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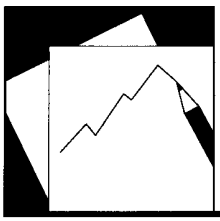

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Regionalism or Multilateralism? A Political Economy Choice

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Regionalism or Multilateralism? A Political Economy Choice[1]

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Abstract

This paper provides a political economy analysis of the incentives underpinning a country's decision to enter a regional trade agreement when a multilateral free trade agreement is available, and of how entering a regional trade agreement affects the incentives to pursue multilateral trade liberalization. Taking into account the influence exerted by organized interest groups in the formation of trade agreements, we derive a formal condition under which a regional trade agreement is preferred to a multilateral one. Furthermore, we show that a country's decision to enter a regional trade agreement unambiguously undermines the incentives towards multilateral trade liberalization.

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I. INTRODUCTION

Regional trade agreements have become a prominent feature of the world trading system, and their proliferation has been one of the most visible trends in recent years. The surge in regionalism has continued unabated since the early 1990s, and some 380 regional trade agreements had been notified to the GATT/WTO through July 2007.[2]

The proliferation of regional trade agreements has been accompanied by a parallel sluggishness in multilateral trade negotiations under the GATT/WTO, as shown by the limited progress in the ongoing negotiations at the Doha Round and the slowness in the previous Uruguay Round negotiations. This phenomenon has put into evidence how countries might be more keen to liberalize trade on a preferential discriminatory base rather than on an multilateral non-discriminatory one. Furthermore, it has generated a fundamental debate over the compatibility of regional or preferential trade agreements with the multilateral trading system.

This paper provides a political economy analysis of a country's incentives to enter a regional trade agreement when a multilateral free trade agreement is available, and the implications of a country's choice to enter a regional trade agreement for the incentives to pursue multilateral trade liberalization. The contributions of this paper to the burgeoning literature on regional trading agreements is two-fold. First, we formalize the role of "politics" in shaping a country's decision to prefer a regional trade agreement to a multilateral agreement leading to free trade. Second, we show how a country's decision to enter a regional trade agreement crucially changes domestic incentives in a way that multilateral liberalization that would have been politically feasible is rendered infeasible.

We develop a theoretical model in which we formalize a country's choice between a regional trade agreement and a multilateral agreement leading to free trade, depicted as alternative options of trade policy. Assuming a political economic framework à la Grossman-Helpman (1994), we consider that the country's policymaker balances both industrial interests and aggregate social welfare in choosing between the two alternative trade agreements.

First, we show that in a country which has the choice of entering a regional trade agreement or alternatively, a multilateral free trade agreement, both pro-regionalism and pro-multilateralism forces operate. The policymaker's decision configures then as a political equilibrium that balances these contrasting forces. In particular, we underscore that a country's choice to enter the regional trade agreement will be driven by distortions in the policy-making process, the lobbying activity of an organized interest group representing industrial interests, and the extent of trade barriers.

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[2] As in most of the literature, we consider regional trade agreements and preferential trade agreements as syno nymous. In a stricter interpretation, regionalism only refers to those preferential trade agreements formed among countries belonging to a geographic region.

Second, we show that preferential trade liberalization unambiguously undermines the incentives for further trade liberalization on a multilateral base. In this regard, we point out that multilateral trade liberalization that would have been politically supported otherwise will no longer be pursued after a country chooses to enter a regional trade agreement. In fact, once a politically supported regional trade agreement is in place, industrial interests would operate as an anti-multilateralism force to protect the preferential market access acquired through the regional trade agreement. So, owing to the organized interest group's lobbying activity, the policymaker will have no incentives to move from the regional trade agreement.

This paper is related in two ways to the existing literature on regionalism. On the one hand, it is conceptually close to those contributions that have investigated the political viability of regional trade agreements using different political economy set-ups, such as Grossman and Helpman (1995), Levy (1997), Krisnha (1998), and Ornelas (2005a, 2005b). However, while these contributions analyzed the conditions under which the formation of a regional trade agreement can be an equilibrium outcome, our paper studies the political viability of a regional trade agreement as an alternative to entering a multilateral free trade agreement. In this vein, this paper aims to derive the conditions under which a regional trade agreement will be preferred to a multilateral agreement leading to free trade.

On the other hand, this paper builds on the body of economic research which has investigated whether regionalism provides an impetus to, or detracts from the ultimate goal of multilateral non-discriminatory trade liberalization.[3,4] More specifically, this paper is related to those contributions that have analyzed how entering a regional trade agreement affects a country's incentives to enter a multilateral trade agreement such as Levy (1997), Krisnha (1998) and Ornelas (2005a, 2005c). Our result that regionalism undermines multilateral trade liberalization when a policymaker takes into account not only aggregate well-being, but also political contributions in its choice of trade policy, generalizes previous findings in the literature. In fact, the negative impact of regionalism on multilateralism was highlighted in Levy (1997) using a median-voter political economy setting à la Mayer (1984), and in Krisnha (1998) and Ornelas (2005c) considering, respectively, firms' profits as the only decisive variable in a policymaker's choice, and firms' profits to have a higher weight in the welfare function.

[3] See Winters (1996), and Baldwin and Venables (1997) for a survey of the contributions in the "regionalism versus multilateralism" debate.

[4] Most of the contributions in the "regionalism versus multilateralism" debate have analyzed the impact of regional trade agreements on multilateral trade liberalization using the import tariff against non-members as a measure of the effects of regionalism. Among others, see Krugman (1991), Richardson (1993), Findlay and Panagariya (1996), Bond and Syropoulos (1996), Bagwell and Staiger (1997a,1997b), Desrouelle and Richardson (1997), Cadot et al. (1999), and Bond et al. (2001).

II. THE BASIC MODEL

We assume that the world economy is constituted by three symmetric countries, labeled as country *X*, country *Y*, and the rest of the world *Z*. In each country, a manufacturing sector and an agricultural sector exist. The manufacturing sector is characterized by differentiated products, increasing returns to scale, and imperfect competition; in the agricultural sector, a homogenous product, constant returns to scale and perfect competition exist.[5]

Two different classes of agents are assumed to be in each country, laborers and firm owners whose respective preferences are:

$$U^L = C_A^{(1-\lambda)} C_M^{\lambda} , \tag{1}$$

$$U^F = C_A^{(1-\phi)} C_M^{\phi} , \tag{2}$$

where:

$$C_M = \left[\sum_i c_i^{(\sigma-1)/\sigma} \right]^{\frac{\sigma}{(\sigma-1)}} ,$$

c_i being the consumption of manufactured variety *i*, $\sigma > 1$ the elasticity of substitution between any two varieties, $0 \le \lambda \le 1$ and $0 \le \phi \le 1$. Firm owners' income is assumed to derive from firm profits, while laborers' income derives from the labor that they provide to firms.

