

***Developing Countries and the World Trade Organization:
A Foreign Influence Approach***

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Abstract

This paper aims at providing an analytical examination of the criticism that the WTO is unfair and hurts the weak, developing countries. We utilize a *formal* model with the following features: in both the powerful and the weak economies, pressure groups lobby to influence their trade policies in their respective countries. We then allow the powerful country the exclusive ability to spend resources to facilitate the lobbying of one of the pressure groups in the weak country, thereby moving the trade policy of the developing country in favor of the powerful trading partner. Next we compare the effects of asymmetric foreign influence in a world with no WTO and no multilateral principles (most-favored-nation principle MFN and the negotiation principle of reciprocity) to a situation with WTO and its associated non-discrimination principles. We show that the weak, developing country will have less "unfair" concessions of market openings and in general will be better off with the WTO and with rules of nondiscrimination.

1. Introduction

As the Doha Round trade talks floundered, there have been increasing criticisms of the behavior of the rich and powerful countries during the numerous series of negotiations. Several influential countries were accused of trying to manipulate other weaker contracting parties to go along with their proposals.¹ According to *ActionAid*,

"Threats, deception and manipulation are the underhand negotiation tactics used by rich countries such as the EU and US in the current round of global trade talks" (ActionAid 2006).

There are also increasing concerns by some developing countries that due to the *asymmetric* economic, political and diplomatic powers between the powerful parties and the relatively powerless members, the world trading system as coordinated and implemented by the World Trade Organization (WTO) is fundamentally *unfair*.

"The problem is that the world trade is unfair, and the WTO rules are part of the problem." (Duncan Cameron, Progressive Economics Forum 2007).

Out of frustrations, some analysts and researchers even suggest that developing countries may actually be better off without the WTO:

"In short, appealing as the idea of some kind of multilateral trade system might be in principle, it seems clear that the WTO as it currently operates does not constitute such a system. Far from setting fair trade rules to protect the interests of the weak, the WTO has been complicit in reinforcing the interests of the strong: Anarchy – the threat (real or supposed) used to justify the WTO – may be

¹ The United States and the European Union were accused of not cutting sufficiently their agricultural subsidies. India was seen by some to be leading the G-20 into an obstructionist stance that derailed the process.

bad for the weak, but the tyranny of the strong may be worse.” (Pp. 302-304, Jawra and Kwa 2003) .

These views are often reinforced by pronouncements by non-governmental organizations (NGOs) in developed as well as in developing economies that the WTO and the Doha Round negotiations facilitate a global trading system that exploits the poor, particularly the poor in the relatively weak economies. According to Oxfam,

"For trade to work for global development, rich countries needed to cut heavily into the most harmful agricultural subsidies. They didn't. They needed to give better access to their markets to developing countries. They didn't. And while offering nothing, rich countries were unfairly demanding that developing countries open up their markets in a way that could be very damaging to development." (Oxfam, New Zealand, undated).

While the focuses of the barrage of criticisms of the global trading system from NGOs and from the developing countries are often very diverse, ranging from unfairness and exploitations to issues concerning the environment, labor and human rights, one *common* theme is that the WTO as an organization that mediates the global multilateral trading system is increasingly acting as a forum used by the rich and powerful to exploit and harm the poor and the weaker members.

The *aim* of this paper is to provide an analytical examination of this line of criticism. We will utilize a *formal* model with the following features: in both the powerful and the weak economies, pressure groups lobby to influence their trade policies in their respective countries. We then allow the powerful country the exclusive ability to spend resources to facilitate the lobbying of one of the pressure groups in the weak

country, thereby moving the trade policy of the developing country in favor of the powerful trading partner. This feature of asymmetric foreign influence defines the difference between the "powerful" and the "weak" in our model. Next we compare the effects of asymmetric foreign influence in a world with no WTO and no multilateral principles (most-favored-nation principle MFN and the negotiation principle of reciprocity) to a situation with WTO and its associated non-discrimination principles. We show that the weak, developing country will have less "unfair" concessions of market openings and in general will be better off with the WTO and with rules of nondiscrimination.

