Mutual Advantages of Coercion and Exit within Private Clubs and Treaty Organizations: Toward a Logic of Voluntary Association

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Abstract

Treaty organizations, like other clubs, attempt to solve problems that can more effectively be addressed collectively than independently. To address these problems, a treaty organization's leadership may be granted coercive power of various kinds. In ordinary clubs, coercive power is simply the right to exclude those who fail to pay their dues from club services. In other more coercive clubs, leaders might be given the power to penalize individual members for shirking as a means of solving free rider and coordination problems of various kinds.

However, there are risks associated with grants of coercive power to a club's leadership that would be taken account of by prospective members. This paper demonstrates that as exit costs fall, members are willing to grant (or tolerate) more coercive power to a club's leadership. Indeed, the voluntary nature of ongoing membership in most private clubs and treaty organizations is partly explainable by this relationship.

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JEL Categories: D71, D72, D6

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I. Introduction: Toward a Logic of Voluntary Associations

One common feature of clubs is that membership is voluntary. Those eligible for membership can join of their own accord, and, once a member, the costs of exit are low, usually very low. Indeed, these characteristics largely define what is meant by the term voluntary association: members of voluntary associations are free to join and exit at will. The analysis of this paper suggests that these characteristics of clubs are not accidental. As shown below, potential members will generally prefer clubs with low exit costs to clubs with high exit costs, other things being equal.

Two reasons for this are developed below. First, not every club provides services that members find valuable in the long run. The opportunity to "try out" clubs and determine the quality and usefulness of a club's services is itself of value to consumers of club goods. Second and of greater interest for the purposes of this paper, low exit costs make potential club members more willing to accept coercive club arrangements. The coercive power of a club is its ability to take from members that which they would not have given voluntarily. Properly applied, coercive power allows clubs to solve a broader range of free rider and coordination problems associated with the production and financing of club services than possible for clubs with fewer punitive tools. For example, coercive power allows club's management to "encourage" shirking members to more diligently perform their club duties. On the other hand, coercive power may be abused in a manner that makes club members regret their initial membership decision. As a consequence, "low exit cost" clubs have survival advantages over "high exit cost" clubs in the long run, because exit reduces the downside risk of membership in relatively more productive clubs.

That is to say, the "voluntary" nature of voluntary clubs is not "accidental," but,

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[1]The paper has benefited from numerous comments at the ECSPC conference on "Coercive Power and its Allocation in the Emergent Europe." Thanks are due to many, but especially to Geoffrey Brennan, Bruno Frey and Dennis Mueller.

rather, reflects the economic advantages of organizations with low exit costs.

This also tends to be true of international organizations, which are essentially clubs of governments. Most international organizations are created by treaties and are intended to address ongoing issues of interest to signatories. Indeed, the organizational sections of treaties are often far longer than their substantive sections. Treaty organizations vary from international agencies charged with very narrow goals--as with the commissions established by bilateral environmental treaties, which monitor specific environmental problems in a particular boundary water area--to quite large organizations with much broader responsibilities, such as the present European Union (EU), North Atlantic Treaty Organization (NATO), and United Nations (UN). As is true of other clubs, treaty organizations attempt to solve problems that can better be addressed collectively than through independent action. And, as true of other clubs, treaty organizations may, in principle, have low or high exit costs associated with membership.

The coercive authority possessed by a treaty organization's governing bodies and the cost of exit also clearly affect the viability of these associations, because both these considerations affect membership decisions. The more coercive authority that is vested in a treaty organization's leadership, the greater is the scope for solving public goods, team production, and coordination problems; but the greater also is the risk associated with abuse of power. Prospective governmental club members will be uninterested in clubs that provide no services, but afraid to join ones where the downside risk from abuse of power is very large. For example, *efficiency-reducing* rather than -increasing policies might be *imposed* on member states by poorly run, but powerful treaty organizations.

This paper analyzes the effects of coercion and exit on membership decisions for private clubs and governmental clubs in a setting where the quality of club services is uncertain. Two general types of clubs are analyzed. Section II analyzes the traditional club-good case where a club's management provides services for its members (Buchanan 1965, Cornes and Sandler 1986 and 1994). Members of these clubs pay initiation fees and dues, but do not otherwise participate in the production of the club goods. Club services are available to club members alone, and the coercive authority of the club's management is limited to excluding members from club services for failure to pay dues. Section III examines the case

in which club's services are produced directly by club members themselves. In this case, the club provides managerial services to ameliorate team production problems. For example, the club's management may impose penalties on "shirkers," as well as exclude nonmembers from club services. The analysis demonstrates that low-cost exit increases the value of membership in both types of clubs. Section IV uses the results to analyze coercion within the EU, one of the world's most ambitious treaty organizations. Section V reviews the main results and suggests possible extensions.

II. The Value of Exit for Service Clubs

A. Joining a Club with Uncertain Services

Consider the following model of club membership and management. Suppose that there are three types of services of interest to individuals: private goods, club goods, and public goods. Private goods are available to the individual alone, club services are available to club members only, and government services are available to national residents alone. Assume that individuals have private income source Y_i which they allocate between these three kinds of goods. Potential club members are assumed to be forward looking and to maximize a separable quasi-concave utility function defined over the three types of goods. The individual's instantaneous utility function is represented as $Ui = Ci + v(S^I, G)$, with function v being strictly concave with positive first derivatives and cross partials, and negative second derivatives. Lifetime utility is assumed to be time consistent with

$$U_i^{LT} = Ci/r + v(S^i, G)/r^i$$

for steady state values of the three goods, where r^i is potential member i's subjective rate of time discount.

