THE FLETCHER SCHOOL OF LAW AND DIPLOMACY

USING THE AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) AS AN ENFORCEMENT MECHANISM FOR SMALL COUNTRIES

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ABSTRACT

Under the current enforcement mechanism of the World Trade Organization (WTO), small countries are not able to implement effective retaliatory measures. Given their insignificant effect on world trade, the suspension of concessions ends up causing harmful effects to their welfare. As a result, small countries lack bargaining power and are not able to force their larger partners to respect their rights under the WTO system. The following paper explores the possibility to implement cross-retaliation, --specifically the suspension of commitments under the TRIPs agreement-- in favor of small countries to overcome ineffectiveness of their retaliatory measures and increase their bargaining power in trade negotiations. The paper includes a legal analysis and illustrates the economic implications of the alternative measure by using the case of the Banana Regime: Ecuador against the European Union.

On November 8 1999[1], Ecuador requested authorization to the Dispute Settlement Body (DSB) of the World Trade Organization (WTO) to suspend obligations under the agreement on Trade- related aspects of Intellectual Property Rights (TRIPs). Through this suspension, Ecuador's intention was to force the European Union countries to bring their action into conformity with General Agreement on Tariffs and Trade (GATT) rules and compensate the losses generated by the discriminatory Banana Regime. It would seem that through this approach of cross retaliation, small developing countries would have finally found an effective measure to force their larger partners to respect their GATT rights. If such is the case, this alternative measure could contribute to overcome the ineffectiveness of retaliatory measures of small countries. Ironically, the same provision -- cross retaliation -- that was causing fear to developing countries might now be implemented in their favor.

INTRODUCTION

In 1995, the establishment of the Agreement of Trade-related Aspects of Intellectual Property Rights (TRIPs) - and specifically the provision of cross retaliation - created serious concerns to developing countries. The provision of cross retaliation, introduced in Article XXII of the Dispute Settlement Understanding (DSU) during the Uruguay Round, allowed the withdrawal of General Agreement on Tariffs and Trade (GATT) rights in the event the obligations and commitments under the TRIPs agreement were not respected. The creation of the agreement and the cross retaliation provision responded mainly to the developed countries' concern that property rights were given inadequate protection and were ineffectively enforced. Consequently, developing countries were concerned that the introduced agreement and provision will put them in a weaker position. Given that most of the industries whose revenue depend on intellectual protection are located in developed countries, developing countries argued that this enforcement mechanism was purposely designed against them. Ironically, the same provision that was causing fear to developing countries might be implemented in their favor and even contribute to overcome ineffectiveness of their retaliatory measures.

Under the current enforcement mechanism of the World Trade Organization (WTO), the DSU, developing countries may not have effective retaliatory measures. Given their insignificant effect on world trade, their suspension of concessions produces harmful effects to their welfare. For the same reason, a small country's threat to suspend concessions in goods to a larger trade partner

lacks credibility in two aspects. First, a small country's retaliatory measure does not cause any economic effect on the offending country. As a result the offending country does not have any incentive to bring its actions into conformity with the GATT agreement. Second, given that the retaliatory measure causes harmful effects to the economy of the retaliator, the incompliant country knows that it is very unlikely that the measure will take place. However, small countries might still be willing to apply retaliatory measures given that this is the only resource available.

By using cross retaliation, and specifically by suspending commitments under the TRIPs agreement, small countries could increase their bargaining power and force other Members to comply with their GATT's obligations. Given that most of the industries with substantial holdings of intellectual property rights (IPRs) --such as pharmaceutical and software industry—are located in developed countries, the very presence of the threat of suspending the protection, could lead to improved compliance.

Nonetheless, the suspension of TRIPs commitments could also have negative effects for a small country in legal and economic terms. From a legal perspective, the mentioned measure could cause inconsistencies with existing international commitments to protect IPRs including the Berne Convention, Treaty of Integrated Circuits, the Rome Convention and Paris Convention on Industrial Property. From an economic perspective, the suspension of TRIPs obligations may cause negative effects on the investment climate and potential investor's perception.

The purpose of this paper is to explore whether the alternative of cross retaliation –-and specifically the suspension of obligations of the TRIPs Agreement -- could be implemented as an enforcement mechanism to overcome the ineffectiveness of small countries' retaliatory measures. In order to determine if the suspension of TRIPs obligations as a retaliatory measure is feasible and effective, we will look at the legal and economic implications.

[1]WTO DOCUMENT WT/DS27/52, dated 9 November 1999.

The first part of the paper will include a description of the current enforcement mechanism and the limitations faced by developing countries. For the comprehension of the current enforcement mechanism, we will refer to Article XXII of DSU related to suspension of concessions and the dispute settlement provision under the TRIPs agreement. In addition, we will use the volume of trade and terms of trade approach of a tariff imposition in the case of a large and small country to illustrate the ineffectiveness of a small country's retaliatory measure. The second part of the paper will focus on the feasibility and effectiveness of the proposed alternative measure under the WTO agreements. We will include a brief history of the TRIPs agreement and the cross retaliation provision necessary to understand the proposed alternative mechanism. In this section we will use the theory of games, to explain how this alternative mechanism could be used as a credible device to enforce countries to comply with their obligations under the WTO. The third part of the paper will focus on the legal and economic implications of the proposed mechanism. The legal implications would be explored at both an international and domestic level. Then, we will address the economic implications by referring to the case of Ecuador vs. the European Union. This analysis will be based on the effects on income of the implementation of the traditional retaliatory measure, and of the alternative measure through the impact on foreign direct investment.

II. THE ENFORCEMENT MECHANISM OF INTERNATIONAL TRADE RULES UNDER THE WTO AGREEMENTS

Since 1948, GATT has provided the set of rules for trade between nations. It is important whether the agreements and contracts signed under this framework are respected and consciously complied with an effective enforcement mechanism. Given the domestic political sensitivity inherently involved in trade issues, a weak enforcement mechanism would tend to discourage the negotiations and implementation of concessions.

The enforcement mechanism within the WTO is the dispute settlement system aimed at providing predictability and stability in trade relations; "without an effective dispute settlement system, negotiating rules for international trade would simply not be a worthwhile endeavor"[2].

The dispute settlement system has evolved throughout time and experienced important reforms. Previous to the Uruguay Round, there was no specific procedural framework. Cases developed by improvisation and disputes were dealt in regular meetings. Only in 1950, the practice of a Panel recommendation became common[3]. In 1979, under the Tokyo Round, the system was codified and modified afterwards in the mid 1980's. In addition, the previous system required consensus for the implementation of a Panel's ruling. This was an ineffective system as the offending country was always able to block its own ruling. For the same reason, compensation and sanction measures requests to obtain sanction authorizations in the 1980's failed because of the consensus rule and the target country opposition to the authorization.[4] This can be illustrated by the case of The Netherlands vs. United States.[5] In 1955, The Netherlands was authorized to suspend concessions against the United States for discriminatory quotas on Dutch agricultural products. However, given

[2] William Davey, "The WTO Dispute Settlement System", Journal of International Economic Law, Oxford Press, February 2000, p.15.

[3] Panels started to be used as a result of the influence of GATT Director General Eruc Wyndham-White In addition the Panel members acted as individuals and not as country representatives (Jackson, p.339).

[4] John Jackson, William Davey and Alan O Skyes, Jr. ed. "Legal Problems of International Economic Relations, Cases, Materials and Text, Third Edition, West Group, Minn. 1995, p. 344.

[5] Jackson, Davey, Skyes, p.344.

that the action was considered "inappropriate" and that the United States opposed to the ruling, the suspension was never implemented. During the Uruguay Round the consensus requirement to object rulings was eliminated.

By the same token, administrative reforms were implemented. Before the Uruguay Round, each agreement was regulated through its own dispute settlement process. This resulted in waste of resources and doubling of efforts. In order to improve this all dispute settlement processes were unified under the same understanding. Additionally, the creation of the Dispute Settlement Body (DSB) in 1995 contributed to the strengthening of dispute settlement process.

Only few changes were included regarding the operation of the system for developing countries. Among these, there is the General Provision for Developing Countries in Article XXIV of the DSU, aimed at encouraging Members to give “particular consideration” to the cases of least developed countries. In addition, the provision of “economic impact” under Article XXI of the DSU was introduced. This provision states that “If the case is brought by a developing country Member, the DSB shall take into account not only the trade coverage of measures complained of, but also their impact in the economy.”[6]

However, no provision was introduced to overcome one of the major weaknesses of the enforcement mechanism: the inability for small countries to implement retaliatory measures and force other Members to respect their GATT rights. Although the elimination of consensus to block a ruling was an important step to enhance rule enforcement, the granting of the right to suspend concessions in the case of small countries is still an illusion. This weakness can be illustrated by looking at the case of the United States Sugar imports from Nicaragua[7].

In 1983, the United States decided to reduce Nicaragua’s sugar import quotas from 58,000 to 6,000 tons violating the commitments under GATT. The Nicaraguan economy was sharply affected by this

decision as sugar represented a large percentage of exports. Although Nicaragua brought this case to the GATT basing its claim on the US violation of provisions of Articles II, XI and XIII and Part IV of the General Agreement, the U.S. did not retract from its decision. Consequently, under the framework of GATT rules, Nicaragua attempted to impose import restrictions against the U.S. However, given that the suspension of concessions from Nicaragua would have passed unnoticed in the U.S. and might have provoked counterproductive effects on its own economy, the retaliation never took place. According to Jackson, negotiators and drafters of the WTO were aware of the constraints developing countries faced in imposing retaliatory measures[8]. However, no reforms were introduced regarding this matter.

The functioning of the dispute settlement system is described in Article XXIII of the GATT and in detail on Annex 2 of the Agreement -Understanding on Rules and Procedures Governing the Settlement of Disputes- known also as the DSU. The aim of the DSU is to "preserve the rights and obligations of Members under the covered agreements", "clarify the existing provisions in accordance with customary rules" and to "maintain the proper balance" in the event that benefits are being impaired by measures taken by other Members.[9]

According to Jackson, dispute settlement systems are designed either to adjudicate disputes or to mediate them. A system that aims at mediating disputes encourages parties to negotiate a solution. On the other hand, a system that aims at adjudicating disputes, focuses on the effective application of rules and the assurance that the system's decisions are implemented. [10] In the case of the DSU, the design of the system suggests a mixed adjudicative and mediation goal. The various stages of

[6] Annex 2, DSU, Article XXI, paragraph 8.
[7] United States –Imports of Sugar from Nicaragua, GATT,31st Supp.BISD 67 (Panel report adopted March 13 1984).
[8] In 1965 and 1966, a GATT committee on Legal and Institutional framework created an Ad Hoc Group on Legal Amendments to consider proposals such as financial compensation for developing countries and the automatic release of GATT obligations toward an offending developed GATT member. However, these were never adopted.

[9] Annex 2, WTO Understanding on Rules and Procedures Governing the Settlement of Disputes, Article 3 on General Provisions, paragraph 2-3.

[10] Jackson, Davey and Skyes, Jr., p. 328.

negotiation reflect the emphasis on mediation, while the possibility to suspend concessions reflects the adjudicative nature of the system.

In the absence of a mutually agreed solution, the first objective of the dispute settlement mechanism is usually to secure the withdrawal of actions, if these are found to be inconsistent with the provisions of any of the covered agreements[11]. If the measures are not followed, countries have to follow a process consisting of three stages: consultations (Article IV), establishment of a panel (Article VI), and compensation and the suspension of concessions (Article XXII).