Our analytical approach is essentially a hybrid model combining a variant of the Grossman-Helpman protection-for-sale framework (1994) and the more recent foreign influence approach by Antras and Miquel (2008). Our paper differs from both sets of literature since in the literature related to the Grossman-Helpman framework, there is generally no modeling of foreign influence, while in Antras and Miquel (2008), there are probabilistic voters but no pressure groups. As mentioned before, we want to take the criticisms of the WTO seriously and utilize the asymmetric foreign influence feature to analytically portrait the difference between the rich, powerful country and the weak, developing economy. We make use of the lobby groups in our paper because we believe that the protection-for-sale approach is compatible with a wide varieties of governments, including governments with no democratic elections.

One conclusion that comes out of our examination is that the strong (developed) country will always have an incentive to try to "manipulate" the weak (developing) country. But precisely because the strong will always want to expend resources to

"exploit" the weak that it is in the interest of the developing countries to constrain the powerful members with principles of nondiscrimination (such as the most-favored-nation principle) as embodied by the WTO.²

In essence, we will state in a particular *formal* framework an often heard defense of the GATT/WTO global trading system : since the WTO is an organization that is based on the rule of law with fundamental nondiscrimination provisions such as MFN and national treatment, the institution is explicitly designed to protect the weak and the relatively powerless. Granted, even within the WTO framework, the economically and politically weak developing countries will still face great obstacles since their capacity to fully utilize the WTO system is limited. This can be due to limited resources or limited expertise, but clearly a rule-based system based on non-discrimination is better than without a system or without an institution that embodies multilateralism and the spirit of the WTO.

As we pointed out above, the essential points that we are making here are not new. Many major scholars of the GATT and WTO systems (e.g. Bhagwati 1991, Bhagwati and Panagaria 2005, Deardorff, Stern and Whalley 2008, Baldwin 1990, Krueger 1998, Bagwell and Staiger 1999, Finger and Olechowski 1990, Jackson 1992, Hoekman and Kostecki 2001, etc.) have all expressed this line of arguments before. As a specific example, Jackson (1992, p. 85) states that the GATT system can be seen as evolving towards a rule-based system:

² We will also show in a later section that the principle of reciprocity as practiced in WTO-related trade negotiations will also be useful to constrain powerful countries.

"One way....is to compare two techniques of modern diplomacy: a "rule-oriented" technique and a "power-oriented" technique.....In broad perspective one can roughly divide the various techniques for the peaceful settlement of international disputes into two types: settlement by negotiation and agreement with reference (explicitly or implicitly) to relative power status of the parties, or settlement by negotiation or decision with reference to norms or rules to which both parties have previously agreed."

The contributions of this paper will be twofold: one, we extend the theoretical literature on the WTO by providing a model that features both lobby groups as well as foreign influences. Second, we use an appropriate and well-accepted formal framework and derive from the model certain conclusions that are quite compatible with the mainstream view that the WTO/GATT trading system is designed not to exploit the weak members, but instead to protect them.

In the next section, we will provide the basic model in which we have a powerful country which can manipulate the weak one. In Antras and Miquel (2008), the probabilistic voters will decide which political party will win and what economic policies will be implemented. In contrast, in this paper we feature pressure groups in both the powerful and weak economies and let these groups lobby for the implementation of trade policies. In section 3, we extend the model to incorporate the feature that the rich, powerful country can expend resources to influence the pressure groups in the weak country, thereby indirectly manipulating the economic and trade policies in the developing economy. We examine the effects of such manipulations under two conditions: with MFN and without. We show that the powerful economies will generally have less incentive to manipulate and the welfare of the developing country generally

improves with MFN. We then consider the case where foreign manipulation takes place with the WTO-related negotiation requirement of reciprocity. In the last section we conclude.

2. The Basic Lobbying Model Without Foreign Influence

In this section, we present the basic model without the feature of foreign influences. Since in our paper, the only difference between the "powerful" and "weak" trading partners is the ability of the powerful to influence the weak, the two countries will not look analytically different until the next section, when we allow foreign influences.