Initially, private income, $Y_i = Y'$, taxes, $T=T'$, and government service, G = G', are assumed to be exogenous, and the decision at hand is whether or not to join a club providing that provides the service of interest. If i does not join, $S^c = 0$; if he does join, he receives the services of the club that he joins, $S^c = S$. Because the service produced by the club is a pure club good, it is only available to members and, thus, *can only be directly observed*

by members. Nonmembers can speculate on the quality or extent of a particular club's services, but they cannot know the level or quality of services until they join the club.

The club services available to members depend on the quality of a club's managers, which cannot be observed outside the club. Suppose that there are only two types of managers. Superior managers produce higher services from club revenues than inferior managers. Inferior managers might be less talented, less disciplined, or less honest. They may, for example, invest less time monitoring club employees, put some club receipts into their private accounts, or, equivalently, hire more relatively unproductive family members and friends. The output produced by inferior managers is normalized to be zero, $S^L=0$, and that produced by superior managers is denoted as S^H, with $S^H>0$.

Members pay initiation fee, F, when they initially join the club and dues, D, every year thereafter, as long as they remain members. If members exit from the club, they pay exit fee E. Because both initiation fees and dues are observable prior to membership, both types of managers set them at the level that is sufficient to fund superior services, D^H. It is assumed that the fraction of good managers in the club market of interest, P, is common knowledge, but no one outside a club knows whether a particular club has a good management or not.[2] In cases of free entry and exit, $F=0$ and $E=0$.

In this setting, the process of joining a club and of continuing membership within a particular club can be modeled as a sequential game. In the first stage, potential members decide whether to join a particular club or not (that is, to pay the initiation fee and a year's dues to receive club services or not). In the second stage, observable club services are produced, which allows the quality of the club management to be assessed. In the third stage, the members decide whether to remain members or not (to exit or not). The available information about managers, initiation fees, dues, and exit costs allows prospective

[2] Whether the management is a single person or an elective body selected by club members is not especially relevant for an individual club member, because he or she is unlikely to determine the club's management after joining the club, unless the membership is very small. Moreover, even if a senior club member can hire the next club manager, if the manager's true productivity can only be observed on the job, even a decisive member or coalition of members would regard club services to be a random variable determined by the luck of the managerial draw.

members to make decisions about whether to join a club or not, although not to discriminate among clubs.

Although most of the analysis below treats club fees as simple monetary payments, the analysis can be readily extended to include other kinds of club obligations as in joint production clubs. For example, both initiation and exit fees often consist largely of information and negotiation costs rather than money payments, and ongoing club dues often include a variety of club-specific duties that do not involve monetary payments although they are costly to undertake.[3] Clubs that require "in kind" contributions are analyzed below in section III. Initially, it is convenient to treat all the costs of club membership as cash payments. This simplifies the analysis and prose without significant loss of generality on the issues of interest here.

i. The Value of Lifetime Memberships in Service Clubs (without Exit)

Consider, first, the case in which exit from clubs is *not* possible. That is to say, consider membership choices for clubs that offer only lifetime memberships. In this case the expected lifetime utility of club membership is:

$$E(U^{LT}) = P[(Y' - D^H - T')/r_i + v(S^H, G')/r_i \ ] +$$

$$(1-P) \ [(Y' - D^H - T')/r_i + v(\ 0, G')/r_i \ ] - F \qquad (1)$$

The lifetime utility outside the club, given the assumptions, is

$$U^{LT} = [(Y' - T')/r_i + v(0, G)/r_i \qquad (2)$$

which implies that potential member i will become a lifetime member if:

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[3] Free entry and exit by "members" is, of course, the usual case for services purchased from "ordinary" firms, but not from most shopping clubs, coops, labor unions, trade associations, sports associations, and country clubs. Initiation and/or exit fees are very common features of private clubs. However, there are often indirect costs of entry and exit even in cases where no explicit dues are required. For example, there are clearly exit costs associated with leaving a restaurant in the middle of a meal after learning that the service, food, or wine is below average.

$$P[\ v(S^H,G') - v(0,G')\ ]/r_i\ > F + D^H/r_i \qquad (3)$$

Essentially, a potential member joins this club if the expected lifetime increase in utility from club membership is larger than the lifetime cost of joining. Whether a particular individual will join the club or not depends on the relative intensity of his or her demand for S, as well as his or her risk aversion, discount rate, and after-tax income.

ii. Membership in Clubs that Allow Exit

Now, consider the decision to join a club that allows exit to take place. In such clubs, a person that joins the club may simply leave the club if the management is determined to be less than anticipated. The expected utility associated with joining a club that allows one to exit is:

$$E(U^{LT}) = P[(Y' - D^H - T')/r_i + v(S^*, G')/r_i\ ] +$$

$$(1-P)\ [(Y' - T')/r_i - E + v(\ 0, G')/r_i\ ] - F \qquad (4)$$

A person joins such a club if:

$$P[\ v(S^H,G') - v(0,G')\ ]/r_i\ > F + PD^H/r_i + (1-P)E \qquad (5)$$

Together, equations 3 and 5 imply that, other things being equal, *a person is unambiguously more likely to join a club with free exit over an otherwise similar club that only allows only lifetime memberships as long as there is any uncertainty about the quality of the club's management.*

$$F + D^H/r_i\ > F + PD^H/r_i \qquad \text{whenever } P < 1 \qquad (6)$$

Membership in a service club becomes less valuable as the cost of exit increases. Moreover, exit costs have to be relatively low to affect membership decisions. Exit becomes irrelevant for membership decisions when $E > (1-P)D/r_i$.

iii. The Reservation Price of Membership

The effects of exit costs on membership decisions also fall as the average quality of club management increases. That is to say, as the probability of finding a superior club manager increases or the extra services provided by good managers increases, exit becomes

less critical for membership decisions.

