



UNIVERSITY OF
CAMBRIDGE

Cambridge Working Papers in Economics

To Ban or Not to Ban: Foreign Lobbying and
Cross National Externalities

Toke Aidt and Uk Hwang

CWPE 1402

To Ban or Not to Ban: Foreign Lobbying and Cross National Externalities

Toke Aidt and Uk Hwang

January 2014

CWPE 1402

To Ban or Not to Ban: Foreign Lobbying and Cross National Externalities

Toke S. Aidt*

Faculty of Economics, University of Cambridge

Uk Hwang

School of Economics and Trade, Kyungpook National University

March 11, 2013

Abstract

This paper studies the costs and benefits of foreign lobbying. We show how and when foreign lobbying can help internalize cross national externalities. We argue that this is an often overlooked benefit of foreign lobbying. We also study under what conditions a constitutional rule banning foreign lobbying is in the national interest of a country. A key factor in this calculus is whether the interests of foreign lobby groups and domestic unorganized groups coincide or not. We illustrate the logic with examples from trade policy and environmental regulation.

JEL classification: D62; D72.

*Lead footnote: Jesus College, Cambridge, and CESifo, Munich. E-mail: tsa23@cam.ac.uk.

1 Introduction

Legal restrictions on lobbying by foreign lobby groups are common. For example, in the United States, the 1974 amendment to the Federal Election Campaign Act prohibits contributions by foreign nationals to Federal, state, or local elections. Although many loopholes exist, the intention is clearly to curtail the influence of foreign special interests. IDEA (2011) lists 41 other countries with bans or other forms of restrictions on foreign donations to political parties. This includes the United Kingdom, France, Brazil, Canada, and Argentina. Examples of countries which do not impose such bans include Australia, Columbia and Denmark.

The concern that advocates of restrictions on foreign lobbying often express is that foreign lobbying subverts the goals of democracy and undermine the legitimacy of government (Savrin 1988; Powell 1996). The counter-argument proposed in this paper is that foreign interests often have a legitimate stake in domestic policy making. This is because policy choices made by one country affect the welfare of citizens and firms of other countries. Examples of this include environmental policy, trade policy, and regulation of labor standards as well as fiscal and monetary policy. A potential benefit of allowing foreign lobbying is that it can help internalize such cross national externalities. This argument in favor of foreign lobbying is, we believe, important, and as shown, for example, by Gawande, Krishna, and Robbins (2006), Kee, Olarreaga, and Silva (2007) and Gawande, Maloney, and Rojas (2009), of empirical relevance.

The purpose of this paper is two-fold. The first objective is to give the externality argument in favor of foreign lobbying a proper welfare-theoretical underpinning and to

explore its limitations. To this end, we build on work by Grossman and Helpman (1995), Prat and Rustichini (2003), Damania and Fredriksson (2007), Fredriksson and Millimet (2007) and Aidt and Hwang (2008) on common agency models with many principals and many agents. We show that foreign lobbying can maximize world social welfare if all interest groups in all countries are organized in lobby groups *and* all governments are equally receptive to campaign contributions or bribes. Neither of these ideal conditions are satisfied in practice. Olson (1965) has taught us why many social groups are unable to overcome the collective action problem and therefore remain unorganized.¹ A large body of empirical research into the causes and consequences of corruption demonstrates large cross national differences in the cost of buying influence on government policy. This weakens the externality argument in favor of foreign lobbying, but does not eliminate it. As long as cross-national externalities are left uninternalized in the presence of bans on foreign lobbying and corruption differences are not too large, lifting such bans increases world social welfare also under more realistic conditions.

The second objective of the paper is, in the tradition of Brannan and Buchanan (1980), to study the costs and benefits of constitutional rules aimed at regulating foreign lobbying. This brings to the forefront the trade off between internalization of cross national externalities and loss of democratic legitimacy. We focus the analysis on trade protection and regulation of environmental externalities and ask in each case whether it is in the national interest to ban foreign lobbying. It transpires that the degree of interest alignment between unorganized social groups within a country and foreign lobby groups is an important factor. In the presence of such alignment, it is, typically, not

in the national interest to ban foreign lobbying. The reason is that foreign lobbying corrects a pre-existing bias in domestic policy making against domestic unorganized groups. In the absence of such alignment, a ban on foreign lobbying may or may not be in the national interest. In this case, the constitutional choice involves a trade off between the benefits of internalizing cross national externalities and exacerbating the pre-existing distortion of domestic policy choices. Another insight that flows from the analysis is that it may be in the interest of a country to open up for foreign lobbying even if policy choices in other countries are of no consequence to social groups in that country.

Section 2 discusses the related literature. Section 3 introduces the model. Section 4 compares equilibrium outcomes with and without a ban on foreign lobbying. Section 5 analyzes the merits of a constitutional ban on foreign lobbying. Section 6, concludes.

2 Related literature

Our focus is on the relationship between foreign lobbying and policy externalities. Foreign lobbying also plays a leading role in the theories developed by Gawande, Krishna, and Robbins (2006) and Kee, Olarreaga, and Silva (2007). They study how foreign firms, through active lobbying of the government of another country, can reduce import tariffs for their own industry or buy preferential market access abroad. Our analysis of foreign lobbying is more general in two regards. First, it recognizes that lobby groups, typically, operate in many different countries at the same time and not just in one. Second, it takes into account that foreign agents often are affected by policy actions implemented

in other countries even if they are not directly engaged in economic activities in those countries. Lobbying also plays a key role in internalizing cross national externalities in Conconi (2003) and Aidt and Hwang (2008). However, the emphasis in these papers is on international cooperation between lobby groups in different countries and not on foreign lobbying as such. As a consequence, both are silent on the important question of constitutional rules to restrict foreign lobbying.

In a related paper, Antràs and Padró i Miquel (2011) stress, as we do here, that foreign influence can be welfare enhancing by internalizing cross national policy externalities. They, however, focus on electoral politics and assume that incumbent politicians in a foreign country can take a costly action that affects the election outcome in another country. In contrast, we focus on lobbying by foreign special interest groups and are interested in the question of bans on such activities. Long and Stahler (2009) study the consequences of allowing foreign firms to enter a rent-seeking contest in which government procurement contracts are allocated. They argue that a benefit of foreign lobbying is that it reduces wasteful domestic rent seeking. Our analysis is fundamentally different from this. We stress the role of cross national externalities and show that in the absence of such externalities, foreign lobbying is inconsequential for policy outcomes. Thirdly, Aidt and Albornoz (2011), Bonfatti (2011), and Albornoz, Galiani, and Heymann (2012) study the incentive of a foreign government to seek influence on the political regime of another country. In contrast, we study the influence of special interests on the policy actions taken by a foreign government within a given political regime.

3 The model

We consider a world populated by social groups and policy makers. The set of social groups is M with $m \in M$ and the set of policy makers is N with $n \in N$. Both sets are finite and discrete and have cardinality $|M|$ and $|N|$, respectively. Policy maker n takes a single policy action $x_n \in R$. The payoff function of social group m is $y_m + u^m(x)$, where y_m is money and $u^m(x)$ is a differentiable, strictly concave and single peaked function of the policy actions taken by *all* the policy makers, i.e., $x = (x_n)_{n \in N}$.

A social group is either organized as a lobby group or unorganized. The set of lobby groups is M^O and the set of unorganized social groups is M^U with $M^O \cup M^U = M$. The cardinality of M^U and M^O are $|M^U|$ and $|M^O|$, respectively. The lobby groups offer campaign contributions to the policy makers to influence their policy actions, but may face restrictions on whom they are allowed to offer these contributions to. Unorganized groups cannot, by assumption, offer contributions to any policy maker. The contribution schedule offered to policy maker n by group m is $C_m^n(x_n; x_{-n})$. The contribution schedules are differentiable and specify a particular payment to be made to policy maker n if he takes policy action x_n . The payment offered to a particular policy maker for action x_n may *indirectly* depend on the policy actions taken by the other policy makers, $x_{-n} = (x_k)_{k \in N, k \neq n}$. This interdependency arises naturally in many contexts. Suppose, for instance, that the policy actions are environmental taxes implemented in different jurisdictions and marginal environmental damage is a function of all taxes. Then, the marginal value to an environmental lobby group of an increase in the tax in one jurisdiction depends on the taxes implemented in the others.