To start with, we have two countries, one rich and powerful and the other one is developing and weak. The basic model will be a variant of the lobbying model as in Grossman and Helpman (1994) and Fung, Lin and Chang (2007). However, on top of the lobbying model is the idea that the powerful country can expend resources to influence the policies of the weak countries. In Antras and Miquel (2008), the model of foreign influence is focused on a probabilistic voter model with electoral competition. Here we use a model without explicitly focusing on elections. We adopt the lobbying model precisely because in many developing countries, democratic elections may or may not be present. While many major developing countries do have competition for elections (e.g. India and Brazil), some important ones do not (e.g. China and Vietnam). In fact, Branstetter and Feenstra (2002) explicitly use a reduced form model of Grossman and Helpman (1994) to empirically study the case of China. While our situation is *not* focused on China or Vietnam alone, we do think that a variant of the Grossman-Helpman model is more flexible and can be applied to *all forms* of political governance

(democratic or not) in developing countries. For consistency, we also use a pressure group approach to describe the interactions of the government and the private sector in the powerful, developed economy.

We provide a generic common structure for both the powerful and weak economies, using symbols with * referring to the powerful, rich economy and symbols without * referring to the weak, developing economy.³ The common model for both economies is an open economy with two sectors: one formal sector and one informal sector. The formal sector consists of two firms: the exporting firm produces good x^* (x) for the rich (developing) country and the import-competing firm produces good y^* (y) for the domestic market. The informal sector in the rich (developing) economy produces the numeraire good $n^*(n)$ with a mobile factor only. The goods, $x^*(x)$ and $y^*(y)$ are produced with the mobile factor and the specific factor $k^*(k)$. The mobile factor is supplied inelastically to each respective economy. As long as the informal sector is active, the constant marginal product of the mobile factor fixes its economy-wide return to unity.

Total population in the economy is normalized to one. A fraction α^{*x^*} (α^x) of the population in the powerful (developing) economy owns the specific factor k^{x^*} (k^x) used in the production of good x^* (x) and has a direct ownership stake in the exporting firm. A fraction α^{*y^*} (α^y) of the population owns the specific factor k^{*y^*} (k^y) and has a direct ownership stake in the import-competing firm. The remaining $1 - \alpha^{*x^*} - \alpha^{*y^*}$ ($1 - \alpha^x - \alpha^y$) equals α^{*m^*} (α^m), who are the owners of the mobile factor. The mobile factor is used in both the formal and informal sectors and they earn a fixed return of one. The owners of

³ The basic model here is similar in structure to Rama and Tabellini (1999) and Fung, Lin and Chang (2009).

the mobile factor are assumed to be inactive politically. Owners of the specific factor organize as pressure groups for political activity.

To model the notion of "market access", we adopt the idea that economic profits are related to domestic market shares and output. This leads us to choose the characterization of the exporting and import-competing industries as global industries that are imperfectly competitive and they generate economic profits. Thus, the behavior of the firms in the formal sector is an international quantity Nash duopoly. We adopt this market structure partly because it allows us to model more closely the concept of "market access" used by many critics of the WTO. Our analytical depiction of market access allows exporting firms to gain market shares and economic profits. We are hoping this way of modeling will give the arguments of the WTO critics a fair and strong representation.

There are two additional reasons why we choose to utilize this form of market structure. First, since developing economies often have weaker institutions, including possibly weaker laws against monopolies, it is more likely that their markets may be more realistically characterized by imperfect competition. Second, given that developing countries tend to be "small" countries, their motives to negotiate tariff reductions due to the terms-of-trade effects will be less likely. For all these complementary motivations, we model the exporting and import-competing firms for both economies as Cournot-Nash competitors.

The exporting firm from the rich economy export x^* to the developing economy and competes with x . The profit function of the exporting firm from the rich country and the profit function for the import-competing firm in the developing country are given by:

$$\mathcal{J}^{*x^*}(x^*, x, \tau) = x^*P^x(x + x^*) - c^{*x^*}(w^*, x^*) - \tau x \quad (1)$$

$$\mathcal{J}^x(x^*, x) = xP^x(x + x^*) - c^x(w, x) \quad (2)$$

where c^x and c^{*x^*} are the cost functions for the exporting firm from the rich country and the import-competing firm in the developing economy, τ is the specific tariff imposed by the developing country against the exporter in the rich country. It is clear that given the assumptions of the model, $\mathcal{J}^{*x^*}(x^{*CN}, x^{CN}, \tau = \tau^{\wedge} > 0) < \mathcal{J}^{*x^*}(x^{*CN}, x^{CN}, \tau = 0)$, where x^{*CN} and x^{CN} are the equilibrium Cournot-Nash outputs. In this model, more market access for the exporter (a lower tariff τ imposed on the exporting firm from the rich country) means higher profits for the exporter.⁴

