

Insufficiency in the Dispute Settlement Mechanism of the WTO: Consequences and Implications for the Multilateral Trading System

Sumimaru Odano
Shiga University

and

Ziaul Abedin
Shiga University

March 2008

Graduate School of International Relations
International University of Japan

<http://gsir.iuj.ac.jp/>

**Insufficiency in the Dispute Settlement Mechanism of the WTO:
Consequences and Implications for the Multilateral Trading System**

Sumimaru Odano

Shiga University

and

Ziaul Abedin

Shiga University

Abstract

Trends of trade disputes show that the developed countries are more active in the dispute settlement process of the World Trade Organization (WTO) than the developing countries. Our analyses show that financial strength is an important factor for countries to participate in the dispute settlement process of the WTO. It also plays significant role in winning trade disputes. Therefore, lack of financial strength could be an explanation for the low rate of participation of the small-developing countries in the dispute settlement process. A close look at the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) reveals that it has considerable inability to provide feasible remedies against unfair trade practices. This also discourages the small-developing countries to participate in the dispute settlement process. To ensure equitable participation of the developing countries in the dispute settlement process, the WTO should increase legal and technical assistance for the small-developing countries. At the same time the WTO needs to ensure quick resolution of the disputes and replace the provision of “retaliation” with other meaningful remedies.

Key words: Trade dispute; Dispute settlement; WTO/GATT; Understanding on Rules and Procedures Governing the Settlement of Disputes

GSIR working papers are preliminary research documents, published by the Graduate School of International Relations. To facilitate prompt distribution, they have not been formally reviewed and edited. They are circulated in order to stimulate discussion and critical comment and may be revised. The views and interpretations expressed in these papers are those of the author(s). It is expected that most working papers will be published in some other form.

Insufficiency in the Dispute Settlement Mechanism of the WTO: Consequences and Implications for the Multilateral Trading System

Sumimaru Odano¹
Graduate School of Economics
Shiga University
1-1-1 Banba, Hikone, Shiga-ken, Japan.
Email: odano@canvas.ne.jp

And

Ziaul Abedin²
Graduate School of Economics
Shiga University
1-1-1 Banba, Hikone, Shiga-ken, Japan
Email: ziaul1973@yahoo.com

Abstract

Trends of trade disputes show that the developed countries are more active in the dispute settlement process of the World Trade Organization (WTO) than the developing countries. Our analyses show that financial strength is an important factor for countries to participate in the dispute settlement process of the WTO. It also plays significant role in winning trade disputes. Therefore, lack of financial strength could be an explanation for the low rate of participation of the small-developing countries in the dispute settlement process. A close look at the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) reveals that it has considerable inability to provide feasible remedies against unfair trade practices. This also discourages the small-developing countries to participate in the dispute settlement process. To ensure equitable participation of the developing countries in the dispute settlement process, the WTO should increase legal and technical assistance for the small-developing countries. At the same time the WTO needs to ensure quick resolution of the disputes and replace the provision of “retaliation” with other meaningful remedies.

Key words: Trade dispute/ Dispute settlement/ WTO/GATT/ Understanding on Rules and Procedures Governing the Settlement of Disputes

JEL Code: F-13

¹ Phone: 090-7105-6121

² Phone: 090-4154-4138

I. Introduction

Multilateral trading system observed its sixtieth anniversary on 1 January 2008. During the last six decades multilateral trading system evolved and improved gradually. Among all the gradual improvements, the most significant one took place during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1995, when the World Trade Organization (WTO) commenced its journey with a comprehensive set of Agreements covering all major issues of international trade. The new set of Agreements included the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)³ that describes the procedures for resolving trade disputes. Unlike GATT, which had inadequate provisions for settlement of trade disputes, DSU describes the dispute settlement protocol in a very detailed format.

However, the Agreements, including the DSU, seem to have several deficiencies⁴ that may create incentives for a country to deviate from the rules of trade stipulated in the WTO Agreements. Inability of the DSU to provide adequate and fast solution against such deviations seriously undermines the whole multilateral trading system of the WTO. Outcomes from six Ministerial Meetings of the WTO show that in spite of enthusiastic commitments made by the Members of the WTO, multilateral trade negotiation might still end in deadlock and failure. Keeping in mind that this kind of scenario may arise, this paper attempts to identify the consequences of the insufficiencies in the DSU and focuses on what the WTO should do to provide fast and adequate remedies against unfair trade practices. For this purpose, the paper first briefly examines the merits and demerits of the DSU (section III) followed by depicting the trends of trade disputes (section IV) and then by finding out the factors that determine the rates of participation and winning disputes for a country (section V). Based on the findings of these sections conclusions have been drawn in section VI.

II. Literature Review

Researches evaluating the effectiveness of the dispute settlement mechanism in ensuring remedies against unfair trade practices are growing. However, findings of the contemporary papers are often not in the same line.

Using descriptive statistics and OLS regression models Holmes, Rollo and Young (2003) attempted to find out the factors that explained the extent of involvement of a country in the dispute settlement process. They also explored whether there was a significantly biased pattern in the outcome of the trade disputes and whether the patterns of the disputes varied according to the issues of the disputes. Their key finding was that a country's trade share was a very significant factor that determined whether that country would participate in the dispute settlement process or not.⁵ They also noted that the least developed countries (LDCs) were significantly absent from the process of dispute settlement. However, they concluded that it did not indicate a bias against the developing countries. They found that almost ninety percent of the

³ DSU is stipulated in Annex 2 of the Agreement establishing the WTO.

⁴ Das (1998) provides a handy summary of the deficiencies.