Focusing on technology, we assume that the labor input requirement for a variety *i* is:

$$l_i = \alpha + \beta x_i , \qquad \text{with } \alpha \text{ and } \beta > 0 ,$$

where x_i is the output of variety *i*, and α is a fixed cost.

We assume that the number of manufacturing firms in each country is given and equal to *k*, with each firm being sufficiently small to treat market aggregates as exogenous.[6, 7] In addition, there is no possibility of relocation of activity, and each manufacturing firm is totally owned by the residents of the country in which the firm is located. In the agricultural

[5] The label "agriculture" does not need to be interpreted literally: the sector's defining characteristic is that it is the "residual" perfectly competitive sector, counterpart for the imperfectly competitive manufacturing sector.

[6] Market behavior in the manufacturing sector is like monopolistic competition, but without free entry. See Baldwin (1995), and Desrouelle and Richardson (1997) for a similar approach.

[7] The assumption of non-entry is introduced to guarantee that firm owners have positive profits to use in lobbying activity. Alternatively, we could have assumed free entry and the existence of a specific factor of production owned by firm owners.

sector, the production function is linear homogenous, and units of the agricultural good are chosen such that the unit labor input coefficient is unity.

Finally, we consider that international trade in manufactured varieties is costly, while trade in the agricultural good is costless. Notably, iceberg trade costs are assumed to apply so that shipping varieties between any two countries melts a fraction of the shipment and $\tau > 1$ units need to be shipped for every unit delivered. No trade costs are assumed to apply to domestic sales of manufactured varieties.

III. THE INITIAL SYMMETRIC EQUILIBRIUM

Having assumed that costless trade in the agricultural sector prevails, wages will be equalized across countries as long as the agricultural good is produced in any of the countries, which is assumed henceforth.[8] Taking labor as numeraire, laborers' wage in any of the countries will be equal to unity. Normalizing national labor forces to unity, the aggregate incomes of laborers and firm owners in any of the countries are:

$$E_L^0 = 1, \tag{3}$$

$$E_F^0 = k\Pi^0, \tag{4}$$

where Π^0 are the profits of any manufacturing firm located in any of the countries.

Assuming ϕ to be zero and λ to be strictly between unity and zero to simplify the derivation of the equilibrium demand patterns, the consumption demand in country *j* for a manufactured variety *i* produced in country *s* is:

$$c_{ij} = \frac{\lambda \cdot \left(p_s \cdot T_{js}\right)^{(-\sigma)}}{P_j^{(1-\sigma)}}, \tag{5}$$

where P_j^0 is the manufactured composite index price of consumers located in country *j*, p_s is the mill or f.o.b. price of any manufactured variety produced in country *s*, and T_{js} is the amount dispatched per unit received of any variety shipped from country *s* to country *j*, with $T_{js} > 1$.

Since the agricultural sector is perfectly competitive and the labor input coefficient is assumed to be unitary, the price of the agricultural good, p_A, will equal its marginal cost.

[8] The non-full-specialization (NFS) condition requires that no country has enough labor to satisfy the world demand for the agricultural good, i.e., that world spending on this good is larger than the maximum value of its production that is possible in any of the countries. Being countries symmetric, the NFS condition requires that $3 \cdot \left[(1-\lambda) \cdot E^L + (1-\phi) \cdot E^F\right] > p_A \cdot L$, which is assumed to hold henceforth.

Having assumed the cost of introducing a new manufactured variety to be zero, no two firms will produce the same variety. The typical manufacturing firm located in country s will maximize its profits facing the isoelastic demand expressed in equation (5), but owing to trade costs T_{js} times this amount has to be shipped, to supply this amount of consumption. Taking the manufactured composite price index as given, the profit-maximizing producer price of any variety will be a constant mark-up over its marginal cost. So, assuming manufactured goods to be measured in units chosen so that the unit input coefficient β equals $\sigma/(\sigma-1)$, all manufacturing firms will charge a unitary price.

Consumers in any country will pay a unitary price for any unit of manufactured variety produced locally, and a price τ for any imported variety. It follows that the composite manufacturing index price in countries Y, X and Z is:

$$P_Y^0 = P_X^0 = P_Z^0 = \left[k + 2k \cdot \tau^{(1-\sigma)}\right]^{\frac{1}{1-\sigma}}. \tag{6}$$

Given preferences in equations (1) and (2), the aggregate demands for the manufactured good are:

$$C_{M,Y}^0 = C_{M,X}^0 = C_{M,Z}^0 = \frac{\lambda}{P_Y^0}. \tag{7}$$

Furthermore, the aggregate demands for the agricultural good in countries Y, X and Z are:

$$C_{A,Y}^0 = C_{A,X}^0 = C_{A,Z}^0 = (1-\lambda) + k\Pi_Y^0, \tag{8}$$

with the profits of a manufacturing firm located in any of the countries being:

$$\Pi_Y^0 = \Pi_X^0 = \Pi_Z^0 = \frac{\lambda}{\sigma k}. \tag{9}$$

IV. Regional versus Multilateral Trade Agreements

We consider that the policymaker in country Y faces two trade policy options: to enter a regional trade agreement with country X or, rather, a multilateral free trade agreement with both countries X and Z. The regional trade agreement would eliminate all trade costs applying on the flows of manufactured varieties between countries Y and X, while the multilateral free trade agreement would eliminate all trade costs on the flows of manufactured goods among all three countries.[9] In particular, since countries Y, X, and Z are assumed to be symmetric and characterized by the same policymaking framework, if country

[9] Article XXIV of the GATT/WTO allows for the formation of regional trade agreements if they eliminate "duties and other regulations of commerce" on "substantially all trade" among member countries.

Y chooses to enter the regional (multilateral) trade agreement, its partner country *X* (partner countries *X* and *Y*) will also choose to enter it.

We consider that the policymaker in country *Y* shapes its trade policy choice à la Grossman and Helpman (1994), taking into account not only aggregate well-being, but also the political contributions received by an organized interest group that participates in the political process to influence policy outcomes. Thus, the policymaker trades off the contributions that would come from heeding the group's interest against the reduction in aggregate social welfare that would follow the choice of a socially costly policy option.

