

# **Democracy and the Initiation and Targeting of International Trade Disputes**

Greg Dixon  
Department of Political Science  
University of Arizona  
Tucson, Arizona 85721  
[gcdixon@email.arizona.edu](mailto:gcdixon@email.arizona.edu)

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# Democracy and the Initiation and Targeting of International Trade Disputes

## **Abstract**

Democracy plays a strong role in determining trade dispute behavior. Building on theories of the democratic peace and applying their logic to the study of international trade conflict, this study examines the role of democracy in determining trade dispute behavior. This paper argues that the logic of the democratic peace suggests that democratic states should be more conflictual, not less, when involved in disputes with the GATT and WTO. This study is among the first systematic tests of the relationship between democracy and trade conflict. In four time-series logit models, this paper tests the impact of democracy on all directed dyads within the GATT and WTO membership for the years 1960 to 1998. The results strongly support the proposition that democratic states will be more disputatious than their non-democratic counterparts when involved in trade conflict.

Since 1947, the international economic system has been governed by a set of global institutions that have sought to manage potential economic conflict. The international trade regime which emerged under the auspices of the General Agreement on Tariffs and Trade and which continues after 1994 under the banner of the World Trade Organization has led to a striking growth in the volume of international trade. Along with this growth has been a progressive increase in the use of the formal rules of the GATT and WTO to resolve disputes that have arisen within the framework of the global trade regime.

One of the most striking aspects of these disputes is the fact that they are largely democratic affairs. Democratic states are participants in these disputes with far greater frequency than their proportion of the GATT/WTO membership would suggest. This fact suggests that democratic governance plays a role in determining whether or not states will engage in trade disputes under the GATT/WTO regime.

The idea that democratic institutions will play a role in determining international behavior is not new, nor is it unique to the realm of trade disputes. Literature on militarized conflict has clearly demonstrated that democracy plays a powerful role in determining the likelihood of a state's involvement in a militarized conflict. The democratic peace literature has widely explored the impact of democracy on the likelihood of militarized conflict between states. This literature clearly shows that democratic states are less likely to engage in militarized conflict against other democracies than are non-democratic states.

This is precisely the opposite relationship from that which we observe in trade disputes. A brief examination shows that, of the 1,766 GATT/WTO dyads which experience disputes, 1,357 of these (77%) take place in dyads in which both pairs of states are democratic using the Polity IV measure of dichotomous democracy defined by Jagers and Gurr. (Jagers and Gurr 1995) At first glance, this implies that the effect of democracy is very different in trade disputes than in militarized disputes.

The possibility that democracy increases trade conflict offers the opportunity to examine in greater detail the mechanism by which democratic domestic institutions affect international behavior. The mechanism by which democratic institutions lead to lower levels of military conflict remains a matter of heated debate in spite of near universal agreement on the empirical observation that democracies do not fight democracies. By extending the logic of the democratic peace as it applies to military conflict into the trade realm, we can explore the mechanisms by which domestic institutional structures affects international behavior.

The purpose of this study is to apply the logic of the democratic peace to the trade dispute process. This study will build on the two previous studies that have attempted to explore the influence of democracy on trade conflict. This study will extend this existing research in to important ways. First, this study will include disputes taking place at the WTO up to 1998 in addition to the disputes that took place under the GATT regime. Second, this study will explore the separate impact of democracy on the initiation and targeting of disputes, rather than simply focusing on the dyad as a unit.

The results of this study show that democratic states are more likely to engage in trade disputes even when controlling for the relative size of the economies in the dyad and the overall trade volume of the states in question. This study offers strong support to the proposition that democratic domestic institutions play a major role in determining the likelihood that a GATT or WTO member state will become engaged in a trade dispute. This study further finds that democratic states are more likely to be targeted for trade disputes regardless of the regime type of the initiating state.

## Theory

The onward march of global economic integration has greatly increased the flow of international trade. The context for this has been a multilateral trade regime that has maintained a commitment to promoting the reduction of barriers to trade across a wide range of economic activity. In spite of the widespread rhetorical commitment to free trade, the member states of the GATT/WTO system have continued to practiced managed trade policies that violate the rules of the multilateral trading system. The pursuit of managed trade has led to clear conflicts of interest between the member states of the GATT/WTO system.

What makes the GATT/WTO system unusual is that a formal process for resolving these conflicts of interest exists and has been used by its members with increasing frequency. The existence of this formal process, and the frequency with which member states have chosen to use it, offers fertile ground for the study of how states resolve international conflicts.

<Chart 1 about here>

One of the principal causes of trade conflict is the presence of trade itself. To have a conflict of interest over trade policy, states must first have sufficient international trade to make a dispute meaningful. Previous studies have clearly demonstrated that increasing trade volume leads to increasing trade disputes. (Sherman 2001) The central question that remains is whether or not democracy matters once we have taken trade volume into consideration.