The first stage aims at encouraging Members to reach a mutual agreement. After notifying the DSB, Members must attempt to resolve their differences. If the consultations fail to settle the dispute after a determined period of time, the complaining party may request the establishment of a Panel. In this second stage, the Panel –which is conformed by governmental and/or non-governmental individuals[12]-- identifies the specific measures at issue and provides a brief summary of the legal basis. In order to avoid imbalances in the Panel composition, the DSU states that panelist "shall serve in their individual capacities and not as government representatives"[13]. In addition, Article VIII of the DSU on Panel Compositions emphasizes the role of the Director General of ensuring an appropriate composition of the Panel.

When a panel finds there has been nullification or impairment of rights as a consequence of a country's action, it invokes Article XIX of the DSU. This article refers to the Appellate Body recommendation to the offending Member to "bring the measure into conformity with that agreement"[14]. In the event that the recommendations and rulings are not implemented within a

[11] Ibid, Article 3, paragraph 7.

[12] Citizens of Members whose governments are parties to the dispute are not allowed to be part of the Panel (DSU, Annex 2, Article 8, and paragraph 3). Additionally, Third parties with particular interests in a matter can participate in a Panel.(DSU Annex 2, Article 10, and paragraph 2).

[13] Annex 2, WTO Understanding on Rules and Procedures Governing the Settlement of Disputes, Article 8, paragraph 9.

[14] Ibid, Article 19, paragraph 1.

period of time, countries proceed to the third stage that refers to compensation and suspension of concessions or other obligations.

The provision of compensation is invoked in the event the immediate withdrawal of the measure is impracticable. In addition, this measure is temporary and voluntary.

The final resource is the suspension of concessions, as stated on Article XXII, paragraph 2 of the DSU:

> If no satisfactory compensation has been granted within 20 days after the date of the expiry of the reasonable period of time, any party having invoked the dispute settlement may request authorization from the DSB to suspend the application to the Member concerned of concessions or other obligations under the covered agreements. [15]

As can be noted, the right of countries to retaliate does not have an obligatory nature; it clearly specifies that Members *may request* authorization. This was already illustrated by the case of Nicaragua and the United States.

Another important requirement within the DSU is that the level of suspension must be equivalent to the level of nullification. This is determined through a counterfactual calculation which measures the loss of exports resulted from the offending Member inconsistent action. In the event the offended party does not agree with the level of suspension requested, the offending Member has the right to invoke a revision of the calculation to the arbitrators. As stated under Article XXII, paragraph 4, "If the Member concerned objects to the level of suspension proposed, or claims that the principles and procedures set forth in paragraph 3 have not been followed (...) the matter shall be referred to arbitration..." [16]

The suspended concessions must be covered by the agreements and subjected to authorization of the DSB and implemented on a discriminatory basis *vís a vís* against the other Member.

[15] Ibid, Article 22, paragraph 2.
[16] Ibid, Article 22, paragraph 6

In the case the suspension is "unpractical and ineffective", the offended Member has the option to suspend concessions in other sectors of the same agreement. If the latter is still not practicable or effective, the offended Member could look for suspension under another WTO covered agreement. This provision is called cross retaliation. (Deeper analysis of this provision will be discussed later). Finally, Article XXIII emphasizes the mandatory nature of compliance with the mentioned procedures.

1.1 The importance of Retaliatory Measures (Article XXII) for the equilibrium of the Multilateral Trade System

Although the greatest emphasis of the enforcement mechanism has been placed on the first two stages, "a solution mutually acceptable to the parties to a dispute and consistent with the covered agreements is clearly to be preferred", retaliation under Article XXII plays a central role in the enforcement mechanism.

Throughout the history of dispute settlement cases, only few have reached the stage of retaliation[17] and even fewer have been actually authorized. Regardless of the small number of cases, the importance of retaliatory measures must not be undermined. The very presence of the threat determines the bargaining power. In addition, "the threat of authorized retaliation is often the catalyst that ensures resolution in the consultation/negotiation stage"[18].

The function of retaliation is crucial for the equilibrium of the multilateral trade system. According to Bagwell and Staiger, the drafters of Article XXIII of the DSU clearly understood the necessity of the retaliatory threat. Indeed, the purpose of a retaliatory measure is to ensure that the unilateral action of the foreign government is converted to a reciprocal action by and its domestic partner."[19]

[17] Retaliation was authorized in the case of the United States and Ecuador against the European Union in the Banana's case. Other cases include US against European Union in the Hormones-Treated Beef case and Canada against Brazil in the illegal aircraft subsidies case.
[18] Carolyn Rhodes, *Reciprocity, U.S. Trade Policy and the GATT Regime*, Cornell University Press, Ithaca, New York, p.109.
[19] Kyle Bagwell and Robert W. Saiger, " GATT Think", NBER Working paper No.W8005, issued on November 2000, p.36.

The logic behind this is to avoid the foreign government to shift its costs of intervention onto the home-country exports. According to the standard repeatedly tariff game (Bagwell and Staiger: 2000) retaliation represents the off- equilibrium path and long term cost that would be experienced by a government that decides to deviate from its obligations in the present[20]. Hence, one of the forces that drive countries to comply besides their own benefits, are the high costs of sanctions from other members.

Credibility is a very important element in the effectiveness of threats. An effective retaliation must be capable of causing loss or pain on the party being retaliated against. And second, it must be in the interest of the offending country to take the action. The parties in a negotiation process will first assess the feasibility of the other parties' sanction in order to decide whether to comply or not with respect to their obligations. If a country realizes that its counterpart's threat is unfeasible then its bargaining power will increase and the probability of compliance becomes low. On the contrary, if the country knows that the threat from the counterpart is feasible and harmful, then the probability of compliance becomes high.

The relevance of the threats can be also illustrated with the effects of the cross retaliation provision in Article XXII of the DSU. This provision emerges as an enforcement mechanism for the compliance of obligations under the TRIPS, General Agreement for Trade in Services (GATS) and the Agreement of Trade-related Investment Measures (TRIMs). By allowing retaliation across sectors, countries that do not comply with their obligations on intellectual property rights[21], services and/or investment face the risk of being sanctioned through suspension goods concessions by other parties. The interest of the Member of suspending goods concessions and the feasibility of the measure, enhance the credibility of the threat. As a result, the threat is effective and creates a strong incentive to comply with the agreed obligations.

[20] Ibid,p.68.
[21] The enforcement procedure under TRIPS was complemented with new provisions under the Dispute Settlement Body in accordance with Articles XXII and XXIII of GATT 1994. Specifically, Art XXII, par. 3 (b) and (c) allows parties to suspend concessions or other obligations in other sectors (goods) in cases of non-compliance to the TRIPS.

1.2 Perceptions of the enforcement mechanism

Scholars in the legal trade community have different opinions about the effectiveness of the DSU as an enforcement mechanism. For Muró and Gappah[22], the numerous cases processed are an indicator of the effectiveness of the enforcement mechanism. There have been 42 consultation requests which resulted in acceptable solutions, 55 requests that resulted in the establishment of panels and 15 appeals filed up to the year 2000.[23] Moreover, scholars claim that the effectiveness and value is higher for developing countries taking into account that "... any Member can challenge trade measures taken by any other Member, so that even those countries that are economically weak can challenge the more economically powerful"[24]. For example, of the 28 appeals brought to the Appellate Body since 1996, 18 have involved developing countries.

On the contrary, other scholars[25] believe that the DSU is simply a mechanism in place to put pressure on developing countries, without providing them with real benefits. This view emerged from the introduction of the cross retaliation provision in the new agreements in the Uruguay Round[26]. The skepticism about DSU effectiveness is also based on the constraints developing countries face in terms of limited access to financial resources, expertise in the field and high costs of the agreements' implementation. Finally, the lack of credible threats as illustrated in the Nicaragua sugar imports case, indicate one of the major constraints that keep this system from being effective for both developed and developing countries.

Both arguments show the importance of the enforcement mechanism within the context of international trade relations. The first one demonstrates the important institutional reforms, while the second indicates the obstacles to overcome.

[22] Julio Muro and Petina Gappah, "Developing countries and the WTO legal aspects and dispute settlement system: a view from the bench", Journal of International Economic Law, Oxford Press, February 2000, p.560-401.
[23] Idem, p.560.
[24] Idem, p.560.

1.3 Economic implications for small countries

In the following section, we will present the welfare effects of a tariff in the case of a large and small country using the volume of trade and terms of trade approach. This analysis will illustrate the different value of the mentioned enforcement mechanism for developing and developed countries.

Considering the standard taxonomy of small versus large country in international trade, a small country is defined as one that cannot affect world prices or, equivalently, one unable to affect its own terms of trade[27]. The smallness of a country is also attributed to vulnerability and dependence degree[28]. Small countries are highly vulnerable to economic policies and to the changes of taste and preferences of their trade partners. Moreover, their economic stability depends on imports and exports. These factors leave small countries in a position where they are vulnerable to changes in trade flows and constantly affected by exogenous factors. A large country is less vulnerable to these constraints given its large share of the world market and its capacity to influence world prices.

1.3.1 Welfare effects of a tariff: Case of a small country[29]

The levy of a tariff in the case of a small country produces an effect only in the volume of trade. The terms of trade remain constant, given that a small country's change in demand does not produce an effect on world prices. This could be illustrated by looking at the following equation.

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[25] This argument is defended by Muchkund Dubey on the article "Social Clause: The Motive Behind the Method" accessed (January 31, 2001) from http://www.aidc.org.za/archives/sc_2.html.
[26] The Agreements established during the Uruguay Round in 1995 include: TRIPs, GATS, and TRIMs.
[27] Carsten Kowalczyk, "Welfare and Integration", International Economic Review, Vol. 41, No.2, May 2000, p.489.

[28] Barbara Kotschwar, "Small countries and the FTAA", Trade Rules in the Making, OAS, Brookings Institution,Washington D.C. 1999, p.137.

Assuming balanced trade and constant returns to scale, the change in income in small country *a* is given by;

$$(1) \qquad d?^a = -m^a\, dp^w + (\, p^a - p^w\,)\, dm^a$$

where *d?* is the change in country *a*'s real income, $-m^a$ refers to country *a*'s *net imports*, p^w denotes world price or tariff-exclusive price at which country a trades internationally and p^a denotes the domestic price in country *a.* This equation, states that the change in country's *a* real income is equal to net imports multiplied by the change in world prices, plus the difference between domestic and world prices multiplied by the change in country *a*'s imports.

The first term of the equation $-m^a\, dp^w$, is the terms-of-trade effect which is given by the inner product of net import and changes in the tariff-exclusive prices. The second term $(\, p^a - p^w\,)\, dm^a$ is the volume-of-trade-effect which is given by the inner product of the tariff wedge and the change in the net imports.[30]

Given that the small country holds an insignificant share of the world market, the change in demand does not have an effect on world prices. As a result, the imposition of a tariff does not affect its terms of trade. Volume of trade is affected due to the imposition of the tariff, where a positive difference between the domestic and world price $(\, p^a - p^w\,)$, means that the cost of obtaining this imports at world prices is lower than the domestic value. Hence, a tariff rate causes a loss through foregone opportunities to import. Additionally, the increase in the domestic price of imports has a dual effect on production and welfare.

In the production side as can be depicted in *Graph 1*, there will be a shift of resources to the imported good sector. This shift will create losses and inefficiencies that will cause a negative effect

[29]Richard Caves, Jeffrey Frankel, and Ronald Jones, Introduction to World Trade and Payments, Addison Wesley Inc.,8th Edition,1999, p.167.
[30] Kowalczyk, p.487.

on welfare. The effect on welfare is demonstrated due to the shrinking trade triangle as depicted in *Graph 2*.

The welfare effect can be illustrated by looking at the lower indifference curve after the tariff imposition (*Graph 2*). The effect on welfare is negative given that the reduction of import demand produces at the same time, a fall in local production of exports. Another negative effect of a tariff in the case of a small country occurs when the imported product is an input for domestic production. If such is the case, domestic prices will increase and cause a further negative effect on real income.