All manufacturing firms located in country *Y* are assumed to be organized in a unique industrial lobby that offers a schedule of contingent (implicit) donations to the policymaker with the final aim of affecting its choice of trade policy.[10] In particular, the organized interest group specifies a donation contract or "contribution schedule" that stipulates how large a donation will be made for each of the two possible stances of trade policy, tailoring it to maximize the total welfare of its members, net of contributions. The game is in two stages: in the first stage, the interest group announces its donation contract and, in the second stage, the policymaker sets the trade policy and collects the political contribution which is *ex-post*, i.e., paid after the policymaker has made its choice.

The policymaker in country *Y* will choose between the two alternative trade agreements with the aim of maximizing its political support, defined as the weighted sum of the political contributions received and the aggregate social welfare, net of contributions.[11] Labeling as D_Y the political contribution received and as W_Y the aggregate social welfare, net of contributions, the policymaker's objective function is:

$$G_Y = a_Y \cdot D_Y + (1 - a_Y) \cdot W_Y, \tag{10}$$

where a_Y measures the extent of political distortions in the policymaking process, with $(1 - a_Y) < a_Y \leq 1$. Thus, the greater is a_Y, the greater is the weight that industrial interests receive in the policymaking process.

In the rest of this section, we derive the equilibrium that would arise if country *Y* entered the regional trade agreement or, alternatively, the multilateral free trade agreement.

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[10] As in Grossman and Helpman (1994) and (1995), we rule out the possibility that the policymaker receives contributions from foreign interest groups and the interest group offers contributions to foreign governments.

[11] Grossman and Helpman (1994) emphasized that an incumbent policymaker may value political contributions since they can be used to finance campaign spending, and aggregate social welfare since voters are more likely to reelect a government that has delivered a high standard of living. As in Grossman and Helpman (1994), we consider that the policymaker values one dollar in its campaign coffers more than a dollar in the hand of the public, and we do not explicitly formalize an electoral process.

A. The Equilibrium Under Regionalism

We assume that country *Y* entered the regional trade agreement with country *X* so that trade costs on imports of manufactured varieties between these two countries disappear. However, trade costs on the flows of varieties between countries *Y* and *X* and the rest of the world *Z* persist. Maintaining that the agricultural good is produced in any of the countries, wages will be equalized across countries. Having taken labor as numeraire, and normalized the size of the labor force to unity, the aggregate incomes of laborers and firm owners in country *j* are:

$$E_{L,j}^{R} = 1, \tag{11}$$

$$E_{F,j}^{R} = k\Pi_{j}^{R}, \tag{12}$$

where Π_{j}^{R} are the profits of any manufacturing firm located in country *j*.

The consumption demand in country *j* for a manufactured variety *i* produced in country *s* is:

$$c_{ij} = \frac{\lambda \cdot \left(p_s \cdot T_{js}\right)^{(-\sigma)}}{\left(P_j^R\right)^{(1-\sigma)}}, \tag{13}$$

where P_j^R is the manufactured composite index price of consumers located in country *j*.

The price of the agricultural good will be equal to its marginal cost. The typical manufacturing firm located in country *s* will maximize its profits facing the isoelastic demand expressed in equation (13). However, if countries *s* and *j* do not both belong to the regional trade agreement, to supply this amount of consumption, T_{js} times the amount in equation (13) will have to be shipped. Taking the manufactured composite price index as given and having assumed the unit input coefficient β to be equal to $(\sigma - 1)/\sigma$, all manufacturing firms will charge the same unitary price.

However, the price consumers pay will vary according to the consumers' location. Thus, consumers located in countries *Y* and *X* will pay a unitary price for any manufactured variety produced locally, and a price τ for any imported variety from country *Z*. On the other hand, consumers located in country *Z* will pay a unitary price for local varieties and a price τ for any unit of manufactured variety imported from countries and *X*. It follows that the composite manufacturing index prices in countries *Y*, *X* and *Z* are:

$$P_Y^R = P_X^R = \left[2k + k \cdot \tau^{(1-\sigma)}\right]^{\frac{1}{1-\sigma}}, \tag{14}$$

$$P_Z^R = \left[k + 2k \cdot \tau^{(1-\sigma)}\right]^{\frac{1}{1-\sigma}}. \tag{15}$$

Given preferences in equations (1) and (2), the aggregate demands of the manufactured good in countries *Y*, *X* and *Z* are:

$$C_{M,Y}^{R} = C_{M,X}^{R} = \frac{\lambda}{P_{Y}^{R}}, \tag{16}$$

$$C_{M,Z}^{R} = \frac{\lambda}{P_{Z}^{R}}. \tag{17}$$

Furthermore, the aggregate demands of the agricultural good are:

$$C_{A,Y}^{R} = C_{A,X}^{R} = (1-\lambda) + k\Pi_{Y}^{R}, \tag{18}$$

$$C_{A,Z}^{R} = (1-\lambda) + k\Pi_{Z}^{R}, \tag{19}$$

with the profits of any manufacturing firm located, respectively, in countries *Y*, *X* and *Z* being:

$$\Pi_{Y}^{R} = \Pi_{X}^{R} = \frac{\lambda}{\sigma k} \cdot \left[\frac{2}{2+\tau^{(1-\sigma)}} + \frac{\tau^{(1-\sigma)}}{1+2\tau^{(1-\sigma)}} \right], \tag{20}$$

$$\Pi_{Z}^{R} = \frac{\lambda}{\sigma k} \cdot \left[\frac{1}{1+2\tau^{(1-\sigma)}} + \frac{2\tau^{(1-\sigma)}}{2+\tau^{(1-\sigma)}} \right]. \tag{21}$$

B. The Equilibrium Under Multilateralism

We consider that country *Y* entered the multilateral free trade agreement with both countries *X* and *Z* so that all trade costs applying to trade in manufactured varieties are removed. The aggregate income of laborers and firm owners in any of the countries *Y*, *X* and *Z* are:

$$E_{L}^{FT} = 1, \tag{22}$$

$$E_{F}^{FT} = k\Pi^{FT}, \tag{23}$$

where Π^{FT} are the profits of any manufacturing firm located in any of the countries.

The consumption demand in country *j* for a manufactured variety *i* produced in country *s* is:

$$c_{ij} = \frac{\lambda \cdot p_{s}^{(-\sigma)}}{\left(P_{j}^{FT}\right)^{(1-\sigma)}}, \tag{24}$$

where P_{j}^{FT} is the manufactured composite index price of consumers located in country *j*.

