access. Under

GATT/WTO rules, member country governments are expected to refrain from privileging domestic producers via narrowly targeted transfers and/or trade barriers.

Countries that choose to provide narrowly targeted transfers in violation of GATT/WTO rules risk being filed against at the WTO's Dispute Settlement Body. This entails potentially significant costs including international sanctions, the costs of participating in a GATT/WTO dispute, reputation costs, and the costs of compensating a plaintiff if ruled against by a Panel. Despite these costs, some governments choose to provide illegal narrow transfers in violation of GATT/WTO rules. For example, the United States government imposed 30 percent tariffs on steel imports in March 2002. Within a few days, the European Union (EU) lodged a formal complaint with the World Trade Organization (WTO) alleging that such tariffs were illegal. In November 2003, the WTO ruled that the American tariffs were illegal and subsequently China, the European Union and Japan announced their intent to levy costly retaliatory sanctions against the United States (Mahncke, 2004).

Why would a democratically elected government choose to violate GATT/WTO rules and risk costly international sanctions? Existing compliance theories generally argue that they would not. Democratic governments are commonly believed to comply with international agreements. Two key arguments suggest why this may be the case. The first argues that democracies comply with international legal obligations because democratic regimes share an affinity with prevalent international legal processes and institutions (e.g. Dixon, 1993; Slaughter, 1995). The logic is that because democratic regimes respect the rule of law and domestic constitutional constraints on power, they tend to accept international rule-based constraints. The second argument suggests that democracies comply with international agreements because failure to do so entails costs for democratically elected leaders (e.g. Leeds,

1999; McGillivray and Smith, 2000). This argument rests on the assumption that voters value compliance and therefore will punish leaders that violate international agreements at the ballot box.<sup>iv</sup> In an attempt to maximize their chances of re-election, democratically elected leaders choose not to violate international agreements. How then can the United States' decision on steel tariffs be explained and the variation in compliance behaviour amongst democratic states more generally?

### **Theory**

Democratically elected governments violate international agreements when the electoral benefits of doing so outweigh the domestic and international costs. The domestic costs of providing an illegal narrow transfer include the actual budgetary costs of the transfer, the opportunity costs of funding the transfer rather than some other policy, and the potential economic distortions caused by the transfer. Additionally, voters that favour compliance may vote against leaders that violate international agreements in the next election thereby imposing 'domestic audience costs' (Fearon, 1994).

The international costs of non-compliance include reputation costs and the potential costs of international sanctions. For example, extra duties (i.e. countervailing duties) can be imposed against illegally subsidized products. Such duties decrease the competitiveness of exports from defendant countries. Additionally, participation in the dispute settlement process entails resource costs, such as the financial, institutional, and human capital costs of litigating a dispute (Guzman and Simmons, 2005). Additionally, governments must consider the potential costs of compensating the plaintiff if ruled against by a GATT/WTO Panel.

Governments implement WTO-inconsistent policies when the electoral benefits of doing so are significant (i.e. when they outweigh the costs). This is



evidenced by the United States' steel tariffs. During the course of the US presidential election campaign in 2000, George W. Bush promised to help the steel industry in Ohio and West Virginia in an attempt to win votes in these key states. With the November 2002 midterm elections for the House of Representatives finely balanced, the Republicans needed to win the key steel-producing states of Ohio and Pennsylvania (Read, 2005: 135). The US tariffs on steel imports can therefore be seen as an attempt to win necessary electoral support in key states (Read, 2005). The electoral benefits to the Republican party of providing this illegal narrow protection appear to have outweighed the domestic and international costs of violating GATT/WTO rules.

This illustrative example makes two important points. First, voters do not always punish leaders for non-compliance. Instead, some voters will reward leaders for violating an international agreement, like, for example, those voters in the key steel-producing states of Ohio and Pennsylvania. This point challenges a fundamental assumption in the domestic audience cost literature, namely that all voters value compliance and therefore punish leaders who violate international agreements. When voters' preferences over compliance vary, then the expected effect of democratic elections on compliance is conditional rather than direct. It depends on voters' interests and the country's electoral institutions.

Second, democratically elected governments provide illegal narrow transfers when the electoral benefits of doing so are substantial (i.e. when they outweigh the domestic and international costs). The electoral benefits of providing an illegal narrow transfer are most likely to outweigh the costs when politicians compete for (re)election under majoritarian electoral rules in single-member districts. This is because of the unique nature of electoral competition in countries with these electoral

institutions, as demonstrated formally by theoretical models of electoral competition (e.g. Lizzeri and Persico, 2001; Milesi-Ferreti et al., 2001; Persson and Tabellini, 1999, 2000, 2003).