1.3.2 Welfare effects of a tariff: Case of a large country[31]

The effect of a tariff in a large country has a different effect. As it was mentioned before, given the large share of the world market of a large country, its change in demand has an effect on world price; "It acts like a seller of a commodity that finds itself with monopoly power"[32]. In this case, given that the tariff reduces the demand for imports, the world price of the imported products falls (*Graph 3*). Thus, the imposition of a tariff in the case of a large country will have an effect on both: terms of trade and volume of trade.

There is a similar explanation of the welfare effect of a tariff for the case of the large country. The imposition of a tariff causes a fall in net imports and also in the world price of imports. The implied terms-of-trade will tend to raise the large country's welfare. (Algebraically, the negative number of imports multiplied by the decrease in world prices results in a positive number or a terms-of-trade improvement.)

The higher domestic price of the imported good also has an effect on the volume of trade. The consumers will face higher prices of the imported good and will cause the same effect as in the case of the small country. However, the domestic price of imports cannot rise by the full extent of

the tariff, given the fall on world relative price. Hence, the losses are smaller than if the same tariff level was imposed in a small country. The final effect depends on the elasticity of demand of imports. "The more inelastic the foreign supply curve is, the more the foreign price of imports will be driven down by the tariff."[33]

In conclusion, the imposition of a tariff by a large country needs not to reduce its welfare. If the terms-of-trade outweighs the volume effect its welfare may even increase.

[31] Caves, Frankel and Jones, p.167.
[32] Ibid, p.173.
[33] Ibid., p.173

"The power to stop and even destroy infringing goods at borders is a major enforcement procedure."[34]

III. LEGAL ASPECTS OF THE ALTERNATIVE ENFORCEMENT MECHANISM

The following chapter presents a brief history of the TRIPs agreement and a description of its basic provisions and principles. The origin of this agreement is essential to understand how it could be implemented as an enforcement mechanism in favor of small countries, as it is also related to the provision of cross retaliation. This section will include a legal description to present the consistency of the proposed mechanism with the WTO agreements.

3.1 The Agreement of Trade-related aspects of Intellectual Property Rights (TRIPs)

3.1.1 Antecedents

The introduction of intellectual property rights (IPRs) as part of WTO agreement marked an important milestone in the history of international trade rules. This phenomenon responded to various factors including the necessity to reduce distortions to international trade, the pressure from developed countries to maintain and strengthen their comparative advantage on technological advances, and the need for a common framework that will enable research and development lead to new inventions and products.

The first time IPRs were discussed in the GATT Rounds was during the Montreal meeting, also known as the "mid-term review" in 1986-1988. The approach to IPRs then was different from the approach later developed during the Uruguay Round. In Montreal, negotiations focused on the "need to ensure that IPRs would not become barriers to legitimate trade". Negotiators at the time

[34] Trade and Development Report, UNCTAD, Geneva 1994, Chapter VIII.

considered the "need to enforce IPRs" a matter in the scope of other specialized organizations such as the World Intellectual Property Organization (WIPO).

Developed countries and especially the United States understood this first approach as an invitation to negotiate better protection for intellectual property under the international trade regime. Since then, and given the need to protect IPRs to exercise the advantage of the fruit of their companies and citizens, developed countries became the advocates of the IPR regime under GATT. On the other hand, developing countries' companies and individuals had little intellectual property to protect[35]. Thus, the idea of protecting IPRs under GATT was not considered a priority. Moreover, developing countries perceived IPRs' protection as an obstacle to access technology and high-technology products given their scarce financial resources.

Developed countries emphasized the economic value of IPRs in the growth of countries. This argument emerges from the Romer's[36] explanation of the non-rivalrous nature and varied degree of excludability of ideas. A non-rivalrous good is "a good that being used by one person does not preclude its use to another person."[37] In other words, once an idea has been created, anyone with knowledge of the idea can take advantage of it. The varied degree of excludability is related to the varied degree to which the owner of the good can charge a fee for its use. Both characteristics involve substantial spillovers of benefits that are not captured by producers. Hence, the only strong incentive for producers to share and produce more ideas is through their protection. "Inventors will not incur these costs unless they have some expectation of being able to capture gains from society."[38] In this way, patents, copyrights, trademarks, etc are considered effective legal mechanisms to allow inventors gain from the sharing of their inventions.

Among developed countries, the United States has undoubtedly exercised the strongest pressure to create TRIPs. It was estimated by the United States Trade Representative (USTR) that "the total

[35] John Croome, "Reshaping the World Trading System", Kluwer Law International, WTO Geneva 1999, p.110.
[36] Paul Romer, "Increasing returns and long run growth", Journal of Political Economy 94, p.1002-1037.
[37] Ibid., p.1010.

loss to the US economy due to inadequate intellectual property protection abroad reaches 24 billion annually." [39] Other developed countries, like Switzerland, were skeptical about introducing IPRs regime into GATT and suggested that it should be left to the specialized organizations (Croome:1999). On the contrary, developing countries, with Brazil and India in the forefront, were strongly opposed to this proposal.

The most worrying issue for developing countries was the introduction of IPRs enforcement in GATT's dispute settlement process. Indeed, the possibility to suspend GATT rights to enforce IPRs protection was already discussed in Montreal. This idea emerged from the similar regime applied in the United States known as Special 301.

The United States Special 301 provision emerged from the amendment of Section 301 on the Trade Tariff Act of 1930. Previous to the amendment, this section authorized the Executive branch to impose retaliatory measures against certain foreign government actions without requiring legislative action. The 1988 amendments created similar statutory provisions including "Special 301" which emphasized the right of the Executive to retaliate in cases of IPRs violation: Section 301 considers "unlawful any importation that infringes a valid enforceable patent, copyright, trademark, or mask work related to semiconductor chip product registered"[40]. Following this approach, negotiators in Uruguay proposed the design of a system where "a fault on an intellectual property matter might in consequence face the loss of market access rights for its goods that it enjoyed under GATT."[41]

Finally, the crucial push for the creation of TRIPs during the Uruguay Round, was the fear of both developed and developing countries of intellectual property protection becoming an additional barrier to trade. Their fear was founded in the US unilateral action against India[42] that

[38] Charles Jones, Introduction to Economic Growth, Norton Inc. 1998, p.79.
[39] Jackson, Davey, and Skyes, Jr., p. 849.
[40] United States Tariff Act 1930, Sec,337 Unfair Practices in Import Trade, literal (B), (C) and (D).
[41] Croome, p.113.
[42] In this case the US Executive branch suspended India's duty free treatment under the General System of Preferences by withdrawing $80 million in benefits of exports given India's inadequate intellectual property protection.

demonstrated the effects of unilateral actions regarding IPRs on the equilibrium of the multilateral trade system.

According to Croome, developing countries eased their opposition as they began to perceive TRIPs as an opportunity to pursue national policies towards IPRs. Another factor that could have influenced their behavior is the need of foreign direct investment flows for the sustainability of their economies. Given investors' demand for IPRs protection, developing countries did not have other choice than to accept the proposed regime. Finally, and after complex negotiations, the TRIPs agreement was introduced in the WTO agreements in the Uruguay Round in 1995.

2.1.2 The Agreement

The areas covered by the TRIPs agreement are copyright and related rights, trademarks including marks, geographical indications, industrial designs, patents, layout-designs (topographies of integrated circuits) and undisclosed information including trade secrets.

The Agreement includes five broad issues including general provisions and principles, scope and use of IPRs, enforcement mechanism, dispute settlement and transitional arrangements. Although there are similarities with the GATT obligations, there are very diverse provisions given the different nature of IPRs as compared to goods.

As with GATT, the principles of national treatment, and Most Favored Nation (MFN) are enforced in TRIPs. The principle of national treatment as stated in Article 3 Part I, demands treatment no less favorable than it accords to its own nationals with regard to protection of intellectual property. By the same token, the MFN principle is described in Article 4, Part I. It establishes that any advantage, favor, privilege or immunity granted by a Member to the nationals of any other country shall be accorded immediately and unconditionally to the nationals of all Members. The exemptions of MFN principle include privileges previously accorded by a Member deriving from international

agreements, rights not accorded under this Agreement, and/or international agreements entered into force prior to the WTO Agreement. Thus, according to Articles II and IV of the DSU, there is no especial exemption in the case of cross retaliation application.

TRIPs members must also comply with the obligations under the existing international agreements on IPRs. These include the Paris Convention (industrial property), Berne Convention (copyrights), Rome Convention (protection of performers, broadcasters and sounding recordings) and Treaty on Intellectual Property in Respect of Integrated Circuits. The main goal of these agreements is to provide foreigners the same protection as nationals.

The enforcement mechanism for IPRs differs from the enforcement mechanism for goods. In the existing case of impairment or nullification of benefits in trade, Members invoke the DSU. In the event there has been an infringement of intellectual protection, Members must first exhaust local remedies. For this reason, it is stated in Part III, Article 41 of TRIPs that

> Members shall ensure that enforcement procedures are available under their law to permit effective action against any act of infringement of intellectual property rights covered in this Agreement, including remedies to prevent infringements and remedies which constitute a deterrent to further infringements.[43]

Although the agreement allows each Member to implement the agreement in accordance with their own legal system and practice, it provides possible mechanisms to ensure an effective enforcement of IPRs. These include, the suspension of circulation of unprotected goods in the channels of commerce, criminal procedures and penalties in the cases of trademark counterfeiting or copyright piracy (Section 5, Article 61), and fees aimed at compensating the right holder's injuries (Article 48). In addition, the Agreement includes special requirements related to border measures. Basically, Members shall adopt procedures in their customs' rules including the suspension of release of pirated copyright or counterfeit trademarks goods destined to foreign territories (Article 51).

Another important distinction with the enforcement mechanism for trade in goods, is related to the subject of the treatment. According to Paragraph 3, Article 1, Part I, TRIPs' treatment provides to the *nationals*[44] of other Members.

Regarding the transitional arrangements, it was agreed to provide a period of grace of 5 and 10 years to developing and least developed respectively to enforce legal reforms for IPRs at a domestic level[45]. Recognizing the complexity of the procedure, it was agreed that the WIPO should provide the necessary technical assistance.

Part V, Article 64 establishes the rules to settle disputes in the matter of IPRs. It establishes that the provisions of Articles XXII and XXIII of the DSU shall apply to this agreement unless otherwise specifically provided therein. Examples of something "otherwise specifically provided" are paragraphs 2 and 3 of the same Article. Paragraph 2 refers to the impossibility to suspend concessions before the agreement enters into force. Paragraph 3 refers to the scope of the TRIPs Council to examine complaints during the referred period of time. Thus, compensation and suspension of concessions or other obligations are applied in the event that IPRs are not implemented within a reasonable period of time after entry force of the agreement.

Finally Article 72 on Reservations, states that any reservation of a provision in this Agreement requires the consent of other Members. This provision has important implications for the proposed enforcement mechanism, which will be discussed more in detail in Part 3.

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[43] TRIPs Agreement, Part III on Enforcement of Intellectual Property Rights, Section 1: General Provisions, paragraph 1.
[44] Nationals are referred to those of natural or legal persons that would meet the criteria for eligibility for protection provided by the Paris Convention (1967), Berne Convention (1971), Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits.
[45] Transitional periods for developing and least developed countries are in Article 65 of DSU.

