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Developing Countries' Decision to Participate in WTO Dispute Settlement: Assessing the Role of FDI and Governance

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This paper examines the causal mechanisms by which governance influence developing countries' decisions to participate in World Trade Organization (WTO) litigation. Using a multinomial logistic regression technique for a compiled data sample of WTO trade complaints, in which countries participate as complainants or as third party over the 1995-2004 periods, we argue that in addition to the political, economic, and institutional variables that have been investigated in previous research, a country's decision of whether to participate in WTO litigation against a powerful defendant depends on the weight of Foreign Direct Investment (FDI) in the host country's economy, the extent of the country's openness to foreign investment, and the quality of host country's system of governance. The results of this paper suggest that a developing country with a large stock of inward FDI is unlikely to participate on a full-blown trade dispute when the defendant is a major source of that stock. Additionally, this result implies that FDI could reinforce the dispute system bias against developing countries, especially smaller and poorer countries.

1. Introduction

Although countries' conflict over trade issues is a constant reality of international trade relations, the institutional character of trade conflicts has changed profoundly since the establishment of the Dispute Settlement Understanding (DSU) under the World Trade Organization (WTO) in 1995. Over time, the dispute settlement system gained global legitimacy and credibility, especially in the developed world. According to Guzman and Simmons (2005), "in the period immediately following the establishment of the WTO, the DSU was celebrated as a rule of law system that would replace the political and power based system that had previously existed" (p. 2). This is also well captured by Moore (2000), the Director General of the WTO, and Barshefsky (1999), the U.S. Trade Representative. Moore (2000)portrayed the dispute settlement as "the backbone of the multilateral trading system"(p.1). Barshefsky (1999)declared, in her testimony before the Senate Finance Committee on WTO, that, "[t]he rule of law has advanced, as the strong dispute settlement system created by the Uruguay Round has allowed us to improve enforcement of the trading rules significantly" (p. 2). Indeed, as the WTO dispute system succeeds in enforcing agreements, governments use it as a benchmark for the enforcement of regional as well as bilateral trade agreements. This is suggested by the propagation of dispute systems in regionalism and preferential trade agreements (PTA), especially in those involving the United States.

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Nevertheless, the WTO dispute system appears to have a marginalizing effect or bias against developing countries. The dispute system has been dominantly used by major developed countries, notably the U.S., European community, Japan, and Canada, accounting for over 60% of all complaints, while representing only 2% of the WTO member countries (Horn, Mavroidis,and Nordström1999). On the other hand, developing countries, though numerically superior to developed countries, rarely appeal to the dispute settlement system to enforce their international trade rights. Developing countries have been characterized by marginal participation of developing countries, even though they have been adversely affected by other countries' WTO-inconsistent trade policies. In fact, Bown's (2005) database built for this purpose shows that developing countries[i]appear 26 times as interested third parties, 31 times as complainants, and 583 times as non-participants in the selected trade disputes initiated between 1995 and 2000. This is despite being adversely affected by other WTO member-implemented and inconsistent policies (Bown 2005, p. 12).

The existing literature in international trade and trade policies has looked at this bias against developing countries examining their decision to participate or initiate a trade dispute based on the power relationships between trading countries (Bown 2005,Horn et al.1999), the country's democratic governance (Bermeo and Davis 2005, Reinhardt 2000), or the developing countries' lack of financial, human, and institutional resources necessary for filing a complaint in the DSU (Guzman and Simmons 2005). In general, the major dividing line in the stream of research is whether power politics or lack of resources is the major impediment to the developing countries' participation in the WTO dispute system. Although these causal investigations provide some insights into countries' behavior, they are predominantly trade oriented. Sparse attention has been given to the impact of foreign investments on countries' decisions to participate in DSU.

Hence, this paper aims to fill this gap by supplementing the investigation with a frame of reference that focuses on foreign direct investments (FDI), undertaken by transnational corporations (TNCs), and their impact on countries decision to file with the DSU when their WTO rights are infringed upon. Indeed, existing literature on foreign direct investment (FDI) has been shown to be a significant factor in determining the nature and the level of political and economic cooperation between countries (Mantzopoulos and Shen 2011; Nebus and Rufin 2010). The paper also investigates a related set of potential determinants of dispute initiation, especially the influence of the host country's system of governance on participation decision. Although the influence of governance has been explored in the literature, the investigations were, generally, limited to the administrative aspect of governance and the extent to which a country's system of governance is capable of carrying out dispute-related administrative and legal tasks. In this paper,we investigate both the administrative and political dimensions of a country's system of governance. In particular, we account for the competence and the quality of the bureaucracy, political stability, government effectiveness in terms of service delivery, the quality of contract enforcement, and the exercise of public power for private gain, including corruption.