Given that the agricultural sector is perfectly competitive, the price of the agricultural good will be equal to its marginal cost. The typical manufacturing firm located in country s will maximize its profits facing the isoelastic demand expressed in equation (24). Maintaining that β equals $\sigma/(\sigma-1)$, the profit-maximizing producer price of any manufactured variety will be equal to unity.

Under the multilateral free trade agreement, consumers will pay the same unitary price for any unit manufactured variety, either locally produced or imported. So the manufactured composite index price in countries Y, X and Z is:

$$P_Y^{FT} = P_X^{FT} = P_Z^{FT} = (3k)^{\frac{1}{1-\sigma}}. \tag{25}$$

Given equations (1) and (2), the aggregate demands for the composite manufactured good and the agricultural good in countries Y, X and Z are:

$$C_{M,Y}^{FT} = C_{M,X}^{FT} = C_{M,Z}^{FT} = \frac{\lambda}{P_Y^{FT}}, \tag{26}$$

$$C_{A,Y}^{FT} = C_{A,X}^{FT} = C_{A,Z}^{FT} = (1-\lambda) + k\Pi_Y^{FT}, \tag{27}$$

with the profits of any manufacturing firm located in countries Y, X and Z being:

$$\Pi_Y^{FT} = \Pi_X^{FT} = \Pi_Z^{FT} = \frac{\lambda}{\sigma k}. \tag{28}$$

V. THE SOCIALLY OPTIMAL CHOICE

In the absence of political contributions, the policymaker in country Y will choose the trade agreement which maximizes the aggregate social welfare reached in the country, defined in a "utilitarian" way as the sum of the indirect utilities of the agents in the economy. So, the aggregate social welfare that would be reached in country Y if the policymaker decided to enter the regional trade agreement or, alternatively, the multilateral free trade agreement is:

$$\widetilde{W}_Y^R = \lambda^\lambda \cdot (1-\lambda)^{(1-\lambda)} \cdot P_{Y,R}^{(-\lambda)} + k\Pi_Y^R, \tag{29}$$

$$\widetilde{W}_Y^{FT} = \lambda^\lambda \cdot (1-\lambda)^{(1-\lambda)} \cdot P_{Y,FT}^{(-\lambda)} + k\Pi_Y^{FT}. \tag{30}$$

Comparing the aggregate social welfare that would be reached under the two alternative stance of trade policy, we can state the following proposition:

Proposition 1. The aggregate social welfare reached in country Y would be greater under the multilateral free trade agreement than under the regional trade agreement.

Proof. See Mathematical Appendix.

Thus, in the absence of political contributions, the policymaker in country Y would choose to enter the multilateral free trade agreement which configures as the socially optimal choice.

VI. LOBBYING: A PRO-REGIONALISM FORCE

The choice of the policymaker in country Y between entering the regional trade agreement or, alternatively, the multilateral free trade agreement will affect the profits of manufacturing firms located in country Y. First, manufacturing firms would earn greater profits in the local market and in country X's market under the regional trade agreement compared to the multilateral free trade agreement. Notably, consumers located in country Y and X would pay a price τ for varieties from the rest of the world Z under the regional trade agreement, while they would pay a unitary price under the multilateral one. So perceiving country Z's varieties as relatively more expensive under the regional trade agreement, their demand for varieties produced in country Y will be higher under the regional trade agreement.

On the other hand, manufacturing firms located in country Y would earn lower profits in the rest of the world market under the regional trade agreement compared with the multilateral free trade agreement. In fact, consumers located in Z would pay a price τ for any variety imported from country Y under the regional trade agreement, while they would pay a unitary price under the multilateral one so that their demand for country Y's varieties would be lower.

Taking into account these different effects, we can state the following proposition:

Proposition 2. Manufacturing firms located in country Y would earn higher profits under the regional trade agreement than under the multilateral free trade agreement.

Proof. See Mathematical Appendix.

The regional trade agreement would guarantee a higher level of overall profits to any manufacturing firm located in country Y compared with the multilateral free trade agreement since the greater profits in the local and in country X's markets would more than compensate for the lower profits in the rest of the world market Z. Given that manufacturing firms in country Y would earn higher profits if the policymaker decided to enter the regional trade agreement, industrial interests will be in conflict with the socially optimal choice to enter the multilateral free trade agreement. We can state the following corollary:

Corollary 1. The organized interest group constitutes a pro-regionalism force in the policy-making process.

The organized interest group's contribution schedule will comprise two items, D_Y^R and D_Y^{FT}, the political contributions associated with the policymaker's choice to enter the regional trade agreement or, the multilateral free trade agreement, respectively. [12]

[12] It will never be optimal for the interest group to specify a positive contribution for both policy outcomes since then it could cut back equally on both of its offers without affecting the policymaker's choice. In addition, it will not wish to give the policymaker an incentive to choose the trade policy outcome that it is contrary to its own interests. In this regard, see Grossman and Helpman (1995).

Following Grossman-Helpman (1994), we restrict the lobby's contribution schedule to be "truthful" in the Bernheim-Whinston (1986) specification such that the contribution schedule everywhere reflects the true preferences of the organized interest group. The assumption of "truthful" donation contracts implies that the interest group will pay to the policymaker for any stance of trade policy the excess (if any) of the group's gross welfare reached under the specified stance of trade policy relative to some optimally chosen base level of welfare. Labeling the group's gross welfare as V_Y^F and restricting political contributions to be non-negative, the truthful contribution function takes the form: $D_Y = \max\left[0, V_Y^F - B\right]$.

The organized interest group's net welfare will be equal to *B* whenever the group makes a positive contribution. The interest group will wish to make *B* as large as possible, but without inducing the policymaker to choose a policy outcome damaging to the group's own interests. Since there is only one organized interest group in country *Y*, the interaction between the policymaker and the organized interest group configures as a principal-agent problem and the policymaker's voluntary participation constraint can be used to derive *B*. The interest group will then choose *B* to make the policymaker just indifferent between heeding the lobby's interests, and the choice that the policymaker would implement in the absence of any contributions.

So, insofar as the organized interest group's net welfare under the regional trade agreement is at least equal to the level it could have achieved under the socially optimal outcome, the group will offer a positive contribution to the policymaker to enter the regional trade agreement, and a zero contribution otherwise. However, if the organized interest group's net welfare under the regional trade agreement was lower than the level it could have achieved under the socially optimal choice, the interest group's contribution to enter the regional trade agreement would be nil.