2.1.3 Origin of the provision of cross retaliation

The application of articles XXII and XXIII in the matter of IPRs, has crucial implications for developing countries. As Article 22, paragraph 3, numeral (a) states, " the general principle is that the complaining party should first seek to suspend concessions with respect to the same sector(s)" [46]. As was mentioned before, most of the industries involved on IPRs are located in developed countries. Thus, a retaliation measure in the case of a developed country against a developing country might not be possible. Aware of this situation, the drafters of DSU during the Uruguay Round, included numeral (b) which states that "if the party considers that it is *not practicable* or *effective* to suspend concessions as with respect to the same sector, it may seek to suspend concessions in other sectors under the same agreement" [47]. We interpret these as other types of IPR. However, as this is also inapplicable for the case of developing countries, literal (c) states that countries are entitled to "suspend concessions in circumstances that are serious enough *under another covered agreement*". For the purposes of this rule, "other agreements" refer to the agreement with respect to goods (agreements listed in Annex 1.a of the WTO Agreement), with respect to services (General Agreement on Trade in Services –GATS), and with respect to IPRs (TRIPs). Hence, the possibility to retaliation in a different sector than the affected one is denominated cross-retaliation.

Regarding the authorization to apply this measure, literal (d) states that parties must request authorization and a statement taking into account certain aspects[48] including "broader economic elements and consequences". Finally, Article XXII, numeral 4, indicates that the level of suspension of concessions or obligations shall be equivalent to the level of nullification of impairment. It also mentions that such measure is not applicable if the covered agreement prohibits it (numeral 5).

[46] Annex 2, DSU, Article 22, paragraph 3, literal a.
[47] Ibid., literal b.
[48] The requirements to apply this measure are explained in DSU, Article XXII, paragraph 3, literal d, e, and f.

Given the reality of developing countries in IPRs, cross retaliation became an effective enforcement mechanism and a strong incentive for developing countries to comply. In the event that a dispute related to IPRs reaches the last stage of compensation and suspension of concessions in goods, a country could suspend concession in goods, as retaliation in the same sector would be *unpractical and ineffective*. This provision would seem to be an extension of Unites States Special 301 into a multilateral level.

The establishment of TRIPs and the provision of cross retaliation created serious concerns to the developing countries. These countries faced the challenge of bringing national laws and institutional setups and procedures in line with the TRIPs Agreement assuming all the implementation costs. Although the granting of a transitional period was an important element, polemical issues arose especially in fundamental products for developing countries such as pharmaceuticals, agrochemical products and food.

2.2 Converting TRIPs into instruments of multilateral enforcement

Ironically, the same provision that was causing fear to developing countries might be implemented in their favor. As was demonstrated before through the volume of trade and terms of trade approach, the tariff imposition in the case of a small country will always have negative effects on welfare. Hence, a small country's retaliatory measure is always "unpractical and ineffective". As was mentioned before, in Article 22 XXII, part (c), cross retaliation is applicable if suspension in the same sector is "unpractical and ineffective". Hence, the possibility to retaliate under other agreement—such as GATS and TRIPs—may represent an attractive alternative for small countries.

In the event a small country Member acquires the right to suspend concessions, according to the DSU, in order to apply a cross retaliation measure countries must:

1. *Determine the level of nullification or impairment that the offending Member's inconsistent action caused.*

This calculation is based on the export losses of the offended country to the offending country. For example, in the case of Ecuador and the European Union, the level of impairment is the loss of banana exports to the European Union. This calculation must be done carefully and avoiding double counting. Double counting is understood as nullification of impairment originated for the same action[49]. A double counting calculation causes inconstancies with in the Arbitration process and with the calculation of the equivalent level of nullification to obtain compensation.

2. *Determine the level of suspension of concessions.*

The level of suspension concessions is calculated on the same basis of the level of nullification. Since the export loss is a gross value, the comparable basis for estimating nullification is the impact on the value of relevant imports from the offending party. More specifically, through a counterfactual calculation the value of relevant imports is compared with the inconsistent action, and the value under the WTO consistent action.[50] The offended party must take into account the possibility of the offending party to oppose to the calculated level at the DSB, which will lead to an Arbitration process.

3. *The Member must have fully entered into commitments of the claimed agreements in the first place.*

Before requesting the cross retaliation measure, the offended Member must have fully entered the agreements under WTO. These agreements include TRIPs and GATS.

4. *Prove with strong arguments that retaliation in the same agreement is not "practicable or effective"* .

[49] European Communities - Regime For The Importation, Sale and Distribution of Bananas - Recourse to Arbitration by the European Communities Under Article 22.6of the DSU –Decision by the Arbitrators Wt/Ds27/Arb, 9 April 1999,P. 29

[50] Ibid.

One important hurdle for developing countries is to prove that retaliation in goods is neither practicable nor effective. The word practicable means "capable of being done or put into practice with the available means, feasible" and "capable of being used"[51]. Effective is understood as "adequate to accomplish a purpose producing the intended or expected result"[52]. Thus, as it was demonstrated before, a small country is "not capable" to practice retaliation given the consequent negative its economy. Regarding effectiveness, a measure that does not induce the offending country to compliance with obligations is considered ineffective. The lack of impact of the suspension on the offending country provides the complaining party a valid argument. In conclusion, small developing countries might have strong arguments to implement cross retaliation as an enforcement measure.

5. *Prove that circumstances are serious enough to seek suspension under another agreement.*

Additionally, cases of a small vs. a large country usually imply the effects on burden of great imbalance in terms of trade and economic power that aggravates the situation at a "serious enough" level. Nonetheless, these arguments must be supported by evidences on the detrimental effects on income resulted from the inconsistent action.

6. *Finally, in order to fulfill the aim of a retaliation measure -- induce the offending Member to bring its action in consistency with the agreement -- the measure must be credible.*

The proposed cross retaliation measure must feasible and effective to reach the mentioned goal. Hence, it must be capable of causing loss or pain in the party being retaliated against and it must be in the interest of the offending country to take the action. In addition, a small country must have an effective monitoring system to be able to implement this mechanism.

After following all procedures described in Article XXII, the DSB would authorize retaliation under other agreements --GATS and/or TRIPs-- in cases were developed countries fail to comply with their obligations under GATT. The following paper is focused only on the application of TRIPs, as

[51] Webster's college dictionary, New York 1990, p.1059.

most of the countries have not yet fully committed to the obligations under GATS. Moreover, we consider that the suspension of GATS' obligations[53] has direct and severe consequences on country's investment climate. This is even more serious in the case of developing countries, taking into account their high dependence on foreign direct investment. In the case of TRIPs, developing countries had until 2000 to commit to the obligations. Regarding the effect on investment, we consider that the effect is not as direct as with GATS' commitments. However, this aspect will be analyzed further in part 3.

An authorization for cross retaliation, would allow the offended country to suspend treatment of TRIPs in respect to nationals within the meaning of Article 1.3[54]. Basically, the offended country must first make sure to review the eligibility criteria to determine which persons are entitled to treatment and which protection may be eliminated. Having done this, the offended country will suspend protection on the selected section of the Agreement through a licensing system.

Through the licensing system, the government of the offended country will be able to recover the equivalent amount of nullification of rights and impairment. Hence, the license will limit the suspension of concessions in terms of quantity, value and time[55]. This will also give the offended country government the right to revoke these licenses at any time. Finally, in order to collect the value, the government will take possession of the amount of money that was usually paid for the protection. As was mentioned before, the implementation of this type of cross retaliation requires a very strong monitoring system to ensure the value, quantity and timeliness of the sanction. This is not the case for the majority of developing countries.

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[52] Ibid,p.426.
[53] GATS obligations include commitments on market access and/or national treatment. Among these commitments there are business services, communications, construction, and engineering, financial services health and social services, different types of transport services, tourism, travel recreational and cultural services.
[54] Article 1.3 states that nationals of other Members shall be understood as those natural or legal persons that would meet the criteria for eligibility for protection provided in the Paris Convention (1967), the Berne Convention (1971), the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits.
[55] Decision of the Arbitrators on European Communities -- Regime of Importation, Sale and Distribution of Bananas—Recourse to Arbitration by the European Communities under Article 22.6 of the DSU, WT/DS27/ARB/ECU.

Subramanian and Watal[56] affirm the effectiveness of cross retaliation under TRIPs through the following argument. They consider TRIPs has the desirable properties of targeting, proportionality and pointedness[57]. Basically, authorities are capable of targeting nationals of the offending country as objects of retaliatory action. In order to define the proportionality, they amount of time of retaliation comes into play. Finally, they consider this an effective measure given the ability to create lobbyists. After the suspension of obligations under TRIPs, nationals will have a strong incentive to pressure their governments to bring their actions into compliance with WTO agreements.

According to Cottier[58], given that tighter intellectual protection accorded by individual countries causes a negative effect on welfare, the use of IPRs suspension of obligations would considerably increase the negotiating power of developing countries. He bases his argument on studies (Deardoff 1992) that argue that tighter intellectual protection accorded by individual countries has negative effects on welfare. Similar studies apply this argument on the context of developing vs. developed countries or North vs. South. These studies (Chin and Grossman 1990; and Diwan and Rodrik 1991) suggest that tighter IPRs only strengthen the monopoly power of large companies that are based in industrial countries, to the detriment of the less developed countries. Additional negative implications of the tighter intellectual protection have been analyzed from the perspective of consumers and their access to essential goods such as pharmaceuticals.[59]Basically, countries that produced raw materials of all essential drugs at competitive prices are obliged to provide patent protection. As a consequence, there is a price increase due to the required patent payments, and countries that were manufacturers of drugs are negatively affected. In addition, the increased price limits the availability and access to drugs to consumers. Both situations create negative effects on welfare.

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[56] Arvind Subramanian and Jayashree Watal, "Can TRIPs serve as an enforcement device", Journal of International Economic Law (2000), Oxford University Press, p.403-416.
[57] Ibid, p.407.
[58]Thomas Cottier, "The prospects of Intellectual Property in GATT", Common Market Law, Kluwer Academic Publishers, 1991, p.394.

[59]K. Balasubramanian, "Implications of the TRIPs agreement for Pharmaceuticals: a consumer's perspective", May 2000, available on line at www.pha2000.org/issue_bala2.htm

On the other hand, arguments that suggest the contrary effect on welfare suggest also that the alternative retaliatory measure might not be effective. Additional arguments, besides Romer's innovation standpoint , suggest that tighter IPRs do not necessarily imply negative effects on welfare. These aspects include the effect on terms of trade, foreign direct investment, product availability and interregional allocation of manufacturing (Helpman, 1993). According to Helpman's model the effects on welfare depend on the rate of imitation in the less developed country. Thus, if the rate of imitation is high, a country's welfare will be reduced. In the case of a low imitation rate, the effect is unambiguous due to the additional effects on the mentioned channels through which IPRs affect countries. Regarding the effects of tighter intellectual protection on foreign direct investment, the effective protection of IPRs may contribute to the stability and certainty perception that potential investors seek.

2.3 Using TRIPs as a credible threat

If effective, this mechanism could provide credibility to small country's threats against large countries. A threat in game theory is defined as "the promise to take actions in the second stage of the game if the opponent takes some given action in the first stage of the game."[60] However, the ability to make enforceable commitments depends on the credibility of a player that the other player is capable of employing a specific strategy. "A threat by a player is not credible unless it is in the player's own interest to carry out the threat when given the option. Threats that are not credible are ignored.[61]"

The ineffectiveness of retaliatory measures in the case of small countries can be explained through the concept of the credibility problem in game theory. A credibility problem occurs in any strategy containing a threat or promise, which threat implementation is costly to the player making it.

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[60] Scott Bierman and Luis Fernandez, "Game Theory with economic applications", Addison Wesley Publishing company, 1993, p.419.

Players who make such threats or promises and then do not carry out their threats are said to lose their credibility.

A threat is an important tool to influence the other party's behavior and conduce it to a cooperative way in a steady state. Its validity of a credible threat can be illustrated by the dynamic of *repeated games.* In order to achieve a cooperative outcome, the party must announce the threat at the beginning of the game. The previous commitment to implement the threat in the event the other deviates, has an important effect on the other party's action. This announcement will induce to cooperation only if there is a perfect subgame equilibrium. A subgame perfect equilibrium[62] is understood as enforceable threats that do not minimize utility. Thus, in the event the rival deviates, the strategy requires the player to "punish" the other player by implementing the threat. A subgame perfect equilibrium in the context of small countries could be represented by the possibility to suspend obligations covered under agreements different from GATT.