Research regarding the democratic peace has shown that democratic states are more likely than their non-democratic counterparts to seek non-military solutions to their conflicts of interest. (Maoz and Russett 1993) Arguments emphasizing the normative nature of this relationship have focused on what William Dixon has referred to as the norm of bounded competition. (Dixon 1994) This norm implies that democratic leaders have come to accept formal, legal processes as a means of resolving domestic conflicts of interest. The norm of bounded competition implies that these leaders will seek to replicate formal means of resolving disputes at the international level to mirror those found at the domestic level. In short, democratic leaders will seek to use formal rules to resolve disputes when possible at the international level.

Trade disputes offer a clear means of testing whether the norm of bounded competition can be extended beyond military conflict into other areas of international conflicts of interest. Trade disputes involve fundamental conflicts of interest between states that can involve issues that cannot be resolved bilaterally. These conflicts of interest may be resolved in a variety of ways that involve both formal legal procedures and informal processes. Unlike militarized disputes, a generally accepted formal structure exists at the international level to resolve disputes over trade between a specific group of states. The General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO) both include formal dispute resolution processes as part of their respective institutional structures.

The procedures offered by the GATT and the WTO are not purely legal processes as the enforcement of the rulings of the respective dispute resolution bodies was and is not enforced by an outside power with sovereign authority over both parties. The GATT had no

enforcement protocols at all prior to 1989, and both the post-1989 GATT regime and the WTO's enforcement mechanism rely on the power of the plaintiff to collect any damages awarded by the process. The result is that states must rely on their own ability to impose sanctions on a potential target in order to have a hope of enforcing a favorable ruling. In spite of this shortcoming, the shift towards greater formality and the implementation of enforcement mechanisms has led to the increasing use of the GATT/WTO process over time.

<Chart 2 about here>

While the GATT/WTO process is not a formal, legal process in the domestic sense of being enforced by a higher authority, it does approximate the cooperative and formal structures of domestic governance in many ways. The dispute resolution rules are generally accepted by all member states as part of their commitment to membership in the GATT and WTO. In choosing to join the GATT or WTO, states agree to a given set of dispute resolution procedures, providing collective legitimacy to the process. In making this commitment, member states are obliged to follow the rules of the dispute resolution system. Under the GATT and prior to 1989, this included the right of states to refuse acceptance of panel rulings without sanction. After 1989, the GATT included a series of "improvements" that included a rudimentary enforcement mechanism. When the WTO rules were negotiated, the inclusion of a system of binding sanctions was included in the dispute resolution system. The WTO can empower victorious disputants to impose retaliatory tariffs on the losing party as a means of forcing compliance.

There are relatively few previous studies that have examined the impact of democratic domestic institutions on trade conflict. (Reinhardt 2000, Sherman 2001) Previous studies demonstrated that democracy plays a role in trade conflict, although the two reach slightly different conclusions.

Reinhardt examines the range of GATT and WTO disputes from 1947 to 1998 in an attempt to determine what motivates aggressive trade dispute behavior in the absence of strong enforcement measures. In doing so, he finds that democratic states are more disputatious than are non-democratic states when considering trade conflict. Reinhardt concludes that democratic states are both more likely to initiate trade disputes and more likely to be targeted, regardless of the initiator's level of democracy. Reinhardt concludes that the democratic peace does not apply because we observe greater conflict rather than greater cooperative solutions. Reinhardt also concludes that the norm of bounded competition does not apply to trade disputes due to the fact that democracies do not resolve their disputes cooperatively, but instead follow the entire dispute resolution process. (Reinhardt 2000)

Sherman examines only the disputes raised under the GATT. He seeks to determine what effect democracy has on the probability that a dispute will occur in a given dyad year. His conclusion is that democratic dyads are more likely to experience trade conflict than are non-democratic dyads. Sherman also demonstrates the impact of democracy after controlling for international trade within the dyad. Sherman does not differ between initiators and targets in his analysis, although he does examine some dyadic characteristics. (Sherman 2001)

Both previous studies emphasize the fact that democracies are more disputatious in trade disputes as a contrast to the observed behavior in militarized disputes. Both also indicate that this shows a clear contrast between militarized dispute behavior and behavior in trade disputes. While this distinction clearly does have merit, the idea that democratic states

will be more disputatious in trade disputes is consistent with the predictions of the normative model of the democratic peace. Most importantly, the failure of democracies to reach a cooperative solution outside of the GATT/WTO process is in fact consistent with the predictions of the norm of bounded competition.

The norm of bounded competition implies that domestic political leaders will adopt norms of dispute resolution which mirror formal forms of dispute resolution which are observed at the national level. (Dixon 1994) If this is correct, this implies that when a conflict of interest between democratic states arises, the leaders of those states will seek a formal solution to the problem when cooperative means fail. In trade dispute behavior, this would imply that domestic leaders would seek an international policy that would allow a formal form of dispute resolution. In the case of trade disputes, such a body has existed since 1947 in the form of the GATT and the system lives on after 1994 in the form of the WTO. If democratic states seek a formal means of resolving disputes, they should be more likely to initiate disputes under the GATT/WTO system. Due to the contentious nature of these conflicts of interest (to reach the GATT/WTO they must defy bilateral solutions) it is to be expected that the solution would be amenable to a formal process rather than a strictly cooperative solution. It can also be argued that the mutual acceptance of the norms of dispute resolution enshrined in the GATT and WTO constitute a pre-negotiated set of cooperative structures, agreed upon in advance for the purpose of providing solutions to intractable problems.