Policy maker n cares about the contributions that he collects from the lobby groups and about the welfare of all the social groups located within his jurisdiction (see below). We denote the later by $W_n(x)$ and let $\theta_n \geq 0$ be the weight attached by policy maker n to social welfare relative to contributions. As in Fredriksson and Svensson (2003), we interpret θ_n as an inverse measure of corruption in jurisdiction n . The relationship between the policy makers and the lobby groups is modelled as an agency game. The game has two stages. In the first stage, given the constitutional constraints on the types of contributions that are allowed, each lobby group offers contribution schedules to the policy makers taking the schedules offered by the other lobby groups as given. In the second stage, each policy maker implements the policy action that maximizes its objective function taking as given the policy actions of the other policy makers.

To focus on the question of foreign lobbying, we let each policy maker represents a national government and partition the set of social groups into $|N|$ disjoint sets, with $M = \cup_{n \in N} M_n$. The set M_n is the set of social groups located in country n . This set is further partitioned into organized and unorganized groups where $M_n = M_n^O \cup M_n^U$. Each country has at least one lobby group. The social welfare function of country n is

$$W_n(x) = \sum_{m \in M_n} u^m(x) + Y_n, \quad (1)$$

where Y_n is national income in country n . Since the payoff of each social group depends on the entire vector of policy actions, the policy action taken by any given government potentially affects the welfare of all groups in all countries. Consequently, the policy actions produce cross national externalities.

4 To ban or not to ban

The benchmark for our analysis is the policy vector that maximizes global social welfare (GSW). This is defined as the sum of the welfare of all social groups, whether organized or not, in all countries:

$$(x_n^*)_{n \in N} = \arg \max_{(x_n)_{n \in N}} \sum_{n \in N} \sum_{m \in M_n} u^m(x). \quad (2)$$

The outcome in political equilibrium may differ from this for two reasons. Firstly, lobbying may distort the policy vector in favor of the organized groups. Secondly, the individual policy makers may fail to internalize the global impact of their policy actions. We compare two scenarios: one with a ban on foreign lobbying and one without.

4.1 Ban on foreign lobbying

In this scenario, the national lobby groups can offer contribution schedules only to their own government. Formally, if $m \notin M_n^O$, then $C_m^c(x_n; x_{-n}) \equiv 0$. The game between the national lobby groups and their government is a common agency game. Using the equilibrium characterization provided for this case by Grossman and Helpman (1995), we can state (without proof) the following result.²

Proposition 1 (*Ban on foreign lobbying*). *The equilibrium policy vector is $(\tilde{x}_n)_{n \in N}$ where*

$$\tilde{x}_n = \arg \max_{x_n} \theta_n \sum_{m \in M_n} u^m(x_n, \tilde{x}_{-n}) + \sum_{m \in M_n^O} u^m(x_n, \tilde{x}_{-n}) \text{ for all } n \in N. \quad (3)$$

If $\frac{\partial u^m}{\partial x_n} \neq 0$ for some $m \notin M_n$ and/or $M_n^U \neq \emptyset$, then $(\tilde{x}_n)_{n \in N} \neq \{x_n^\}_{n \in N}$.*

With a ban on foreign lobbying, each policy action is chosen in isolation. It maximizes the sum of the payoff of the government responsible for the action and the national lobby groups, taking as given the policy actions of the other governments. As a consequence, the cross national externalities are not internalized. On top of this, unless all social groups in the country are organized, the policy action is biased in favor of the organized social groups. The equilibrium policy outcome is, in general, inefficient from a global point of view.

4.2 No ban on foreign lobbying

In this scenario, the lobby groups can offer contributions to all governments. Formally, the game between the governments and the lobby groups becomes a multiple principal, multiple agent game. Prat and Rustichini (1999, 2003) provide an equilibrium characterization that we adopt. As mentioned above, the contribution schedule offered to a particular government may depend indirectly on the policy actions taken by other governments. This complicates the equilibrium characterization. Suppose, however, that each government only observes the contribution schedules offered to itself and that its beliefs about the contribution schedules offered to the other governments do not depend on the offers it receives itself. Under these two assumptions, Prat and Rustichini (1999, Theorem 8) show that the following equilibrium characterization applies.

Lemma 1 *A pair $((\widehat{C}_m^n)_{n \in N, m \in M}, \widehat{x})$, consisting of a vector of feasible non-negative contribution schedules and a vector of policy actions, constitutes a pure strategy equilibrium outcome of the agency game without bans on foreign lobbying if and only if the following*

three conditions hold:

(AM) For all $n \in N$ and $x_n \in R$,

$$\hat{x}_n = \arg \max_{x_n} \theta_n W_n(x_n; \hat{x}_{-n}) + \sum_{m \in M^O} \hat{C}_m^m(x_n; \hat{x}_{-n}) \quad (4)$$

(IC) For every $m \in M^O$ and $x \in R^{|N|}$

$$\begin{aligned} \hat{x} = & \arg \max_x u^m(x_n, x_{-n}) + \\ & \sum_{n \in N} \left[\theta_n W_n(x_n, x_{-n}) + \sum_{j \in M^O, j \neq m} \hat{C}_j^n(x_n; x_{-n}) \right] \end{aligned} \quad (5)$$

(CM) For every $m \in M^O$ and $n \in N$

$$\begin{aligned} & \theta_n W_n(\hat{x}_n, \hat{x}_{-n}) + \sum_{m \in M^O} \hat{C}_m^m(\hat{x}_n; \hat{x}_{-n}) \\ = & \max_{x_n} \theta_n W_n(x_n, \hat{x}_{-n}) + \sum_{j \in M^O, j \neq m} \hat{C}_j^m(x_n; \hat{x}_{-n}) \end{aligned} \quad (6)$$

The first condition, agent maximization (AM), requires that each government selects the optimal policy action given the contribution schedules offered to it and given the equilibrium actions of the other governments. The second condition, incentive compatibility (IC), requires that a lobby group m cannot find contribution schedules that yield higher payoffs than its equilibrium schedules given the equilibrium contribution schedules of the other lobby groups. An implication of this is that the vector of equilibrium policy actions must maximize the joint surplus of each lobby group and the collective of all governments. The third condition is a cost minimization condition (CM). It requires that the equilibrium contribution schedules are such that no lobby group can get the equilibrium policy vector implemented at lower cost.

Condition (IC) implies that \hat{x} must satisfy

$$\begin{aligned} & \frac{\partial u^m(\hat{x})}{\partial x_n} + \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} + \sum_{j \in M^O, j \neq m} \frac{\partial \hat{C}_j^n(\hat{x}_n; \hat{x}_{-n})}{\partial x_n} + \sum_{k \in N, k \neq n} \sum_{j \in M^O, j \neq m} \frac{\partial \hat{C}_j^k(\hat{x}_k; \hat{x}_{-k})}{\partial x_n} \\ = & 0 \end{aligned} \quad (7)$$

for all $m \in M^O$ and $n \in N$. Adding these conditions up over $m \in M^O$, we get

$$\begin{aligned} & \sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} + (|M^O| - 1) \sum_{j \in M^O} \frac{\partial \hat{C}_j^n(\hat{x}_n; \hat{x}_{-n})}{\partial x_n} \\ & + (|M^O| - 1) \sum_{k \in N, k \neq n} \sum_{j \in M^O} \frac{\partial \hat{C}_j^k(\hat{x}_k; \hat{x}_{-k})}{\partial x_n} + |M^O| \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} \\ = & 0 \end{aligned} \quad (8)$$

for all $n \in N$. Since $\max_{x_n} \sum_{j \in M^O, j \neq m} \hat{C}_j^n(x_n; \hat{x}_{-n}) + \theta_n W_n(x_n, \hat{x}_{-n})$ is a constant, condition (CM) implies that

$$\theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} + \sum_{m \in M^O} \frac{\partial \hat{C}_m^k(x_k; \hat{x}_{-k})}{\partial x_n} = 0 \text{ for all } k \in N. \quad (9)$$

Given that, equation (8) reduces, as shown in Appendix A.1., to

$$\sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} + \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N, \quad (10)$$

We observe that the equilibrium policy choice in country n , x_n , is governed by two considerations. Firstly, all organized groups, whether foreign or domestic, get extra weight in the calculus according to the marginal externality the policy choice imposes on them. This is intuitive and reflects the fact that they can lobby the government in country n . Secondly, the marginal impact on social welfare, not only in country n , but in *all* countries get reflected in the choice of x_n . This, in particular, means that the welfare effect on *unorganized* groups in other countries than country n is taken into account.