Therefore, the three research questions addressed by this paper are:

> **Research Question 1:** Does the weight of FDI in the host country's economy influence its decision of whether to participate in WTO litigation?
>
> **Research Question 2:** Does the extent of the country's openness to foreign investment influence its decision of whether to participate in WTO litigation?
>
> **Research Question 3:** Does the quality of the host country's system of governance influence its participation decision in WTO dispute system?

By examining the effect of FDI and governance structure on the developing countries willingness to participate in a trade dispute, this paper adds an additional dimension towards a better understanding of the factors that influence developing countries' level of involvement in trade disputes. This paper contributes to the existing literature on international trade by offering the first empirical research to incorporate FDI into the study of international trade disputes. The inclusion of FDI is evidently significant when regarded in the context of the ongoing debate and concerns surrounding countries' participation in the WTO litigation system and the extent of bias in the DSU in favor of developed countries.

This paper proceeds as follows. First, building on more general research linking international trade, foreign direct investment and political and administration governance of developing nations, we develop testable hypotheses regarding our research question. Next, we test these hypotheses by examining the effect of FDI and governance structure on the country's decision whether to participate in a trade dispute. The results are then presented and discussed. Finally, we conclude the manuscript with a discussion of the key findings and contributions.

2. Literature Review

In searching for the causal factors that influence countries decisions of whether to participate in WTO trade disputes either as defendant or a third party, power, capacity, political regimes, and trade stakes provide the most common explanations.

Power vs. Capacity: Guzman and Simmons (2005) define capacity as "the institutional, financial, and human resources available to pursue a case" (p. 8). They refer to power as the ability of the defendant to impose costs on complainants in response to its filing a case without concern for counter-retaliation (Guzman and Simmons 2005).Analyzing data of trade disputes filed at the WTO from 1995 to 2004 in an ordinary least squares regression design, Guzman and Simmons (2005) find that low-income states filed fewer cases than their high income counterparts because they lacked the financial, human, and institutional capital to participate in the WTO adjudication. In contrast, the results of their study showed no evidence that power-relationship between countries affect dispute initiation. Similarly, Horn et al.(1999) investigated, using a probabilistic model of litigation, whether developing countries have disadvantageous position in the DSU and the likely sources of this bias. The results of their study suggest that legal-capacity could be an impediment to dispute initiation. However, they find no compelling evidence "with regard to the notion that strong countries exploit their economic power to target weaker countries, and weaker countries abstain from using the system due to fear of retaliation" (Horn et al. 1999, p. 6). This casts doubts that the power-based factors influence countries' participation in the DSU. In contrast, Bown (2004, 2005) found that power capacity still matters in dispute initiation notwithstanding the legal improvements brought into the WTO adjudication system, which intends to strengthen the rule of law and encourage participation by developing states. He claims that a variety of political, economic, and institutional factors affect dispute initiation.

Democratic vs. Authoritarian Countries: Bermeo and Davis (2005) applied an interest group or lobbyist model of trade politics to explain why some developing countries do actively participate in WTO adjudication and others do not. They particularly explored the differences between democracies and non-democracies in the use of WTO adjudication system by using a dataset of developing countries participation in WTO disputes from 1995 to 2002. They provide two channels whereby democracy affects dispute initiation: interest group pressure and judicial experience. In terms of interest group pressure, Bermeo and Davis (2005) argue that, "elections increase the incentives for leaders to serve specific economic interests that may benefit from initiation of a WTO dispute to help their exports" (p. 6). Using negative binomial regression designs, Bermeo and Davis (2005) show that, "democracies are more likely to use the adjudication process because they have greater familiarity with judicial processes of dispute resolution and are more responsive to business pressures" (p. 1). Reinhardth (2000) also supports this argument. He argued that democracies are more likely to participate in GATT/WTO adjudication, "not because they prefer to follow international law, but because they are necessarily more responsive to domestic pressures from both import-competing firms as well as exporters locked out of protected foreign markets" (pp.1-2). He further argues that democracies are likely to be the target of litigation (p. 2).

International Trade Stakes: This question typically deals with the extent of trade relationship between trade partners and the significance of trade to a country's interest. One view that gained empirical support is that trade partners who are members of the same preferred trade agreement (PTA) are less likely to engage in trade disputes among each other (Bown 2004; Reinhardt 2000). Another view championed by Reinhardt (2000) claims that bilateral trade dependency can increase the likelihood of a trade dispute. Horn et al. (1999) showed that states with large and more diversified exports, in terms of products and trade partners, are more likely to bring more complains than states with smaller and less diversified exports.

This body or research offers a remarkable range of explanations of why some countries shy away from using the WTO dispute system. Yet, the mechanisms by which it proves its arguments have a number of theoretical and methodological shortcomings. Among the theoretical issues is the over-generalization of the influence of democracy on decisions to participate in WTO litigation. Among the methodological shortcomings is the overemphasis on trade variables. In addition, most of these studies have been, in large part, empirical and often, not guided by any theoretical perspectives, even though they show a typology consistent with institutionalism, realism, or interest group theories.