The import-competing firm in the rich economy produces good y^* and competes with the export y from the developing economy, with the respective profit functions being:

$$\mathcal{J}^{*y^*}(y^*, y) = y^*P^y(y + y^*) - c^{*y^*}(w^*, y^*) \quad (3)$$

$$\mathcal{J}^y(y^*, y) = yP^y(y + y^*) - c^y(w, y) - \tau^* y \quad (4)$$

c^y and c^{*y^*} are the respective cost functions and τ^* is the specific tariff imposed on the exports from the weak country. Again given the assumptions of the model, $\mathcal{J}^{*y^*}(y^{*CN}, y^{CN}, \tau^* = \tau^{*\wedge} > 0) > \mathcal{J}^{*y^*}(y^{*CN}, y^{CN}, \tau^* = 0)$, where y^{*CN} and y^{CN} are the respective equilibrium Cournot-Nash domestic production and imports in the powerful country. Restricting market access by the rich country raises profits and output for the import-competing firm in the rich economy.

⁴ A lower tariff allows the exporter from the rich country to increase its profits and outputs. These are the standard results with international Cournot-Nash firms. At the same time, increased market openings means reducing profits and output by the import-competing firm. This feature reflects the belief by defenders of the developing country that more concessions by the poor country will harm the economy.

Turning to the demand side, all individuals in the rich country and the developing country have the same preferences respectively and maximize the utility functions:

$$U^{*i^*} (n^*, Y^{*c^*}) = n^{*i^*} + u^*(Y^{*c^*i^*}) \quad (5)$$

$$U^i (n, X^c) = n^i + u(X^{ci}) \quad (6)$$

where $i^* = x^*, y^*$ and $m^* i = x, y$ and m represent the respective shareholders of the export-competing firm, the import-competing firm, and the owners of the mobile factor in the rich and developing countries; n^{*i^*} and n^i are the respective consumptions of the numeraire good; $Y^{*c^*i^*} = y^{*c^*i^*} + y^{c^*i^*}$ and $X^{ci} = x^{*ci} + x^{ci}$ are the consumptions of the imported goods and the domestically produced import-competing goods in each country by individual i^* and i , respectively. The functions U^{*i^*} and U^i are differentiable, increasing and strictly concave in all their arguments. Utility is maximized subjected to the budget constraint:

$$I^{*i^*} \geq n^{*i^*} + P^y Y^{*c^*i^*} \quad (7)$$

$$I^i \geq n^i + P^x X^{ci} \quad (8)$$

where I^{*i^*} and I^i are the net incomes of the individuals i^* and i , P^y and P^x are the domestic prices of y and x . From equations (5), (6), (7) and (8), the indirect utility functions of each individual in groups i^* and i have the forms:

$$\psi^{*i^*} = I^{*i^*} + u^*(Y^{*c^*i^*}) - P^y Y^{*c^*i^*} = I^i + \zeta^*(P^y) \quad (9)$$

$$\psi^i = I^i + u(Y^{ci}) - P^y Y^{ci} = I^i + \zeta(P^x) \quad (10)$$

where $i^* = x^*, y^*, m^*$ and $i = x, y, m$, ζ^* and ζ are consumer surplus derived from the consumption of the good in the import-competing sector in each country. We assume for convenience that the exportable goods are not consumed domestically.⁵

⁵ This assumption is made for expositional convenience only. It will not affect our central results and illustrations in the model.