The suspension of obligations under TRIPs agreement can have the effect of a credible threat only if there is evidence that it is "on the interest of the offending country" to do it. The evidence in this case can be the fulfillment of all requirements under DSU and the implementation of domestic laws of provisions to suspend obligations under TRIPs as a retaliatory measure.

The need of a credible threat in the case of small countries can be also illustrated with the "Tit-for-Tat" strategy in repeated games. The "Tit-for-Tat" strategy is a dynamic where each player is willing to cooperate if the current opponent cooperated last period, and is willing to defect if the opponent defected last period. Hence, the "Tit-for-Tat" strategy begins the repeated game by cooperating and thereafter mimics the opponent's previous play[63].

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[61] Ibid. p.85.
[62] Roy Gardner, "Games for business and economics", John Wiley and Sons Inc, 1995, p.153.

[63] Robert Gibbons, Game Theory for applied Economists, Princeton University Press, New Jersey 1991, p. 225.

The credible threat gives the opportunity to small countries to play at the same level of large countries. The existence of credible threats is also important to be able to maintain the equilibrium in the multilateral system of rules. Thus, equilibrium will be achieved " only if the discount factor is exactly such that the short run gain to cheating exactly equals the discounted cost of being punished in the next period"[64]. By the same token, the lack of credible threats of punishment will not enforce cooperation.

At first glance it will seem that developing countries have found an effective tool to solve their asymmetric problems. However, before arriving to conclusions it is important to analyze the feasibility and effectiveness of the proposed alternative mechanism.

[64] Drew Fundenberg, and Jean Tirole, Game Theory, The MIT Press, Cambridge Massachusetts, 1991, p. 173.

III. IMPLICATIONS OF THE ALTERNATIVE ENFORCEMENT MECHANISM

To be able to determine if the cross retaliatory action on TRIPS is an effective measure and can be used as a credible threat, it is necessary to analyze the legal implications on the international and domestic legal sphere. It is also important assess the economic implications by looking at the effect of the mechanism on foreign direct investment (FDI).

3.3 International Level

The application of cross retaliation under TRIPs has legal implications at an international level. As was mentioned before, Articles I paragraph 3 and Article II paragraphs 1 and 2, of the general provisions and principles of the TRIPs agreement demand Members to comply with articles 1 through 12 and 19 of the Paris Convention. Additionally, Members are required to respect the obligations under the Berne Convention, Paris Convention, Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits.

This means that although the suspension of obligations of TRIPs is consistent with WTO law, this suspension will violate the mentioned pre-existing international commitments. For instance, if a Member does not comply with its obligations on protection of Industrial Property, the infringement will violate both the TRIP agreement and the Paris Convention.

The mentioned conventions and treaty have general rules about implementation and enforcement that can be managed by countries in such a way that can avoid the infringement. In general, these agreements leave to governments –particularly in the area of patents—considerable flexibility on enforcement assigning this aspect to domestic legislation. On this regard, Subramanian proposes the introduction of special provisions or amendments within domestic legislation to solve this inconsistency.

In order to evaluate the Subramanian and Watal proposal it is necessary to look at the provisions stated in each of the Conventions regarding, extent of application, enforcement and reservations.

In the *Berne Convention* related to the protection of literary and artistic works, it is specified in Art.7 that " it shall be a matter of legislation in the countries to determine *the extent of application* of their laws to works of applied art and industrial designs"[65]. Furthermore, Article 36 on "Applications of the Convention" states that:

> (1) Any country party to this Convention undertakes to adopt, in accordance with its constitution, the measures necessary to ensure the application of this Convention. (2) It is understood that, at the time a country becomes bound by this Convention, it will be in a position under its domestic law to give effect to the provisions of this Convention.[66]

Regarding dispute settlement, countries are required to bring incompliance cases to the International Court of Justice (Article 33). However, it is specified under paragraph 3 of the same Article that a country may "at any time, withdraw its declaration by notification addressed to the Director General."[67]

The *Rome Convention*, related to the protection of producers of phonograms and broadcasting organization, includes a similar enforcement. Article 15[68] on Exceptions and Limitations in the Agreement states that " Any Contracting State may, in its domestic laws and regulations, *provide for exceptions* to the protection guaranteed by this Convention."

In the *Paris Convention*, related to the protection of industrial designs, enforcement is subjected to domestic legislation. Article 25 states that "at the time a country deposits its instrument of ratification or accession, it will be in a position under its domestic law to give effect to the

[65] Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886.
[66] Ibid.
[67] Ibid.
[68] Rome Convention, International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, 1961.

provisions of this Convention."[69] In the case of incompliance of obligations, Article 28[70] describes the dispute settlement process by which countries are aimed at negotiating under the International Bureau's attention.

Finally, the *Treaty on Intellectual Property in respect to Integrated Circuits*, Article 4 on Legal Form of the Protection states that:

> Each Contracting Party shall be free to implement its obligations under this Treaty through a special law on layout-designs (topographies) or its law on copyright, patents, utility models, industrial designs, unfair competition or any other law or a combination of any of those laws.[71]

Regarding settlement of disputes, parties are encouraged to mutually solve their differences (Article 14).

As can be seen, the flexibility of the mentioned international agreements allows countries to overcome the consequences of the application of the TRIPs retaliation mechanism through the modification of their domestic legislation. Countries interested in applying this measure should include special provisions in their domestic legislation to allow the provisional suspension of obligations. The nature of this reform by no means is considered a simple procedure. This reform will require technical and financial resources and political will.

3.4 Domestic Level

The legal implications at a domestic level will also require a modification of domestic provisions regarding the protection of sectors.

The use of TRIPs as an enforcement mechanism could create legal inconsistencies at a domestic level due to the private nature of IPRs. The suspension of obligations under TRIPs will interfere

[69] Paris Convention for the Protection of Industrial Property of March 20, 1883.

[70] Ibid.

with the rights of the natural or legal persons that hold the IPRs. After the implementation of the measure, the harmed right holders would file a demand against the country in domestic courts. Thereby, regardless of the consistency with WTO law, cross relation sanction under TRIPs involves difficulties under domestic law. For example, the provisional suspension of TRIPs obligations under Article 9 (Copyright and Related Rights) would cause revenue losses to the copyright holders. According to Articles 46,48,and 51 of TRIPs, the harmed right holders have the right to exhaust local remedies in order to be compensated for the losses. These remedies usually include the imposition of fines to the illegal distributor or reproducer, attorney's fees, and in some cases imprisonment. However, given that the "infringements" in would result from the "legal" retaliatory measure, local legislation should not be applied in these cases.

The first suggested solution to avoid the inconsistencies at the domestic level, would be the inclusion of special provisions that will allow to the suspension of rights in cases of retaliatory measures. However, this would cause a second inconsistency, but this time with Article 72 on Reservations of the TRIPs agreement. This article states that no reservation to TRIPs provisions is allowed without the consent of the Members. Thus, in order to apply the alternative mechanism of retaliation countries are obliged to request the consent of other Members to reserve their obligations.

Although Subramanian and Watal classify this alternative mechanism as good targeting method, there might be situations were there could be problems related to the identification of the right holder. For instance, in the case of protection of performers, producers of phonograms (sound recordings) and broadcasting organizations (Article 14 of TRIPs), there are cases of a non national producer and a national performer or vice versa. Thus, the different right holders and different rights put serious complications to the targeting of the retaliation subjects.

[71] Treaty on Intellectual Property in respect to Integrated Circuits, Washington D.C. 1989.

Finally, another conflict arises regarding any effect on third country Members. Like the traditional retaliatory measure, cross retaliation must be implemented on a discriminatory basis. In order to ensure that the application of the measure only at a domestic level, monitoring authorities must ensure that the unprotected good is not exported to a third country. In this way, Article 51 in Section 4 on "Special Requirements Related to Border Measures" which refers to the importation of a pirated copyrighted goods and/or counterfeit trademark, would not be violated. This illustrates once again the need of an effective monitoring system to apply TRIPs cross retaliation.

3.5 The Impact on foreign direct investment (FDI)

The suspension of TRIPs commitment could be detrimental for a developing country's investment climate. An investor may retract from its investment decision due to the uncertainty provoked by sudden changes in the legal system and IPR protection framework. For instance, companies that rely on secret formulas will feel reluctant to invest in a country in which rules can suddenly change Hence, the implementation of TRIPs as an enforcement mechanism may create distortions in the investment climate and produce negative effects on the inflow of FDI.

For countries whose economies depend heavily in the inflow of FDI, the suspension of TRIPS obligations will even be more detrimental. Indeed, FDI contributes to economic growth through different channels including capital accumulation, technological transfer, and human capital enhancement. (De Gregorio, Borenzstein, and Wha-Lee : 1995). Thus, a sudden reduction of FDI could affect the economic growth of a nation. As it can be seen in Table 7, the majority of countries who are highly dependant on FDI from growth are small developing countries.

Hence, the implementation of TRIPs as an enforcement mechanism could be *ineffective* given the harmful effects on the offended country. In order to avoid this effect, Subramanian suggests the reform of domestic legislation in which the provisional character is strictly assured as the possibility of retaliation only under especial conditions. The comparison between the impact on economic

terms of this alternative mechanism and than of the traditional retaliatory measure, will be presented in chapter IV.

3.6 Other implications

In order to benefit from the advantages offered by this enforcement tool, countries must have a strong legal system that will guarantee the protection of IPRs and a well-adapted domestic law. Only through effective domestic enforcement governments will be able to control the suspensions of obligations and implement the required license system. The application of TRIPs as a retaliatory action require the introduction of reforms under domestic law which underlie additional expenditure and political willingness that usually lack in developing countries.

IV. TRIPs AS AN ENFORCEMENT MECHANISM: THE CASE OF ECUADOR AGAINST THE EUROPEAN UNION

On 8 November 1999[72], Ecuador requested authorization to the DSB to suspend concessions or other obligations under the TRIPS Agreement, the GATS and GATT 1994 in an amount of US 450 million against thirteen countries of the European Union.[73] The latter emerged as a reaction to the European Union's (EU) resistance to comply the Appellate Body's recommendations on the banana dispute, which resulted in the invocation of Article XXII of Compensation and Suspension of Concessions.

As mentioned before, the DSU aims at resolving disputes through negotiations and settlement processes. In this case the European Union did not follow the ruling recommended by the Panel and did not offer compensation. Hence, the last resource for the affected Member, in this case Ecuador, was the request for authorization to suspend concessions.

Ecuador's specific requests of retaliation under GATS included suspension on "whole trade services". Suspension under TRIPS included the following categories: Section 1 on Copyright and related rights, Article 14 on "Protection of performers, producers of phonograms (sound recordings) and broadcasting organizations"; Section 3 on Geographical indications; and Section 4 on Industrial Designs.

The first aspect that the arbitrators analyzed was the value of suspension. Given the EU's disagreement with the mentioned amount, the arbitrators' role was to make sure that the value of suspension equaled the value of nullification and impairment. Ecuador's calculation of USD 450 million was based on the direct and indirect harm and the macroeconomic repercussions for the

[72] World Trade Organization, Decision of the Arbitrators on European Communities –Regime for Importation, Sale and Distribution of Bananas- Recourse of Arbitration by the European Communities under Article 22.1 of the DSU-Decision by the Arbitrators, *WT/DS27/ARB/ECU*, 24 March 2000.

entire economy (Article 21.8). However, after EU's rejection and the Arbitrator's further analysis, it was concluded that "the level of suspension of Ecuador exceeded the level of nullification"[74].