Therefore, in the next section expand the research on dispute initiation by identifying additional factors that play an important role in countries' participation decision in the WTO dispute system. In contrast to previous studies that focus on trade to explain

WTO trade dispute initiation, this paper takes a different approach by putting foreign investments and governance at the center of the investigation.

3. The Methodology and Model

Development of Hypotheses

In this section, we propose four mechanisms by which foreign investment and governance would influence countries' decision whether to participate in a trade dispute.

FDI Dependency and Diplomacy: Since the mid-1980s, FDI inflow becomes an increasingly sought-after means for development objectives, employment creation, and acquisition of capital and technology, especially by countries with limited domestic resources. As a result, countries dependency on FDI has dramatically increased endowing TNCs and their home countries with enormous amount of bargaining power vis-à-vis the host counties. What further underpins such dependency is developing countries' reliance on a small number of home countries for FDI, more often the former colonial powers. Apart from the loss of sovereignty associated with increasing dependency on foreign investments, there is also the risk of FDI exit which could have a destabilizing effect on the host country. Under these circumstances, one would expect FDI dependent countries to be willing to make significant economic and political concessions to TNCs and their powerful home countries. This conclusion rests mainly on the assumption that TNCs act as an active agent of the home countries or at least share their foreign policy interests. Seen from this perspective, FDI dependency will likely inhibit conflict and reduce the likelihood of full scale dispute.

In light of the above we derive the first hypothesis to address our first research question stated in the introduction of whether the weight of FDI in the host country's economy influences its decision of whether to participate in WTO litigation:

> **Hypothesis 1:** The larger the weight of FDI in the host country's economy, the less likely the host country to participate in WTO litigation.

FDI Regime: The following essay explores the relationship between FDI regime and the host country trade dispute decision, regardless of whether the host is a large recipient of FDI. This kind of investigation has not been given consideration in the literature and little empirical work has been done in this regard. Consequently, our analysis of the likely effect of FDI regime on host government's participation decision on WTO dispute system will tend to be speculative. To the extent that restrictions on the entry and operations of TNC can turn away foreign investments, we therefore expect that countries with liberal FDI regimes will avoid WTO litigation in order not to deter the inflow of FDI. WTO litigation could signal that the country is difficult partner for would-be investors. As UNCTAD (1995) put it, policymakers, "which actively seek investment also actively seek to improve their countries' image within the investment community as a favorable location for investment" (p. xxxix).

We therefore propose the second hypothesis to address the second research question stated in the introduction (page 14) of whether the extent of the country's openness to foreign investment influences its decision of whether to participate in WTO litigation.

> **Hypothesis 2:** Countries with liberal FDI regimes will less likely to participate in WTO litigation.

The Quality of Governance: Regarding the relationship between the system of governance and participation decision in WTO litigation, the level of democracy has been examined systematically. Little attention has been paid to the underlying foundations of any such relationship. In fact, the causal relationship remains unclear. In the word of Reinhardth (2000), “[t]he literature has neglected features of democracies that would make them more, not less, susceptible to trade conflict” (p. 6). The level of generality attached to the concept of democracy in the literature has obscured the effect of other variables that could be linked more directly to countries’ participation decision in WTO litigation, specifically the quality of institutions and governance. Good governance might be a primary determinant of participation decision in WTO litigation, independent of a country’s political regime. As Guzman and Simmons (2005) capacity argument shows, the absence of mature and sophisticated institutions to monitor, investigate, negotiate, file, and litigate may constrain some countries from participating in WTO litigation (p. 10). Yet, these institutions are less likely to make any significant contribution if they operate in a distorted, unstable, and corrupt system of governance. Hence, the analysis should transcend the administrative facet of governance to include the various aspects of good governance such as the rule of law, freedom, and policy making and transparency.

This yields our third hypothesis that addresses the third research question on whether the quality of the host country’s system of governance associated with its participation decision in WTO dispute system.

> **Hypothesis 3:** Countries with strong system of governance are more likely to participate in WTO litigation.

Method, Sample and Data

To test these hypotheses, this paper applies multinomial logistic regression procedure on a compiled data of WTO trade complaints, from 1995-2004, in which WTO members are complainants, third parties, or potential litigants. The 10-year period is considered a sufficient and a pivotal for the study because it captures all trade disputes that occurred after the inception of the World Trade Organization (WTO) in January1995. Bown (2005) defines the “potential litigants” as, “the exporters that are negatively affected by member-implemented, WTO-inconsistent, import-restricting policies” (p. 8). We look at both participants and non-participants, members of the WTO, which are adversely affected by a defendant’s WTO inconsistent policies. In other words, a country will be considered in the analysis for a given dispute (1) if it initiates the given dispute by filing an official complaint against the defendant, or (2) if it participates in the given dispute as a co-complainant or an interested third party or (3) if it is judged to be a potential litigant in the given dispute, although it has not officially join, in any form, the complaint against the defendant.