Structural explanations of the democratic peace emphasize the need of democratic leaders to secure reelection in order to continue in power. In order to secure election, a winning coalition is required. (Bueno de Mesquita, Morrow et al. 1999) The construction and maintenance of such a coalition requires that political leaders listen to and make policy that favors particular interest groups. In doing so, this places the policy of the state under the influence of particularist groups. This process places pressures on democratic governments that are not present in their authoritarian rivals. (Sherman 2001)

International trade policy in democratic states is likely to be pulled in opposite directions by export industries and import-competing industries. Domestic lobby groups will seek to drive policy to support their own interests. By virtue of their electoral systems, democratic states are subject to pressures to engage in trade policies that will result in conflicts of interest with other states. (Reinhardt 2001) These policies are frequently in conflict with international trade rules as defined in the GATT/WTO system and are thus prime candidates for disputes within the GATT/WTO framework.

The conflict of interest that results can be resolved in a number of ways. The norm of bounded competition implies that democratic states will seek forms of dispute resolution that are formal in nature. (Dixon 1994) The GATT/WTO process provides a forum for conflict resolution that is governed by a system of formal and mutually accepted rules for dispute resolution. This system provides a quasi-legal structure in which to resolve disputes. As member states have agreed to abide by the dispute resolution process, this formal system provides a forum for dispute resolution when bilateral efforts fail. As both sides have accepted the rules of the process as a condition of GATT/WTO membership, this process provides a clear set of neutral and agreed upon rules with which states can resolve their conflicts of interest.

Democratic states will also make attractive targets for GATT/WTO disputes. Non-democratic states can expect that democratic states will honor the results of a dispute

resolution process that is considered legitimate. Participation in the GATT/WTO regime implies the acceptance of the regime as legitimate to democratic states. If the non-democratic state can use the GATT/WTO process to gain benefits from trade that outweigh the costs of the dispute, it will make them more likely to use the GATT/WTO process. Non-democracies can also be expected to be strategic in their choice of dispute resolution venue. The GATT/WTO system offers a set of clear rules that democratic states can be expected to follow. If there is a strong chance of winning the dispute, the GATT/WTO system offers an excellent chance to gain a favorable policy outcome that might be impossible (or prohibitively costly) by other means.

The GATT/WTO system is also characterized by a clear set of shared rules to which member states must commit. These rules (at least in principle) allow an objective standard to be applied to adjudication of disputes arising under these rules. The rules also allow a strategic evaluation by states of the possible success or failure of a dispute before the dispute is initiated. This process has become easier as time has past and a system of precedent has begun to emerge.

The GATT/WTO process also has the benefit of being a filter that removes lesser problems from consideration. The initiation of a dispute at the GATT or WTO requires that a state allocate scarce resources to an effort that may fail. The cost to the initiating state may be high due to the protracted period that may be required to resolve the dispute through the formal process. Defending against a dispute is also costly for the target state. The target state must decide whether the cost of changing policy is greater than the cost of contesting the dispute. Disputes that are trivial or of small import will not be escalated to the GATT/WTO process. Thus the disputes we do observe will reflect a significant degree of conflicting interests between the states in question.

It is the combination of these qualities that make the GATT/WTO system ideal for examining the impact that domestic institutions have on dispute behavior. The existing models of conflict behavior built around militarized conflict have some similarities to the situation in trade disputes. These basic similarities allow some ground for comparison of the impact of democratic institutions across the two issue areas. The many differences in the quality of the issues involved, however, indicate that comparison must be made carefully.

### **Hypotheses**

In trade conflict, democratic states can be expected to seek out means of conflict resolution which support their desire for a formal process. In doing so, they will be much more likely to use the formal structures of the GATT/WTO to achieve their policy ends. In cases of serious conflicts of interest, democratic states will be more likely to seek formal, agreed upon means of adjudicating their dispute. This implies two hypotheses regarding the impact of democracy on the decision to initiate trade disputes:

- Hypothesis 1: Democratic states (measured dichotomously) will initiate trade disputes with greater frequency than non-democratic states.
- Hypothesis 2: As states become more democratic, they will initiate trade disputes with greater frequency than less democratic states.