⁵ Griffin (2002) supports this finding.

disputes had been won by the complainants, but did not find any bias in the rate of completion of the cases depending on the category of a country. Finally, they pointed out that the cases that were settled by mutual agreement had a very different profile from other categories of settled cases. They suggested that this might be an evidence of some use of political/economic weight to persuade the defendants to settle the disputes out of the purview of the dispute settlement mechanism.

However, it appears from their paper that the regression model they used included only one explanatory variable (trade share) for explaining the rate of participation of a country in the dispute settlement process. Therefore, critical factors, such as the role of legal capacity⁶ and trade diversity, that might influence the rate of participation of a country in the dispute settlement process were absent from the paper. Moreover, since the dependent variable in their model (number of disputes participated in by a country) could take only integers as its value, they should have used a count-data model instead of OLS.

In the same year, Busch and Reinhardt (2003) stressed on the issue of legal capacity and argued, “developing countries require more assistance in the lead up to a case, not just in litigating before a Panel... more attention need to be directed at helping developing countries make more of consultations, as well as more of negotiations at the Panel stage prior to a ruling... wealthier countries have realized more favorable outcomes since 1995.” Their observation was further reinforced by Besson and Mehdi (2004) who found that developing countries were unlikely to obtain a favorable outcome because of asymmetric legal capacity. Besson and Mehdi also suggested that when a developing country was reliant on a developed country for bilateral assistance, it was unlikely for that developing country to win a dispute against that developed country.

In an earlier research Horn, Mavroidis and Nordstrom (1999) showed that export diversity and value explained the patterns of the disputes. However, they did not find legal capacity and ‘power’ factors significant in explaining the patterns of the disputes. Therefore, they argued, “no evidence is found to suggest that large countries target small countries disproportionately, or that small countries bring fewer complaints against large countries.” Park and Umbricht (2001) provided descriptive data on issues and patterns of trade disputes, but did not draw any specific conclusion.

III. Merits and Insufficiencies of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)

The DSU contains twenty-seven Articles. It complements and improves the dispute settlement procedures stated in the GATT system⁷ by further elaborating the procedures and incorporating new clauses. For example, the old GATT system required that to refer a matter to a Panel, all the Contracting Parties of GATT had to be unanimous. But in the WTO system, any disputed matter may be referred to the Dispute Settlement Body (DSB) of the WTO. The DSU also stipulates specific time-

⁶ Shaffer (2005) argues that a law may be substantive but loses its neutrality if weaker party to a dispute cannot mobilize legal resources.

⁷ Articles XXII and XXIII of GATT stated the procedure of dispute settlement.

frame for the DSB to resolve a dispute.⁸ The aim of this specific time-frame is to help the parties at dispute save valuable time and money. Besides, as the DSU covers a vast range of Agreements⁹, it is now possible for an affected party to seek relief against any type of unfair trade practices.

Yet, the system does not seem to be sufficient to ensure meaningful remedies against unfair trade practices. For example, the only ultimate remedy that the DSU can provide is to authorize an affected country to retaliate against the country using unfair trade practices. Now, if the complainant is a developing country and the defendant is a developed one, and if the complainant's major share of export goes to the defendant's market, then it is likely that the complainant will not be in a position to fight in a dispute against that defendant, let alone to retaliate.¹⁰ Therefore, even if a financially weak complainant in a dispute wins the DSB ruling against a financially strong defendant, it does not guarantee any real benefit for the complainant or stopping the defendant using unfair trade practices.¹¹

IV. Trends of Trade Disputes during the WTO Regime

Up to December 2007, 369 disputes were brought before the DSB for consultation.¹² However, as the provisions of the DSU allow a dispute to get at least 15 months for resolution; this paper ignores any dispute lodged on or after 1 July 2006.¹³ Classifying the countries into four categories- developed (DD), developing (DG), transitional economies (TEC) and newly industrialized countries (NIC)¹⁴- it has been found that the rate of participation of the developed countries is considerably higher than any other category. Table 1 below shows that the share of disputes lodged by the developed countries is larger than the sum of the shares of disputes lodged by the developing countries, the transitional economies and the newly industrialized countries. Similarly, the share of disputes defended by the developed countries is larger than the sum of the shares of disputes defended by the developing countries, the transitional economies and the newly industrialized countries. One noteworthy point here is that the correlation coefficient of column 2 and column 3 of Table 1 is 0.995. This indicates that if a country from any particular category appears as a complainant in a dispute, then it is highly likely that it will also appear as a defendant in another dispute.

⁸ The general time-frame is- 60 days for consultation, 45 days for Panel set up, 6 months for Panel report, 3 weeks to circulate Panel reports to members, 60 days for adopting Panel report, 90 days for Appellate Body report. However, this time-frame can be relaxed in special circumstances.

⁹ Appendix 1 of the DSU provides the full list of the Agreements covered by the DSU.

¹⁰ Breuss (2001) also agrees that retaliation with tariffs is ineffective, and Browne (2005) calls this provision of the DSU "somewhat soft".

¹¹ Butler and Hauser (2000) mentioned that weak implementation procedure of the DSU reinforces the incentives to violate trade rules.

¹² Found at WTO Official website: www.wto.org on 20 December 2007.

¹³ Total 346 disputes were lodged up to 30 June 2006. However, in cases where there are multiple complainants against one defendant, separate entries have been made into our database for each of the complainants. Therefore, the total number of disputes in our database increases to 374.

¹⁴ Annex-2 provides a list of the WTO Members classified into these four categories.