The Arbitrators calculated the actual level of impairment by using the counterfactual analysis of the Bananas III arbitration.[75]The counterfactual used was based on a global tariff quota equal to 2.553 million tonnes (75 euro per tonne tariff) and unlimited access to African Caribbean Pacific (ACP) bananas at zero tariff. They based their calculations on the assumption that the aggregate volume of EC banana imports is the same in the two scenarios. In addition, the Arbitrators used the volume of banana exports to the European Communities to the level of its best exports (745,058 tonnes in 1992), the share of bananas distributed by Ecuadorian service suppliers at 60% and the assumption that Ecuador was holding 92% of the import licenses. The level of nullification and impairment summed to 201.6 million USD per year.

The second aspect the arbitrators took into account was Ecuador's consistency with the DSU rules – and specifically with Article 22.3 requirements – in their proposal. The Arbitrators basically analyzed the mentioned procedures under Article 22.3. After an exhaustive analysis, the Arbitrators declared that Ecuador did not follow the interpretation. Suspension under the GATS and TRIPs agreement was not authorized given that the possibility to retaliate in the goods sector was not exhausted. The Arbitrators concluded that retaliation in respect of consumer goods was practical and effective basing their argument on the fact that the suspension of concessions with respect to consumer goods did not cause any direct adverse effect on Ecuador's domestic manufacturing and processing industries. Thus, they considered that the welfare losses resulting from the increasing prices of consumer goods did not cause *"serious enough"* effects to the Ecuadorian economy, to not be able to apply the suspension of concessions under the same agreement. [76]

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[73] WTO document WT/DS27/52, dated 9 November 1999.
[74] Ibid., paragraph.170 –171.
[75] European Communities –Regime for the Importation, Sale and Distribution of Bananas- Recourse to Arbitration by the European Communities under Article 22.6 of the DSU, Decision by the Arbitrators (WT/DS27/ARB), dated 9 April 1999; suspension of concession by the United States in an amount of 191.4 million authorized by the DSB at its meeting on 19 April 1999.
[76] Consumer goods accounted for 15% of imports totaling 60.8. (WT/DS27/ARB).

This last argument infers that in order to apply cross retaliation, a country must emphasize the negative effects on welfare and the significance of those losses to its small and vulnerable economy.

Although Ecuador did not succeed in its proposal, it opened the door for a new way of retaliation and identified crucial aspects of great significance for developing countries. First of all, this case legitimized, under the WTO procedures, the possibility to implement cross retaliation implementation through the suspension of obligations under TRIPs. Paragraph 70 of the Arbitrators document states that

> ...it may happen that the suspension of certain concessions or certain other obligations entails more harmful effects for the party seeking suspension than for the other party. In these circumstances, a consideration by the complaining party that an alternative suspension is either not practical or not effective is sufficient for that party to move on to seek under another sector or agreement.[77]

Second, it recognized the constraints small developing countries face in the multilateral enforcement system: "The suspension of concessions may not only affect the party retaliated against, it may also entail, at least to some extent, adverse effects for the complaining party seeking suspension."[78] The negative effects of Ecuador's retaliation in goods was accepted "The suspension of concessions and imposition of additional tariffs to imports by Ecuador to the European Communities would *increase the cost of domestic production* in the absence of alternative sources of supply at similar prices." In the same way, the Arbitrators pointed out the negative effects on Ecuador's welfare: "Consumer goods amount to approximately 85% of total imports from European Communities in recent years. (...) the measure is not practicable and effective because they are used as inputs in the domestic manufacturing process". Finally, they identified the harmful effects of a tariff in terms of: "transitional costs of adjusting to switching to other sources of supply."[79]

[77] Ibid., paragraph 73.
[78] Ibid., paragraph 86.

And third, the Arbitrators' report identified the main elements to apply the cross retaliation measure. These are the requirements to show that the traditional measure is not practicable or effective, that circumstances are serious enough and that broader economic elements were taken into account. Regardless of the mentioned negative effects of tariffs, and Ecuador's argument based on the current economic crisis[80], the Arbitrators did not consider this situation to be serious enough. In addition, they declared that Ecuador did not exhausted the possibilities to suspend concessions under the same agreement. This means that the small vs. large country is not a sufficient argument to apply this measure. Moreover, it showed that only in cases were imported goods are inputs of domestic production, and broader economic issues are critical, then the suspension of TRIPs could be possible.

The Arbitrators' report included details on Ecuador's proposal to suspend its obligations in the mentioned areas. Ecuador's proposal was to install a system whereby companies or individuals established in Ecuador could obtain authorization from the Ecuadorian government to suspend the obligations. This authorization would be granted through a licensing system that would take into account the terms of quantity, value and time. For example, each reproduction of a sound recording under this system would correspond to a suspension value equivalent to the related right value of a new sound recording."[81] The term "related right value" is understood as the value estimated by the International Federation of the Phonographic Industry (IFPI). In other words, a compact disc (CD) produced under the licensing system will be cheaper than a CD produced with the authorization of the related rights holder. Consequently, the non-protected CD will substitute the protected CD in the market.

Regarding geographical indications, the report did not include further details about the functioning of the licensing system and the calculation of values for this case. In this case, European producers

[79] Ibid., paragraph 94.
[80] In 1999 Ecuador's GDP shrank by 7%, total imports declined by 52%, and unemployment rose to 17% (EIU, Country Profile).
[81] Ibid., paragraph 161.

will be harmed by the unfair competition resulted from the use of the false name and presentation of a good that suggest that originates from another geographical indication.

The Arbitrators' view on this proposal was that Ecuador may not be able to implement the suspension for the full amount of the level of nullification and impairment. They also expressed concern about the practical difficulties in the implementation of the licensing system. Although Ecuador has been complying with TRIPs obligations since 1998, the domestic enforcement mechanism is still not working effectively. It was estimated that in 1999 the retail losses due to software piracy were USD $15.6 million.[82]

[82] The Economist Intelligence Unit, "Investing, licensing and trading in Ecuador, December 1999.

V. COST AND BENEFIT ANALYSIS

5.1 Differences between Small and Large Country: Case of Ecuador and The European Union

The first aspect to take into account is the existing inequality between the two Members.

Differences between Ecuador and the European Union

Member	Population (millions of inhabitants)	GDP market prices (1998) USD billions	GDP per capita (1998) USD	Share of world merchandise (percentage)	Share of trade in services (percentage)
Ecuador	12	20	1,600	Below 0.1	Less than 0
European Union	375	7,996	22,500	20	25

Source: Banco Central del Ecuador, Estadisticas; EUROSTAT (Comext)

5.1.1 Level of Imports

According to data submitted by Ecuador, imports of manufactured goods --other than consumer goods-- amount to approximately 85 per cent of total imports from the European Union in recent years. These goods used in the processing industry, amount to USD 260.5 million. Imports of consumer goods include 10 percent of total imports of non-durable consumer goods, and 5 percent of durable consumer goods. (*See Tables 2,3 and 3a*). While for Ecuador imports from EU account for 45% of their production, for the EU Ecuador's import represent 0.1 %.

5.1.2 Level of Exports

Ecuadorian exports to the EU are mainly bananas and shrimp (the EU absorbs approximately 50% of Ecuadorian exports of these two products).[83] *(See Table 4 and 4ª)*

The share of Ecuadorian exports to the European Union represent 17% of their total exports. On the other hand, European exports to Ecuador represent 0.06 percent of their total exports *(See Table 5 and 5 a).*

[83] Ecuador, Multiannual indicative guidelines, European Commission, Brussels October 1998.

The Arbitrators calculation of the level of nullification and impairment was based on a counterfactual regime of zero tariff, unlimited access and a global tariff of 2.553 million tones. The final calculation totaled USD 201.6 million per year instead of 450 million proposed by Ecuador.

The level of losses during the seven years of the discriminatory Banana Regime is depicted in the following table.

Present Value of Losses of Ecuador (millions of USD)

Year	GDP at market prices (current US$)	Exports of goods and services (% of GDP)	Value of exports	Loss	Interest rate (Borrowing interest rate)	Present Value of losses
1993	$ 16,802	30	$ 5,040	$ 201,6	10.00%	$ 432
1994	$ 17,528	30	$ 5,258	$ 201,6	33.70%	$ 1,539
1995	$ 17,939	30	$ 5,326	$ 201,6	43.30%	$ 1,745
1996	$ 19,039	30	$ 5,805	$ 201,6	41.50%	$ 1,143
1997	$ 19,768	30	$ 5,930	$ 201,6	28.90%	$ 556
1998	$ 19,722,	25	$ 4,987	$ 201,6	39.39%	$ 545
1999	$ 18,712	58	$ 10,815	$ 201,6	48.93%	$ 447
						$ 6,410

Source: WDI, Banco Central del Ecuador, WTO, IMF Statistics

5.2 Effects on welfare of the implementation of traditional retaliation

In order to evaluate the effectiveness of this measure in economic terms, we will calculate the effects of the traditional retaliatory measure on welfare in the Ecuador and the European Union. We will determine the effects by using the volume of trade and terms of trade approach.

Given that:

$$(1) \qquad d?^{a} = -m^{a}\, dp^{w} + (\, p^{a} - p^{w}\,)\, dm^{a}$$

and that the country applied an *ad valorem* tariff($T\, p^{a}$), we have:

$$(2) \qquad d?^{a} = -m^{a}\, dp^{w} + (\; T\, p^{a}\,) dm^{a}$$

In the case of a small country $0 = -m^a$, then

$$(3) \qquad d?^a = (T p^a) \, dm^a$$

$$(4) \qquad d?^a / d T = (T p^a) \, dm / d T$$

Elasticity equals ($dm/d T / m/ T$), then;

$$(5) \qquad d?^a / d T = (T p^a) (dm/d T / m/ T) (m/ T)$$

$$\mathbf{d?^a / d T = p^a m (dm/d T / m/ T)}$$

5.2.1 Calculations of the effect on welfare

In order to determine the negative effects on welfare we used a sensitive analysis approach. For most consumers' goods and services, price elasticity tends to be between .5 and 1.5. In addition, goods with many substitutes have higher elasticities. Thus, given that the European Union is not among the main trade partners of Ecuador (*See Table 1*), we assume that any change in price on imports will shift the demand to imports from the main partners. Hence, we are highly inclined to conclude that the demand for European imports is highly elastic.

We looked at the effects on welfare in the case of a highly elastic demand (-1.5), a perfect elastic demand (-1) and an inelastic demand (-0.2). *Table 5* presents the calculations for the three cases. However, the case of an inelastic demand for imports will not be considered in the analysis given the mentioned fact that the European Union is not among the main trade partners of Ecuador.

5.2.2 Results

Assuming a high elastic demand, the increase in tariffs due to the retaliation measure resulted in a reduction in income of 5,845,811 thousands of dollars. Assuming a perfect elastic demand the change in income resulted in a reduction of 3,897,207 thousands of dollars.

5.3 Effects on welfare of the alternative enforcement mechanism

For the alternative mechanism, we calculated the economic losses by looking at the effect of reduction of FDI in economic growth in the case of Ecuador. We also used a sensitive analysis framework proposing three different scenarios. These scenarios include:

a) *Low level*: the reduction of 30% of FDI inflows

b) *Medium level*: the reduction of 50% of FDI inflows

c) *High level*: the reduction of 100% of FDI inflows

Finally, we used the "Borenzstein, De Gregorio and Wha Lee coefficient"[84] of 0.8438 to calculate the impact of FDI reduction on GDP. (*See Table 6*)

As it can be seen in *Table 7*, Ecuador is among the group of countries whose dependence on FDI can be considered to be at a medium level. The differences among countries can be explained by differences on initial levels of human capital and types of production activities (Borensztein:1995) However, it is important to note that the impact of the suspension of TRIPs as a retaliatory measure, will cause greater economic losses in the cases of countries highly dependent on FDI.