In such models, politicians and parties are assumed to be office-seeking. They want to maximize their chances of re-election and to this end work to provide benefits to those voters most critical to their re-election chances. The identity of these voters is determined by the country's electoral rules. In majoritarian systems, the most important voters for a politician's re-election chances are those in the politician's geographically-defined electoral district. Politicians need 50 percent plus one of the votes in their electoral district to win (re)election in majoritarian systems. The optimal strategy to secure this outcome is to provide narrowly targeted benefits to voters, firms, and industries located in the politician's district (e.g. Lizzeri and Persico, 2001; Milesi-Ferreti et al., 2001; Persson and Tabellini, 1999, 2000, 2003). This incentive also exists for parties competing in two-party plurality rule systems with single-member districts. In these systems, parties win control of the legislature (and executive) district by district. They therefore have incentives to target narrow transfers to voters in key electoral districts to maximize their chances of winning legislative (and executive) control.

In short, narrowly targeted transfers provide important electoral benefits to politicians and parties competing in majoritarian systems. This is because politicians and parties use narrow transfers to target benefits to precisely those voters whose support they need to win re-election. This has been suggested as a possible explanation for the apparent protectionist bias in majoritarian countries (e.g. Grossman and Helpman 2005; Willmann 2004).

Plurality electoral rules tend to be closely associated with single-member electoral districts. This empirical regularity provides further incentives for electorally minded politicians and parties to provide narrow transfers. Single member districts tend to be smaller than multimember districts (Powell and Vanberg, 2000). This increases the influence of narrow, particularistic groups over elected representatives (e.g. Alt and Gilligan, 1994; Magee et al., 1989; Mansfield and Busch, 1995; McGillivray, 2004; Rogowski, 1997). McGillivray (2004: 28) provides the following illustrative example: An industry with 100 employees represents 10 percent of the electorate in a district with 1,000 voters. The same industry represents only 0.1 percent of the electorate in a district of 100,000 voters. In the larger district, refusing to protect the industry is unlikely to affect the politician's re-election chances because the industry is only 0.1 percent of the representative's electorate. In a district of 100,000 voters, political representatives are forced to balance the interests of a greater variety of industry groups. Given this, politicians elected via smaller districts have greater incentives to provide narrowly targeted transfers to their constituents.<sup>v</sup>

District size has also been suggested as a possible explanation for the apparent protectionist bias in majoritarian countries. For example, Magee, Brock and Young (1989) argue that larger electoral districts minimize the electoral incentives to provide trade protection.<sup>vi</sup> Although the argument made here might be seen as a simple extension of existing arguments in the trade protection literature, a key question remains as to whether majoritarian democracies will provide WTO-inconsistent protections and transfers. Governments can (and do) provide protection in ways that do not violate GATT/WTO rules. For example, many countries' tariffs are set well below the GATT/WTO limit. Governments interested in providing additional protection can do so by raising tariffs up to the agreed upon limit. Only by raising

tariffs above this margin do countries violate internationally agreed rules. Why would countries choose to provide illegal protection in violation of international agreements? This question is fundamentally distinct from the general question of why countries provide protection. The argument made here suggests that governments choose to provide illegal narrow transfers in violation of international agreements when the domestic electoral benefits of doing so outweigh the costs. This is more likely to occur in plurality rule democracies where narrow transfers provide unique and important electoral benefits to politicians facing competitive elections.

In proportional systems, politicians and parties have fewer electoral incentives to supply narrowly targeted transfers, even in the absence of international restrictions (e.g. Lizzeri and Persico, 2001; Persson and Tabellini, 2003; Rogowski, 1987, 1997). Parties competing under proportional electoral rules do not win elections district by district. In fact, no single district is critical to the electoral success of a party (McGillivray, 2004). Instead, parties work to maximize their aggregate vote share because this determines the number of legislative seats the party will control.<sup>vii</sup> By targeting transfers to broad segments of the electorate, such as the elderly or unemployed, parties are able to “buy” the electoral support of a wide range of voters dispersed across electoral districts. This is precisely the type of electoral support that is most beneficial to parties competing in multi-member districts under proportional rule. Because narrowly targeted transfers provide relatively fewer electoral benefits to politicians competing in proportional rule systems, PR democracies are less likely to violate GATT/WTO rules on targeted transfers than plurality rule democracies, holding all else equal. The following section describes the empirical tests of this theoretical expectation.