Equation 5 can be used to show these properties directly. Let F_i^* be potential member *i's* reservation price for membership. F_i^* is the initiation fee that makes *i* indifferent between joining the club and not; that is to say, it sets

$$P[\, v(S^H,G') - v(0,G') - D^H]/r_i \;\; - F_i^* \; - (1-P)E = 0. \qquad (5')$$

The implicit function rule allows equation 5' to be used to characterize F_i^* as a function of other parameters of the choice problem:

$$F_i^* = f(E, D^H, S^H, P, r_i, G) \qquad (7)$$

which has several partial derivatives of interest for the present paper:

$$F_i^*{}_E = -(1-P) < 0 \qquad (8.1)$$

$$F_i^*{}_D = (-P/r) < 0 \qquad (8.2)$$

$$F_i^*{}_P = ([\, v(S^*,G') - v(0,G') - D]/ri + E\,) > 0 \quad \textit{(for potential members)} \qquad (8.3)$$

$$F_i^*{}_S = P[\, v(S^*,G')_S\,]/r_i \; > 0 \qquad (8.4)$$

$$F_i^*{}_G = P[\, v^H{}_G \; - v^0{}_G]/r_i \; > 0 \quad (\text{for } v_{GS} > 0\,), \;\; (< 0, \text{for } v_{GS} < 0\,) \qquad (8.5)$$

The reservation price of membership falls if exit costs or dues increase and increases as the average quality of managers, PS^H, increases.

The market demand for club membership can be determined by rank ordering potential members from high to low according to their reservation prices. (In the model, individuals differ in their reservation prices because their tastes and incomes differ.) Naturally, only potential members with reservation prices above the actual initiation fee will join a club. This implies that membership in individual clubs is affected in qualitatively the same manner as a typical individual's reservation price. Equation 8.1 implies that the demand for clubs with an exit option exceeds that for clubs without an exit option, other

things being equal. *Indeed, if both sorts of clubs compete for memberships in a club service market, only the voluntary clubs will survive.*

iv. Exit and Uncertainty about Club Quality in the Long Run

Besides increasing the demand for club services low exit costs may also indirectly discipline club managers. Free exit implies that poorly managed clubs will have a difficult time surviving in a "market" for clubs that is known to include well-managed clubs.

In a steady-state economy in which personal income, government services, and taxes are stable, many individuals make membership and exit choices simultaneously. Given a variety of member preferences and income levels, new members will be randomly distributed across clubs, but subsequent exit will be exclusively from clubs with inferior management, other things being equal. In the long run, better-managed clubs might gradually displace poorly run ones even in the informational environment assumed, insofar as patterns of exit or club turnover can be observed by nonmembers. Clubs with superior management would exhibit a stable existing membership and long-run growth, whereas those with inferior management would exhibit significant membership turnover as many of their existing members exit.

Of course, other things are not always equal: random changes in potential and existing member income as well as changes in government services (political shocks) also affect club exit rates and membership stability. For example, a decline in government services tends to increase the overall demand for club membership generally, to the extent that club and government services are substitutes for one another (equation 8.5, see also Congleton 1995 and 2000). If income and political shocks are randomly distributed among existing and potential club members, the observed pattern of exit and membership levels will remain a noisy signal of club quality in the long run.

Consequently, the disciplining effect of exit is tends to be imperfect. Uncertainty about the services about particular clubs implies that some individuals will join poorly run clubs by mistake and that inferior managers can temporarily exploit those who join. The higher are exit costs, the greater this imperfection tends to be, because inferior services will be accepted by members in the long run as long as the present value of the anticipated losses from poor management remains below their exit costs.

The latter implies that initiation fees and exit costs may be used to enhance opportunities for poorly managed clubs. For example, if inferior club managers make it more difficult for club members to exit their clubs *than initially anticipated* by members, the membership of poorly run clubs could remain high and perhaps even grow, even though such clubs provide below-average services. On the other hand, poorly managed clubs cannot deviate from the *readily observable* practices of comparable, well-managed clubs without providing a clear signal of their relative quality.

If poorly run clubs are able to survive in the long run, decisions to join clubs will continue to be affected by the risk of poor club management. In this case, both clubs and markets for club services will tend to be more viable in the long run if they have low exit costs, because potential members will be more willing to join such clubs than those which high exit costs. *That is to say, "voluntariness," in the sense of low exit costs, will be a characteristic of essentially all viable clubs in both the short and long run.*

B. To What Extent Are Governments Clubs?

In regions of the world where citizens are free to migrate across national boundaries, governments themselves can be regarded as voluntary clubs, and "residents" may be said to prefer the overall package of services available within their present government to those of alternative governments, net of exit costs. In cases in which exit costs are negligible, memberships in government are truly voluntary. The consequences of voluntary governance have been widely studied in state and local public finance (Tiebout 1956) and has attracted the interests of philosophers and political economists (Nozick 1977, Buchanan 1975, Mueller, 2000).

Although there are many reasons why, ideally, a government should resemble a club, membership in a government is rarely characterized by zero exit costs. There are, consequently, several relevant differences between governments and private clubs in practice.

First, an individual's initial "club membership" is determined by birth, rather than choice. Either citizenship is inherited from one's parents--as one's family name and genes are--or they are determined by place of birth. Neither of these methods for obtaining citizenship is under control of the "new members." Second, "members" do not generally

have the opportunity of nonmembership in governmental clubs. Short of living on a boat at sea, "membership" in a government is unavoidable.