VII. THE POLITICAL EQUILIBRIUM

The policymaker in country *Y* will choose between the regional trade agreement and the multilateral free trade agreement in order to maximize its own political support, taking the organized interest group's contribution schedule as given. Using the policymaker's objective function in equation (10), we define as G_Y^R and G_Y^{FT} the political support that the policymaker would achieve under the regional trade agreement or, alternatively, the multilateral free trade agreement. The policymaker's optimal choice of trade policy will be such that the political support achieved, G_Y^*, verifies $G^*_Y = \max\left\{G_Y^R, G_Y^{FT}\right\}$.

The choice of the policymaker in country Y between entering the regional trade agreement or, alternatively, the multilateral free trade agreement, is a political equilibrium that balances pro- and anti-regionalism forces. In fact, the policymaker faces a trade-off between heeding the industrial lobby's interests to enter the regional trade agreement and the socially optimal choice to enter the multilateral free trade agreement. Given the policymaker's political-support maximizing behavior and the lobbying activity of the organized interest group, we can state the following proposition:

Proposition 3. The policymaker in country *Y* will choose to enter the regional trade agreement if, and only if, the following condition, labeled as regionalism condition, is satisfied:

$$a_Y \cdot \left(k\Pi_Y^R - k\Pi_Y^{FT}\right) \geq \left(1 - a_Y\right) \cdot \lambda^{\lambda} \cdot \left(1 - \lambda\right)^{(1-\lambda)} \cdot \left(P_{Y,FT}^{-\lambda} - P_{Y,R}^{-\lambda}\right) \qquad (31)$$

Proof. See Mathematical Appendix.

The policymaker will enter the regional trade agreement if, and only if, the maximum political contribution that the organized interest group would be willing to provide is high enough to at least compensate for the loss of aggregate social welfare that this choice implies, given the extent of the political distortions. In particular, the maximum political contribution that the organized interest group is willing to offer to enter the regional trade agreement is equal to the profit gain that manufacturing firms located in country *Y* would achieve under the regional trade agreement, compared with the multilateral free trade agreement.

If the regionalism condition holds, the maximum contribution that the organized interest group would be willing to provide to the policymaker to enter the regional trade agreement is high enough to at least compensate for the loss in aggregate social welfare. The contribution schedule of the organized interest group will then be $\left[D_Y^R = \frac{1 - a_Y}{2a_Y - 1} \cdot \left(\widetilde{W}_Y^{FT} - \widetilde{W}_Y^R\right), D_Y^{FT} = 0 \right]$ and the policymaker will choose to enter the regional trade agreement. The actual political contribution that the organized interest group will provide to enter the regional trade agreement will be proportional to the loss in aggregate social welfare, and it might be lower than the maximum contribution that the organized group would have been willing to provide.

On the other hand, if the regionalism condition in equation (31) does not hold, the maximum contribution that the organized interest group would be willing to offer to enter the regional trade agreement is not high enough to at least compensate for the loss in aggregate social welfare. The organized interest group's contribution schedule will be then $\left[D_Y^R = 0, D_Y^{FT} = 0\right]$ and the policymaker will choose to enter the multilateral free trade agreement.

Being crucial to assess under which circumstances the regionalism condition may be verified, we can state the following proposition:

Proposition 4. If the political distortions in the policymaking process in country *Y* are strong enough, i.e. $a_Y > a^*$, a level of trade costs, τ^*, exists so that for any $\tau \leq \tau^*$ the policymaker will prefer the regional trade agreement to the multilateral free trade agreement.

Proof. See Mathematical Appendix.

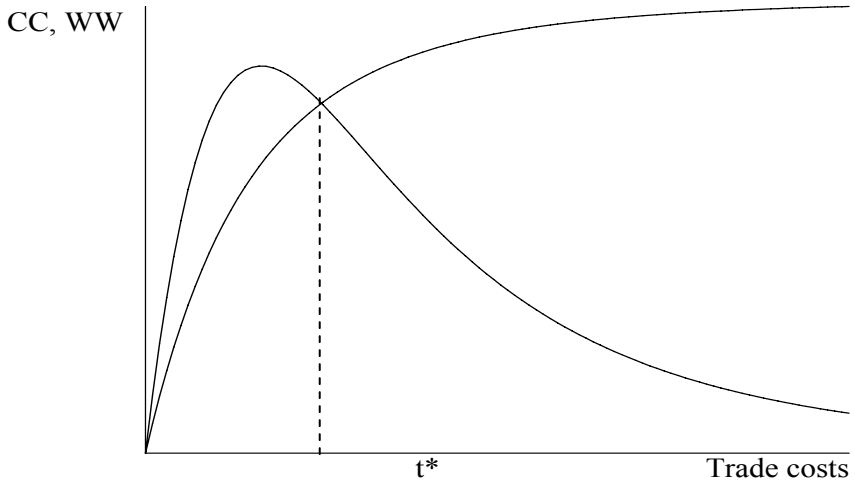
The extent of political distortions and of trade costs remaining between country *Y* and the rest of the world under the regional trade agreement are crucial to determine whether the regionalism condition will be verified. First, the stronger the political distortions, the lower is the political contribution that the organized interest group will have to provide to the policymaker to enter the regional trade agreement. In fact, the lower is the weight that the

policymaker attaches to the implied loss in aggregate social welfare. Second, the maximum contribution that the organized interest group is willing to provide to enter the regional trade agreement and the loss of aggregate social welfare vary with the level of trade costs.

If the political distortions are strong enough, i.e. $a_Y > a^*$, and trade costs are low enough, i.e. $\tau \leq \tau^*$, the maximum contribution that the organized interest group is willing to provide to enter the regional trade agreement will be high enough to compensate for the loss in aggregate social welfare. So, the regionalism condition will be verified and the policymaker will choose to enter the regional trade agreement. However, if trade costs are not low enough, i.e. $\tau > \tau^*$, or political distortions are not strong enough, i.e. $a_Y \leq a^*$, the maximum contribution that the organized interest group is willing to provide will not be high enough to compensate for the loss in aggregate social welfare. The regionalism condition will not be verified and the policymaker will choose to enter the multilateral free trade agreement.

We use graphical analysis to depict the political equilibrium under the assumption that $a_Y > a^*$. In Figure 1, the locus CC plots the left-hand side of the regionalism condition while the locus WW plots its right-hand side. The maximum contribution that the organized interest group would be willing to provide to enter the regional trade agreement is an inverse U-shape function of the level of trade costs. On the other hand, the gain in the aggregate social welfare under the multilateral free trade agreement, compared to the regional agreement, is an increasing function of the level of trade costs. Corresponding with τ^*, at the intersection between the locus CC and the locus WW, the maximum contribution that the organized interest group is willing to provide to enter the regional trade agreement exactly offsets the loss in aggregate social welfare. If the level of trade costs is such that $\tau \leq \tau^*$, the policymaker will choose to enter the regional trade agreement. However, if the level of trade costs is such that $\tau > \tau^*$, the policymaker will choose to enter the multilateral free trade agreement.