Given that the peak of the liberalization process in Ecuador occurred during the decade of 1990s, we based our calculations on the inflow of FDI during this decade.

5.3.1 Results

In **scenario a,** we found that a reduction of 30% on FDI inflows during the decade of the 1990s, reduces GDP growth by 8%. In **scenario b,** the reduction of 50% caused a fall on GDP of 13%. And finally in **scenario c**, the reduction of 100% of FDI inflows caused a fall on GDP by 26%.

[84] Borenzstein, De Gregorio, and Wha Lee: 1995.

Calculations of the effect on income

	FALL GDP (%)	TOTAL LOSS
Scenario a	-7.98%	-1,394,265,533
Scenario b	-13.3%	-2,325,523,088
Scenario c	-26.6%	-4,649,298,976

5.4 Comparison of results

Assuming a high elastic demand for European imports given the availability of products from other main trade partners, the negative effect on income of the traditional retaliatory measure is higher than the effect caused by the alternative measure in any scenario. In other words, assuming that the raise of tariffs reduces greatly (-1.5), the import demand causes a reduction in income of 5,845,811 thousands of USD. This amount is higher than the losses resulted from the reduction of FDI in the country in any of the three proposed scenarios. Even in the case where FDI is fully phased out due to the suspension of TRIPs' obligations.

Assuming a perfect elastic demand for imports, we obtained a result of 3,897,207 thousands of USD which represents still a higher negative impact on welfare but only in scenario a and b where the suspension of TRIPs' obligations causes an outflow of 30% and 50% respectively.

VI. CONCLUSIONS

The provision of cross retaliation in Article XXII of the DSU was introduced with the aim of ensuring respect of intellectual property rights under the framework of the multilateral trade system. However, by looking carefully at the provisions of the DSU, it seems the mentioned provision could be applied as an enforcement mechanism in favor of developing countries. The provision of cross retaliation could provide small countries an effective retaliatory measure.

Following the traditional taxonomy of countries classification, small countries do not count with effective retaliatory measures given their limited access to the world markets, their inability to affect world prices or, equivalently its terms of trade and their vulnerability to their partner's trade preferences.

A small country's threat to suspend concessions in goods to a larger trade partner lacks credibility in two aspects. First, a small country's retaliatory measure does not cause any economic effect on the offending country. As a result the offending country does not have any incentive to bring its actions into conformity with the GATT agreement. Second, given the retaliatory measure causes harmful effects to the economy of the retaliator, the incompliant country knows that it is very unlikely that the measure will take place.

The present paper has presented a brief history of the provision of cross retaliation and the TRIPs agreement, to explore the possibility to apply a cross retaliation as an enforcement mechanism for small countries.

The implementations of cross retaliation as a retaliatory measure consists of suspending obligations under other WTO agreements. This measure – as the traditional retaliatory threat -- aims at forcing force Members to bring their actions in consistency the agreements and at compensating for the losses resulted from that action. In order to meet both criteria, the suspension of TRIPs

obligations would be implemented through a licensing system. This system will allow the government of the offended country will be able to recover the equivalent amount of nullification of rights and impairment. Hence, the license will limit the suspension of concessions in terms of quantity, value and time. This will also give the offended country government the right to revoke these licenses at any time. Finally, in order to collect the value, the government will take possession of the amount of money that was usually paid for the protection. As it can be seen, the implementation of this type of cross retaliation requires a very strong monitoring system to ensure the value, quantity and time of the sanction.

In order to apply cross retaliation as an enforcement mechanism, the Members must carefully follow the DSB rules and fulfill the following requirements:

- Determine the level of nullification or impairment that the offending Member's inconsistent action caused.
- Determine the level of suspension of concessions
- The Member must have fully entered into commitments of the claimed agreements in the first place.
- Prove with strong arguments that retaliation in the same agreement is not "practicable or effective"
- Prove that circumstances are serious enough to seek suspension under another agreement
- And finally, in order to fulfill the aim of a retaliation measure -- induce the offending Member to bring its action in consistency with the agreement -- the measure must be credible.

With the provisional suspension of commitments under the TRIPs agreement, small countries could increase their bargaining power and force other Members to comply with their GATT's obligations. However, in order to have this effect the application of this measure must be of interest to the

offended party and must be feasible in both legal and economic terms. The threat –of suspending TRIPs commitments-- will lead to improved compliance only if the implementation of this measure if in the interest of the offended party and if it is feasible both in economic and legal terms.

From a legal perspective, the mentioned mechanism would cause inconsistencies at a local and international level. At a local level, given the private nature of intellectual property rights and the enforcement of TRIPs through local legislation, the suspension would violate domestic rules. At an international level, given that TRIPs require the commitment to existing international agreements on matter of IPRs including Berne Convention, Rome Convention, the Paris Convention of Industrial Property and the Treaty of Integrated Circuits the suspension will violate the mentioned commitments.

Both legal problems could be overcome through the amendment of domestic legislation on the matter of IPRs. This could be achieved through the introduction of a reservation to the TRIPs agreement and all the international agreements in respect of IPRs. The reservation will enable Members to suspend the protection of IPRs only in the exceptional cases where the country is authorized by the DSB to suspend concessions against another Member. However, the introduction of this reservation would still require the acceptance of all Members as described on Article 72 of the TRIPs agreement. The feasibility of the mechanism depends on the existence of an effective monitoring system capable of implementing the licensing system. The effectiveness of the monitoring system is crucial to avoid the exportation of the suspended goods to third countries. In the event this is not supervised the mechanism will be violating the TRIPs commitments. Finally, the application of this enforcement mechanism will require additional financial resources, technical capacity and political willingness.

From the economic perspective, the effect of suspending TRIPs as an enforcement mechanism could cause negative effects on income. One of the main reasons why small countries decided to be part of the IPRs regime designed by developed countries, was because of the relevance of IPRs

protection to attract FDI, facilitate trade and promote innovation. Hence, the provisional suspension of TRIPs could affect negatively the investment climate and potential investors' perception.

In order to determine if the enforcement mechanism could in fact provide with credible threats to small countries, we used a sensitive analysis to calculate the effect on income of both retaliatory measures, in the case of Ecuador and the European Union. For the first two calculations we assumed a high elastic demand given that the imported European goods could be easily substituted with goods originated from the Ecuador's main trade partners.

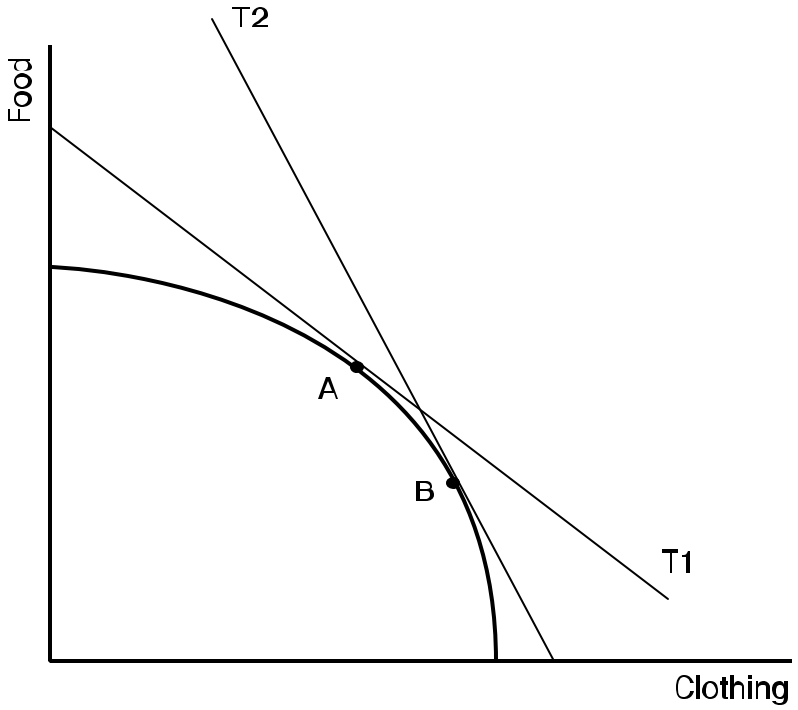
For the case of the traditional retaliatory measure, we found that the effect on income of a tariff increase resulted in a reduction in income of 5,845 millions of USD which represents approximately a reduction of 31 percent on GDP. In the case of the alternative mechanism, we found that even in the scenario where the suspension will reduce 100 percent of the FDI inflow, the impact on income would still be less than with the traditional mechanism. With a 100 percent outflow of FDI the loss reached 4,649 millions of USD which represents a reduction of approximately 26 percent of GDP in the case of a medium level of FDI dependant.

This demonstrates that the use of TRIPs as a retaliatory measure could be an effective mechanism taking into account medium level of FDI dependence and high elastic import demand.

In conclusion, the suspension of TRIPs as an enforcement mechanism could cause negative effects to a small country's economy. However, the effects will be less harmful than the effects of the traditional retaliatory measure. Nonetheless, the real value of this alternative mechanism does not only lie on its lower impact on a small country's economy. By providing small countries a credible threat, there would be an improved compliance and a stronger respect to rules by large Member countries. Moreover, this system would not only improve small countries bargaining level, but would also contribute to the stability of the multilateral trade of rules.

APPENDIX

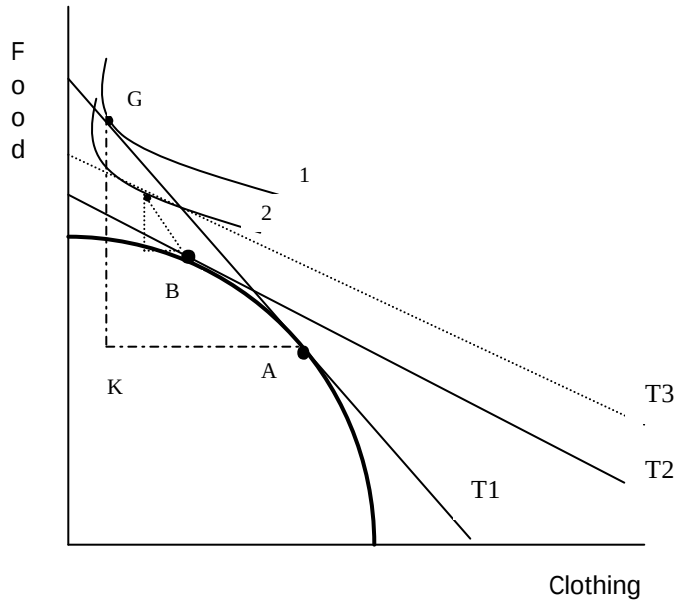
Graph 1 – Effect of a tariff in production[85]



The initial free trade prices are represented by line T1 where production is allocated at point A. The imposition of a tariff raises the price of food as it is shown by line T2, and as a result resources are shifted into a new production point B.