### **Data and methods**

Compliance with standing, substantive rules embodied in international agreements is difficult to measure. Using instances of non-compliance rather than compliance is a straightforward way to overcome this difficulty.<sup>viii</sup> Here, complaints filed with the GATT/WTO Dispute Settlement Body over illegal narrow transfers are used to measure instances of non-compliance.<sup>ix</sup> More precisely, the dependent variable is the cumulative number of complaints filed against a democratic GATT/WTO member country over illegal narrow transfers in a given year (*Complaints*).

A vast majority of GATT/WTO complaints are filed in response to an illegal narrow transfer in the defendant country.<sup>x</sup> This is evidenced by the fact that the majority of all cases decided by a GATT/WTO Panel yield a victory for the complainant country (Guzman and Simmons, 2005). Both developed and developing country complainants win approximately 90% of WTO cases (Guzman and Simmons, 2005). This suggests that the variable *Complaints* is a valid measure of non-compliance. In an attempt to further increase the validity of this measure, GATT/WTO complaints that are explicitly political in nature and clearly do not have at issue an illegal narrow protection are systematically excluded from the sample. For example, the 1985 complaint filed by Nicaragua against the US in response to the trade embargo imposed by the Reagan Administration is excluded. Excluding these types of complaints increases the validity of this measure. Additional coding criteria and sample restrictions are discussed in the appendix.

Despite these restrictive coding criteria, it is possible that some of the complaints included in the sample were not filed in response to illegal narrow protection. These cases, if they exist, are ‘false positives’ (i.e. a complaint is observed where no violation exists). This type of error makes it relatively more difficult to find evidence in support of the argument made here.

*Complaints* likely underestimates the frequency of non-compliant behaviour; not all instances of non-compliance engender a formal complaint. Filing a complaint entails costs for the plaintiff country and as a result countries file complaints only in select cases. A vast literature examines when and under what circumstances countries chose to file a GATT/WTO complaint. For example, Davis and Shirato (2007) argue that the characteristics of the affected export industry in the complainant country determine when WTO complaints are filed. Davis and Bermeo (2007) show that the complainant country's domestic institutions and litigation experience play a critical role in the country's decision to file a WTO dispute. Bown (2005) shows that export stakes and retaliatory capacity account for much of the cross-national variation in dispute initiation.

These studies and others suggest that the decision to file a complaint is not random. Although the decision is not random, it is unlikely to be influenced by a defendant country's electoral rules. Plaintiff countries are no more likely to file against a majoritarian country with an illegal protection than a proportional country with an illegal protection.<sup>xi</sup> This is an important point. It suggests that any systematic relationship found between a country's electoral rules and the number of complaints filed against it is not the result of selection bias.

Given the discrete and non-negative properties of the dependent variable, it is appropriate to use an event count procedure to model the process underlying non-compliance with GATT/WTO restrictions on narrow transfers. The negative binomial model is used here because the count variable is overdispersed.<sup>xii</sup> The negative binomial model allows for this overdispersion and includes parameters for unobserved variance in the number of disputes across countries (King, 1989; Long, 1997).

One might argue that the zero inflated negative binomial model may be more appropriate for this analysis given that the modal number of disputes in any given country in any given year is zero. However, the large number of zeros in the count variable may be the result of unobserved heterogeneity (Cameron and Trivedi, 1998; Long, 1997). Unobserved heterogeneity can cause both overdispersion and an increase in the proportion of zeros. The negative binomial model can account for the overdispersion and the excess zeros in the raw data. The negative binomial model responds to the under prediction of zeros in the Poisson regression model by increasing the conditional variance without changing the conditional mean (Long, 1997). In contrast, zero modified count models change the mean structure to explicitly model the production of zero counts. This is done by assuming that zeros can be generated by a different process than positive counts. However, the theory advanced here does not suggest that the zeros are generated by a different process. Given this, it is difficult to justify theoretically the use of the zero inflated negative binomial model. Estimating a zero-inflated negative binomial model does not produce dramatically different results.<sup>xiii</sup> In fact, no significant bias appears to be introduced by estimating the more theoretically sound negative binomial model rather than the zero-inflated model.