This is surprising at first since these groups do not, by assumption, offer contributions to any government. The reason their welfare nevertheless gets counted is that the lobby groups must compensate the governments from which they seek concessions for the (marginal) loss in social welfare associated with giving it. This size of the ‘compensation’ depends partly on the welfare cost imposed on unorganized groups. This, in turn, depends on the policy choices made elsewhere. Accordingly, by making sure that policy choices are more to the likening of unorganized groups everywhere, the lobby groups can, as also emphasized in Aidt (2010), at the margin lower the ‘price’ they have to pay for a given change in policy in a particular country. Using equation (10), we can state the first main result of the paper.

Proposition 2 (*Globally Optimal Foreign Lobbying*) *Suppose that all social groups are organized, i.e., $M^U = \emptyset$, and that all governments are equally corrupt, i.e., $\theta_n = \theta > 0$ for all n . The equilibrium policy vector with foreign lobbying, $(\hat{x}_n)_{n \in N}$, internalizes all cross national externalities and is equal to the policy vector that maximizes global social welfare, i.e., $(\hat{x}_n)_{n \in N} = \{x_n^*\}_{n \in N}$.*

Proof. $M^U = \emptyset$ implies that we can write equation (10) as

$$\sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} + \sum_{m \in M} \frac{\partial u^m(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N. \quad (11)$$

Expanding this equation, we get

$$\sum_{k \in N} (1 + \theta_k) \sum_{m \in M_k} \frac{\partial u^m(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N, \quad (12)$$

where M_k represents the set of social groups located in country k . For $\theta_k = \theta$ for all k , this reduces to

$$(1 + \theta) \sum_{m \in M} \frac{\partial u^m(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N. \quad (13)$$

This is the necessary condition for maximization of global social welfare as defined by equation (2) ■

The proposition shows that foreign lobbying can serve a socially useful purpose: it can internalize all cross national externalities. Foreign lobbying allows each government to accept contributions from foreign as well as from domestic lobby groups. Foreign lobby groups only have an incentive to offer these contributions if they have a stake in the policy action. In effect, they reward the governments for taking into account the effect of their policy actions on the welfare of the foreign special interests they represent. Two conditions must be satisfied for all cross national externalities to be internalized in this way. Firstly, all social groups must be organized. This allows all affected parties to lobby in all countries. This requirement is intuitive and accords with other well-known results from the lobbying literature, e.g., Grossman and Helpman (1994; 1995). Secondly and more surprisingly, even if all groups were organized, the equilibrium policy vector does not maximize global social welfare unless all governments are equally corrupt. To see the intuition, suppose that one government values contributions from lobby groups more than another. This makes it cheaper for the lobby groups to seek influence on the former than on the latter. This distorts the policy outcome away from the global social optimum. This effect is new to the lobbying literature.

Proposition 2 gives ideal conditions under which internalization is complete. We stress, however, that foreign lobbying continues to internalize externalities—albeit imperfectly—in more realistic circumstances and that *is* a plus from a global social welfare point of view. On the debit side, we, however, need to count the fact that lifting a ban on foreign lobbying may produce new or magnify pre-existing distortions. The requirement that all governments are equally corrupt ensures that this does not happen. In reality, however, there exists large cross national differences in corruption (Gawande, Krishna, and Olarreaga, 2012; Paldam, 2002). This affects the global social value of foreign lobbying. In fact, it may make a ban optimal from a global point of view. To see this, suppose that all social groups are organized, that u^m is additive separable, and that all governments but that of country 1 are equally corrupt ($\theta_1 > \theta_n = 1$ for $n > 1$). The equilibrium policy vector with foreign lobbying (which solves equation (10)) is a function of θ_1 and the associated global social welfare is $GSW((\hat{x}_n(\theta_1))_{n \in N})$. This level of welfare is below the maximum because $(x_n^*)_{n \in N} \neq (\hat{x}_n(\theta_1))_{n \in N}$. In Appendix A.2., we show that global social welfare evaluated at $(\hat{x}_n(\theta_1))_{n \in N}$ decreases monotonically as corruption levels move apart. Under a ban on foreign lobbying, the equilibrium policy vector must satisfy the necessary conditions associated with equation (3). These are independent of cross national differences in corruption because no lobby group is allowed to lobby abroad. As a consequence, global social welfare under a ban is independent of θ_1 . Combining those observations, we conclude that a ban may, for sufficiently large cross national corruption differences, be optimal from a global point of view. Intuitively, without a ban, foreign lobby groups explore differences in the cost of buying influence across countries. The

resulting policy outcome is biased away from the global optimum and more so, then bigger the cross national differences in corruption are. Eventually, as corruption levels drift more and more apart, it may be better from a global social point of view to ban foreign lobbying and to accept that some externalities that could be internalized are left uninternalized.

The final point we want to stress is that in the absence of externalities, foreign lobbying does not matter at all.

Proposition 3 (*Inconsequential Foreign Lobbying*) *If the policy actions do not create cross national externalities, i.e., $\frac{\partial u^m(\hat{x})}{\partial x_n} = 0$ for all $m \notin M_n$, then the policy outcome with and without a ban on foreign lobbying is the same, i.e., $(\hat{x}_n)_{n \in N} = (\tilde{x}_n)_{n \in N}$.*

Proof. We can write equation (10) as

$$\theta_n \sum_{m \in M_n} \frac{\partial u^m(\hat{x})}{\partial x_n} + \sum_{m \in M_n^O} \frac{\partial u^m(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N. \quad (14)$$

This is the necessary condition governing the choice of x_n under a ban ■

This proposition shows that the rules governing foreign lobbying have no global welfare consequences in the absence of externalities. The reason is that it is costly to influence the policy choices of other countries. Foreign lobby groups will, therefore, not attempt to do so unless they have a legitimate reason. This, on the one hand, highlights the fact that the case for foreign lobbying must be based on cross national externalities. On the other hand, it goes some way in diffusing the concern that foreign lobbying undermines democratic legitimacy by biasing policy outcomes unduly. If there are no external effects, lobby groups do not lobby abroad even if they could legally.

5 Constitutional rules and foreign lobbying

Given that policy makers will be subject to lobbying at the stage where they design policy, would it be in the national interest to impose constitutional constraints on foreign lobbying in the same way that it may be socially beneficial to put constraints on the tax instruments available to domestic policy makers (Brannan and Buchanan 1980)? Or would it be better from a strictly national point of view to allow foreign special interests to influence domestic policy choices? The answers to these questions center, as we shall shown in this section, on the potential trade-off between externality internalization and undue foreign influence.

5.1 The set Up

We consider a two-country-two-group version of the general model developed above. We refer to the two countries as the domestic and the foreign country, indexed by $k \in \{d, f\}$. Each country is populated by two groups of equal size. One group is organized (index O) as a lobby group while the other is not (index U). To facilitate the analysis, we let the welfare functions of the social groups be

$$u_k^U = -\frac{1}{2}x_k^2 + \gamma_k^U x_{-k} \quad (15)$$

$$u_k^O = x_k + \gamma_k^O x_{-k}, \quad (16)$$

where $-k$ means not k . The welfare functions capture a conflict of interest between organized and unorganized groups within a country. The organized group in country k wants x_k to be ‘high’, while the unorganized group wants it to be ‘low’. Moreover, they are designed to capture alternative configurations of preference alignment between social

groups in the two countries. This aspect is controlled by the parameters γ_k^O and γ_k^U . These determine how the policy choice abroad affects the welfare of the two domestic groups. The social welfare function of country k is $W_k = u_k^O + u_k^U$. The policy choice that maximizes national social welfare without regard for the effect it has in the other country is $x_k^* = 1$. The weights on social welfare relative to contributions are $\theta_k \geq 0$.