Table 1: Participation in disputes (figures in percentages)
Coverage: 374 disputes from January 1995 to June 2006.

| Country Categories | Appearance as complainant | Appearance as defendant |
|--------------------------------------|---------------------------|-------------------------|
| Developed (DD) | 57.5 | 59.9 |
| Developing (DG) | 20.1 | 20.3 |
| Newly industrialized countries (NIC) | 20.1 | 15.5 |
| Transitional economies (TEC) | 2.4 | 4.3 |

Direction of disputes shown in Table 2 below reveals another interesting scenario. The developed countries not only participate more than the countries from other categories, but also lodge complaints mostly against other developed countries. Table 2 shows that in 35 percent cases the developed countries lodged complaints against other developed countries, while they lodged only 9.6 percent and 11.2 percent complaints against the developing and the newly industrialized countries respectively. On the other hand, the newly industrialized countries lodged 13.9 percent disputes against the developed countries, while they lodged only 1.1 percent against other newly industrialized countries. Similarly, the developing countries lodged 10.9 percent disputes against the developed countries, while they lodged only 5.9 percent disputes against other developing countries. These scenarios give a feeling that the developed countries are, perhaps, being targeted by every category of countries. However, it is also evident from Table 2 that the rates of participation of the newly industrialized countries, the transitional economies and the developing countries in the dispute settlement process are far lower than that of the developed countries.

Table 2: Direction of the disputes (figures in percentages)
Coverage: 374 disputes from January 1995 to June 2006.

| | | Defendant categories | | | |
|------------------------|------------------------|----------------------|------|------------------------|---------------------|
| | | Developing countries | NICs | Transitional economies | Developed countries |
| Complainant categories | Developing countries | 5.9 | 2.9 | 0.3 | 10.9 |
| | NICs | 4.6 | 1.1 | 0.5 | 13.9 |
| | Transitional economies | 0.3 | 0.3 | 1.9 | 0.00 |
| | Developed countries | 9.6 | 11.2 | 1.6 | 35.0 |

The pattern of direction of the disputes seen in Table 2 above also holds if we divide the disputes according to the sectors/issues of dispute (Annex-1 provides direction of the disputes on major sectors/issues). For example, out of the 115 disputes on agricultural issues, 61 were lodged by the developed countries, while the developing countries and the newly industrialized countries lodged only 27 and 21 cases respectively. Similarly, out of 69 disputes on anti-dumping measures, the developed countries lodged 26 cases, while the developing countries lodged only 17 cases. This clearly shows that the developed countries are more active in the dispute settlement process of the WTO than any other category. Up to June 2006, the developed

countries lodged 215 disputes, while the developing countries lodged 75 disputes and the newly industrialized countries lodged 75 disputes. The transitional economies appeared only in 9 disputes. However, the number of the developed countries/regions¹⁵ participated in the dispute settlement process is smaller than the number of the developing or the newly industrialized countries. Only 6 developed countries/regions participated in more than 57 percent of total disputes. On the other hand, both the newly industrialized and the developing countries participated in slightly over 20 percent disputes each, and the transitional economies participated only in 2.5 percent disputes.

Analyzing the status of the disputes, it has been found that out of the 374 disputes the DSB provided solution to only 126 disputes. Mutual solutions were reached in 93 disputes and 155 disputes are still pending. Out of the 126 disputes solved by the DSB, 79 were lodged by the developed countries, 19 by the developing countries, and 28 by the newly industrialized countries. On the other hand, out of the 155 pending cases, 79 were lodged by the developed countries, 36 by the developing countries, 34 by the newly industrialized countries and the rest 6 by the transitional economies. Although the DSB is supposed to solve a dispute roughly within two years, in several instances it took on the average more than two years to solve a dispute. Table 3 below shows that to solve disputes lodged by the developed, the developing and the newly industrialized countries, on the average the DSB took more than 25 months, 22 months and 24 months respectively. Compared to the speed of solution provided by the DSB, the mutual solutions seem to be quicker. On the average a mutually solved dispute took less than two years. However, the average duration of the pending disputes has been found to be more than 5 years, which is very unusual.

Table 3: Average Duration of Disputes (figures in months)

| Cases of | Average time taken by the DSB to solve a dispute | Average time taken by the parties to mutually solve a dispute | Average time of pending disputes |
|--------------------------------|--|---|----------------------------------|
| Developed countries | 25.1 | 20.3 | 69.9 |
| Developing countries | 22.4 | 22.7 | 69.8 |
| Newly industrialized countries | 24.2 | 16.2 | 62.6 |
| Transitional economies | NA | 18.7 | 65.5 |

Finally, looking at the results of the disputes it has been found that as a complainant any country (irrespective of category) has a very high rate of winning. On the average the rate of winning is more than 84 percent. For the developed countries, the rate of winning a dispute as a complainant is 87.5 percent, while for the newly industrialized and developing countries the rate of winning as a complainant is 85.2 percent and 80 percent respectively. On the other hand, when the developed countries participate as defendants, they tend lose fewer cases than the newly industrialized or the developing countries.

¹⁵ EC has been considered a single region.

Table 4 below shows that appearing as defendants developed countries lose 81.2 percent cases, while appearing as defendants the newly industrialized and the developing countries lose 90 percent and 93.7 percent disputes respectively. Therefore, it appears that the developing countries are getting fewer wins as complainants and suffering more losses as defendants than the developed countries. However, whether this indicates a bias in the dispute settlement system or not is difficult to answer just by looking at these descriptive figures. To get a reasonable inference, application of statistical techniques is necessary.