Third, governments control territories, rather than particular member services. Exit costs from local, regional, and national governments, consequently, tend to be much higher for changing governments than for changing private clubs. To exit from a government, people ordinarily have to sell their home; give up easy access to their family, friends, and favorite shops; and often learn a new language. To exit from an ordinary private club, one simply stops paying dues. If a state member (citizen) stops paying dues (taxes), he or she may well be excluded from state services, but may also wind up in prison for tax evasion.

Fourth, the coercive power available to government exceeds that of private clubs because they have coercive tools at their disposal that ordinary clubs lack. Moreover, because their membership is largely a consequence of birth, national governments are able to substantially raise exit and entry costs without having significant effects on the number of “dues paying” persons residing within their boundaries.

These are nontrivial differences, and for many individuals, exit costs may seem so high that emigration is never seriously considered. However, for the mobile minority, the logic of club exit developed above remains relevant. To analyze this choice, the second difference between nation states and private clubs has to be incorporated into the model. Nonmembership is not an option, and so the country membership choice is restricted to choices between one's current government and membership in another government.

Consider the decision to remain a "member" of one's current nation state. Suppose that the fiscal package of the home government (T^0, G^0) is known, but that of the alternative governments is not. To simplify, again assume that there are just two kinds of governments (management) and that the complete fiscal packages of other countries cannot be observed by nonresidents. As in the case of private club managers, poor governments may be characterized by poor organizational structures, incompetence, corruption, nepotism, and sloth, yet be difficult for nonmembers to assess. Suppose that poor governments are known to produce fiscal package (T'', G'') and good governments produce fiscal package (T', G') and that the fraction of well-governed states is W.

As with many private clubs, both exit and entry costs typically involve combinations

of cash and in-kind costs, as filing forms may require payment of registration fees plus a good deal of time and energy to assemble the required forms, seals, and signatures. However, it again assumed that all costs associated with membership are simply cash payments. An emigrant bears direct cost E for leave his or current country and pays entry cost F to enter another. A citizen leaves his homeland for life in pursuit of a better fiscal package, if

$$[(Y' - T^0 - D^0)/r_i + v(S^0, G^0)/r_i] < W[(Y^0 - D^0 - T')/r_i + v(S^0, G')/r_i] +$$

$$(1-W)\ [(Y'^0 - D^0 - T'')/r_i + v(S^0, G'')/r_i] - E - F \qquad (9)$$

In the present model, exit is only of interest if a person's government is below average, in which case $G^0 = G''$ and $T^0 = T''$. Equation 9 implies that exit takes place if:

$$W\,[\,v(S^0, G') - v(S^0, G'')]/r + W[T'' - T']/r - E - F > 0 \qquad (10)$$

That is to say, the *expected* improvement in the fiscal package has to be larger than the cost of moving from one government to another.

In the special case in which government services are uniformly provided, exit occurs if the expected lifetime tax savings of emigration exceed individual exit and initiation costs,

$$W(T'' - T')/r > E + F \qquad (11)$$

The special case is of some interest for the purposes of this paper because excess tax costs are an objective index of avoidable coercion within a given country. (Taxes, essentially by definition, are collected under threat of punishment.) Equation 10 and the special case represented in equation 11 suggest that the larger the fraction of good governments and the lower the relocation costs, the less coercive power a government has over its citizens. In the last case, the extent to which a citizen can be unnecessarily coerced in this way is limited to $(E+F)/W$, other things being equal.

The smaller the fraction of good governments, W, and the greater the exit and initiation costs, the more coercive power a government has. The latter implies that governments with an interest in power (coercion or tax revenues) have an interest in making exit costs as

high as possible, as was the case with the iron curtain of the former Soviet Union. Moreover, the existence of significant entry fees in other countries implies that there is more potential for exploitation by poorly run national governments than from poorly run clubs. Indeed, the efforts of better-managed countries to "tighten up" their immigration laws may indirectly increase coercion in poorly governed countries.[4]

C. International Associations: Treaty Organizations and Clubs of Clubs

i. Membership Decisions of Club Managers

We now turn to a different level of club membership. The persons charged with running a club, cooperative, local government, or national government often have opportunities to join or form associations with leaders of similar organizations. There, might be, for example, a regional association of golf clubs, an international sports league, a national or international brotherhood of labor unions, or a regional international alliance of governments. Rationality, again, implies that all such viable "clubs of clubs" advance the personal interests of those persons empowered to make membership decisions, net of the costs and risks associated with joining the organizations of interest.

These membership decisions, consequently, closely resemble those of ordinary private individuals, although the official positions held by the persons who decide whether a club joins a club of clubs or not may affect each leader's specific net-value calculations. Rationality, thus, implies that essentially the same model of membership can be applied, and the same conclusions reached concerning the membership decisions made by pivotal members of leagues of private clubs, international cooperative alliances, and treaty organizations.

For example, as with ordinary private clubs, ease of exit will encourage more

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[4] Of course, not all migration takes place in pursuit of better fiscal packages. Economic and cultural reasons clearly play an important role in many, if not most, individual decisions to relocate. However, many of these economic and cultural differences are attributed to differences in the quality of national governance insofar as government supports the legal environment in which both markets and private voluntary associations operate. As a consequence, patterns of migration may be a less noisy signal of relative government quality than of relative private club quality.

countries to join a treaty organization by signing and ratifying the required treaties. Again the cost of club services and past knowledge of the distribution of well-managed and poorly managed treaty organizations will influence decisions by national policy makers to join (or exit from) treaty organizations. More nations "sign up" if the anticipated club benefits are large, and fewer join if club membership and exit costs are high. Countries will also be less willing to join treaty organizations characterized by high exit costs than low exit costs.

ii. Managerial Incentive Structures and "Club of Club" Policies

The interest of the club leaders who join "clubs of clubs" varies according to the managerial incentive structure in which they operate at their "home" clubs. For example, club leaders whose interests are well aligned with those of their membership will tend to join organizations that facilitate the production of their own club's services. Such club managers might join associations that facilitate the sharing of information about best practices for producing club goods. Such associations allow manager-members to make more rapid use of new production techniques as well as low-cost input providers. Club managers might also form purchasing cooperatives to obtain quantity discounts or increased bargaining power with respect to factors of production used to provide club services. The fact that a club's management participates in such clubs makes membership in their own clubs more attractive for both current and future members.