The sample is an unbalanced panel of democratic GATT/WTO member-countries with yearly observations from 1980 to 2003. These data are used in a pooled time-series cross-section analysis with country-years as observations. This is because the causal mechanism specified in the theoretical argument makes monadic predictions. Governments in countries with majoritarian electoral rules and/or single-member districts are more likely to implement WTO-inconsistent policies because they have more to gain from doing so than governments in PR countries. As a result,

majoritarian democracies are more likely to be named as defendants in GATT/WTO complaints than proportional rule democracies. The most appropriate unit of analysis for testing the empirical validity of this hypothesis is monadic country-years.<sup>xiv</sup>

The WTO replaced GATT as the organization overseeing the multilateral trading system during the sample period (1995). Given this, a dummy variable coded one for years during the WTO regime and zero otherwise is included in all estimated models.<sup>xv</sup> The base model also includes several additional control variables.<sup>xvi</sup> Countries with majoritarian electoral rules tend to have relatively larger economies, on average. If a defendant's market size influences a plaintiff's decisions to file a formal complaint, as suggested by Gruzman and Simmons (2005), then a spurious correlation between majoritarian rules and complaints may exist. To minimize concerns of a spurious correlation, defendant's market size measured by the country's GDP is included as a control variable in all estimated models.<sup>xvii</sup>

*Plaintiff*, a dichotomous variable coded 1 if the country filed a complaint with the GATT/WTO Dispute Settlement Body in the previous year and 0 otherwise, is included to account for the possibility that some complaints are filed in retaliation for previous complaints (Busch and Reinhardt, 2002).

*Exports*, calculated as the amount of goods and services exported as a percent of GDP, is also included. International scrutiny of a country's compliance with multilateral trade agreements likely increases as a country's exports grows.<sup>xviii</sup>

*GDP per capita* is included to account for the fact that developed countries have historically used the GATT/WTO dispute settlement procedures more often than developing countries.

The yearly rate of economic growth (*Economic growth*) is included to account for the possibility that politicians in countries experiencing low or negative growth



rates may face greater pressure to violate GATT/WTO rules. Furthermore, violating international restrictions during times of adverse economic conditions may not entail the same reputation costs as doing so under normal economic conditions would (Drazen, 1997).

Although these control variables are not unrelated, standard tests show acceptable levels of multicollinearity.<sup>xix</sup> Their inclusion in a single model does not introduce undue bias. The results of the estimated models are reported in Table 1 and discussed in the following section.

## **Results**

Amongst democratic countries, electoral institutions are robust predictors of non-compliance with GATT/WTO agreements, as reported in Table 1.<sup>xx</sup> In other words, the variation in compliance amongst democracies can be explained, in part, by electoral institutions. In Models 1 through 4, a country's electoral rule is measured using a simple dummy variable coded one if a majority or all of the seats in the lower (or only) legislative chamber are elected via plurality electoral rules and 0 otherwise.<sup>xxi</sup> Given this coding rule, Germany is coded as being proportional. Although Germany has a mixed-member system, the total number of legislative seats received by a party is proportional to its list-tier results (Thames and Edwards, 2006). Thus the overall effect of the German system is proportionality (McGillivray, 2004). Like Germany, Italy has a mixed-member electoral system. Unlike the German system, the Italian list and nominal tiers both allocate seats independently. There is no attempt made to maintain proportionality between seats and votes in Italy's system (Thames and Edwards, 2006). Given this, Italy is coded as being majoritarian after the 1993 electoral reforms. The effect of a country's mean district magnitude is estimated

in Models 5 through 8.<sup>xxii</sup> Given the close correspondence between electoral rules and district magnitude, the two variables are not included together in the same model.

[Table 1 about here]

Amongst high functioning democracies,<sup>xxiii</sup> majoritarian electoral rules significantly increase the probability of violating GATT/WTO restrictions on narrow transfers. Moving from a PR system to a majoritarian system increases the likelihood of non-compliance by nearly 7 percentage points in a single year. This effect is estimated using simulations via Clarify Software (King et al., 2000; Tomz et al., 2001).<sup>xxiv</sup> On average, the expected number of violations in majoritarian democracies is 300 percent higher than in proportional rule (PR) democracies.

Democratic countries with single-member districts are also more likely to violate GATT/WTO rules regarding the provision of narrow transfers. Moving from an average sized multi-member district (i.e. one with 7 seats) to a single-member district system increases the probability of non-compliance by more than 6 percentage points in a single year. On average, the expected number of disputes in democratic countries with single-member districts is 186 percent higher than in multi-member districts.