Table 4: Dispute Results (percentage)
Coverage: 126 Disputes Settled by the DSB

| | | Win | Lose |
|----------------------------|--------------------------------|------|------|
| When appear as complainant | Developed countries | 87.5 | 12.5 |
| | Developing countries | 80.0 | 20.0 |
| | Newly industrialized countries | 85.2 | 14.8 |
| When appear as defendant | Developed countries | 18.8 | 81.2 |
| | Developing countries | 6.3 | 93.7 |
| | Newly industrialized countries | 10.0 | 90.0 |

V. Determinants of the Rate of Participation and Winning

Trends of trade disputes depicted in the previous section show that the rate of participation and the rate of winning are higher for the developed countries than any other category. To find out why the rates of participation and winning for the developed countries are higher than the rates of the other categories, we need to identify the factors that might significantly influence these rates. For this purpose, two types of regression have been carried out in this paper- (1) regression that used a count-data model to identify the factors that determine the magnitude of a country's involvement into the dispute settlement process and (2) dependent dummy variable regression to identify the factors that determine the rate of winning disputes.

While carrying out the first regression, we further divided the factors into two categories- (1) the factors that determine the magnitude of a country's involvement as a complainant and (2) the factors that determine the magnitude of a country's involvement as a defendant. Such separation was necessary as the relationship between the explanatory variables and the dependent variable change depending on how a country appears in a dispute (Annex- 3 provides a description of the variables that have been used in the regressions). For example, to identify the factors that significantly determine the rate of participation of a country as a complainant we included "export diversity (XDIV)" but excluded "import diversity (MDIV)" as an independent variable in the regression model. On the other hand, to identify the factors that significantly determine the rate of participation of a country as a defendant we dropped "export diversity" from the model and included "import diversity (MDIV)". This is because, intuitively, as export diversity of a country increases, its probability of facing disputable measures taken by other countries also increases. Consequently, to stop the disputable measures the country might raise complaints at the DSB and thus appear as a complainant in the dispute settlement

process. In this case the “import diversity” of that country is irrelevant. Conversely, as the import diversity of a country increases, the probability that the import policy of this country might be objected by other countries also increases. As a result, the country might appear as defendant in disputes brought by other countries. In such cases, “export diversity” of the country is irrelevant.

V.1. Determinants of participation as complainants: So far, 40 countries/regions participated in the dispute settlement process as complainants. We collected data of the explanatory variables over a ten-year range (1995-2004) and constructed a panel data set. As the number of disputes of a country in a given year can only be an integer, we applied Poisson regression technique instead of the OLS. The probability density function of the Poisson distribution is-

$$f(NODISP) = \frac{\mu^{NODISP} \exp(-\mu)}{NODISP!} \dots \dots \dots (1)$$

Where,

$$\mu_{it} = \exp(C + \beta_1 GDPS_{it} + \beta_2 XDIV_{it} + \beta_3 XS_{it}) \dots \dots \dots (2)$$

NODISP = number of dispute lodged by a country in a year.

GDPS = Percentage share of the complainant in the total world GDP.

XDIV = Number of lines of export (3-digit SITC level) of the complainant.

XS = Percentage share of the complainant in the total world export.

C = constant term.

The model we estimated to identify the factors that determine the magnitude of a country’s involvement into the dispute settlement process as a complainant is-

$$NODISP_{it} = \exp(C + \beta_1 GDPS_{it} + \beta_2 XDIV_{it} + \beta_3 XS_{it}) + e_{it} \dots \dots \dots (3)$$

To identify the factors that determine the rate of participation of a country in the dispute settlement process, three regressions were conducted. In the first regression, countries of all categories (i.e., the developed, developing, newly industrialized and transitional economies) were included. In the second regression, only the disputes where the developed countries appeared as complainants were included. In the third, only the disputes in which all countries, except the developed ones, appeared as complainants were included.

The regression estimates of the three scenarios presented in Table 5 show that in all the three regressions all the explanatory variables are significant at 5 percent level. The coefficients of GDPS and XDIV have been found to be positive and XS to be negative. This intuitively makes sense. If financial strength (reflected by GDPS) of a country increases, then it becomes easier for that country to bear the cost of litigation of a dispute. Similarly, if a country’s export diversity increases the probability for that country of facing disputable measures imposed by the importers also increases.¹⁶ On the other hand, any country would want to keep its export as much undisputed as

¹⁶ Horn et al. (1999) agrees with this.

possible, and therefore, might not want to engage into disputes when its export share increases. The implications of these results are that financial strength, export share and export diversity of a country are important factors that would determine the rate of participation of that country into the dispute settlement process. This may be an explanation for significant absence of the small-developing countries from the dispute settlement process. If the gap of financial power between the developed and the developing countries cannot be neutralized somehow, it would always be a factor responsible for the low rate of participation of the small-developing countries into the dispute settlement process.