Unit of Analysis

The unit of analysis is a dyadic[ii]dispute adjudication case filed under WTO dispute settlement procedure from 1995 to 2004. Each case involves an actual respondent (complainant or third party) or a potential respondent who may have a claim against the defendant but choose not to join the WTO proceeding against him. Since the paper is a test of power and capacity exhibited in the action of states when managing international trade disputes with investment and trade partners, we limited our analysis to cases where the defendant is a developed country. The list of respondents, however, includes both developed and developing countries to allow for control and variation. While some of the disputes are dyadic, it is quite common for a trade dispute to involve multiple members. For cases with multitude of plaintiffs on the same dispute, we generate a number of cases equal to the number of plaintiffs. In addition, if several other countries, not officially involved in the dispute, are potential litigants, we create additional cases equal to the number of potential litigants. Hence we consider a given dispute with two plaintiffs and four potential litigants as six dyadic "disputes."

Dependent Variable

Participation decision: The dependent variable measures a country's participation decision in a trade dispute filed in the WTO DSU. This variable is categorized into three separate decisions: a) to participate in the given dispute as a complainant or a co-complainant, b) to participate as a third party, and c) not to participate despite being potential litigant. Most of the data to codify participation come primarily from the WTO which maintains a detailed database of trade disputes, for the years 1995 to 2004. The data on "potential litigants" was constructed[iii]using Bown (2005) approach.

Explanatory Variables

FDI weight: It the share of a host country's total inward FDI stock to its gross domestic product (GDP). The annual data on inward FDI stock to GDP, for the period 1994-2004, are obtained from the UNCTAD FDI online database (UNCTA , 2005).

FDI regime: As rough indicator of the host-country FDI regime, we use the 2007 index of investment freedom published by the Heritage Foundation. This index "scrutinizes each country's policies toward foreign investment, as well as its policies toward capital flows internally" (Heritage Foundation, 2007, p. 46).

Quality of governance: To measure of the quality of host country's system of governance, we use the scores of the Governance Effectiveness indicator compiled by Kaufmann, Kraay, and Mastruzzi (2005). This composite indicator measures the competence of the bureaucracy and the quality of public service delivery (Kaufmann et al. 2005). Data are available for the years 1996, 1998, 2000, and 2002. Values were interpolated for the remaining years assuming a linear relationship.
Control Variables

Democracy level: To measure the affected country's level of democracy we use the Polity IV project democracy indicators by Marshall and Jaggers (2005). Specifically, we chose to use the combined polity score computed by subtracting the autocracy indicator score from the democracy indicator score (Marshall &Jaggers 2005).

Alliance: Alliance is a binary variable coded (1) if the if the affected country and the defendant are involved in at least one of the following type of alliance commitment: defense, neutrality or non-aggression, and entente. Data on alliance commitment are obtained online, in spreadsheet format, from the Correlates of War (COW) Formal Interstate Alliance Data Set (Gibler and Sarkees 2004).

Market access: Our study follows Bown (2005) and includes the log of the affected country's total export to the defendant's disputed market.

Trade relation: As Guzman and Simmons (2005), affected country's exports to the defendant divided by the affected country's total exports is included.
Sanction potential. As Guzman and Simmons (2005), we include the log of the affected country's total imports from the defendant.

Data on exports and imports were taken from the COMTRADE database maintained by the United Nations Statistics Division UNSD.

Trade weight (or Trade openness): The affected country's total trade as percent of GDP is used to control for the importance of trade to the affect country's economy. Data are from the World Bank's World Development Indicators (World Bank, 2005).

GDP asymmetry: To capture the relative advantage or disadvantage of the affected country in terms of wealth and economic power, we used the log of the absolute value of the difference between the affected country's GDP and the respondent's GDP. Data are from the World Bank's World Development Indicators (World Bank 2005).

Developed vs. developed: Following the approach of previous researchers (Guzman and Simmons 2005) we included a dummy variable to account for situations when major developed countries, that dominate the WTO dispute system especially the two giants, the U.S. and the E.U., are also complainants or potential litigants. This will ensure that our results are not driven by these countries.

Table 1 provides a brief description of each variable and also the predicted sign of its expected effect. Tables 2, 3 and 4 present the mean and standard deviation of the independent variables in the model as a function of the dependent variable. Table A.5 shows the inter-correlations among the independent variables in the model.