In addition to the drive to find formal means of resolving disputes, democratic states will also be under pressure to impose barriers to trade to protect domestic interests to a greater degree than non-democratic states. This will make democratic states more likely to violate the rules of the GATT/WTO trade regime through their domestic and international policies. When such violations occur, and other states are harmed as a result, it is likely that the harmed state will consider the use of the formal dispute resolution system. Given that democratic states are more likely to engage in policy that violates the rules of the GATT/WTO system, a second set of hypotheses is implied:

- Hypothesis 3: Democratic states will be targeted in trade disputes with greater frequency than non-democratic states.
- Hypothesis 4: As states become more democratic, they will be targeted with greater frequency than less democratic states.

In much of the literature on the democratic peace, the most peaceful dyads are those which are jointly democratic. (Rousseau, Gelpi et al. 1996) This implies that the relationship between democracy and conflict is a dyadic one. In trade conflict, it is to be expected that the pressures on domestic policy-makers will lead to an additive effect. Democratic states in conflict with other democratic states should see a greater incidence of trade disputes as both states will feel increased pressure to use the formal process to resolve their disputes. This implies a further hypothesis:

- Hypothesis 5: Jointly democratic dyads will have a higher incidence of trade disputes than non-democratic and mixed dyads under all conditions.

## **Method**

To test the hypotheses regarding the impact of democracy on participation in trade disputes, a series of time-series logit models were estimated. These models test the effects of democracy, as well as other factors, both on the likelihood of dispute initiation as well as the likelihood of a state being targeted in a dispute. The unit of analysis is the directed dyad year. The population of cases is all GATT and WTO members from the year 1960 until 1998.

The dichotomous dependent variable in all of the models is the presence of a dispute in the given directed dyad year. Dyad years with a dispute are coded "1". Dyad years without a dispute are coded "0". The dataset for dispute incidence is taken from Eric Reinhardt's dataset of GATT disputes (Reinhardt 2001) and supplemented by a new dataset of WTO disputes compiled for this study. The presence of a dispute is defined as the initiation of a dispute under either the GATT or the WTO in a given year. A dispute is considered to be initiated when the initiating party formally requests consultations under the auspices of the respective dispute resolution body. In these models, the outcome of the dispute is not considered. The length of the dispute and its final level of resolution are likewise left out of this analysis.

The WTO portion of the dataset was compiled from the list of trade disputes provided by the WTO in the August, 2000 update to the "State of Play" listing found at the WTO web site. Information from the "State of Play" was supplemented by data from the public reports of WTO proceedings also available from the WTO web site. The resulting dataset includes all cases in which a state chose to request consultations under GATT rules as well as all cases in which states chose to request consultations under the WTO rules. States who jointly request negotiations are coded as initiators of a multilateral dispute. States who join an already extant set of consultations are not considered initiators in this analysis in order to maintain consistency between the GATT and WTO data sets.

<Table 1 about here>

Democracy is measured using the Polity IV dataset. The scaled democracy measure is calculated by taking the autocracy score and subtracting it from the democracy score according to the Jagers and Gurr convention. (Jagers and Gurr 1995) The resulting score has a range of -10 to 10 and indicates the relative level of democracy reflected by the institutions of the state. The scaled Polity score is likewise used to calculate a dichotomous measure of democracy based on the convention of a 7 or higher on the scaled score indicating that a state is democratic and a score of 6 or less indicating that a state is not democratic. This convention is consistent with that used in the literature regarding the democratic peace. (Dixon 1994; Rousseau, Gelpi et al. 1996; Mousseau and Shi 1999) Democracy scores are calculated for both the initiator and the target. These scores are expressed both as scaled scores (using the -10 to 10 scale) and as dichotomous scores.

A joint democracy measure was included for testing the scaled democracy measures. This was based on the dichotomous democracy score generated as described above. The joint democracy measure was coded a "1" if both states were above the threshold for dichotomous democracy and coded "0" in all other cases. Evidence from previous literature regarding trade dispute behavior (Reinhardt 2000, Sherman 2001) suggests that joint democracy has an independent effect when comparing scaled scores. This variable is included to account for this effect. It is expected that joint democracy will be positively signed.

GDP data is derived from the World Bank World Development Indicators and is indicated in billions of constant 1995 United States dollars. To account for a non-linear relationship between GDP and trade disputes, a logged measure of GDP was calculated by taking the natural log of the dollar figure. This is consistent with the theoretical prediction that the impact of GDP should be less per dollar at higher levels than at lower levels. This measure is calculated for both the initiator and the target.

A measure of GDP asymmetry is calculated to gauge the relative difference between the economic strength of the two states in the dyad. This value is calculated using the method followed by Sherman: The absolute value of the target state GDP subtracted from the initiating state GDP. (Sherman 2001) The resulting value is divided by the sum of target and initiator GDP. The resulting measure has a theoretical range of 0 to 1 and gives an indication of the disparity of GDP between the two states in the dyad.

The volume of trade for both states is taken from Katherine Barbieri's data set of international trade (version 1.1). The monadic trade values for the initiator and the target state are calculated in billions of United States dollars. The values reflect the total volume of

imports and exports for the country for the given year. Separate measures are included for the initiating state and the target state.