Table 5: Regression estimates of the following model:
 $NODISP_{it} = \exp(C + \beta_1 GDPS_{it} + \beta_2 XDIV_{it} + \beta_3 XS_{it}) + e_{it}$

| | | Explanatory Variables | | | |
|---|-------------|-----------------------|----------|-----------|-----------|
| | | GDPS | XDIV | XS | C |
| Scenario 1: cases in which all countries of all categories appeared as complainants | Coefficient | 0.099735 | 3.165031 | -0.015874 | -8.678562 |
| | z-statistic | 14.34450 | 3.760679 | -2.567886 | -4.074538 |
| | p-value | 0.0000 | 0.0002 | 0.0102 | 0.0000 |
| Scenario 2: cases in which only developed countries appeared as complainants | Coefficient | 0.092749 | 28.88607 | -0.033422 | -74.89773 |
| | z-statistic | 10.98124 | 4.921758 | -4.395843 | -4.937385 |
| | p-value | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Scenario 3: cases in which all countries, except the developed ones, appeared as complainants | Coefficient | 0.792884 | 1.849187 | -0.417572 | -5.582940 |
| | z-statistic | 6.154359 | 2.436765 | -3.648228 | -2.970456 |
| | p-value | 0.0000 | 0.0148 | 0.0003 | 0.0030 |

Using the results presented in Table 5 it is also possible to predict the probability of a country to involve into disputes as a complainant. For example, if a country's GDPS = 0.20, XDIV = 2.10 and XS = 0.09, the probability of that country to involve in less than 2 disputes is-

$$\mu = \exp(-8.678562 + 0.099735 * 0.20 + 3.165031 * 2.10 - 0.015874 * 0.09) = 0.13352$$

$$P(NODISP < 2) = P(NODISP = 0) + P(NODISP = 1)$$

$$= \frac{(0.13352)^0 \exp(-0.13352)}{0!} + \frac{(0.13352)^1 \exp(-0.13352)}{1!} = 0.99$$

This means that a country with the attributes mentioned above has almost no chance of participating in more than one dispute as a complainant. In this case we have used the data of Bangladesh, and Bangladesh lodged only one complaint so far.¹⁷

V.2. Determinants of participation as defendants: The number of countries appeared in the dispute settlement process as defendant is 45. To find out what factors play important role to determine the rate of participation of a country into the dispute settlement process as defendant we conducted three regressions in a manner similar to those described in section V.1. However, we assumed that facing a trade dispute is related to import share, import diversity and tariff level, rather than to export share or export diversity. To identify the factors that determine the rate of participation of a country in the dispute settlement process as a defendant, the following model was estimated using Poisson technique similar to the one applied in the previous section.

$$NODISP_{it} = \exp(C + \beta_1 GDPS_{it} + \beta_2 MDIV_{it} + \beta_3 MS_{it} + \beta_4 TARIFF_{it}) + e_{it} \dots \dots (4)$$

Where,

GDPS = Percentage share of the complainant in the total world GDP.

MDIV = Number of lines of import (3-digit SITC level) of the defendant,

MS = Percentage share of the defendant in the total world import and

TARIFF = Average ad-valorem import tariff rate imposed by the defendant.

C = constant term.

The estimates of the regressions presented in Table 6 below show mixed results. The first scenario, where all categories of countries were included, shows that financial strength (captured by GDPS), import share (MS) and tariff level (TARIFF) are highly significant factors that determine the rate of participation of a country as defendant in the dispute settlement process. However, we found that import diversity (MDIV) was not significant.

On the other hand, in the second scenario we found GDPS, MDIV and TARIFF variables to be significant at 5 percent level. This implies that although in the general scenario (i.e. scenario-1) import diversity does not play significant role, it is important for the developed countries. The developed countries' appearance in the dispute settlement process as defendants depends on their import diversity, rather than on the volume of import.

We found financial strength (GDPS) significant at 5 percent level and tariff level (TARIFF) significant at 10 percent level in the third scenario, where we included the developing countries, the newly industrialized countries, and transitional economies, but excluded the developed ones. Import share was found significant at a low level (15 percent level approximately) and import diversity was found insignificant. These results again indicate that financial strength is an important determinant for every

¹⁷ Bangladesh is the only least-developed country that took part in the dispute settlement process of the WTO.

category of countries. The results also indicate that the number of disputes faced by a country tends to increase as its import tariff level increases. Therefore, if a country does not want to face disputes it should reduce its tariff level. The coefficient of “import share” with a negative sign indicates that as the volume of total import of a country increases its chance of facing dispute reduces, perhaps, because “the sellers do not want to annoy the valuable buyers.”

Table 6: Regression estimates of the following model:

$$NODISP_{it} = \exp(C + \beta_1 GDPS_{it} + \beta_2 MDIV_{it} + \beta_3 MS_{it} + \beta_4 TARIFF_{it}) + e_{it}$$

| | | Explanatory Variables | | | | |
|--|-------------|-----------------------|----------|-----------|----------|-----------|
| | | GDPS | MDIV | MS | TARIFF | C |
| Scenario 1: cases in which all countries of all categories appeared as defendants | Coefficient | 0.146097 | 2.057815 | -0.034861 | 1.811148 | -7.069357 |
| | z-statistic | 14.79308 | 0.577458 | -4.061976 | 5.343656 | -0.769284 |
| | p-value | 0.0000 | 0.5636 | 0.0000 | 0.0000 | 0.4417 |
| Scenario 2: cases in which only developed countries appeared as defendants | Coefficient | 0.126450 | 34.52415 | -0.008616 | 11.44142 | -93.84074 |
| | z-statistic | 10.71071 | 2.875353 | -0.815056 | 4.826927 | -2.984570 |
| | p-value | 0.0000 | 0.0040 | 0.4150 | 0.0000 | 0.0028 |
| Scenario 3: cases in which all countries, except the developed one, appeared as defendants | Coefficient | 0.469393 | 1.707042 | -0.227078 | 0.925581 | -5.775777 |
| | z-statistic | 2.728145 | 0.406556 | -1.421178 | 1.767409 | -0.536816 |
| | p-value | 0.0064 | 0.6843 | 0.1553 | 0.0772 | 0.5914 |

V.3. Determinants of winning a dispute: To find out what factors determine the outcome of a dispute, dependent dummy variable regression technique was applied. We applied both LOGIT and PROBIT models for estimation purposes. However, since the marginal and predicted probabilities are only slightly different between these two methods and the LOGIT estimates are easier to interpret than the PROBIT estimates, we present here only the LOGIT estimates.