[85] Jeffrey Frankel, p. 167

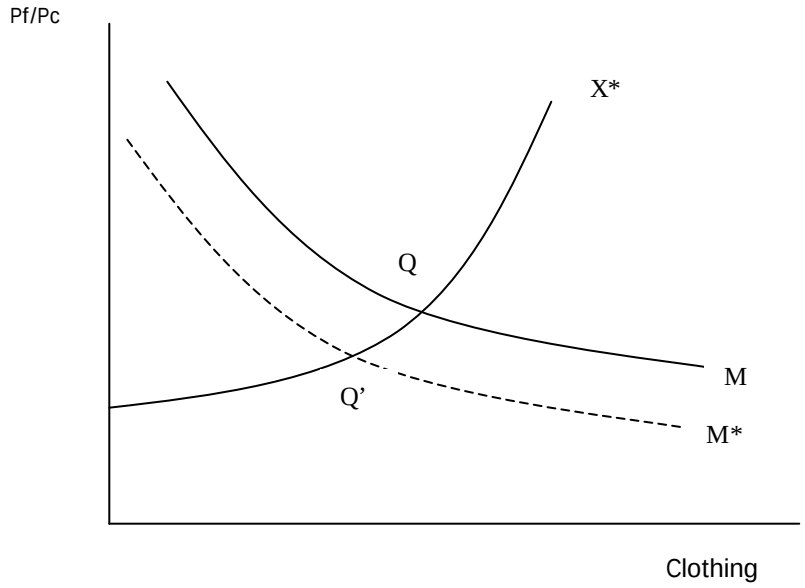
Graph 2 - The effect of a tariff on imports[86]



The production previous to the tariff imposition is at A, and the consumption at G, resulting in the indifference curve at 1. The tariff (T2) raises the domestic relative price of food, shiftes the production to point B and the consumption to the lower indifference curve 2. AS depicted in the graph, both the exports and imports are reduced as illustrated in the shrink triangle. The lower indifference curve demonstrates the negative effects of a tariff on welfare.

[86] Jeffrey Frankel, p.170

Graph 3 - The effect of a tariff in the case of a large country



The imposition of a tariff in the case of a large country will have an effect on both: terms of trade and volume of trade.

Table 1- Trade Structure of Ecuador

Year	1979	1989	1998	1999
TOTAL EXPORTS *fob* (US millions)	**1,659**	**2,354**	**4,203**	**4,451**
Oil	720	1,033	789	1,312
Bananas	140	370	1,070	954
Manufactures	...	328	1,004	1,062
TOTAL IMPORTS *cif* (US millions)	**1,505**	**1,693**	**5,576**	**3,017**
Food	...			
Fuel and Energy	63	66	326	244
Capital goods	544	625	1,874	815
Source: World Bank Indicators				

Main Partners					
(% of total) cif from:	**1995**	**1996**	**1997**	**1998**	**1999**
US	31.3	31.1	30.6	30.1	30.4
Colombia	9.5	10.6	10.3	10.6	12
Japan	7.9	5.2	5.9	8.6	4.7
Brazil	4.5	4	2.9	3.5	3.2
Sources: Banco Central del Ecuador, Información Estadística Mensual.					

Table 2– Structure of Imports Ecuador (1995-1999)

Imports					
(US$ m; cif)	**1995**	**1996**	**1997**	**1998**	**1999**
Consumer goods	**823**	**857**	**1040**	**1717**	**621**
Non-durable	442	502	612	714	443
Durable	382	355	428	457	177
Fuels and Lubricants	241	162	497	326	244
Raw Materials	**1709**	**1759**	**1996**	**2205**	**1335**
Agriculture	196	244	280	273	200
Industry	1388	1351	1536	1736	1047
Construction	125	164	181	196	88
Capital Goods	**1378**	**1153**	**1481**	**1874**	**815**
Agriculture	46	37	48	56	19
Industry	752	738	969	1163	549
Transport equipment	580	378	464	654	247
TOTAL incl others	**4153**	**3932**	**4955**	**5576**	**3017**
Source: Banco Central del Ecuador, Información Estadística Mensual.					

Table 3 – Imports from European Union

Imports from Europe (m USD)						
	1994	**1995**	**1996**	**1997**	**1998**	**1999**
Total EU		522.81724	569.05294	658.8651	671.46356	320.51176
Total Imports	….	4153	3932	4955	5576	3017
Percentage	…….	12.5889054	14.4723535	13.2969744	12.0420294	10.6235254
Source: www.eiu.org						

Table 3 a - Imports from European Union

IMPORTS ECUADOR		
	1999	**2000**
Total (mio ecu/euro)	**429**	**363**
Primary products of which:	**42**	**30**
Agricultural products	36	25
Energy	1	2
Manufacture products of which:	**372**	**318**
Machinery	119	88
Transport mater:	66	47
Cars	52	10
Chemical products	98	96
Textiles and clothing	5	5

Source: Eurostat (Comext), Brussels 8 January 2000

Table 4 – Structure of Ecuadorian Exports

TRADE STRUCTURE				
Year	**1979**	**1989**	**1998**	**1999**
TOTAL EXPORTS *fob* (US millions)	**1,659**	**2,354**	**4,203**	**4,451**
Oil	720	1,033	789	1,312
Bananas	140	370	1,070	954
Manufactures	...	328	1,004	1,062
TOTAL IMPORTS *cif* (US millions)	**1,505**	**1,693**	**5,576**	**3,017**
Food	...			
Fuel and Energy	63	66	326	244
Capital goods	544	625	1,874	815
Source: World Bank Indicators				

Table 4 a – Exports to the European Union

ECUADOR EXPORTS TO E.U. (mio/euro)		
	1999	**2000**
Total	**937**	**637**
Primary products of which:	**889**	**600**
Agricultural products	887	596
Energy	1	3
Manufacture products of which:	**32**	**29**
Machinery	4	8
Transport mater:	0	1
Cars	0	1
Chemical products	3	1
Textiles and clothing	8	6
Source: Eurostat (Comext), Brussels 8 January 2000		

Table 5 –EU trade with Ecuador and the World

EU TRADE WITH THE WORLD AND ECUADOR (Mio euro)				
	Imports		**Exports**	
	Mio Euro	**% World**	**Mio Euro**	**% World**
World	779,091	100	760,112	100
Ecuador	937	0.1	429	0.1
Source: Eurostat (Comext), Brussels 8 January 2000				

Table 5 a – Ecuador trade with the EU and the World

Year	World	European Union	Share (percentage) EU
TOTAL EXPORTS *fob* (US millions)	4,451	768.34	17
Primary Products	2,266	727.82	32
Manufactures	1,062	26.24	2

Table 6 – The effect of FDI on GDP

Year	FDI, net inflows (% of GDP)	*d*FDI/GDP	*d*GDP	*De Gregorio,Borenzstein,, Wha-Lee coeff.**	*Change in GDP with a 30% reduction of FDI*	*Change in GDP with a 50% reduction of FDI*	*Change in GDP with a 100% reduction of FDI*
1990	1.1791079	0.447844	3.02846	0.8438	-11%	-19%	-38%
1991	1.36141932	0.154618	5.016778	0.8438	-4%	-7%	-13%
1992	1.40646172	0.033085	3.565919	0.8438	-1%	-1%	-3%
1993	3.27876949	1.331218	2.031544	0.8438	-34%	-56%	-112%
1994	3.19768596	-0.02473	4.320243	0.8438	-1%	-1%	-2%
1995	2.61993003	-0.18068	2.343088	0.8438	-5%	-8%	-15%
1996	2.57881403	-0.01569	1.981179	0.8438	0%	-1%	-1%
1997	3.51571107	0.363305	3.380218	0.8438	-9%	-15%	-31%
1998	4.52610254	0.287393	0.551711	0.8438	-7%	-12%	-24%

Reduction	**-30%**	**-50%**	**-100%**
Change in 90s	**-0.0798**	**-0.1331**	**-0.2661314**
Last five years	**-0.0536**	**-0.0893**	**-0.1786897**

Source: WDI Indicators, 2000
**De Gregorio, Borensztein, Wha Lee 1995*

Table 8 –FDI as percentage of GDP

	Country	FDI net inflow %GDP (1990-1998)
1	Equatorial Guinea	33.71651944
2	Guyana	13.72445975
3	Vanuatu	12.40371842
4	Lesotho	11.85459294
5	St. Kitts and Nevis	10.86196523
6	St. Vincent and the Grenadines	10.48727661
7	Singapore	9.727828397
8	Dominica	8.853627682
9	St. Lucia	8.323385398
10	Trinidad and Tobago	7.541802804
11	Grenada	7.23720434
12	Malaysia	6.487608751
13	Seychelles	6.189882755
14	Solomon Islands	5.552954038
15	Swaziland	5.468346039
16	Panama	5.457335975
17	New Zealand	4.534931511
18	Hungary	4.476613071
19	Vietnam	4.442040612
20	Bolivia	4.387437556
21	Chile	4.303010994
22	China	4.104198767
23	Nigeria	4.082909902
24	Costa Rica	3.952704933
25	Jamaica	3.907040066
26	Angola	3.76365659
27	Netherlands	3.63913552
28	Nicaragua	3.61062983
29	Cambodia	3.607407702
30	Fiji	3.562943657
31	Lao PDR	3.447373052
32	Sweden	3.37652379
33	Papua New Guinea	3.301316718
34	Maldives	3.28018305
35	Yemen, Rep.	3.086351504
36	Belize	2.965815637
37	Samoa	2.819465968
38	Czech Republic	2.779285643
39	Ireland	2.64903499
40	**Ecuador**	**2.629333562**
41	Venezuela, RB	2.540788902
42	Peru	2.527579288
43	Gambia, The	2.393119454
44	Dominican Republic	2.347044693
45	United Kingdom	2.329802275
46	Thailand	2.273529536
47	Albania	2.226200819
48	Zambia	2.164404485
49	Tunisia	2.146837632
50	Paraguay	2.136112081
51	Colombia	2.101408588
52	Mexico	2.08792509
53	Poland	2.058401934
54	Portugal	2.02665174
55	Mozambique	1.934093399
56	Armenia	1.916030321
57	Australia	1.86363109
58	Finland	1.841598714
59	Spain	1.828941809
60	Argentina	1.807020002
61	Philippines	1.725225912
62	Denmark	1.691523254
63	Honduras	1.548564818

64	Uganda	1.541970983
65	France	1.494770712
66	Switzerland	1.44054539
67	Canada	1.439253026
68	Romania	1.438566274
69	Ghana	1.403931638
70	Bulgaria	1.401848502
71	Indonesia	1.390486509
72	Cote d'Ivoire	1.366482589
73	Morocco	1.366303517
74	Norway	1.279857202
75	Egypt, Arab Rep.	1.262336844
76	Cape Verde	1.257755786
77	Tanzania	1.250449035
78	Sri Lanka	1.2231819
79	Jordan	1.187855033
80	Slovak Republic	1.16723399
81	Brazil	1.166630053
82	Cyprus	1.124832498
83	Austria	1.111740384
84	Israel	1.065536216
85	Greece	1.035761625
86	Guatemala	1.030335201
87	United States	0.996426615
88	Senegal	0.97644873
89	Tonga	0.941702995
90	Pakistan	0.884822819
91	Chad	0.844345622
92	Oman	0.826021592
93	Mali	0.804706416
94	Mauritius	0.732392185
95	Benin	0.708876441
96	Comoros	0.696600238
97	Barbados	0.65196027
98	Syrian Arab Republic	0.621841947
99	Iceland	0.585934263
100	Mauritania	0.582354276
101	Uruguay	0.541972618
102	Sudan	0.505809943
103	Korea, Rep.	0.489981335
104	Zimbabwe	0.485407968
105	Sierra Leone	0.473088485
106	Turkey	0.461268968
107	Madagascar	0.440453438
108	Russian Federation	0.4239204
109	Lebanon	0.392653071
110	Guinea	0.37082069
111	India	0.370716622
112	Guinea-Bissau	0.332831393
113	Italy	0.325694246
114	Nepal	0.221660482
115	Botswana	0.209152893
116	Congo, Rep.	0.207116745
117	Kenya	0.205711102
118	Rwanda	0.203877094
119	El Salvador	0.17161092
120	Bangladesh	0.134009652
121	Ethiopia	0.103367902
122	Haiti	0.089737095
123	Burundi	0.088276116
124	Cameroon	0.065473927
125	Burkina Faso	0.057795561
126	Togo	0.045074274
127	Central African Republic	0.044295578
128	Japan	0.040201916
129	Malawi	0.037218494
130	Niger	0.034530748
131	Algeria	0.018791871

Source: WDI, 2000

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