On the other hand, managers whose interests are not well aligned with those of their club members have an interest in cartelizing the club market. Club "cartels" may coordinate fee schedules and service-quality levels to reduce competition within and across markets for club services. They might also coordinate negotiations over managerial salaries to increase their bargaining power *vis a vi* their own club members. Affiliation with such club cartels makes membership in the member clubs less attractive than that available at independent clubs, because the cartelized clubs tend to make both current and future club members worse off as dues increase and services decline.

One policy area that may be fruitfully coordinated by "clubs of clubs" is the setting of entry and exit fees. Neither private clubs nor national governments can control the totality of exit costs or entry costs, because many of these are subjective and idiosyncratic, but

both private and governmental clubs can increase or diminish exit costs and initiation fees through policy decisions. To the extent that the interests of club managers are aligned with those of their members, club managers may coordinate policies to reduce exit and entry fees, insofar as this increases their membership's welfare. To the extent that they are not, club managers may agree to increase the cost of migration between member clubs or member states to minimize competition. The latter clearly increases the coercive power of the club managers and governments and thereby increases the risk that individual citizens will be exploited by inferior club managers and national governments.[5]

The extent to which an organization's managerial interests are well aligned with those of their members or citizens is a topic beyond the scope of the present analysis. The degree of alignment is doubtless affected by the constitutional structure of the clubs (member states) as well as the types of persons who rise to managerial positions within the clubs or member states of interest. For example, dictators tend to be less responsive to citizen demands and are more likely to benefit from closed borders--as in the former Soviet Bloc countries--than are representatives of liberal democracies. To the extent that electoral competition is brisk, elected leaders tend to be more responsive to citizen interests than dictators, because elected leaders require the ongoing support of at least a majority of their citizens to continue in office, whereas dictators may retain office with a far smaller base of support. Thus, it is not surprising to find the Western democracies have far more often formed treaty organizations that promote free trade, civil liberties, and environmental policies than have groups of dictatorships.

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[5] The effect of affiliation with "clubs of clubs" on the membership of individual clubs clearly varies with the anticipated net effect of the umbrella organizations. If potential club members expect their own club's costs to fall or services to increase as a consequence of membership in an association of clubs, membership in affiliated clubs will increase. On the other hand, if members expect their own costs to rise or services to fall as club managers conspire against their members to cartelize a given club market, membership in affiliated clubs will decline. For example, emigration from member countries of treaty organizations that engage in cartelizing practices vis a vi their members will tend to increase, whereas immigration into the member states of international organizations that provide better services at less cost will increase, other things being equal.

III. Team Production, the Usefulness of Coercion, and Exit Costs

Not all clubs produce club services for their members in exchange for cash payments. In many cases, the members themselves produce the club services and the club's management facilitates that production.

How a club's production of club goods is organized is a matter of technology and partly of choice. For example, a sports club may purchase facilities and attend to their maintenance or induce members to build and maintain the facilities through their own efforts. A dinner club may hire gourmet chefs and a banquet hall or may simply specify a time and place to which members bring their own home-cooked components to the "club's" feast. A monopolizing cartel may take over responsibility for all sales and distribution of club member products, or it may simply encourage club members to abide by club guidelines for pricing and production. An environmental treaty organization may take over the duties of member state environmental agencies or induce its members individually to pass and enforce new domestic environmental legislation.

In the case where club members produce the club's final output, "dues" consist of effort levels by individual club members, rather than payments in cash. Effort levels, unfortunately, are more difficult to monitor than cash payments. How intensively an individual club member performs his or her club's duties is generally more difficult to quantify than how much they have paid the club in cash. Members may join a production club by paying the initiation fee, but fail to perform club duties adequately. Production clubs may, thus, suffer from a wide variety of team production and coordination problems.

Microeconomic theorists and real-world managers have explored a wide variety of methods for solving team production problems. The mechanism analyzed below is one where the club's managers have authority to punish club members for nonperformance of club duties. Punishment includes excluding "shirkers" from club services, as in the previous example, but now includes the ability to impose explicit penalties: fines, unpleasant chores, diminished access to services, or disapprobation. Indeed the primary club service of a joint-production club may be "coercive" in nature insofar as club production is encouraged by penalizing members for failure to perform their joint-production duties.

A. Coercion in Private Joint Production Clubs

i. Unmanaged Joint Production Clubs

The previous model can be used to analyze decisions to join joint-production clubs after two minor modifications. Assume that club services are jointly produced by member labor inputs and that personal income is produced by the same inputs. The simplest production function for club services is linear in time spent at club production, $S = \Sigma D_i$. Participating in the club's production process reduces the labor (time) available for ordinary income-generating activity. Income available for private consumption can now be represented as $C = w(W-D_i) - F - T$ with D_i being the labor devoted to club activities and W being the maximum time available for gainful employment at wage rate w. F is the club's initiation fee and T is the tax paid for government services.