Table 1: Explanatory Variables Formulation and/or Description and Predicted Signs

Dependent Variable	Formula/Definition	
Participation Decision:	Three separate decisions: To participate as a complainant, To participate as a third party, Not to participate despite being potential litigant.	
Explanatory Variables	Formula/Definition	Predicted Sign For Participation Decision =1 or 2
FDI Weight i,t-1	FDI Weighti,t-1=$InwardFDIStock$i,t-1/ GDPi,t-1	(+)→ the more dependent an affected country on FDI= less likely it is to participate in the case against the defendant [1]
FDI Regime i,t-1	The 2007 index of investment freedom. Ranging from 0% to 100%, the higher the score, the lower the level of restrictions on foreign investment.	(+)→ the freer an affected country's FDI regime= less likely it would choose participate in the case against the defendant
Quality of Governance i,t-1	Governance Effectiveness. The indicator ranges from -2.5 (worse Governance Performance) to 2.5 (best governance performance).	(-)→ the stronger an affected country's quality of governance= more likely to participate in the case against the defendant
Democracy Level i,t-1	The combined polity score computed by subtracting the autocracy indicator score from the democracy indicator score. (-10)= strongly autocratic to (+10)= strongly democratic.	-
Alliance ij,t-1	A binary variable coded 1 if the if the affected country and the defendant are involved in at least one of the following type of alliance commitment: defense, neutrality or non-aggression, and entente	+
Market Access i,t-1	$\log(Export_{ij,t-1})$	+
GDP Asymmetry ij,t-1	$\log(\lvert GDP_{i,t-1} - GDP_{j,t-1}\rvert)$	+
Sanction Potential ij,t-1	$\log(Import_{ij,t-1})$	-
Trade Relation ij,t-1	$\frac{Export_{ij,t-1}}{\sum Export_{i,t-1}}$	-
Trade Weight i,t-1	$\frac{Trade_{i,t-1}}{GDP_{i.t-1}}$	-

Table 2: Summary Statistics of Predictor Variables When Participation Decision Equals Complainant

Predictor Variables	Total Sample	Mean	Standard Deviation
1. FDI Weight	43	0.62	1.29
2. FDI Regime	43	60.44	10.80
3. Quality of Governance	43	1.00	1.02
4. Democracy Level	43	7.71	4.98
5. Alliance	43	0.65	0.48
6. Market Access	43	10.15	0.90
7. Trade Relation	38	0.25	0.25
8. Sanction Potential	43	10.16	0.91
9. GDP Asymmetry	43	12.38	0.75
10. Trade Weight	43	60.42	34.16

Table 3: Summary Statistics of Predictor Variables When Participation Decision Equals Third Party

Predictor Variables	Total Sample	Mean	Standard Deviation
1. FDI Weight	104	0.55	1.28
2. FDI Regime	100	60.80	12.39
3. Quality of Governance	101	0.79	1.01
4. Democracy Level	95	6.85	5.33
5. Alliance	104	0.61	0.49
6. Market Access	104	9.79	1.11
7. Trade Relation	91	0.28	0.25
8. Sanction Potential	104	9.82	1.05
9. GDP Asymmetry	104	12.16	0.87
10. Trade Weight	102	59.13	37.94

Table 4: Summary Statistics of Predictor Variables When Participation Decision Equal Non-Participant

Predictor Variables	Total Sample	Mean	Standard Deviation
1. FDI Weight	104	0.32	0.53
2. FDI Regime	100	62.85	15.66
3. Quality of Governance	101	0.23	1.00
4. Democracy Level	95	4.50	6.17
5. Alliance	104	0.21	0.41
6. Market Access	104	9.11	1.08
7. Trade Relation	91	0.20	0.21
8. Sanction Potential	104	9.27	0.90
9. GDP Asymmetry	104	12.34	0.75
10. Trade Weight	102	75.18	55.05

Table 5: Correlations of the Predictor Variables

	1	2	3	4	5	6	7	8	9
1. FDI Weight	--								
2. FDI Regime	0.22	--							
3. Quality of Governance	0.20	0.24	--						
4. Democracy Level	0.03	0.10	0.31	--					
5. Alliance	0.09	0.03	0.34	0.28	--				
6. Market Access	0.24	0.09	0.39	0.16	0.41	--			
7. Trade Relation	0.00	-0.03	0.03	0.13	0.26	0.40	--		
8. Sanction Potential	0.25	0.09	0.42	0.17	0.45	0.94	0.35	--	
9. GDP Asymmetry	0.04	-0.02	-0.02	-0.01	0.18	0.07	0.02	0.11	--
10. Trade Weight	0.13	0.06	-0.07	-0.10	-0.11	-0.03	0.04	-0.04	0.03