Figure 1. The Regionalism Condition



VIII. Is Regionalism Bad for Multilateralism?

A relevant body of the literature has investigated whether regionalism may be a faster way to reach multilateralism or, rather, hurt multilateral liberalization. Our model provides useful insights on how the decision to enter a regional trade agreement may affect the incentives to move to multilateral trade liberalization.

For the rest of the analysis, we assume that the regionalism condition in equation (31) is satisfied so that a politically supported regional trade agreement is in place between countries *Y* and *X*. Within this framework, we investigate the incentives for the policymaker in country *Y* to choose between moving to a multilateral free trade agreement with country *Z* or remaining in the regional trade agreement with country *X*. In this regard, entering the multilateral agreement would eliminate all trade costs on international trade in manufactured varieties.

It follows from our previous results that moving to the multilateral free trade agreement with country *Z* is the socially optimal choice (from Proposition 1) while the organized interest group favors remaining in the regional trade agreement with country *X* (from Proposition 2). Assuming the extent of distortions in the policymaking process to be unchanged, since the regionalism condition is satisfied, the policymaker in country *Y* will choose to remain in the regional trade agreement. In fact, the interest group will provide a political contribution to remain in the regional trade agreement such as to compensate for the loss in aggregate social welfare. Thus, the initial choice of entering the regional trade agreement implies that subsequent multilateral trade liberalization will no longer be pursued since the policymaker will have no incentives to move from the regional trade agreement. We can then state the following proposition:

Proposition 5. Regionalism crucially affects the incentives for multilateralism: multilateral trade liberalization that would have been otherwise feasible is rendered infeasible by a politically supported regional trade agreement.

Proof. See Mathematical Appendix.

Before the regional trade agreement, multilateral liberalization would have been feasible since the policymaker would have chosen to enter the multilateral free trade agreement rather than remain in the initial *status quo*. Entering the multilateral agreement would have left manufacturing firms' overall profits unchanged since their profits loss in the local market would have been offset by the profits gains in countries *X* and *Z*'s markets. Being indifferent between entering the multilateral free trade agreement and remaining in the status quo, the organized interest group would not have engaged in lobbying activity to affect the policymaker's choice. So, with political contributions being nil, the policymaker in country *Y* would have chosen the social optimum, i.e., entering the multilateral free trade agreement.

However, after entering the regional trade agreement, moving to the multilateral free trade agreement would lead to an overall profits loss for manufactured firms located in country *Y*. In fact, while the profits gain in country *Z*'s market would be the same, profits earned in country *X*'s market would fall since firms would loose their preferential access to the market. The organized interest group would then provide political contributions to the policymaker to remain in the regional trade agreement. Thus, once a politically supported regional trade agreement is in place, industrial interests would operate as an anti-multilateralism force rendering multilateral liberalization infeasible.

IX. QUANTITATIVE ANALYSIS

We simulate our theoretical model under different values of the parameters in order to depict the policymaker's choice between entering the regional trade agreement or, alternatively, the multilateral free trade agreement. We summarize our results in Table 1.

In the baseline case, we choose an elasticity of substitution of 5 in order to be in the middle of the range of estimates provided in Broda and Weinstein (2004) and Anderson and van Wincoop (2004), but we also experiment with values of 4 and 10 to cover the range of their empirical estimates.[13] Furthermore, in the baseline case, the share of the manufactured good in laborers' utility function is chosen to be equal to 0.4 to be in line with the value commonly used in the trade literature, as for example in Fujita, Krugman and Venables (1999), but we also provide simulations for the higher value of 0.6 and lower value of 0.3.[14]

Focusing on the baseline case, our simulation analysis shows that if the political distortions are strong enough, i.e. $a > a^* = 0.78$, and if trade costs are low enough, i.e. $\tau \leq \tau^* = 1.06$, the policymaker will choose to enter the regional trade agreement. However, if political distortions are such that $a > a^* = 0.78$, but trade costs are not low enough, i.e. $\tau > \tau^* = 1.06$, or if political distortions are such that $a \leq a^* = 0.78$, the policymaker will then choose to enter the multilateral agreement leading to free trade.

[13] Broda and Weinstein (2004) estimated that the average elasticity of substitution in the U.S. for the period 1990–2001 was around eight for 10-digit goods, around five for 5-digit goods, and about four for 3-digit goods. Anderson and van Wincoop (2004) provided a survey of the empirical estimates of the elasticity of substitution in the trade literature, and showed that it is likely to be in the range of four to ten.

[14] See Head and Mayer (2004) and Martin and Rey (2005).

Table 1. Simulations of the Policymaker's Choice

	σ	λ	α*	τ*	**Policymaker's choice**
Baseline	5	0.4	0.78	1.06	Regionalism if τ lower or equal to 1.06
Baseline	5	0.4	0.78	1.06	Multilateralism otherwise
Lower σ	4	0.4	0.82	1.09	Regionalism if τ lower or equal to 1.09
Lower σ	4	0.4	0.82	1.09	Multilateralism otherwise
Higher σ	10	0.4	0.69	1.01	Regionalism if τ lower or equal to 1.01
Higher σ	10	0.4	0.69	1.01	Multilateralism otherwise
Lower λ	5	0.3	0.76	1.03	Regionalism if τ lower or equal to 1.03
Lower λ	5	0.3	0.76	1.03	Multilateralism otherwise
Higher λ	5	0.6	0.82	1.02	Regionalism if τ lower or equal to 1.02
Higher λ	5	0.6	0.82	1.02	Multilateralism otherwise

X. CONCLUSIONS

This paper has provided a political economy analysis of the incentives underpinning a country's decision to enter a regional trade agreement when a multilateral free trade agreement is available, and the implications of embracing regionalism for the incentives to pursue multilateral trade liberalization. We developed a model in which a country has to choose between entering a regional trade agreement or a multilateral free trade agreement. Assuming that the policymaker designs its trade policy taking into account not only aggregate social welfare but also the pressure applied by industrial interests, we formalized the choice between the two alternative trade agreements.

Our analysis highlighted that the policymaker faces a trade-off in its choice of trade policy since the organized industrial interest group will provide political contributions to enter the regional trade agreement, while a higher aggregate social welfare could be achieved under the multilateral free trade agreement. In particular, we derived a formal condition under which the regional trade agreement will be preferred to the multilateral free trade agreement, showing that the policymaker's choice is a political equilibrium that balances pro-regionalism and pro-multilateralism forces.