Our focus is on the constitutional choice related to bans on foreign lobbying and we model this as a two stage game. At the constitutional stage, the two countries simultaneously impose restrictions on foreign lobbying or not. The objective of each country is to maximize national social welfare. We consider a menu of three possible constitutional choices available to each country: no ban, a total ban on all types of foreign lobbying, and a partial ban. A partial ban means that a country bans the foreign lobby group from lobbying within its jurisdiction but does not prevent its own lobby group from lobbying abroad.³ A total ban outlaws all types of foreign lobbying. At the policy making stage, which follows the constitutional stage, the government of each country decides on a policy action $x_k \in R^+$ with $k \in \{d, f\}$ subject to lobbying as allowed by the rules laid down at the constitutional stage. To ensure interior policy choices in R^+ , we impose the following (sufficient) parameter restriction

$$\gamma_k^O > -\frac{1 + \theta_{-k} + \theta_k \gamma_k^U}{1 + \theta_k} \text{ for all } k. \quad (17)$$

To characterize subgame perfect equilibria, we start by analyzing the four payoff-relevant subgames that can follow from the constitutional stage.⁴ First, if at least one of the countries introduces a total ban or if both countries introduce a partial ban, then foreign lobbying is ruled out. In the subsequent subgame, which we call the *full ban* subgame

(index FB), lobbying only takes place at the national level. The equilibrium policy choices are:

$$x_k^{FB} = \frac{1 + \theta_k}{\theta_k} > x_k^* = 1. \quad (18)$$

The policy choice is biased against the unorganized group in each country and no regard is given to the effect that the choice has on foreign groups. The corresponding maximized social welfare is denoted $W_k^{FB} = W_k(x_k^{FB}, x_{-k}^{FB})$. We notice that a country can always obtain this level of welfare by unilaterally imposing a total ban.

Second, if both countries decide not to ban, foreign lobbying can take place freely. The policy outcomes of the induced subgame, which we call the *no ban* subgame (index NB), can be deduced from equation (10) and are:

$$x_k^{NB} = x_k^{FB} + A_k, \quad (19)$$

where

$$A_k = \frac{(1 + \theta_{-k})\gamma_{-k}^O + \theta_{-k}\gamma_{-k}^U}{\theta_k}. \quad (20)$$

The parameter A_k can be positive or negative depending on the direction and strength of the externality that the policy choice in country k imposes on the two social groups in country $-k$. The policy choice in country k may, accordingly, be more or less biased against the unorganized group than under a full ban. The corresponding maximized social welfare is denoted $W_k^{NB} = W_k(x_k^{NB}, x_{-k}^{NB})$.

Third, if one of the countries introduces a partial ban and the other decides not to impose any ban, then one of the two possible *partial ban* subgames is induced. We index these two subgames by PB_k where subscript k refers to the country that introduces the partial ban. The policy outcomes in subgame PB_k are characterized by a combination

of lemma 1 and proposition 1 (see Appendix A.3.):

$$x_{-k}^{PB_k} = x_{-k}^{NB} \quad (21)$$

$$x_k^{PB_k} = x_k^{NB} - \frac{\gamma_{-k}^O}{\theta_k}. \quad (22)$$

The policy outcome in the country which welcomes lobbying from abroad corresponds to that in the no ban subgame. This is because all lobby groups get a say in the choice. In contrast, in the country that imposes the partial ban, policy is influenced only by its own lobby group. This group, however, lobbies abroad and, for this reason, the impact of the policy choice on social welfare abroad *is* taken into account. Depending on whether the externality on the foreign lobby group which is banned from lobbying outside its own jurisdiction is positive or negative, the policy outcome in the country with the partial ban is lower or higher than in the no ban subgame. The corresponding maximized social welfare levels are $W_k^{PB_k} = W_k(x_k^{PB_k}, x_{-k}^{NB})$ and $W_{-k}^{PB_k} = W_{-k}(x_{-k}^{NB}, x_k^{PB_k})$.

In the next sub-sections, we characterize equilibrium outcomes of the constitutional game. To bring the main insights out transparently, we start by considering the choice between a total ban and no ban, leaving aside the possibility of a partial ban to section 5.3.

5.2 When is a total ban in the national interest?

Restricting the constitutional choice to a choice between a total ban and no ban, a full ban is a subgame perfect equilibrium if $\Delta_k \equiv W_k^{FB} - W_k^{NB} > 0$ for at least one k . We can express this differential as

$$\Delta_k = -A_k + \frac{1}{2} \left((x_k^{FB} + A_k)^2 - (x_k^{FB})^2 \right) - (\gamma_k^O + \gamma_k^U) A_{-k}. \quad (23)$$

The three terms on the right-hand side represent the welfare effects in country k associated with imposing a total ban (given that country $-k$ does not impose a ban). We call them the competition effect, the alignment effect, and the internalization effect, respectively. The competition effect ($-A_k$) captures the impact on the welfare of the domestic lobby group when the foreign lobby group enters the domestic political scene. Depending on whether it is a competitor or an ally, foreign lobbying may harm or benefit the domestic lobby group. The alignment effect ($\frac{1}{2} \left((x_k^{FB} + A_k)^2 - (x_k^{FB})^2 \right)$) captures whether the foreign lobby group's policy objective aligns with that of the *unorganized* domestic group. If it does, then the foreign lobby group unintentionally represents the unorganized domestic group in the domestic political calculus. In general, the competition and alignment effect pull in opposite directions. This is because the lobby group and the unorganized group within a country have opposite policy preferences. The internalization effect ($-(\gamma_k^O + \gamma_k^U) A_{-k}$) captures the effect on the welfare of the two social groups in country k of lobby group k 's lobbying activities abroad. If, for example, the policy choice of country $-k$ affects the two groups in country k in a similar way (say, $\gamma_k^O < 0, \gamma_k^U < 0$), then lobbying by lobby group k abroad helps internalize this effect (by reducing x_{-k}). This makes it less likely that country k imposes a ban.

To gain a better understanding of the interplay amongst these three effects, we consider three particular scenarios. They are selected to bring out a number of salient points but they also score high on their real world relevance and are:

- [T] Trade protection. Let $x_k \geq 0$ represent the tariff equivalent of a quota (Facchini, Willmann, and van Biesebroeck 2006). The unorganized groups are consumers

who benefit from free trade at home and abroad, so $\gamma_k^U = \gamma^U < 0$ for $k \in \{d, f\}$.

The lobby groups represent producer interests. They want trade protection at home but free trade abroad, so $\gamma_k^O = \gamma^O < 0$ for $k \in \{d, f\}$.

[RE] Regulation of a reciprocal environmental externality. Let $x_k \geq 0$ represent allowed emission of a polluting substance, e.g., implied by a design standard that commodities sold in country k must satisfy. Unorganized citizens are harmed by pollution irrespective of the source, so $\gamma_k^U = \gamma^U < 0$ for $k \in \{d, f\}$. The lobby groups represent polluter interests. They want regulation to be lax in both countries in order to keep compliance costs down, so $\gamma_k^O = \gamma^O > 0$ for $k \in \{d, f\}$.

[UE] Regulation of an unidirectional environmental externality. Let $x_k \geq 0$ represent a cap on emission of a polluting substance deposited in a river from sources in country k . Country d is located downstream from country f along the river. Unorganized citizens in country d are harmed by pollution irrespective of the source, so $\gamma_d^U < 0$, while unorganized citizens in country f are only affected (negatively) by emissions from sources located in country f ($\gamma_f^U = 0$). The lobby groups represent polluter interests. The lobby group in country f is not affected by the policy choice in country d ($\gamma_f^O = 0$). The lobby group in country d is negatively affected by pollution from country f because, say, total pollution in the river pushes up the compliance costs associated with domestic regulation, so $\gamma_d^O < 0$.

5.2.1 On the role of the competition, the alignment, and the internalization effect

The key difference between scenario [T] and [RE] is the degree of alignment between the objective of the foreign lobby group and unorganized domestic citizens. In the trade protection scenario [T], these objectives are aligned. This happens if, for example, foreign lobbying is targeted at reducing trade barriers (Husted 1991; Gawande, Krishna and Robbins 2006) or at gaining preferential market access (Kee, Olarreaga, and Silva 2007). Of course, such alignment is not a guarantee (Hillman and Ursprung 1988). Yet, trade policy is a good example of a case where foreign lobby groups and unorganized domestic consumers are likely to find themselves on the same side of the issue. In the environmental externality scenario [RE], the situation is reversed. Lobbying against environmental protection by a well-organized foreign industry lobby group often has detrimental environmental effects for citizens in the country that hosts the foreign lobby group. Consequently, environmental regulation is a good example of a case where foreign (producer) lobby groups and unorganized domestic consumers find themselves on opposite sides of the issue. The next proposition compares the equilibrium outcome under scenario [T] and scenario [RE].

Proposition 4 *Suppose that $\theta_d = \theta_f = \theta > 1$ and that assumption (17) is satisfied.*

Defined $\underline{\gamma}^O = \frac{-\theta\gamma^U}{1+\theta} > 0$ and $\bar{\gamma}^O = \frac{2-\theta\gamma^U}{\theta-1} > \underline{\gamma}^O$.