Method of Estimation, Model Equations, and Data

Since the outcome variable is categorical, has three levels, and is discrete, we use the multinomial logistic regression (MLR) procedures. MLR is a type of regression used to predict a categorical dependent, variable with more than two levels, using one or more predictor variables of any type (categorical or continuous). By using the maximum likelihood estimation, MLR deals with the natural logarithm of odds[iv](called logits) to predict the probability that a given alternative will be selected out of a set of possible decisions given the values of the predictor variables. Since the outcome variable, in this study, has three categories, MLR is an appropriate method to predict two logits comparing one category to a reference category. In the paper, we are comparing countries that choose to participate as complainants or third parties to those choosing not to participate, we selected the latter as the reference category. Hence, the two logits for each predictor variable are as follow:

1. Logit 1= Log [Probability (the respondent will chose to participate as complainant) / Probability (the respondent will chose not to participate)]
2. Logit 2 =Log [Probability (the respondent will chose to participate as a third party) / Probability (the respondent will chose not to participate)]

Using MLR, the participation decision model takes the following logistical Functional forms:

1. Predicted logit of (Affected Country's Participation Decision $_{i,t}$=Complainant) = β_1*FDI Weight$_{i,t-1}$+ β_2*FDI Regime$_{i,t-1}$+ β_3*Quality of Governance$_{i,t-1}$+ β_4*Democracy Level $_{i,t-1}$+ β_5 *Alliance $_{ij,t-1}$ + β_6*Market Access $_{ij,t-1}$+ β_7*Trade Relation$_{ij,t-1}$ + β_8 *Ability to Impose Sanctions$_{ij,t-1}$+ β_9 *Trade Weight $_{i,t-1}$+ β_{10} *GDP Asymmetry$_{ij,t-1}$
2. Predicted logit of (Affected Country's Participation Decision $_{(i,t)}$= Third Party) = α_1*FDI Weight$_{i,t-1}$+ α_2*FDI Regime$_{i,t-1}$+ α_3*Quality of Governance$_{i,t-1}$+ α_4*Democracy Level $_{i,t-1}$+ α_5 *Alliance $_{ij,t-1}$ + α_6*Market Access $_{ij,t-1}$+ α_7*Trade Relation$_{ij,t-1}$ + α_8 *Ability to Impose Sanctions$_{ij,t-1}$+ α_9 *Trade Weight $_{i,t-1}$+ α_{10} *GDP Asymmetry$_{ij,t-1}$

In these formulas, β and α are the regression coefficients. The subscripts (i) and (t) represent the country/economy and the time of the dispute, respectively.

The dataset to which multinomial logistic regression was applied consisted of 680 country-year observations. Of these, 43 (6.3%) were complainants, 104 (15.3%) were third party, and 680 (78.4%) were potential litigants.

We initially explored the dataset for any bias, especially the problem of multicollinearity. Relative problems with multicollinearity were found. The source of the symptom is the inherent correlation between some independent variables (see Table A.5). Omitting any one of these collinear variables might result in considerable loss of explanatory power. Keeping them, however, is going to bias our analysis. As a remedy, we transformed the offending variables. The approach proved sufficient as it mitigate the multicollinearity problem. We also conducted goodness of fit tests to assess how effective is our logistic regression model. Using the Likelihood Ratio tests, we concluded that our logistic model is a better fit to the data than the intercept-only model ($\chi^2(20) = 288.89$, $p<.001$). Also, the Pearson and deviance goodness-of-fit statistics do confirm that the model adequately fit the data.

4. The Findings

Empirical Results

As stated in the literature review, several arguments have been given to explain why many affected developing counties choose not to participate in WTO dispute system. These arguments appear to converge toward three strands: power politics, governance, and capacity.

In Table 6, it is evident that the likelihood that an affected country choose to participate as a complainant is positively related to FDI Weight (OR = 7.14, $p<.001$) and negatively associated with FDI Regime (OR = 0.02, $p<.01$) and the Quality of Governance (OR = 0.32, $p<.01$). Furthermore, Table 1shows that the decision to participate as a complainant is positively related to Alliance (OR =3.67, $p<.05$) and Market Access (OR =71.08, $p<.001$). In contrast, it is negatively associated with Trade Relation (OR =0.06, $p<.05$) and Sanction Potential (OR =0.05, $p<.05$). On the other hand, Democracy Level, GDP Asymmetry, and Trade Weight appear to have no significant effect on a country's participation decision as a complainant.

As expected, FDI dependency has a significant and positive impact on the affected countries' inclination to participate as complainants. In other words, the more dependent the affected country on FDI, the less likely it is to file a complaint, thereby confirming our first hypothesis. So we can say that the FDI dependency decreases the likelihood of filing a complainant in WTO dispute system. In contrast, the direction of the relationship between FDI regime and the decision to participate as complainant was unanticipated. Contrary to our prediction, the result indicates that the freer the FDI regime, the more likely a country to file a complaint when its WTO rights have been infringed upon. This goes against our prediction and argument that FDI regime positively impacts the decision to participate as a complainant. The results do, however, support our third hypothesis that the host country's quality of governance is associated with its choice to participate as a complainant.