Following the findings of Sherman, a squared measure of trade is also included. (Sherman 2001) This measure accounts for the non-linear relationship between trade and the tendency to initiate disputes. This measure is taken by squaring the value of trade for the initiator and the target state to generate two new variables. This result is divided by 100 in order to make the resulting coefficients more easily comparable.

A measure of trade asymmetry is calculated by taking the absolute value of the difference in total trade between the two states and dividing this by the sum of both states trade. This results in a measure of the different levels of trade between the two states in the dyad and has a theoretical range of 0 to 1.

The decision relating to how the European Union was to be considered was a serious one. Since 1958, the European Union has acted as a single entity in trade disputes. This creates a concern for study of the GATT and WTO. The EU is an intergovernmental organization that serves as an intermediary between a select group of member states and the GATT/WTO system. For the purposes of this study, any initiation or targeting of the EU was considered to be a multilateral dispute involving all of the EU member states. This solution provides simplicity, although it is not without potential problems.

A second serious question regarding the use of this data is the exceptionally large number of disputes involving the United States and the European Union. Of the 521 total individual disputes which take place under the GATT and WTO, only 44 (8%) do not involve the US or the EU as either initiator or defender. 70 of the disputes (13% of the total) are between the US and the EU. This creates a potential concern that the results are being driven by a very small group of states. To account for this, logit estimates were generated that used only the disputes that did not involve the US or the EU.

The above data are used to estimate a series of time-series logit models with the presence of a dispute in a given year as the dependent variable. Separate models were run for the dichotomous and scaled democracy measures. Separate models were also run which removed the US and EU from the model. The result is a series of four models that estimate the probability of a trade dispute occurring in a given directed dyad year.

## **Results**

The results of these models largely support the proposition that democracy has a significant impact on the incidence of trade disputes. While the evidence is less strong in the models in which the EU and US are removed, in general, the results reflect the theoretical predictions.

<Table 2 about here>

When examining dichotomous democracy using all states, the coefficients for both initiator and target democracy are both positively signed and significant as expected. This result indicates that a score of "1" on the dichotomous democracy score for both initiators and targets results in an increased likelihood of the dyad containing a trade dispute. If an initiating state is democratic on the dichotomous measure, it is five times more likely to experience a trade dispute than is its non-democratic counterpart. More striking is the effect

of the target state's democracy. If a target state is democratic, it is thirty eight times more likely to experience a trade dispute than its non-democratic equivalent when all other values are held at their means. These results strongly support hypothesis one and hypothesis three.

In examining the effect of GDP, the results were somewhat contrary to predictions. As GDP increases, the probability of a dispute declines. This result is statistically significant across both variables. While this was expected for the target state, this was not expected for the initiating state. In fact, this is the opposite of the predicted outcome for the initiating state. Theory predicted that a higher GDP should have increased the capability of the state to engage in a dispute and thus yielded a positive coefficient once the target state's GDP was controlled for. GDP asymmetry performed as predicted, with a positively signed and significant coefficient. As GDP asymmetry approaches 1, the probability of a dispute increases. This indicates that disputes are more likely when the states are unequal in economic strength.

The results for trade volume are significant and positive. This is as predicted, indicating that greater trade volume increases the probability of a dispute. The values for trade squared are significant and negative for both the target and the initiator. The probability of a dispute begins to fall at approximately \$170 - 180 billion. This finding is consistent with the results produced by Sherman. (Sherman 2001)

Trade asymmetry is negatively signed and significant. This indicates that the closer the value of trade asymmetry to zero, the greater the probability that a trade dispute will occur. This is consistent with predictions as well as with past research. Trade conflict is most likely to occur between relative equals in trade volume.

When the EU and the US are removed from the analysis, the results change substantially. The first element to note is that the number of dyads in which a dispute occurs shrinks substantially. In the process, a number of the variables cease to be significant and most others become significant at the .05 rather than the .01 level.

The dichotomous measure of initiator democracy is positively signed and significant, as in the first model. The value for target democracy, however ceases to be significant (although it remains positively signed) once the EU and US are removed. This provides mixed support for the main hypotheses of this analysis. The significant result for initiator democracy provides support for hypothesis one. The lack of a significant result for target democracy casts some doubt on the robustness of the findings of the first model as it relates to hypothesis three. As in the full model, the presence of democracy has a strong substantive effect. Democratic initiators are three times more likely to experience a trade dispute than are non-democratic initiators. While the results for target democracy are not significant, the predicted probability of a dispute for a democratic target is eighteen times greater than that for a non-democratic target.

The results for GDP are similarly mixed. The initiator GDP remains significant and negatively signed, as does the target GDP. This lends additional support for the argument that GDP has a dampening effect on the incidence of trade disputes. The exception here is that GDP asymmetry ceases to be significant and the coefficient changed signs to the negative. This places some question on the findings regarding GDP asymmetry's impact on trade dispute incidence.