1. *In scenario [T], no ban is the unique constitutional choice in both countries.*
2. *In scenario [RE], a total ban is the unique constitutional choice in both countries if $\gamma^O \in [\underline{\gamma}^O, \bar{\gamma}^O]$ while no ban is the unique constitutional choice if either $\gamma^O \in$*

$(0, \underline{\gamma}^O)$ or $\gamma^O > \bar{\gamma}^O$. Moreover, an increase in corruption (a reduction in θ) makes a total ban more likely.

Proof. See Appendix A.4. ■

The proposition highlights two important points. Firstly, in scenario [T], where the policy objectives of the foreign lobby group and domestic unorganized consumers are aligned, a ban is never in the national interest of a country. In contrast, in scenario [RE], where the opposite is (typically) true, a total ban may be imposed. This illustrates the importance of the alignment effect: a total ban is more likely to be in the national interest of a country if foreign lobbying magnifies the pre-existing bias against unorganized domestic groups. We can interpret cases where this happens as examples of loss of democratic legitimacy. Secondly, in scenario [RE], the level of corruption in the two countries affects the likelihood of a constitutional ban. The higher corruption is the cheaper it is for the foreign lobby group to buy influence and the more likely it is that a ban is introduced at the constitutional stage.

To gain a deeper understanding of the logic behind proposition 4, recall the three general effects at play: the competition, the alignment, and the internalization effect. In scenario [T], foreign lobbying allows the domestic producer group to lobby for trade liberalization abroad. This internalizes the beggar-thy-neighbour externality to the benefit of both the organized and unorganized group at home. The direction of the internalization effect is, therefore, unambiguously in favor of foreign lobbying. At the same time, foreign lobbying reduces the anti-consumer bias in trade policy by—unintentionally—giving unorganized consumers voice in the domestic political calculus. This is the alignment

effect. It also pulls away from a ban. The only ‘downside’ of the no ban rule is that domestic producers view the entry of the foreign producer lobby group as unwelcome competition. Accordingly, the competition effect pulls towards a ban. The net result, however, is that both countries support foreign lobbying because it brings equilibrium trade regulation closer to the respective national social optimum.

In scenario [RE], the situation is more complex. This is because the objectives of the foreign polluter lobby group and domestic unorganized consumers may no longer be aligned. This changes the national welfare calculus at the constitutional stage in fundamental ways and opens up the possibility that a ban on all foreign lobbying may be in the national interest. The equilibrium choice is no ban when the cross national externality, as seen from the point of view of the two lobby groups, is either weak ($\gamma^O \in (0, \underline{\gamma}^O)$) or strong ($\gamma^O > \bar{\gamma}^O$). Between these extremes, the equilibrium choice is a total ban. To understand why, table 1 is useful. It records, for four regions of γ^O , the direction of the policy change induced by a ban (relative to the no ban subgame), the direction (pro- or anti-ban) in which the competition, alignment, and internalization effect pull, and the equilibrium choice of the two countries. In region 1 ($\gamma^O \in (0, \underline{\gamma}^O)$), the domestic producer lobby group is relatively unaffected by the emission cap imposed abroad (γ^O is low). Paradoxically, foreign lobbying actually lead to tighter regulation in this case. This is because tighter regulation abroad lowers the price the producer lobby group pays for laxer regulation at home. This implies that the alignment effect pulls away from the ban. This is reinforced by the internalization effect. It also pulls away from a ban because, for low γ^O what matters from a social point of view is the effect of

the externality on consumers and they like the tighter cap induced by foreign lobbying. Only the competition effect pulls towards a ban, but it is dominated by the other two effects in this region. In region 2 ($\gamma^O \in [\underline{\gamma}^O, -\gamma^U]$), the producer lobby groups, if they are allowed to, lobby the foreign government for a laxer cap. This switches the competition and alignment effect around. Since consumers care more about the externality than producers in this region, the internalization effect pulls towards a ban. The net effect is that a total ban is the equilibrium outcome. In regions 3 and 4 ($\gamma^O \in (-\gamma^U, \infty)$), the policy externality becomes a serious concern for the producer lobby groups relative to the unorganized consumers. Since a ban continues to tighten the cap in both countries, the internalization effect switches back to pulling away from a ban. This effect becomes stronger as the externality becomes stronger. At first, in region 3 ($\gamma^O \in (-\gamma^U, \bar{\gamma}^O]$) the effect is not yet strong enough to change the fact that a ban is in the national interest. Eventually when γ^O exceeds $\bar{\gamma}^O$ in region 4, the externality effect becomes so strong that it overturns the alignment effect and the equilibrium constitutional choice switches back to no ban.

5.2.2 On the role of asymmetric externalities

Scenario [UE]–regulation of an unidirectional environmental externality–is designed to illustrate the effect of asymmetric externalities. The equilibrium emission cap in the downstream country d is $x_d^{NB} = x_d^{FB} = \frac{1+\theta_d}{\theta_d}$ whether or not a total ban is in place. This is because the polluter lobby group in country f has no reason to lobby government d since it is unaffected by emissions downstream ($\gamma_f^O = \gamma_f^U = 0$) The downstream lobby group, however, has an incentive to lobby upstream ($\gamma_d^O = \gamma_d^U \equiv \gamma_d < 0$). In the absence

TABLE 1

Overview of the three effects

| | Region 1 | Region 2 | Region 3 | Region 4 |
|-------------------------|-----------------------------|-------------------------------------|-------------------------------|----------------------------|
| $\gamma^O \in$ | $(0, \underline{\gamma}^O)$ | $[\underline{\gamma}^O, -\gamma^U]$ | $(-\gamma^U, \bar{\gamma}^O)$ | $(\bar{\gamma}^O, \infty)$ |
| Emission reduced by ban | No ($A < 0$) | Yes ($A \geq 0$) | Yes ($A \geq 0$) | Yes ($A \geq 0$) |
| Competition effect | Pro-ban | Anti-ban | Anti-ban | Anti-ban |
| Alignment effect | Anti-ban | Pro-ban | Pro-ban | Pro-ban |
| Internalization effect | Anti-ban | Pro-ban | Anti-ban | Anti-ban |
| Constitutional choice | No ban | Total ban | Total ban | No ban |

of a ban, the equilibrium cap in country f is $x_f^{NB} = \frac{1+\theta_f}{\theta_f} + A_f$. This is lower than the emission cap under a ban ($x_f^{FB} = \frac{1+\theta_f}{\theta_f}$) since

$$A_f = \frac{(1 + 2\theta_d)\gamma_d}{\theta_f} < 0. \quad (24)$$

The welfare differential with and without a ban for each country is

$$\Delta_d = -(\gamma_d^O + \gamma_d^U) A_f = -2\gamma_d A_f < 0 \quad (25)$$

$$\Delta_f = A_f \left(\frac{A_f \theta_f + 2}{2\theta_f} \right). \quad (26)$$

The downstream country d is unambiguously in favor of foreign lobbying. Since the upstream polluter lobby group has no interest in lobbying downstream, the only consideration is the internalization effect. With consensus amongst all social groups in country d that emissions in country f are too high, social welfare in country d increases if the downstream lobby group can buy influence on the policy choice upstream. The

situation in the upstream country f is more complex. This is because the competition and alignment effects pull in opposite directions. On the one hand, the polluter lobby group is harmed by the lobbying activities of the downstream lobby group. On the other hand, the unorganized group in country f benefits from the induced reduction in the pro-polluter bias in the emission cap.

Proposition 5 *If $\gamma_d < \frac{-2}{1+2\theta_d}$, then the constitutional choice of country f is to ban foreign lobbying. If $\gamma_d \in \left[\frac{-2}{1+2\theta_d}, 0\right]$, then the constitutional choice of both countries is to allow foreign lobbying.*

Proof. It is a weakly dominant strategy for country d to allow foreign lobbying. The best response of country f is to introduce a ban if $\Delta_f > 0 \Leftrightarrow \gamma_d < \frac{-2}{1+2\theta_d}$ and not to ban otherwise ■

It is not a surprise that foreign lobbying is in the interest of a downstream country. It is, however, surprising that an upstream country whose citizens are not themselves exposed to policy externalities from abroad may find it in its best interest to agree to foreign lobbying. The reason is that the equilibrium cap on emissions from upstream producers is stricter with foreign lobbying than with a ban. This may be socially beneficial for the upstream country because, without foreign lobbying, the emission cap is laxer than what is socially optimal from that country's point of view. For a relatively weak externality, foreign lobbying helps correct this pre-existing distortion. In contrast, for sufficiently strong externalities foreign lobbying magnifies the pre-existing distortion and a ban serves the national interest of the upstream country.