When the sample is expanded to include a broader sample of democratic countries,<sup>xxv</sup> majoritarian electoral rules remain a robust predictor of non-compliance, as reported in Models 3 and 4. Their estimated effect is slightly lower, however. Changing from a PR system to a majoritarian system increases the likelihood of non-compliance in a given year by nearly 4 percentage points. Mean district magnitude remains negatively related to non-compliance but no longer reaches conventional levels of statistical significance in the larger sample.

Given the frequency with which the United States has been involved in GATT/WTO disputes, readers might be concerned that the results reported here are driven by the inclusion of the United States in the sample. However, this does not appear to be the case. When the United States is excluded from the sample, as in Model 2 Table 1, the estimated effect of *Majoritarian* actually increases slightly and remains statistically significant at the 0.01 level. *Mean District Magnitude* also remains statistically significant but its effect is slightly smaller, as reported in Model 6 Table 1.

Electoral institutions remain robust to a number of additional specifications.<sup>xxvi</sup> Both *Majoritarian* and *Mean District Magnitude* remain statistically significant when country size is measured using population rather than GDP. Additionally, alternative lag structures matter little for the estimated coefficients for *Majoritarian* and *Mean District Magnitude*. This is perhaps unsurprising given that these two variables change only very rarely over time.

Several other interesting findings deserve mention here. The WTO indicator variable is positive and significant in 4 of the 8 models, namely those estimated using the larger sample. This finding is consistent with previous studies that point to an increase in the number of cases filed under the WTO regime (e.g. Petersmann, 1997).

Country size and income are also statistically significant in the more inclusive sample of democracies. Larger countries and those with higher per capita income are relatively more likely to violate GATT/WTO rules, all else equal. This may be because larger, richer countries are less sensitive to the international costs of non-compliance and therefore violate GATT/WTO rules more frequently. Alternatively, it may be that countries are more likely to file against big, rich defendants because there are relatively greater benefits to be gained from these cases (Gruzman and Simmons,

2005). This points to the importance of controlling for country size when estimating the expected effect of electoral rules on non-compliant behaviour. If large countries are more likely to be filed against *and* they are more likely to have majoritarian electoral rules, it may be possible to find a spurious correlation between electoral rules and complaints. However, by including measures of country size in all estimated models, the possibility of finding a spurious correlation is minimized.<sup>xxvii</sup>

### **Conclusion**

Conventional wisdom suggests that democracies are more likely to comply with international agreements than autocracies. However, substantial variation in compliance behaviour exists amongst democracies. To date, the variation amongst democracies has gone largely unexplained. In a world where democracy is spreading, it is especially important to understand democratic states' compliance with international agreements.

The pattern of compliance amongst democracies can be explained by voters' interests and countries' electoral institutions. Countries with majoritarian institutions violate GATT/WTO restrictions on the use of narrowly targeted transfers, such as industry-specific subsidies, more frequently than countries with proportional electoral systems. This is because majoritarian electoral rules provide incentives for politicians to supply transfers to narrow, select segments of the electorate. This incentive derives from the winner-takes-all characteristics of majoritarian electoral rules and the nature of electoral competition in single-member districts. In contrast, proportional electoral rules and multi-member districts generate incentives for politicians and parties to target benefits to broader segments of the electorate. As a result, governments elected via proportional rules are less likely to violate GATT/WTO restrictions on narrowly targeted transfers.

Although this research focuses on compliance with a particular international economic agreement, namely GATT/WTO restrictions on narrow transfers, the theoretical implications of this research are relevant for all international agreements that engender varied levels of voter support for compliance. When voters have heterogeneous preferences over compliance with an international agreement, the affect of democracy on states' compliance is ambiguous. Consider, for example, many of the international environmental agreements. They arguably generate benefits for all citizens. However, they also entail substantial costs for some. For example, producers using environmentally unfriendly technologies find international environmental agreements costly. The theory advanced in this paper suggests that when such groups are critical to leaders' electoral success, governments will be less concerned with (and committed to) compliance. Instead, governments may allow violations of the agreement, sanction violations of the agreement or even refuse to sign the agreement in the first place in an attempt to garner the critical electoral support of the 'non-compliance voters'. This may explain, for example, the United States' refusal to agree to the Kyoto Protocol.

Because virtually all international agreements have distributive consequences, some voters will prefer non-compliance. Democracy may therefore make compliance *less* likely. The effect of democracy on compliance will depend critically on the political importance of voters that favour non-compliance. When a state's democratic institutions privilege 'non-compliance voters', violations of international agreements will be more likely. In contrast, when electoral institutions privilege those voters that favour compliance, democracy will make compliance more likely. In sum, the effect of democracy on compliance is conditional on a country's electoral institutions and the interests of voters.