The gross indirect utility functions for each individual in each pressure group in each country will be:

$$\begin{aligned}
\psi^{*x*} &= JI^{*x*} / \alpha^{*x*} + (\tau^{*y}) / (\alpha^{*x*} + \alpha^{*y*}) + \zeta^* \\
\psi^{*y*} &= JI^{*y*} / \alpha^{*y*} + (\tau^{*x}) / (\alpha^{*x*} + \alpha^{*y*}) + \zeta^* \\
\psi^{*m*} &= I^{*m*} / \alpha^{*m*} + \zeta^* \\
\psi^x &= JI^x / \alpha^x + (\tau^{x*}) / (\alpha^x + \alpha^y) + \zeta \\
\psi^y &= JI^y / \alpha^y + (\tau^{x*}) / (\alpha^x + \alpha^y) + \zeta \\
\psi^m &= I^m / \alpha^m + \zeta
\end{aligned} \tag{11}$$

where JI^{*x*} , JI^{*y*} , JI^x and JI^y are described in (1)-(4); I^{*m*} and I^m are the fixed returns to the mobile factors in each country, τ^{*y} and τ^{x*} are the respective tariff revenues in the powerful and weak economies. We assume that only the politically organized members get to share the tariff revenues. These indirect utility functions identify the utility levels of each individual in each group when there is no lobbying.

With no pressure group activities the governments choose the appropriate levels of τ and τ^* to maximize social welfares:

$$Max_{\tau^*} \psi^{*G*} = \alpha^{*x*} \psi^{*x*} + \alpha^{*y*} \psi^{*y*} + \alpha^{*m*} \psi^{*m*} \tag{12}$$

$$Max_{\tau} \psi^G = \alpha^x \psi^x + \alpha^y \psi^y + \alpha^m \psi^m \tag{13}$$

where ψ^{*G*} and ψ^G are the social welfare levels which can be attained in the absence of any pressure group activities. The socially optimal trade protection levels are given by $\tau^{*G*} = \arg \max \psi^{*G*}$ and $\tau^G = \arg \max \psi^G$. The two pressure groups act as bidders and offer various contribution or “bribe” schedules corresponding to different protection levels at the first stage. The policymakers in each country act as auctioneers and set the protection levels by maximizing a weighted sum of contributions and aggregate social

welfare at the second stage. An equilibrium is a set of contribution or bribe schedules and the politically determined protection levels. The structure so far resembles those in Grossman and Helpman (1994), Rama and Tabellini (1999), Fung, Lin and Chang (2007).

The equilibrium bribery or contribution schedules imply that the pressure groups make contributions up to the point where the marginal benefit from the resulting change in the trade barriers equal to the marginal contribution costs. Each pressure group in the powerful country provides $\eta^{*i*}_{\tau^*}(\tau^*)/\varepsilon^{i*}$ but we assume that only a fraction of the original amount $\eta^{*i*}_{\tau^*}(\tau^*)$ reaches the politicians.

With $0 < \varepsilon^{i*} < 1$, ε^{i*} acts much like the iceberg "transport" cost in the trade literature. Here we interpret the cost not as transport cost but as *organization costs* associated with lobbying. For example, to facilitate lobbying activities, certain consultants, lawyers, advisers or people who are connected to the politician in power may need to be paid. These expenses will not end up directly in the hands of the politicians. Similarly we have the contribution schedules $\eta^i_{\tau}(\tau)/\varepsilon^i$ for the developing country. As we will highlight further below, we will use ε^i as an *index of foreign influence*.

In equilibrium, the contribution schedules of each pressure group in each country are given by:

$$\alpha^{*i*} \psi^{*i*}_{\tau^*} = \eta^{*i*}_{\tau^*}(\tau^*)/\varepsilon^{i*} \quad (14)$$

$$\alpha^i \psi^i_{\tau} = \eta^i_{\tau}(\tau) / \varepsilon^i \quad (15)$$

where $i^* = x^*, y^*$ and $i = x, y$; $\eta^{*i^*}_{\tau^*}(\tau^*)/\varepsilon^{i^*}$ and $\eta^i_{\tau}(\tau)/\varepsilon^i$ are the marginal contribution costs provided by pressure groups i^* and i in the powerful and weak countries, respectively. ⁶