5.3 When is a partial ban in the national interest?

Above we framed the constitutional choice as an either-or choice between a total ban on all types of foreign lobbying or no restrictions at all. In between these extremes, however, there is the possibility of a partial ban whereby a country bans foreign lobby groups from lobbying within its jurisdiction, while not actively preventing its own lobby groups from seeking influence abroad. This situation is, in fact, not uncommon in practice. Many countries that do not allow foreign lobby groups to pay otherwise legal contributions to political parties within their jurisdiction often do not prevent their own special interests from paying such contributions abroad and may even encourage such activities through tax breaks for the associated expenses. In recent years, however, many countries, including the United States and the United Kingdom, have introduced legislation that makes it illegal for companies listed within their jurisdiction to pay bribes to foreign government officials. This can be viewed as a move from a partial ban to a total ban on a particular form of foreign lobbying.

Motivated by these examples, we expand the analysis and let the choice set at the constitutional stage include a partial ban. We are interested in the conditions under which one of the partial ban subgames is played. We return to scenario [T] from section 5.2 with the added assumption that the two governments are equally corrupt $\theta_f = \theta_d = \theta$. This a useful starting point because in this scenario, a full ban is never an equilibrium (proposition 4), but it is possible that a partial ban is. Since the two countries are identical, it is clear that the conditions under which subgame PB_d and PB_f are played must be the same. This opens up for the possibility of multiple equilibria as well as the

possibility that otherwise identical countries select a different constitutional rule.

If country k adopts a partial ban, then country $-k$ can induce subgame PB_k by adopting the no ban rule, while a partial or full ban both induce subgame FB without any foreign lobbying. Conversely, if country $-k$ adopts a no ban rule, then country k can induce subgame PB_k by enforcing a partial ban; it can induce subgame FB by introducing a total ban; or it can induce subgame NB with no restrictions on foreign lobbying by choosing to adopt a no ban rule. Accordingly, subgame PB_k is played if country $-k$ adopts the no ban rule, i.e., if

$$W_{-k}^{PB_k} > W_{-k}^{FB} \quad (27)$$

and country k adopts a partial ban, i.e., if

$$W_k^{PB_k} > \max\{W_k^{NB}, W_k^{FB}\}. \quad (28)$$

In the trade policy scenario, country $-k$ is better off by allowing the foreign lobby group to influence its policy choice than impose a total ban even if this is not reciprocated by country k . The reason is that the foreign lobby group reduces the bias against the unorganized group in country $-k$ and this generates a sufficiently large social benefit for the country. Accordingly, condition (27) is always satisfied (see Appendix A.5.). Moreover, according to proposition 4 country k prefers no ban to a full ban, i.e., $W_k^{NB} > W_k^{FB}$. Hence, the critical condition for subgame PB_k to be played is $W_k^{PB_k} > W_k^{NB}$.

Using the policy choices for the two subgames derived previously, we find that

$$W_k^{PB_k} - W_k^{NB} = \left(\frac{(\gamma^O + \gamma^U)}{\theta} + \frac{(\gamma^O + 2)}{2\theta^2} \right) \gamma^O. \quad (29)$$

Whether this differential is positive or negative depends on the strength of the negative externality of trade protection ($\gamma^O < 0$ and $\gamma^U < 0$), and on the level of corruption θ .

Proposition 6 *In scenario [T] with $\theta_d = \theta_f = \theta > 1$, a partial ban on foreign lobbying in one country and no ban in the other is a subgame perfect equilibrium outcome if*

$$\gamma^O < -\frac{2\theta\gamma^U + 2}{2\theta + 1}. \quad (30)$$

Proof. See Appendix A.5. ■

The proposition shows that a partial ban can be in the national interest of one country but not the other. It is interesting that such asymmetries can emerge despite the fact that the countries are identical. Intuitively, the country that does not ban foreign lobbying prefers that to a total ban. In either case, its own lobby group is prevented from lobbying abroad but the alignment effect is sufficiently strong for it to prefer letting the foreign lobby group in. The situation is more complex for the country that introduces the partial ban. Here, the choice is between opening up for foreign lobbying at home or not to do so; in either case, its own lobby group can freely lobby abroad. By not imposing a partial ban, the foreign lobby group will lobby for less protection. This benefits the domestic unorganized group but harms the organized group and induces a trade off. If the foreign lobby group is strongly in favor of low trade protection (γ^O is numerically large), it is in the national interest to impose the partial ban, but if the policy externality is relatively weak, it is best to lift the ban. We note that if condition (30) is satisfied, the constitutional game got multiple equilibria.

6 Discussion

We present an externality-based argument for legalizing foreign lobbying. Our starting point is the fact that many public policies, ranging from environmental standards and trade interventions to macroeconomic demand management policies, have consequences far beyond the borders of the country that introduces them. This gives agents a legitimate stake in public policy abroad. Foreign lobbying is a natural mechanism through which the interests of foreign stakeholders can be taken into account. It is clear, however, that lobbying—and foreign lobbying is no exception—biases policy choices against unorganized stakeholders. As a consequence, foreign lobbying, as a vehicle of political internalization of cross national externalities, only maximizes global social welfare under restrictive assumptions. Yet, even if this ideal is unattainable, we believe that the externality argument itself in favor of foreign lobbying is sufficiently general and has a sufficiently solid welfare-theoretical foundation to make it of practical relevance. It should, therefore, be part of an informed debate about the role of foreign lobbying and bans on foreign donations to domestic political campaigns and other forms of foreign lobbying. A common objection to legalizing foreign lobbying is that doing so undermines democratic legitimacy. The concern is that foreign lobbying biases policy choices made by democratically elected governments in unwarranted ways. While lobbying no doubt biases policy choices, our analysis emphasizes that bans on foreign lobbying are inconsequential in the absence of policy externalities. In other words, foreign lobby groups only seek influence on policy choices abroad when they really have a stake in the policy choice *and* in that case, foreign lobbying will most likely improve global social welfare.

This goes some way in defusing the main argument against foreign lobbying. It also demonstrates that the externality-based case for foreign lobbying is not undermined by the fact that it is difficult, perhaps impossible, to allow lobbying for some policies and not for others. An unconditional green light for foreign lobbying will, according to the logic of our analysis, lead to lobbying for and against those policies that generate cross national externalities and only for and against those policies. Accordingly, there is no need for policy makers (with global social welfare in mind) to differentiate between different policies and to ban lobbying for some but not for others.

Yet, global social welfare may not be what the advocates of a ban have in mind. Hence, the question as to whether a ban can be in the national interest remains. Our analysis identifies an important building block in answering this question: the degree of preference alignment between unorganized social groups at home and organized social groups abroad. When these preferences overlap, as they often do in relation to trade policies, allowing foreign lobbying is, typically, in the national interest. The reason is that foreign lobby groups provide voice to unorganized citizens thereby counter-acting the pre-existing bias in favor of domestic lobby groups. Accordingly, the argument that foreign lobbying undermines democratic legitimacy is most relevant when the objectives of foreign lobby groups, as it is often the case with regard to environmental protection, do not coincide with those of unorganized citizens. In this case, foreign lobbying may exacerbate the pre-existing bias in favor of domestic lobby groups and a ban may, but need not, be in the national interest. Seen from this perspective, it is clear that a first best (national) solution to the foreign lobbying question could well involve banning for-

eign lobbying for some policies but not for others. This may be infeasible. Accordingly, a second best solution would have to judge the relative costs and benefits for different types of policies and the internalization benefits must be quantified and weighted against any loss in democratic legitimacy and other costs.