The dependent variable used in the regression model is RESULT. It is a dummy variable that takes the value ‘one’ if the complainant wins a dispute and ‘zero’ otherwise. The explanatory variables in this case are- (1) relative financial strength of the complainant compared to the financial strength of the defendant (GDPR), (2) share of the complainant’s total export that goes to the defendant’s market (XCDS) and (3) duration of the disputes expressed in number of months (TIME). In our model GDPR captures the effect of the gap of financial strength between the complainant and the defendant, XCDS captures the effect of the extent of dependency of the complainant on the defendant, and TIME captures the effect of prolongation in the dispute settlement process.

Using the LOGIT model stated in equation 5 below, we conducted three regressions. The first scenario included a sample of disputes covering all categories of countries. The second scenario included a sample of disputes where the developed countries lodged complaints only against other categories. The third scenario included a sample of disputes where the developed countries appeared as defendants facing disputes lodged only by the other categories. The purpose of conducting these three regressions is to find out if the magnitudes of influence of the determinants vary depending on the category of a country. The model we estimated for these regressions is-

$$\Pr(\text{RESULT}_{it} = 1) = F(z_{it}) = \frac{1}{1 + e^{-z_{it}}} ; \quad -\infty < z_{it} < +\infty \quad \dots \dots \dots (5)$$

Where,

$$z_{it} = C + \beta_1 \text{GDPR}_{it} + \beta_2 \text{XCDS}_{it} + \beta_3 \text{TIME}_{it} + e_{it}$$

GDPR = GDP of the complainant/GDP of the defendant.¹⁸

XCDS = export of the complainant that goes to the defendant's market/total export of complainant.

TIME = duration of a dispute expressed in number of months.

C = constant term.

The regression results are presented in Table 7 below. In the first scenario, GDPR and TIME were found to be significant at 5 percent level. In the second scenario TIME was found to be significant at 5 percent level and GDPR was found to be significant at 10 percent level. However, in the third scenario none of the variables was found to be significant (it is noteworthy here that the data points in the third scenario were too small to get reliable estimates).

These estimates indicate that relative financial strength plays important role in winning trade disputes. If a country has substantial financial strength then it is easy for that country to mobilize resources for litigation purposes. It is also easy for that country to engage adequate resources to develop experts who can efficiently compete and negotiate in a trade dispute. Conversely, when a country does not have adequate financial strength then it is difficult for that country to mobilize resources or develop experts for dispute settlement.

The values of z-statistic of the TIME variable also indicates that it plays a crucial role in winning disputes. However, it is noteworthy that the sign of the coefficient of TIME changes depending on the scenario. The positive sign in second scenario and the negative sign in the third scenario of the coefficient of TIME indicate that if the settlement process of a dispute is prolonged it favors the financially strong countries, but hurts the small-developing countries. This is because prolonged disputes cost

¹⁸ Besson and Mehdi (2004) used gap between GDP of the two disputing parties instead.

more than the usual, which is difficult for the small-developing countries to bear but easy to spare for the developed countries.¹⁹

The implications of these findings are that financially solvent countries will not only participate more in the dispute settlement process but will also win more disputes than the financially weak countries. In addition, small-developing countries will be adversely affected if the disputes are not resolved within the time-frame stipulated in the DSU.

Table 7: Regression estimates of the following model:

$$\Pr(\text{RESULT}_{it} = 1) = F(z_{it}) = \frac{1}{1 + e^{-z_{it}}}$$

| | | Explanatory Variables | | | |
|---|-------------|-----------------------|-----------|-----------|-----------|
| | | GDPR | XCDS | TIME | C |
| Scenario 1: cases in which all countries of all categories appeared | Coefficient | 0.108146 | -0.086928 | 0.030889 | -1.146845 |
| | z-statistic | 3.462173 | -0.382840 | 2.132942 | -2.723477 |
| | p-value | 0.0005 | 0.7018 | 0.0329 | 0.0065 |
| Scenario 2: cases in which only developed countries lodged complaints against other categories | Coefficient | 0.060836 | 10.25802 | 0.121559 | -2.998855 |
| | z-statistic | 1.851979 | 0.582854 | 2.322199 | -2.412086 |
| | p-value | 0.0640 | 0.5600 | 0.0202 | 0.0159 |
| Scenario 3: cases in which the developed countries appeared as defendants facing complaints lodged only by the other categories | Coefficient | -4.045713 | -0.782571 | -0.017538 | 0.643570 |
| | z-statistic | -0.701331 | -0.734847 | -0.739425 | 0.752952 |
| | p-value | 0.4831 | 0.4624 | 0.4596 | 0.4515 |

VI. Conclusion

In many respects the WTO system is better than the old GATT system. It included all the GATT provisions plus improved by adding new Agreements covering key sectors and issues of international trade. Yet, two out of six Ministerial Conferences of the WTO completely failed as the countries at the negotiation table could not reach any agreeable solution.²⁰ In addition, although the Doha Conference produced promising Doha Development Agenda (DDA), the commitments laid in the DDA have not yet been fulfilled. This paper assumes that the success of a multilateral trade negotiation depends on the power of the DSU to provide remedies against unfair trade practices,

¹⁹ Bown and Hoekman (2005) also suspect that extended litigation process may be the main reason for the low rate of participation of the potential developing countries in the dispute settlement process.