The impact of trade on the model held up well with the removal of the EU and the US. Initiator and target trade remained positively signed and significant. This implies strong support for the impact of the volume of trade on trade dispute incidence. The squared

measures remain negatively signed and significant. The shift to declining probability takes place at roughly the same point as when all states are included.

<Table 3 about here>

The models involving the scaled democracy measure largely confirm the results from the dichotomous measure. When estimating the model with all states, the initiator democracy scores are both significant and positively signed. This is consistent with predictions that as states become more democratic, they will be more likely to initiate trade disputes. A shift from -10 to 10 on the scaled democracy measure makes a state eleven times more likely to experience a dispute. Likewise, target democracy is also positively signed and significant, lending support to the prediction that states will be targeted with greater frequency as they become more democratic. Shifting the target state from -10 to 10 on the democracy scale, makes that states three hundred and fifty times more likely to be the target of trade dispute. These results strongly support the impact of democracy on trade disputes. This provides strong support for hypothesis two and hypothesis four.

Joint democracy also supports the impact of trade on disputes. The results for joint democracy are positive and significant, as predicted. Jointly democratic dyads as defined here are twenty-one times more likely to experience trade disputes than their non-democratic counterparts when holding all other values at their means. The independent impact of joint democracy implies that there is a dyadic effect beyond the simple monadic effects of the initiator and target characteristics. This result supports hypothesis five.

GDP demonstrates the same relationship observed in the dichotomous models. The logged GDP of both the target and the initiator are negatively signed and significant, indicating that the probability of disputes declines as the GDP of each state rises. GDP asymmetry remains positive and significant, indicating that the probability of a dispute rises as the states become less balanced in their economic power.

As with GDP, trade demonstrates estimates that are consistent with the first models. The trade volume of both the initiator and the target are positively signed and significant. This provides further support to the trade causes trade disputes case and roughly confirms the findings in previous work. The trade squared measure for both the target and the initiator was negatively signed and significant. This is consistent with the findings in the first models. The point at which the probability of a dispute begins to decline is also approximately equal to that in the dichotomous measure. Trade asymmetry is negatively signed and significant. This indicates that the probability of a dispute declines as the disparity in trade volume grows. This is consistent with the results from the dichotomous model, and lends further support for the prediction that trade parity leads to disputes.

When the US and EU are removed from the scaled models, we observe changes similar to those found in the dichotomous models. A significant difference is that the scaled democracy measures are all significant. The scaled measure of initiator democracy is positive and significant, consistent with the other models. When the initiator's democracy shifts from -10 to 10 on the scaled score, the initiator becomes fifty-two times more likely to experience a trade dispute. Unlike in the dichotomous model, in the scaled model, target democracy is both positively signed and significant. A shift in democracy from -10 to 10 for the target makes that state four thousand six hundred times more likely to experience a trade dispute.

Joint democracy remains positively signed and significant with the EU and US removed from the analysis. Jointly democratic dyads are ten times more likely to experience a trade dispute than their non-democratic counterparts.

The impact of GDP in the scaled model without the US and EU show differences between the dichotomous model and the scaled model. While the logged GDP of the initiator remains negatively signed and significant, the logged GDP of the target has changed to a positively signed (and significant) result. This change is unexpected. In particular because it indicates that the higher a target state's GDP, the more likely it is to experience trade disputes.

Trade volume provides results that are slightly different than those of the other models. Initiator and Target trade are positively signed and significant. Target and initiator trade squared are negatively signed but not significant. Trade asymmetry is significant and negatively signed. The major difference between the dichotomous and scaled models is in the change in the significance of the trade squared variables. In the scaled model, all of the trade values are not significant. In the dichotomous model, the squared values were significant.

### **Caveats and Future Research**

This study is among the first to explore the impact of democratic institutions on trade conflict behavior. As an early effort to understand this process, there are a number of areas of concern which should be addressed as part of this study.

The largest concern regards the European Union as an actor in international trade disputes. As previously mentioned, the EU is an intergovernmental organization that represents nation states at another intergovernmental organization. With such a form of organization, the EU does not have the same institutional structure as do the states that are direct members of the GATT/WTO system. The decision making process of the EU is different from that of most states, and it is insulated to a greater degree from the democratic process. In the EU, the democratic process elects national leaders, who can pressure the EU administration to engage in policy actions. The problem here is that the institutional link between the EU member states' electorates and the decision-makers in trade negotiations is indirect at best. While the EU does have an elected Parliament, it does not have final authority or oversight of the European Commission, and is thus not able to check the power of the bureaucracy in the same manner as most democratic states' elected governments.

This presents a problem for research on trade conflict because of the unique nature of the EU's relationship to both its member states and to the WTO. While this is an interesting (and somewhat vexing) problem, this study largely sidesteps this issue. Future research into the dispute behavior of the EU would potentially help to clarify these issues.