This provides a potential explanation for the mixed empirical evidence found to date on the effect of regime type on compliance. While some studies show that democracies honour their international commitments more regularly than authoritarian states (e.g. Mansfield, Milner and Rosendorff 2002), others find either a negative or a negligible correlation between democracy and compliance. For example, Remmer (1998) finds little evidence of a positive relationship between democracy and commercial cooperation. Simmons (2000) finds that amongst those countries that joined the International Monetary Fund before 1980, democracies showed a greater tendency to violate international commitments. The theory advanced in this paper suggests a possible explanation for these mixed findings and an important avenue for future research. To better understand the effect of regime type on compliance with international agreements, we must develop and test theories about who prefers non-compliance and when and under what circumstances they are likely to be electorally decisive. This research takes an important first step in this direction.

This research makes two additional contributions. First, it demonstrates that WTO-inconsistent policies are neither random nor uniform across states, as is often assumed in studies of GATT/WTO disputes. In many such studies, the supply of potential cases (i.e. WTO-inconsistent policies) is taken as exogenous (e.g. Davis and Shirato 2007).<sup>xxviii</sup> However, this research suggests that to fully understand the pattern of GATT/WTO disputes, one must account for the likelihood of a WTO-inconsistent policy in the defendant state, which is strongly influenced by a country's electoral institutions and voters' economic interests.

Second, this research confirms the increasingly common claim that majoritarian democracies are relatively more protectionist than proportional rule democracies (e.g. Evans, 2009; Grossman and Helpman, 2005). The novel result

reported here is that governments in majoritarian systems are willing to protect domestic producers even when doing so violates their international obligations. The theoretical implication is that national electoral concerns can override international considerations. This speaks to the ongoing debate in International Relations as to the degree to which the causes of international political and economic trends are to be found at the domestic or international level. This research points to the importance of domestic politics for compliance with international agreements, conventions, and treaties that entail distributive costs. Despite the dramatic increase in international interdependence and the proliferation of international agreements, it appears that the nation-state remains a powerful and independent actor whose internal structures shape foreign economic policy and international relations. Kindleberger's (1969) pronouncement that 'the nation-state is just about through as an economic unit' appears to have been premature.

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**Table 1: Negative binominal model of non-compliance with GATT/WTO**

	1	2	3	4	5	6	7	8
	Complaints	Complaints	Complaints	Complaints	Complaints	Complaints	Complaints	Complaints
L.Majoritarian	1.425*** (0.46)	1.578*** (0.46)	0.585* (0.32)	0.598* (0.32)				
L.Mean District Magnitude (log)					-0.527*** (0.17)	-0.508*** (0.18)	-0.203 (0.13)	-0.188 (0.13)
L.Plaintiff	0.410 (0.33)	0.384 (0.38)	0.358 (0.29)	0.380 (0.34)	0.410 (0.34)	0.542 (0.37)	0.397 (0.29)	0.462 (0.33)
WTO Regime	0.245 (0.32)	0.152 (0.39)	0.793*** (0.29)	0.850** (0.35)	0.360 (0.32)	0.198 (0.38)	0.775*** (0.29)	0.789** (0.35)
L.Exports (log)	-0.373 (0.46)	-0.00666 (0.47)	-0.895** (0.37)	-0.733** (0.36)	-0.597 (0.48)	-0.331 (0.47)	-0.881** (0.38)	-0.716* (0.37)
L.Economic Growth (log)	0.184 (0.29)	0.0654 (0.32)	0.207 (0.24)	0.152 (0.28)	0.0608 (0.29)	0.0342 (0.32)	0.157 (0.24)	0.128 (0.28)
L.GDP (log)	0.486*** (0.13)	0.453*** (0.13)	0.429*** (0.100)	0.435*** (0.10)	0.452*** (0.13)	0.528*** (0.16)	0.450*** (0.12)	0.490*** (0.13)
L.GDP Per Captia (log)	0.457* (0.25)	0.272 (0.28)	0.440*** (0.16)	0.355* (0.19)	0.491** (0.23)	0.420 (0.28)	0.468*** (0.17)	0.402* (0.21)
Constant	-20.14*** (5.23)	-18.57*** (5.36)	-16.39*** (3.00)	-16.24*** (3.29)	-17.25*** (4.68)	-19.40*** (5.59)	-16.62*** (3.39)	-17.60*** (3.74)
Observations	571	556	748	733	557	542	713	698
# of Countries	40	39	54	53	40	39	53	52
Alpha (log)	-1.631 (1.67)	-1.028 (1.80)	-1.330 (1.33)	-0.293 (0.92)	-2.099 (2.34)	-0.852 (1.61)	-1.562 (1.55)	-0.329 (0.95)
Mcfadden's Pseudo R-squared	0.27	0.18	0.23	0.15	0.27	0.18	0.22	0.15
Sample	Polity > 8	Polity > 8	Polity > 6	Polity > 6	Polity > 8	Polity > 8	Polity > 6	Polity > 6
USA included	Yes	No	Yes	No	Yes	No	Yes	No