Given these two modifications, lifetime utility for club member i becomes:

$$U = w_i(W-D_i)/r - T/r + v(\Sigma D_i, G)/r - F \qquad (12)$$

Left to their own devices, club member i would either devote no time to club activities or devote time, D^*, which equates:

$$-w + v_S S_D = 0$$

which for the production function assumed reduces to:

$$-w + v_S = 0 \qquad (13)$$

In contrast, the effort level that maximizes the club membership's overall (Benthamite) welfare satisfies

$$-w + N v_S = 0 \qquad (14)$$

which is clearly larger than the private optimum as long as $(N-1)\, v_S > 0$, where N is the number of members in the club and v_s is the marginal utility of club services to individual club members.

It may still be worth joining such "unmanaged "clubs if the initiation fees are low

and the sum of member efforts is nontrivial, but clearly each member would be better off if they could induce greater effort on the part of all other club members---even at the price of working harder at the club's chores themselves.

ii. Member Response to Punishment Schedules

A "coercive" production club that punishes its members for shirking would be of interest to potential members if it produced significantly greater club services than noncoercive clubs. However, members of such clubs would also bear the risk that the club's management might abuse its coercive power. Both the increased production and risk of abuse systematically affect decisions to join coercive production clubs.

Suppose that a club's government or management imposes a fine on those who provide less than required contribution of labor to the club's common enterprise. An example of such a fine schedule is: $H = h(D^0 - D_i)$ *for* $D^0 - D_i > 0$ and $H = 0$ *for* $D^0 - D_i >= 0$, where D^0 is the club standard and D_i is the labor contributed by member i. Members choose their steady state contribution to the club to maximize:

$$U = w_i(W-D_i)/r - T/r - H/r + v(\Sigma D_i, G)/r - F \qquad (15)$$

which is the "club time" that satisfies:

$$-w_i/r_i + H_D/r_i + v_s S_D / r_i = 0 \qquad (16)$$

Note that if the fine, F, is an all or nothing amount, $H_D = 0$ and this first- order condition reduces to that of equation 13. In this case, there may be no difference in output between the managed and unmanaged clubs because such fines have no effects at the margin.

On the other hand, if the fine increases as shirking increases, $H_D > 0$, and the individuals contribution, D_i, to the club can be represented as

$$D_i^* = d(w_i , r_i , h , \Sigma D_{j<>i} , G) \qquad (17)$$

which has the following partial derivative with respect to the slope of the fine schedule:

$$D_i^*{}_h = [1/r] / -[U_{DD}] > 0 \qquad \text{for } D_i^* < D^0 \qquad (18)$$

The more substantial is the fine for deviating from club duties, the more "cooperation" is induced.

Note that the club standard of effort, D^0, does not itself affect decisions at the margin and so is not an argument of the function describing member donation levels. However, the club standard also affects decisions to join the club, because it, along with the maximum fine and the slope of the fine schedule, determines the total cost of club membership.[6]

iii. How Coercive Can Joint-Production Associations Be?

The total cost of membership in a joint-production club includes the initiation fees and dues (now in the form of labor inputs), *plus* any fines paid to the club managers.

Assume that club services and the details of the punishment schedule are unknown to outsiders, so total contributions cannot be estimated beforehand. Again, assume that there are just two kinds of managers. Good managers set the club standard at the level that maximizes the welfare of the club's member (as characterized by equation 14) and fine schedules at levels that internalize production externalities at that level. That is to say, good

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[6] Overall, the coercive aspect of the club can be approximated as the total punishment imposed on members by the club management,

$$\Sigma\, h(D^0 - D_i^*)$$

This measure of the club's overall coercion varies both with the standards encouraged, D^0, the slope of the fine schedule, and the arguments of D_i^*. This measure of the club's coercive burden is conservative, in that it neglects losses that accrue when the standard is above the level that maximizes net member benefits from the club. In that case, excess member contributions to the club's activity should also be accounted for.

managers set penalties at Pigovian levels.

Poor managers might set fines above or below coercive levels. However, the over-coercion case is of greater interest for the purposes of the current paper. It is, thus, assumed that poor managers set fine levels and standards at much higher than Pigovian levels. Poor managers might do so out of incompetence, out of a private interest in net fine receipts, or as a consequence of an interest in personal control or malevolence. Again, it is the existence of an excessively coercive manager, rather than the details of their motivation, that is significant for the purposes of this paper. What is important is that the management of some clubs "overmanage" their firms.

If P is the fraction of good managers, member i's expected utility from joining a lifetime coercive club that does not allow exit can be written as:

$$E[U] = P[w_i(W-D_i')/r - T/r - H_i'/r + v(\Sigma D_i', G)/r - F] +$$

$$(1-P)[\, w_i(W-D_i'')/r - T/r - H_i''/r + v(\Sigma D_i'', G)/r - F\,] \qquad (19)$$

where H' and H'' are the fine paid under good and poor management respectively, and D_i' and D_i'' are the contribution levels induced. The utility associated with a noncoercive club is:

$$U^0 = w_i(W)/r - T/r - F + v(0, G)/r \qquad (20)$$

in the case where all members tend to free ride in unmanaged clubs. Potential member *i* prefers a managed club to a nonmanaged club if equation 19 is greater than equation 20.

The reservation price of membership in the coercive club can be analyzed using equations 19 and 20. Consider the maximum coercive risk that a prospective member in a lifetime coercive club is willing to tolerate. The maximal coercive risk sets penalty H" at the level that equates equations 19 and 20, $H'' = H^{MAX}$. At H^{MAX}, members are indifferent between coercive and uncoercive clubs which implies that the utility associated with a well-managed coercive club, U', exceeds that of a non-coercive club, U^0, which exceeds that of a poorly managed coercive club, U''.