²⁰ These are- Seattle Ministerial Conference (1999) and Cancun Ministerial Conference (2003).

because if the remedial measures are not effective then it will induce violation of commitments. As a result, deadlocks in trade negotiations will fail the purpose of the Ministerial Conference.

Examining the provisions of the DSU, this paper finds that it has considerable insufficiencies. Because of the insufficiencies it is practically very difficult for a country, especially for the small-developing ones, to get adequate relief against unfair trade practices. The provisions of the DSU only allow retaliatory measures against a country using unfair trade practices. If a small-developing country is affected by such unfair trade practices used by a developed country, then it is virtually impossible for that small-developing country to “retaliate” against the developed country, because in reality most of the developing countries are heavily dependent on few developed countries/regions, for example, to sell their exportable items. Our regression analyses show that the countries with considerable financial strength, versatile tradable items and large trade share not only tend to use the dispute settlement mechanism more but also win more disputes than the countries with low financial strength and small trade share. In addition, we also find that if a dispute is prolonged then it may favor the developed countries at the expense of the small-developing ones.

These results provide logic for the empirical finding that the developing countries, especially the least-developed ones, participate in fewer trade disputes than the developed countries.²¹ Apparently the WTO does not have anything to do with the financial strength or the trade share of a country. However, the gap of financial power between the developed and the developing countries may be neutralized by providing the latter with intensified legal and technical assistance during the litigation process of a dispute. To encourage the developing countries to participate more in the dispute settlement process, the WTO should replace the provision of retaliation by introducing more meaningful measure, such as financial compensation instead of retaliation, in the system.²² At the same time, the WTO should also take necessary steps to resolve the disputed matters within the time-frame stipulated in the DSU. Without these changes and actions the WTO will always face difficulty ensuring fair trade and successful multilateral trade negotiations.

²¹ So far, only one least-developed country actively took part in the dispute settlement process of the WTO (Dispute no: 306- Bangladesh vs. India).

²² Davey (2005) also suggests monetary compensation instead of retaliatory actions.

References

- Besson, Febian and Racem Mehdi (2004), "Is WTO Dispute Settlement System Biased Against Developing Countries? An Empirical Analysis," paper presented in the *International Conference on Policy Modeling*, University of Paris. Found at: http://www.ecomod.net/conferences/ecomod2004/ecomod2004_papers.htm
- Bown, Chad P. & Bernard M. Hoekman (2005), "WTO Dispute Settlement and the Missing Developing Country Cases: Engaging the Private Sector," *Journal of International Economic Law*, v8, pp. 861-890.
- Breuss, Fritz (2001), "WTO Disputes from an Economic Perspective: More Failure than Success?" , *IEF Working Papers*, Research Institute for European Affairs, No. 39. Found at: http://epub.wu-wien.ac.at/dyn/virlib/wp/mediate/epub-wu-01_256.pdf?ID=epub-wu-01_256
- Browne, Dennis (2005), "Dispute Settlement in the WTO: How Friendly is it for the LDC," *CPD Occasional Paper Series* no. 45, Center for Policy Dialogue, Dhaka, Bangladesh.
- Busch, Marc L. and Eric Reinhardt (2002), "Testing International Trade Law: Empirical Studies of GATT/WTO Dispute Settlement," in *D. L. M. Kennedy and J. D. Southwick's The Political Economy of International Trade Law: Essays in Honor of Robert E. Hudec*, Cambridge University Press, pp. 457-481.
- Butler, M. and H. Hauser (2000), "The WTO Dispute Settlement System: A First Assessment from an Economic Perspective," *Journal of Law, Economics & Organization*, vol. 16(2), pp. 503-533.
- Das, Bhagirath Lal (1998), *The WTO Agreements: Deficiencies, Imbalances and Required Changes*, Zed Books Ltd. London & New York.
- Davey, William J. (2005), "The WTO Dispute Settlement System: The First Ten Years," *Journal of International Economic Law*, vol. 8 no. 1, pp. 17-50.
- Griffin, C. L. (2002), "The Political Economy of WTO Dispute Settlement: Toward a Synthesis of International Regime Theories", *University Avenue Undergraduate Journal of Economics*. Found at: <http://www.econ.ilstu.edu/UAUJE/PDF%27s/CarrolRound/griffinpost.pdf>
- Holmes, Peter, Jim Rollo and Alasdair R. Young (2003), "Emerging Trends in WTO Dispute Settlement: Back to GATT?" *The World Bank Policy Research Working Paper* no. 3133.
- Horn, Henrik, Petros C Mavroidis and Hakan Nordstrom (1999), "Is the Use of the WTO Dispute Settlement System Biased?" *CEPR Discussion Paper* no. 2340.
- Park, Young Duk and George C. Umbricht (2001), "WTO Dispute Settlement 1995-2000: A Statistical Analysis," *Journal of International Economic Law*, pp- 213-230.
- Shaffer, G. (2005), "Weakness and Proposed Improvements to the WTO Dispute Settlement System: an Economic and Market-oriented View", paper prepared for *WTO at 10: A Look at the Appellate Body*, Sao Paulo, Brazil.