Table 6: Multinomial Logistic Regression Predicting a Country's Participation Decision in WTO DSU as Complainant

	Participation Decision=1 (Complainant)		
Predictor Variables	B	Std. Error	Odds Ratio
FDI Weight	1.97	0.69	7.14***
FDI Regime	-4.12	1.68	0.02**
Quality of Governance	-1.15	0.42	0.32**
Democracy Level	0.07	0.05	1.08
Alliance	1.30	0.57	3.67*
Market Access	4.26	1.24	71.08***
Trade Relation	-2.83	1.25	0.06*
Sanction Potential	-2.92	0.99	0.05***
GDP Asymmetry	-0.25	0.24	0.78
Trade Weight	0.00	0.01	1.00
Developed vs. Developed	-1.65	0.83	0.05*

Note: Cox and Snell R2=.403, Nagelkerke R2= .555, McFadden R2=.398.
*p< .05, **p<.01, ***p<.001

Table 7 shows the likelihood that an affected country chooses to participate as a Third Party is not related to FDI Weight. It is, however, negatively associated with FDI Regime (OR = 0.04, p<.001) and the Quality of Governance (OR = 0.48, p<.01). Also, the decision to participate as a Third Party is positively related to Alliance (OR =6.08, p<.001) and Market Access (OR =8.59, p<.01). I n contrast, it is negatively associated with GDP Asymmetry (OR =0.63, p<.01) and Sanction Potential (OR =0.16, p<.01). On the other hand, Democracy Level, Trade Relation, and Trade Weight appear to have no significant effect on a country's participation decision as a Third Party.

Table 7: Multinomial Logistic Regression Predicting a Country's Participation Decision in WTO DSU as Third Party

	Participation Decision=2 (Third Party)		
Predictor Variables	B	Std. Error	Odds Ratio
FDI Weight	0.34	0.44	1.40
FDI Regime	-3.32	0.87	0.04***
Quality of Governance	-0.74	0.30	0.48**
Democracy Level	0.05	0.04	1.05
Alliance	1.80	0.43	6.08***
Market Access	2.15	0.86	8.59**
Trade Relation	-0.23	0.95	0.79
Sanction Potential	-1.83	0.74	0.16**
GDP Asymmetry	-0.46	0.17	0.63**
Trade Weight	0.00	0.01	1.00
Developed vs. Developed	-1.06	0.60	0.08

Note: Cox and Snell R2=.403, Nagelkerke R2= .555, McFadden R2=.398.
*p< .05, **p<.01, ***p<.001

5. Discussion

Results in Table 2 are only consistent with our third proposed hypothesis that governance is significant determinant of a country's decision to participate as a third-party. Although the estimate for FDI regime is statistically significant, the direction of the result goes against our prediction that FDI regime positively impacts the decision to participate as a third party. FDI regime is negatively signed, suggesting that the freer the FDI regime, the more likely a country to participate as a third-party in WTO dispute system.

Taken together, FDI Weight's significant and negative association with the decision to participate as a complainant, partially confirms our hypothesis that the higher the weight of FDI in the host country's economy, the less likely it is that the country will choose to participate in WTO litigations as a complainant. The results, however, tend to contradict our second hypothesis concerning the effect of the affected country's FDI regime. The empirical results also support our argument regarding the merits of the quality of governance over democracy to explain participation decision in WTO dispute system. With regard to threat of retaliations, our results are consistent with previous research findings (especially Bown (2005) and Guzman and Simmons (2005)). We find that Market Access and Sanction Potential are associated with a country's decision whether to participate in WTO litigation both as a complainant or a third party.

Another point to take note of is the positive and strongly significance association between Alliance and the likelihood of participation in WTO dispute system (as complainant or third party). So we can say that the existence of an alliance between the affect country and the respondent decreases the likelihood of participation in WTO dispute system.

In sum, the three major argument examined in this paper in that a country's decision of whether to participate in WTO litigation depends on the weight of FDI in the host country's economy, the extent of the country's openness to foreign investment, and the quality of host country's system of governance. After controlling for the variables that have been verified to influence dispute initiation, the results come out largely significant. Indeed, this paper finds strong and full support to these arguments when the decision is to participate in a full-scale dispute as complainant. Yet, this study finds partial support for these arguments when the decision to make is to participate in a lesser confrontational manner, that is as a third-party. With regard to the governance effectiveness, the results show a significant impact. However, the association between participation decision (as a third party) and FDI regime, though significant, does not vary as predicted. Furthermore, no significance was found for the FDI dependency variable.