It bears noting that there are clearly many possible cases in which the anticipated

excessive fine over a member's lifetime--the coercive risk--exceeds the maximum tolerable level, H^{MAX}. Consequently, there are a wide range of coercive clubs that will not form because $PU' + (1-P)U'' < U^0$. Poor managers may be deemed too common, the increased productivity from even ideally managed clubs too small, or the costs associated with them may be too great to support the existence of lifetime coercive clubs. And, indeed, very few if any lifetime coercive clubs are observed.[7]

iv. Advantage of Exit for the Formation of Coercive Clubs

The possibility of exit clearly increases the viability of coercive clubs, because it reduces the downside risk associated with membership in poorly managed clubs.

To see this, consider a minor extension of the club membership model. In the three-stage membership process for noncoercive clubs: in period one, members pay the initiation fee and a year's dues; in period 2, they observe the club output; and in period 3, they decide whether to exit or not. The analogous process for coercive clubs is that, in period one, members pay the initiation fee; in period 2, they learn what is expected of them in detail and the punishments applied by club managers; and in period 3, they decide to exit or not. If a member exits, he or she bears exit cost E. Notice that the possibility of exit limits the poor management outcome to the smaller of U'' or U^0 - E.

In the case in which the coercive risk is substantial, and it is clear that free exit unambiguously makes potential members better off. Recall that at H^{MAX} , $U' > U^0 > U''$. This implies that coercive clubs with an exit option will clearly be preferred to ones without an exit option:

$$PU' + (1-P)(U^0 - 0) > PU' + (1-P)U'' \qquad (21)$$

The same holds for clubs where exit costs somewhat less than H^{MAX}, as long as the $U' > U^0 > U''$ ordering is preserved.

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[7] Indeed, the only examples that come to mind are religious ones, where the anticipated benefit from participating in the coercive club during one's lifetime is believed to produce infinite bliss. Exit from such clubs can be extremely difficult, yet the unbounded benefits anticipated by members dominate very substantial coercive risks for those inclined to join..

Conversely, the effect of exit costs on the maximum acceptable penalty can be characterized using equations 19 and 20. Let H^{MAX} equate equation 19 and 20, now net of exit cost E. The implicit function theorem allows H^{MAX} to be characterized as:

$$H^{MAX} = h(E, P, w_i, r, T, H_i', D_i', \Sigma D_i', F, D_i'', H_i'', \Sigma D_i] \qquad (22)$$

(Note that exit costs only affect members who join excessively coercive clubs.) Differentiating, we find that the qualitative effect of exit costs on the maximum acceptable level of coercion is:

$$H_E^{MAX} = [-(1-P] / -[-(1-P)] = -1 < 0 \qquad (23)$$

The maximally tolerated level of coercion, the maximum fine, falls "Euro for Euro" with anticipated exit costs. *That is to say, the smaller the exit costs, the greater is the coercive risk that is tolerated by prospective members.*

This result and the previous one implies that lower exit costs makes coercive clubs viable in circumstances in which lifetime coercive clubs without exit are not viable. Again, clubs with exit dominate clubs without an exit option.[8]

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[8] Private firms, health clubs, and many coops have active management that can impose penalties on members for lack of performance. However, exit is normally relatively low cost in those instances. We do not often observe lifetime memberships in such clubs where members are forced (possibly through legal sanctions) to perform club duties. In cases where individuals may sell themselves into lifetime servitude, very few such contracts are signed and the latter include many cases in which the voluntariness of the contract might be questioned.!

A significant exception might be religious orders and ideological groups, for which members make essentially lifetime commitments to abide by the mandates of religious or ideological authorities. However, it bears noting that, in many such cases, neither nonmembership nor exit is regarded to be conceptually possible by club members, because of the all emcompassing nature of the activity undertaken by the club. For example, within Christian church, the risk of punishment arises largely from powers beyond the club's control. The club's management may render opinions about the likelihood of such punishment, but cannot actually impose it, and, moreover, church doctrine implies that those punishment are meted out to both members *and* nonmembers

v. Governments as Coercive Clubs

The logic of coercive clubs has more often been used as a rationale for government than for private clubs. This long-standing tradition begins at least with Hobbes and continues through Buchanan (1975) and Mueller (2000). As noted above, the club model does provide some insight into governments and, indeed, it might be argued that ideal governments resemble voluntary coercive clubs insofar as penalties are necessary for public goods to be funded and for useful rules to be followed. However, as noted above, clubs and governments differ in the extent to which membership is voluntary. The decision to join a government is rarely faced by most individuals, because individuals are born into citizenship and nonmembership is not a feasible alternative. Nonetheless, as before, the analysis of exit developed above remains relevant. The possibility of low-cost exit clearly *increases* the extent to which coercive power would be deemed acceptable for individual citizens who are themselves more or less free to exit. And, emigration would tend to be associated with governments that use too much coercion.[9]

B. Coercive Treaty Organizations?

The logic of the club model is more relevant for treaty organizations than it is for governments per se, because pivotal decisionmakers within countries are free to join treaty organizations or not. The analysis above implies that exit makes coercive treaty organizations potentially more attractive by reducing the risks from bad management and, therefore, more likely to be viable organizations. However, insofar as the downside coercive

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who shirk.

During the medieval period in Europe, membership in the Church was more analogous to "membership" in a government than in a private club, insofar as membership was a consequence of place of birth and parentship rather than voluntary choice. Once a church member, individuals could choose to be more or less active within church activities, but (public) non-membership was essentially impossible.

[9] In a more complete analysis, there could also be migration from inadequately coercive governments to ones that are more closely optimal, for example, from relatively lawless societies to more lawful societies. Exploring this possibility is left to future research.

risk tends to be larger for governmental clubs than for private clubs, fewer coercive clubs are likely to be acceptable to prospective member states.