Appendix

A.1. Derivation of equation (8)

The starting point for deriving equation (10) is

$$\begin{aligned}
& \sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} + (|M^O| - 1) \sum_{j \in M^O} \frac{\partial \hat{C}_j^n(\hat{x}_n; \hat{x}_{-n})}{\partial x_n} \\
& + (|M^O| - 1) \sum_{k \in N, k \neq n} \sum_{j \in M^O} \frac{\partial \hat{C}_j^k(\hat{x}_k; \hat{x}_{-k})}{\partial x_n} + |M^O| \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} \\
& = 0.
\end{aligned} \tag{31}$$

From condition (CM), we get that

$$-\theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} = \sum_{m \in M^O} \frac{\partial \hat{C}_m^k(x_k; \hat{x}_{-k})}{\partial x_n} \tag{32}$$

for all $k \in N$. We can rewrite equation (31) as

$$\begin{aligned}
& \sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} - (|M^O| - 1) \theta_n \frac{\partial W_n(\hat{x})}{\partial x_n} \\
& - (|M^O| - 1) \sum_{k \in N, k \neq n} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} + |M^O| \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} \\
& = 0
\end{aligned} \tag{33}$$

or

$$\begin{aligned}
& \sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} - (|M^O| - 1) \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} \\
& + |M^O| \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} \\
= & \sum_{m \in M^O} \frac{\partial u^m(\hat{x})}{\partial x_n} + \sum_{k \in N} \theta_k \frac{\partial W_k(\hat{x})}{\partial x_n} = 0.
\end{aligned} \tag{34}$$

A.2. Global social welfare and corruption levels

We begin by observing three facts. Firstly, the equilibrium vector $(\tilde{x}_n)_{n \in N}$ under a ban is independent of the distribution of the corruption weights. This follows immediately from the first order conditions associated with equation (3) and the assumption that all social groups are organized:

$$(1 + \theta_n) \sum_{m \in M_n} \frac{\partial u^m(\tilde{x})}{\partial x_n} = 0 \text{ for all } n \in N. \tag{35}$$

We denote global social welfare under a ban by $GSW((\tilde{x}_n)_{n \in N})$. Secondly, the policy vector that maximizes global social welfare must necessarily satisfy

$$\sum_{m \in M} \frac{\partial u^m(x^*)}{\partial x_n} = 0 \text{ for all } n \in N. \tag{36}$$

Thirdly, the equilibrium vector $(\hat{x}_n)_{n \in N}$ under foreign lobbying must necessarily satisfy

$$\phi_n(\hat{x}; \theta_1) \equiv (1 + \theta_1) \sum_{m \in M_1} \frac{\partial u^m(\hat{x})}{\partial x_n} + 2 \sum_{m \in M/M_1} \frac{\partial u^m(\hat{x})}{\partial x_n} = 0 \text{ for all } n \in N, \tag{37}$$

where M/M_1 means the set M excluding the subset M_1 . We can write global social welfare under foreign lobbying as $GSW((\hat{x}_n(\theta_1))_{n \in N})$ which, we note, is a function of $\theta_1 > 0$. We want to evaluate

$$\frac{\partial GSW((\hat{x}_n(\theta_1))_{n \in N})}{\partial \theta_1} = \sum_{n \in N} \left(\frac{d\hat{x}_n}{d\theta_1} \sum_{m \in M} \frac{\partial u^m(\hat{x})}{\partial x_n} \right). \tag{38}$$

Starting from equation (37), we can use the implicit function theorem and the assumption that u^m is additive separable to derive

$$\frac{d\hat{x}_n}{d\theta_1} = \frac{-1}{|H|} \frac{\partial \phi_n}{\partial x_n} \frac{\partial \phi_n}{\partial \theta_1} \quad (39)$$

where $|H| > 0$ is the determinant of the Hessian matrix of second order derivatives and $\frac{\partial \phi_n}{\partial x_n} < 0$. These signs are implied by the second order conditions for a maximum. It follows that $\text{sign}(\frac{d\hat{x}_n}{d\theta_1}) = \text{sign}(\frac{\partial \phi_n}{\partial \theta_1})$ where $\frac{\partial \phi_n}{\partial \theta_1} = \sum_{m \in M_1} \frac{\partial u^m(\hat{x})}{\partial x_n}$. By assumption, for $m \in M_1$, u^m has a unique maximum for x_1 , which we may denote x_1^{**} . We need to consider a negative and a positive externality separately. Suppose that the policy choice imposes a negative externality. Then $\hat{x}_1 < x_1^{**}$ because the foreign lobby groups influence the choice of x_1 and want it to be lower. This implies that $\frac{\partial \phi_1}{\partial \theta_1} = \sum_{m \in M_1} \frac{\partial u^m(\hat{x})}{\partial x_1} > 0$. The assumption of a negative externality means that $\frac{\partial \phi_k}{\partial \theta_1} = \sum_{m \in M_1} \frac{\partial u^m(\hat{x})}{\partial x_k}$ for $k > 1$ is negative. We conclude that $\frac{d\hat{x}_1}{d\theta_1} > 0$ and $\frac{d\hat{x}_n}{d\theta_1} < 0$ for $n > 1$. Since $\sum_{m \in M} \frac{\partial u^m(x)}{\partial x_n} = 0$ at x_n^* and the utility functions are additive separable, we observe that $\sum_{m \in M} \frac{\partial u^m(x_1)}{\partial x_1} < 0$ and $\sum_{m \in M} \frac{\partial u^m(x_n)}{\partial x_n} < 0$ for $n > 1$ because $\hat{x}_1 > x_1^*$ and $\hat{x}_n > x_n^*$ for $n > 1$. Using these facts to evaluate equation (38), we conclude that

$$\frac{\partial GSW((\hat{x}_n(\theta_1))_{n \in N})}{\partial \theta_1} < 0. \quad (40)$$

The case with a positive externality is similar but with the relevant signs reversed. We know from proposition 2 that $GSW((\hat{x}_n(\theta_1))_{n \in N}) = GSW((x_n^*)_{n \in N}) > GSW((\tilde{x}_n)_{n \in N})$ for $\theta_1 = 1$. Since $GSW((\hat{x}_n(\theta_1))_{n \in N})$ is strictly decreasing in θ_1 and continuous while $GSW((\tilde{x}_n)_{n \in N})$ is independent of θ_1 , it is possible that a ban is better from a global social welfare point of view than foreign lobbying for some values of θ_1 . A sufficient

condition is that global social welfare is higher under a ban than if country 1 could impose its most preferred policy choice on all the other countries ($\theta_1 \rightarrow \infty$).

A.3. The equilibrium characterization with partial bans

The equilibrium characterization in the two subgames with partial bans can be derived as a special case of Lemma 5 in Aidt and Hwang (2008). The first order conditions that govern the equilibrium choices in subgame PB_{-k} are

$$\theta_k \frac{\partial W_k}{\partial x_k} + \theta_{-k} \frac{\partial W_{-k}}{\partial x_k} + \frac{\partial u_k^O}{\partial x_k} + \frac{\partial u_{-k}^O}{\partial x_k} = 0 \quad (41)$$

$$\theta_k \frac{\partial W_k}{\partial x_{-k}} + \theta_{-k} \frac{\partial W_{-k}}{\partial x_{-k}} + \frac{\partial u_{-k}^O}{\partial x_{-k}} = 0. \quad (42)$$

Substituting the functional forms, we obtain equations (21) and (22).

A.4. Comparison of the equilibrium outcome under scenario [T] and [RE]

We can write the difference in social welfare Δ_k as

$$\Delta_k = - \frac{(\gamma^O(\theta - 1) + \gamma^U\theta - 2)(\gamma^O(1 + \theta) + \gamma^U\theta)}{2\theta^2} \text{ for } k \in \{d, f\}. \quad (43)$$

The two countries are symmetric, so we look for symmetric equilibria in undominated strategies. In scenario [T], $\gamma^O < 0$ and $\gamma^U < 0$, so it follows immediately that $\Delta_k < 0$ for all values of $\theta > 1$ and it is, therefore, a weakly dominant strategy for both countries to allow foreign lobbying. In scenario [RE], $\gamma^O > 0$ and $\gamma^U < 0$. Since

$$(\gamma^O(\theta - 1) + \gamma^U\theta - 2) = (\gamma^O(1 + \theta) + \gamma^U\theta - 2(1 + \gamma^O)), \quad (44)$$

it follows that for all $\theta > 0$, $(\gamma^O(1 + \theta) + \gamma^U\theta) < 0 \Rightarrow (\gamma^O(\theta - 1) + \gamma^U\theta - 2) < 0$ and that the no ban policy is a weakly dominant strategy if

$$\gamma^O < \frac{-\theta\gamma^U}{1 + \theta} \equiv \underline{\gamma}^O. \quad (45)$$

Conversely, for $\theta > 1$, it follows that $(\gamma^O(\theta - 1) + \gamma^U\theta - 2) > 0 \Rightarrow (\gamma^O(1 + \theta) + \gamma^U\theta) > 0$ and no ban policy is also a weakly dominant strategy if

$$\gamma^O > \frac{2 - \theta\gamma^U}{\theta - 1} = \bar{\gamma}^O. \quad (46)$$