The major theoretical drive for this study comes from two factors. The first is the theory that democratic states will seek a more formal process at the international level to resolve serious conflicts of interest. A good start on assessing this element of the theory has been accomplished by this study and previous work. The second theoretical drive is that democracies are more exposed to domestic political pressure than are non-democracies due to the ability of democratic electorates and interest groups to influence policy. While the logic of this argument makes sense, and there is research in other areas that lends support to this, no study yet published has looked at the various forms of institutional organization and tested whether openness to domestic lobby groups has an impact on state behavior. Future research

is needed to clarify the process and conditions under which domestic pressure is translated into international behavior.

This study did not focus on the wide range of outcomes possible in trade disputes. Under the WTO regime, there is a wide range of potential outcomes for any trade dispute. There are numerous stages to the process in which states may concede, withdraw, or come to a mutual agreement. Future research into the impact of democracy is needed to explore the impact of democracy on dispute outcomes.

The greater tendency of democratic states to be targeted suggests that non-democratic states are using the formal process as a means of accomplishing policy outcomes. This has potentially important implications for the study of international conflict as a whole. If non-democratic states have learned to use formal institutions as a means of achieving policy, it is possible that in some aspects, non-democratic states may begin to take on the behaviors of democratic states as time passes. This study did not investigate this possibility, and it is left to future research to explore this possibility.

This study adds to the growing literature on trade disputes. It is still a preliminary effort to determine the role that democracy plays in determining international behavior, but it is an incremental step in the process.

## **Conclusions**

Democracy continues to spread across the globe. The number of democracies in the international system has grown substantially, and the global pressure from the major powers continues to press for further democratization. At the same time, international trade is growing at an enormous pace. The volume of international trade continues to grow as economic integration continues to progress. The general assumption is that these two factors will lead to a more peaceable world and more cooperative solutions to international problems. While there is strong evidence to support this in the military arena, in the trade realm, the evidence is just the opposite.

Democratic states are more likely to engage in trade conflict than their non-democratic counterparts. This study demonstrates that, controlling for other factors, democracy increases the likelihood of trade conflict. This study also confirms earlier findings that the volume of trade increases trade conflict overall. As the volume of world trade grows, so will the propensity for trade conflict. If this process is accompanied by a further spread of democracy to the fifty three percent of WTO members that are not democratic, we can expect to see an explosion of trade conflict.

This study sought to add to the growing literature seeking to deepen our understanding of the way in which domestic institutions affect international behavior. The effect on democracy on military conflict has been well documented, and yet the mechanism still remains a matter of debate. This study hardly resolves this debate, but it does demonstrate that democracy impacts conflicts of interest that take place outside the military realm.

Democratic states are more likely to become involved in formal trade conflicts than their non-democratic counterparts. Democratic states are more likely to initiate disputes in the GATT/WTO process as a means of resolving conflicts of interest. Democratic states also make good targets for GATT/WTO disputes for both democratic and non-democratic initiators. The tendency of democratic states to engage in the formal dispute process with greater frequency lends some support to the principle of the norm of bounded competition.

Democratic states seek to use a formal process of dispute resolution in cases of serious conflicts of interest.

The process by which democratic states translate domestic lobbying and the norms of their political leadership into international behavior is still a matter of debate. What this study has shown is that this process produces predictable results when applied to trade conflict. The wide range of competing actors at the domestic level demand policies from democratic leaders that will force them into international behavior that spawns conflict of interest with other states. Once this conflict has emerged, states select the best means to resolve the conflict. We observe that democratic states select a formal process to resolve these conflicts with greater frequency than their non-democratic competitors. In observing this process we see both institutional and normative pressures on democratic leaders creating the observed outcomes.

There remains a great deal of work to be done to improve our understanding of the mechanisms through which domestic institutions manifest in international behavior, but the improvement of our understanding of trade dispute behavior adds to the growing body of literature that seeks to explore these ideas.

**Table 1: Summary Statistics**

Variable	Mean	Std.Dev.	Min	Max
year	1983.174	12.45785	1947	1999
Initiator Democracy (Scaled)	1.920447	7.656428	-10	10
Target Democracy (Scaled)	1.919808	7.656284	-10	10
Initiator Democracy (Dichotomous)	.4976673	.4999952	0	1
Target Democracy (Dichotomous)	.4976493	.4999951	0	1
Dichotomous Dispute Presence	.0045649	.06741	0	1
Initiator Logged GDP	4.20301	4.331734	-.1171214	26.96846
Target Logged GDP	4.202821	4.331522	-.1171214	26.96846
GDP Asymmetry	.4128567	.291435	7.06e-06	1
Initiator total trade	27.33703	82.08059	.0154	1000.01
Target total trade	27.33561	82.08473	.0154	1000.01
Initiator trade squared	74.84511	512.636	2.37e-06	10000.2
Target trade squared	74.85113	512.8646	2.37e-06	10000.2
Trade Asymmetry	.6659792	.2989351	0	.9997322