Consistent with this analysis, many treaties explicitly provide low-cost mechanisms for exit, but very few treaties provide international organizations with the power to impose sanctions on those who fail to live up to their treaty obligations. The analysis also explains why coercive treaty organizations are unlikely to be observed, except in cases where "club management" is very constrained (so that the downside risks are limited) and the joint enterprise is very important.

The observed pattern of international treaties suggests that government policymakers (the median voters of the potential member states in democracies) believe that the probability of "poor management" and the downside risk associated with mismanagement to dominate the anticipated benefits from greater coordination or jointly produced output. Very few treaty organizations exercise significant coercive power over their memberships, in spite of the fact that there are many policy areas in which free riding of members is possible and problematic. For example, the United Nations and NATO address many policy issues where free riding is possible, but lack formal methods for sanctioning those who fail to live up to treaty obligations. Such "toothless" treaties are also commonplace in environmental policy areas. None of the major environmental treaties have sanctions for noncompliance. The World Trade Organization is very unusual in this respect, and the logic of membership developed above implies that its continued existence requires that its coercive sanctions remain relatively modest.

IV. Application: Coercion and Exit within the EU

The relationship among membership decisions, exit, and coercion characterized above is very evident in the world's most ambitious treaty organization, the European Union. The EU is a joint production club of governments, insofar as EU directives are implemented by national legislatures and regulatory agencies, rather than the EU itself. Consistent with the above analysis, the EU has very little power to punish members for noncompliance. The EU relies on voluntary compliance at the level of the member states, as is true of essentially all treaty organizations. The fact that EU directives are broadly

accepted and implemented by national governments suggests that the member states face little domestic opposition to EU policies or EU membership as a whole.

Whether the EU acts as a cartel or cooperative for its member states is less clear. Among its many policies, some policies clearly reduce potential coercion and others somewhat increase it. For example, the open market provisions have greatly reduced the cost of migration within the EU, reducing both exit costs and entry costs for the mobile minority. These policies clearly reduce the scope for cost-increasing regulation and taxation within the member states of the EU. The recent effort to adopt formally an EU-wide bill of rights limits the ability of member states to reduce civil and political liberties. The recently proposed constitution also includes an explicit provision for member exit, which may somewhat reduce exit costs for members. Within the economic domain, both monopolizing and competition-promoting policies are evident, but most observers suggest that there is substantially more competition within the EU now than there would have been without the EU. *All these policies tend to reduce coercion* within the boundaries of the EU.

These coercion-reducing policies have been offset to some extent by efforts to coordinate regulatory and tax policy. It is clearly more difficult to exit from a continent than from a country, consequently, policy coordination tends to increase the maximal level of coercion within the EU *as a whole* by reducing the range of choice among available fiscal and regulatory packages. Member tax rates have dramatically increased during the tenure of the EU.

However, with respect to fiscal policies, the member states retain complete discretion over the size and allocation of government spending within their territories, although current government expenditures have to be financed largely from current tax revenues for those adopting the Euro as their national currency. It also bears noting that increased taxation was also taking place in nonmember states as well (e. g., Norway and Sweden before they joined the EU in 1995) and the rate of increase diminished in the past ten years.

Overall, it appears that the coercion-reducing policies of free trade and migration appear to have more than offset the standardization of many regulatory policies, which would otherwise have increased the risk of coercion. Coercion is clearly smaller than in the previous forty-year period, and generally, coercion falls in new member states after they

join, as with Spain and Portugal.[10]

V. Conclusion: Voluntary Association and Coercion

Treaty documents ordinarily assign very modest coercive power to the organizations created--often little more than the power to embarrass and chide national leaders. Moreover, nearly every treaty, including the new EU draft constitution, explicitly mentions a process by which members can exit from treaty obligations. (In cases where such language is missing from the documents that create treaty organizations, international law assures that exit is possible in any case, because sovereign nation states are generally free to ignore past and future proclamations of treaty organizations.)

This paper provides a possible explanation for the predominance of toothless treaty organizations based on the theory of clubs. The voluntary and noncoercive nature of ongoing associations of persons and nations is not accidental, but rather a consequence of design. Placing significant coercive power in the hands of a treaty organization's government is associated with significant downside risks. To the extent that prospective member states fear bad policy choices from international organizations, they will prefer organizations with little coercive power and membership rules that allow for relatively easy exit. Both these features are commonplace in international organizations.

Whether member governments use treaty organizations to increase their power over their own citizens or to advance the interest of their citizens is largely a consequence of domestic politics within the member states, because political institutions largely determine the interests of those who have the power to join such organizations. Within well-functioning democracies, national governments have electoral incentives that induce them to be responsive to majority interests--at least on broad policies where voters are reasonably well informed. And for this reason, treaty organizations of democratic governments tend to be less risky organizations for their citizens than otherwise similar organizations of

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[10] Here there is a question of cause and effect, as coercion often has to fall in prospective states as a condition of membership, yet only democracies are really eligible for membership.

Nonetheless, it is clear that the members of the EU score very well on the various indices of civil and political liberties.

dictatorships. It seems clear, for example, that the EU has advanced the interests of its citizens by reducing exit costs and promoting free trade within Europe.

In general, the risks associated with the uncertain quality of an organization's management implies that both individuals and governments prefer clubs in which entry and exit costs are low to ones in which they are high. That is to say, the ongoing voluntariness of essentially all private and treaty organizations created through member decisions is evidently key to their existence. Moreover, low exit costs increases the willingness of potential members to join clubs in which the management has coercive powers. However, the risks from delegating coercive powers can be significant, and as a consequence, the voluntary organizations that we observe often have little coercive power. Members prefer such organizations to their less voluntary counterparts, even if such organizations less than perfectly advance their interests.

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