Annex 1

Direction of Disputes in Selected Sectors (coverage: 1995 to June 2006)

Table 8: Direction of Disputes on Agriculture (actual number of cases)

| | | Defendant countries | | | | |
|-----------------------|------------------------|----------------------|------|------------------------|---------------------|-------|
| | | Developing countries | NICs | Transitional economies | Developed countries | Total |
| Complainant countries | Developing countries | 3 | 4 | 0 | 20 | 27 |
| | NICs | 3 | 0 | 2 | 16 | 21 |
| | Transitional economies | 1 | 0 | 5 | 0 | 6 |
| | Developed countries | 8 | 11 | 5 | 37 | 61 |
| | Total | 15 | 15 | 12 | 73 | 115 |

Table 9: Direction of Disputes on Anti-dumping Measures (actual number of cases)

| | | Defendant countries | | | | |
|-----------------------|------------------------|----------------------|------|------------------------|---------------------|-------|
| | | Developing countries | NICs | Transitional economies | Developed countries | Total |
| Complainant countries | Developing countries | 7 | 3 | 0 | 7 | 17 |
| | NICs | 8 | 2 | 0 | 15 | 25 |
| | Transitional economies | 0 | 1 | 0 | 0 | 1 |
| | Developed countries | 1 | 6 | 0 | 19 | 26 |
| | Total | 16 | 12 | 0 | 41 | 69 |

Table 10: Direction of Disputes on Safeguard Measures (actual number of cases)

| | | Defendant countries | | | | |
|-----------------------|------------------------|----------------------|------|------------------------|---------------------|-------|
| | | Developing countries | NICs | Transitional economies | Developed countries | Total |
| Complainant countries | Developing countries | 3 | 2 | 0 | 6 | 11 |
| | NICs | 4 | 0 | 0 | 3 | 7 |
| | Transitional economies | 0 | 0 | 2 | 0 | 2 |
| | Developed countries | 0 | 2 | 0 | 11 | 13 |
| | Total | 7 | 4 | 2 | 20 | 33 |

Table 11: Direction of Disputes on Countervailing Measures (actual number of cases)

| | | Defendant countries | | | | |
|-----------------------|------------------------|----------------------|------|------------------------|---------------------|-------|
| | | Developing countries | NICs | Transitional economies | Developed countries | Total |
| Complainant countries | Developing countries | 0 | 2 | 0 | 1 | 3 |
| | NICs | 1 | 0 | 0 | 4 | 5 |
| | Transitional economies | 0 | 0 | 0 | 0 | 0 |
| | Developed countries | 0 | 2 | 0 | 7 | 9 |
| | Total | 1 | 4 | 0 | 12 | 17 |

Annex-2

Table 12: WTO Member Countries classified into different categories

| Country categories | Complainants and Defendants in the WTO Dispute Settlement Process | WTO Members Who did not Appear Either as a Complainant or a Defendant |
|--------------------------------------|---|---|
| Developed countries (DD) | Australia, Canada, EC, Japan, New Zealand, Norway, Switzerland, USA. | Iceland, Liechtenstein |
| Newly Industrialized Countries (NIC) | Argentina, Brazil, Hong Kong, Korea, Malaysia, Mexico, Singapore, Thailand. | -- |
| Developing Countries (DG) | Antigua and Barbuda, Bangladesh, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Egypt, Guatemala, Honduras, India, Indonesia, Nicaragua, Pakistan, Panama, Peru, Philippines, South Africa, Sri Lanka, Trinidad and Tobago, Turkey, Uruguay, Venezuela. | Angola, Bahrain, Barbados, Belize, Benin, Botsowana, Brunei Darussalam, Burkina Faso, Burundi, Cameroon, Central African Rep., Chad, Congo, Cote d'Ivoire, Cuba, Cyprus, Djibouti, Dominica, El Salvador, Fiji, Gabon, Gambia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Israel, Jamaica, Jordan, Kenya, Kuwait, Lesotho, Macau, Madagascar, Malawi, Maldives, Mali, Malta, Mauritania, Mauritius, Mojambique, Mongolia, Morocco, Myanmar, Namibia, Niger, Nigeria, Papua New Guinea, Oman, Paraguay, Qatar, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent & the Grenadines, Senegal, Sierra Leone, Solomon Islands, Suriname, Swaziland, Tanzania, Togo, Tunisia, UAE, Uganda, Zambia, Zimbabwe. |
| Transitional Economies (TEC) | Czech Rep., Hungary, Poland, Slovak Rep., Croatia. | Albania, Bulgaria, Estonia, Georgia, Rep. of Kyrgyz, Latvia, Slovenia. |

Annex- 3

Description of Variables included in the Regression Models

Dependent variables:

NODISP: Number of disputes lodged or defended by a country between 1995 and 2004.

RESULT: Dummy variable that takes the value 1 for a win, zero otherwise.

Independent variables:

- **GDPR:** Relative gross domestic product of the complainants and defendant of a dispute. This variable indicates relative financial strength of the parties at dispute. Collected and calculated from the WDI 2004.
- **MDIV:** Number of lines of import items of a country. Counted on the basis of a 3-digit level SITC collected from the ITC website.
- **MS:** Percentage share of a country in the total world import. Collected and calculated from the COMTRADE data base of the UN.
- **TARIFF:** Average ad-valorem tariff rate imposed by the defendant. Collected from the GTAP 6 data base.
- **TIME:** Number of months taken by a dispute to be solved. Collected and calculated from the World Trade Organization's (WTO) web site.
- **XCDS:** Percentage share of a complainant's total export that goes to the defendant's market. This reflects the dependency of the complainant on the defendant. Collected and calculated from the COMTRADE data base of the United Nations (UN).
- **XDIV:** Number of lines of export items of a country. Counted on the basis of a 3-digit level SITC collected from the ITC website.
- **XS:** Percentage share of a country in the total world export. Collected and calculated from the COMTRADE data base of the United Nations (UN).