**Table 2: Time-Series Logit Model of Dichotomous Democracy's Impact on GATT and WTO Dispute Incidence (1960-1998)**

	All States	US and EU Removed
Initiator Democracy	1.094** (.116)	1.069* (.504)
Target Democracy	2.623** (.238)	1.405 (.858)
Initiator log GDP	-.127** (.025)	-.937** (.333)
Target log GDP	-.113** (.037)	.115* (.066)
GDP Asymmetry	1.523** (.190)	-.926 (1.136)
Initiator Trade	.007** (.001)	.022* (.011)
Target Trade	.009** (.001)	.019** (.005)
Initiator Trade Squared	-.0004** (.0001)	-.008* (.004)
Target Trade Squared	-.0006** (-.0001)	-.002* (.001)
Trade Asymmetry	-.763** (.146)	-2.098* (.971)
Constant	-9.184 (.324)	-8.745 (1.534)
$\chi^2$	1687.69**	102.13
N	195,939	158,648

\* significant at .05 level

\*\* significant at .01 level

Results are one tailed test logit coefficients with standard errors in parentheses

**Table 3: Time-Series Logit Model of Scaled Democracy's Impact on GATT and WTO Dispute Incidence (1960-1998)**

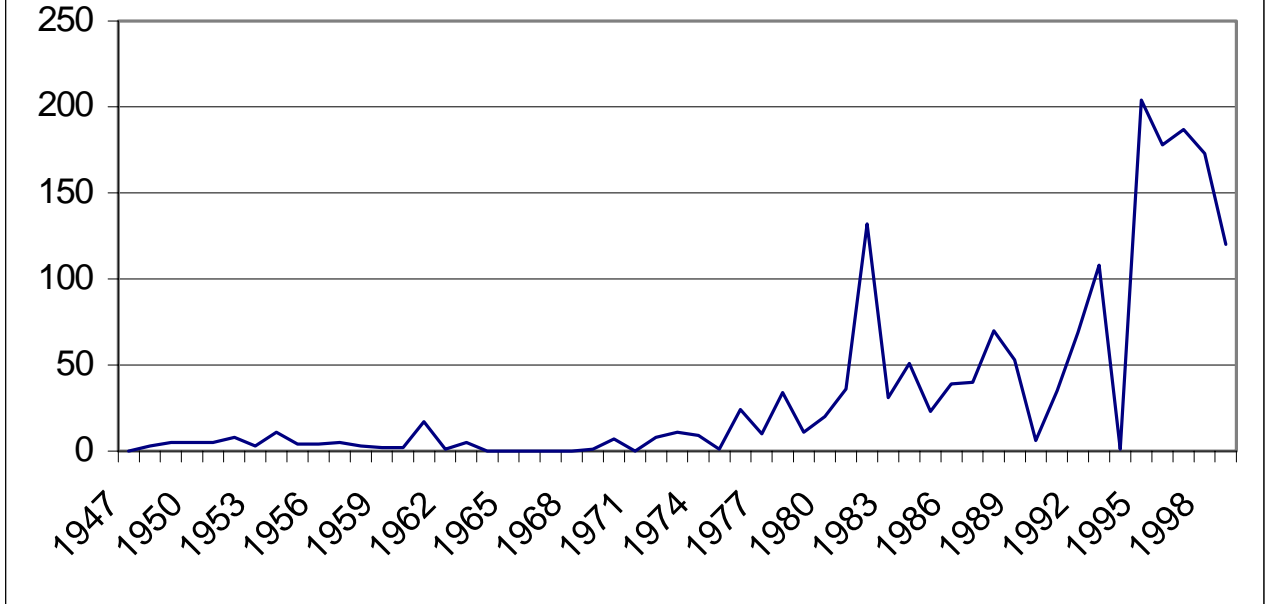
	All States	US and EU Removed
Initiator Democracy	.055** (.015)	.174** (.069)
Target Democracy	.225** (.024)	.359* (.158)
Joint Democracy	.329* (.197)	-1.377* (.816)
Initiator log GDP	-.170** (.019)	-1.056** (.430)
Target log GDP	-.082** (.023)	.083 (.058)
GDP Asymmetry	2.047** (.205)	-.297 (1.162)
Initiator Trade	.008** (.001)	.021* (.012)
Target Trade	.008** (.001)	.015** (.005)
Initiator Trade Squared	-.0007** (.0001)	-.007 (.004)
Target Trade Squared	-.0005** (.0001)	-.001 (.001)
Trade Asymmetry	-.886** (.149)	-1.735* (1.012)
Constant	-7.198 (.263)	-9.306 (2.078)
$\chi^2$	1653.44**	101.59**
N	170,895	136,246

\* significant at .05 level

\*\* significant at .01 level

Results are one tailed test logit coefficients with standard errors in parentheses

### Gatt/WTO Disputes By Year



**Chart 2: Disputes by organization - GATT and WTO**

	GATT (pre-improvements)	GATT (post-improvements)	WTO
Total Disputes	228	70	223
Years of Existence	41	6	5
Disputes per year	5.6	11.7	44.6

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