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## **Appendix A: Details on the coding of *Complaints***

The variable *Complaints* measures the cumulative number of disputes filed against a country alleging the existence of an illegal narrow transfer in a given year. Complaints filed over other issues are systematically identified and excluded. These include: (1) complaints over broad transfers and/or policies that affect a wide range of goods, producers, or industries, like, for example, the 1982 dispute over the value added tax (VAT) threshold; (2) complaints related to the enforcement of intellectual property rights; (3) complaints filed against the European Community/European Union unless it is very clear which EC/EU member the complaint was filed in response to; (4) complaints related to anti-dumping measures because anti-dumping measures are imposed in response to a foreign *firm's* policy rather than a foreign government's policy; (5) complaints that are explicitly political in nature like, for example, the 1985 complaint filed by Nicaragua against the US in response to the trade embargo imposed by the Reagan Administration. Complaints over countervailing duties are included only after carefully examining the GATT/WTO Panel Reports to correctly identify the country initially accused of having an illegal narrow transfer. Complaints filed by multiple countries over a single illegal narrow transfer are counted only once against the defendant country. Two independent coders identified the set of relevant disputes using these coding criteria. The percentage agreement between the two coders was approximately 98 percent.

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<sup>i</sup> There are, of course, exceptions. For example, agriculture is largely exempt from these restrictions.

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<sup>ii</sup> A debate exists within the literature as to whether parties target swing districts or safe districts. See, for example, Cox and McCubbins (1986), Lindbeck and Weibull (1987) and Dixit and Londregan (1996). For this paper, the distinction is not critical. Both arguments point to the importance of targeting benefits to narrow geographically-defined constituencies in majoritarian systems.

<sup>iii</sup> Changes in the rules of negotiation implemented during the Kennedy Round (1964-67) may, in fact, be viewed as the first attempt to limit narrowly targeted benefits. Under the new rules, linear reductions in tariffs were negotiated rather than item-by-item reductions.

<sup>iv</sup> Yet another theory argues that democracies are relatively less likely to provide trade protections (e.g. Mansfield, Milner and Rosendorff 2000; Milner and Kubota, 2005). Although the reasons given for this vary, the expectation is that democratically elected leaders have fewer incentives to provide protection than autocratic leaders.

<sup>v</sup> However, Karol (2007) finds no empirical support in the United States for the claim that larger constituencies makes politicians less protectionist.

<sup>vi</sup> Single member districts also allow voters to assign credit for the provision of targeted transfers. In multimember districts, voters do not know which of their representatives to credit for providing targeted transfers (Ashworth and Bueno de Mesquita, 2006). Voters observe the total amount of transfers provided to the district but not the amount produced by individual legislators. This reduces the domestic electoral benefits of providing narrowly targeted transfers in multi-member districts. As such, politicians in multi-member districts may be unwilling to work to provide narrow transfers in violation of GATT/WTO rules because the costs of doing are likely to outweigh the benefits.

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<sup>vii</sup> However, Monroe and Rose (2002) show that districting matters for partisan electoral outcomes in PR systems under certain circumstances.

<sup>viii</sup> Leeds (2003) takes a similar approach by examining instances of non-compliance with alliance commitments.

<sup>ix</sup> Data are from Hudec (1993), Reinhardt (1996), Allee (2009) and the WTO (2005).

The coding criteria used to identify relevant disputes are detailed in Appendix A. Two independent coders coded agreements according to these criteria. The percentage agreement between the two coders was 98 percent.

<sup>x</sup> 80 percent during the period from 1980-1994; 66 percent during 1995-2003.