Since for $\theta > 1$, $\frac{2 - \theta\gamma^U}{\theta - 1} - \left(\frac{-\theta\gamma^U}{1 + \theta}\right) = 2\frac{1 + \theta - \theta\gamma^U}{(\theta - 1)(\theta + 1)} > 0$, it follows that a ban is a weakly dominant strategy for $\gamma^O \in [\underline{\gamma}^O, \bar{\gamma}^O]$. The comparative statics are (for $\theta \neq 1$)

$$\frac{\partial \gamma^O}{\partial \theta} = -\frac{\gamma^U}{(1 + \theta)^2} > 0; \quad \frac{\partial \bar{\gamma}^O}{\partial \theta} = \frac{\gamma^U - 2}{(\theta - 1)^2} < 0. \quad (47)$$

A.5. Condition for a partial ban being a subgame perfect equilibrium outcome

The welfare differential for country $-k$ is

$$W_{-k}^{PB_k} - W_{-k}^{FB} = \frac{(\gamma^O + \gamma^U)^2 \theta^2 - 2(\gamma^O + 1)(\gamma^O + \gamma^U)\theta - \gamma^O(\gamma^O + 2)}{2\theta^2} > 0 \quad (48)$$

for $\gamma^O < 0$, and $\gamma^U < 0$ and restriction (17). Condition (30) and the assumption that $\gamma^O < 0$ imply that $W_k^{PB_k} - W_k^{NB} > 0$. It is therefore a best response for country k to introduce a partial ban if country $-k$ adopts a no ban policy. Conversely, it is best response for country $-k$ to do so if country k adopts the partial ban. We need to check that equation (30) is consistent with the parameter restrictions imposed by equation (17). Equation (17) demands that $\gamma^O > -1 - \frac{\theta}{1 + \theta}\gamma^U$. We can evaluate

$$-\frac{2\theta\gamma^U + 2}{2\theta + 1} - \left(-1 - \frac{\theta}{1 + \theta}\gamma^U\right) = \frac{(\theta + 1)(2\theta - 1) - \theta\gamma^U}{(\theta + 1)(2\theta + 1)}. \quad (49)$$

A sufficient condition for this to be positive is that $\theta \geq \frac{1}{2}$. Thus, for

$$\gamma^O \in \left[\left(-1 - \frac{\theta}{1 + \theta}\gamma^U\right), -\frac{2\theta\gamma^U + 2}{2\theta + 1} \right] \quad (50)$$

it is a best response for one country to introduce a partial ban if the other does not ban. The constitutional game has multiple equilibria in this case. If $\gamma^O > -\frac{2\theta\gamma^U + 2}{2\theta + 1}$, it is

optimal for both countries to allow foreign lobbying and the unique equilibrium involves choosing the no ban policy for both countries.

References

- [1] Aidt, T.S. (2002) ‘Strategic political participation and redistribution,’ *Economics and Politics* 14, 19-40
- [2] Aidt, T.S. (2010) ‘Green taxes: refunding rules and lobbying,’ *Journal of Environmental Economics and Management* 60, 31-43
- [3] Aidt, T.S., and U. Hwang (2008) ‘On the internalization of cross national externalities through political markets: the case of labour standards,’ *Journal of Institutional and Theoretical Economics* 164, 509-33
- [4] Aidt, T.S., and F. Albornoz (2011) ‘Political regimes and foreign intervention,’ *Journal of Development Economics* 94, 192-201
- [5] Albornoz, F., S. Galiani, and D. Heymann (2012) ‘Foreign investment and expropriation under oligarchy and democracy,’ *Economics and Politics* 24, 24-46
- [6] Antràs, P., and G. Padro i Miquel (2011) ‘Foreign influence and welfare,’ *Journal of International Economics* 84, 135-48
- [7] Bernheim, D., and M.D. Whinston (1986) ‘Menu auctions, resource allocation, and economic influence,’ *Quarterly Journal of Economics* 101, 1-31
- [8] Brannan, J., and J. Buchanan (1980) *The Power to Tax: Analytic Foundations of a Fiscal Constitution*, (Cambridge: Cambridge University Press)

- [9] Bonfatti, R. (2011) ‘An economic theory of foreign interventions and regime change,’ unpublished working paper, University of Oxford
- [10] Damania, R., and P.G. Fredriksson (2007) ‘Trade policy: what’s welfare got to do with it?’ *Economics Letters* 96, 64-69
- [11] Conconi, P. (2003) ‘Green lobbies and transboundary pollution in large open economies,’ *Journal of International Economics* 59, 399-422
- [12] Facchini, G., G. Willmann, and J. Van Biesebroeck (2006) ‘Protection for sale with imperfect rent capturing,’ *The Canadian Journal of Economics/Revue canadienne d’Economie* 39, 845-73
- [13] Fredriksson, P.G., and D.L. Millimet (2007) ‘Legislative organization and pollution taxation,’ *Public Choice* 131, 217-42
- [14] Fredriksson, P.G., and J. Svensson (2003) ‘Political instability, corruption and policy formation: the case of environmental policy,’ *Journal of Public Economics* 87, 1383-405
- [15] Gawande, K., P. Krishna, and M.J. Robbins (2006) ‘Foreign lobbies and U.S. trade policy,’ *Review of Economics and Statistics* 88, 563-71
- [16] Gawande, K., W. Maloney, and G.V.M. Rojas (2009) ‘Foreign informational lobbying can enhance tourism: evidence from the Caribbean,’ *Journal of Development Economics* 90, 267-75
- [17] Gawande, B., P. Krishna, and M. Olarreaga (2012) ‘Lobbying competition over trade policy,’ *International Economic Review* 53, 115-32

- [18] Grossman, G.M., and E. Helpman (1994) ‘Protection for sale,’ *American Economic Review* 84, 833-50
- [19] Grossman, G.M., and E. Helpman (1995) ‘Trade wars and trade talks,’ *Journal of Political Economy* 103, 675-708
- [20] Hillman, A.L., and H.W. Ursprung (1988) ‘Domestic politics, foreign interests, and international trade policy,’ *American Economic Review* 78, 729-45
- [21] Hotte, L., and S.L. Winer (2012) ‘Environmental regulation and trade openness in the presence of private mitigation,’ *Journal of Development Economics* 97, 46-57
- [22] Husted, S. (1991) ‘Foreign lobbying: a theoretical analysis,’ *Eastern Economic Journal* 17, 89-99
- [23] Institute for Democracy and Electoral Assistance (IDEA) (2011) *Political Finance Database*, <http://www.idea.int/parties/finance/db/index.cfm>
- [24] Kee, H.L., M. Olarreaga, and P. Silva (2007) ‘Market access for sale,’ *Journal of Development Economics* 82, 79-94
- [25] Long, N. van, and F. Stahler (2009) ‘A contest model of liberalizing government procurements,’ *European Journal of Political Economy* 25, 479-88
- [26] Olson, M. (1965) *The Logic of Collective Action*, (Cambridge: Harvard University Press)
- [27] Paldam, M. (2002) ‘The cross-country pattern of corruption: economics, culture and the seesaw dynamics,’ *European Journal of Political Economy* 18, 215-40

- [28] Powell, J.K. (1996) ‘Prohibitions on campaign contributions from foreign sources: questioning their justification in a global interdependent economy,’ *University of Pennsylvania Journal of International Economic Law* 17, 957-93
- [29] Prat, A., and A. Rustichini (1999) ‘Games played through agents,’ unpublished working paper, London School of Economics
- [30] Prat, A., and A. Rustichini (2003) ‘Games played through agents,’ *Econometrica* 71, 989-1026
- [31] Savrin, D.S. (1988) ‘Curtailling foreign financial participation in domestic elections: a proposal to reform the Federal Election Campaign Act,’ *Virginia Journal of International Law* 783, 794-95
- [32] Qiu, L.D. (2004) ‘Lobbying, multisector trade, and sustainability of free-trade agreements,’ *The Canadian Journal of Economics/Revue canadienne d’Economie* 37, 1061-83.

Notes

¹Aidt (2002) shows that social groups may remain unorganized for strategic reasons.

²See also Qiu (2004) or Bernheim and Whinston (1986).

³In the interest of brevity, we do not consider the fourth possibility by which a country may ban its own lobby group from lobbying abroad while allowing foreign groups to lobby within its jurisdiction. The case seems less empirically relevant and the key insights regarding partial bans can be learned from the analysis that we do present.

⁴Since the strategy set of each country got three elements, there are nine subgames to consider. However, six of these lead to a total ban and are payoff equivalent.