Without any foreign influence, the objectives of the governments are to maximize their own possibilities of remaining in power. Following Grossman and Helpman (1994), we assume that the governments maximize the weighted sums of the total levels of political contributions or bribes and the general national welfares:

$$\text{Max}_{\tau^*} \Omega^* = \gamma^* [\eta^{*x^*}(\tau^*) + \eta^{*y^*}(\tau^*)] + \psi^{*G^*} \quad (16)$$

$$\text{Max}_{\tau} \Omega = \gamma [\eta^x(\tau) + \eta^y(\tau)] + \psi^G \quad (17)$$

where $\gamma^* > 0$ and $\gamma > 0$ are the respective weights attached by the powerful country and the developing country on the contributions from the pressure groups, Ω^* and Ω are the respective objective functions of the policymakers. Maximizations of (16) and (17) and using (14) and (15) yield:

$$[1 + \gamma^* \varepsilon^{x^*}] (\alpha^{*x^*} \psi^{*x^*}_{\tau^*}) + [1 + \gamma^* \varepsilon^{y^*}] (\alpha^{*y^*} \psi^{*y^*}_{\tau^*}) + \alpha^{*m^*} \psi^{*m^*}_{\tau^*} = 0 \quad (18)$$

$$[1 + \gamma \varepsilon^x] (\alpha^x \psi^x_{\tau}) + [1 + \gamma \varepsilon^y] (\alpha^y \psi^y_{\tau}) + \alpha^m \psi^m_{\tau} = 0 \quad (19)$$

Since we have $\gamma^* > 0$, $\gamma > 0$, $\varepsilon^{x^*} > 0$ and $\varepsilon^x > 0$, the political-motivated policymakers place more weights on the pressure groups that contribute to the respective governments, while the group that is not organized politically has its interests represented only by the share of its population α^{*m^*} and α^m . The additional weights attached to the contributing groups consist of two parts: one is the weight politicians attach to the contributions γ^* and γ and the other is the organizational costs for lobbying ε^{x^*} and ε^x .

⁶ To ensure that these schedules are truthful, a sufficient condition is for the schedules to be differentiable around the neighborhood of the equilibrium.

Equations (18) and (19) implicitly define the politically-determined tariffs in each country as τ^{*p} and τ^p . In particular, τ^p is a function of ε^x and ε^y and τ^{*p} is a function of ε^{*x} and ε^{*y} . Without knowing the specific values of ε^x , ε^y , ε^{*x} and ε^{*y} , we cannot determine a priori if the politically-determined tariffs will be higher than the tariffs that maximize national welfare. However, if these organization costs are equal for both lobby groups in each country, then we can show that $\tau^{*p} > \tau^{*G}$ and $\tau^p > \tau^G$, i.e. the politically-determined tariffs are higher than the welfare-maximizing tariffs.⁷ Furthermore, because of such excessive trade protections, national welfares are lower in the presence of pressure groups.

3. The Extended Model with Asymmetric Foreign Influence

In the previous section, we present the basic political-economic model of tariffs with imperfectly competitive trade sectors in a two-country setting. We now introduce the feature of foreign influence. In particular, we assume that these two countries have *asymmetric power*. The rich, powerful country is able to help finance lobbyists or pressure group operating in the developing economy, while the poor country is too weak to influence the powerful member.

In the weak economy, the lobby group that would like to see lower tariffs is the exporting firm. To incorporate the feature of foreign influence in our model, we assume that the powerful economy can raise resources to increase ε^x , which enables the exporter in the weak economy to be more effective in lobbying for a lower trade barrier.

⁷ A derivation of these results with no organization costs are given in Fung, Lin and Chang (2007). With given organization costs, the results are qualitatively similar.

Alternatively, we can also allow the powerful economy to lower ε^y and reduce the effectiveness of the import-competing firm to pressure the government in the weak country. Since the results are qualitatively the same, we will just focus on the case where ε^x is manipulated.

We have many real-life examples of one foreign country trying to influence the policy outcome of another country. For example, there are ongoing debates among policymakers in the European Union concerning the type and extent of regulations needed on the matter of sharing data and information on the internet, the so-called net neutrality debates. Lobby groups from the United States have been spending a lot of time and resources to influence the European Parliament about this policy, since they believe that the policy outcome in Europe can have major effects on the same debate in the United States (Kevin O'brien 2009). The type of lobbying activities include organizing forums ,meetings and debates between the lobby groups, the European media and the European legislators. Lobbyists also try to provide information and their arguments directly to legislators. According to a report by International Herald Tribune, "*Lobbying by U.S. businesses in Brussels is not unusual. More than 30 U.S. companies like Pfizer, Microsoft, McDonald's, Philip Morris, Westinghouse and Kraft Foods employ lobbyists in Brussels, according to the European Parliament. Foreign countries and businesses also hire lobbyists to work in Washington. But most of the time, lobbying by foreign entities tends to be discreet .*" (Kevin O'brouke 2009).