An important issue of concern in international trade relation is the growing disparity in WTO adjudication between developing countries and developed countries. Although the WTO dispute system has been praised as being a rule-based system of adjudication, it still shows biases against developing countries and in favor of the advanced countries. As the data on potential litigants show, many developing countries are still "excluded" from the system. The literature has revealed a variety of potential sources of biases of economic, legal, and political nature. In particular, the literature on dispute initiation focuses on trade-related issues, administrative capacities, and political regime.

This paper takes a new direction to uncover alternative sources of bias. It identifies a new framework of dispute initiation which captures the growing influence of FDI by TNCs in developing countries. Additionally, this paper lends some support to the argument that bureaucratic quality and political regime influence dispute initiation. Yet, our definition of bureaucratic quality and our view of political regime depart in significant ways from the literature on dispute initiation. In particular, we have "deconstructed" the concept of political regime and expanded the notion of bureaucratic quality to account for the administrative, legal, and political aspects of good governance.

The importance of FDI stems from its development potential and the power, transnationality, and global outreach of its source, namely TNCs. It is also seen as a diplomatic and political agent, increasingly playing an important role in sustaining constructive relationship between the home and the host states. In addition, with the global liberalized trend to foreign investment national policies, there has been a marked increase in FDI by TNCs since the 1980s, faster than world trade and world output (UNCTAD 1998). Given these considerations, it would be beneficial to incorporate FDI in the examination of dispute initiation in WTO litigation.

Indeed, the findings of this paper reveal that a large presence of FDI in the host country can influence its decision to participate in WTO litigation against a resourceful and a powerful defendant. This result is built around two broad conceptual frameworks, FDI diplomacy and FDI dependency. The assumption underlying these concepts is that FDI by TNCs has intensified the interaction and interdependence between nation-states. In other words, FDI will likely exercise diplomatic and economic pressures on host (and even home) officials. From a diplomatic standpoint, FDI will likely induce bilateral cooperation and provide diplomatic opportunities in the management of international trade disputes between the home and the host country. As for dependency, in a global context of intense competition for FDI, FDI dependent and FDI seeking countries have much to lose from a trade dispute escalation with a more powerful and a resourceful trade partner.

In a related finding, it appears that the more liberalized the host country's FDI regime, the more likely the affected country will participate in WTO litigation. Evidently, this result is not consistent with our prediction. This unexpected, yet insightful, relationship raises some important questions on which factors contribute to the positive impact of FDI regime on countries' willingness to participate in WTO dispute system. Further research is recommended to explore, in greater details, these factors and the mechanism by which FDI regime affects countries' participation decision in WTO dispute system.

Finally, our results seem to corroborate, to some extent, the argument that not democracy per se that influence participation in WTO litigation, the quality of governance does. We found some evidence that the quality of governance increase the likelihood of participation in WTO litigation.

There are, however, a number of limitations in the current paper research. The main limitation is that it relied primarily on quantitative analysis. Yet, governments' decisions are qualitative in nature and often can be difficult to quantify. Similarly, it is difficult to accurately assess the effect of FDI and governance on foreign policy behavior. Further research is needed to expand the investigation so as to include qualitative methods such as interviews with officials in countries and international institutions involved on the trade disputes. Another limitation of the paper is the length of the time period of the study, we believe that a longer period of time might add more explanatory significance of the model in the paper since we believe that the length of a country's membership to the WTO might have some implications of the level of inward FDI and macro-economic and administrative governance mechanisms within the country.

6. Summary and Conclusion

Despite these limitations, the results provide enough evidence to the primacy of FDI and governance on countries' participation decision on WTO dispute system. The results of this paper suggest that the affected country, member of the WTO, with a large stock of inward FDI is unlikely to participate on a full-blown trade dispute when the defendant is a major source of that stock. This result implies that FDI could reinforce the dispute system bias against developing countries, especially smaller and poorer countries. Nevertheless, there is still room for coping with the system unfairness and power asymmetry. This study has proven the significant association between strong governance and the will to participate as a complainant. Indeed, we learned from the 1995 WTO dispute between Costa Rica and its northern powerful neighbor that strong governance is a key for success in the DSU. Of course, strong governance does not guarantee success on the WTO complex judicial system, but it does help shape countries' response.

Endnotes

[i] Based on the author's classification of developing countries

[ii] While some of the disputes are dyadic, it is quite common for a trade dispute to involve multiple members. For cases with multitude of plaintiffs on the same dispute, we generate a number of cases

equal to the number of plaintiffs. In addition, if several other countries, not officially involved in the dispute, are potential litigants, we create additional cases equal to the number of potential litigants. Hence we consider a given dispute with two plaintiffs and four potential litigants as six dyadic "disputes."
[iii] We constructed the data on "potential litigants" after an unsuccessful attempt to obtain the original data from Dr. Chad P. Bown who compiled a dataset of such indicator for the years 1995 to 2000. Our dataset covers the period of 1995-2004.
[iv] If p is the probability of choosing an outcome, then the odd of the outcome is (p/1-p).

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