We pointed out that the policymaker will choose to enter the regional trade agreement if the political contribution the interest group is willing to provide at least offsets the loss in the aggregate social welfare. Specifically, we showed that if the distortions in the policymaking process are sufficiently strong and trade barriers against non members are sufficiently low, the regional trade agreement will be preferred to the multilateral free trade agreement. So, we concluded that a country's decision to enter a regional trade agreement when a multilateral free trade agreement is available, is driven by the extent of distortions in the policy making process, the lobbying activity of the organized industrial interest group, and the extent of trade barriers.

Finally, we formalized the implications of a country's decision to enter a regional trade agreement for the incentives to pursue further trade liberalization on a multilateral base. In this regard, we showed that embracing regionalism crucially undermines the incentives for further multilateral trade liberalization. We pointed out that entering a politically supported regional trade agreement renders infeasible multilateral trade liberalization that would have been otherwise feasible. In fact, when a country enters a regional trade agreement, preferential access to its partners' market is acquired which favors industrial interests. As a result, the organized industrial interest group will lobby against subsequently moving to a multilateral free trade agreement in order to maintain the country's preferential partner status guaranteed by the regional trade agreement. Owing to organized interest group's anti-multilateralism lobbying activity, the policymaker will have then no incentives to move from the regional trade agreement and multilateral trade liberalization will no longer be pursued.

MATHEMATICAL APPENDIX

A. Derivation of the Aggregate Social Welfare

The aggregate social welfare reached in country Y is the sum of the indirect utilities of laborers and firm owners in the economy under the two alternative options of trade policy, it would be:

$$\widetilde{W}_Y^R = V_Y^{L,R} + V_Y^{F,R},$$
$$\widetilde{W}_Y^{FT} = V_Y^{L,FT} + V_Y^{F,FT},$$

where $V_Y^{L,R}$ and $V_Y^{F,R}$, are, respectively, laborers' and firm owners' aggregate indirect utility under the regional trade agreement, while $V_Y^{L,FT}$, and $V_Y^{F,FT}$ are laborers and firm owners' aggregate indirect utility under the multilateral trade agreement.

Laborers' consumption of the agricultural good and the composite manufactured good under the regional trade agreement would be:

$$C_{A,L}^R = (1-\lambda),$$
$$C_{M,L}^R = \frac{\lambda}{P_Y^R}.$$

On the other hand, their consumption of the agricultural good and of the composite manufactured good under the multilateral trade agreement would be:

$$C_{A,L}^{FT} = (1-\lambda),$$
$$C_{M,L}^{FT} = \frac{\lambda}{P_Y^{FT}}.$$

It follows that laborers' aggregate indirect utility that would be reached under the regional trade agreement or, alternatively, under the multilateral free trade agreement is:

$$V_Y^{L,R} = (1-\lambda)^{(1-\lambda)} \cdot \left(\frac{\lambda}{P_Y^R}\right)^{\lambda},$$
$$V_Y^{L,FT} = (1-\lambda)^{(1-\lambda)} \cdot \left(\frac{\lambda}{P_Y^{FT}}\right)^{\lambda}.$$

Having assumed ϕ to be zero, firms owners' consumption of the agricultural good under the two alternative options of trade policy would be:

$$C_{A,F}^{R} = k\Pi_{Y}^{R},$$
$$C_{A,F}^{FT} = k\Pi_{Y}^{FT}.$$

It follows that firm owners' aggregate indirect utility under the regional trade agreement and, alternatively, under the multilateral free trade agreement, would be given by:

$$V_{Y}^{F,R} = k\Pi_{Y}^{R},$$
$$V_{Y}^{F,FT} = k\Pi_{Y}^{FT}.$$

We have then that the aggregate social welfare that would be reached in country *Y* under the regional trade agreement or, alternatively, the multilateral free trade agreement is:

$$\widetilde{W}_{Y}^{R} = \lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot P_{Y,R}^{(-\lambda)} + k\Pi_{Y}^{R},$$
$$\widetilde{W}_{Y}^{FT} = \lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot P_{Y,FT}^{(-\lambda)} + k\Pi_{Y}^{FT}.$$

B. Proof of Proposition 1

Given equations (14), (20), (25), (28),(29) and (30), the difference between the aggregate social welfare that would be reached in country Y under the two alternative trade policy stances is:

$$\widetilde{W}_{Y}^{FT} - \widetilde{W}_{Y}^{R} = \lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot k^{\frac{\lambda}{\sigma-1}} \cdot \left\{ 3^{\frac{\lambda}{\sigma-1}} - \left[2+\tau^{(1-\sigma)}\right]^{\frac{\lambda}{\sigma-1}} \right\} + \frac{\lambda}{\sigma} \cdot \left[1 - \frac{2}{2+\tau^{(1-\sigma)}} - \frac{\tau^{(1-\sigma)}}{1+2\tau^{(1-\sigma)}} \right].$$

The first order derivative of the above welfare differential with respect to τ is:

$$\frac{\partial\left(\widetilde{W}_{Y}^{FT} - \widetilde{W}_{Y}^{R}\right)}{\partial\tau} = \lambda^{1+\lambda} \cdot (1-\lambda)^{(1-\lambda)} k^{\frac{\lambda}{\sigma-1}} \cdot \left[2+\tau^{(1-\sigma)}\right]^{\frac{\lambda}{\sigma-1}-1} \cdot (\sigma-1)\tau^{(-\sigma)} - \frac{\lambda}{\sigma}\left[\frac{2(\sigma-1)\tau^{(-\sigma)}}{\left[1+2\tau^{(1-\sigma)}\right]^{2}} + \frac{(1-\sigma)\tau^{(-\sigma)}}{\left[2+\tau^{(1-\sigma)}\right]^{2}} \right].$$

After some manipulations, we have that a sufficient condition for the above derivative to be positive is that $\sigma > \frac{1}{1-\lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)}}$, i.e. the elasticity of substitution does not assume excessively low values. Assuming this condition to be verified, since the welfare differential is zero for τ equal to unity and the first order derivative with respect to τ is positive, the aggregate social welfare in country *Y* will be greater under the multilateral free trade agreement than under the regional trade agreement.