<sup>xi</sup> However, majoritarian systems tend to be more frequent in large countries. The size of a defendant country (or market) may influence plaintiff country's decisions to file a formal complaint. To control for this, I include various measures of the defendant countries' economic size in all estimated models (GDP and GDP per capita). I also include measures of a defendant country's population and area in models run as robustness checks. Importantly, electoral rules remain a robust predictor of the number of GATT/WTO complaints filed against a given country controlling for various measures of country's size. This minimizes the possibility that the positive correlation between majoritarian electoral rules and WTO-inconsistent policies is spurious.

<sup>xii</sup> The mean value of *Complaints* is 0.17; the standard deviation is 0.55. Although the unconditional variance is greater than the unconditional mean, the dispersion parameter, alpha, closely approximates zero in several of the estimated models. When alpha is equal to zero, the negative binominal distribution is equivalent to a Poisson distribution.



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<sup>xiii</sup> *Exports* are used to predict zero counts. Countries that export nothing to the global market arguably face little scrutiny of their domestic transfers. However, *Exports* is not a robust predictor of the incidence of zeros. Importantly, the estimated coefficients for the key variables of interest (*Majoritarian* and *Mean District Magnitude*) are very similar to those estimated using a negative binominal model; the standard errors are relatively lower.

<sup>xiv</sup> Although dyadic studies have become increasingly common in the GATT/WTO literature, several recent papers question this trend. Rose (2008) argues that monadic tests may be more appropriate than dyadic tests for understanding the expected effects of the GATT/WTO on countries' trade policy decisions. Similarly, Allee and Scalera (2009) make a strong case for using monadic rather than dyadic data to examine the effects of GATT/WTO accession on domestic policy. Dai (2006) illustrates the potential pitfalls of testing monadic theories using dyadic data.

<sup>xv</sup> A fully interacted model is also estimated to test for equality of coefficients across these two regimes. The estimated coefficients for both *Majoritarian* and *Mean District Magnitude* are remarkably consistent across the two regimes.

<sup>xvi</sup> All control variables are lagged one year. Alternative lag structures were tested. For example, *Plaintiff* was lagged for two years rather than just one. However, this did not significantly alter the key findings.

<sup>xvii</sup> Population and area are used as alternative indicators of size. These results are not reported here but are available from the author upon request. Importantly, the key results are robust to the inclusion of these alternative measures of country size.

<sup>xviii</sup> Data on all economic variables come from the World Development Indicators (World Bank 2005).

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<sup>xxix</sup> The variance inflation factor (VIF) is less than 4 for all variables included in the estimated models, as recommended by Huber et al. (1993).

<sup>xxx</sup> These results are consistent with those reported by Davis (2008).

<sup>xxxi</sup> These data come from the Database of Political Institutions (Beck et al., 2001).

<sup>xxxii</sup> These data come from Johnson and Wallack (2005). Using a measure of mean district magnitude taken from the Database of Political Institutions (Beck et al., 2001) produced very similar results.

<sup>xxxiii</sup> Here, the sample includes only those countries with a Polity score greater than 8.

<sup>xxxiv</sup> For countries under the WTO regime that did not file a complaint in the previous year. All quantitative control variables are set equal to their median values.

<sup>xxxv</sup> Here, the sample is expanded to include all countries with Polity scores greater than 6.

<sup>xxxvi</sup> For example, electoral institutions remain robust predictors of non-compliance even when a measure of rule of law is included. Previous research demonstrates that countries with strong rule-of-law traditions are more likely to comply with international agreements (Simmons 2000).

<sup>xxxvii</sup> Although countries self select into electoral rules, there is little reason to believe that this non-random selection biases the reported results. Countries predisposed to protection are no more likely to choose majoritarian electoral rules than proportional rules (Boix 1999). Instead, a country's selection of electoral rules depends critically on ethnic and/or religious fragmentation (Boix 1999, Rokkan 1970). Although fragmentation influences a country's choice of electoral system, it is unlikely to influence the country's trade policies. Thus, the possibility of a spurious correlation or selection bias is minimal. Further evidence of this is provided by empirical tests that include an indicator of the historical period during which the country adopted the

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electoral rules in use at the time of the observation. If there are historical trends in electoral institutions, then the period during which a country's electoral rules were chosen is likely correlated with the selection and therefore the conditional-independence assumption is more credible when this variable is included in the estimated model. These results are available from the author upon request. Controlling for the age of a country's electoral institutions, countries with majoritarian electoral rules are more likely to be named as defendants in GATT/WTO complaints.

<sup>xxviii</sup> A notable exception is Allee (2009).