Given that we are focusing on an asymmetric relationship between a rich and powerful economy and a weak, developing country, we will assume that *only* the

powerful economy can influence the poor economy, but not vice versa. For the rich country, we now assume that it can expend resources to reduce the organization costs of one of the lobby groups.⁸ The objective function becomes:

$$\Omega^{l*} = \gamma^* [\eta^{*x*} (\tau^*) + \eta^{*y*} (\tau^*)] + \psi^{*G*} - 1/2(\varepsilon^x/\sigma)^2 \quad (20)$$

with Ω^{l*} being the objective function in the powerful economy when foreign influence is allowed. We follow Antras and Miquel (2008) and assume that there are quadratic costs associated with foreign influence activities, with σ being the parameter that measures how effective the powerful country is in reducing the organizational costs abroad. We focus on the situation where the the government in the rich country gets directly involved in manipulating the pressure group abroad.⁹ In addition to choosing its own tariff, the powerful country chooses ε^x so that:

$$\psi^{*G*} \varepsilon^x - \varepsilon^x/\sigma^2 = 0 \quad (21)$$

This reduces to:

$$\Pi^{*x*} \tau [\partial \tau / \partial \varepsilon^x] - \varepsilon^x/\sigma^2 = 0 \quad (22)$$

The first term measures the benefits of foreign influence to the rich country. By raising ε^x and reducing the effective lobbying costs of the exporter in the poor country, it leads to

⁸ The timing of the model becomes as follows: in the first stage, the rich economy chooses ε^x via its foreign influence; in the second stage, the lobby groups in each country provides their respective contribution schedules to the policymakers, given the organizational costs; in the last stage, the politicians take the contribution schedules into account and maximize a weighted sums of the contributions and the national welfares.

⁹ As highlighted in Antras and Miquel (2008) and by O'brien (2009), this can be achieved openly or covertly. Covert activities include activities by the intelligence agency (such as the CIA), efforts and expenses by diplomatic agencies (such as the representatives to the United Nation and the State Department) or by the use of foreign aid.

more concessions of market access to the rich country's exporting firm, raising its economic profits. The second term measures the marginal cost of providing foreign influence. We can use σ as an index of how powerful the rich country is in influencing the weak economy. With a high σ , the marginal cost of facilitating the lobby group which has a similar preference as the powerful member is low. This leads to a lower amount of lobbying organization costs and more market access by the developing country. In short, the powerful country can use resources to induce and empower the local group that is friendly to its preferences and the power of such "manipulation" can be measured by σ .

Suppose we consider the case where σ is very large so that the rich country is extremely powerful. It can easily be shown that with a sufficiently large σ , the foreign-influenced tariff (τ^f) and the foreign-influenced national welfare (ψ^f) of the weak economy will have the following characteristics: $\tau^f < \tau^G < \tau^p$, and $\psi^f < \psi^G < \psi^p$. In other words, under strong foreign influence, tariff level will be smaller than the optimal level and national welfare will also be smaller than the optimal level.¹⁰

The above analysis is for the case of no WTO and no MFN, a case which Bhagwati (1991) and Bhagwati and Panagaria (2005) refers to as the "law of the jungle". In a world with no WTO, the powerful country unilaterally chooses the right amount of influence for itself and maximizes its own welfare without constraints accordingly.

¹⁰ This can be seen as follows: the national welfare function in the developing country is just the sum of profits, consumer surpluses and tariff revenue. It is monotonically increasing from free trade to the optimal tariff τ^G . After τ^G , the national welfare function is monotonically decreasing, until it reaches the prohibitive tariff. With a sufficiently large σ , the tariff in the weak economy is pushed to below the optimal level. In that case, the national welfare of the developing country is lower.

How would the results be different with MFN? Since the concessions of market access will have to be shared by all other members of the WTO, the marginal benefits of using resources to manipulate the weak country will be reduced. In other words, the first term of (22) is now smaller, leading to a larger τ^l . Since without the MFN, we are in the range of tariffs between free trade and the optimal tariff, smaller concessions of market access leads to an improvement of national welfare for the developing country.¹¹ We now have two results:

Proposition 1. The rich, powerful country that is self-interested will always have an incentive to exert influence on the weak, developing economy, with or without the WTO. Without the principle of MFN, the rich country will influence the developing country to open up its market even more than under MFN.