C. Proof of Proposition 2

Given equations (20) and (28), the difference between the profits that a typical manufacturing firm located in country *Y* would achieve under the regional trade agreement and under the multilateral free trade agreement, can be expressed as:

$$\Pi_Y^R - \Pi_Y^{FT} = \frac{\lambda}{\sigma k} \cdot \left[\frac{2}{2+\tau^{(1-\sigma)}} + \frac{\tau^{(1-\sigma)}}{1+2\tau^{(1-\sigma)}} - 1 \right].$$

After some manipulations, the above differential will be positive if $\left(1-\tau^{(1-\sigma)}\right) > 0$. Given that $\tau > 1$ and $\sigma > 1$, the above inequality is always satisfied.

D. Proof of Proposition 3

For the policymaker in country *Y* to heed the organized group's interests, the lobby has to offer a political contribution that makes the policymaker just indifferent between choosing to enter the regional trade agreement and the choice that would be made in the absence of any political contribution. Given the policymaker's objective function in equation (14), this implies:

$$a_Y \cdot D_Y^R + \left(1-a_Y\right) \cdot W_Y^R = \left(1-a_Y\right) \cdot \widetilde{W}_Y^{FT}.$$

Given the policymaker's voluntary participation constraint, the political contribution that the organized interest group has to provide for the policymaker to choose the regional trade agreement is:

$$D_Y^R = \frac{\left(1-a_Y\right)}{2a_Y - 1} \cdot \left(\widetilde{W}_Y^{FT} - \widetilde{W}_Y^R\right).$$

This would imply that the interest group's net welfare is:

$$B = k\Pi_Y^R - \frac{\left(1-a_Y\right)}{2a_Y - 1} \cdot \left(\widetilde{W}_Y^{FT} - \widetilde{W}_Y^R\right).$$

Considering the interest group's incentives, the lobby will offer the required contribution to enter the regional trade agreement insofar as the resulting group's net welfare is at least equal to the welfare it would have obtained under the socially optimal choice, i.e.:

$$k\Pi_Y^R - \frac{\left(1-a_Y\right)}{2a_Y - 1} \cdot \left(\widetilde{W}_Y^{FT} - \widetilde{W}_Y^R\right) \geq k\Pi_Y^{FT}.$$

If this condition is satisfied, the lobby will offer the required political contribution for the policymaker to enter the regional trade agreement. However, if it is not verified, the lobby will contribute nothing since the contribution that would be required for the policymaker to heed the group's interest would imply a group's net welfare lower than it could have been

otherwise. Rearranging the above condition, the policymaker will choose to enter the regional trade agreement if and only if:

$$a_Y \cdot \left(\Pi_Y^R - \Pi_Y^{FT}\right) \geq \left(1 - a_Y\right) \cdot \lambda^{\lambda} \left(1-\lambda\right)^{(1-\lambda)} \left(P_{FT}^{-\lambda} - P_R^{-\lambda}\right)$$

E. Proof of Proposition 4

The left-hand and right-hand side of the regionalism condition expressed in (31), labeled as $CC(\tau)$ and $WW(\tau)$, respectively, are continuous functions of τ, being defined for $\tau \in (1, \infty]$. Given that $CC(\tau)$ and $WW(\tau)$ are positive for any τ, $\lim_{\tau \to 1} CC(\tau)$ and $\lim_{\tau \to 1} WW(\tau)$ are equal to zero, and $\lim_{\tau \to \infty} CC(\tau) < \lim_{\tau \to \infty} WW(\tau)$, if $\lim_{\tau \to 1} \frac{\partial[CC(\tau)]}{\partial \tau} > \lim_{\tau \to 1} \frac{\partial[WW(\tau)]}{\partial \tau}$, then a level of trade costs τ^* exists for which $CC(\tau^*) = WW(\tau^*)$. In addition, since $\frac{\partial[WW(\tau)]}{\partial \tau} > 0$ and $\frac{\partial^2[WW(\tau)]}{\partial^2 \tau} < 0$ for any τ, and $CC(\tau)$ can be shown to have a global maximum on $\tau \in (1, \infty]$, τ^* will be unique.

After some manipulations, given equations (15), (20), (25) and (28), we have that $\lim_{\tau \to 1} \frac{\partial[CC(\tau)]}{\partial \tau} > \lim_{\tau \to 1} \frac{\partial[WW(\tau)]}{\partial \tau}$, if the following condition is verified:

$$a_Y > a_Y^* = \frac{\lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot k^{\frac{\lambda}{\sigma-1}} \cdot 3^{\left(1+\frac{\lambda}{\sigma-1}\right)}}{\frac{1}{\sigma} \cdot (\sigma - 1) + \lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot k^{\frac{\lambda}{\sigma-1}} \cdot 3^{\left(1+\frac{\lambda}{\sigma-1}\right)}}.$$

So if the political distortions in the policy making process are strong enough to satisfy the above condition, a level of trade costs, τ^* exists so that for any $\tau \leq \tau^*$ the regionalism condition is verified.

F. Proof of Proposition 5

Given equations (6), (9), (25) and (28), the difference between the aggregate social welfare that would be reached in country *Y* under the multilateral free trade agreement and under the initial *status quo* is:

$$\widetilde{W}_Y^{FT} - \widetilde{W}_Y^0 = \lambda^{\lambda} \cdot (1-\lambda)^{(1-\lambda)} \cdot k^{\frac{\lambda}{\sigma-1}} \cdot \left\{ 3^{\frac{\lambda}{\sigma-1}} - \left[1 + 2\tau^{(1-\sigma)}\right]^{\frac{\lambda}{\sigma-1}} \right\}.$$

With $\tau > 1$, the aggregate social welfare in country *Y* will always be greater under the multilateral free trade agreement than in the initial *status quo*.

Since manufacturing firms' profits are the same under the initial *status quo* and the multilateral agreement, the interest group's contribution schedule will be $\left[D_Y^0 = 0, D_Y^{FT} = 0\right]$. It follows that, before the regional trade agreement, multilateral liberalization would be feasible. In fact, with $\widetilde{W}_Y^{FT} > \widetilde{W}_Y^0$, the policymaker in country *Y* would choose to enter the multilateral free trade agreement rather than remain in the initial *status quo*.

After the regional trade agreement, manufacturing firms' profits would be higher under the regional trade agreement than the multilateral free trade agreement (Proposition 2). With the regionalism condition satisfied, the interest group's contribution schedule will be $\left[D_Y^R = \frac{1-a_Y}{2a_Y - 1} \cdot \left(\widetilde{W}_Y^{FT} - \widetilde{W}_Y^R\right), D_Y^{FT} = 0\right]$, so that the policymaker will choose to remain in the regional trade agreement.

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