Proposition 2. The weak, developing country is better off under MFN if the rich country is sufficiently powerful

Proposition 1 holds regardless of how powerful the rich country is. This highlights the fact that the more influential country will *always* have an incentive to influence the trade policy of the weaker country, given that more market access means higher profits for the exporting sector in the developed economy. The proper benchmark to evaluate the WTO and its associated core principle of MFN is not an ideal, utopian world in which self-interested nations will not act to influence others. Rather the relevant question should be whether WTO will still improve the welfare of the weak, given that we will always have asymmetric power. This leads us back to the familiar but important argument in defense

¹¹ This is the case because we assume that the developed economy is very powerful in a world without the WTO. It influences the developing economy to implement a tariff level that is below the optimal tariff.

of the multilateral system, an argument clearly explained by many prominent scholars of the GATT/WTO system: will the weak countries be better off with a "power-based" system or a "rule-based system"? The answer (at least in the case most feared by the weaker parties and most often pointed out by critics of the WTO) is that in the face of great unequal power, the national welfare of the developing countries is greater with MFN than without MFN.

How would the analysis be different if the countries operate within the WTO norm of reciprocity? If we impose reciprocity, concessions of market openings by the developing country should be matched by a reduction of tariffs in the powerful country, leading to an erosion of profits of the import-competing firm in the rich economy. The choice of the extent of influence will be implicitly defined by the revised first order condition, taking into account reciprocity:

$$J I_{\tau}^{*x*} [\partial \tau / \partial \varepsilon^x] - \varepsilon^x / \sigma^2 - J I_{\tau^*}^{*y*} [\partial \tau^* / \partial \tau] [\partial \tau / \partial \varepsilon^x] = 0 \quad (23)$$

where $[\partial \tau^* / \partial \tau]$ refers to the reciprocal reduction of tariffs and $J I_{\tau^*}^{*y*}$ refers to the negative impact of market access on the profits of the import-competing firm in the rich economy. Comparing (22) and (23), it is clear that reciprocity reduces the amount of influence by the powerful economy, resulting in less concessions by the developing country and for the case of a very strong powerful country, better economic welfare.

Proposition 3. With reciprocity, the weak, developing country will be less influenced to give market access concessions. With a sufficiently powerful rich country, the developing country is better off with reciprocity

Proposition 3 states that in a power-based approach (without the WTO and without reciprocity), the weak is under the unconstrained influence of the powerful. With reciprocity and the WTO, the strong country will still try to exert pressure on the weak, but it is restrained not to go full force because it now has to reciprocate the concessions it extracts from the developing country.

4. Conclusion

In this paper, we aim to evaluate analytically some of the criticisms levied on the current world trading system in general, and the WTO with its affiliated core principles of MFN and reciprocity in particular. We construct a model that builds on the pressure group approach of Grossman and Helpman (1994) and the foreign influence approach of Antras and Miquel (2008). We also try to be fair and do justice to the critics' notion of market opening concessions by adopting a market structure which ties higher economic profits to larger market openings.

We show in this framework that the strong country will always have an incentive to exert influence on the weak, developing country. This will indeed, as the critics of the WTO contend, lead to more market concessions and a lowering of profits of the import-competing firm in the poor country. However, contrary to the arguments of the critics, we show that in the presence of foreign influences, the WTO with its principles of MFN and reciprocity will actually reduce market opening concessions and increase national welfare of the developing country.

One contribution of this paper is that we utilize an appropriate, well-accepted combination of formal approaches to shed light on the impact of the WTO in the presence of asymmetric power and influence.. By taking some of the views of the critics seriously, we actually end up reinforcing a line of argument that has been made forcefully and eloquently by many prominent scholars of the GATT/WTO system: the WTO system with its principles of nondiscrimination is a rule-based approach designed not to exploit, but to protect the weak, *precisely* because in the real world we have asymmetric power between the rich and the developing countries. The powerful country will always have an incentive to exert pressure on the poor *within or without* the WTO, but the developing countries will be better off with the WTO since its nondiscrimination principles help to mitigate and temper some of these influences.

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